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AECOM

Ongoing Monitoring Report (December 2022 - November 2023)

PFAS OMP - HMAS Albatross

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AFFF	Aqueous Film Forming Foam
BoM	Bureau of Meteorology
CSM	Conceptual Site Model
Defence	Department of Defence
DoH	Department of Health
DPI	Department of Primary Industries
DSI	Detailed Site Investigation
EPA	Environment Protection Authority
FSANZ	Food Standards Australia New Zealand
FFTA	Former Firefighting Training Area
GW	Groundwater
GWE	Groundwater Elevation
HEPA	Heads of Environment Protection Authority
HHERA	Human Health and Ecological Risk Assessment
HMAS	His Majesty's Australian Ship
LOR	Limit of Reporting
MW	Monitoring Well
NEMP	National Environmental Management Plan
NEPC	National Environment Protection Council
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
OMR	Ongoing Monitoring Report
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexanesulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctanesulfonic acid
PMAP	PFAS Management Area Plan
QC	Quality Control
SAQP	Sampling and Analysis Quality Plan
STP	Sewage Treatment Plant
SW	Surface Water

Acronym	Term
SWL	Standing Water Level

List of Units

Units	Term
˚C	Degrees Celsius
µg/L	Micrograms per litre
µS/cm	MicroSiemens per centimetre
g	Grams
km	Kilometre
L	Litres
m	Metre
mAHD	Metres relative to Australian Height Datum
mbgs	Metres below ground surface
mbTOC	Metres below top of casing
mg/kg	Milligrams per kilogram
mg/L	Milligrams per litre
mm	Millimetres
mV	Millivolts

Executive Summary

Introduction

AECOM Australia Pty Ltd (AECOM) was engaged by the Department of Defence (Defence) to implement the Ongoing Monitoring Plan (OMP) for monitoring of per- and poly-fluoroalkyl substances (PFAS) at His Majesty's Australian Ship (HMAS) Albatross (the 'Site'), New South Wales (NSW).

Objective

The overarching objective of implementing the OMP is to provide information on changes in the location and concentrations of PFAS on-Site and in surrounding off-Site areas including the Management Area (**Figure F1** in **Appendix A**). The data is required to assist risk management decisions by Defence and State Government agencies to protect human health and the environment and to inform the understanding of the effectiveness of remedial actions.

Monitoring Scope

AECOM completed periodic monitoring of groundwater and surface water between December 2022 and November 2023 in accordance with the sampling and analysis quality plan (SAQP) developed by AECOM (2023d). This monitoring targeted PFAS, namely perfluorooctanesulfonic acid (PFOS), perfluorooctanoic acid (PFOA) and perfluorohexanesulfonic acid (PFHxS) and included selected locations on-Site and in surrounding off-Site areas, including the Management Area.

Groundwater Results

Groundwater Flow Directions

Groundwater on the Site, and down-hydraulic gradient of the Site, flows west and northwest within the Shoalhaven River Basin, and east/southeast within the Clyde River Basin. The flow directions are consistent with previous observations.

PFAS Concentrations

Monitoring results indicated that overall, the concentrations of PFAS in groundwater were generally similar to previous results, with the highest PFAS concentrations detected at monitoring wells located near the identified PFAS source areas. Two new maximum concentrations were observed during the monitoring period, at MW001 and MW005, both located on the Site's eastern boundary. The increases at MW001 and MW005 are considered to be a result of the heavy rainfall conditions observed at the Site in January 2023, an observation consistent with higher-than-average periods of rainfall since 2020.

Surface Water Results

During the reporting period, surface water results were consistent with previous results. There were no new detection or new exceedances of adopted criteria. New maximum concentrations were reported in four surface water locations (SW004B, SW012, SW018 and SW020), however these were noted to be only marginally higher than, and within the same order of magnitude to, historical data.

Interpretive Assessment

Data collected during the monitoring period were compared to historical data for the included sampling locations.

What is an 'order of magnitude'?

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

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

PFAS concentrations in on-Site and off-Site groundwater and surface water were similar to historical results or the same order of magnitude to historical ranges.

PFAS concentrations were generally lower at off-Site locations than those observed at on-Site locations, in the vicinity of identified source areas.

Localised increases in PFAS concentrations in groundwater were reported in two locations (MW001 and MW005) on the Site's eastern boundary. The notable increase at MW001 is over an order of magnitude above the previous maximum. The new maximum at MW005 during this monitoring period was assessed to have an increasing trend based on the Mann Kendall analysis. The increasing trend is likely to be attributable to a period of increased rainfall, however further monitoring of both MW001 and MW005 is required to confirm whether the trend continues to increase which might constitute a revision to the Conceptual Site Model (CSM).

Conceptual Site Model and Risk Summary

The CSM was developed during the Detailed Site Investigation (DSI) (Aurecon, 2017) and is summarised in the OMP. The CSM described the links between PFAS sources, transport pathways, and possible exposure scenarios.

OMP monitoring between December 2022 and November 2023 has provided additional data to further understand any changes in PFAS concentrations in groundwater and surface water.

While there have been localised increases in PFAS concentrations in groundwater (MW001 and MW005) and surface water (SW004B, SW012, SW018, and SW020), there is currently no evidence that the PFAS sources, pathways and receptors and the understanding of the CSM have changed. Additionally, AECOM considers that the overarching risk profile has not changed based on the current land use within the Management Area.

Conclusions

The sampling program completed in this monitoring period is considered to have been conducted in general accordance with the SAQP to monitor changes in the location and concentrations of PFAS. The following conclusions are based on the data collected during the monitoring period:

- Groundwater depths in February 2023 were noted to be generally consistent with historical gauging data, with slightly higher elevations reported in the Braidwood Road, Flat Rock Creek and Cabbage Tree Creek catchments and slightly lower elevations recorded in the Upper Currambene Creek and Yerriyong Gully catchments. Note that 95 mm of rainfall was received at the Site in the two weeks prior to the annual monitoring event. Differences in recharge rates between catchments would influence how much this rainfall influenced the groundwater table prior to the monitoring round.
- Overall, the concentrations of PFAS in groundwater were generally consistent with historical data with the exception of new maximums reported at two locations (MW001 and MW005). Concentration increases at MW001 remained below the highest concentration reported at the sub-catchment, though further monitoring will be needed to determine whether this is an increasing concentration trend. The increase at MW005 is likely attributed to the higher-than-average rainfall event that occurred in January 2023, which appears to have increased the groundwater elevations across the majority of catchments within the monitoring area. These higher groundwater elevations have resulted in longer contact with impacted soils resulting in increased mobilisation of PFAS.
- The concentrations of PFAS in surface water were generally consistent with the historical data, with the exception of new maximums at four locations (SW004B, SW012, SW018, and SW020). This is not considered to change the overall risk profile of the Site, given that the concentrations remained within an order of magnitude of historical observations for the respective locations.
- The CSM was reviewed, and no changes were identified to sources, pathways or receptors at the Site and within the Management Area.
- Based on the data no changes to the risk profile were identified.

Ongoing monitoring of groundwater and surface water as part of the OMP will continue to monitor the nature and extent of PFAS, potential migration and any associated changes to the risk profile. A review of the OMP should be conducted in line with the timelines of the PFAS Management Area Plan (PMAP) (Defence, 2019).

1.0 Introduction

AECOM Australia Pty Ltd (AECOM) was engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at His Majesty's Australian Ship (HMAS) Albatross (the 'Site') (**Figure F1** in **Appendix A**).

The monitoring targeted PFAS in groundwater and surface water at selected locations on-Site and off-Site including in the Management Area (**Figure F1** in **Appendix A**) as specified in the OMP (Defence, 2019).

In order to meet the objectives of the OMP[1], the monitoring was undertaken in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2023d) (**Appendix E**).

This report has been prepared in accordance with the *PFAS OMP Annual Interpretive Report Guidance* (Version 0.4) issued in October 2022 (Defence, 2022) based on monitoring data collected between December 2022 and November 2023 (herein referred to as the monitoring period).

1.1 Objective

The objective of the monitoring program set out in the OMP is to continue to assess changes in the nature and extent of PFAS within the environment, where Defence's historical use of legacy aqueous film forming foam (AFFF) has led to an identified potentially elevated risk to a receptor, or potential future risk to a receptor.

The assessment of changes in the distribution, concentration, and transport of the contaminants against appropriate guideline values provides an:

- evidence base for targeted and effective risk management decision making, for the purpose of protecting human health and environmental receptors; and
- early warning that additional management of PFAS contamination may be warranted in areas not currently understood to be affected by PFAS.

The data will be evaluated to determine environmental variability and trends in PFAS concentrations. This will inform any change to risk profile and recommendations for triggers to review the OMP or the PFAS Management Area Plan (PMAP) (Defence, 2019).

1.2 Scope

The scope of works for this Ongoing Monitoring Report (OMR) included assessing changes to the distribution of PFAS over the monitoring period and if these changes have implications for the understanding of the conceptual site model (CSM) and the risk profile with respect to PFAS impacts at the Site. The scope of work included the following sampling carried out at the on-Site and off-Site areas:

- annual groundwater and surface water sampling (February 2023); and
- biannual surface water sampling (August 2023).

This included the evaluation of data reported in the following factual reports:

- *Sampling Event Factual Report, February 2023. PFAS OMP – HMAS Albatross*. 24 April 2023 (AECOM, 2023b).
- *Sampling Event Factual Report, August 2023. PFAS OMP – HMAS Albatross*. 1 December 2023 (AECOM, 2023c).

These reports are included in **Appendix F**.

AECOM also compared data collected during this monitoring period to the historical data collected at the sampling locations.

[1] Presented in Appendix F of PFAS Management Area Plan (PMAP) (Defence, 2019).

2.0 Site Setting

2.1 Site Description

The Site identification and setting as presented in the Detailed Site Investigation (DSI) (Aurecon, 2017) and PMAP (Defence, 2019), and publicly available information are summarised in **Table 1** below.

Table 1 Site Identification and Setting Summary

Element	Description
Site ID	0026
Site Location	The Site is located approximately 170 km south of Sydney, and approximately 6 km southwest of Nowra. The Site is shown on **Figure F1** in **Appendix A**.
Regional Meteorology	The Bureau of Meteorology (BoM) weather station (number 068072) has recorded data since 2000 and presents a record of approximately 23 years. Review of the BoM data indicates the following: • The average maximum monthly temperatures varied from 17.8°C in June to 27.3°C in February during the monitoring period. • The average maximum monthly temperature for the Site historically has varied from 16.8°C in July to 27.6°C in January. • A total of 821.8 mm of rainfall was recorded in the monitoring period, with June being the driest month (10.0 mm), and January being the wettest month (153.8 mm). • Historically the driest month has been September (averaging 43.1 mm rainfall across the month), and the wettest month has been February (averaging 141.2 mm rainfall across the month). • The climate data available indicates that the area experienced average rainfall during the monitoring period, with one month experiencing greater monthly rainfall (January). These conditions are discussed further in **Section 6.3**.
Topography and Hydrology	The majority of the Site is relatively flat. A ridgeline is present roughly through the centre of the Site with topography in the east dropping steeply from 110 m Australian Height Datum (AHD) to 40 mAHD towards Currambene Creek and the topography in the west of the Site dropping more gradually towards Calymea Creek. Topography to the north of the Site also drops gradually north of Albatross Road, towards Flat Rock Creek. The Site is divided into two basins and seven sub-catchments (refer to Figure 1: Management Area in **Appendix D**). The north western portion of the Site forms part of the Shoalhaven River Basin (west of the ridgeline) while the south and the eastern portion of the Site forms part of the Clyde River Basin (east of the ridgeline). Three freshwater creeks traverse the southern and eastern portions of the Management Area, they are: • Currambene Creek • Yerriyong Gully • Parma Creek. Yerriyong Gully and Parma Creek flow to Currambene Creek, which discharges into Jervis Bay at Huskisson, which is a marine park managed by NSW Department of Primary Industries (DPI). Surface water runoff from the southern portion of the Site is generally directed off-Site to the Shoalhaven River (via Calymea Creek, Cabbage Tree Creek or Flat Rock Creek) and Currambene Creek and Yerriyong Gully which flow into

Element	Description
	Jervis Bay. Surface water captured within the Site's stormwater drainage network and directed into the Sewage Treatment Plant (STP) is treated and irrigated on-Site. The DSI (Aurecon, 2017) noted that there is potential for the treated effluent dam of the STP to overflow during high rainfall events, potentially releasing water containing PFAS. Irrigated water and overflow discharge primarily flow to Yerriyong Gully, Currambene Creek, towards Jervis Bay. On 28 September 2023, the Base management team confirmed that no overflow at the STP occurred between December 2022 and November 2023. Surface water run-off from the northern and western portions of the Site drain to Braidwood Road Drain and ultimately the Shoalhaven River. It is noted that Yerriyong Gully and Currambene Creek are not connected to the Clyde River. The distance to the regional waterbodies is as follows: • Currambene Creek located approximately 4.4 km to the southeast of the Site • Jervis Bay located approximately 14.5 km to the southeast of the Site • Shoalhaven River located approximately 5.7 km to the northwest of the Site.
Geology and Hydrogeology	The Site is underlain by Berry Siltstone comprising siltstone, shale and sandstone, underlain by Nowra Sandstone (quartzose sandstone, minor siltstone plus conglomerate beds). The Berry Siltstone has an approximate thickness of 30 to 60 m, overlying Nowra Sandstone with an approximate thickness of 100 m. The regional aquifer below the Site is divided into two water catchment areas. The northwest portion of the Site forms part of the Shoalhaven River Basin whilst the south and east portions of the Site form part of the Clyde River Basin (DPI, 2016). Groundwater within the Shoalhaven Basin is inferred to flow north to northwest towards the Shoalhaven River (following the topographic profile), while groundwater within the Clyde River Basin is inferred to generally flow south to southeast towards Currambene Creek and Jervis Bay. During the DSI (Aurecon, 2017), the depth to the top of the weathered bedrock was reported to vary between 0.8 and 10 metres below ground surface (mbgs). The DSI also reported that the groundwater across the Management Area is discontinuous, and that groundwater to the east of the Site daylights in various springs and contributes to surface water flow. AECOM notes that the hydrogeological setting is influenced by the complex topography, groundwater and surface water interactions in this area.
Vegetation	The PMAP (Defence, 2019) reported that previous baseline vegetation survey (completed by SKM in 2006) identified the following vegetation: • Remnant vegetation (12.5%) • Regenerating native vegetation (9.0%) • Maintained cleared grassland and Defence infrastructure (78.5%). The survey had noted that no Commonwealth or State listed threatened ecological species were recorded on-Site, although several species were considered to potentially occur.

Element	Description
	The survey had reported that some areas of vegetation were considered to be Endangered Ecological Communities listed under the Threatened Species Conservation Act 1995 (NSW TSC Act) including the Illawarra Lowlands Grassy Woodland and Lowland Rainforest.
Land Uses Surrounding the Site	The Site is primarily bordered by private properties zoned as either rural landscape or large lot residential used for low intensity agriculture and residential purposes. Other land uses surrounding the Site include Tingira Child Care Centre, Nowra Hill Public School, a sandstone rock quarry, a sporting field and Albatross Aviation Technology Park. Colymea State Conservation Area (Colymea State Forest), is northwest of the Site and within the Management Area, while Parma Creek Nature Reserve is south of the Management Area.

2.2 Management Area

The Management Area comprises the Site and includes discrete residential properties with surface water, groundwater and soil containing PFAS concentrations within the Braidwood Road drain sub-catchment, Nowra Creek sub-catchment, Upper Currambene Creek sub-catchment and Cabbage Tree Creek sub-catchment.

The Management Area is shown on **Figure F1** in **Appendix A**.

2.3 PFAS Source Areas

The PMAP (Defence, 2019) provides a roadmap for response management by Defence of potential risks arising from PFAS contamination associated with the Site and surrounding areas. PFAS can travel from a source to human or environmental receptors by surface water and groundwater, these are referred to as 'migration pathways'.

The PMAP identified the following PFAS source areas:

- Primary Sources (PFAS impacted soil):
  - Soil at the Former Firefighting Training Area (FFTA).
  - Soil at the STP.
- Secondary Sources (where PFAS has migrated to a location where it creates a concentration of impact):
  - Soil at the STP irrigation areas.
  - Soil at the hangars, flight lines and associated activities.
  - Groundwater beneath the FFTA, STP, STP irrigation area, hangars, flight lines and associated activities.
  - Surface water from STP, hangars, flight lines and associated activities.

The figure *(Figure 3.1: Key areas of concern)* from PMAP (Defence, 2019) showing the key areas of concern and potential PFAS sources is provided in **Appendix D**.

3.0 Sampling and Analytical Methodology

3.1 Sampling Methodology

The SAQP (AECOM, 2023d) outlines the proposed schedule and rationale for sampling, prescribing annual groundwater and six-monthly surface water sampling at the Site and Management Area, and provides the list of groundwater monitoring wells and surface water locations to be sampled during each sampling event, along with the sampling methodology for each of the media. The current SAQP is included in **Appendix E**.

The monitoring completed between December 2022 and November 2023 is provided in **Table 2**.

Table 2 Summary of Monitoring Events

Monitoring Event (Sampling Dates)	Scope as per SAQP	Sample Collected	Analysis
February 2023 (Annual Sampling) (13 – 16 February 2023)	On-Site		PFAS extended suite
	4 SW samples	4 SW samples	
	20 GW samples	20 GW samples	
	Off-Site		
	9 SW samples	9 SW samples	
	7 GW samples	7 GW samples	
August 2023 (Biannual Sampling) (16 August 2023)	On-Site		PFAS extended suite
	4 SW samples	4 SW samples	
	Off-Site		
	9 SW samples	9 SW samples	

Notes: SW = surface water; GW = groundwater

Impediments and changes to the proposed sampling locations encountered are detailed in **Section 3.2**, below.

3.2 Deviations from SAQP

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

Table 3 Deviations from the SAQP during the Monitoring Period

SAQP Requirement	Sampling Event Deviation	Impact of Deviation on Data Set
Annual Sampling Event - February 2023		
No deviations from the SAQP were identified.		
Biannual Sampling Event - August 2023		
Surface water samples are to be collected by lowering a laboratory supplied container into the water with the cap immediately applied once the container is full.	Due to safety and access considerations, the surface water samples at locations SW001, SW005, SW009, and SW013 were collected using dedicated disposable high-density polyethylene (HDPE) bailers, before being decanted into laboratory supplied bottles.	Given that sampling results for SW001, SW005, SW009, and SW013 were within the historical ranges reported at these locations, the change in sampling methodology is not considered to have impacted upon the reliability of the data for the purposes of the OMP.

4.0 Quality Assurance and Quality Control

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

Data validation procedures employed in the assessment of the field and laboratory Quality Assurance and Quality Control data, completed as per Section 3.2 of the SAQP (AECOM, 2023d), indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable (i.e. >95% of the data was suitable for use and DQIs passed acceptance criteria) for the purpose of the factual reports and this OMR.

All data collected during the monitoring period had been reviewed and uploaded to the Defence ESdat database in accordance with the Defence Contamination Management Manual requirements.

5.0 Assessment Criteria

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

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

The adopted PFAS screening criteria to assess the surface water and groundwater data generated as part of the monitoring are presented in **Table 4** (Human Health) and **Table 5** (Ecological).

Table 4 PFAS Criteria Summary: Human Health

Media	Pathway	Compound	Criteria	Comment / Reference
Water – Groundwater	Drinking water	PFOS+PFHxS	0.07 µg/L	The values presented in the PFAS NEMP (HEPA, 2020) are from the DoH (2017), which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the Tolerable Daily Intake for PFOS and PFOA from Food Standards Australia New Zealand (FSANZ) (2017) and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG) (2022) to determine drinking water values. For PFHxS, DoH (2017) noted that '*FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS*'. *All groundwater results were compared to these criteria.*
		PFOA	0.56 µg/L	

Media	Pathway	Compound	Criteria	Comment / Reference
Water – Surface water	Recreational use	PFOS+PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted by the PFAS NEMP (HEPA, 2020). *All surface water results were compared to these criteria.*
		PFOA	10 µg/L	

Table 5 PFAS Criteria Summary: Ecological

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Groundwater and Surface water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP (HEPA, 2020) which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality. The 99% species protection level has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *Groundwater and surface water results will be compared to these criteria.*
		PFOA	19 µg/L	

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

6.0 Contextual and Ancillary Information

6.1 PFAS Projects

The following is a summary of works completed during the monitoring period which was provided by the Lead Consultant (LC) (GHD).

6.1.1 Additional Analytical Data

The LC advised that additional analytical data was collected by the GHD runway design team in June 2021. The sampling included asphalt, soil and sediment, with the following summary of results:

- Confirmed widespread low levels of PFAS contamination within soils in the area of the runways.
- Two soil locations, one located towards the eastern end of the 08-26 runway and one near the fire station and suppression store (areas shown in **Appendix D**), reported elevated concentrations of PFAS at 0.4 mg/kg and 0.7 mg/kg. The remaining 120 locations across both runways were lower than these higher concentrations.

The LC also noted that soil, sediment, and groundwater data were collected in the vicinity of the Romeo facility (area shown in **Appendix D**) in August and September 2023. Results from these samples were within historical ranges, with a maximum average total PFAS concentration in soil of 0.027 mg/kg northeast of the Romeo facility.

6.1.2 PFAS Remediation Projects

The LC advised that no remedial projects were being undertaken at the Site during the monitoring period.

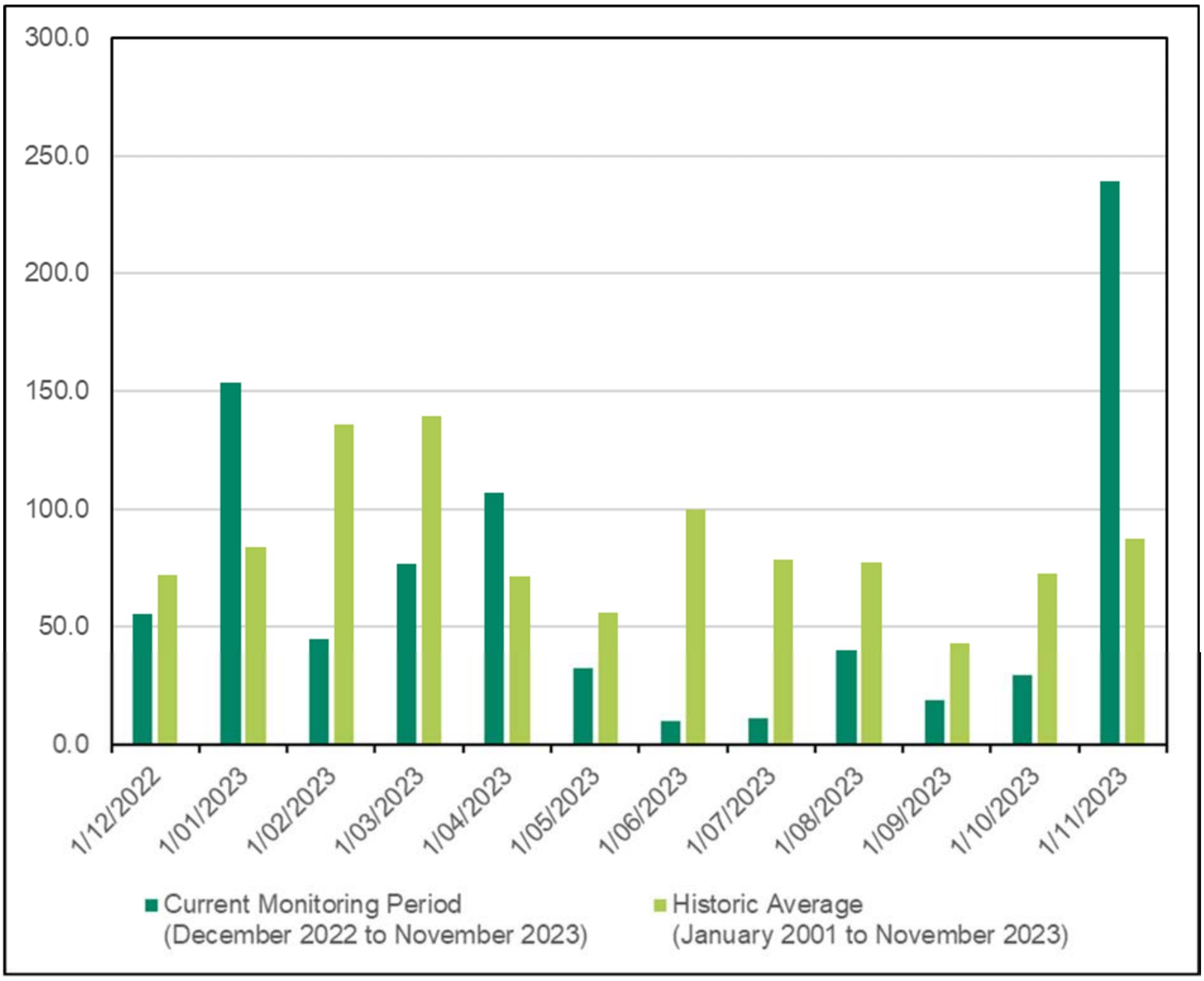
6.2 Infrastructure Projects

The LC noted that an infrastructure project to resurface National Airfields is currently in design stage. The program includes runway resurfacing, drainage, and runway lighting. Additionally, works are ongoing at the subsurface storage tank associated with the Romeo facility, which includes dewatering. Groundwater extracted through the dewatering process is being treated via the onsite PFAS water treatment plant.

6.3 Significant Weather Events

The rainfall data for the reporting period is presented in **Figure 1** below against historical ranges on record from the BoM monitoring station located at Nowra RAN Air Station (Station ID 068072) since the weather station began operation in 2001.

Figure 1 Recorded Rainfall (Monitoring Period) Against Historic Average



The annual rainfall for the Site during the monitoring period was 820.8 mm, less than the average annual rainfall for a 12-month period of 1,018.6 mm (BoM weather station 68072). The Site experienced below average rainfall for six months from May 2023 to October 2023. In this period the Site received 143.2 mm of cumulative rainfall, against an average of 428.4 mm. In November 2023 the dry conditions ended, and the Site experienced nearly three times the average November rainfall.

Rainfall activity during the surface water sampling events for the monitoring period has been presented in **Table 6** below. Note that the surface water sampling events were conducted during relatively dry conditions, however higher-than-average rainfall was received in the area in January 2023 (153.8 mm, greater than the historic January average of 83.6 mm) and rainfall of 35.6 mm was received in early February 2023, prior to the February 2023 sampling event.

Table 6 Rainfall During Sampling Events

Sampling Event and Date	Recorded rainfall (mm) (BoM, 2023) during sampling days	Wet weather events during the monitoring period (days with rainfall >15 mm)
February 2023 Annual Sampling (13 to 16 February 2023)	0.6 mm	None
August 2023 Biannual Sampling (16 August 2023)	0.2 mm	None

7.0 Monitoring Data Summary

As part of the OMP, the following two scheduled monitoring events were completed by AECOM over the monitoring period:

- 13 to 16 February 2023 (AECOM, 2023b)
- 16 August 2023 (AECOM, 2023c)

The sample locations are shown on **Figure F2** in **Appendix A** and results are summarised in the following sections and on **Figures F3** to **F8**. Groundwater elevations are shown on **Figure F9** in **Appendix A**.

The monitoring and analytical results are provided in **Tables T1** to **T5** in **Appendix B**.

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

7.1 Groundwater Results

7.1.1 Groundwater Field Observations

Field observations from the February 2023 monitoring period are provided in **Table T1** and **Table T2** in **Appendix B** and are summarised below.

- No notable estate management works, training activities or construction works were observed during the sampling event, that would impact the groundwater sampling program.
- Monitoring wells were observed to be in good condition with the exception of MW005 which was identified to have a damaged casing, and therefore a HydraSleeve™ was unable to be installed. It is also noted that at MW024, although observed to be in good condition, the water level was above ground level within the casing stick-up (inside the monument). Given flooding in the area, there was potential for surface water to enter the well, however it is deemed unlikely, as the PFAS concentrations from the sample collected in February 2023 were the same as or less than the concentration recorded during the previous monitoring event in February 2022).
- No visible signs of contamination in groundwater were observed at the locations sampled (i.e., no sheen, staining or foaming present).
- No odours were noted with the exception of five locations (MW005, MW018, MW039, MW015 and MW006).

7.1.2 Groundwater Elevations

The standing water level (SWL) was measured in all monitoring wells, prior to sampling and during a targeted gauging round conducted for each sampling event, to evaluate groundwater elevations (GWE). The SWL and GWE from the February 2023 event are presented in **Table T1** in **Appendix B** and summarised by sub-catchment in **Table 7** and **Table 8** below, for siltstone aquifer and perched water respectively.

Table 7 Summary of Groundwater Elevations: Siltstone Aquifer

Gauging Event	No. Wells	Min. SWL (mbTOC)	Max. SWL (mbTOC)	Min. GWE (mAHD)	Max. GWE (mAHD)
Braidwood Road drain sub-catchment (On-Site = MW001, MW002, MW012; Off-Site = MW018, MW024, MW031, MW044)					
February 2023	7	0.290 (MW012)	1.718 (MW031)	96.468 (MW024)	115.539 (MW001)
Cabbage Tree Creek sub-catchment (Off-Site = MW072, MW073)					
February 2023	2	3.182 (MW072)	7.258 (MW073)	104.924 (MW072)	113.661 (MW073)

Gauging Event	No. Wells	Min. SWL (mbTOC)	Max. SWL (mbTOC)	Min. GWE (mAHD)	Max. GWE (mAHD)
Flat Rock Creek sub-catchment (On-Site = MW004, MW037)					
February 2023	2	3.272 (MW037)	3.971 (MW004)	131.848 (MW037)	140.164 (MW004)
Upper Currambene Creek sub-catchment (On-Site = MW003, MW005, MW029, MW038; Off-Site = MW026)					
February 2023	5	3.312 (MW029)	13.150 (MW003)	26.198 (MW026)	106.842 (MW029)
Yerriyong Gully sub-catchment (On-Site = MW006, MW008, MW009, MW015, MW016, MW017, MW039, MW045, MW046)					
February 2023	10	0.470 (MW009)	6.941 (MW008)	72.179 (MW006)	125.239 (MW016)

Note: mAHD = metres relative to Australian Height datum; mbTOC = metres below Top of Casing; Min = Minimum; Max = Maximum

Table 8 Summary of Groundwater Elevations: Perched Water

Gauging Event	No. Wells	Min. SWL (mbTOC)	Max. SWL (mbTOC)	Min. GWE (mAHD)	Max. GWE (mAHD)
Braidwood Road drain sub-catchment (On-Site = MW012P)					
February 2023	1	0.561		103.525	
Yerriyong Gully sub-catchment (On-Site = MW009P)					
February 2023	1	0.576		116.058	

Note: mAHD = metres relative to Australian Height datum; mbTOC = metres below Top of Casing; Min = Minimum; Max = Maximum.

Groundwater depths (for both the siltstone aquifer and perched water) in February 2023 were generally consistent with results obtained in February 2022 (AECOM, 2023a).

7.1.3 Groundwater Flow Direction

Based on the SWL and survey data, the interpreted potentiometric contours for the February 2023 monitoring event are presented on **Figure F9** in **Appendix A**. Gauging data from selected groundwater monitoring wells were omitted from the contour plan, due to the following:

- the screens target perched aquifer at MW009P and MW012P.
- the SWL was above ground level (but remaining within the well casing) at MW024.

The contours are generally similar to the DSI (Aurecon, 2017), with two groundwater basins present with the ridgeline running from Nowra Hill in the northeast through to the southwest corner of the Site. It is noted that the dataset used for the DSI (Aurecon, 2017) covered a larger area, which was beyond the Management Area.

The inferred groundwater flow direction indicates the presence of a groundwater divide along the southwest to northeast ridgeline, with groundwater on the north flowing to the north and east towards the Shoalhaven River (within the Shoalhaven River Basin), and in the south (from Nowra Hill) the flows are generally to the southwest and southeast towards Currambene Creek and Jervis Bay (Clyde River Basin).

Although no data was collected beyond Nowra Hill to the northeast during this monitoring period, it is inferred that groundwater flow from Nowra Hill towards the northeast is still occurring and consistent with historical data.

It is also noted that during the monitoring period fewer groundwater monitoring locations were gauged outside of the Management Area boundary to the northwest and southeast of the Site, resulting in less detail in contour interpretation in these areas. Refer to SAQP in **Appendix E** for further details.

Therefore, the groundwater flow directions presented on **Figure F9** in **Appendix A** provide a general understanding of the regional groundwater flow direction.

7.1.4 Groundwater Quality Parameters

Groundwater quality parameters were measured during the collection of groundwater samples. The stabilised readings of groundwater quality parameters from February 2023 are presented in **Table T2** in **Appendix B** and summarised below in **Table 9** (siltstone aquifer) and **Table 10** (perched water) for locations within each sub-catchment.

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

- Poorly to moderately oxygenated conditions.
- Fresh to brackish groundwater conditions.
- Acidic to neutral conditions.
- Moderately reducing to oxidising conditions.

Table 9 Summary of Groundwater Quality Parameters: Siltstone Aquifer

Sampling Event	Dissolved Oxygen (mg/L)		Temperature (°C)		Electrical Conductivity (µS/cm)		pH (pH units)		Redox-Oxidation Potential, corrected (mV)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Braidwood Road drain sub-catchment (On-Site = MW001, MW002, MW012; Off-Site = MW018, MW024, MW031, MW044)										
February 2023	1.08 (MW018)	2.22 (MW031)	17.9 (MW018)	21.0 (MW002)	152.7 (MW044)	11,022 (MW031)	3.80 (MW018)	7.02 (MW001)	157.0 (MW044)	320.8 (MW031)
Cabbage Tree Creek sub-catchment (Off-Site = MW072, MW073)										
February 2023	1.36 (MW072)	1.56 (MW073)	18.6 (MW072)	21.0 (MW073)	1,725 (MW073)	6,717 (MW072)	6.56 (MW072)	6.66 (MW073)	239.5 (MW073)	289.0 (MW072)
Flat Rock Creek sub-catchment (On-Site = MW004, MW037)										
February 2023	1.43 (MW004)	3.50 (MW037)	18.5 (MW004)	19.4 (MW037)	1,717 (MW037)	2,122 (MW004)	4.93 (MW037)	6.92 (MW004)	277.0 (MW004)	383.0 (MW037)
Upper Currambene Creek sub-catchment (On-Site = MW005, MW029, MW038; Off-Site = MW026)										
February 2023	1.22 (MW029)	6.15 (MW026)	17.3 (multiple)	19.5 (MW026)	6.4 (MW005)	7,653 (MW029)	4.87 (MW003)	7.13 (MW038)	199.8 (MW029)	307.9 (MW026)
Yerriyong Gully sub-catchment (On-Site = MW006, MW008, MW009, MW015, MW016, MW017, MW039, MW045, MW046)										
February 2023	0.09 (MW017)	3.90 (MW008)	17.6 (MW046)	22.9 (MW039)	5.6 (MW016)	5,282 (MW015)	3.56 (MW046)	6.76 (MW017)	101.8 (MW006)	521.1 (MW046)

Note: Min = Minimum; Max = Maximum.

Table 10 Summary of Groundwater Quality Parameters: Perched Water

Sampling Event	Dissolved Oxygen (mg/L)	Temperature (°C)	Electrical Conductivity (µS/cm)	pH (pH units)	Redox-Oxidation Potential, Corrected (mV)
Braidwood Road drain sub-catchment (On-Site = MW012P)					
February 2023	1.26	20.9	583.0	5.99	218.2
Yerriyong Gully sub-catchment (On-Site = MW009P)					
February 2023	0.73	20.7	229.2	5.79	274.6

7.1.5 Groundwater Analytical Results

Groundwater analytical results from the monitoring period as well as relevant historical groundwater analytical results are presented in **Table T4** in **Appendix B**. Groundwater results from February 2023 are presented spatially on **Figure F3** and **Figure F4** in **Appendix A**. The monitoring activities are summarised in the OMP Sampling Event Factual Reports provided in **Appendix F**. The interpretive assessment of the groundwater analytical results is discussed in **Section 8.3** and **Section 8.4**.

Additionally, historical groundwater concentrations of PFOS+PFHxS and PFOA have been displayed graphically on temporal trend graphs, by PFAS source area and areas of interest (off-Site locations), in **Appendix C** for the areas and locations in **Table 11**, below.

Table 11 Temporal Trend Graphs of Groundwater Locations

Graph ID	Source Areas and Areas of Interest	Groundwater Locations
G1, G2	FFTA	MW009, MW009P, MW045, MW046
G3, G4	Former AFFF exercise area and current STP	MW006, MW008
G5, G6	STP irrigation area	MW016, MW017
G7, G8	Vicinity of eastern site boundary	MW001, MW002, MW003, MW005, MW029
G9, G10	Off-Site Locations (Northwest and Southeast of Site)	MW024, MW026, MW072, MW073

A summary of groundwater results from February 2023 is provided in **Table 12** (siltstone aquifer) and **Table 13** (perched water) for locations within each sub-catchment.

Deviations from the historical dataset for groundwater results are summarised in **Table 14** and **Table 15**.

Table 12 Summary of PFOA, PFOS and PFOS+PFHxS Concentrations in Groundwater: Siltstone Aquifer

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/L) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
Braidwood Road drain sub-catchment (On-Site = MW001, MW002, MW012; Off-Site = MW018, MW024, MW031, MW044)						
February 2023	7 Primary, 1 QC	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple) to 0.76 µg/L (MW001)	4	NA	4
		PFOS+PFHxS	<LOR (multiple) to 1.01 µg/L (MW001)	5	2	NA
Cabbage Tree Creek sub-catchment (Off-Site = MW072, MW073)						
February 2023	2 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple)	0	NA	0
		PFOS+PFHxS	<LOR (multiple)	0	0	NA
Flat Rock Creek sub-catchment (On-Site = MW004, MW037)						
February 2023	2 Primary	PFOA	<LOR (multiple)	0	0	0
		PFOS	<LOR (multiple)	0	NA	0
		PFOS+PFHxS	<LOR (multiple)	0	0	NA
Upper Currambene Creek sub-catchment (On-Site = MW003, MW005, MW029, MW038; Off-Site = MW026)						
February 2023	5 Primary, 1 QC	PFOA	<LOR (multiple) to 0.68 µg/L (MW005)	3	1	0
		PFOS	0.01 µg/L (multiple) to 22.9 µg/L (MW005)	6	NA	6
		PFOS+PFHxS	0.01 µg/L (MW003) to 35.3 µg/L (MW005)	6	3	NA
Yerriyong Gully sub-catchment (On-Site = MW006, MW008, MW009, MW015, MW016, MW017, MW039, MW045, MW046)						
February 2023	9 Primary, 2 QC	PFOA	<LOR (multiple) to 0.96 µg/L (MW009)	6	1	0
		PFOS	<LOR (multiple) to 4.47 µg/L (MW006)	8	NA	8
		PFOS+PFHxS	<LOR (multiple) to 30.6 µg/L (MW009)	9	8	NA

Note: [1] = Sample counts include intra-laboratory and inter-laboratory duplicates; multiple = the value applies to multiple locations; <LOR = less than limit of reporting; NA = Not applicable (i.e. no Criteria).

Table 13 Summary of PFOA, PFOS and PFOS+PFHxS Concentrations in Groundwater: Perched Water

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/L) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
Braidwood Road drain sub-catchment (On-Site = MW012P)						
February 2023	1 Primary	PFOA	<LOR	0	0	0
		PFOS	0.24 µg/L	1	NA	1
		PFOS+PFHxS	0.43 µg/L	1	1	NA
Yerriyong Gully sub-catchment (On-Site = MW009P)						
February 2023	1 Primary	PFOA	4.49 µg/L	1	1	0
		PFOS	189 µg/L	1	NA	1
		PFOS+PFHxS	233 µg/L	1	1	NA

Note: [1] = Sample counts include intra-laboratory and inter-laboratory duplicates; <LOR = less than limit of reporting; NA = Not applicable (i.e. no Criteria).

During the monitoring period, there were no first-time detections, no new exceedances of drinking water guidelines, and no new exceedances of ecological (freshwater 95%) guidelines of PFOS, PFOS+PFHxS and/or PFOA.

The new maximum concentrations of PFOS and PFOS+PFHxS, reported during the monitoring period are presented in **Table 14** below, and new minimum concentrations of PFOS, PFOS+PFHxS and/or PFOA, are presented in **Table 15** below.

Table 14 Groundwater Results: New Maximum Concentrations of PFOS, PFOS+PFHxS and/or PFOA

Sampling Event	Area	Location	Analyte/s & Reported Concentrations
February 2023	Braidwood Road drain sub-catchment	MW001	PFOS (0.76 µg/L)
		MW001	PFOS+PFHxS (1.01 µg/L)
	Upper Currambene Creek sub-catchment	MW005	PFOS (22.90 µg/L)
		MW005	PFOS+PFHxS (35.30 µg/L)

Table 15 Groundwater Results – New Minimum Concentrations of PFOS, PFOS+PFHxS and/or PFOA

Sampling Event	Area	Location	Analyte/s & Reported Concentrations
February 2023	Braidwood Road drain sub-catchment	MW024	PFOS+PFHxS (0.04 µg/L)
		MW044	PFOS+PFHxS (0.09 µg/L)
		MW045	PFOS+PFHxS (0.11 µg/L)
	Yerriyong Gully sub-catchment	MW009P	PFOA (4.49 µg/L)
		MW009P	PFOS (189.0 µg/L)
		MW009P	PFOS+PFHxS (233.0 µg/L)

7.2 Surface Water Results

7.2.1 Surface Water Field Observations

The location of surface water samples is shown on **Figure F2** in **Appendix A**. Field observations made during the surface water sampling events are provided in **Table T3** in **Appendix B** and summarised below.

During the monitoring period, no notable estate management works, training activities or construction works were observed during the sampling event, that would impact the sampling program.

February 2023

- No visible signs of contamination were observed at the locations sampled, with the exception of SW007 which had a biosheen.
- No odours were noted, with the exception of SW009 and SW014 which had organic odours.
- Water was observed to be flowing at each surface water location, except in SW002, SW007, SW009 and SW018, where the water was observed to be stagnant.

August 2023

- No visible signs of contamination were observed at the locations sampled, with the exception of SW001, SW002, and SW013 which had biosheen. It is noted that SW007 had black suspended organic materials.
- No odours were noted.
- Water was observed to be flowing at each surface water location, except in SW001, SW002, SW007, SW009 and SW018, where the water was observed to be stagnant.

7.2.2 Surface Water Quality Parameters

Surface water quality parameters were measured during the collection of surface water samples. The surface water quality parameters from February 2023 and August 2023 events are presented in **Table T3** in **Appendix B** and summarised below in **Table 16** for locations within each sub-catchment.

Table 16 Summary of Surface Water Quality Parameters

Sampling Event	Dissolved Oxygen (mg/L)		Temperature (°C)		Electrical Conductivity (µS/cm)		pH (pH units)		Redox-Oxidation Potential, corrected (mV)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Braidwood Road drain sub-catchment (On-Site = SW007, SW018; Off-Site = SW005, SW006, SW020)										
February 2023	5.89 (SW005)	9.50 (SW018)	19.6 (SW020)	21.3 (SW018)	167.2 (SW020)	337.3 (SW018)	6.42 (SW018)	7.71 (SW020)	254.3 (SW020)	337.0 (SW007)
August 2023	7.78 (SW020)	12.59 (SW006)	9.1 (SW005)	16.4 (SW018)	139.2 (SW020)	702.0 (SW018)	6.47 (SW007)	7.60 (SW005)	258.9 (SW005)	320.9 (SW007)
Cabbage Tree Creek sub-catchment (Off-Site = SW001)										
February 2023	1.80		19.1		260.7		6.34		324.7	
August 2023	0.57		12.0		298.3		6.81		171.4	
Calymea Creek sub-catchment (Off-Site = SW004B)										
February 2023	7.35		19.1		333.1		7.07		240.9	
August 2023	8.22		12.6		288.7		6.75		243.3	
Currambene Creek sub-catchment (Off-Site = SW008)										
February 2023	1.19		18.8		397.7		7.4		319.2	
August 2023	9.44		9.1		335.4		7.6		258.9	
Flat Rock Creek sub-catchment (Off-Site = SW002)										
February 2023	4.03		20.4		383.9		5.99		248.7	
August 2023	0.23		12.9		407.4		6.42		180.4	
Parma Creek sub-catchment (Off-Site = SW013, SW014)										
February 2023	4.58 (SW013)	8.3 (SW014)	20.7 (SW013)	23.5 (SW014)	232.2 (SW014)	479.7 (SW013)	6.41 (SW014)	7.18 (SW013)	295.7 (SW013)	328.5 (SW014)
August 2023	5.28 (SW013)	6.43 (SW014)	11.6 (SW013)	14.8 (SW014)	246.2 (SW014)	1,342 (SW013)	6.93 (SW014)	7.10 (SW013)	257.7 (SW013)	275.7 (SW014)

Sampling Event	Dissolved Oxygen (mg/L)		Temperature (°C)		Electrical Conductivity (µS/cm)		pH (pH units)		Redox-Oxidation Potential, corrected (mV)	
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max
Yerriyong Gully sub-catchment (On-Site = SW009*, SW012)										
February 2023	4.76 (SW009)	7.79 (SW012)	19.5 (SW012)	26.8 (SW009)	353.2 (SW012)	532.0 (SW009)	7.61 (SW012)	9.50 (SW009)	168.3 (SW009)	322.6 (SW012)
August 2023	9.67 (SW012)	18.44 (SW009)	10.7 (SW012)	11.9 (SW009)	577.0 (SW012)	1,590 (SW009)	7.95 (SW012)	8.27 (SW009)	249.2 (SW009)	277.9 (SW012)

Note: Min = Minimum; Max = Maximum; * = SW009 sample is collected from the STP dam, not a surface water body.

The readings presented in **Table 16** indicate:

- Poorly to well oxygenated conditions.
- Generally fresh to brackish water conditions.
- Moderately acidic to slightly alkaline conditions.
- Oxidising conditions.
- Temperature ranges are considered consistent with background conditions for the time of year of the sampling being conducted in each event.

7.2.3 Surface Water Analytical Results

Surface water analytical results from the monitoring period as well as relevant historical surface water analytical results are presented in **Table T5** in **Appendix B**. Surface water results from February 2023 and August 2023 are presented spatially on **Figure F5** to **Figure F8** in **Appendix A**. The monitoring activities are summarised in the OMP Sampling Event Factual Reports provided in **Appendix F**. The interpretive assessment of the surface water analytical results is discussed in **Section 8.5** and **Section 8.6**.

Additionally, historical surface water concentrations of PFOS+PFHxS and PFOA have been displayed graphically on temporal trend graphs, by sub-catchment/area of interest set out in **Appendix C** for the locations in **Table 17**.

Table 17 Temporal Trend Graphs of Surface Water Locations

Graph ID	Sub-catchment / Area of Interest	Surface Water Locations
G11, G12	On-Site	SW007, SW009, SW018
G13, G14	Site boundary condition	SW006, SW008, SW012, SW020
G15, G16	Off-Site – Management Area	SW001, SW002, SW004B, SW005, SW013, SW014

A summary of surface water results from February 2023 and August 2023 is provided in **Table 18** for locations within each sub-catchment.

Deviations from the historical dataset for surface water are summarised in **Table 19**.

Table 18 Summary of PFOA, PFOS and PFOS+PFHxS Concentrations in Surface Water

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/L) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
Braidwood Road drain sub-catchment (On-Site = SW007, SW018; Off-Site = SW005, SW006, SW020)						
February 2023	5 Primary 1 QC	PFOA	0.02 µg/L (SW007) to 0.28 µg/L (SW018)	6	0	0
		PFOS	0.74 µg/L (SW007) to 4.6 µg/L (SW018)	6	NA	6
		PFOS+PFHxS	1.58 µg/L (SW007) to 8.94 µg/L (SW018)	6	4	NA
August 2023	5 Primary 2 QC	PFOA	0.01 µg/L (SW007) to 0.52 µg/L (SW018)	7	0	0
		PFOS	0.32 µg/L (SW007) to 3.97 µg/L (SW018)	7	NA	7
		PFOS+PFHxS	0.64 µg/L (SW007) to 12.3 µg/L (SW018)	7	6	NA
Cabbage Tree Creek sub-catchment (Off-Site = SW001)						
February 2023	1 Primary	PFOA	<LOR (SW001)	0	0	0
		PFOS	0.02 µg/L (SW001)	1	NA	1
		PFOS+PFHxS	0.03 µg/L (SW001)	1	0	NA
August 2023	1 Primary	PFOA	<LOR (SW001)	0	0	0
		PFOS	0.01 µg/L (SW001)	1	NA	1
		PFOS+PFHxS	0.01 µg/L (SW001)	1	0	NA
Calymea Creek sub-catchment (Off-Site = SW004B)						
February 2023	1 Primary	PFOA	0.01 µg/L (SW004B)	1	0	0
		PFOS	0.2 µg/L (SW004B)	1	NA	1
		PFOS+PFHxS	0.38 µg/L (SW004B)	1	0	NA

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/L) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
August 2023	1 Primary	PFOA	0.04 µg/L (SW004B)	1	0	0
		PFOS	0.62 µg/L (SW004B)	1	NA	1
		PFOS+PFHxS	1.43 µg/L (SW004B)	1	0	NA
Currambene Creek sub-catchment (Off-Site = SW008)						
February 2023	1 Primary 1 QC	PFOA	0.05 µg/L (SW008) to 0.07 µg/L (SW008)	2	0	0
		PFOS	1.42 µg/L (SW008) to 1.52 µg/L (SW008)	2	NA	2
		PFOS+PFHxS	2.53 µg/L (multiple)	2	2	NA
August 2023	1 Primary	PFOA	0.04 µg/L (SW008)	1	0	0
		PFOS	0.97 µg/L (SW008)	1	NA	1
		PFOS+PFHxS	1.86 µg/L (SW008)	1	0	NA
Flat Rock Creek sub-catchment (Off-Site = SW002)						
February 2023	1 Primary 1 QC	PFOA	<LOR (multiple)	0	0	0
		PFOS	0.02 µg/L (SW002) to 0.03 µg/L (SW002)	2	NA	2
		PFOS+PFHxS	0.04 µg/L (SW002) to 0.06 µg/L (SW002)	2	0	NA
August 2023	1 Primary	PFOA	<LOR (SW002)	0	0	0
		PFOS	0.03 µg/L (SW002)	1	NA	1
		PFOS+PFHxS	0.09 µg/L (SW002)	1	0	NA
Parma Creek sub-catchment (Off-Site = SW013, SW014)						

Sampling Event	No. of Samples[1]	Compound	Concentration Range (µg/L) in Sampling Event	No. of Samples[1] with Concentration > LOR	No. of Samples[1] with Exceedances of Human Health Criteria	No. of Samples[1] with Exceedances of Ecological Criteria
February 2023	2 Primary	PFOA	<LOR (SW014) to 0.05 µg/L (SW013)	1	0	0
		PFOS	<LOR (SW014) to 1.59 µg/L (SW013)	1	NA	1
		PFOS+PFHxS	<LOR (SW014) to 3.08 µg/L (SW013)	1	1	NA
August 2023	2 Primary	PFOA	<LOR (SW014) to 0.08 µg/L (SW013)	1	0	0
		PFOS	<LOR (SW014) to 1.03 µg/L (SW013)	1	NA	1
		PFOS+PFHxS	<LOR (SW014) to 2.78 µg/L (SW013)	1	1	NA
Yerriyong Gully sub-catchment (On-Site = SW009*, SW012)						
February 2023	2 Primary 1 QC	PFOA	0.07 µg/L (SW012) to 0.09 µg/L (SW012)	3	0	0
		PFOS	2.7 µg/L (SW012) to 3.28 µg/L (SW009)	3	NA	3
		PFOS+PFHxS	4.44 µg/L (SW012) to 5.2 µg/L (SW012)	3	3	NA
August 2023	2 Primary 2 QC	PFOA	0.04 µg/L (SW009) to 0.17 µg/L (SW012)	4	0	0
		PFOS	1.8 µg/L (SW009) to 3.79 µg/L (SW012)	4	NA	4
		PFOS+PFHxS	2.5 µg/L (SW009) to 7.66 µg/L (SW012)	4	4	NA

Note: [1] = Sample counts include intra-laboratory and inter-laboratory duplicates; * = SW009 sample is collected from the STP dam, not a surface water body; multiple = the value applies to multiple locations; <LOR = less than limit of reporting; NA = Not applicable (i.e. no Criteria).

During the monitoring period, there were no first-time detections, no new exceedances of human health recreational guidelines, no new exceedances of ecological (freshwater 95%) guidelines and no new minimum concentrations of PFOS, PFOS+PFHxS and/or PFOA.

The new maximum concentrations of PFOS, PFOS+PFHxS and/or PFOA reported during the monitoring period are presented in **Table 19**.

Table 19 Surface Water Results: New Maximum Concentrations of PFOS+PFHxS and/or PFOA

Sampling Event	Area	Location	Analyte/s & Reported Concentrations
August 2023	Braidwood Road drain sub-catchment	SW018	PFOA (0.52 µg/L)
		SW020	PFOS (1.63 µg/L)
	Calymea Creek sub-catchment	SW004B	PFOA (0.04 µg/L)
	Yerriyong Gully sub-catchment	SW012	PFOA (0.17 µg/L)
		SW012	PFOS+PFHxS (7.66 µg/L)

8.0 Interpretive Analysis

8.1 Groundwater Level Flow

The SWLs were measured in the groundwater monitoring wells to evaluate the groundwater elevations (mAHD). Depth to groundwater measurements collected during the current monitoring period are presented in **Table T1** (in **Appendix B**) and the inferred potentiometric contours for February 2023 sampling event is presented on **Figure F9** (**Appendix A**). A summary of groundwater elevation changes since February 2022 is provided by sub-catchment below:

- Braidwood Road: groundwater elevations in the siltstone aquifer generally increased by an average of 0.20 m.
- Flat Rock Creek: groundwater elevations in the siltstone aquifer generally increased by an average of 0.44 m.
- Cabbage Tree Creek: groundwater elevation in the siltstone aquifer generally increased by an average of 0.70 m.
- Upper Currambene Creek: groundwater elevations in the siltstone aquifer generally decreased by an average of 0.31 m.
- Yerriyong Gully: groundwater elevations in the siltstone aquifer generally decreased by an average of 0.14 m.

It is noted that significant rainfall had been received prior to the February 2023 monitoring event, with 60.2 mm being recorded on 30 January 2023, and an additional 35.8 mm of rainfall being recorded prior to the groundwater gauging round.

This above average rainfall in late January may be attributable to the increase in groundwater elevations at Braidwood Road, Flat Rock Creek, and Cabbage Tree Creek sub-catchments. In contrast the overall below average rainfall for February 2023 may be attributable to the decrease in the groundwater elevation at the Upper Currambene Creek and Yerriyong Gully sub-catchments.

Based on the available data, it appears that the Upper Currambene Creek and Yerriyong Gully sub-catchments are more responsive to rainfall (lower lag time) than the other sub-catchments (i.e., Braidwood Road, Flat Rock Creek, and Cabbage Tree Creek sub-catchments), however further monitoring would be required to confirm the rainfall and groundwater elevation interaction.

8.2 Groundwater Physicochemical Properties

The water quality parameters reported in February 2023 were generally within previous data ranges and representative of the siltstone aquifer and the perched groundwater.

8.3 Groundwater Results

8.3.1 Overview

The February 2022 groundwater results for PFOS+PFHxS and PFOA compared to assessment criteria are provided in **Figures F3** and **Figure F4** (in **Appendix A**) and presented in **Table T4** (in **Appendix B**). The data have been used to evaluate the nature and extent of PFAS contamination associated with source areas and a summary of the changes is discussed below.

8.3.2 PFAS Extent in Groundwater

A summary of groundwater concentrations changes by sub-catchment is provided below:

- **Braidwood Road**: Within the siltstone aquifer and perched water, concentrations of PFOA remained below LOR, new minimum concentrations of PFOS+PFHxS were detected at MW024, MW044, and MW045, and at MW001 new maximum concentrations of PFOS and PFOS+PFHxS were detected. It is noted that the concentration of PFOS (0.76 µg/L) at MW001 is the second highest recorded PFOS concentration for the sub-catchment. All PFOA, PFOS, PFOS+PFHxS concentrations remained within historical ranges.

- **Cabbage Tree Creek**: Concentrations of PFOA, PFOS and PFOS+PFHxS within the siltstone aquifer were below laboratory LOR in the locations sampled during the monitoring period, which were similar to historical data.
- **Flat Rock Creek**: Concentrations of PFOA, PFOS and PFOS+PFHxS within the siltstone aquifer were below the laboratory LOR in the locations sampled during the monitoring period, which were similar to historical data.
- **Upper Currambene Creek**: Concentrations of PFOA, PFOS and PFOS+PFHxS within the siltstone aquifer were either below the laboratory LOR, or within the historical range, at the locations sampled with the exception of MW005, during the monitoring period. New maximum concentrations were reported at MW005 for PFOS and PFOS+PFHxS, whilst PFOA concentrations were equal to historic maximum. MW005 is located on-Site on the southeast boundary, remains higher than historical concentrations since the significant rainfall events in 2020 (refer to **Graph G7** and **Graph G8** in **Appendix C**), with concentrations of PFOS+PFHxS remaining consistent since 2020, which are however significantly higher than results prior to August 2020.
- **Yerriyong Gully**: New minimum concentrations of PFOA, PFOS and PFOS+PFHxS were reported within perched water location MW009P during the monitoring period.

The highest PFAS concentrations in groundwater during the monitoring period were reported within the Yerriyong Gully sub-catchment, in on-Site monitoring locations, with location MW009P (within perched water) reporting the highest concentrations, however these concentrations represented new minimums for this location. The highest PFAS concentrations within the siltstone aquifer in this sub-catchment were reported at MW008 and MW009, at concentrations up to two orders of magnitude lower than those in perched water.

The impacts at MW009 / MW009P are associated with the FFTA, the former AFFF exercise area within the Shoalhaven Basin, while the impacts at MW008 are associated with the current STP within the Clyde River Basin. These impacts are consistent with previous findings.

The extent of PFAS impacts in groundwater are generally consistent with that reported in the 2022 OMIR (AECOM, 2024), with the exception of localised increases in PFAS concentrations at eastern boundary monitoring locations MW001 and MW005. The increase at MW005 is marginally over the historic maximum, and since the new maximum was reached in August 2020 results at this location have remained relatively consistent during the previous four sampling events.

At MW001, the new maximum is an order of magnitude above the previous maximum. Further monitoring will confirm whether this new maximum is an outlier or a potential increasing trend.

8.4 Groundwater Temporal Trend Analysis

Temporal trend graphs and Mann Kendall analysis are presented in **Appendix C** for PFOS+PFHxS and PFOA concentrations in selected groundwater sampling locations indicative of a source area or area of interest (as presented in **Table 11**, in **Section 7.1.5**).

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

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

Trend analysis was only undertaken for locations which were sampled in the monitoring period and for locations which were consistently greater than the LOR. The data used in this analysis was sourced from OMP sampling events both historically and during the monitoring period for each sample location.

Where sample results were less than the LOR, half the LOR[2] was adopted for the Mann Kendall analysis.

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

8.4.1 FFTA

The FFTA source area is located in the Calymea Creek Catchment, within the Shoalhaven River Basin. Refer to **Graph G1** and **Graph G2** and the relevant Mann Kendall analysis in **Appendix C**, and **Table 20** below for the samples collected from this area.

The concentrations in PFOS+PFHxS and PFOA in groundwater in the vicinity of the FFTA appear to have no clear statistical trends, though concentrations at MW009 are probably increasing, whilst concentrations of PFOA at MW009P and PFOS+PFHxS at MW045 are probably decreasing. Notably concentrations of PFOS+PFHxS at MW009P (the OMP location with overall the highest PFAS concentrations at the Site, historically and during this monitoring period) are stable.

It is also noted that PFOS+PFHxS concentrations at MW046 follow a similar trend to MW045 for the available dataset (refer to **Graph G2** in **Appendix C**). Based on the similar trends, it is likely that MW046 would have also reported a decreasing concentration trend rather than a stable trend, if sampling in February 2020 was also conducted at MW046, as MW045 was sampled during that event.

The temporal trend graphs show that the groundwater concentrations in this area are within historical ranges at each of the monitoring locations.

Table 20 Summary Trend Analysis: FFTA

Location ID	Analyte	Historical Range	Current Monitoring Period (µg/L)	Mann Kendall Trend	
		Min – Max (µg/L)		Trend	Confidence Factor
MW009	PFOS+PFHxS	0.89 – 58.00	30.60	Probably increasing	94.0%
	PFOA	0.03 – 2.74	0.96	Probably increasing	94.0%
MW009P	PFOS+PFHxS	310 – 616	233	Stable	82.1%
	PFOA	8.63 – 23.10	4.49	Probably decreasing	90.5%
MW045	PFOS+PFHxS	*0.13 – 0.30*	*0.11*	*Probably decreasing*	*90.7%*
	PFOA	<LOR	<LOR	Not assessed	-
MW046	PFOS+PFHxS	*0.06 – 0.21*	*0.08*	*Stable*	*64.0%*
	PFOA	<LOR	<LOR	Not assessed	-

Note:
Only one result is reported in the Min-Max Range where the values are the same.
Italics indicate low confidence in the Mann Kendall trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR.

8.4.2 Former AFFF exercise area and STP

The Former AFFF exercise area and STP are located in the Yerriyong Gully Catchment, within the Clyde River Basin, flowing south to southeast towards Currambene Creek and Jervis Bay. Refer to **Graph G3** and **Graph G4** and the relevant Mann Kendall analysis (in **Appendix C**), and **Table 21** below for the samples collected from this area.

The changes in PFOS+PFHxS and PFOA concentrations in wells in the area of the former AFFF exercise area and STP show a continued decreasing trend at MW006 down hydraulic gradient of the

[2] where multiple LOR thresholds were present for a sample location, the average of half the LOR values was used.

STP, and now an increasing trend at MW008 down hydraulic gradient of the AFFF exercise areas, up hydraulic gradient of the STP.

It is noted that concentrations of PFOS+PFHxS in MW008 increased significantly during the previous monitoring period (refer **Graph G3** and **Graph G4** in **Appendix C**). It is not clear whether rainfall is influencing the groundwater concentrations at this location, though it is noted that concentrations have fluctuated during the last five sampling events since February 2020.

Table 21 Summary Trend Analysis: Former FFTA Exercise Area and Current STP

Location ID	Analyte	Historical Range Min – Max (µg/L)	Current Monitoring Period (µg/L)	Mann Kendall Trend Trend	Mann Kendall Trend Confidence Factor
MW006	PFOS+PFHxS	7.41 – 22.6	8.00	Decreasing	99.6%
	PFOA	*0.1 – 0.36*	*0.16*	*Stable*	*86.2%*
MW008	PFOS+PFHxS	7.0 – 37.0	18.1	Increasing	96.2%
	PFOA	*0.2 – 0.83*	*0.34*	*No Trend*	*89.0%*

Note:
Only one result is reported in the Min-Max Range where the values are the same.
Italics indicate low confidence in the Mann Kendall trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR.

8.4.3 STP Irrigation Area

The STP irrigation area is located on the southern portion of the Site, on the ridgeline. Refer to temporal trend **Graph G5** and **Graph G6** in **Appendix C** and the relevant Mann Kendall analysis (in **Appendix C**), and **Table 22**, below for the samples collected from this area.

The changes in PFOS+PFHxS and PFOA concentrations in wells in the STP irrigation area show an increasing trend at MW017, which is located down gradient and along the inferred groundwater flow path from the FFTA. It is likely that a combination of infiltration and migration are contributing to the increase in PFAS concentrations in this area. Whereas PFOS+PFHxS concentrations at MW016 increased in August 2020 but decreased to below LOR since February 2021 (concentrations of PFOA have been below LOR).

Similar to the previous monitoring period (AECOM, 2024), PFOS+PFHxS and PFOA concentrations in MW017 increased following rainfall events in 2020 and have since decreased.

The STP is known to receive PFAS through stormwater and waste inflows from the Site and contributes to the PFAS leaving the Site through overland flows and irrigation.

Table 22 Summary Trend Analysis: STP Irrigation Area

Location ID	Analyte	Historical Range Min – Max (µg/L)	Current Monitoring Period (µg/L)	Mann Kendall Trend Trend	Mann Kendall Trend Confidence Factor
MW016	PFOS+PFHxS	<LOR – 0.09	<LOR	Not assessed	
	PFOA	<LOR	<LOR	Not assessed	
MW017	PFOS+PFHxS	<LOR - 11.7	2.94	Increasing	98.8%
	PFOA	*<LOR – 0.34*	*0.07*	*Increasing*	*96.2%*

Note:
Only one result is reported in the Min-Max Range where the values are the same.
Italics indicate low confidence in the Mann Kendall trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR.

8.4.4 Eastern Site Boundary

The eastern Site boundary area is located in the Currambene Creek Catchment, within the Clyde River Basin, flowing south to southeast towards Jervis Bay. Refer to **Graph G7** and **Graph G8** and the relevant Mann Kendall analysis (in **Appendix C**), and **Table 23** below for the samples collected from this area.

The changes in PFOS+PFHxS and PFOA concentrations in wells in the vicinity of the eastern Site boundary show an increasing trend at MW003 (PFOS+PFHxS), MW005 (PFOA and PFOS+PFHxS), and MW029 (PFOA). The most notable change for the area was the PFOS+PFHxS concentrations at MW001, which increased from LOR to 1.01 µg/L (two orders of magnitude).

As with the irrigation area discussed in **Section 8.4.3**, the concentrations on the eastern site boundary had increased during the August 2020 monitoring, following increased rainfall in 2020. It is not clear if this concentration increase was attributable to the specific event in this period, or the general above average rainfall. Further monitoring will inform whether the PFAS concentration increase at MW001 was an outlier and the increasing trends at MW003, MW005 and MW029.

Table 23 Summary Trend Analysis: Vicinity of Eastern Site Boundary

Location ID	Analyte	Historical Range	Current Monitoring Period (µg/L)	Mann Kendall Trend	
		Min – Max (µg/L)		Trend	Confidence Factor
MW001	PFOS+PFHxS	<LOR – 0.08	1.01	Not assessed	
	PFOA	<LOR	<LOR	Not assessed	
MW002	PFOS+PFHxS	*<LOR – 0.12*	*0.01*	*No Trend*	*50.0%*
	PFOA	<LOR	<LOR	Not assessed	
MW003	PFOS+PFHxS	*<LOR – 0.02*	*0.02*	*Increasing*	*97.7%*
	PFOA	<LOR	<LOR	Not assessed	
MW005	PFOS+PFHxS	4.8 – 32.8	35.3	Increasing	99.9%
	PFOA	*0.28 – 0.68*	*0.68*	*Increasing*	*99.4%*
MW029	PFOS+PFHxS	1.08 – 21.6	4.53	No Trend	69.4%
	PFOA	*0.08 – 0.50*	*0.16*	*Increasing*	*89.0%*

Note:
Only one result is reported in the Min-Max Range where the values are the same.
Italics indicate low confidence in the Mann Kendall trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR.

8.4.5 Off-Site Locations (Northwest and Southeast of the Site)

The off-Site locations covered by this grouping are MW024, MW072, and MW073 located in the northwest, flowing to the Shoalhaven River Basin, and MW026 located in the southeast, flowing to the Clyde River Basin. Refer to **Graph G9** and **Graph G10** and the relevant Mann Kendall analysis (in **Appendix C**), and **Table 24** below for the samples collected from these areas.

Note that monitoring wells MW072 and MW073 were excluded from the Mann Kendall analysis due to limited historic PFAS detections.

The changes in PFOS+PFHxS and PFOA concentrations in MW024 and MW026 show a decreasing trend for PFOS+PFHxS at MW026. PFOA is stable at both locations, and no trend was shown for PFOS+PFHxS at MW024. All locations remained lower than historic maximums for these off-Site locations.

The PFAS concentrations had increased during the August 2020 monitoring event following increased rainfall in 2020, therefore the increase is potentially attributed to the significant rain events at this time, given the concentrations had generally decreased since that sampling event.

Table 24 Summary Trend Analysis: Off-Site Locations (Northwest and Southeast of the Site)

Location ID	Analyte	Historical Range	Current Monitoring Period (µg/L)	Mann Kendall Trend	
		Min – Max (µg/L)		Trend	Confidence Factor
MW024	PFOS+PFHxS	<LOR – 1.62	0.04	No Trend	58.0%

Location ID	Analyte	Historical Range	Current Monitoring Period (µg/L)	Mann Kendall Trend	
		Min – Max (µg/L)		Trend	Confidence Factor
	PFOA	*<LOR – 0.03*	*<LOR*	*Stable*	*50.0%*
MW026	PFOS+PFHxS	2.93 – 5.80	3.68	Decreasing	96.2%
	PFOA	*0.08 – 0.14*	*0.10*	*Stable*	*54.0%*
MW072	PFOS+PFHxS	<LOR – 0.13	<LOR	Not assessed	
	PFOA	<LOR	<LOR	Not assessed	
MW073	PFOS+PFHxS	<LOR	<LOR	Not assessed	
	PFOA	<LOR	<LOR	Not assessed	

Note:
Only one result is reported in the Min-Max Range where the values are the same.
Italics indicate low confidence in the Mann Kendall trend analysis given concentrations are within 1 to 2 orders of magnitude of the LOR.

8.5 Surface Water Results

The February 2023 and August 2023 results for PFOS+PFHxS and PFOA, compared to screening criteria are provided in **Figure F5** to **Figure F8** (in **Appendix A**).

During the monitoring period, no first-time detections or new exceedances of human health or ecological guidelines were reported in the surface water samples. A summary of surface water concentrations changes by sub-catchment is provided below:

- **Braidwood Road**: Located northwest of the ridgeline, and downgradient from on-Site irrigation areas. Within the monitoring period, a new maximum for PFOA (0.52 µg/L) was reported at SW018 (previous historical maximum was 0.5 µg/L), and a new maximum for PFOS (1.63 µg/L) was reported at SW020 (previous historical maximum was 1.6 µg/L). With these exceptions, concentrations of PFOA, PFOS and PFOS+PFHxS were either less than the laboratory LOR, or within the historical range of data. The two maximums (SW018 and SW020) represent only marginal increases over the historical ranges for each location.
- **Cabbage Tree Creek**: Located outside the Management Area, to the north of the Site. Concentrations of PFOA, PFOS and PFOS+PFHxS were either less than the laboratory LOR, or within the historical range of data, during the monitoring period.
- **Calymea Creek**: Located off-Site on the northwest boundary of the Management Area. Concentrations of PFOA, PFOS and PFOS+PFHxS were either less than the laboratory LOR, or within the historical range of data, during the monitoring period, with one exception along Calymea Creek; a new maximum for PFOA (0.04 µg/L) was reported at SW004B (previous historical maximum was 0.03 µg/L). This increase is likely to be attributable to low rainfall during the monitoring period. This is discussed in further detail in **Section 8.6.3**.
- **Flat Rock Creek**: Located north of the Site within the Management Area. Concentrations of PFOA, PFOS and PFOS+PFHxS were either less than the laboratory LOR, or within the historical range of data, during the monitoring period.
- **Parma Creek**: Located off-Site, on the southeast boundary of the Management Area. Concentrations of PFOA, PFOS and PFOS+PFHxS were either less than the laboratory LOR, or within the historical range of data, during the monitoring period.
- **Yerriyong Gully**: Located on-Site, down gradient from the STP primary source area. With the exception of location SW012, concentrations of PFOA, PFOS and PFOS+PFHxS were either less than the laboratory LOR, or within the historical range of data, during the monitoring period. In SW012 (located on the southeast Site boundary, within Currambene Creek), concentrations of PFOA (0.17 µg/L) and PFOS+PFHxS (7.66 µg/L) again increased above previous maximums reported in 2022 (respectively, 0.13 µg/L and 6.4 µg/L), however remain within an order of magnitude of these historical maximums.

- **Upper Currambene Creek**: Located east of the Site within the Management Area and limited to location SW008. Concentrations have remained within the historical range of data, during the monitoring period.

The PFAS concentrations in surface water remain consistent with the previous monitoring period, with the highest PFAS concentrations reported in the same four locations (SW005, SW006, SW009, SW018). Given that SW018 is located topographically upgradient of SW006 and SW005 (all of which are northwest of the ridgeline, flowing to Calymea Creek), surface water from SW018 flow towards these locations. Further monitoring of SW018 will be required during periods of flow given that no flow was observed during this monitoring period. This is discussed further in **Section 8.6.1**.

Historically, the concentrations of PFAS at the STP dam (SW009) have fluctuated (refer to **Graph G11** and **Graph G12** in **Appendix C**).

It is noted that PFAS concentrations in surface water are dependent on the conditions at the time of sampling (such as flow rate).

8.6 Surface Water Temporal Trend Analysis

Surface water temporal trend graphs for PFOS+PFHxS and PFOA concentrations are provided on **Graph G11** to **Graph G16** (in **Appendix C**) and discussed in the following sub-sections.

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

Note that Mann Kendall analysis was not used to assess the trends in PFAS concentrations in surface water, in accordance with the PFAS OMP Annual Interpretive Report Guidance (Defence, 2022).

The temporal trends are discussed for each area of interest within the following sub-sections.

8.6.1 Temporal Trend - On-Site

The PFOS+PFHxS and PFOA concentrations at the on-Site locations that were assessed, have been highly variable historically, but remained within same order of magnitude. The concentrations in these locations (SW007, SW009 and SW018) appear to generally correlate with rainfall data, with concentrations increasing following rainfall, and decreasing during dry periods.

However, an increase of PFOS+PFHxS and PFOA was observed at SW018 following a dry period, and no water flow was observed during the monitoring period. It is likely that the reported concentrations may not be representative of surface water conditions and that an alternate mechanism may be responsible for the increase at SW018 (such as the stagnant water having longer contact with potentially PFAS impacted sediment or due to evaporation / evapotranspiration in stagnant water), which is located northeast of the Romeo facility, within the Hangar K AFFF spill (December 2014) footprint, and an effluent irrigation area. Although ongoing infrastructure works, including dewatering (PFAS contaminated groundwater ingress) of a subsurface storage tank associated with the Romeo facility were being undertaken during the monitoring period, it is unclear whether these infrastructure works would have impacted surface water concentrations at SW018.

Refer to **Graph G11** and **Graph G12** in **Appendix C**.

8.6.2 Temporal Trend - Site boundary condition

The PFOS+PFHxS and PFOA concentrations at Site boundary locations that were assessed, have been historically observed to be highly variable, with the concentrations at all four locations (SW006, SW008, SW012 and SW020) remaining within an order of magnitude, and no increasing or decreasing trends are evident.

Refer to **Graph G13** and **Graph G14** in **Appendix C**.

8.6.3 Temporal Trend – Off-Site Management Area

The PFOS+PFHxS and PFOA concentrations at off-Site Management Area locations that were assessed, have been historically observed to be highly variable, with the concentrations at all six locations (SW001, SW002, SW004B, SW006, SW013 and SW014) remaining within an order of magnitude, and no increasing or decreasing trends are evident.

Refer to **Graph G15** and **Graph G16** in **Appendix C**.

9.0 Conceptual Site Model

The CSM was developed during the investigation stages (Aurecon, 2017) and summarised in the OMP (Appendix F of PMAP [Defence, 2019]). The CSM summarises the linkages between PFAS sources, exposure pathways and receptors.

The sampling completed over the monitoring period has provided additional data to further understand the changing PFAS concentrations in groundwater and surface water. PFAS concentrations were within historical ranges and Mann Kendall trend analysis indicated stable, decreasing or inconclusive trends. The following new maximums or increasing trends in PFAS concentrations were noted during this monitoring period:

- New maximum concentrations reported in groundwater (MW001 and MW005) in the vicinity of the eastern site boundary. The notable increase at MW001 is an order of magnitude above the previous maximum. The new maximum at MW005 was assessed to have an increasing trend based on the Mann Kendall analysis. The increasing trend is likely to be attributable to the higher groundwater elevations and mobilisation of PFAS within the vadose zone following the significant rainfall observed in January 2023. Further monitoring of both MW001 and MW005 would be required to confirm whether the trend continues to increase which might constitute a revision to the CSM.
- Generally, concentrations of PFAS within surface water remained consistent with previous monitoring data, with new maximum concentrations limited in magnitude compared with historical observations. New maximum concentrations were reported at four locations during the monitoring period (SW004B at Calymea Creek sub-catchment, SW012 at Yerriyong Gully sub-catchment, and SW018 and SW020 at Braidwood Road drain sub-catchment).
- It is noted that the increase of PFOS+PFHxS and PFOA at SW018 occurred following a dry period, and no water flow was observed during the monitoring period. Therefore, it is likely that the reported concentrations may not be representative of surface water conditions and that an alternate mechanism may be responsible for the increase in concentrations (such as the stagnant water having longer contact with potentially PFAS impacted sediment or due to evaporation / evapotranspiration in stagnant water). Although the concentrations at SW018 remain within historical ranges further monitoring in this area would be required to confirm whether the trend continues to increase which might constitute a revision to the CSM.

Despite these increases, the PFAS transport mechanisms and the groundwater and surface water concentrations are generally similar to historical data.

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

10.0 Discussion

10.1 Risk Profile Review

The data collected during OMP monitoring between December 2022 and November 2023 indicates that the risk profile to human health receptors within the Management Area remains generally unchanged since the publication of the HHERA (EnRisks, 2017) and HHERA Addendum (EnRisks, 2018). This is based on the following assessment of the OMP data:

Groundwater

- The PFAS impacts in groundwater are generally similar to historical results with the following notable exceptions:
  - Increases in PFAS concentrations (at MW001 and MW005) on-Site on the southeast boundary. The concentrations at MW005 increased in 2020, following the prolonged period of rainfall recorded in 2020, and the concentrations have remained consistent since 2020. The increase at MW001 is limited to a single observation, and whilst the concentration is over an order of magnitude greater than the maximum concentration for the location, the concentration remains within the historical range for groundwater in this area. Given that the location historically exceeded relevant exposure criteria, and there are no complete pathways of exposure for groundwater (refer to HHRA, [EnRisks, 2017]), there is no change to the risk profile.

Surface Water

- PFAS concentrations at surface water locations were generally similar to historical results with the four new maximum concentrations limited in magnitude compared with historical observations. It is noted that the increase at SW018 occurred following a dry period and that no water flow was observed at SW018 during the two sampling events in the monitoring period. Further monitoring in this area would be required to confirm whether the trend continues to increase. However, the concentrations at SW018 remain within historical ranges.

10.2 Assessment of Current OMP

Following a review of the data collected during the current monitoring period, there has been no significant changes to the understanding of risks associated with PFAS at HMAS Albatross and the Management Area, the spatial distribution of PFAS and the need for monitoring of additional media.

11.0 Conclusions

Groundwater and surface water sampling were completed in accordance with the SAQP (AECOM, 2023d) and to meet the objectives of the OMP (PMAP [Defence, 2019]) between December 2022 and November 2023.

Overall, the concentrations of PFAS in groundwater were generally similar to previous results, with the highest PFAS concentrations in February 2023 being reported at monitoring wells located within and/or down-gradient of primary and secondary PFAS source areas identified during the previous investigations.

Where new maximum concentrations were present, increases in PFAS concentrations had previously been observed, and new maximums remained within an order of magnitude of these historic maximum observations, with the exception of MW001, where results were over an order of magnitude, and were within the historical range of the area, and elevated concentrations were limited to one result. The increases are likely attributed to high rainfall events since 2020, including the higher-than-average rainfall event in January 2023, which have increased the groundwater levels resulting in longer contact with PFAS impacted soils.

PFAS concentrations in surface water were generally similar to historical results. Increases and new maximum concentrations that were reported remained within an order of magnitude of historical observations for the respective locations.

The CSM was reviewed, and no changes were identified to PFAS source, pathway or receptors at the Site and within the Management Area.

Based on the data, AECOM considers that the conclusions made in the HHERA (EnRisks, 2017) and HHERA Addendum (EnRisks, 2018) still apply and that the CSM and interpretive analysis supports the known risk profile as presented in the PMAP (Defence, 2019).

Additionally, it is noted that the potential PFAS exposure to off-Site land users within the off-Site Management Area has been assessed in the HHERA/HHERA Addendum.

AECOM notes that the data collected during the monitoring period is considered to be representative of conditions at the time of sampling and suitable for meeting the objectives of the OMP.

Ongoing monitoring of groundwater and surface water as part of the OMP will continue, to monitor the nature and extent of PFAS, potential migration and any associated changes to the risk profile. A review of the OMP should be conducted in line with the timelines of the PMAP (Defence, 2019).

12.0 References

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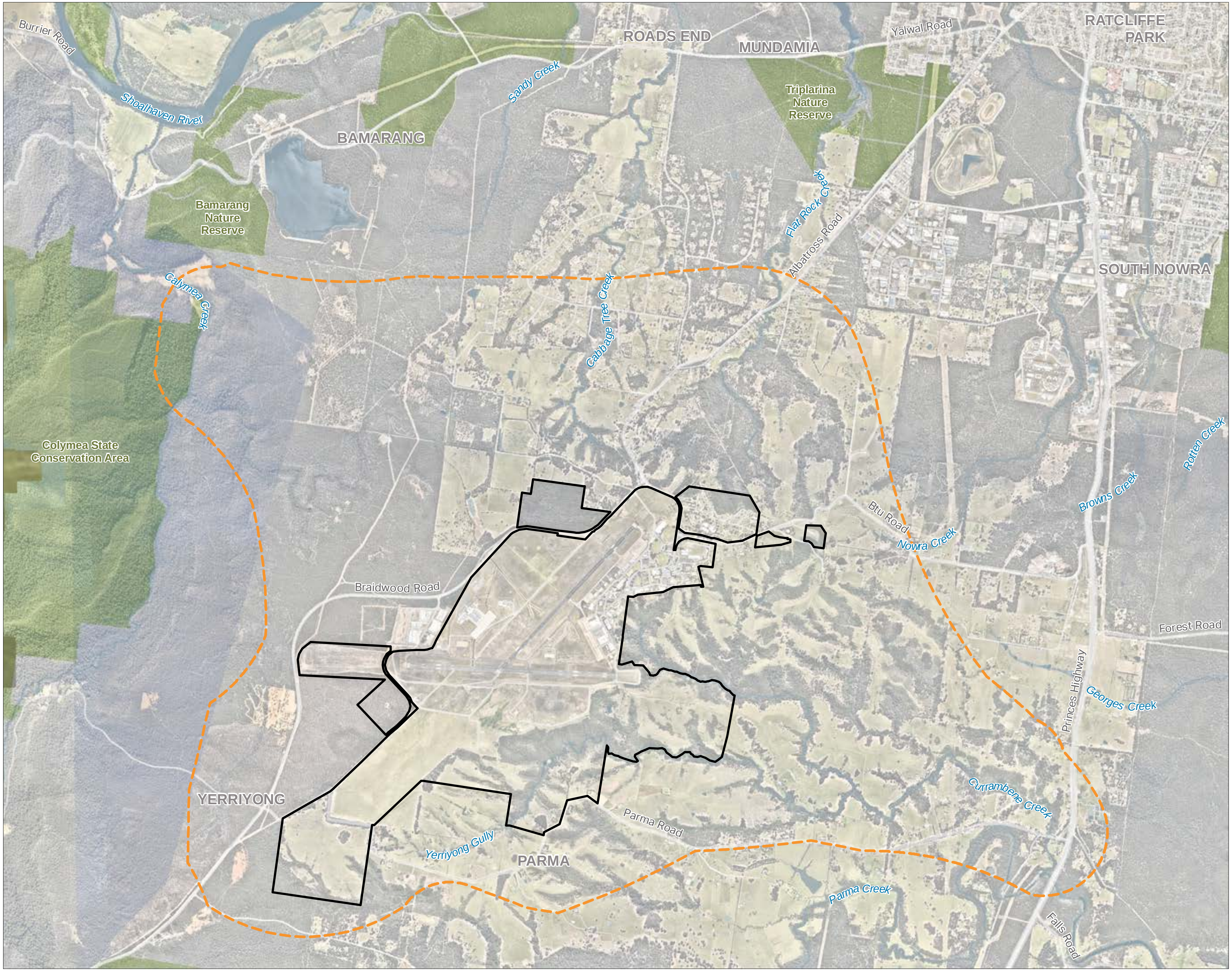
Appendix A

Figures



N

0 500 1,000 m

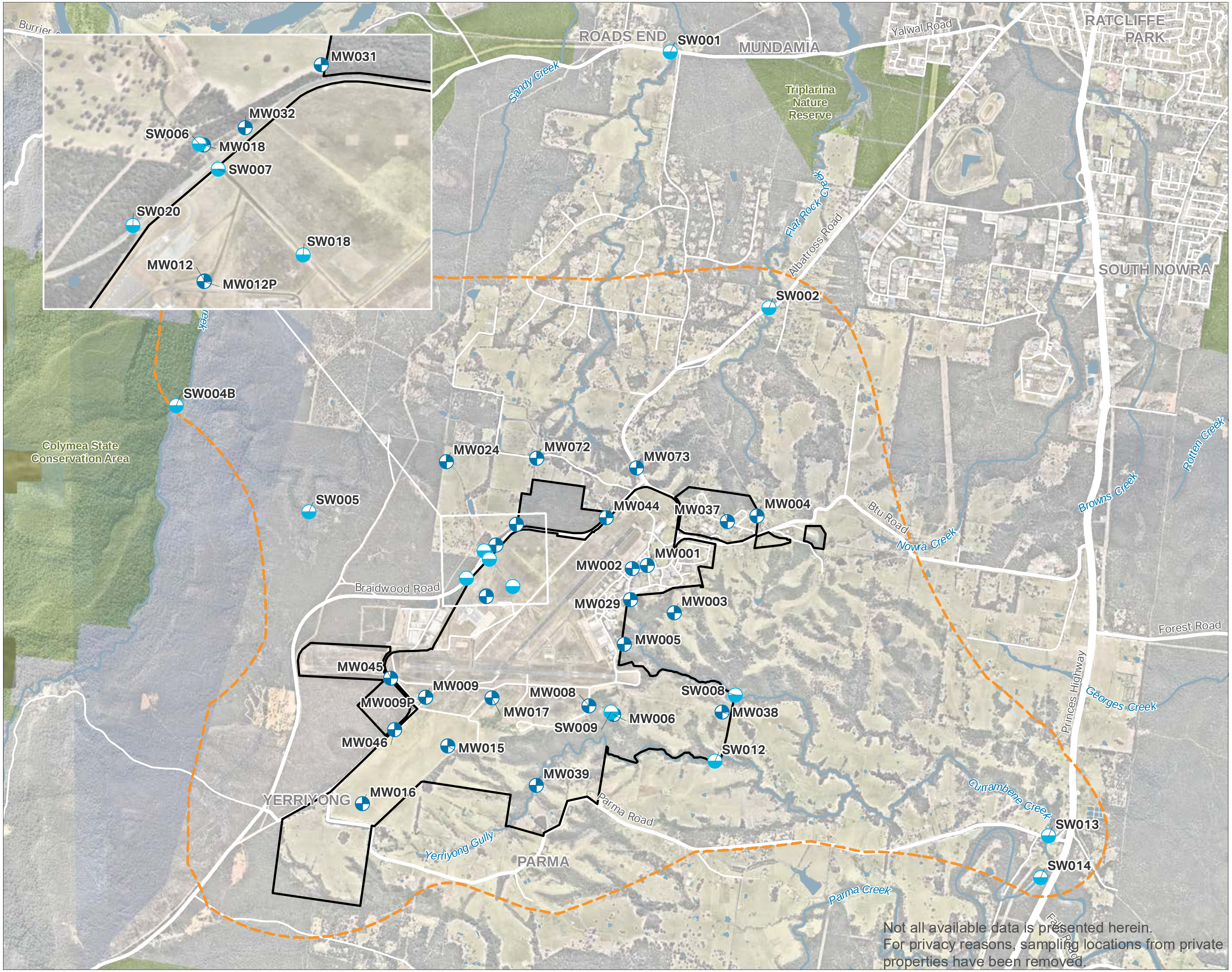
Legend

Site Boundary

Management Area

FIGURE F1:
SITE LAYOUT

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
December 2022 – November 2023
HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562



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AECOM

N

0 0.5 1 km

Legend

Site Boundary

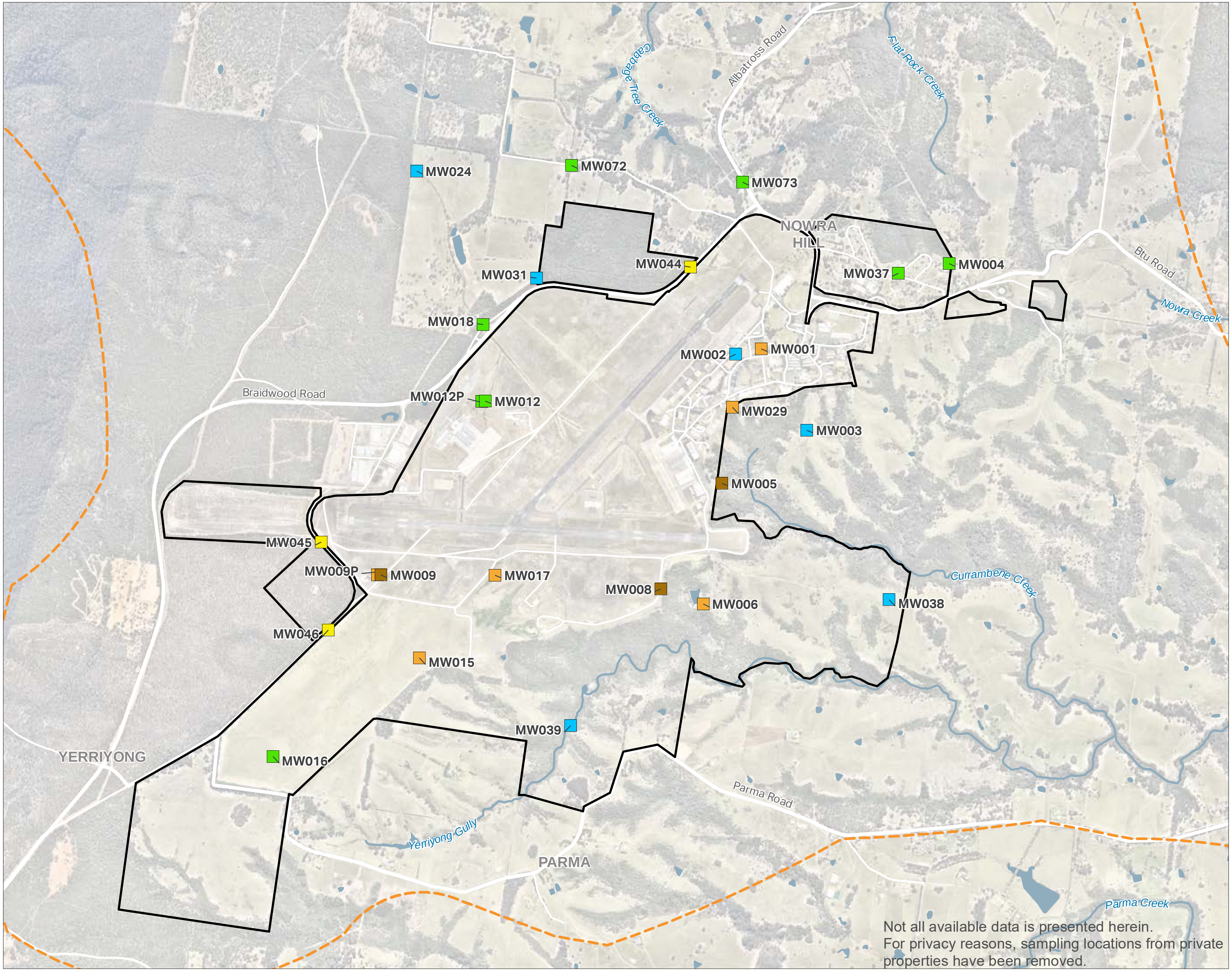
Management Area

Groundwater Sampling Location

Surface Water Sampling Location

FIGURE F2:
SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
December 2022 – November 2023
HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562



AECOM

N

m
0 250 500

Legend

Site Boundary

Management Area

Groundwater - PFOA (µg/L)

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

FIGURE F3:
GROUNDWATER RESULTS - PFOA (FEBRUARY 2023)

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report December 2022 – November 2023 HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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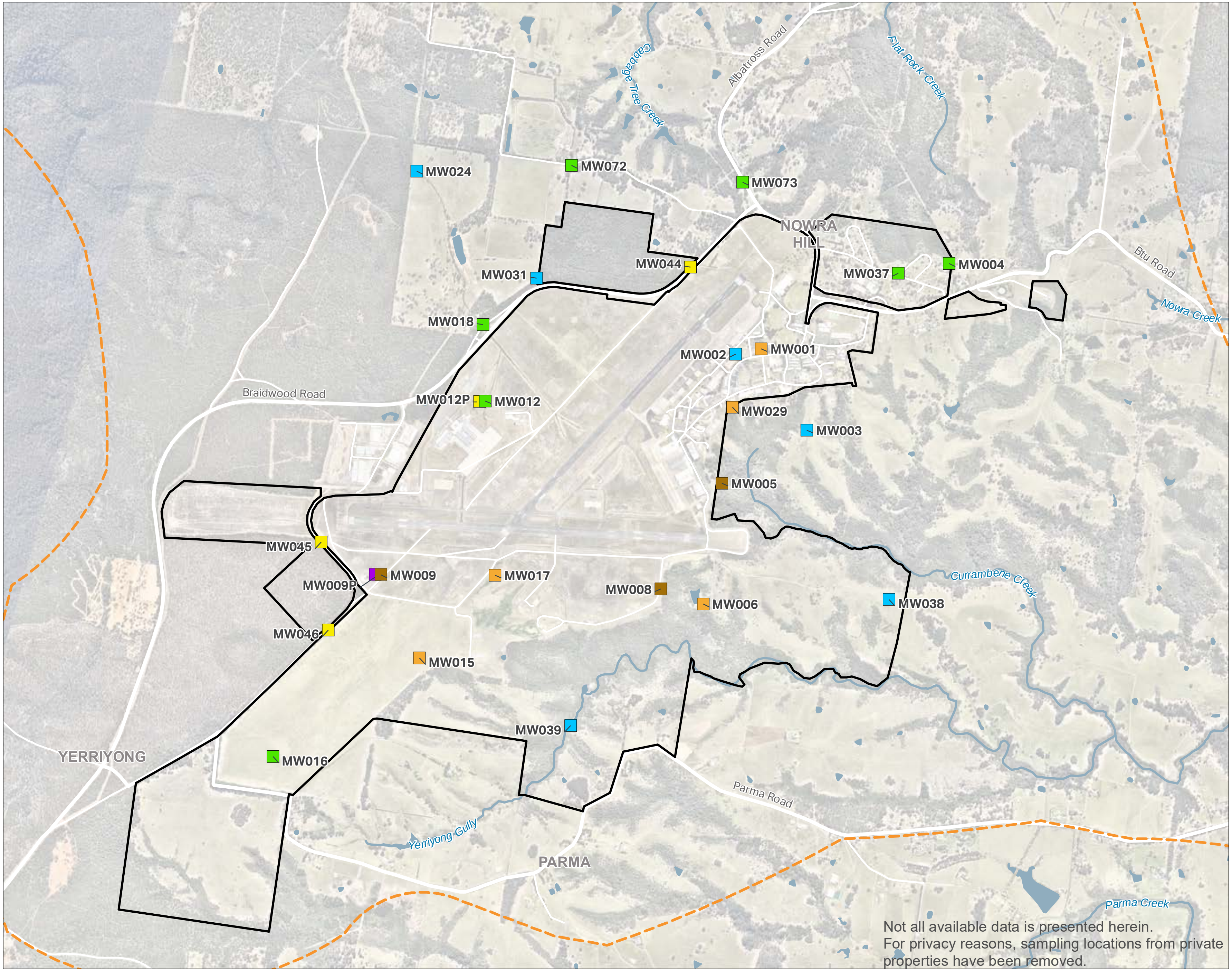

AECOM

N

0 250 500 m

Legend

Site Boundary

Management Area

Groundwater - PFOS + PFHxS (µg/L)

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

FIGURE F4:
GROUNDWATER RESULTS - PFOS +PFHxS (FEBRUARY 2023)

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
December 2022 – November 2023
HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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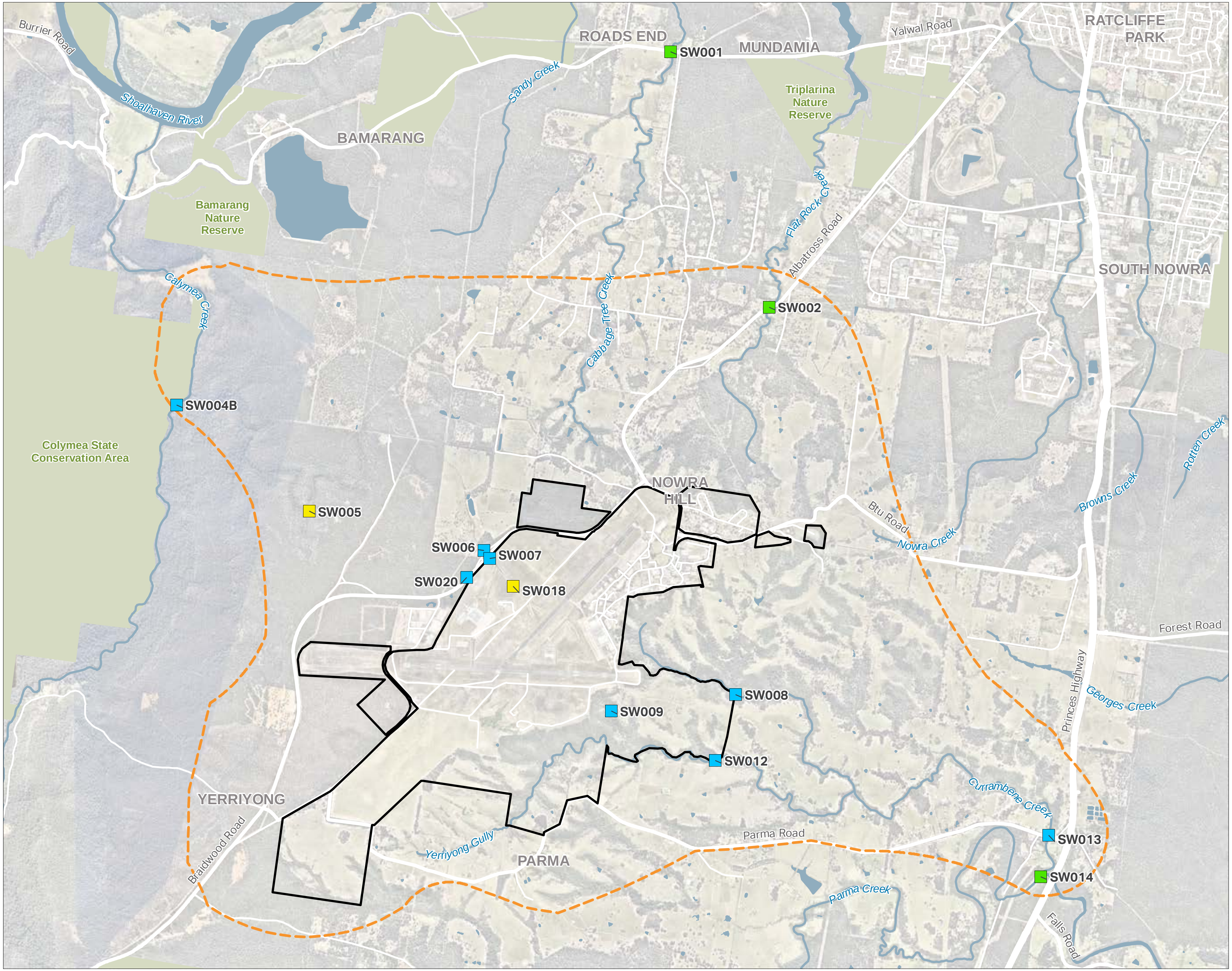


AECOM

0 500 1,000 m

Legend

Site Boundary

Management Area

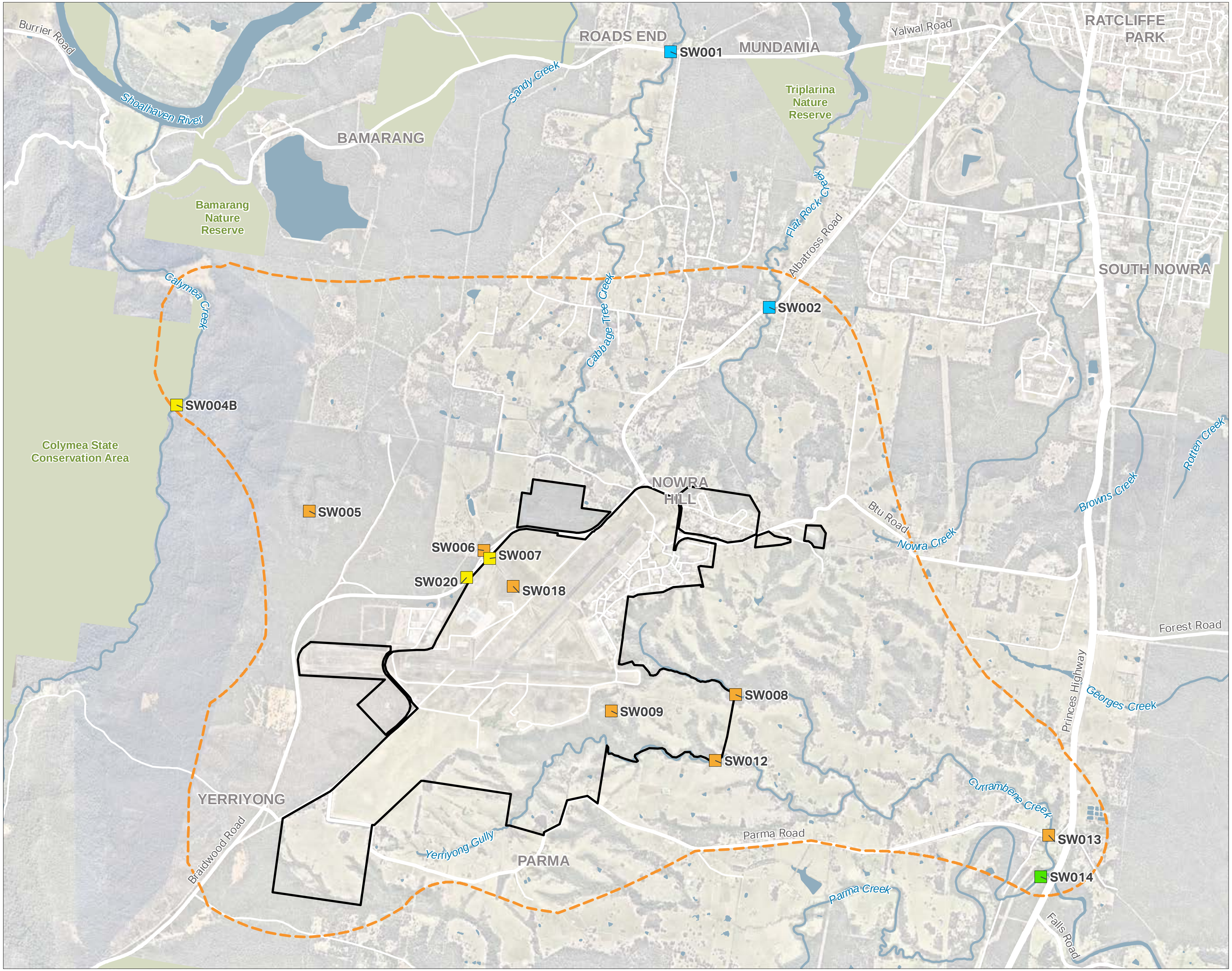
Surface Water - PFOA (µg/L)

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

FIGURE F5: SURFACE WATER RESULTS - PFOA (FEBRUARY 2023)

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report December 2022 – November 2023 HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019



AECOM

N

m
0 500 1,000

Legend

Site Boundary

Management Area

Surface Water - PFOS + PFHxS (µg/L)

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

FIGURE F6:
SURFACE WATER RESULTS - PFOS + PFHxS (FEBRUARY 2023)

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
December 2022 – November 2023
HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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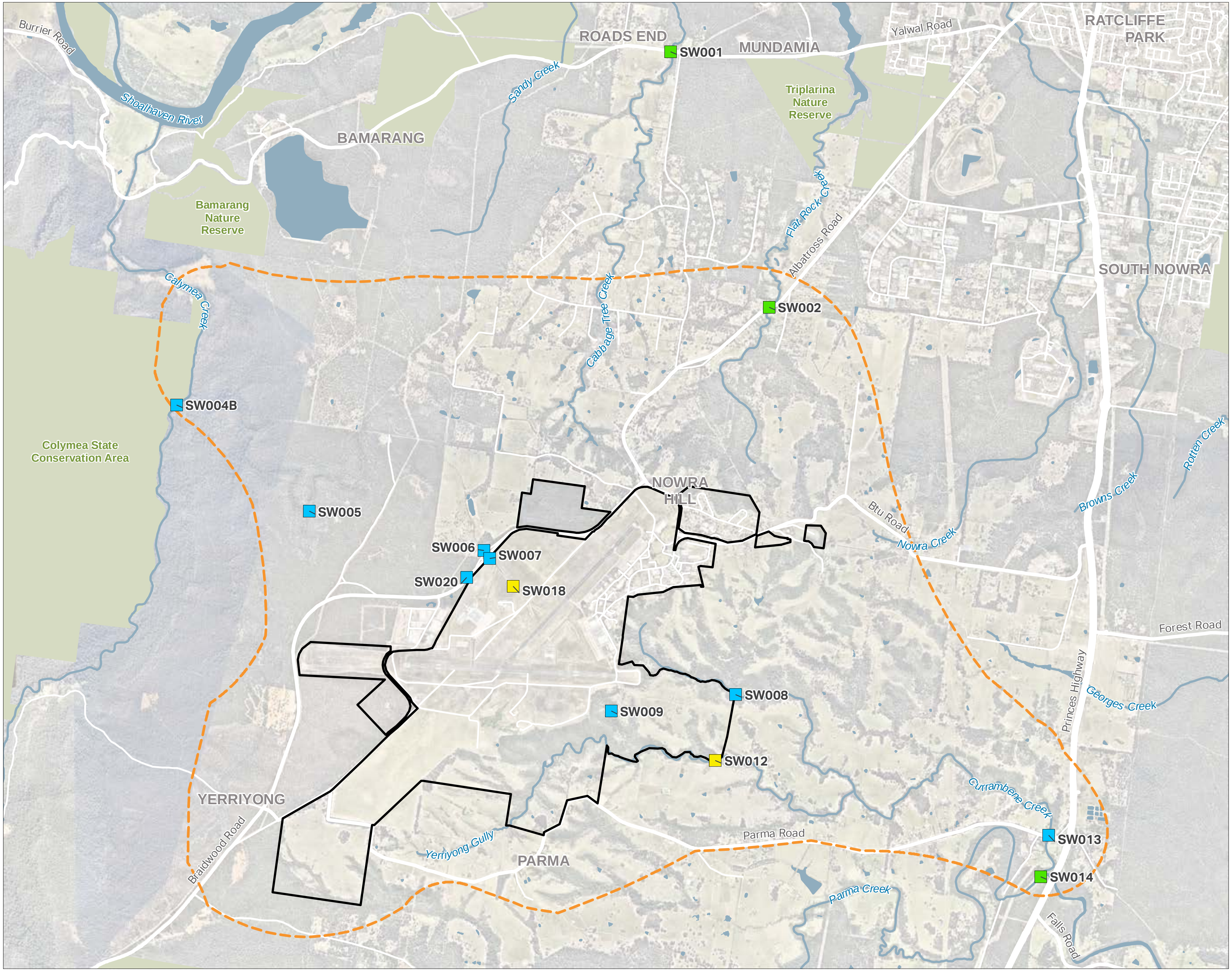


AECOM

m
0 500 1,000

Legend

Site Boundary

Management Area

Surface Water - PFOA (µg/L)

> 50

> 10 - 50

> 0.56 - 10

> 0.1 - 0.56

Limit of Reporting - 0.1

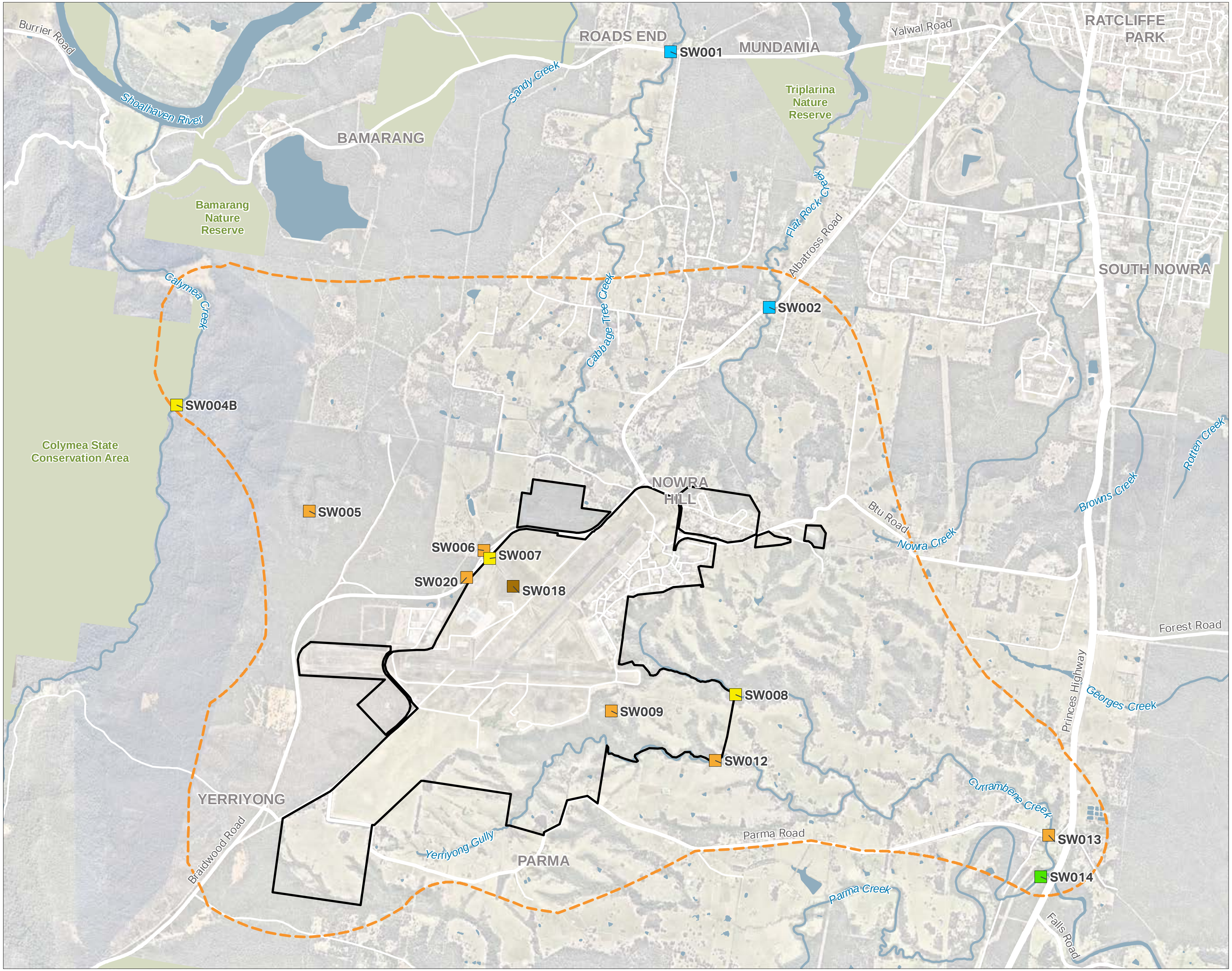
< Limit of Reporting

Not Sampled/Accessed or in Scope

FIGURE F7:
SURFACE WATER RESULTS - PFOA (AUGUST 2023)

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
December 2022 – November 2023
HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019



m
0 500 1,000

Legend

Site Boundary

Management Area

Surface Water - PFOS + PFHxS (µg/L)

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

FIGURE F8:
SURFACE WATER RESULTS - PFOS + PFHxS (AUGUST 2023)

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
December 2022 – November 2023
HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
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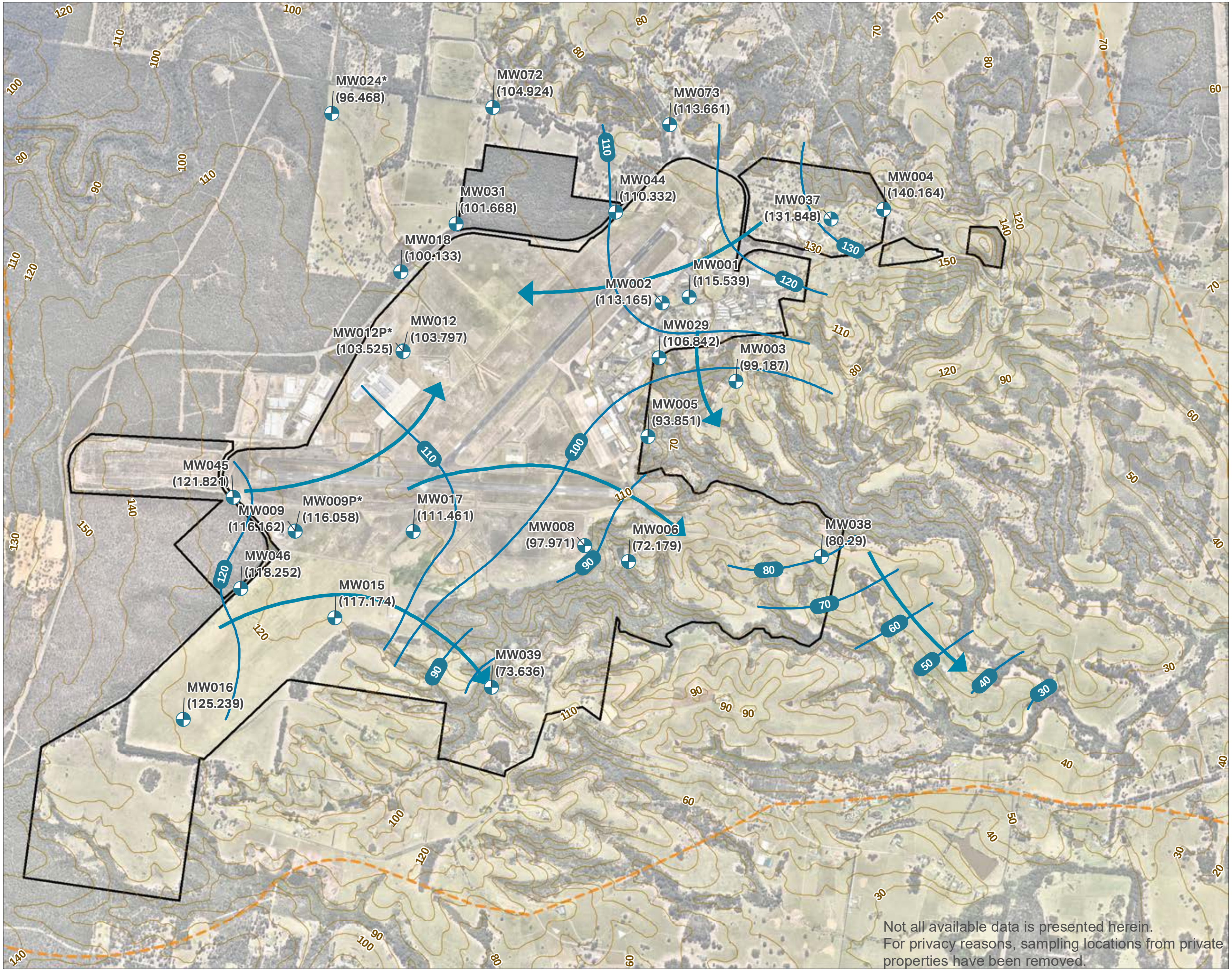

AECOM

0 300 600 m

Legend

Property Boundary

Management Area

Groundwater Contour (mAHD)

Inferred Groundwater Flow Direction

10 mAHD Topographical Contour

Groundwater Sampling Location

1.11 Groundwater Elevation (mAHD, February 2023)

(*) Groundwater elevation data excluded from contouring

FIGURE F9:
GROUNDWATER ELEVATION PLAN FEBRUARY 2023

PROJECT NAME:
PFAS OMP
REPORT NAME:
Ongoing Monitoring Report
December 2022 – Novemeber 2023
HMAS Albatross (0026)
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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Appendix B

Tables

Table T1 - Groundwater Gauging and Observations

Location Code	Alternative Name	Sub-Catchment	Top of Casing (mAHD)	Top Screen (mbgl)	Bottom Screen (mbgl)	HydraSleeve Collar Depth (mbTOC)	Visit / Gauging Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW001	BH01	Braidwood Road drain	116.62	6	9	8	13/02/2023 15:05	1.083	115.539	9.98	Good condition.
MW002	BH02	Braidwood Road drain	114.33	6	9	8.5	13/02/2023 15:17	1.170	113.165	9.63	Good condition.
MW003	BH03	Upper Currambene Creek	112.34	15	20	19	14/02/2023 9:30	13.150	99.187	22.08	Good condition.
MW004	BH04	Flat Rock Creek	144.14	5.5	8.5	8.25	14/02/2023 14:32	3.971	140.164	9.49	Good condition.
MW005	BH05	Upper Currambene Creek	99.11	5.5	8.5	n/a	14/02/2023 9:57	5.263	93.851	10.50	Poor condition, casing broken at base of monument and can be removed. Monument is unstable. Data logger in well. Hydrasleeve not installed after sampling due to poor well condition.
MW006	BH06	Yerriyong Gully	77.23	4	7	6	13/02/2023 14:06	5.054	72.179	8.16	Good condition.
MW008	BH08	Yerriyong Gully	104.91	6	9	n/a	13/02/2023 13:46	6.941	97.971	9.50	Good condition. No Hydrasleeve in well. Hydrasleeve installed (at 8.5 mbTOC) after sampling.
MW009	BH09	Yerriyong Gully	116.63	12	15	n/a	13/02/2023 9:54	0.470	116.162	15.01	Good condition. No Hydrasleeve in well. Hydrasleeve installed (at 13 mbTOC) after sampling.
MW009P	BH09s, MW009_P	Yerriyong Gully	116.63	0.5	2.5	1.5	13/02/2023 9:48	0.576	116.058	2.46	Good condition.
MW012	BH12	Braidwood Road drain	104.09	9	12	11	13/02/2023 10:18	0.290	103.797	13.02	Good condition.
MW012P	BH12s, MW012_P	Braidwood Road drain	104.09	1.3	5.3	4.5	13/02/2023 10:25	0.561	103.525	5.29	Good condition.
MW015	BH15	Yerriyong Gully	119.18	8	11	10	13/02/2023 12:42	2.004	117.174	11.32	Good condition. Silt on interface probe.
MW016	BH16	Yerriyong Gully	126.04	6	9	8.5	13/02/2023 13:00	0.801	125.239	9.92	Good condition.
MW017	BH17	Yerriyong Gully	112.48	11	14	13	13/02/2023 9:19	1.015	111.461	15.33	Good condition. Silt on interface probe.
MW018	BH18	Braidwood Road drain	100.78	9.5	12.5	12	14/02/2023 15:26	0.649	100.133	13.82	Good condition.
MW024	BH24	Braidwood Road drain	97.01	6.5	9.5	9	16/02/2023 8:28	0.547	96.468	10.81	Good condition. Water level is above ground level (within monument). Evidence of flooding in area.
MW026	BH26	Upper Currambene Creek	31.69	5.5	7.5	7	16/02/2023 9:20	5.487	26.198	8.51	Good condition.
MW029	BH29	Upper Currambene Creek	110.15	5	7.7	6	14/02/2023 10:14	3.312	106.842	8.90	Good condition.
MW031	BH31	Braidwood Road drain	103.39	3	6	4	16/02/2023 8:14	1.718	101.668	5.85	Good condition.
MW037	BH37	Flat Rock Creek	135.12	3.4	6.4	5	14/02/2023 14:16	3.272	131.848	6.12	Good condition.
MW038	BH38	Upper Currambene Creek	86.38	5	8	6.75	14/02/2023 12:17	6.093	80.290	7.74	Good condition.
MW039	BH39	Yerriyong Gully	74.70	1	4	1.7	14/02/2023 11:20	1.607	73.094	2.40	Good condition. Clay on interface probe. Data logger in well. Hydrasleeve install visit only.
MW039	BH39	Yerriyong Gully	74.70	1	4	1.7	15/02/2023 11:27	1.065	73.636	2.37	Good condition. Data logger in well.
MW044	BH44	Braidwood Road drain	111.92	5	7	5.5	14/02/2023 15:49	1.591	110.332	7.01	Good condition.
MW045	BH45	Yerriyong Gully	124.48	7	10	8	13/02/2023 11:53	2.663	121.821	9.30	Good condition.
MW046	BH46	Yerriyong Gully	122.91	5.5	8.5	7.5	13/02/2023 12:09	4.659	118.252	9.45	Good condition.
MW072	MW72	Cabbage Tree Creek	108.11	4.85	7.85	6	15/02/2023 8:03	3.182	104.924	7.63	Good condition.
MW073	MW73	Cabbage Tree Creek	120.92	6	11.5	10	15/02/2023 13:34	7.258	113.661	11.43	Good condition.

Notes

mbgl	metres below ground level
mAHD	metres Australian Height Datum
mbTOC	metres below toc of casing
n/a	Not applicable

Table T2 - Groundwater Quality Parameters and Observations

Location Code	Date	Sub-Catchment	Monitoring Round	Sample Comments	Water Quality Parameters: Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
					mg/L	°C	uS/cm	pH Units	mV	mV
MW001	13 Feb 2023	Braidwood Road Drain	202302_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	1.30	20.7	3,745.0	7.02	-9.8	196.0
MW002	13 Feb 2023	Braidwood Road Drain	202302_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.60	21.0	1,381.0	6.71	85.0	290.8
MW003	14 Feb 2023	Upper-Currambene Creek	202302_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.70	17.3	4,712.0	4.87	6.7	212.5
MW004	14 Feb 2023	Flat Rock Creek	202302_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.43	18.5	2,122.0	6.92	71.0	276.8
MW005	14 Feb 2023	Upper-Currambene Creek	202302_AECOM_OMP	Clear, low turbidity, organic odour, no sheen. Suspended organics.	1.45	17.3	6.4	6.23	21.5	227.3
MW006	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Black, high turbidity, septic odour, no sheen.	1.17	22.3	781.0	6.41	-104.0	101.8
MW008	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen.	3.90	20.2	510.0	6.01	100.1	305.9
MW009	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.06	18.6	439.5	6.56	-80.7	125.1
MW009P	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Light brown, medium turbidity, no odour, no sheen.	0.73	20.7	229.2	5.79	68.8	274.6
MW012	13 Feb 2023	Braidwood Road Drain	202302_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.58	18.5	1,485.0	6.96	23.9	229.7
MW012P	13 Feb 2023	Braidwood Road Drain	202302_AECOM_OMP	Brown/orange, medium turbidity, no odour, no sheen.	1.26	20.9	583.0	5.99	12.4	218.2
MW015	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Clear, no turbidity, sulfurous odour, no sheen.	1.50	18.6	5,282.0	5.23	208.8	414.6
MW016	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Grey, low turbidity, no odour, no sheen.	1.87	18.2	5.6	5.59	80.5	286.3
MW017	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Grey, low turbidity, no odour, no sheen.	0.09	19.0	1,776.0	6.76	221.2	427.0
MW018	14 Feb 2023	Braidwood Road Drain	202302_AECOM_OMP	Grey, low turbidity, organic odour, no sheen. Black suspended sediment.	1.08	17.9	4,366.0	3.80	6.7	212.5
MW024	16 Feb 2023	Braidwood Road Drain	202302_AECOM_OMP	Light yellow, low turbidity, no odour, no sheen.	1.91	18.5	698.0	6.92	5.6	211.4
MW026	16 Feb 2023	Upper-Currambene Creek	202302_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	6.15	19.5	74.7	6.94	102.1	307.9
MW029	14 Feb 2023	Upper-Currambene Creek	202302_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.22	17.7	7,653.0	6.63	-6.0	199.8
MW031	16 Feb 2023	Braidwood Road Drain	202302_AECOM_OMP	Orange, medium turbidity, no odour, no sheen.	2.22	18.8	11,022.0	5.30	115.0	320.8
MW037	14 Feb 2023	Flat Rock Creek	202302_AECOM_OMP	Light grey, low turbidity, no odour, no sheen.	3.50	19.4	1,717.0	4.93	177.3	383.1
MW038	14 Feb 2023	Upper-Currambene Creek	202302_AECOM_OMP	Light brown, low turbidity, no odour, no sheen.	2.59	17.6	949.0	7.13	61.4	267.2
MW039	15 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Light brown, medium turbidity, organic odour, no sheen. Silt on base of Hydrasleeve.	3.03	22.9	1,887.0	6.00	104.5	310.3
MW044	14 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Light yellow, no turbidity, no odour, no sheen.	1.54	18.8	152.7	6.73	-48.8	157.0
MW045	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Orange, low turbidity, no odour, no sheen.	1.49	18.9	129.5	4.47	230.6	436.4
MW046	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Clear, no turbidity, no odour, no sheen.	1.57	17.6	2,032.0	3.56	315.3	521.1
MW072	15 Feb 2023	Cabbage Tree Creek	202302_AECOM_OMP	Light grey, medium turbidity, no odour, no sheen.	1.36	18.6	6,717.0	6.56	83.2	289.0
MW073	15 Feb 2023	Cabbage Tree Creek	202302_AECOM_OMP	Clear, low turbidity, no odour, no sheen.	1.56	21.0	1,725.0	6.66	33.7	239.5

Notes

mg/L milligrams per Litre
°C degrees Celsius
µS/cm microSiemens per centimetre
mV milliVolts
Corrected field Redox measurement Eh = Er + 205.8

Table T3 - Surface Water Quality Parameters and Observations

						Water Quality Parameters					
						Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	Date	Sub-Catchment	Monitoring Round	Location Comments	Sample Comments	mg/L	°C	uS/cm	pH Units	mV	mV
SW001	15 Feb 2023	Cabbage Tree Creek	202302_AECOM_OMP	Creek. 4 m wide, 1 m deep. Water flow observed.	Light yellow, low turbidity, no odour, no sheen.	1.80	19.1	260.7	6.34	118.9	324.7
SW001	16 Aug 2023	Cabbage Tree Creek	202308_AECOM_OMP	Creek, 7 m wide, 1 m deep. Water flow not observed.	Brown, medium turbidity, no odour, biosheen	0.57	12.0	298.3	6.81	-34.4	171.4
SW002	15 Feb 2023	Flat Rock Creek	202302_AECOM_OMP	Drainage channel under bridge. 0.2 m wide, 0.1 m deep. Water flow not observed.	Light yellow, no turbidity, no odour, no sheen.	4.03	20.4	383.9	5.99	42.9	248.7
SW002	16 Aug 2023	Flat Rock Creek	202308_AECOM_OMP	Stagnant puddle under bridge, 1.5 m wide, 0.3 m deep. Water flow not observed.	Ligh yellow, medium turbidity, no odour, biosheen	0.23	12.9	407.4	6.42	-25.4	180.4
SW004B	15 Feb 2023	Calymea Creek	202302_AECOM_OMP	Creek. 5 m wide, 0.5 m deep. Biofilm on surface. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	7.35	19.1	333.1	7.07	35.1	240.9
SW004B	16 Aug 2023	Calymea Creek	202308_AECOM_OMP	Creek, 5 m wide, 0.2 m deep. Water flow observed.	Light brown, low turbidity, no odour, no sheen	8.22	12.6	288.7	6.75	37.5	243.3
SW005	15 Feb 2023	Braidwood Road drain	202302_AECOM_OMP	Stream flowing into lagoon. 10 m wide, > 1 m deep. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	5.89	20.6	199.8	6.75	128.7	334.5
SW005	16 Aug 2023	Braidwood Road drain	202308_AECOM_OMP	Pond, 15 m wide, unknown depth. Water flow observed.	Clear, no turbidity, no odour, no sheen	9.44	9.1	355.4	7.60	53.1	258.9
SW006	14 Feb 2023	Braidwood Road drain	202302_AECOM_OMP	Culvert. 0.5 m wide. 0.2 m deep. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	6.40	20.7	308.2	7.14	89.4	295.2
SW006	16 Aug 2023	Braidwood Road drain	202308_AECOM_OMP	Culvert, 1 m wide, 0.2 m deep. Water flow observed.	Clear, no turbidity, no odour, no sheen	12.59	12.5	383.5	7.13	97.0	302.8
SW007	13 Feb 2023	Braidwood Road drain	202302_AECOM_OMP	Culvert on drainage line. 1.5 m wide, 0.5 m deep. Fish observed near sample location. Reeds present. Water flow not observed.	Light brown, low turbidity, no odour, biosheen.	6.32	20.9	234.4	6.62	131.2	337.0
SW007	16 Aug 2023	Braidwood Road drain	202308_AECOM_OMP	Drainage swale, 4 m wide, 0.2 m deep. Water flow not observed.	Orange, low turbidity, no odour, no sheen. Suspended organic black solids	9.78	11.4	426.4	6.47	115.1	320.9
SW008	14 Feb 2023	Currambene Creek	202302_AECOM_OMP	Creek. 2 m wide, 0.15 m deep. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	1.19	18.8	397.7	7.40	113.4	319.2
SW008	16 Aug 2023	Currambene Creek	202308_AECOM_OMP	Bedrock creek, 2 m wide, 0.2 m deep. Water flow observed.	Light brown, low turbidity, no odour, no sheen	9.44	9.1	335.4	7.60	53.1	258.9
SW009	13 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Sewage treatment plant pond. 25 m wide, >5m deep. Water flow not observed.	Clear, no turbidity, organic odour, no sheen.	4.76	26.8	532.0	9.50	-37.5	168.3
SW009	16 Aug 2023	Yerriyong Gully	202308_AECOM_OMP	Sewage treatment pond, 20 m wide, approx 1 m deep. Water flow not observed.	Ligh green, low turbidity, no odour, no sheen	18.44	11.9	1,590.0	8.27	43.4	249.2
SW012	14 Feb 2023	Yerriyong Gully	202302_AECOM_OMP	Creek. 1.5 m wide, 0.15 m deep. No vegetation. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	7.79	19.5	353.2	7.61	116.8	322.6
SW012	16 Aug 2023	Yerriyong Gully	202308_AECOM_OMP	Bedrock creek, 2 m wide, 0.2 m deep. Water flow observed.	Light brown, no turbidity, no odour, no sheen	9.67	10.7	577.0	7.95	72.1	277.9
SW013	15 Feb 2023	Parma Creek	202302_AECOM_OMP	Creek. 4 m wide, >1 m deep. Water flow observed.	Light yellow, low turbidity, no odour, no sheen.	4.58	20.7	479.7	7.18	89.9	295.7
SW013	16 Aug 2023	Parma Creek	202308_AECOM_OMP	Creek, 4 m wide, unknown depth. Water flow observed.	Clear, no turbidity, no odour, biosheen	5.28	11.6	1,342.0	7.10	51.9	257.7
SW014	15 Feb 2023	Parma Creek	202302_AECOM_OMP	Creek flowing into lagoon. 3 m wide, 0.2 m deep Water flow observed.	Light yellow, no turbidity, organic odour, no sheen.	8.30	23.5	232.2	6.41	122.7	328.5
SW014	16 Aug 2023	Parma Creek	202308_AECOM_OMP	Creek, 1 m wide flowing into waterbody, 0.2 m deep. Water flow observed.	Light brown, low turbidity, no odour, no sheen	6.43	14.8	246.2	6.93	69.9	275.7
SW018	13 Feb 2023	Braidwood Road drain	202302_AECOM_OMP	Drainage line. 1 m wide, 0.5 m deep. Water flow not observed.	Light brown, low turbidity, no odour, no sheen.	9.50	21.3	337.3	6.42	112.7	318.5
SW018	16 Aug 2023	Braidwood Road drain	202308_AECOM_OMP	Drainage swale, 2 m wide, 0.1 m deep. Water flow not observed.	Orange, low turbidity, no odour, no sheen	11.30	16.4	702.0	6.61	84.0	289.8
SW020	14 Feb 2023	Braidwood Road drain	202302_AECOM_OMP	Creek. 1.0 m wide, 0.4 m deep. Water flow observed.	Light yellow, low turbidity, no odour, no sheen.	7.52	19.6	167.2	7.71	48.5	254.3
SW020	16 Aug 2023	Braidwood Road drain	202308_AECOM_OMP	Drainage channel, 1.5 m wide, 0.5 m deep. Water flow observed.	Clear, low turbidity, no odour, no sheen	7.78	12.2	139.2	7.16	83.6	289.4

Notes

mg/L milligrams per Litre
°C degrees Celsius
µS/cm microSiemens per centimetre
mV milliVolts
Corrected field Redox measurement Eh = Er + 205.8

Location Code	Date	Sub-Catchment	Field ID	Sample Type	Project ID	PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
MW001	14 Oct 2016	Braidwood Road Drain	0026_MW01_161014	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW001	15 Nov 2016	Braidwood Road Drain	0026_MW01_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW001	24 May 2017	Braidwood Road Drain	0026_MW01_170524	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW001	20 Jun 2017	Braidwood Road Drain	0026_MW01_170620	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW001	28 Feb 2020	Braidwood Road Drain	0026_MW01_200228	Normal	NSW_0026_PFASOMP	<0.01	*0.06*	0.02	**0.08**	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	28 Feb 2020	Braidwood Road Drain	0026_QC103_200228	Field_D	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	24 Aug 2020	Braidwood Road Drain	0026_MW001_200824	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	0.03	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	08 Feb 2021	Braidwood Road Drain	0026_MW001_210208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	09 Feb 2022	Braidwood Road Drain	0026_MW001_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	13 Feb 2023	Braidwood Road Drain	0026_MW001_230213	Normal	NSW_0026_PFASOMP_23	<0.01	*0.76*	0.25	**1.01**	1.05	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	14 Oct 2016	Braidwood Road Drain	0026_MW02_161014	Normal	NSW_0026_PFAS	<0.01	*0.12*	<0.01	**0.12**	0.12	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW002	14 Oct 2016	Braidwood Road Drain	0026_QC232_161014	Interlab_D	NSW_0026_PFAS	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW002	15 Nov 2016	Braidwood Road Drain	0026_MW02_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW002	24 May 2017	Braidwood Road Drain	0026_MW02_170524	Normal	NSW_0026_PFAS	<0.01	*0.04*	<0.01	0.04	0.04	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW002	19 Jun 2017	Braidwood Road Drain	0026_QC237_170619	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	20 Jun 2017	Braidwood Road Drain	0026_MW02_170620	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW002	20 Jun 2017	Braidwood Road Drain	0026_QC158_170620	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW002	28 Feb 2020	Braidwood Road Drain	0026_MW02_200228	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	28 Feb 2020	Braidwood Road Drain	0026_QC203_200228	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW002	24 Aug 2020	Braidwood Road Drain	0026_MW002_200824	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.02	0.01	1.12	1.04	0.03	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	24 Aug 2020	Braidwood Road Drain	0026_QC200_200824	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	0.01	0.01	0.15	0.1	0.02	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW002	08 Feb 2021	Braidwood Road Drain	0026_MW002_210208	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.02	0.01	0.35	0.32	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	08 Feb 2022	Braidwood Road Drain	0026_MW002_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.01	0.01	0.09	0.08	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	08 Feb 2022	Braidwood Road Drain	0026_QC101_220208	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	0.01	0.01	0.1	0.07	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	13 Feb 2023	Braidwood Road Drain	0026_MW002_230213	Normal	NSW_0026_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	14 Oct 2016	Upper-Currambene Creek	0026_MW03_161014	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW003	15 Nov 2016	Upper-Currambene Creek	0026_MW03_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW003	23 May 2017	Upper-Currambene Creek	0026_MW03_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW003	27 Feb 2020	Upper-Currambene Creek	0026_MW03_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	25 Aug 2020	Upper-Currambene Creek	0026_MW003_200825	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	25 Aug 2020	Upper-Currambene Creek	0026_QC101_200825	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	08 Feb 2021	Upper-Currambene Creek	0026_MW003_210208	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	08 Feb 2022	Upper-Currambene Creek	0026_MW003_220208	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	0.01	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	14 Feb 2023	Upper-Currambene Creek	0026_MW003_230214	Normal	NSW_0026_PFASOMP_23	<0.01	*0.01*	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	14 Feb 2023	Upper-Currambene Creek	0026_QC201_230214	Interlab_D	NSW_0026_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.07	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.04	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW004	14 Oct 2016	Flat Rock Creek	0026_MW04_161014	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW004	15 Nov 2016	Flat Rock Creek	0026_MW04_161114	Normal	NSW_0026_PFAS	<0.01	*0.02*	<0.01	0.02	0.02	<0.01	-	-	<0.01	<0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW004	22 May 2017	Flat Rock Creek	0026_MW04_170522	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW004	19 Jun 2017	Flat Rock Creek	0026_MW04_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW004	27 Aug 2020	Flat Rock Creek	0026_MW004_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW004	27 Aug 2020	Flat Rock Creek	0026_QC202_200827	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW004	10 Feb 2021	Flat Rock Creek	0026_MW004_210210	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW004	10 Feb 2021	Flat Rock Creek	0026_QC200_210210	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW004	14 Feb 2023	Flat Rock Creek	0026_MW004_230214	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	14 Oct 2016	Upper-Currambene Creek	0026_MW05_161014	Normal	NSW_0026_PFAS	0.3	*2*	5.1	**7.1**	7.4	1.5	-	-	<0.01	0.23	0.43	2	0.32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
MW005	15 Nov 2016	Upper-Currambene Creek	0026_MW05_161116	Normal	NSW_0026_PFAS	0.28	*2.4*	2.4	**4.8**	5.08	0.89	-	-	<0.01	0.24	0.32	2	0.18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW005	23 May 2017	Upper-Currambene Creek	0026_MW05_170523	Normal	NSW_0026_PFAS	0.43	*5.4*	6	**11.4**	11.83	0.96	0.63	0.17	<0.01	0.21	0.4	1.8	0.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW005	20 Jun 2017	Upper-Currambene Creek	0026_MW05_170620	Normal	NSW_0026_PFAS	0.31	*3.9*	3.7	**7.6**	7.91	1	0.72	0.11	<0.01	0.21	0.39	1.9	0.23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW005	27 Feb 2020	Upper-Currambene Creek	0026_MW05_200227	Normal	NSW_0026_PFASOMP	0.31	*7.88*	5.9	**13.8**	17.6	0.72	0.78	0.24	<0.02	0.2	0.25	1.13	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	25 Aug 2020	Upper-Currambene Creek	0026_MW005_200825	Normal	NSW_0026_PFASOMP	**0.68**	*19.9*	12.9	**32.8**	40.5	1.29	1.74	0.7	<0.02	0.2	0.45	2.32	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	10 Feb 2021	Upper-Currambene Creek	0026_MW005_210210	Normal	NSW_0026_PFASOMP	0.55	*15.3*	10.2	**25.5**	32.7	1.54	1.71	0.56	<0.02	0.2	0.39	1.94	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	10 Feb 2022	Upper-Currambene Creek	0026_MW005_220210	Normal	NSW_0026_PFASOMP	**0.6**	*20*	11.7	**31.7**	39	1.35	1.4	0.54	<0.02	0.2	0.41	2.54	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	14 Feb 2023	Upper-Currambene Creek	0026_MW005_230214	Normal	NSW_0026_PFASOMP_23	**0.68**	*22.9*	12.4	**35.3**	41.9	1.19	1.44	0.61	<0.02	0.2	0.38	1.82	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	15 Nov 2016	Yerriyong Gully	0026_MW06_161115	Normal	NSW_0026_PFAS	0.33	*15*	7.6	**22.6**	22.93	1.1	-	-	<0.01	0.18	0.3	1.7	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW006	23 May 2017	Yerriyong Gully	0026_MW06_170523	Normal	NSW_0026_PFAS	0.36	*15*	7.4	**22.4**	22.76	0.52	0.53	0.3	0.02	0.16	0.32	1.2	0.15	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW006	20 Jun 2017	Yerriyong Gully	0026_MW06_170620	Normal	NSW_0026_PFAS	<0.2	*6.8*	6.4	**13.2**	13.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW006	27 Feb 2020	Yerriyong Gully	0026_MW06_200227	Normal	NSW_0026_PFASOMP	0.21	*8.11*	5.1	**13.2**	15.7	0.38	0.46	0.18	<0.02	0.1	0.23	0.83	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	26 Aug 2020	Yerriyong Gully	0026_MW006_200826	Normal	NSW_0026_PFASOMP	0.2	*8.46*	4.83	**13.3**	15.9	0.32	0.5	0.22	0.03	0.1	0.2	0.94	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	08 Feb 2021	Yerriyong Gully	0026_MW006_210208	Normal	NSW_0026_PFASOMP	0.23	*8.54*	4.54	**13.1**	15.5	0.34	0.5	0.18	<0.02	<0.1	0.2	0.87	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	09 Feb 2022	Yerriyong Gully	0026_MW006_220209	Normal	NSW_0026_PFASOMP	0.12	*4.45*	2.96	**7.41**	8.94	0.23	0.27	0.15	<0.02	<0.1	0.12	0.59	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	13 Feb 2023	Yerriyong Gully	0026_MW006_230213	Normal	NSW_0026_PFASOMP_23	0.16	*4.47*	3.53	**8**	9.94	0.36	0.4	0.14	<0.02	<0.1	0.18	0.63	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	13 Oct 2016	Yerriyong Gully	0026_MW08_161013	Normal	NSW_0026_PFAS	0.36	*4*	12	**16**	16.36	2	-	-	<0.01	0.22	0.55	3.1	0.34	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW008	15 Nov 2016	Yerriyong Gully	0026_MW08_161115	Normal	NSW_0026_PFAS	0.24	*3.4*	3.6	**7**	7.24	0.93	-	-	<0.01	0.16	0.27	2.2	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW008	23 May 2017	Yerriyong Gully	0026_MW08_170523	Normal	NSW_0026_PFAS	0.2	*3.1*	7.1	**10.2**	10.4	1	0.68	0.32	<0.01	0.14	0.4	2.2	0.23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW008	20 Jun 2017	Yerriyong Gully	0026_MW08_170620	Normal	NSW_0026_PFAS	0.2	*3.1*	5	**8.1**	8.3	1.1	0.92	0.3	<0.01	0.13	0.36	2.3	0.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW008	27 Feb 2020	Yerriyong Gully	0026_MW08_200227	Normal	NSW_0026_PFASOMP	0.27	*3.07*	9.88	**13**	20.2	1.48	1.46	0.37	<0.02	0.1	0.44	2.85	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	25 Aug 2020	Yerriyong Gully	0026_MW008_200825	Normal	NSW_0026_PFASOMP	0.52	*4.64*	19.9	**24.5**	38.4	2.46	3.07	0.96	<0.02	0.2	0.77	5.34	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	11 Feb 2021	Yerriyong Gully	0026_MW008_210211	Normal	NSW_0026_PFASOMP	0.28	*1.77*	13.9	**15.7**	24.3	1.73	2.33	0.54	<0.02	<0.1	0.42	3.02	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	10 Feb 2022	Yerriyong Gully	0026_MW008_220210	Normal	NSW_0026_PFASOMP	**0.83**	*12.7*	24.3	**37**	54.2	3.58	3.13	1.47	<0.02	0.2	0.74	6.64	0.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	13 Feb 2023	Yerriyong Gully	0026_MW008_230213	Normal	NSW_0026_PFASOMP_23	0.34	*2.36*	15.7	**18.1**	25.4	1.26	1.78	0.4	0.03	0.1	0.36	2.74	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	13 Oct 2016	Yerriyong Gully	0026_MW09_161013	Normal	NSW_0026_PFAS	0.05	*1*	0.46	**1.46**	1.51	0.08	-	-	<0.01	<0.05	0.04	0.16	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW009	15 Nov 2016	Yerriyong Gully	0026_MW09_161115	Normal	NSW_0026_PFAS	0.03	*0.66*	0.23	**0.89**	0.92	0.04	-	-	<0.01	<0.05	0.01	0.08	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW009	23 May 2017	Yerriyong Gully	0026_MW09_170523	Normal	NSW_0026_PFAS	0.03	*1.7*	0.31	**2.01**	2.04	0.03	0.03	0.03	<0.01	<0.05	0.01	0.07	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	20 Jun 2017	Yerriyong Gully	0026_MW09_170620	Normal	NSW_0026_PFAS	0.08	*1.8*	0.71	**2.51**	2.59	0.16	0.15	0.05	<0.01	0.06	0.08	0.39	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	27 Feb 2020	Yerriyong Gully	0026_MW09_200227	Normal	NSW_0026_PFASOMP	**1.58**	*18.4*	19.1	**37.5**	74.4	7.04	6.05	1.13	0.02	1.7	2.67	15	1.65	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	26 Aug 2020	Yerriyong Gully	0026_MW009_200826	Normal	NSW_0026_PFASOMP	**2.74**	*10.3*	17.7	**28**	88.9	10.2	6.44	1.11	<0.02	2.9	5.18	29.1	3.09	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	26 Aug 2020	Yerriyong Gully	0026_QC102_200826	Field_D	NSW_0026_PFASOMP	**2.58**	*9.89*	16.3	**26.2**	82.4	9.23	5.91	1.08	<0.02	2.8	4.76	26.6	3.1	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	08 Sep 2020	Yerriyong Gully	0026_FFTA_MW09_080920	Normal	NSW_0026_PFASMGMT	0.42	*2.3*	3.1	**5.4**	13.99	1.1	1	0.1	<0.01	0.58	0.64	3.4	0.41	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.1	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	08 Sep 2020	Yerriyong Gully	0026_QC111_080920	Field_D	NSW_0026_PFASMGMT	0.28	*1.5*	2.3	**3.8**	10.15	0.94	0.76	0.08	<0.01	0.44	0.31	2.6	0.31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	08 Sep 2020	Yerriyong Gully	0026_QC210_080920	Field_D	NSW_0026_PFASMGMT	0.15	*1*	1.4	**2.4**	5.79	0.55	0.42	0.06	<0.01	0.2	0.25	1.4	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	04 Nov 2020	Yerriyong Gully	0026_FFTA_MW09_041120	Normal	NSW_0026_PFASMGMT	0.11	*1.4*	1.1	**2.5**	4.18	0.26	0.28	0.08	<0.01	0.11	0.11	0.53	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	11 Feb 2021	Yerriyong Gully	0026_MW009_210211	Normal	NSW_0026_PFASOMP	**1.94**	*29.9*	28.1	**58**	98.1	6.69	6.58	1.82	0.16	2	3.12	15.4	1.87	0.11	0.05	0.02	<0.02	<0.02	<0.05	<0.05	0.2	0.06	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	10 Feb 2022	Yerriyong Gully	0026_MW009_220210	Normal	NSW_0026_PFASOMP	0.08	*0.94*	1.05	**1.99**	3.78	0.26	0.2	0.04	<0.02	0.2	0.18	0.74	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	13 Feb 2023	Yerriyong Gully	0026_MW009_230213	Normal	NSW_0026_PFASOMP_23	**0.96**	*2.65*	28	**30.6**	56.8	3.53	4.79	0.22	<0.02	1.1	1.78	11.7	2.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	13 Oct 2016	Yerriyong Gully	0026_MW09_P_161013	Normal	NSW_0026_PFAS	**10**	*300*	77	**377**	387	10	-	-	<1.5	<7.5	8.1	31	6	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<7.5	2	-	<7.5	<7.5	-	-	<7.5	-	-
MW009P	15 Nov 2016	Yerriyong Gully	0026_MW09_P_161115	Normal	NSW_0026_PFAS	**13**	*430*	81	**511**	524	11	-	-	<0.01	5.5	8.8	46	6.6	0.91	0.48	0.02	<0.01	0.02	0.03	<0.01	1.1	2	-	<0.05	<0.05	-	-	<0.05	-	-
MW009P	15 Nov 2016	Yerriyong Gully	0026_QC151_161115	Field_D	NSW_0026_PFAS	**13**	*430*	87	**517**	530	11	-	-	<0.3	5.3	8.9	44	6.5	0.93	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<1.5	2	-	<1.5	<1.5	-	-	<1.5	-	-
MW009P	15 Nov 2016	Yerriyong Gully	0026_QC151_161115	Field_D	NSW_0026_PFAS	**13**	*440*	87	**527**	540	12	-	-	<0.3	5.6	9.1	46	6.7	0.98	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<1.5	2.1	-	<1.5	<1.5	-	-	<1.5	-	-
MW009P	23 May 2017	Yerriyong Gully	0026_MW09_P_170523	Normal	NSW_0026_PFAS	**15**	*460*	110	**570**	585	11	10	9.9	<0.01	6.2	12	49	8.4	1.1	0.43	<0.01	<0.01	<0.01	<0.01	<0.01	2.2	2.3	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009P	20 Jun 2017	Yerriyong Gully	0026_MW09_P_170620	Normal	NSW_0026_PFAS	**11**	*350*	70	**420**	431	9	8.2	4.6	<2	4.7	10	40	6.1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
MW009P	27 Feb 2020	Yerriyong Gully	0026_MW09_P_200227	Normal	NSW_0026_PFASOMP	**9.79**	*252*	57.8	**310**	400	7.57	10.9	7.28	0.42	4.2	7.23	34.9	4.78	0.76	0.36	0.03	<0.02	<0.02	<0.05	<0.05	0.87	1.13	<0.05	0.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	26 Aug 2020	Yerriyong Gully	0026_MW009_P_200826	Normal	NSW_0026_PFASOMP	***23.1***	*496*	120	**616**	827	17.5	23.2	14.7	1.31	8.2	18.1	83.8	12.5	2.21	0.74	0.02	<0.02	<0.02	<0.05	<0.05	2.44	2.77	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	08 Sep 2020	Yerriyong Gully	0026_FFTA_MW09S_080920	Normal	NSW_0026_PFASMGMT	**9**	*260*	75	**335**	432.11	9.8	10	6	<0.01	7.6	12	23	9.3	1.6	0.35	<0.01	<0.01	<0.01	<0.01	<0.01	1.3	1.4	<0.01	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009P	04 Nov 2020	Yerriyong Gully	0026_FFTA_MW09s_041120	Normal	NSW_0026_PFASMGMT	**11**	*320*	97	**417**	533.02	10	10	4.5	<0.01	6.4	9.8	45	7.6	1.5	0.58	0.21	0.19	<0.01	0.19	<0.01	1.7	1.7	<0.01	0.08	<0.05	0.29	<0.05	0.11	<0.05	<0.05
MW009P	11 Feb 2021	Yerriyong Gully	0026_MW009_P_210211	Normal	NSW_0026_PFASOMP	**14.4**	*387*	85.3	**472**	611	14.6	14.8	9.36	1.55	4.5	11.4	54.4	7.69	1.69	0.61	0.03	<0.02	<0.02	<0.05	<0.05	1.37	1.78	<0.05	0.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	07 Feb 2022	Yerriyong Gully	0026_MW009P_220207	Normal	NSW_0026_PFASOMP	**8.63**	*333*	66.8	**400**	495	8.47	8.22	5.08	0.38	3.6	6.97	43.2	5.64	1.14	0.79	0.03	<0.02	<0.02	<0.05	<0.05	0.92	2.1	<0.05	0.27	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	13 Feb 2023	Yerriyong Gully	0026_MW009P_230213	Normal	NSW_0026_PFASOMP_23	**4.49**	*189*	43.9	**233**	276	3.64	4.39	4.83	1.26	1.8	2.75	13.6	2.08	0.52	0.66	0.2	0.21	0.05	0.05	<0.05	0.25	2.18	<0.05	0.55	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	13 Oct 2016	Braidwood Road Drain	0026_MW12_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012	15 Nov 2016	Braidwood Road Drain	0026_MW12_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012	23 May 2017	Braidwood Road Drain	0026_MW12_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012	20 Jun 2017	Braidwood Road Drain	0026_MW12_170620	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012	27 Feb 2020	Braidwood Road Drain	0026_MW12_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	26 Aug 2020	Braidwood Road Drain	0026_MW012_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.37*	0.02	**0.39**	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	11 Feb 2021	Braidwood Road Drain	0026_MW012_210211	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	07 Feb 2022	Braidwood Road Drain	0026_MW012_220207	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	07 Feb 2022	Braidwood Road Drain	0026_QC100_220207	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	13 Feb 2023	Braidwood Road Drain	0026_MW012_230213	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	13 Feb 2023	Braidwood Road Drain	0026_QC200_230213	Interlab_D	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW012P	13 Oct 2016	Braidwood Road Drain	0026_MW12_P_161013	Normal	NSW_0026_PFAS	<0.01	*0.04*	0.01	0.05	0.05	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012P	15 Nov 2016	Braidwood Road Drain	0026_MW12_P_161115	Normal	NSW_0026_PFAS	<0.01	*0.03*	<0.01	0.03	0.03	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012P	23 May 2017	Braidwood Road Drain	0026_MW12_P_170523	Normal	NSW_0026_PFAS	<0.01	*0.05*	0.03	**0.08**	0.08	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012P	20 Jun 2017	Braidwood Road Drain	0026_MW12_P_170620	Normal	NSW_0026_PFAS	<0.01	*0.08*	0.15	**0.23**	0.23	0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012P	27 Feb 2020	Braidwood Road Drain	0026_MW12_P_200227	Normal	NSW_0026_PFASOMP	0.04	*2.63*	1.45	**4.08**	4.75	0.2	0.15	0.04	<0.02	<0.1	0.06	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	26 Aug 2020	Braidwood Road Drain	0026_MW012_P_200826	Normal	NSW_0026_PFASOMP	0.02	*0.8*	0.59	**1.39**	1.61	0.08	0.07	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	11 Feb 2021	Braidwood Road Drain	0026_MW012_P_210211	Normal	NSW_0026_PFASOMP	<0.01	*0.29*	0.12	**0.41**	0.41	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	07 Feb 2022	Braidwood Road Drain	0026_MW012P_220207	Normal	NSW_0026_PFASOMP	0.02	*0.57*	0.43	**1**	1.23	0.07	0.05	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	13 Feb 2023	Braidwood Road Drain	0026_MW012P_230213	Normal	NSW_0026_PFASOMP_23	<0.01	*0.24*	0.19	**0.43**	0.5	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	13 Oct 2016	Yerriyong Gully	0026_MW15_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	0.03	0.03	0.03	0.02	-	-	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW015	15 Nov 2016	Yerriyong Gully	0026_MW15_161116	Normal	NSW_0026_PFAS	<0.01	<0.01	0.05	0.05	0.05	0.02	-	-	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW015	23 May 2017	Yerriyong Gully	0026_MW15_170523	Normal	NSW_0026_PFAS	0.01	*0.04*	0.47	**0.51**	0.52	0.09	0.06	<0.01	<0.01	<0.05	0.02	0.08	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW015	20 Jun 2017	Yerriyong Gully	0026_MW15_170620	Normal	NSW_0026_PFAS	0.34	*6.4*	21	**27.4**	27.74	3.5	2.9	0.82	<0.01	0.1	0.23	1.8	0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW015	27 Feb 2020	Yerriyong Gully	0026_MW15_200227	Normal	NSW_0026_PFASOMP	0.34	*5.06*	11.1	**16.2**	22.9	1.23	1.28	0.7	<0.02	0.4	0.49	2.09	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	26 Aug 2020	Yerriyong Gully	0026_MW015_200826	Normal	NSW_0026_PFASOMP	0.07	*1.29*	3.94	**5.23**	7.11	0.54	0.57	0.17	<0.02	<0.1	0.05	0.43	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	11 Feb 2021	Yerriyong Gully	0026_MW015_210211	Normal	NSW_0026_PFASOMP	<0.01	*0.06*	0.07	**0.13**	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	07 Feb 2022	Yerriyong Gully	0026_MW015_220207	Normal	NSW_0026_PFASOMP	0.05	*1.17*	2.33	**3.5**	4.69	0.39	0.35	0.08	<0.02	<0.1	0.06	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	13 Feb 2023	Yerriyong Gully	0026_MW015_230213	Normal	NSW_0026_PFASOMP_23	0.08	*1.35*	8.26	**9.61**	12.4	0.92	1.18	0.21	<0.02	<0.1	0.06	0.33	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	13 Oct 2016	Yerriyong Gully	0026_MW16_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW016	15 Nov 2016	Yerriyong Gully	0026_MW16_161116	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW016	23 May 2017	Yerriyong Gully	0026_MW16_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW016	20 Jun 2017	Yerriyong Gully	0026_MW16_170620	Normal	NSW_0026_PFAS	<0.01	*0.01*	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW016	27 Feb 2020	Yerriyong Gully	0026_MW16_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	27 Feb 2020	Yerriyong Gully	0026_QC202_200227	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW016	26 Aug 2020	Yerriyong Gully	0026_MW016_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.09*	<0.02	**0.09**	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	11 Feb 2021	Yerriyong Gully	0026_MW016_210211	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	07 Feb 2022	Yerriyong Gully	0026_MW016_220207	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
MW016	07 Feb 2022	Yerriyong Gully	0026_QC200_220207	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW016	13 Feb 2023	Yerriyong Gully	0026_MW016_230213	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	13 Feb 2023	Yerriyong Gully	0026_QC101_230213	Field_D	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	13 Oct 2016	Yerriyong Gully	0026_MW17_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW017	15 Nov 2016	Yerriyong Gully	0026_MW17_161116	Normal	NSW_0026_PFAS	<0.01	*0.05*	0.27	**0.32**	0.32	0.04	-	-	<0.01	<0.05	0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW017	23 May 2017	Yerriyong Gully	0026_MW17_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	0.07	0.07	0.07	0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW017	20 Jun 2017	Yerriyong Gully	0026_MW17_170620	Normal	NSW_0026_PFAS	<0.01	*0.01*	0.07	**0.08**	0.08	0.01	0.01	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW017	27 Feb 2020	Yerriyong Gully	0026_MW17_200227	Normal	NSW_0026_PFASOMP	0.01	*0.09*	0.59	**0.68**	0.95	0.07	0.07	<0.02	<0.02	<0.1	0.02	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	26 Aug 2020	Yerriyong Gully	0026_MW017_200826	Normal	NSW_0026_PFASOMP	0.34	*0.88*	10.8	**11.7**	21.2	2.01	2.27	0.22	<0.02	0.4	0.69	3.24	0.39	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	11 Feb 2021	Yerriyong Gully	0026_MW017_210211	Normal	NSW_0026_PFASOMP	0.21	*0.81*	5.89	**6.7**	10.6	0.9	0.88	0.16	<0.02	0.1	0.21	1.19	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	11 Feb 2021	Yerriyong Gully	0026_QC102_210211	Field_D	NSW_0026_PFASOMP	0.21	*0.81*	5.52	**6.33**	10.3	0.95	0.83	0.15	<0.02	0.1	0.21	1.25	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	07 Feb 2022	Yerriyong Gully	0026_MW017_220207	Normal	NSW_0026_PFASOMP	0.14	*0.82*	8.74	**9.56**	14.6	1.18	1.47	0.12	<0.02	0.2	0.28	1.5	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	13 Feb 2023	Yerriyong Gully	0026_MW017_230213	Normal	NSW_0026_PFASOMP_23	0.03	*0.18*	1.19	**1.37**	2.06	0.18	0.16	<0.02	<0.02	<0.1	0.06	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	13 Feb 2023	Yerriyong Gully	0026_QC100_230213	Field_D	NSW_0026_PFASOMP_23	0.07	*0.41*	2.53	**2.94**	4.65	0.41	0.38	0.04	<0.02	0.1	0.15	0.48	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	14 Nov 2016	Braidwood Road Drain	0026_QC147_161114	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	14 Nov 2016	Braidwood Road Drain	0026_QC148_161114	Field_D	NSW_0026_PFAS	<0.01	*0.13*	<0.01	**0.13**	0.13	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	15 Nov 2016	Braidwood Road Drain	0026_MW18_161114	Normal	NSW_0026_PFAS	<0.01	*0.02*	<0.01	0.02	0.02	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	13 Dec 2016	Braidwood Road Drain	0026_MW18_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	13 Dec 2016	Braidwood Road Drain	0026_QC153_161213	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	13 Dec 2016	Braidwood Road Drain	0026_QC233_161213	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
MW018	08 Feb 2017	Braidwood Road Drain	0026_MW18_161114	Normal	NSW_0026_PFAS	0.11	*3.3*	1.7	**5**	5.11	0.24	-	-	<0.01	0.07	0.05	0.47	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
MW018	22 May 2017	Braidwood Road Drain	0026_MW18_170522	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW018	19 Jun 2017	Braidwood Road Drain	0026_MW18_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW018	19 Jun 2017	Braidwood Road Drain	0026_QC157_170619	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW018	20 Jun 2017	Braidwood Road Drain	0026_QC238_170620	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	26 Feb 2020	Braidwood Road Drain	0026_MW18_200226	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	24 Aug 2020	Braidwood Road Drain	0026_MW018_200824	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	0.72	0.72	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	09 Feb 2021	Braidwood Road Drain	0026_MW018_210209	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.02	0.01	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	09 Feb 2022	Braidwood Road Drain	0026_MW018_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	14 Feb 2023	Braidwood Road Drain	0026_MW018_230214	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	15 Nov 2016	Braidwood Road Drain	0026_MW24_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	15 Nov 2016	Braidwood Road Drain	0026_QC149_161115	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	15 Nov 2016	Braidwood Road Drain	0026_QC150_161115	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	14 Dec 2016	Braidwood Road Drain	0026_MW24_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	25 May 2017	Braidwood Road Drain	0026_MW24_170525	Normal	NSW_0026_PFAS	0.03	*0.62*	1	**1.62**	1.65	0.07	0.07	0.03	<0.01	<0.05	0.03	0.13	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW024	21 Jun 2017	Braidwood Road Drain	0026_MW24_170621	Normal	NSW_0026_PFAS	0.01	*0.26*	0.41	**0.67**	0.68	0.03	0.03	<0.01	<0.01	<0.05	0.02	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW024	28 Feb 2020	Braidwood Road Drain	0026_MW24_200228	Normal	NSW_0026_PFASOMP	<0.01	*0.22*	0.13	**0.35**	0.38	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	25 Aug 2020	Braidwood Road Drain	0026_MW024_200825	Normal	NSW_0026_PFASOMP	0.02	*0.26*	0.31	**0.57**	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.04	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	09 Feb 2021	Braidwood Road Drain	0026_MW024_210209	Normal	NSW_0026_PFASOMP	0.02	*0.17*	0.28	**0.45**	0.74	0.05	0.03	<0.02	<0.02	<0.1	0.04	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	09 Feb 2022	Braidwood Road Drain	0026_MW024_220209	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	16 Feb 2023	Braidwood Road Drain	0026_MW024_230216	Normal	NSW_0026_PFASOMP_23	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	16 Nov 2016	Upper-Currambene Creek	0026_MW26_161116	Normal	NSW_0026_PFAS	0.11	*3.2*	1.6	**4.8**	4.91	0.28	-	-	<0.01	0.09	0.07	0.69	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW026	13 Dec 2016	Upper-Currambene Creek	0026_MW26_161213	Normal	NSW_0026_PFAS	0.12	*3.6*	2.2	**5.8**	5.92	0.44	-	-	<0.01	0.07	0.08	0.66	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW026	23 May 2017	Upper-Currambene Creek	0026_MW26_170523	Normal	NSW_0026_PFAS	0.13	*2.8*	2.9	**5.7**	5.83	0.29	0.28	0.09	<0.01	0.06	0.12	0.49	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW026	21 Jun 2017	Upper-Currambene Creek	0026_MW26_170621	Normal	NSW_0026_PFAS	0.08	*2.8*	1.9	**4.7**	4.78	0.3	0.3	0.09	<0.01	0.06	0.11	0.49	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Location Code	Date	Sub-Catchment	Field ID	Sample Type	Project ID	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
MW026	28 Feb 2020	Upper-Currambene Creek	0026_MW26_200228	Normal	NSW_0026_PFASOMP	0.1	*0.83*	2.1	**2.93**	7.94	1.04	0.54	0.04	<0.02	0.4	0.56	2.16	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	25 Aug 2020	Upper-Currambene Creek	0026_MW026_200825	Normal	NSW_0026_PFASOMP	0.14	*1.08*	3.01	**4.09**	8.12	0.76	0.55	0.07	<0.02	0.2	0.4	1.74	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	09 Feb 2021	Upper-Currambene Creek	0026_MW026_210209	Normal	NSW_0026_PFASOMP	0.13	*2.09*	3.05	**5.14**	7.62	0.47	0.43	0.1	<0.02	0.1	0.22	0.9	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	09 Feb 2022	Upper-Currambene Creek	0026_MW026_220209	Normal	NSW_0026_PFASOMP	0.09	*1.48*	2.27	**3.75**	5.62	0.42	0.35	0.09	<0.02	<0.1	0.16	0.68	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	16 Feb 2023	Upper-Currambene Creek	0026_MW026_230216	Normal	NSW_0026_PFASOMP_23	0.1	*1.43*	2.25	**3.68**	5.61	0.42	0.34	0.08	<0.02	0.1	0.16	0.65	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	15 Nov 2016	Upper-Currambene Creek	0026_MW29_161115	Normal	NSW_0026_PFAS	0.18	*3*	2.4	**5.4**	5.58	1.2	-	-	<0.01	0.25	0.38	2.5	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW029	12 Dec 2016	Upper-Currambene Creek	0026_MW29_161212	Normal	NSW_0026_PFAS	0.08	*0.63*	0.45	**1.08**	1.16	0.17	-	-	<0.01	0.09	0.08	0.28	0.08	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
MW029	24 May 2017	Upper-Currambene Creek	0026_MW29_170524	Normal	NSW_0026_PFAS	0.26	*3.5*	3.7	**7.2**	7.46	1.8	1	0.13	<0.01	0.25	0.8	3	0.28	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW029	20 Jun 2017	Upper-Currambene Creek	0026_MW29_170620	Normal	NSW_0026_PFAS	0.12	*2.6*	2.4	**5**	5.12	1	0.81	0.09	<0.01	0.14	0.43	1.7	0.14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW029	27 Feb 2020	Upper-Currambene Creek	0026_MW29_200227	Normal	NSW_0026_PFASOMP	0.37	*9.19*	9.92	**19.1**	32.8	3.47	2.6	0.34	0.04	0.4	1.12	4.95	0.42	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	27 Feb 2020	Upper-Currambene Creek	0026_QC102_200227	Field_D	NSW_0026_PFASOMP	0.4	*10.5*	9.65	**20.2**	34	3.54	2.7	0.33	0.04	0.4	1.09	4.9	0.41	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	25 Aug 2020	Upper-Currambene Creek	0026_MW029_200825	Normal	NSW_0026_PFASOMP	0.5	*7.43*	14.2	**21.6**	43.8	5.74	3.84	0.32	<0.02	0.6	1.75	8.63	0.79	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	25 Aug 2020	Upper-Currambene Creek	0026_QC201_200825	Interlab_D	NSW_0026_PFASOMP	0.34	*5.2*	9.5	**15**	31	4.5	3.2	0.22	<0.02	0.48	1.1	6	0.62	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW029	08 Feb 2021	Upper-Currambene Creek	0026_MW029_210208	Normal	NSW_0026_PFASOMP	0.42	*5.72*	11.2	**16.9**	37.4	5.49	4.29	0.29	<0.02	0.3	1.33	7.51	0.8	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	08 Feb 2022	Upper-Currambene Creek	0026_MW029_220208	Normal	NSW_0026_PFASOMP	0.42	*5.65*	10.1	**15.8**	35.9	5	3.55	0.23	<0.02	0.4	1.25	8.68	0.65	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	14 Feb 2023	Upper-Currambene Creek	0026_MW029_230214	Normal	NSW_0026_PFASOMP_23	0.16	*1.3*	3.23	**4.53**	12.5	2.07	1.4	0.07	<0.02	0.3	0.7	2.99	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	25 May 2017	Braidwood Road Drain	0026_MW31_170525	Normal	NSW_0026_PFAS	<0.01	<0.01	0.02	0.02	0.02	0.11	0.06	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW031	21 Jun 2017	Braidwood Road Drain	0026_MW31_170621	Normal	NSW_0026_PFAS	<0.01	<0.01	0.02	0.02	0.02	0.07	0.05	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW031	21 Jun 2017	Braidwood Road Drain	0026_QC159_170621	Field_D	NSW_0026_PFAS	<0.01	<0.01	0.02	0.02	0.02	0.07	0.05	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW031	21 Jun 2017	Braidwood Road Drain	0026_QC239_170621	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	0.03	0.03	0.2	0.09	0.06	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	28 Feb 2020	Braidwood Road Drain	0026_MW31_200228	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	0.11	0.07	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	25 Aug 2020	Braidwood Road Drain	0026_MW031_200825	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.1	**0.1**	0.48	0.2	0.13	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	09 Feb 2021	Braidwood Road Drain	0026_MW031_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.03	0.03	0.28	0.14	0.08	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	09 Feb 2022	Braidwood Road Drain	0026_MW031_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.04	0.04	0.33	0.17	0.08	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	16 Feb 2023	Braidwood Road Drain	0026_MW031_230216	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	0.06	0.06	0.27	0.12	0.07	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	22 May 2017	Flat Rock Creek	0026_MW37_170522	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW037	22 May 2017	Flat Rock Creek	0026_QC154_170522	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW037	22 May 2017	Flat Rock Creek	0026_QC234_170522	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	19 Jun 2017	Flat Rock Creek	0026_MW37_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW037	27 Aug 2020	Flat Rock Creek	0026_MW037_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	09 Feb 2021	Flat Rock Creek	0026_MW037_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	09 Feb 2022	Flat Rock Creek	0026_MW037_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	09 Feb 2022	Flat Rock Creek	0026_QC103_220209	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	14 Feb 2023	Flat Rock Creek	0026_MW037_230214	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	23 May 2017	Upper-Currambene Creek	0026_MW38_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	0.04	0.04	0.04	0.01	<0.01	<0.01	<0.01	<0.05	0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW038	20 Jun 2017	Upper-Currambene Creek	0026_MW38_170620	Normal	NSW_0026_PFAS	<0.01	*0.01*	0.03	0.04	0.04	0.02	0.01	<0.01	<0.01	<0.05	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW038	27 Feb 2020	Upper-Currambene Creek	0026_MW38_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	26 Aug 2020	Upper-Currambene Creek	0026_MW038_200826	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	08 Feb 2021	Upper-Currambene Creek	0026_MW038_210208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	07 Feb 2022	Upper-Currambene Creek	0026_MW038_220207	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.06	0.06	0.2	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	14 Feb 2023	Upper-Currambene Creek	0026_MW038_230214	Normal	NSW_0026_PFASOMP_23	<0.01	*0.01*	0.02	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	23 May 2017	Yerriyong Gully	0026_MW39_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW039	21 Jun 2017	Yerriyong Gully	0026_MW39_170621	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW039	28 Feb 2020	Yerriyong Gully	0026_MW39_200228	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	25 Aug 2020	Yerriyong Gully	0026_MW039_200825	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Location Code	Date	Sub-Catchment	Field ID	Sample Type	Project ID	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
MW039	09 Feb 2021	Yerriyong Gully	0026_MW039_210209	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	10 Feb 2022	Yerriyong Gully	0026_MW039_220210	Normal	NSW_0026_PFASOMP	<0.01	*0.04*	0.01	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	15 Feb 2023	Yerriyong Gully	0026_MW039_230215	Normal	NSW_0026_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	22 May 2017	Yerriyong Gully	0026_MW44_170522	Normal	NSW_0026_PFAS	0.24	*0.06*	5.1	**5.16**	5.4	3.4	1.4	0.05	<0.01	0.7	1.2	4.1	0.42	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW044	20 Jun 2017	Yerriyong Gully	0026_MW44_170620	Normal	NSW_0026_PFAS	0.39	*0.17*	11	**11.17**	11.56	5.1	3	0.08	<0.01	0.92	1.3	6.9	0.65	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW044	26 Feb 2020	Yerriyong Gully	0026_MW44_200226	Normal	NSW_0026_PFASOMP	0.5	*0.69*	15.8	**16.5**	33.4	4	3.94	0.24	<0.02	0.7	1.08	5.81	0.59	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	24 Aug 2020	Yerriyong Gully	0026_MW044_200824	Normal	NSW_0026_PFASOMP	0.38	*0.47*	12.7	**13.2**	27	3.24	3.33	0.2	<0.02	0.5	0.85	4.86	0.5	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	24 Aug 2020	Yerriyong Gully	0026_QC100_200824	Field_D	NSW_0026_PFASOMP	0.45	*0.58*	16.4	**17**	33.6	3.96	3.92	0.24	<0.02	0.6	1.02	5.8	0.58	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	09 Feb 2021	Yerriyong Gully	0026_MW044_210209	Normal	NSW_0026_PFASOMP	0.46	*0.55*	10.1	**10.6**	22.4	2.52	3.38	0.24	<0.02	0.4	0.71	3.55	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	09 Feb 2021	Yerriyong Gully	0026_QC100_210209	Field_D	NSW_0026_PFASOMP	0.54	*0.58*	10.7	**11.3**	26	3.43	3.24	0.21	<0.02	0.4	0.84	5.46	0.62	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	09 Feb 2022	Yerriyong Gully	0026_MW044_220209	Normal	NSW_0026_PFASOMP	0.01	*0.04*	0.32	**0.36**	0.59	0.06	0.06	<0.02	<0.02	<0.1	<0.02	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	09 Feb 2022	Yerriyong Gully	0026_QC203_220209	Interlab_D	NSW_0026_PFASOMP	<0.01	*0.02*	0.14	**0.16**	0.19	<0.01	0.01	<0.01	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW044	14 Feb 2023	Yerriyong Gully	0026_MW044_230214	Normal	NSW_0026_PFASOMP_23	<0.01	*0.02*	0.07	**0.09**	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	22 May 2017	Yerriyong Gully	0026_MW45_170522	Normal	NSW_0026_PFAS	<0.01	*0.05*	0.15	**0.2**	0.2	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW045	19 Jun 2017	Yerriyong Gully	0026_MW45_170619	Normal	NSW_0026_PFAS	<0.01	*0.04*	0.11	**0.15**	0.15	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW045	27 Feb 2020	Yerriyong Gully	0026_MW45_200227	Normal	NSW_0026_PFASOMP	<0.01	*0.12*	0.18	**0.3**	0.3	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	26 Aug 2020	Yerriyong Gully	0026_MW045_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.1*	0.19	**0.29**	0.29	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	11 Feb 2021	Yerriyong Gully	0026_MW045_210211	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.1	**0.13**	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	11 Feb 2021	Yerriyong Gully	0026_QC202_210211	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	0.091	**0.091**	0.091	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW045	07 Feb 2022	Yerriyong Gully	0026_MW045_220207	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.12	**0.15**	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	13 Feb 2023	Yerriyong Gully	0026_MW045_230213	Normal	NSW_0026_PFASOMP_23	<0.01	*0.02*	0.09	**0.11**	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	22 May 2017	Yerriyong Gully	0026_MW46_170522	Normal	NSW_0026_PFAS	<0.01	*0.03*	0.1	**0.13**	0.13	0.02	0.01	<0.01	<0.01	<0.05	0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW046	19 Jun 2017	Yerriyong Gully	0026_MW46_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	0.06	0.06	0.06	0.02	0.01	<0.01	<0.01	<0.05	0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW046	26 Aug 2020	Yerriyong Gully	0026_MW046_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.11*	0.1	**0.21**	0.29	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	11 Feb 2021	Yerriyong Gully	0026_MW046_210211	Normal	NSW_0026_PFASOMP	<0.01	*0.07*	0.07	**0.14**	0.21	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	07 Feb 2022	Yerriyong Gully	0026_MW046_220207	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.09	**0.12**	0.22	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	13 Feb 2023	Yerriyong Gully	0026_MW046_230213	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	0.08	**0.08**	0.16	0.05	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	27 Aug 2020	Cabbage Tree Creek	0026_MW072_200827	Normal	NSW_0026_PFASOMP	<0.01	*0.13*	<0.02	**0.13**	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	09 Feb 2021	Cabbage Tree Creek	0026_MW072_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	08 Feb 2022	Cabbage Tree Creek	0026_MW072_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	15 Feb 2023	Cabbage Tree Creek	0026_MW072_230215	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	27 Aug 2020	Cabbage Tree Creek	0026_MW073_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	09 Feb 2021	Cabbage Tree Creek	0026_MW073_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	08 Feb 2022	Cabbage Tree Creek	0026_MW073_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	08 Feb 2022	Cabbage Tree Creek	0026_QC201_220208	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW073	15 Feb 2023	Cabbage Tree Creek	0026_MW073_230215	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
SW001	15 Nov 2016	Cabbage Tree Creek	0026_SW01_161115	Normal	NSW_0026_PFAS	<0.01	0.05	0.02	0.07	0.07	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW001	13 Dec 2016	Cabbage Tree Creek	0026_SW01_161213	Normal	NSW_0026_PFAS	<0.01	0.06	0.03	0.09	0.09	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW001	17 Dec 2016	Cabbage Tree Creek	0026_SW01_161217	Normal	NSW_0026_PFAS	<0.01	0.18	0.02	0.2	0.2	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW001	09 Feb 2017	Cabbage Tree Creek	0026_SW01_170209	Normal	NSW_0026_PFAS	<0.01	0.05	<0.01	0.05	0.05	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW001	30 Mar 2017	Cabbage Tree Creek	0026_SW01_170330	Normal	NSW_0026_PFAS	<0.01	0.1	0.08	0.18	0.18	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW001	27 Jun 2019	Cabbage Tree Creek	SW01_270619	Normal	NSW_0026_FSBGME	0.05	0.97	1.36	**2.33**	3.6	0.14	0.13	0.04	<0.02	<0.1	0.18	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.28	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	11 Feb 2020	Cabbage Tree Creek	0026_SW01_200211	Normal	NSW_0026_PFASOMP	<0.01	0.04	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	26 Feb 2020	Cabbage Tree Creek	0026_SW01_200226	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	20 May 2020	Cabbage Tree Creek	0026_SW001_200520	Normal	NSW_0026_PFASOMP	<0.01	0.03	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	14 Jul 2020	Cabbage Tree Creek	0026_SW001_200714	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	27 Aug 2020	Cabbage Tree Creek	0026_SW001_200827	Normal	NSW_0026_PFASOMP	<0.01	0.06	0.02	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	02 Nov 2020	Cabbage Tree Creek	0026_SW001_201102	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	10 Feb 2021	Cabbage Tree Creek	0026_QC101_210210	Field_D	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	10 Feb 2021	Cabbage Tree Creek	0026_SW001_210210	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	11 Aug 2021	Cabbage Tree Creek	0026_SW001_210811	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	08 Feb 2022	Cabbage Tree Creek	0026_SW001_220208	Normal	NSW_0026_PFASOMP	<0.01	0.05	0.04	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	15 Aug 2022	Cabbage Tree Creek	0026_SW001_220815	Normal	NSW_0026_PFASOMP	<0.01	0.03	0.04	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	15 Feb 2023	Cabbage Tree Creek	0026_SW001_230215	Normal	NSW_0026_PFASOMP_23	<0.01	0.02	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	16 Aug 2023	Cabbage Tree Creek	0026_SW001_230816	Normal	NSW_0026_PFASOMP_23	<0.01	0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15 Nov 2016	Flat Rock Creek	0026_QC164_161114	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	0.04	0.04	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15 Nov 2016	Flat Rock Creek	0026_QC164_161114	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	0.04	0.04	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15 Nov 2016	Flat Rock Creek	0026_QC244_161114	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	0.04	0.04	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15 Nov 2016	Flat Rock Creek	0026_SW02_161115	Normal	NSW_0026_PFAS	<0.01	0.03	0.01	0.04	0.04	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	13 Dec 2016	Flat Rock Creek	0026_SW02_161213	Normal	NSW_0026_PFAS	0.04	0.03	0.02	0.05	0.09	<0.01	-	-	<0.01	<0.05	<0.01	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	17 Dec 2016	Flat Rock Creek	0026_QC174_161217	Field_D	NSW_0026_PFAS	<0.01	0.05	0.02	0.07	0.07	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	17 Dec 2016	Flat Rock Creek	0026_QC248_161217	Interlab_D	NSW_0026_PFAS	0.01	0.04	0.06	0.1	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Dec 2016	Flat Rock Creek	0026_SW02_161217	Normal	NSW_0026_PFAS	<0.01	0.04	0.02	0.06	0.06	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	09 Feb 2017	Flat Rock Creek	0026_QC179_170209	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	0.04	0.04	<0.01	-	-	0.04	<0.05	<0.01	<0.01	<0.01	<0.01	0.01	0.05	0.04	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	09 Feb 2017	Flat Rock Creek	0026_SW02_170209	Normal	NSW_0026_PFAS	<0.01	0.03	0.01	0.04	0.04	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	31 Mar 2017	Flat Rock Creek	0026_SW02_170403	Normal	NSW_0026_PFAS	<0.01	0.03	0.05	0.08	0.08	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW002	27 Jun 2019	Flat Rock Creek	SW02_270619	Normal	NSW_0026_FSBGME	0.04	0.75	1.19	1.94	3.29	0.12	0.11	0.03	<0.02	<0.1	0.21	0.4	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.37	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	11 Feb 2020	Flat Rock Creek	0026_SW02_200211	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	26 Feb 2020	Flat Rock Creek	0026_SW02_200226	Normal	NSW_0026_PFASOMP	<0.01	0.08	0.04	0.12	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	20 May 2020	Flat Rock Creek	0026_SW002_200520	Normal	NSW_0026_PFASOMP	<0.01	0.03	0.03	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	14 Jul 2020	Flat Rock Creek	0026_SW002_200714	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	27 Aug 2020	Flat Rock Creek	0026_QC104_200827	Field_D	NSW_0026_PFASOMP	<0.01	0.1	<0.02	0.1	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	27 Aug 2020	Flat Rock Creek	0026_SW002_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	02 Nov 2020	Flat Rock Creek	0026_SW002_201102	Normal	NSW_0026_PFASOMP	<0.01	0.01	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	10 Feb 2021	Flat Rock Creek	0026_QC201_210210	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	0.015	0.015	0.015	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW002	10 Feb 2021	Flat Rock Creek	0026_SW002_210210	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	11 Aug 2021	Flat Rock Creek	0026_SW002_210811	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	08 Feb 2022	Flat Rock Creek	0026_QC202_220208	Interlab_D	NSW_0026_PFASOMP	<0.01	0.01	0.03	0.04	0.04	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW002	08 Feb 2022	Flat Rock Creek	0026_SW002_220208	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.04	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15 Aug 2022	Flat Rock Creek	0026_SW002_220815	Normal	NSW_0026_PFASOMP	<0.01	0.01	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15 Feb 2023	Flat Rock Creek	0026_QC203_230215	Interlab_D	NSW_0026_PFASOMP_23	<0.01	0.03	0.03	0.06	0.06	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW002	15 Feb 2023	Flat Rock Creek	0026_SW002_230215	Normal	NSW_0026_PFASOMP_23	<0.01	0.02	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
SW002	16 Aug 2023	Flat Rock Creek	0026_SW002_230816	Normal	NSW_0026_PFASOMP_23	<0.01	0.03	0.06	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	10 Dec 2019	Calymea Creek	0026_SW04B_191211	Normal	NSW_0026_PFASOMP	<0.01	0.05	0.08	0.13	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	11 Feb 2020	Calymea Creek	0026_SW04B_200211	Normal	NSW_0026_PFASOMP	0.02	0.38	0.31	0.69	0.93	0.05	0.04	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	26 Feb 2020	Calymea Creek	0026_SW04B_200226	Normal	NSW_0026_PFASOMP	0.01	0.31	0.22	0.53	0.69	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	20 May 2020	Calymea Creek	0026_SW04B_200520	Normal	NSW_0026_PFASOMP	0.03	0.86	0.59	1.45	1.94	0.1	0.08	0.02	<0.02	<0.1	0.07	0.16	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	14 Jul 2020	Calymea Creek	0026_SW004B_200714	Normal	NSW_0026_PFASOMP	0.02	0.36	0.44	0.8	1.11	0.06	0.05	<0.02	<0.02	<0.1	0.04	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	27 Aug 2020	Calymea Creek	0026_QC204_200827	Interlab_D	NSW_0026_PFASOMP	<0.01	0.3	0.14	0.44	0.51	0.02	0.02	<0.01	<0.02	<0.02	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW004B	27 Aug 2020	Calymea Creek	0026_SW04B_200827	Normal	NSW_0026_PFASOMP	<0.01	0.46	0.15	0.61	0.67	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	02 Nov 2020	Calymea Creek	0026_SW004B_201102	Normal	NSW_0026_PFASOMP	0.02	0.35	0.44	0.79	1.09	0.06	0.06	<0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	10 Feb 2021	Calymea Creek	0026_SW004B_210210	Normal	NSW_0026_PFASOMP	0.02	0.41	0.24	0.65	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	11 Aug 2021	Calymea Creek	0026_QC200_210811	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW004B	11 Aug 2021	Calymea Creek	0026_SW004B_210811	Normal	NSW_0026_PFASOMP	<0.01	0.2	0.18	0.38	0.46	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	08 Feb 2022	Calymea Creek	0026_SW004B_220208	Normal	NSW_0026_PFASOMP	<0.01	0.19	0.14	0.33	0.37	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	15 Aug 2022	Calymea Creek	0026_SW004B_220815	Normal	NSW_0026_PFASOMP	<0.01	0.14	0.11	0.25	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	15 Feb 2023	Calymea Creek	0026_SW004B_230215	Normal	NSW_0026_PFASOMP_23	0.01	0.2	0.18	0.38	0.47	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	16 Aug 2023	Calymea Creek	0026_SW004B_230816	Normal	NSW_0026_PFASOMP_23	0.04	0.62	0.81	1.43	1.95	0.1	0.09	0.03	<0.02	<0.1	0.05	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	14 Nov 2016	Braidwood Road drain	0026_SW05_161114	Normal	NSW_0026_PFAS	0.2	3.5	2.3	5.8	6	0.3	-	-	<0.01	0.31	0.89	6.8	0.21	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	21	0.02	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	12 Dec 2016	Braidwood Road drain	0026_SW05_161212	Normal	NSW_0026_PFAS	0.09	2.6	1.3	3.9	3.99	0.15	-	-	<0.01	0.07	0.24	0.59	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.2	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	17 Dec 2016	Braidwood Road drain	0026_SW05_161217	Normal	NSW_0026_PFAS	0.01	0.71	0.22	0.93	0.94	0.06	-	-	<0.01	<0.05	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	09 Feb 2017	Braidwood Road drain	0026_SW05_170209	Normal	NSW_0026_PFAS	0.11	3.4	1.1	4.5	4.61	0.15	-	-	<0.01	0.1	0.11	0.54	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW005	29 Mar 2017	Braidwood Road drain	0026_SW05_170329	Normal	NSW_0026_PFAS	0.15	3.6	2.8	6.4	6.55	0.25	0.2	0.09	<0.01	0.14	0.22	0.81	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.36	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW005	10 Dec 2019	Braidwood Road drain	0026_SW05_191211	Normal	NSW_0026_PFASOMP	0.06	1.68	2.96	4.64	6.68	0.31	0.32	0.08	<0.02	0.1	0.22	0.78	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	11 Feb 2020	Braidwood Road drain	0026_SW05_200211	Normal	NSW_0026_PFASOMP	0.05	1.64	1.02	2.66	3.45	0.15	0.12	0.03	<0.02	<0.1	0.12	0.29	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	26 Feb 2020	Braidwood Road drain	0026_SW05_200226	Normal	NSW_0026_PFASOMP	0.11	3.86	1.72	5.58	7.15	0.23	0.2	0.07	0.05	<0.1	0.26	0.56	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	20 May 2020	Braidwood Road drain	0026_SW005_200520	Normal	NSW_0026_PFASOMP	0.16	3.65	2.88	6.53	8.99	0.45	0.4	0.13	<0.02	<0.1	0.31	0.85	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	14 Jul 2020	Braidwood Road drain	0026_SW005_200714	Normal	NSW_0026_PFASOMP	0.1	1.95	2.09	4.04	5.69	0.25	0.26	0.08	<0.02	<0.1	0.19	0.67	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	27 Aug 2020	Braidwood Road drain	0026_SW005_200827	Normal	NSW_0026_PFASOMP	0.13	2.43	2.27	4.7	6.45	0.29	0.34	0.1	<0.02	<0.1	0.16	0.64	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	02 Nov 2020	Braidwood Road drain	0026_SW005_201102	Normal	NSW_0026_PFASOMP	0.17	4.23	2.92	7.15	9.37	0.37	0.35	0.13	<0.02	0.1	0.18	0.81	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	09 Feb 2021	Braidwood Road drain	0026_SW005_210209	Normal	NSW_0026_PFASOMP	0.14	2.84	1.65	4.49	6.1	0.32	0.24	0.08	<0.02	<0.1	0.13	0.58	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	11 Aug 2021	Braidwood Road drain	0026_SW005_210811	Normal	NSW_0026_PFASOMP	0.47	6.36	6.52	12.9	20.1	1.29	1.4	0.29	0.07	0.2	0.47	2.67	0.38	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	08 Feb 2022	Braidwood Road drain	0026_SW005_220208	Normal	NSW_0026_PFASOMP	0.13	2.61	1.81	4.42	5.79	0.2	0.22	0.08	<0.02	<0.1	0.12	0.55	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15 Aug 2022	Braidwood Road drain	0026_SW005_220815	Normal	NSW_0026_PFASOMP	0.28	4.22	3.27	7.49	10.5	0.47	0.58	0.18	<0.02	0.1	0.18	1.02	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15 Feb 2023	Braidwood Road drain	0026_QC103_230215	Field_D	NSW_0026_PFASOMP_23	0.12	3.2	1.78	4.98	6.18	0.23	0.23	0.09	<0.02	<0.1	0.11	0.36	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15 Feb 2023	Braidwood Road drain	0026_SW005_230215	Normal	NSW_0026_PFASOMP_23	0.09	1.95	1.57	3.52	4.55	0.17	0.2	0.09	<0.02	<0.1	0.08	0.35	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	16 Aug 2023	Braidwood Road drain	0026_QC101_230816	Field_D	NSW_0026_PFASOMP_23	0.09	1.99	1.88	3.87	4.93	0.18	0.18	0.07	<0.02	<0.1	0.11	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	16 Aug 2023	Braidwood Road drain	0026_QC201_230816	Interlab_D	NSW_0026_PFASOMP_23	0.07	1.5	1.5	3	4	0.18	0.18	0.07	<0.02	0.04	0.1	0.32	0.05	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	16 Aug 2023	Braidwood Road drain	0026_SW005_230816	Normal	NSW_0026_PFASOMP_23	0.09	1.92	1.87	3.79	4.87	0.19	0.18	0.07	<0.02	<0.1	0.11	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	02 May 2016	Braidwood Road drain	0026_QC160_160502	Field_D	NSW_0026_PFAS	0.05	0.22	0.94	1.16	1.21	0.15	-	-	<0.01	<0.05	0.06	0.24	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	02 May 2016	Braidwood Road drain	0026_SW06_160502	Normal	NSW_0026_PFAS	0.05	0.33	0.89	1.22	1.27	0.15	-	-	<0.01	<0.05	0.06	0.24	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	31 Oct 2016	Braidwood Road drain	0026_SW06_161031	Normal	NSW_0026_PFAS	0.1	2.7	1.9	4.6	4.7	0.23	-	-	<0.01	0.15	0.31	1.4	0.1	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	12	0.06	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	14 Nov 2016	Braidwood Road drain	0026_SW06_161114	Normal	NSW_0026_PFAS	0.16	13	2.2	15.2	15.36	0.16	-	-	<0.01	0.05	0.1	0.45	0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	3.1	0.08	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	12 Dec 2016	Braidwood Road drain	0026_SW06_161212	Normal	NSW_0026_PFAS	0.11	3.7	2.2	5.9	6.01	0.23	-	-	<0.01	0.1	0.33	0.74	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.2	0.02	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	16 Dec 2016	Braidwood Road drain	0026_SW06_161216	Normal	NSW_0026_PFAS	0.1	5	1.2	6.2	6.3	0.13	-	-	<0.01	0.06	0.07	0.4	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.8	0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	09 Feb 2017	Braidwood Road drain	0026_SW06_170209	Normal	NSW_0026_PFAS	0.2	6.4	2	8.4	8.6	0.28	-	-	<0.01	0.14	0.13	0.92	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW006	10 Dec 2019	Braidwood Road drain	0026_SW06_191211	Normal	NSW_0026_PFASOMP	0.04	1.1	3.43	4.53	5.76	0.26	0.31	0.08	<0.02	<0.1	0.09	0.41	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11 Feb 2020	Braidwood Road drain	0026_SW06_200211	Normal	NSW_0026_PFASOMP	0.09	2.1	1.66	3.76	5.15	0.3	0.24	0.08	<0.02	<0.1	0.16	0.47	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
SW006	26 Feb 2020	Braidwood Road drain	0026_SW06_200226	Normal	NSW_0026_PFASOMP	0.13	5.98	2.3	8.28	9.96	0.28	0.27	0.1	0.02	<0.1	0.18	0.56	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	20 May 2020	Braidwood Road drain	0026_SW006_200520	Normal	NSW_0026_PFASOMP	0.1	4.35	2.24	6.59	8.07	0.23	0.26	0.13	<0.02	<0.1	0.16	0.44	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	14 Jul 2020	Braidwood Road drain	0026_SW006_200714	Normal	NSW_0026_PFASOMP	0.05	1.53	1.32	2.85	3.64	0.15	0.16	0.04	<0.02	<0.1	0.06	0.29	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	26 Aug 2020	Braidwood Road drain	0026_SW006_200826	Normal	NSW_0026_PFASOMP	0.16	4.04	3.53	7.57	9.82	0.39	0.47	0.18	<0.02	<0.1	0.16	0.79	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	02 Nov 2020	Braidwood Road drain	0026_SW006_201102	Normal	NSW_0026_PFASOMP	0.2	4.19	3.57	7.76	10.4	0.45	0.45	0.15	<0.02	0.1	0.2	1	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	09 Feb 2021	Braidwood Road drain	0026_SW006_210209	Normal	NSW_0026_PFASOMP	0.22	13	2.3	15.3	17.2	0.31	0.27	0.22	0.08	<0.1	0.08	0.54	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11 Aug 2021	Braidwood Road drain	0026_QC101_210811	Field_D	NSW_0026_PFASOMP	0.18	5.24	3.2	8.44	10.3	0.3	0.4	0.18	<0.02	<0.1	0.11	0.59	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11 Aug 2021	Braidwood Road drain	0026_SW006_210811	Normal	NSW_0026_PFASOMP	0.21	4.87	3.48	8.35	10.6	0.36	0.45	0.18	<0.02	<0.1	0.16	0.74	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	08 Feb 2022	Braidwood Road drain	0026_SW006_220208	Normal	NSW_0026_PFASOMP	0.1	2.48	1.95	4.43	8.07	0.2	0.21	0.08	<0.02	<0.1	0.15	0.74	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	2.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	15 Aug 2022	Braidwood Road drain	0026_QC201_220815	Interlab_D	NSW_0026_PFASOMP	0.42	12	4.3	16	20	0.59	0.58	0.3	<0.02	0.1	0.26	1.3	0.22	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW006	15 Aug 2022	Braidwood Road drain	0026_SW006_220815	Normal	NSW_0026_PFASOMP	0.43	12.2	4.73	16.9	21.2	0.61	0.83	0.32	0.03	0.2	0.24	1.33	0.22	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	14 Feb 2023	Braidwood Road drain	0026_SW006_230214	Normal	NSW_0026_PFASOMP_23	0.08	2.14	1.47	3.61	4.56	0.16	0.18	0.09	<0.02	<0.1	0.08	0.32	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	16 Aug 2023	Braidwood Road drain	0026_SW006_230816	Normal	NSW_0026_PFASOMP_23	0.09	2.06	1.9	3.96	5.03	0.18	0.19	0.08	<0.02	<0.1	0.1	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	14 Dec 2016	Braidwood Road drain	0026_SW07_161214	Normal	NSW_0026_PFAS	0.12	3.6	1.1	4.7	4.82	0.13	-	-	<0.01	0.3	1.4	1.8	0.42	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.3	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW007	16 Dec 2016	Braidwood Road drain	0026_SW07_161216	Normal	NSW_0026_PFAS	0.02	0.59	0.43	1.02	1.04	0.03	-	-	<0.01	<0.05	0.03	0.09	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW007	08 Feb 2017	Braidwood Road drain	0026_SW07_170208	Normal	NSW_0026_PFAS	0.06	2.7	0.67	3.37	3.43	0.08	-	-	<0.01	<0.05	0.05	0.26	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.14	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW007	11 Feb 2020	Braidwood Road drain	0026_SW007_200211	Normal	NSW_0026_PFASOMP	0.02	0.36	0.36	0.72	0.99	0.07	0.05	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	26 Feb 2020	Braidwood Road drain	0026_SW07_200226	Normal	NSW_0026_PFASOMP	0.04	1.11	0.62	1.73	2.54	0.11	0.08	0.02	<0.02	<0.1	0.17	0.26	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	20 May 2020	Braidwood Road drain	0026_SW007_200520	Normal	NSW_0026_PFASOMP	0.04	1.5	1.97	3.47	4.29	0.18	0.24	0.08	<0.02	<0.1	0.04	0.22	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	14 Jul 2020	Braidwood Road drain	0026_SW007_200714	Normal	NSW_0026_PFASOMP	0.01	0.39	0.37	0.76	0.88	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	26 Aug 2020	Braidwood Road drain	0026_SW007_200826	Normal	NSW_0026_PFASOMP	0.03	0.94	1.34	2.28	2.87	0.14	0.16	0.05	<0.02	<0.1	0.02	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	02 Nov 2020	Braidwood Road drain	0026_QC100_201102	Field_D	NSW_0026_PFASOMP	0.02	0.62	0.8	1.42	1.7	0.07	0.08	0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	02 Nov 2020	Braidwood Road drain	0026_SW007_201102	Normal	NSW_0026_PFASOMP	0.02	0.73	0.84	1.57	1.9	0.08	0.08	0.03	<0.02	<0.1	0.02	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	11 Feb 2021	Braidwood Road drain	0026_SW007_210211	Normal	NSW_0026_PFASOMP	0.01	0.47	0.18	0.65	0.9	0.03	0.02	<0.02	<0.02	<0.1	0.06	0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	11 Aug 2021	Braidwood Road drain	0026_SW007_210811	Normal	NSW_0026_PFASOMP	0.02	0.25	0.93	1.18	1.74	0.13	0.13	0.02	<0.02	<0.1	0.05	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	07 Feb 2022	Braidwood Road drain	0026_SW007_220207	Normal	NSW_0026_PFASOMP	0.01	0.28	0.24	0.52	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.1	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	15 Aug 2022	Braidwood Road drain	0026_QC101_220815	Field_D	NSW_0026_PFASOMP	0.05	0.97	0.63	1.6	2.24	0.13	0.12	0.03	<0.02	<0.1	0.08	0.19	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	15 Aug 2022	Braidwood Road drain	0026_SW007_220815	Normal	NSW_0026_PFASOMP	0.05	1.2	0.7	1.9	2.53	0.12	0.12	0.04	<0.02	<0.1	0.07	0.19	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	13 Feb 2023	Braidwood Road drain	0026_SW007_230213	Normal	NSW_0026_PFASOMP_23	0.02	0.74	0.84	1.58	1.99	0.08	0.09	0.06	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	16 Aug 2023	Braidwood Road drain	0026_SW007_230816	Normal	NSW_0026_PFASOMP_23	0.01	0.32	0.32	0.64	0.94	0.04	0.03	<0.02	<0.02	<0.1	0.08	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	06 May 2016	Currambene Creek	0026_SW08_160506	Normal	NSW_0026_PFAS	0.04	0.42	0.61	1.03	1.07	0.06	-	-	<0.01	<0.05	0.04	0.16	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	16 Nov 2016	Currambene Creek	0026_SW08_161116	Normal	NSW_0026_PFAS	0.04	2	0.68	2.68	2.72	0.07	-	-	<0.01	<0.05	0.03	0.22	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	14 Dec 2016	Currambene Creek	0026_SW08_161214	Normal	NSW_0026_PFAS	0.06	2.8	1.5	4.3	4.36	0.16	-	-	<0.01	0.06	0.06	0.42	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	17 Dec 2016	Currambene Creek	0026_SW08_161217	Normal	NSW_0026_PFAS	0.03	2	0.56	2.56	2.59	0.05	-	-	<0.01	<0.05	0.02	0.14	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	09 Feb 2017	Currambene Creek	0026_SW08_170209	Normal	NSW_0026_PFAS	0.04	1.6	0.52	2.12	2.16	0.05	-	-	<0.01	<0.05	0.02	0.15	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW008	10 Dec 2019	Currambene Creek	0026_SW08_191210	Normal	NSW_0026_PFASOMP	0.1	0.77	4.53	5.3	7.93	0.35	0.27	0.07	<0.02	<0.1	0.22	1.55	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	11 Feb 2020	Currambene Creek	0026_SW08_200211	Normal	NSW_0026_PFASOMP	0.02	1.11	0.76	1.87	2.23	0.08	0.06	0.03	<0.02	<0.1	0.03	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	26 Feb 2020	Currambene Creek	0026_SW08_200226	Normal	NSW_0026_PFASOMP	0.04	0.92	0.92	1.84	2.39	0.1	0.09	0.02	<0.02	<0.1	0.04	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	20 May 2020	Currambene Creek	0026_SW008_200520	Normal	NSW_0026_PFASOMP	0.07	1.9	1.74	3.64	4.66	0.14	0.18	0.06	<0.02	<0.1	0.08	0.44	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14 Jul 2020	Currambene Creek	0026_SW008_200714	Normal	NSW_0026_PFASOMP	0.02	0.82	0.35	1.17	1.33	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	26 Aug 2020	Currambene Creek	0026_SW008_200826	Normal	NSW_0026_PFASOMP	0.03	0.8	0.9	1.7	2.23	0.1	0.12	0.03	<0.02	<0.1	0.03	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	02 Nov 2020	Currambene Creek	0026_SW008_201102	Normal	NSW_0026_PFASOMP	0.03	1.06	0.72	1.78	2.1	0.07	0.07	0.03	<0.02	<0.1	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	08 Feb 2021	Currambene Creek	0026_SW008_210208	Normal	NSW_0026_PFASOMP	0.05	2.49	0.88	3.37	3.94	0.11	0.09	0.04	<0.02	<0.1	0.03	0.22	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	11 Aug 2021	Currambene Creek	0026_SW008_210811	Normal	NSW_0026_PFASOMP	0.04	0.51	0.7	1.21	1.92	0.13	0.13	<0.02	<0.02	<0.1	0.05	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	10 Feb 2022	Currambene Creek	0026_SW008_220210	Normal	NSW_0026_PFASOMP	0.1	2.21	2.05	4.26	5.55	0.19	0.24	0.07	<0.02	<0.1	0.09	0.55	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	15 Aug 2022	Currambene Creek	0026_SW008_220815	Normal	NSW_0026_PFASOMP	0.11	1.28	1.89	3.17	4.52	0.24	0.31	0.06	<0.02	<0.1	0.08	0.49	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Location Code	Date	Sub-Catchment	Field ID	Sample Type	Project ID	PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
SW008	14 Feb 2023	Currambene Creek	0026_QC102_230214	Field_D	NSW_0026_PFASOMP_23	0.07	*1.42*	1.11	**2.53**	3.23	0.13	0.14	0.04	<0.02	<0.1	0.05	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14 Feb 2023	Currambene Creek	0026_SW008_230214	Normal	NSW_0026_PFASOMP_23	0.05	*1.52*	1.01	**2.53**	3.16	0.09	0.13	0.06	<0.02	<0.1	0.04	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	16 Aug 2023	Currambene Creek	0026_SW008_230816	Normal	NSW_0026_PFASOMP_23	0.04	*0.97*	0.89	1.86	2.42	0.05	0.06	0.03	<0.02	<0.1	0.05	0.3	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	15 Nov 2016	Yerriyong Gully	0026_SW09_161115	Normal	NSW_0026_PFAS	0.06	*3.8*	0.95	**4.75**	4.81	0.09	-	-	<0.01	<0.05	0.04	0.29	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	16 Nov 2016	Yerriyong Gully	0026_SW09_161116	Normal	NSW_0026_PFAS	0.07	*3.7*	1	**4.7**	4.77	0.1	-	-	<0.01	<0.05	0.04	0.29	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	12 Dec 2016	Yerriyong Gully	0026_SW09_161212	Normal	NSW_0026_PFAS	0.05	*3.2*	0.73	**3.93**	3.98	0.06	-	-	<0.01	<0.05	0.03	0.17	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.16	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW009	16 Dec 2016	Yerriyong Gully	0026_SW09_161216	Normal	NSW_0026_PFAS	0.52	*25*	5.3	**30.3**	30.82	0.84	-	-	<0.01	0.27	0.25	2	0.16	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	09 Feb 2017	Yerriyong Gully	0026_SW09_170209	Normal	NSW_0026_PFAS	0.51	*23*	5.1	**28.1**	28.61	0.63	-	-	<0.01	0.29	0.23	2.1	0.12	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW009	10 Dec 2019	Yerriyong Gully	0026_SW09_191211	Normal	NSW_0026_PFASOMP	0.03	*1.34*	1	**2.34**	2.92	0.15	0.07	0.04	<0.02	<0.1	0.03	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11 Feb 2020	Yerriyong Gully	0026_SW09_200211	Normal	NSW_0026_PFASOMP	0.35	*25.4*	8.95	**34.4**	38	0.42	0.57	0.36	0.04	0.1	0.31	1.39	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	26 Feb 2020	Yerriyong Gully	0026_SW09_200226	Normal	NSW_0026_PFASOMP	0.3	*16.9*	7.07	**24**	27.2	0.41	0.51	0.29	<0.02	<0.1	0.3	1.28	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	20 May 2020	Yerriyong Gully	0026_SW009_200520	Normal	NSW_0026_PFASOMP	0.42	*7.04*	2.33	**9.37**	11.2	0.25	0.18	0.14	<0.02	<0.1	0.12	0.54	0.09	0.05	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	14 Jul 2020	Yerriyong Gully	0026_SW009_200714	Normal	NSW_0026_PFASOMP	0.07	*2.56*	1.33	**3.89**	5.12	0.12	0.11	0.07	<0.02	<0.1	0.07	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.32	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	26 Aug 2020	Yerriyong Gully	0026_SW009_200826	Normal	NSW_0026_PFASOMP	0.28	*15.8*	7.6	**23.4**	26.9	0.42	0.66	0.35	<0.02	0.1	0.26	1.31	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	02 Nov 2020	Yerriyong Gully	0026_SW009_201102	Normal	NSW_0026_PFASOMP	0.19	*12.7*	4.57	**17.3**	19.4	0.33	0.29	0.19	0.02	<0.1	0.18	0.87	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	08 Feb 2021	Yerriyong Gully	0026_SW009_210208	Normal	NSW_0026_PFASOMP	0.16	*6.66*	2.08	**8.74**	10.5	0.27	0.26	0.12	<0.02	<0.1	0.13	0.73	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11 Aug 2021	Yerriyong Gully	0026_QC100_210811	Field_D	NSW_0026_PFASOMP	0.07	*1.92*	1.56	**3.48**	4.42	0.17	0.16	0.07	<0.02	<0.1	0.07	0.35	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11 Aug 2021	Yerriyong Gully	0026_SW009_210811	Normal	NSW_0026_PFASOMP	0.07	*2.03*	1.61	**3.64**	4.57	0.17	0.16	0.06	<0.02	<0.1	0.08	0.35	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	09 Feb 2022	Yerriyong Gully	0026_SW009_220209	Normal	NSW_0026_PFASOMP	0.19	*11.8*	4.78	**16.6**	20.5	0.32	0.41	0.22	0.03	0.1	0.23	1.23	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	15 Aug 2022	Yerriyong Gully	0026_SW009_220815	Normal	NSW_0026_PFASOMP	0.21	*8.44*	3.93	**12.4**	14.6	0.31	0.45	0.2	<0.02	0.1	0.14	0.76	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	13 Feb 2023	Yerriyong Gully	0026_SW009_230213	Normal	NSW_0026_PFASOMP_23	0.08	*3.28*	1.5	**4.78**	5.73	0.16	0.14	0.08	<0.02	<0.1	0.09	0.36	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	16 Aug 2023	Yerriyong Gully	0026_QC100_230816	Field_D	NSW_0026_PFASOMP_23	0.06	*2.61*	0.98	**3.59**	4.09	0.08	0.06	0.05	<0.02	<0.1	0.04	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	16 Aug 2023	Yerriyong Gully	0026_QC200_230816	Interlab_D	NSW_0026_PFASOMP_23	0.04	*1.8*	0.77	**2.5**	3	0.06	0.07	0.05	<0.02	<0.02	0.04	0.15	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW009	16 Aug 2023	Yerriyong Gully	0026_SW009_230816	Normal	NSW_0026_PFASOMP_23	0.06	*2.56*	0.95	**3.51**	4	0.08	0.06	0.05	<0.02	<0.1	0.04	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	06 May 2016	Yerriyong Gully	0026_SW12_160506	Normal	NSW_0026_PFAS	0.05	*0.43*	0.98	1.41	1.46	0.19	-	-	<0.01	<0.05	0.05	0.23	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	16 Nov 2016	Yerriyong Gully	0026_SW12_161116	Normal	NSW_0026_PFAS	0.09	*2.6*	1.8	**4.4**	4.49	0.27	-	-	<0.01	0.06	0.07	0.47	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	14 Dec 2016	Yerriyong Gully	0026_QC171_161214	Field_D	NSW_0026_PFAS	0.1	*2.9*	2	**4.9**	5	0.28	-	-	<0.01	0.06	0.05	0.44	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	14 Dec 2016	Yerriyong Gully	0026_SW12_161214	Normal	NSW_0026_PFAS	0.08	*2.2*	2	**4.2**	4.28	0.27	-	-	<0.01	<0.05	0.04	0.35	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	17 Dec 2016	Yerriyong Gully	0026_SW12_161217	Normal	NSW_0026_PFAS	0.09	*2.3*	1.9	**4.2**	4.29	0.27	-	-	<0.01	0.06	0.05	0.41	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	09 Feb 2017	Yerriyong Gully	0026_SW12_170209	Normal	NSW_0026_PFAS	0.09	*4.3*	1.3	**5.6**	5.69	0.19	-	-	<0.01	0.06	0.06	0.34	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW012	10 Dec 2019	Yerriyong Gully	0026_QC100_191210	Field_D	NSW_0026_PFASOMP	0.01	*0.83*	0.29	1.12	1.18	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	10 Dec 2019	Yerriyong Gully	0026_SW12_191210	Normal	NSW_0026_PFASOMP	0.01	*0.84*	0.3	1.14	1.2	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11 Feb 2020	Yerriyong Gully	0026_QC100_200211	Field_D	NSW_0026_PFASOMP	<0.01	*0.2*	0.23	0.43	0.47	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11 Feb 2020	Yerriyong Gully	0026_SW12_200211	Normal	NSW_0026_PFASOMP	<0.01	*0.13*	0.21	0.34	0.36	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	26 Feb 2020	Yerriyong Gully	0026_SW12_200226	Normal	NSW_0026_PFASOMP	<0.01	*0.08*	0.22	0.3	0.36	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	14 Jul 2020	Yerriyong Gully	0026_SW012_200714	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	26 Aug 2020	Yerriyong Gully	0026_SW012_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.1*	0.19	0.29	0.34	0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	08 Feb 2021	Yerriyong Gully	0026_SW012_210208	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11 Aug 2021	Yerriyong Gully	0026_SW012_210811	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	10 Feb 2022	Yerriyong Gully	0026_SW012_220210	Normal	NSW_0026_PFASOMP	0.06	*1.18*	1.43	**2.61**	3.44	0.18	0.18	0.05	<0.02	<0.1	0.06	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	15 Aug 2022	Yerriyong Gully	0026_SW012_220815	Normal	NSW_0026_PFASOMP	0.13	*3.25*	3.15	**6.4**	8.13	0.35	0.42	0.11	<0.02	<0.1	0.1	0.54	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	14 Feb 2023	Yerriyong Gully	0026_QC202_230214	Interlab_D	NSW_0026_PFASOMP_23	0.09	*2.8*	2.4	**5.2**	6.4	0.23	0.24	0.11	<0.02	0.05	0.1	0.36	0.07	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW012	14 Feb 2023	Yerriyong Gully	0026_SW012_230214	Normal	NSW_0026_PFASOMP_23	0.07	*2.7*	1.74	**4.44**	5.46	0.2	0.2	0.1	<0.02	<0.1	0.09	0.31	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	16 Aug 2023	Yerriyong Gully	0026_SW012_230816	Normal	NSW_0026_PFASOMP_23	0.17	*3.79*	3.87	**7.66**	9.6	0.37	0.34	0.17	<0.02	<0.1	0.18	0.6	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14 Nov 2016	Parma Creek	0026_SW13_161114	Normal	NSW_0026_PFAS	0.07	*2.7*	1.7	**4.4**	4.47	0.27	-	-	<0.01	0.06	0.06	0.42	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW013	13 Dec 2016	Parma Creek	0026_SW13_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
						Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
Location Code	**Date**	**Sub-Catchment**	**Field ID**	**Sample Type**	**Project ID**																														
SW013	16 Dec 2016	Parma Creek	0026_SW13_161216	Normal	NSW_0026_PFAS	0.05	*2.3*	1	**3.3**	3.35	0.12	-	-	<0.01	<0.05	0.04	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW013	08 Feb 2017	Parma Creek	0026_SW13_170208	Normal	NSW_0026_PFAS	0.02	*0.64*	0.29	0.93	0.95	0.03	-	-	<0.01	<0.05	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW013	28 Mar 2017	Parma Creek	0026_SW13_170328	Normal	NSW_0026_PFAS	0.06	*2.2*	1.5	**3.7**	3.76	0.12	0.11	0.05	<0.01	<0.05	0.07	0.27	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW013	12 Nov 2019	Parma Creek	0026_QC200_191211	Interlab_D	NSW_0026_PFASOMP	0.064	*0.83*	1.8	**2.63**	2.694	0.27	0.22	0.034	<0.01	0.086	0.13	0.46	0.067	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	10 Dec 2019	Parma Creek	0026_SW13_191211	Normal	NSW_0026_PFASOMP	0.06	*0.78*	2.84	**3.62**	5.34	0.36	0.3	0.05	<0.02	<0.1	0.12	0.76	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11 Feb 2020	Parma Creek	0026_QC200_200211	Interlab_D	NSW_0026_PFASOMP	0.019	*0.61*	0.57	1.18	1.199	0.064	0.059	0.016	<0.01	<0.05	0.031	0.1	0.014	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	11 Feb 2020	Parma Creek	0026_SW13_200211	Normal	NSW_0026_PFASOMP	0.03	*0.82*	0.71	1.53	1.89	0.08	0.07	0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Feb 2020	Parma Creek	0026_QC101_200226	Field_D	NSW_0026_PFASOMP	0.08	*1.55*	1.55	**3.1**	4.07	0.16	0.15	0.05	<0.02	<0.1	0.11	0.38	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Feb 2020	Parma Creek	0026_SW13_200226	Normal	NSW_0026_PFASOMP	0.08	*1.41*	1.54	**2.95**	3.95	0.17	0.15	0.05	<0.02	<0.1	0.11	0.39	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	20 May 2020	Parma Creek	0026_QC100_200520	Field_D	NSW_0026_PFASOMP	0.08	*1.47*	1.74	**3.21**	4.32	0.22	0.23	0.07	<0.02	<0.1	0.1	0.35	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	20 May 2020	Parma Creek	0026_SW013_200520	Normal	NSW_0026_PFASOMP	0.07	*1.57*	1.84	**3.41**	4.54	0.24	0.23	0.08	<0.02	<0.1	0.1	0.35	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14 Jul 2020	Parma Creek	0026_QC100_200714	Field_D	NSW_0026_PFASOMP	0.06	*1.12*	2.02	**3.14**	4.41	0.23	0.25	0.06	<0.02	<0.1	0.1	0.5	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14 Jul 2020	Parma Creek	0026_SW013_200714	Normal	NSW_0026_PFASOMP	0.07	*1.18*	2.23	**3.41**	4.71	0.23	0.26	0.06	<0.02	<0.1	0.1	0.51	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Aug 2020	Parma Creek	0026_QC103_200826	Field_D	NSW_0026_PFASOMP	0.03	*0.62*	0.82	1.44	1.92	0.1	0.11	0.03	<0.02	<0.1	0.03	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Aug 2020	Parma Creek	0026_SW013_200826	Normal	NSW_0026_PFASOMP	0.03	*0.78*	0.76	1.54	1.99	0.1	0.1	0.03	<0.02	<0.1	0.03	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	02 Nov 2020	Parma Creek	0026_QC200_201102	Interlab_D	NSW_0026_PFASOMP	0.021	*0.53*	0.61	1.14	1.161	0.071	0.061	0.015	<0.01	<0.05	0.027	0.1	0.015	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	02 Nov 2020	Parma Creek	0026_SW013_201102	Normal	NSW_0026_PFASOMP	0.03	*0.84*	0.77	1.61	2.02	0.09	0.08	0.03	<0.02	<0.1	0.03	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	08 Feb 2021	Parma Creek	0026_SW013_210208	Normal	NSW_0026_PFASOMP	0.08	*2.25*	1.3	**3.55**	4.61	0.25	0.18	0.06	<0.02	<0.1	0.07	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11 Aug 2021	Parma Creek	0026_SW013_210811	Normal	NSW_0026_PFASOMP	0.08	*1.22*	2.44	**3.66**	5.02	0.3	0.31	0.07	<0.02	<0.1	0.09	0.44	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	08 Feb 2022	Parma Creek	0026_QC102_220208	Field_D	NSW_0026_PFASOMP	0.06	*1.15*	1.44	**2.59**	3.45	0.17	0.17	0.05	<0.02	<0.1	0.06	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	08 Feb 2022	Parma Creek	0026_SW013_220208	Normal	NSW_0026_PFASOMP	0.07	*1.64*	1.54	**3.18**	4.1	0.18	0.18	0.06	<0.02	<0.1	0.07	0.32	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	15 Aug 2022	Parma Creek	0026_SW013_220815	Normal	NSW_0026_PFASOMP	0.06	*1.03*	1.16	**2.19**	3.05	0.19	0.21	0.04	<0.02	<0.1	0.05	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	15 Feb 2023	Parma Creek	0026_SW013_230215	Normal	NSW_0026_PFASOMP_23	0.05	*1.59*	1.49	**3.08**	3.9	0.16	0.17	0.08	<0.02	<0.1	0.06	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	16 Aug 2023	Parma Creek	0026_SW013_230816	Normal	NSW_0026_PFASOMP_23	0.08	*1.03*	1.75	**2.78**	3.98	0.24	0.19	0.05	<0.02	<0.1	0.13	0.43	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	14 Nov 2016	Parma Creek	0026_SW14_161114	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW014	13 Dec 2016	Parma Creek	0026_SW14_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW014	16 Dec 2016	Parma Creek	0026_SW14_161216	Normal	NSW_0026_PFAS	0.08	*3.1*	1.8	**4.9**	4.98	0.22	-	-	<0.01	0.06	0.05	0.41	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW014	08 Feb 2017	Parma Creek	0026_SW14_170208	Normal	NSW_0026_PFAS	0.02	*0.57*	0.21	0.78	0.8	0.02	-	-	<0.01	<0.05	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW014	28 Mar 2017	Parma Creek	0026_SW14_170328	Normal	NSW_0026_PFAS	0.01	*0.25*	0.21	0.46	0.47	0.02	0.02	<0.01	<0.01	<0.05	0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW014	10 Dec 2019	Parma Creek	0026_SW14_191211	Normal	NSW_0026_PFASOMP	0.04	*0.78*	2.02	**2.8**	3.88	0.24	0.21	0.05	<0.02	<0.1	0.07	0.43	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11 Feb 2020	Parma Creek	0026_SW14_200211	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	26 Feb 2020	Parma Creek	0026_SW14_200226	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	20 May 2020	Parma Creek	0026_SW014_200520	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	14 Jul 2020	Parma Creek	0026_QC200_140720	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW014	14 Jul 2020	Parma Creek	0026_SW014_200714	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	26 Aug 2020	Parma Creek	0026_QC203_200826	Interlab_D	NSW_0026_PFASOMP	<0.01	*0.03*	0.03	0.06	0.06	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW014	26 Aug 2020	Parma Creek	0026_SW014_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.04	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	02 Nov 2020	Parma Creek	0026_SW014_201102	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	08 Feb 2021	Parma Creek	0026_SW014_210208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11 Aug 2021	Parma Creek	0026_QC201_210811	Interlab_D	NSW_0026_PFASOMP	<0.01	*0.14*	0.14	0.28	0.28	0.019	0.016	<0.01	<0.01	<0.05	<0.02	0.028	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW014	11 Aug 2021	Parma Creek	0026_SW014_210811	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	08 Feb 2022	Parma Creek	0026_SW014_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	15 Aug 2022	Parma Creek	0026_SW014_220815	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	15 Feb 2023	Parma Creek	0026_SW014_230215	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	16 Aug 2023	Parma Creek	0026_SW014_230816	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	16 Nov 2016	Braidwood Road drain	0026_SW18_161116	Normal	NSW_0026_PFAS	0.28	*8.6*	6.1	**14.7**	14.98	0.97	-	-	<0.01	0.12	0.18	1.3	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-

						PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
Location Code	Date	Sub-Catchment	Field ID	Sample Type	Project ID	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water						**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																												
SW018	16 Dec 2016	Braidwood Road drain	0026_QC173_161216	Field_D	NSW_0026_PFAS	0.1	*2.5*	1.2	**3.7**	3.8	0.16	-	-	<0.01	0.06	0.06	0.43	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.89	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	16 Dec 2016	Braidwood Road drain	0026_SW18_161216	Normal	NSW_0026_PFAS	0.1	*2.3*	1.1	**3.4**	3.5	0.14	-	-	<0.01	0.07	0.06	0.42	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.9	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	08 Feb 2017	Braidwood Road drain	0026_QC177_170208	Field_D	NSW_0026_PFAS	0.09	*3.7*	0.97	**4.67**	4.76	0.12	-	-	<0.01	0.05	0.05	0.32	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW018	08 Feb 2017	Braidwood Road drain	0026_SW18_170208	Normal	NSW_0026_PFAS	0.09	*3.7*	0.93	**4.63**	4.72	0.11	-	-	<0.01	<0.05	0.04	0.32	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW018	11 Feb 2020	Braidwood Road drain	0026_SW18_200211	Normal	NSW_0026_PFASOMP	0.09	*2.28*	1.72	**4**	5.37	0.29	0.23	0.08	<0.02	<0.1	0.14	0.48	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	26 Feb 2020	Braidwood Road drain	0026_QC201_200226	Interlab_D	NSW_0026_PFASOMP	0.074	*1.8*	1.7	**3.5**	3.574	0.23	0.19	0.052	<0.01	0.092	0.12	0.41	0.053	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.015	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW018	26 Feb 2020	Braidwood Road drain	0026_SW18_200226	Normal	NSW_0026_PFASOMP	0.11	*2.18*	1.54	**3.72**	5.06	0.26	0.21	0.07	<0.02	<0.1	0.14	0.46	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	20 May 2020	Braidwood Road drain	0026_SW018_200520	Normal	NSW_0026_PFASOMP	0.5	*7.16*	8.29	**15.4**	24.3	1.66	1.68	0.4	<0.02	0.4	0.69	2.99	0.46	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	14 Jul 2020	Braidwood Road drain	0026_SW018_200714	Normal	NSW_0026_PFASOMP	0.02	*0.71*	0.56	1.27	1.63	0.05	0.06	0.02	<0.02	<0.1	0.04	0.14	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	26 Aug 2020	Braidwood Road drain	0026_SW018_200826	Normal	NSW_0026_PFASOMP	0.05	*0.8*	2.16	**2.96**	4.1	0.23	0.31	0.05	<0.02	<0.1	0.08	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	02 Nov 2020	Braidwood Road drain	0026_SW018_201102	Normal	NSW_0026_PFASOMP	0.29	*5.02*	5.19	**10.2**	14.4	0.71	0.71	0.19	<0.02	0.2	0.3	1.59	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	11 Feb 2021	Braidwood Road drain	0026_SW018_210211	Normal	NSW_0026_PFASOMP	0.31	*8.25*	4.72	**13**	16.5	0.63	0.63	0.27	0.02	0.1	0.21	1.14	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	11 Aug 2021	Braidwood Road drain	0026_SW018_210811	Normal	NSW_0026_PFASOMP	0.06	*0.52*	2.15	**2.67**	4.23	0.32	0.37	0.04	<0.02	<0.1	0.12	0.51	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	07 Feb 2022	Braidwood Road drain	0026_SW018_220207	Normal	NSW_0026_PFASOMP	0.19	*3.82*	3.27	**7.09**	9.53	0.44	0.46	0.13	<0.02	0.1	0.18	0.85	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 Aug 2022	Braidwood Road drain	0026_QC100_220815	Field_D	NSW_0026_PFASOMP	0.16	*3.09*	3.48	**6.57**	7.99	0.25	0.39	0.14	<0.02	<0.1	0.06	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 Aug 2022	Braidwood Road drain	0026_SW018_220815	Normal	NSW_0026_PFASOMP	0.16	*3.18*	3.23	**6.41**	7.84	0.26	0.37	0.15	<0.02	<0.1	0.06	0.35	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	13 Feb 2023	Braidwood Road drain	0026_SW018_230213	Normal	NSW_0026_PFASOMP_23	0.28	*4.6*	4.34	**8.94**	12.2	0.6	0.59	0.24	<0.02	0.1	0.22	1.08	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	16 Aug 2023	Braidwood Road drain	0026_SW018_230816	Normal	NSW_0026_PFASOMP_23	0.52	*3.97*	8.35	**12.3**	18.4	1.03	0.98	0.32	<0.02	0.4	0.49	1.94	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	12 Dec 2016	Braidwood Road drain	0026_QC166_161212	Field_D	NSW_0026_PFAS	0.04	*1.6*	1.9	**3.5**	3.54	0.15	-	-	<0.01	<0.05	0.03	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	12 Dec 2016	Braidwood Road drain	0026_QC166_161212	Field_D	NSW_0026_PFAS	0.05	*1.5*	2	**3.5**	3.55	0.18	-	-	<0.01	<0.05	0.03	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	12 Dec 2016	Braidwood Road drain	0026_SW20_161212	Normal	NSW_0026_PFAS	<0.01	*0.48*	0.2	0.68	0.68	0.02	-	-	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	16 Dec 2016	Braidwood Road drain	0026_SW20_161216	Normal	NSW_0026_PFAS	0.05	*1*	2.1	**3.1**	3.15	0.16	-	-	<0.01	<0.05	0.03	0.19	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	09 Feb 2017	Braidwood Road drain	0026_SW20_170209	Normal	NSW_0026_PFAS	0.03	*1.2*	0.39	1.59	1.62	0.03	-	-	<0.01	<0.05	0.02	0.12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW020	11 Feb 2020	Braidwood Road drain	0026_SW20_200211	Normal	NSW_0026_PFASOMP	0.01	*0.35*	0.39	0.74	0.88	0.04	0.04	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	26 Feb 2020	Braidwood Road drain	0026_SW20_200226	Normal	NSW_0026_PFASOMP	0.03	*0.89*	1.16	**2.05**	2.49	0.12	0.11	0.03	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	20 May 2020	Braidwood Road drain	0026_QC200_200520	Interlab_D	NSW_0026_PFASOMP	0.064	*0.82*	1.1	1.92	1.984	0.071	0.075	0.024	<0.01	<0.05	<0.02	0.1	0.011	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW020	20 May 2020	Braidwood Road drain	0026_SW020_200520	Normal	NSW_0026_PFASOMP	0.11	*1.47*	1.4	**2.87**	3.5	0.11	0.14	0.06	<0.02	<0.1	0.03	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	14 Jul 2020	Braidwood Road drain	0026_SW020_200714	Normal	NSW_0026_PFASOMP	0.01	*0.48*	0.31	0.79	0.87	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	26 Aug 2020	Braidwood Road drain	0026_SW020_200826	Normal	NSW_0026_PFASOMP	0.03	*0.78*	1.24	**2.02**	2.48	0.11	0.14	0.04	<0.02	<0.1	<0.02	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	02 Nov 2020	Braidwood Road drain	0026_SW020_201102	Normal	NSW_0026_PFASOMP	0.02	*0.75*	0.71	1.46	1.72	0.07	0.06	0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	09 Feb 2021	Braidwood Road drain	0026_SW020_210209	Normal	NSW_0026_PFASOMP	0.03	*1.13*	1.15	**2.28**	2.77	0.14	0.13	0.04	<0.02	<0.1	<0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	11 Aug 2021	Braidwood Road drain	0026_SW020_210811	Normal	NSW_0026_PFASOMP	0.05	*1.34*	1.95	**3.29**	4.05	0.15	0.19	0.07	<0.02	<0.1	0.04	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	08 Feb 2022	Braidwood Road drain	0026_SW020_220208	Normal	NSW_0026_PFASOMP	0.04	*0.99*	1.36	**2.35**	2.93	0.12	0.13	0.04	<0.02	<0.1	0.03	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	15 Aug 2022	Braidwood Road drain	0026_QC200_220815	Interlab_D	NSW_0026_PFASOMP	0.03	*0.77*	1.2	2	2.5	0.13	0.13	0.04	<0.02	<0.02	0.03	0.17	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW020	15 Aug 2022	Braidwood Road drain	0026_SW020_220815	Normal	NSW_0026_PFASOMP	0.04	*0.9*	1.23	**2.13**	2.75	0.13	0.18	0.05	<0.02	<0.1	0.02	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	14 Feb 2023	Braidwood Road drain	0026_SW020_230214	Normal	NSW_0026_PFASOMP_23	0.03	*0.78*	0.94	1.72	2.07	0.09	0.1	0.02	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	16 Aug 2023	Braidwood Road drain	0026_SW020_230816	Normal	NSW_0026_PFASOMP_23	0.05	*1.63*	1.55	**3.18**	3.74	0.1	0.11	0.05	<0.02	<0.1	0.03	0.2	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

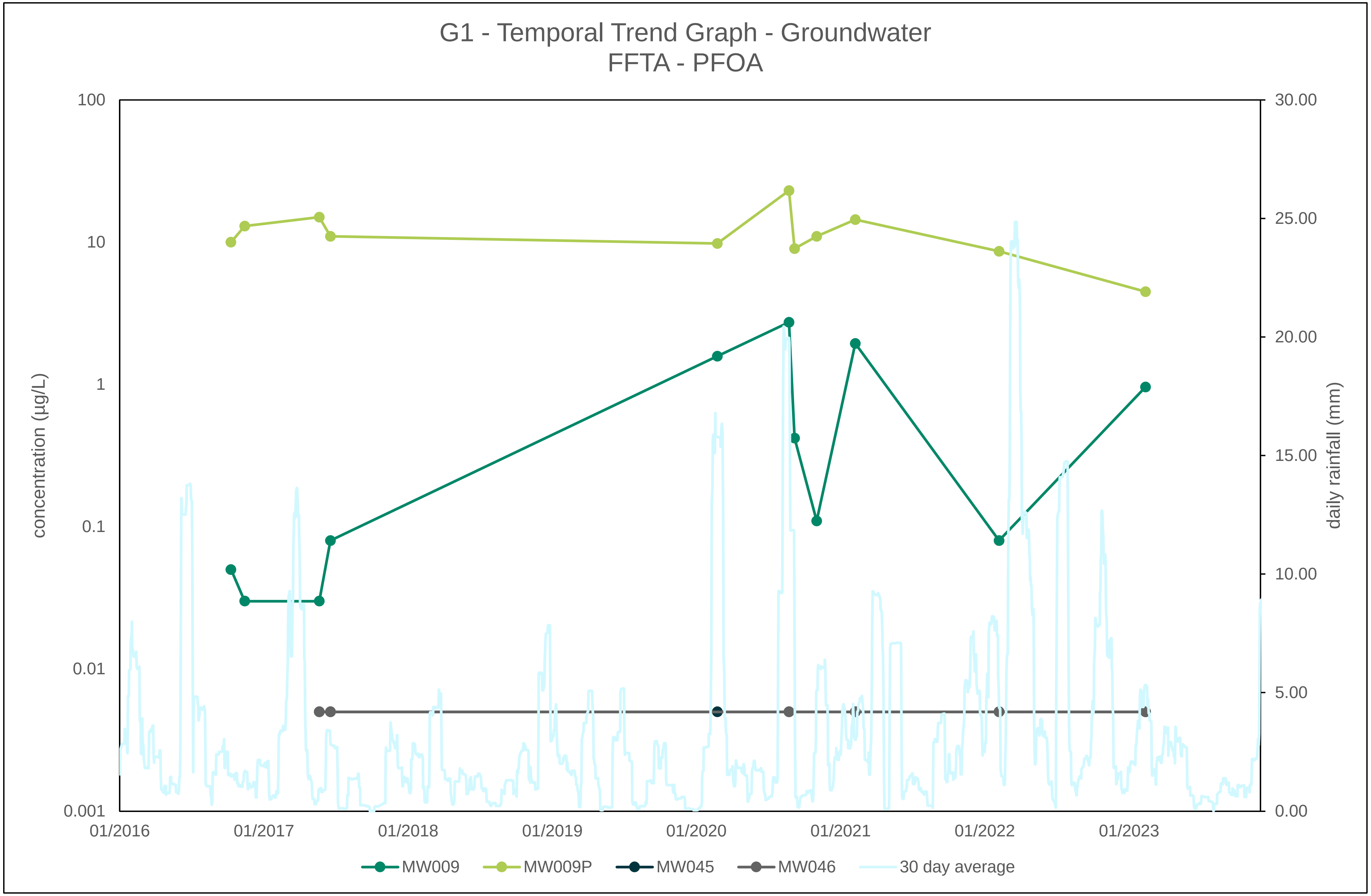
Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

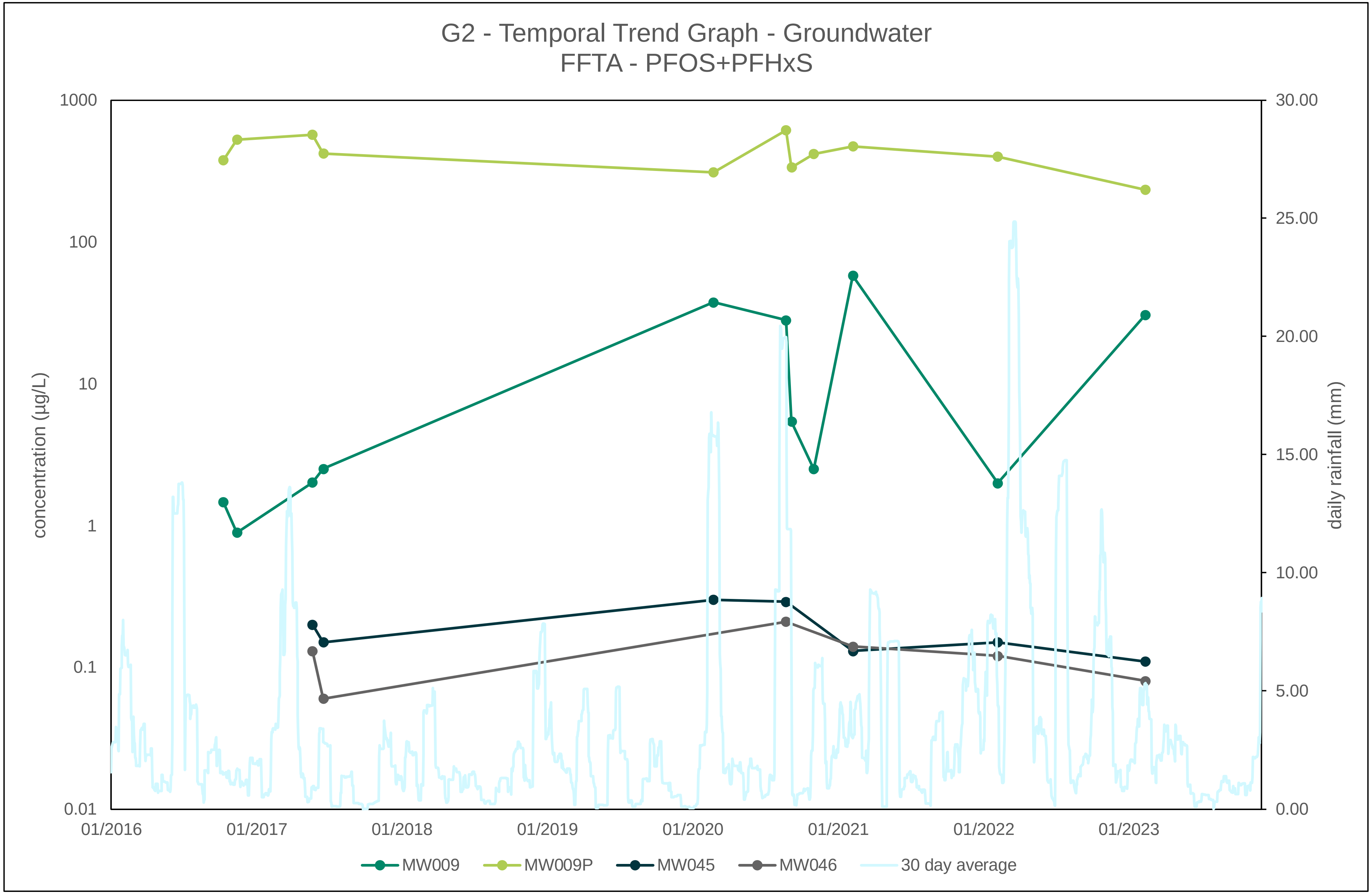
Appendix C

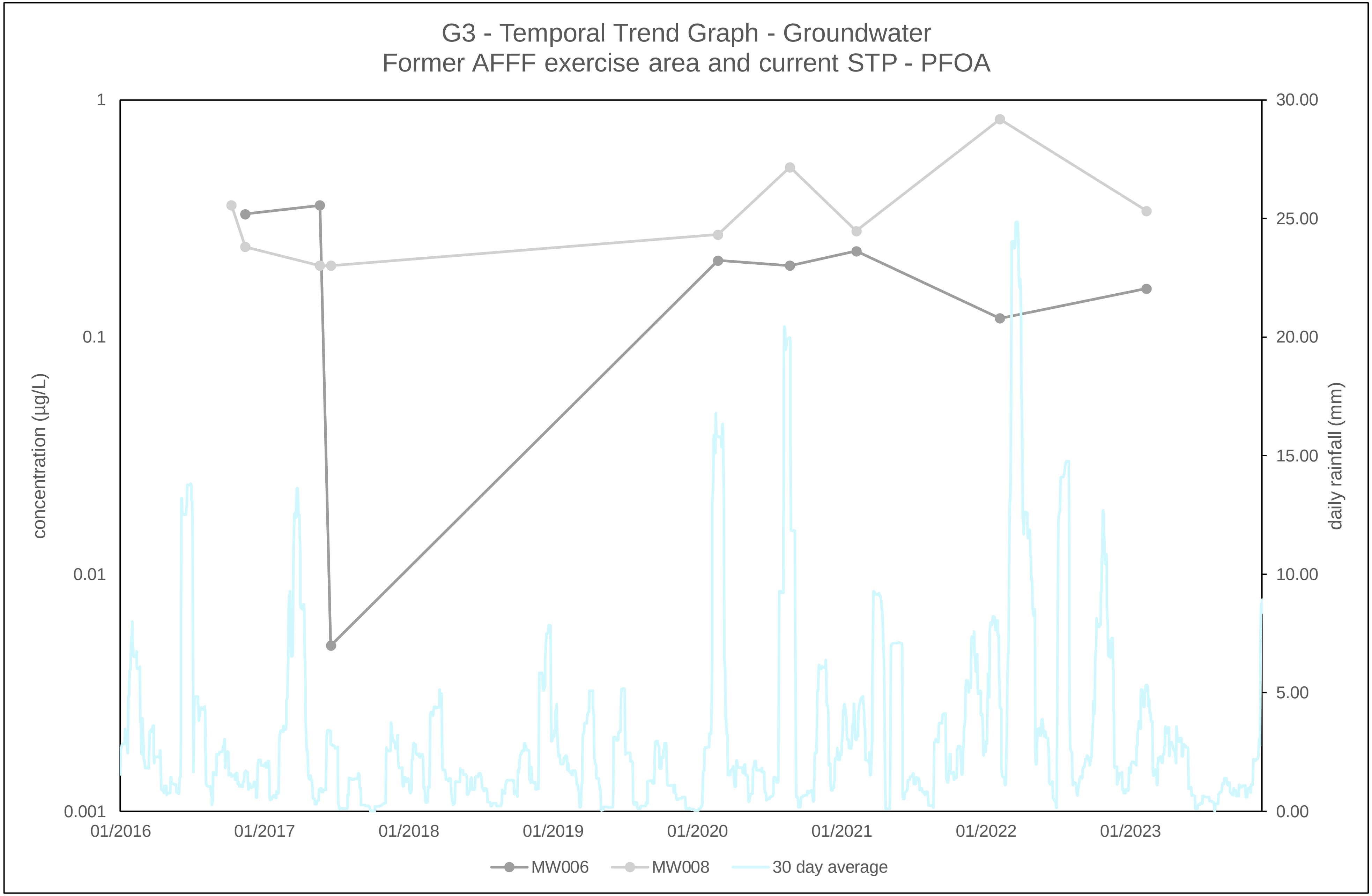
Graphs

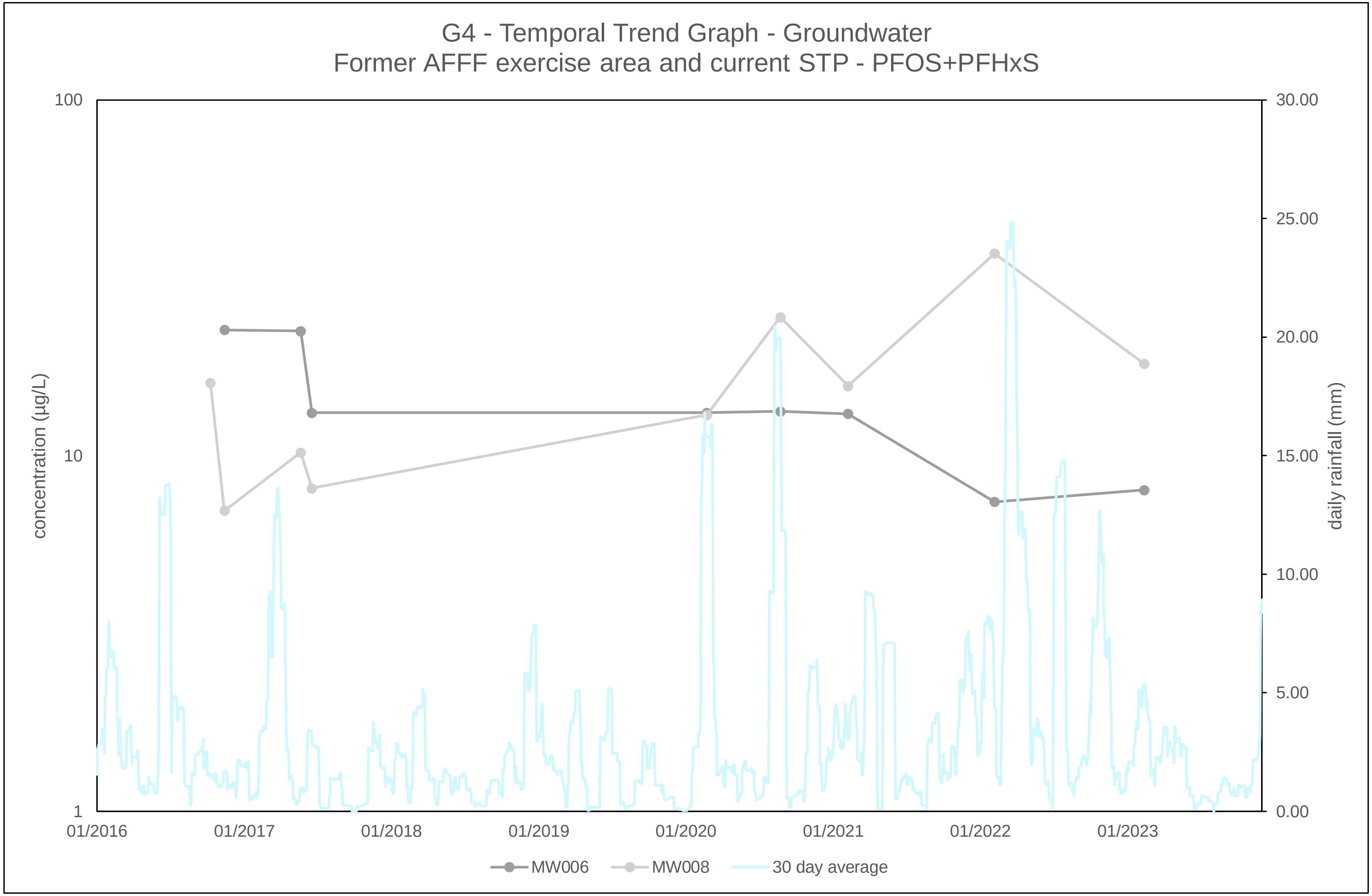
Temporal Trend Graphs

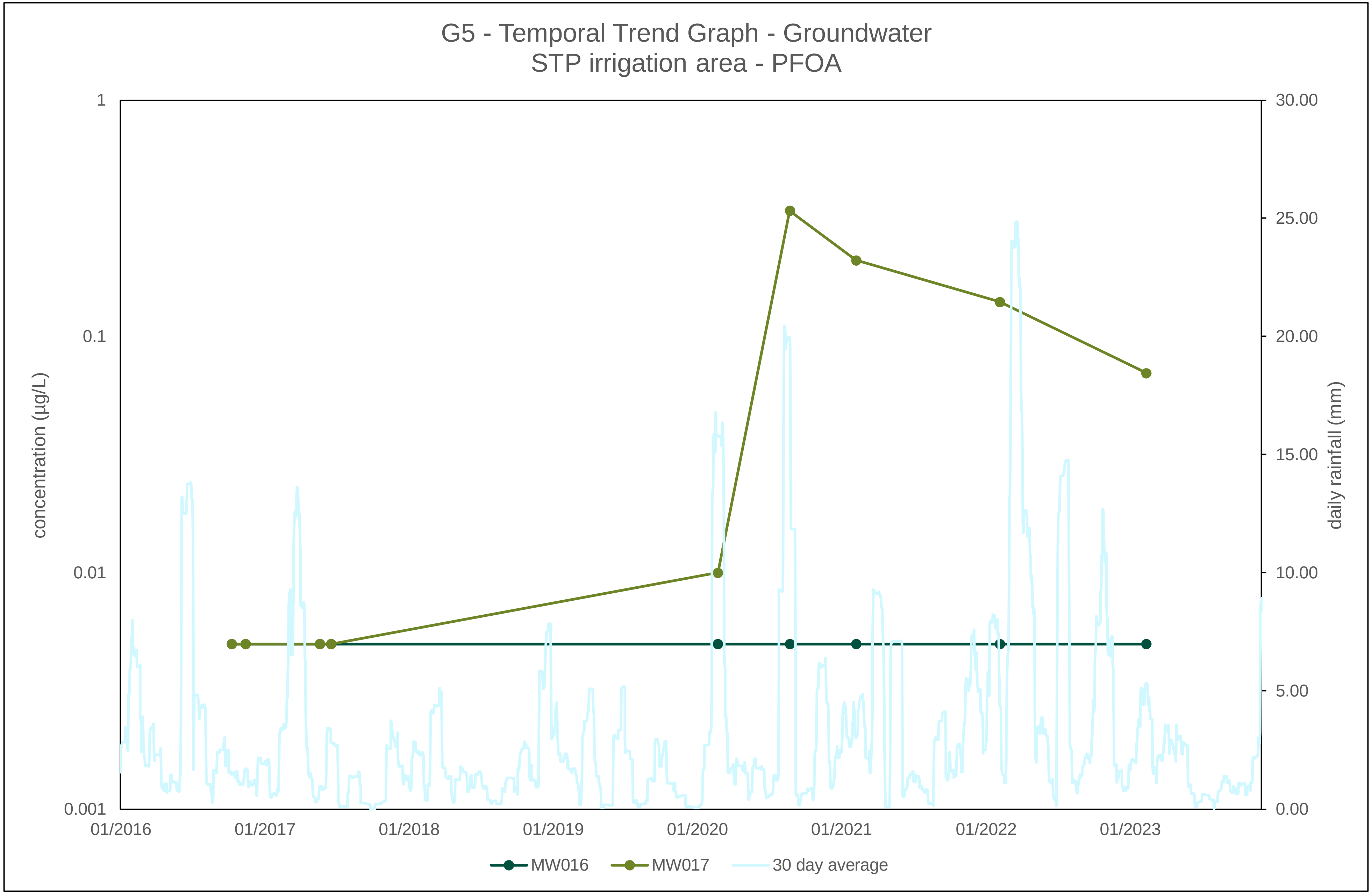


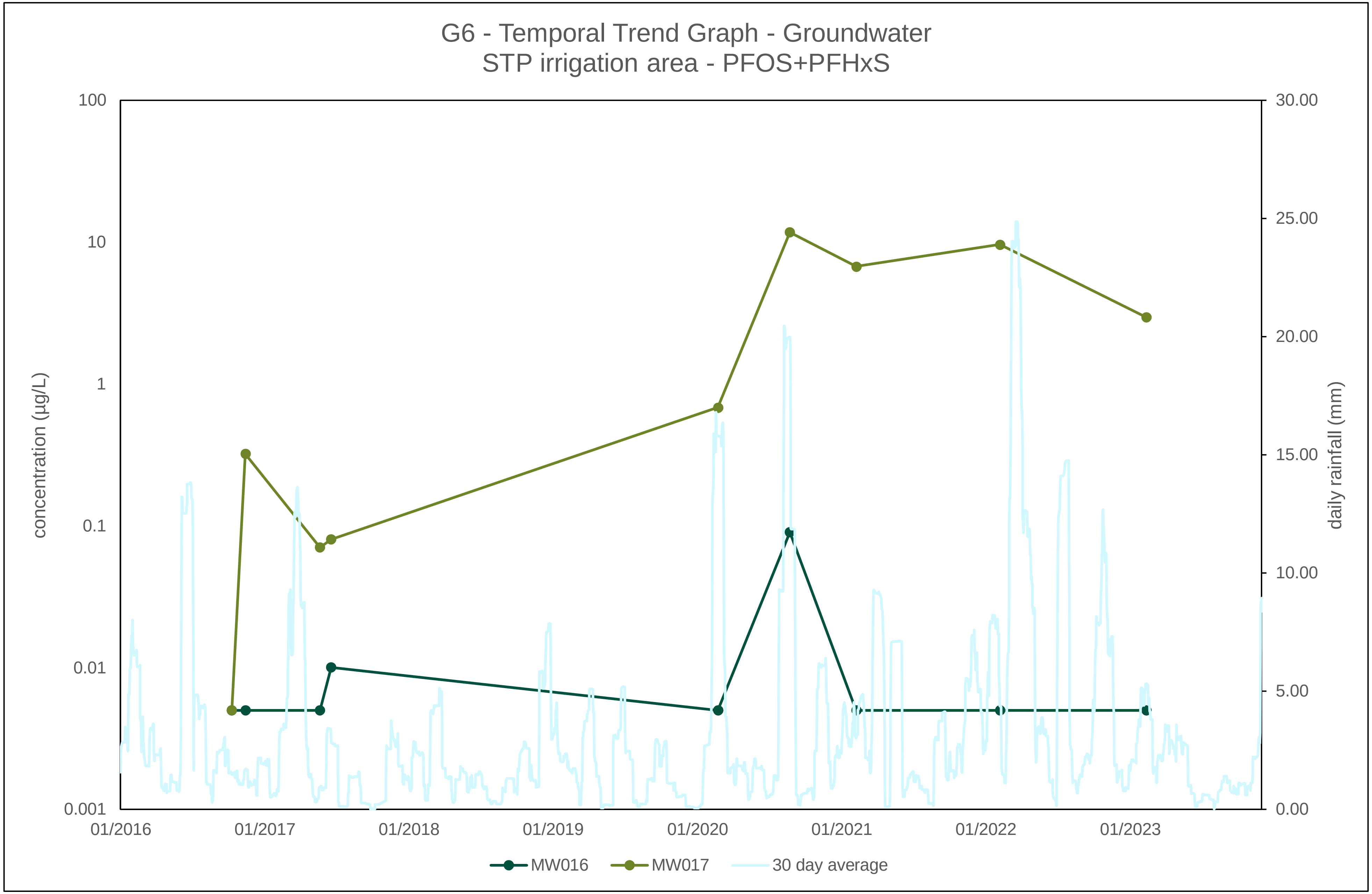
G1 - Temporal Trend Graph - Groundwater
FFTA - PFOA
concentration (µg/L)
daily rainfall (mm)
100
10
1
0.1
0.01
0.001
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW009
MW009P
MW045
MW046
30 day average


G2 - Temporal Trend Graph - Groundwater
FFTA - PFOS+PFHxS
concentration (µg/L)
daily rainfall (mm)
1000
100
10
1
0.1
0.01
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW009
MW009P
MW045
MW046
30 day average

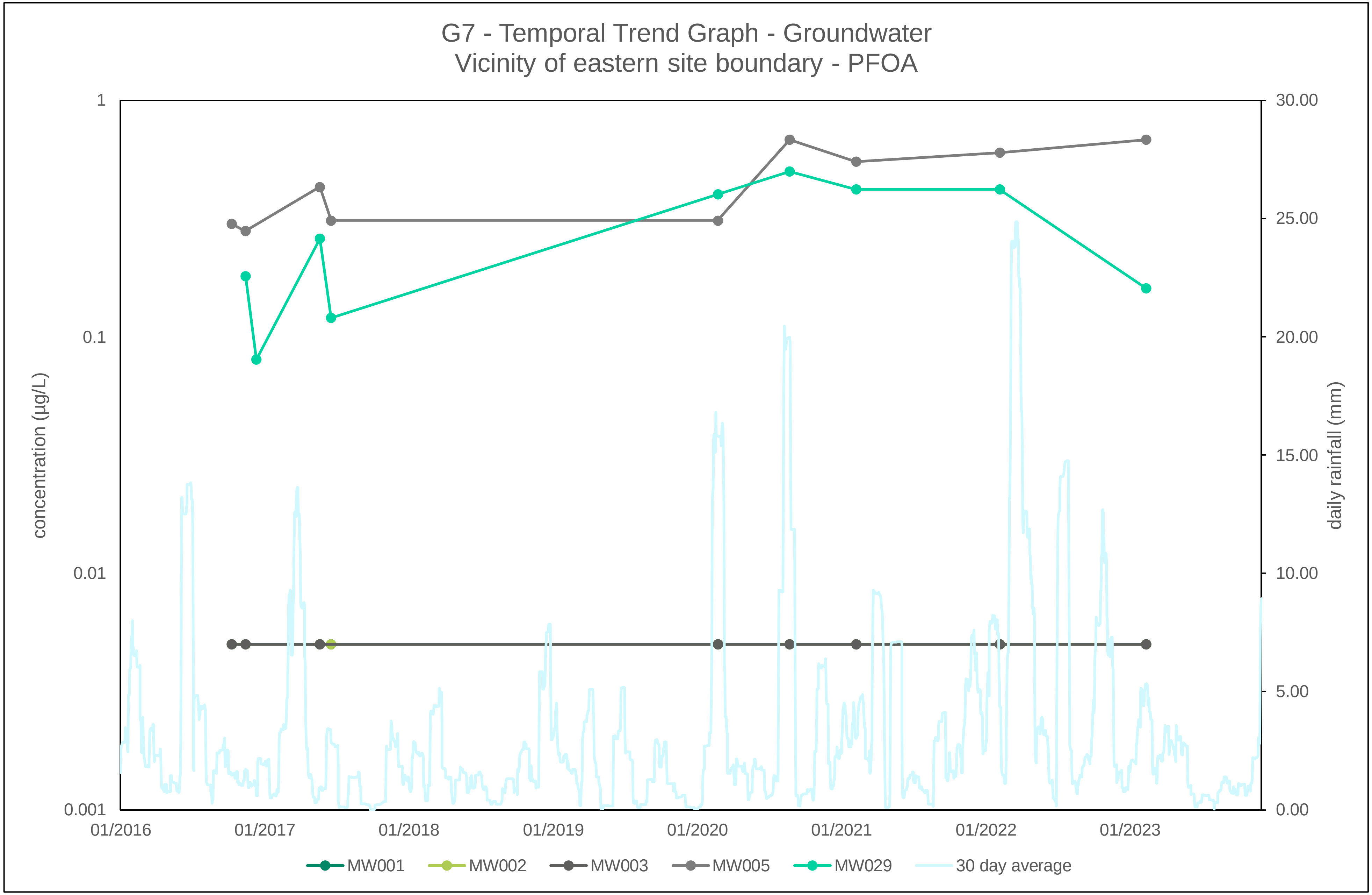

G3 - Temporal Trend Graph - Groundwater
Former AFFF exercise area and current STP - PFOA
concentration (µg/L)
1
0.1
0.01
0.001
daily rainfall (mm)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW006
MW008
30 day average


G4 - Temporal Trend Graph - Groundwater
Former AFFF exercise area and current STP - PFOS+PFHxS
concentration (µg/L)
daily rainfall (mm)
100
10
1
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW006
MW008
30 day average

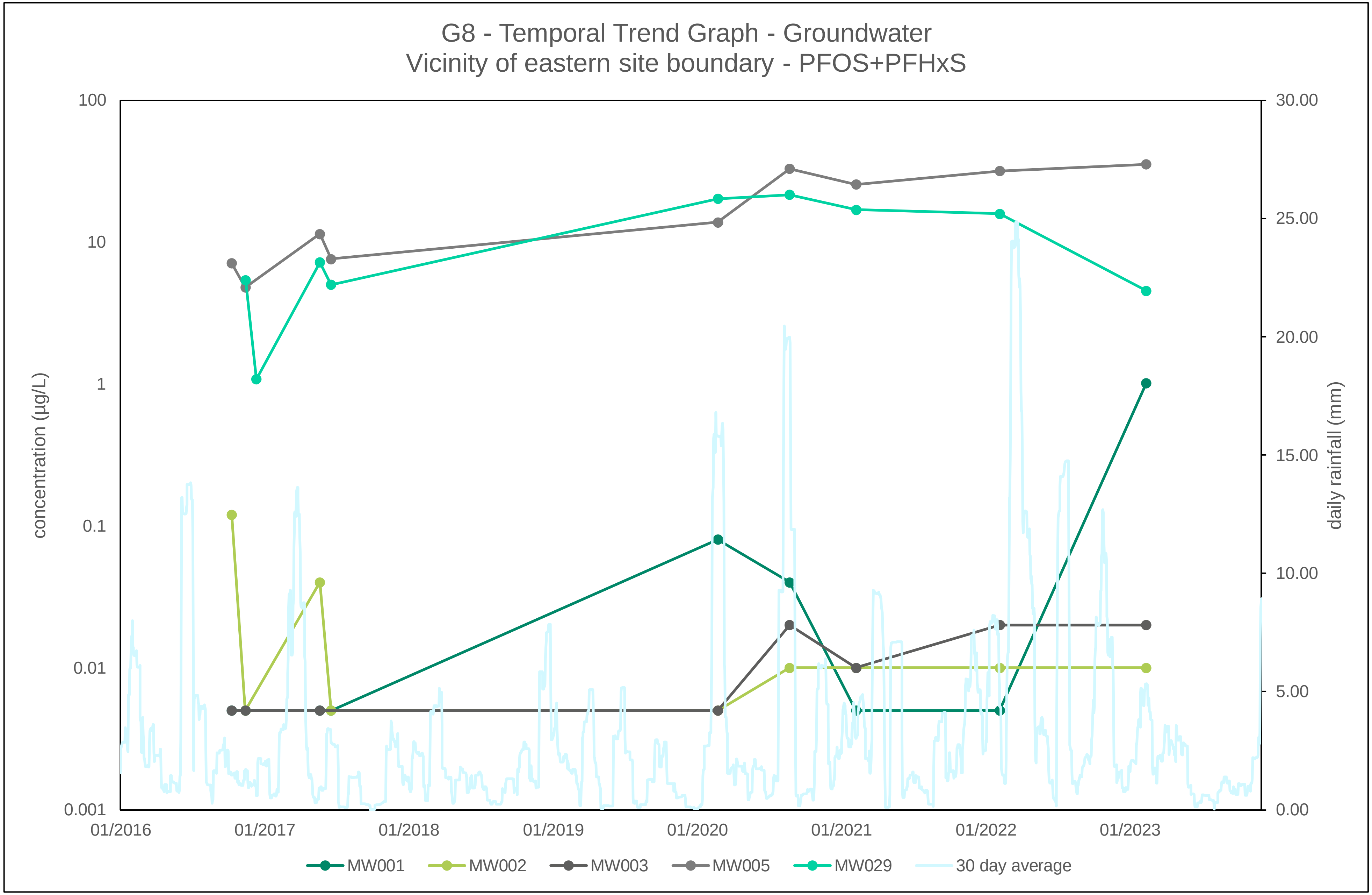

G5 - Temporal Trend Graph - Groundwater
STP irrigation area - PFOA
concentration (µg/L)
daily rainfall (mm)
1
0.1
0.01
0.001
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW016
MW017
30 day average



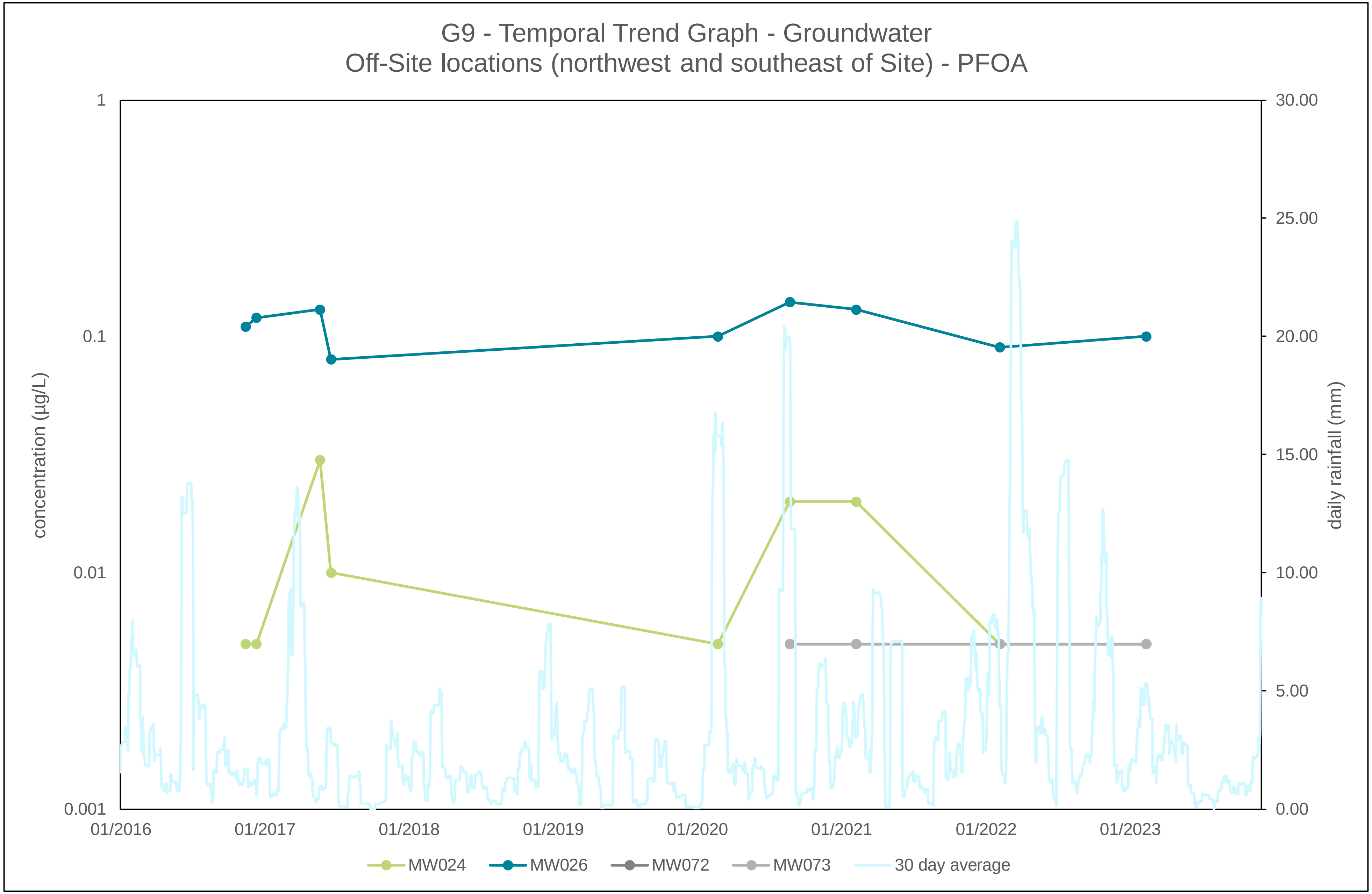
G6 - Temporal Trend Graph - Groundwater
STP irrigation area - PFOS+PFHxS
concentration (µg/L)
daily rainfall (mm)
100
10
1
0.1
0.01
0.001
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW016
MW017
30 day average



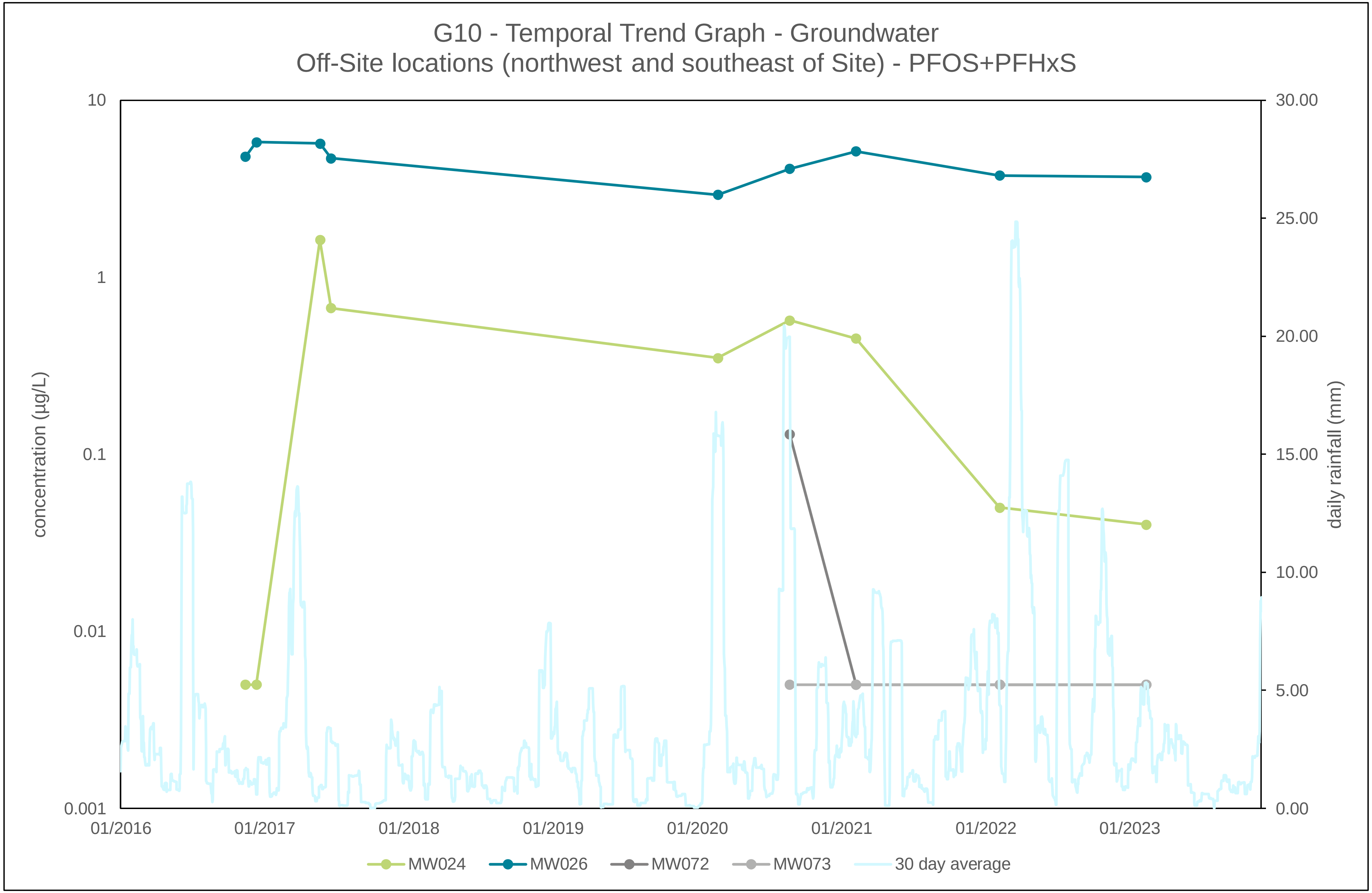
G7 - Temporal Trend Graph - Groundwater
Vicinity of eastern site boundary - PFOA
concentration (µg/L)
daily rainfall (mm)
1
0.1
0.01
0.001
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW001
MW002
MW003
MW005
MW029
30 day average



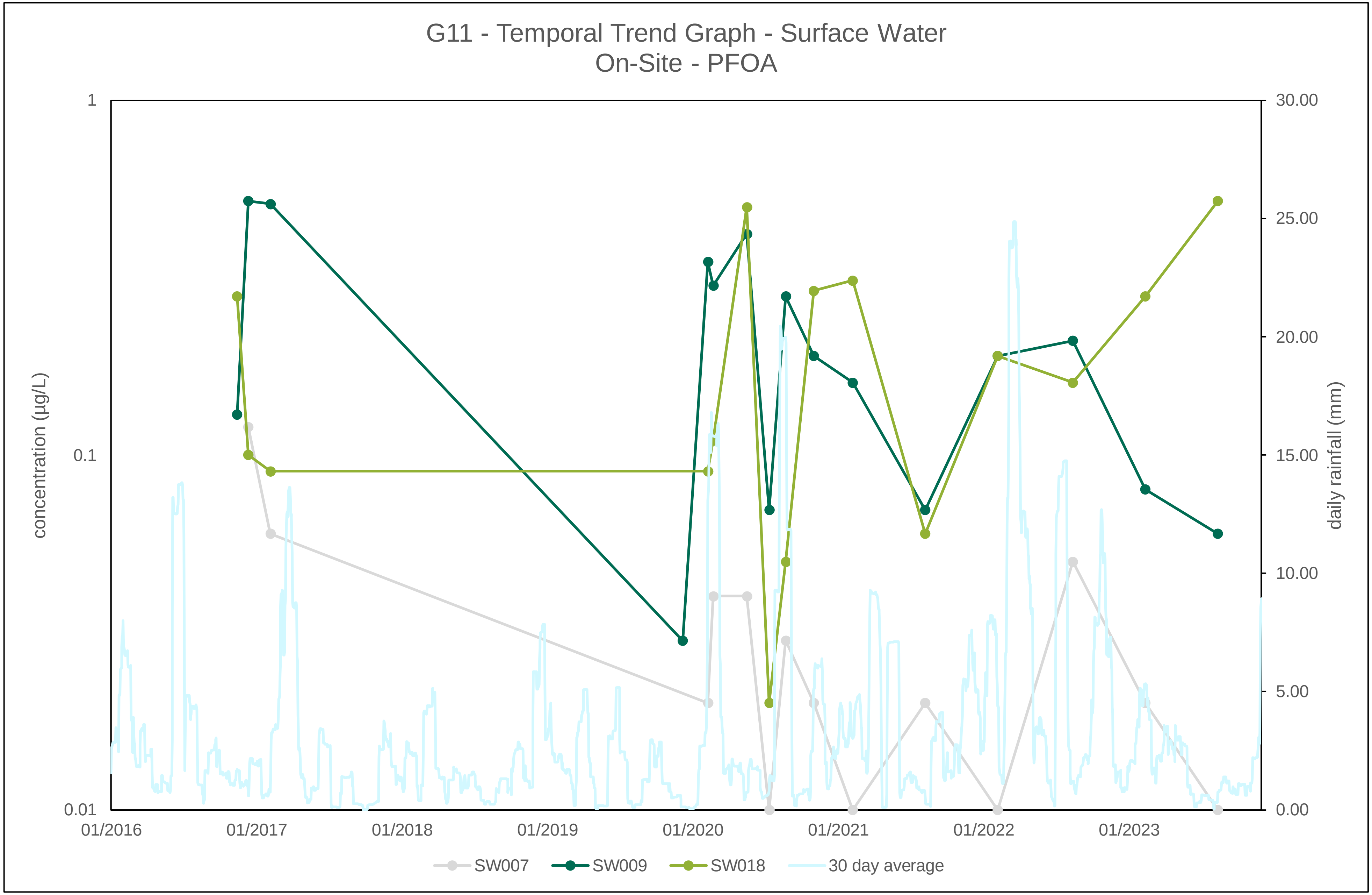
G8 - Temporal Trend Graph - Groundwater
Vicinity of eastern site boundary - PFOS+PFHxS
concentration (µg/L)
100
10
1
0.1
0.01
0.001
daily rainfall (mm)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW001
MW002
MW003
MW005
MW029
30 day average



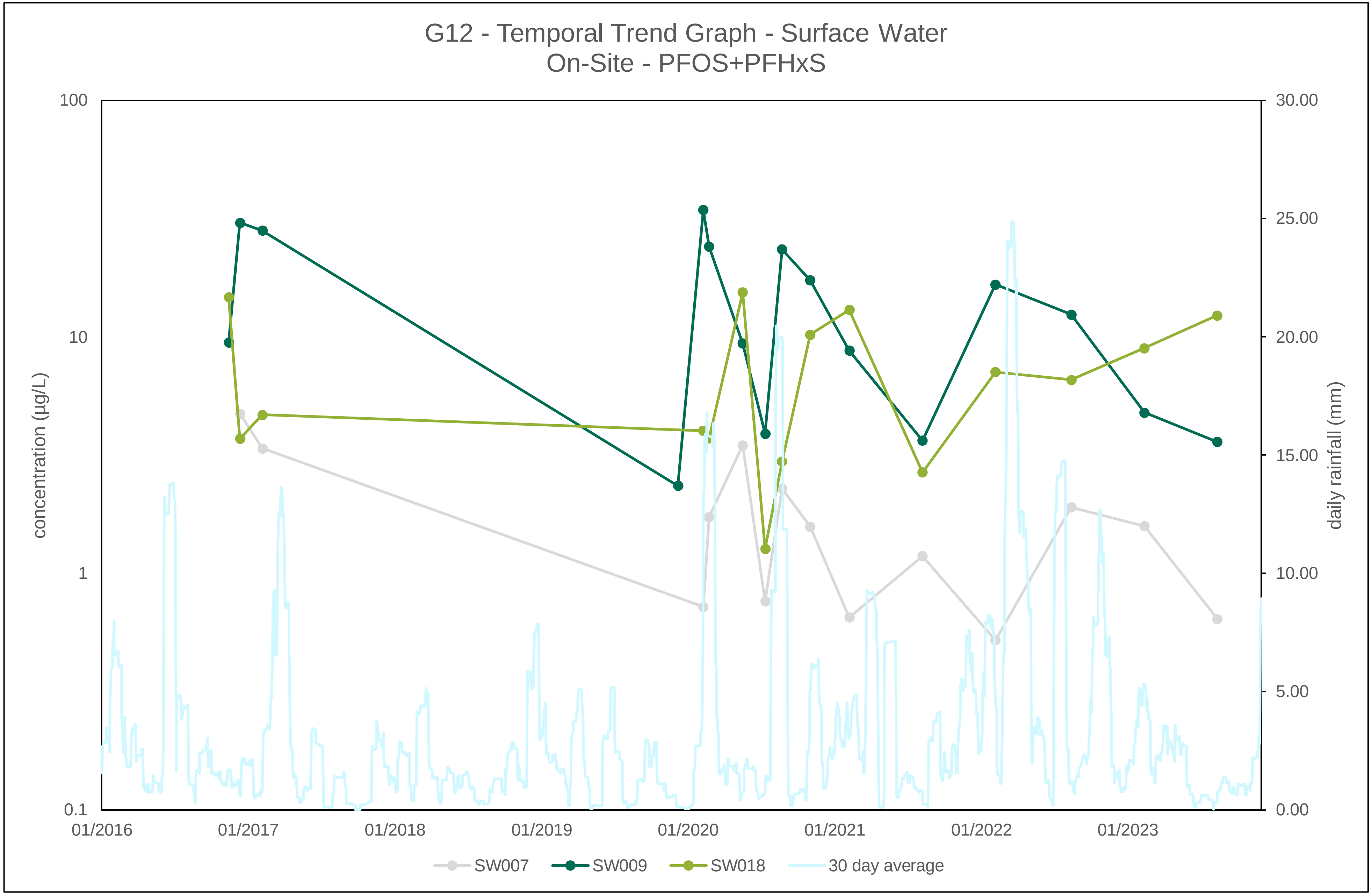
G9 - Temporal Trend Graph - Groundwater
Off-Site locations (northwest and southeast of Site) - PFOA
concentration (µg/L)
1
0.1
0.01
0.001
daily rainfall (mm)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW024
MW026
MW072
MW073
30 day average

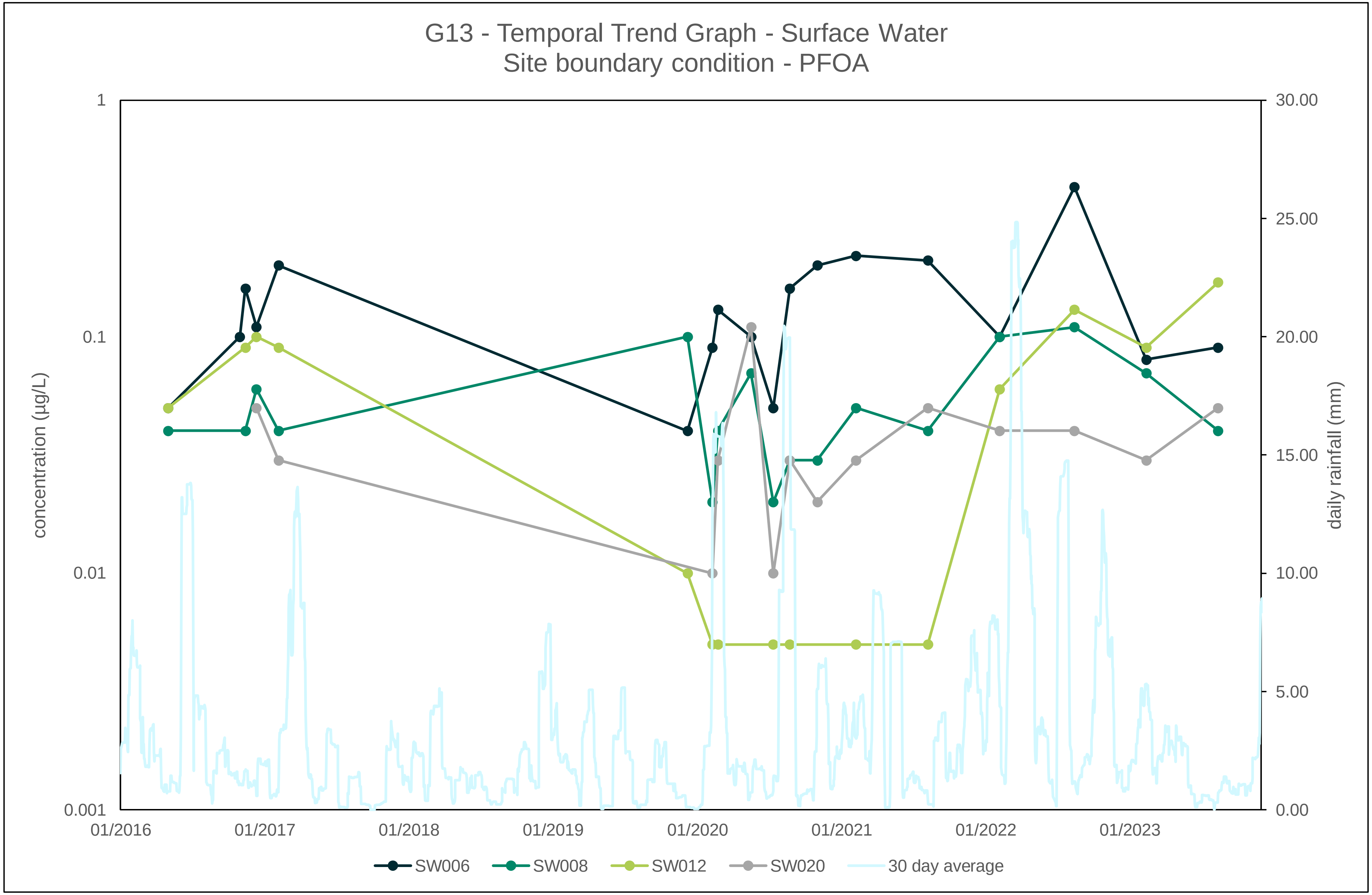


G10 - Temporal Trend Graph - Groundwater
Off-Site locations (northwest and southeast of Site) - PFOS+PFHxS
10
1
0.1
0.01
0.001
concentration (µg/L)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
daily rainfall (mm)
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
MW024
MW026
MW072
MW073
30 day average

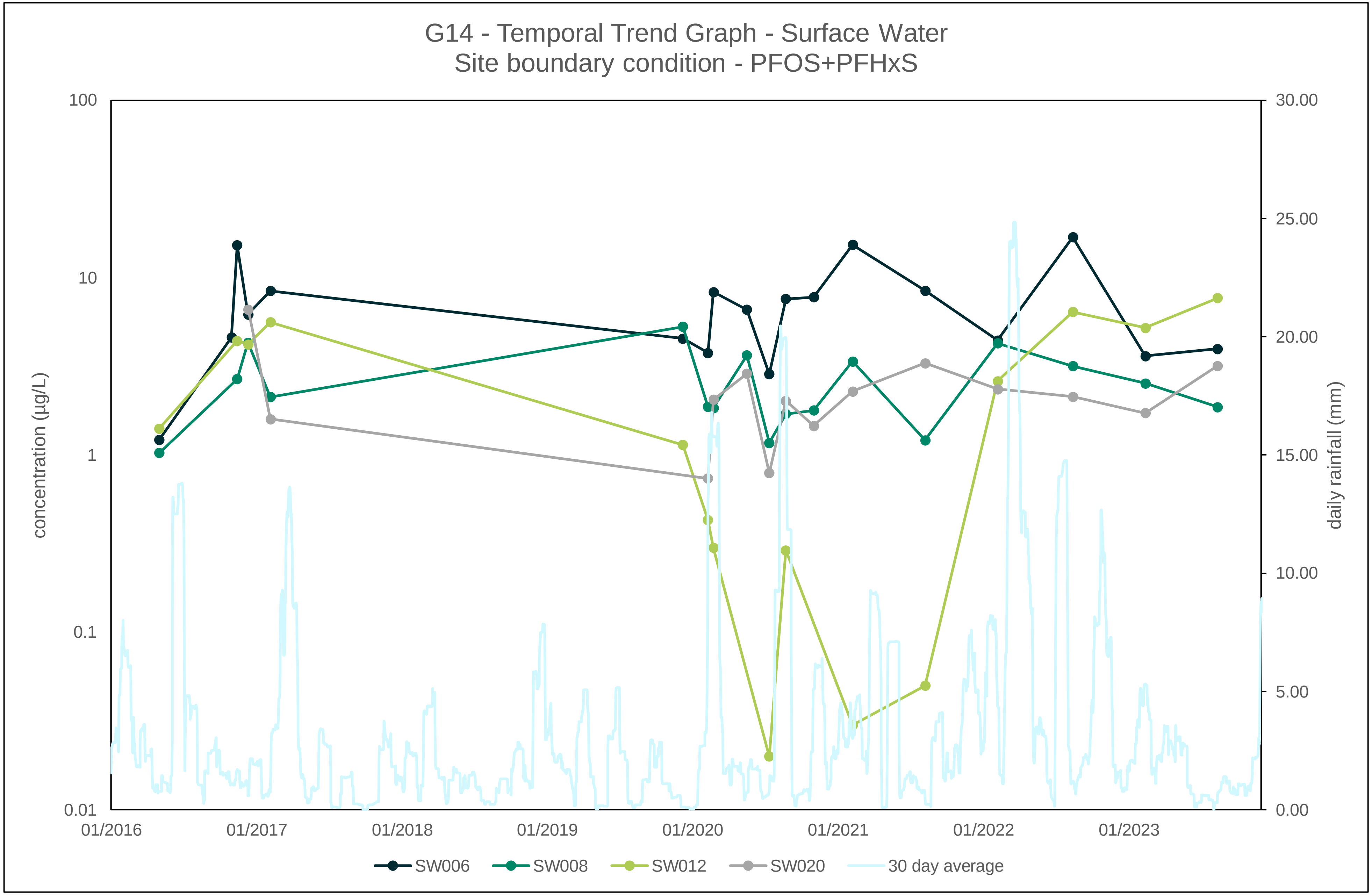


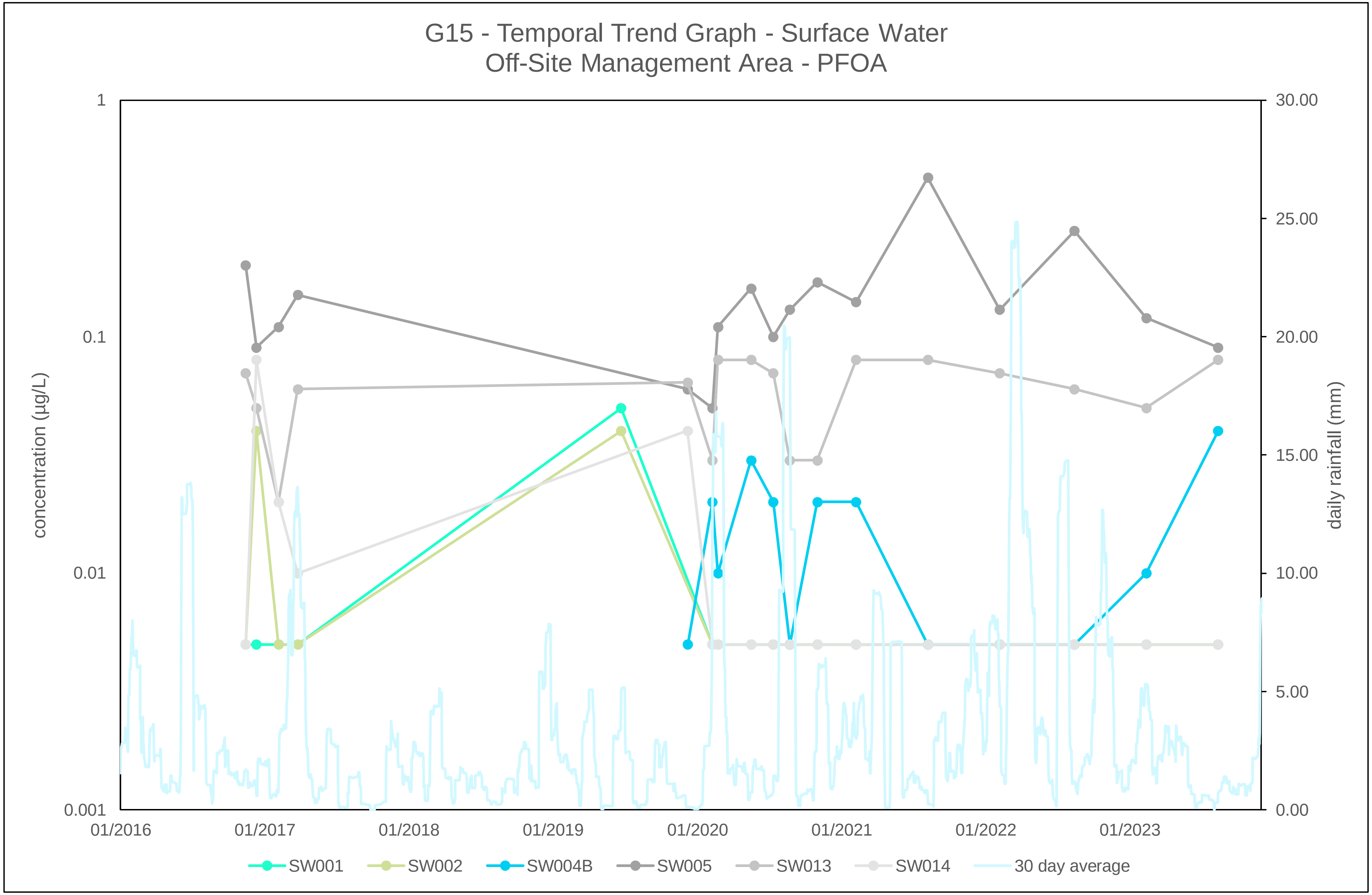
G11 - Temporal Trend Graph - Surface Water
On-Site - PFOA
concentration (µg/L)
daily rainfall (mm)
1
0.1
0.01
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
SW007
SW009
SW018
30 day average

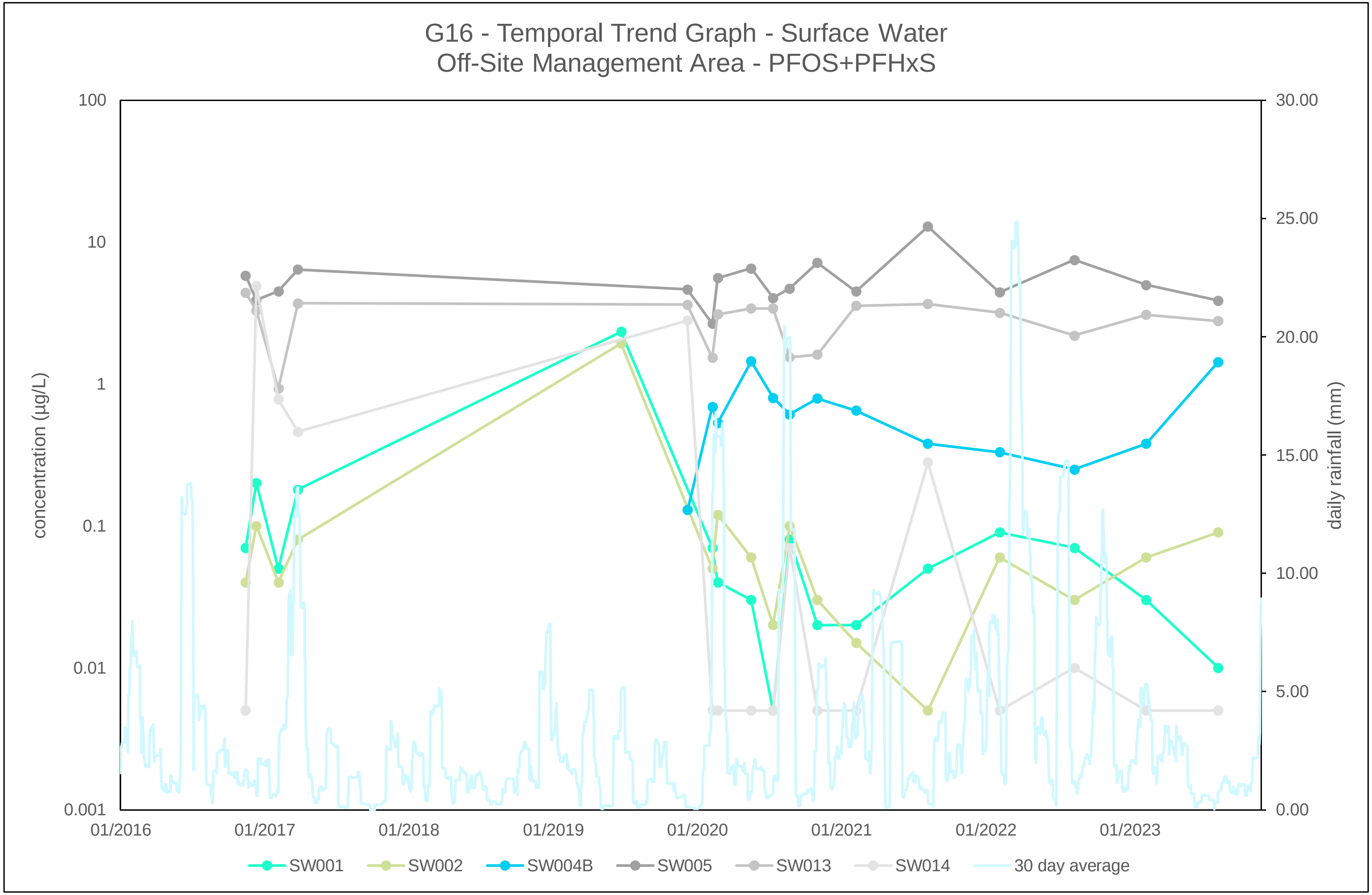

G12 - Temporal Trend Graph - Surface Water
On-Site - PFOS+PFHxS
concentration (µg/L)
daily rainfall (mm)
100
10
1
0.1
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
SW007
SW009
SW018
30 day average



G13 - Temporal Trend Graph - Surface Water
Site boundary condition - PFOA
concentration (µg/L)
1
0.1
0.01
0.001
daily rainfall (mm)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
SW006
SW008
SW012
SW020
30 day average


G14 - Temporal Trend Graph - Surface Water
Site boundary condition - PFOS+PFHxS
concentration (µg/L)
daily rainfall (mm)
100
10
1
0.1
0.01
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
SW006
SW008
SW012
SW020
30 day average


G15 - Temporal Trend Graph - Surface Water
Off-Site Management Area - PFOA
concentration (µg/L)
1
0.1
0.01
0.001
daily rainfall (mm)
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
SW001
SW002
SW004B
SW005
SW013
SW014
30 day average



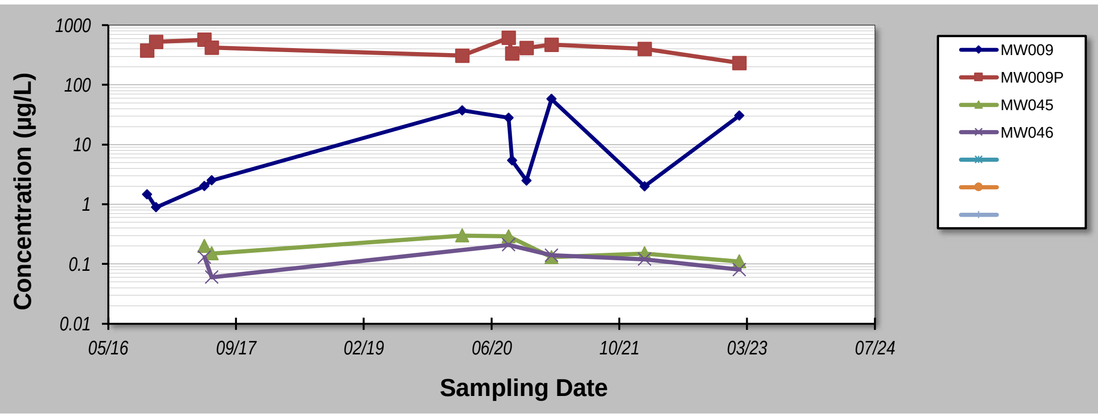
G16 - Temporal Trend Graph - Surface Water
Off-Site Management Area - PFOS+PFHxS
concentration (µg/L)
daily rainfall (mm)
100
10
1
0.1
0.01
0.001
30.00
25.00
20.00
15.00
10.00
5.00
0.00
01/2016
01/2017
01/2018
01/2019
01/2020
01/2021
01/2022
01/2023
SW001
SW002
SW004B
SW005
SW013
SW014
30 day average

Mann Kendall Analysis

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	11-Feb-24	Job ID:	60612562
Facility Name:	HMAS Albatross	Constituent:	PFOS+PFHxS
Conducted By:	DDT	Concentration Units:	µg/L

Sampling Point ID:		MW009	MW009P	MW045	MW046			
Sampling Event	Sampling Date	PFOS+PFHXS CONCENTRATION (µg/L)						
1	10-Oct-16	1.460	377.000					
2	14-Nov-16	0.890	527.000					
3	12-Dec-16							
4	22-May-17	2.010	570.000	0.200	0.130			
5	19-Jun-17	2.510	420.000	0.150	0.060			
6	24-Feb-20	37.500	310.000	0.300				
7	24-Aug-20	28.000	616.000	0.290	0.210			
8	7-Sep-20	5.400	335.000					
9	2-Nov-20	2.500	417.000					
10	8-Feb-21	58.000	472.000	0.130	0.140			
11	7-Feb-22	1.990	400.000	0.150	0.120			
12	13-Feb-23	30.600	233.000	0.110	0.080			
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.27	0.27	0.40	0.42			
Mann-Kendall Statistic (S):		21	-13	-10	-3			
Confidence Factor:		94.0%	82.1%	90.7%	64.0%			
Concentration Trend:		Prob. Increasing	Stable	Prob. Decreasing	Stable			



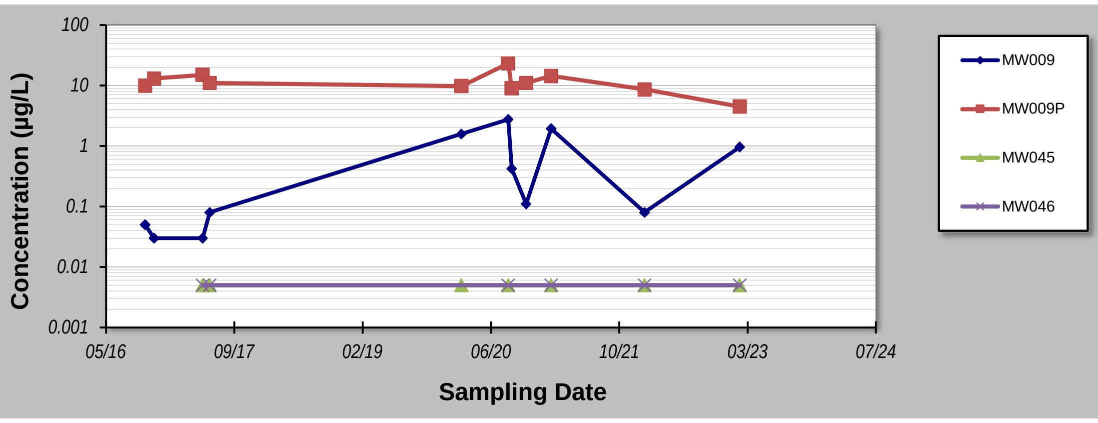
Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	11-Feb-24	Job ID:	60612562
Facility Name:	HMAS Albatross	Constituent:	PFOA
Conducted By:	DDT	Concentration Units:	µg/L

Sampling Point ID:		MW009	MW009P	MW045	MW046			
Sampling Event	Sampling Date	PFOA CONCENTRATION (µg/L)						
1	10-Oct-16	0.050	10.000					
2	14-Nov-16	0.030	13.000					
3	12-Dec-16							
4	22-May-17	0.030	15.000	0.005	0.005			
5	19-Jun-17	0.080	11.000	0.005	0.005			
6	24-Feb-20	1.580	9.790	0.005				
7	24-Aug-20	2.740	23.100	0.005	0.005			
8	7-Sep-20	0.420	9.000					
9	2-Nov-20	0.110	11.000					
10	8-Feb-21	1.940	14.400	0.005	0.005			
11	7-Feb-22	0.080	8.630	0.005	0.005			
12	13-Feb-23	0.960	4.490	0.005	0.005			
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.30	0.40	0.00	0.00			
Mann-Kendall Statistic (S):		21	-18	0	0			
Confidence Factor:		94.0%	90.5%	37.9%	39.3%			
Concentration Trend:		Prob. Increasing	Prob. Decreasing	-	-			



Notes:

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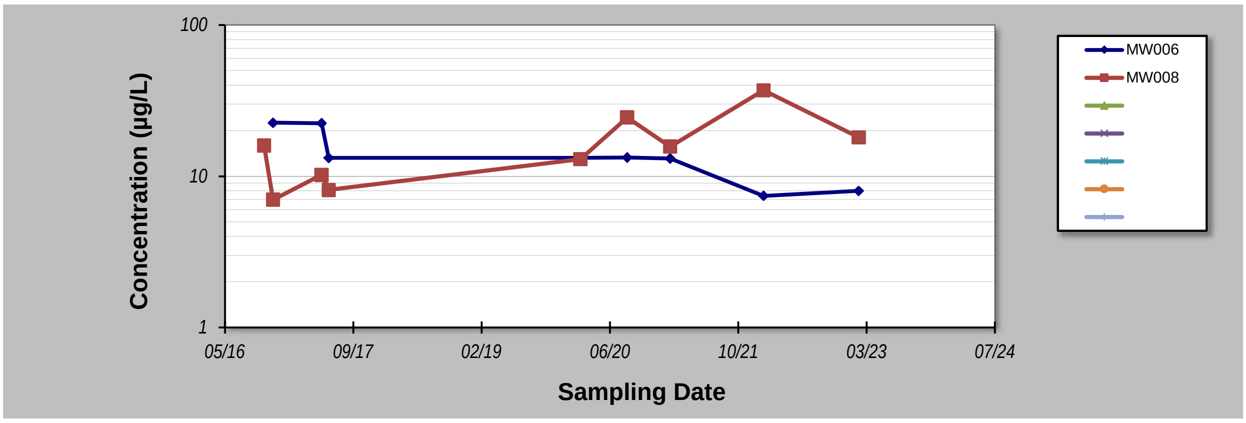
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	**11-Feb-24**	Job ID:	**60612562**
Facility Name:	**HMAS Albatross**	Constituent:	**PFOS+PFHxS**
Conducted By:	**DDT**	Concentration Units:	µg/L

Sampling Point ID:		**MW006**	**MW008**					
Sampling Event	Sampling Date	PFOS+PFHXS CONCENTRATION (µg/L)						
1	10-Oct-16		16.000					
2	14-Nov-16	22.600	7.000					
3	12-Dec-16							
4	22-May-17	22.400	10.200					
5	19-Jun-17	13.200	8.100					
6	24-Feb-20	13.200	13.000					
7	24-Aug-20	13.300	24.500					
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	13.100	15.700					
11	7-Feb-22	7.410	37.000					
12	13-Feb-23	8.000	18.100					
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.40**	**0.56**					
Mann-Kendall Statistic (S):		**-21**	**18**					
Confidence Factor:		**99.6%**	**96.2%**					
Concentration Trend:		Decreasing	Increasing					



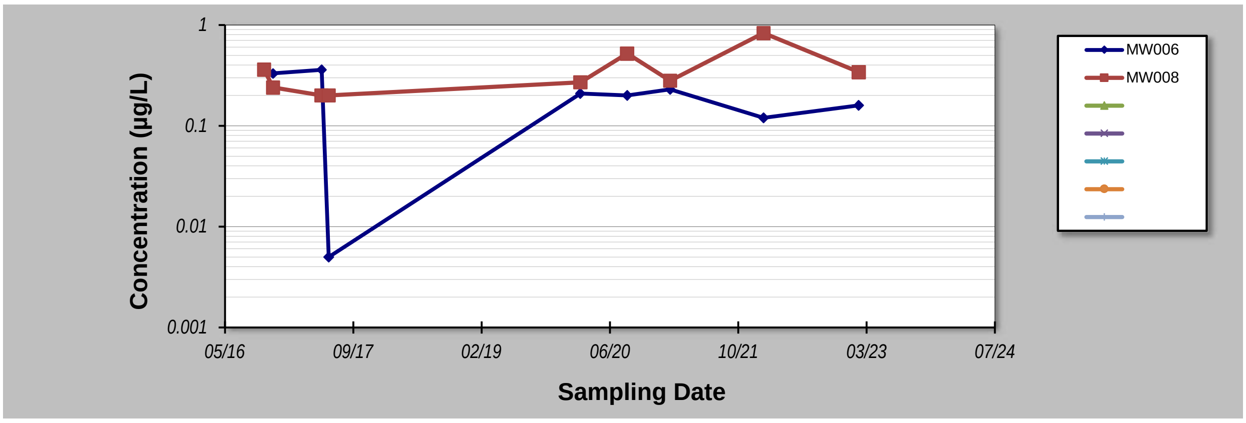
Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	**11-Feb-24**
Facility Name:	**HMAS Albatross**
Conducted By:	**DDT**
Job ID:	**60612562**
Constituent:	**PFOA**
Concentration Units:	µg/L

Sampling Event	Sampling Date	MW006	MW008					
		PFOA CONCENTRATION (µg/L)						
1	10-Oct-16		0.360					
2	14-Nov-16	0.330	0.240					
3	12-Dec-16							
4	22-May-17	0.360	0.200					
5	19-Jun-17	0.005	0.200					
6	24-Feb-20	0.210	0.270					
7	24-Aug-20	0.200	0.520					
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	0.230	0.280					
11	7-Feb-22	0.120	0.830					
12	13-Feb-23	0.160	0.340					
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		**0.56**	**0.56**					
Mann-Kendall Statistic (S):		**-10**	**13**					
Confidence Factor:		**86.2%**	**89.0%**					
Concentration Trend:		Stable	No Trend					



Notes:

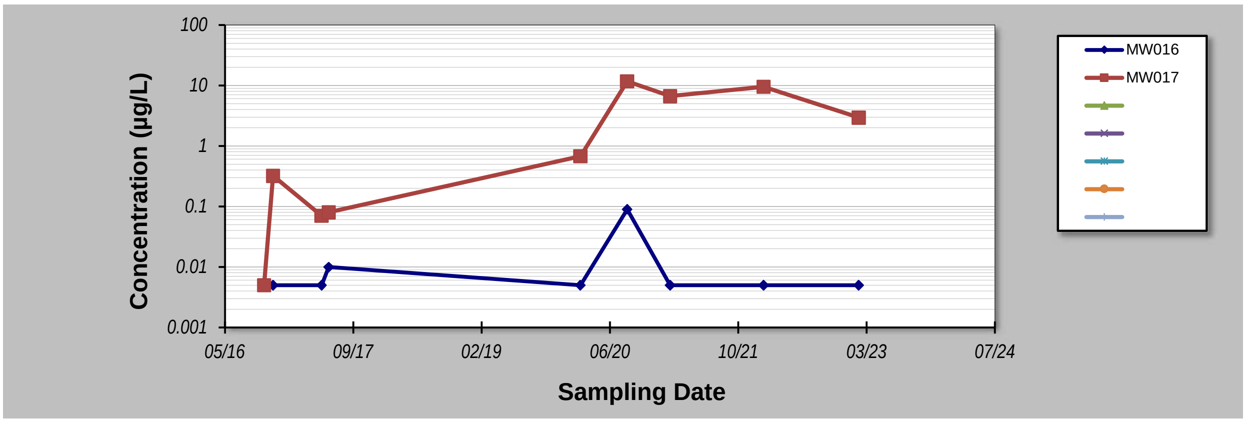
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

STP irrigation area

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	11-Feb-24	Job ID:	60612562
Facility Name:	HMAS Albatross	Constituent:	PFOS+PFHxS
Conducted By:	DDT	Concentration Units:	µg/L

Sampling Event	Sampling Date	MW016	MW017					
		PFOS+PFHXS CONCENTRATION (µg/L)						
1	10-Oct-16	0.005	0.005					
2	14-Nov-16	0.005	0.320					
3	12-Dec-16							
4	22-May-17	0.005	0.070					
5	19-Jun-17	0.010	0.080					
6	24-Feb-20	0.005	0.680					
7	24-Aug-20	0.090	11.700					
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	0.005	6.700					
11	7-Feb-22	0.005	9.560					
12	13-Feb-23	0.005	2.940					
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.88	1.29					
Mann-Kendall Statistic (S):		1	22					
Confidence Factor:		50.0%	98.8%					
Concentration Trend:		-	Increasing					



Notes:

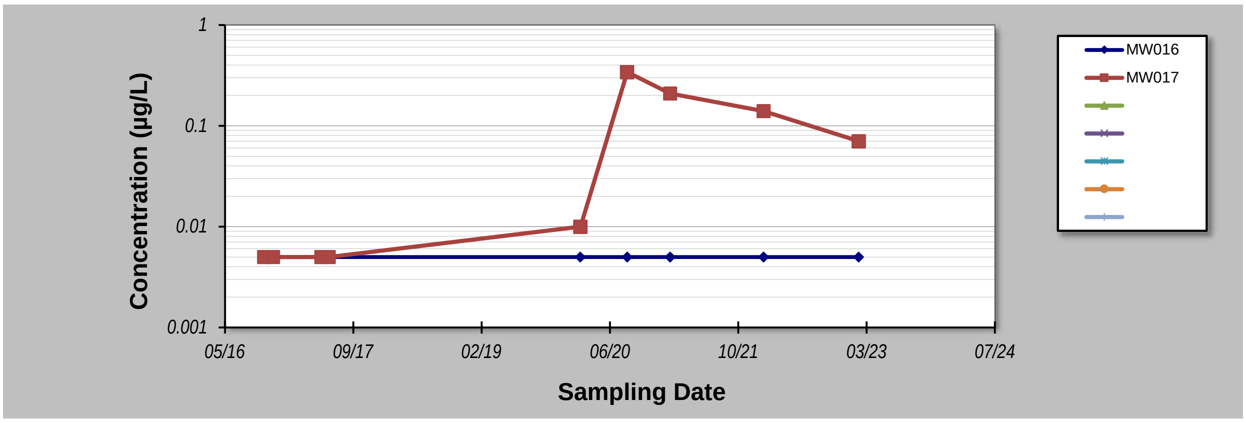
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

STP irrigation area

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	**11-Feb-24**	Job ID:	**60612562**
Facility Name:	**HMAS Albatross**	Constituent:	**PFOA**
Conducted By:	**DDT**	Concentration Units:	µg/L

Sampling Event	Sampling Date	MW016	MW017					
		PFOA CONCENTRATION (µg/L)						
1	10-Oct-16	0.005	0.005					
2	14-Nov-16	0.005	0.005					
3	12-Dec-16							
4	22-May-17	0.005	0.005					
5	19-Jun-17	0.005	0.005					
6	24-Feb-20	0.005	0.010					
7	24-Aug-20	0.005	0.340					
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	0.005	0.210					
11	7-Feb-22	0.005	0.140					
12	13-Feb-23	0.005	0.070					
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.00	1.37					
Mann-Kendall Statistic (S):		0	18					
Confidence Factor:		46.0%	96.2%					
Concentration Trend:		-	Increasing					



Notes:

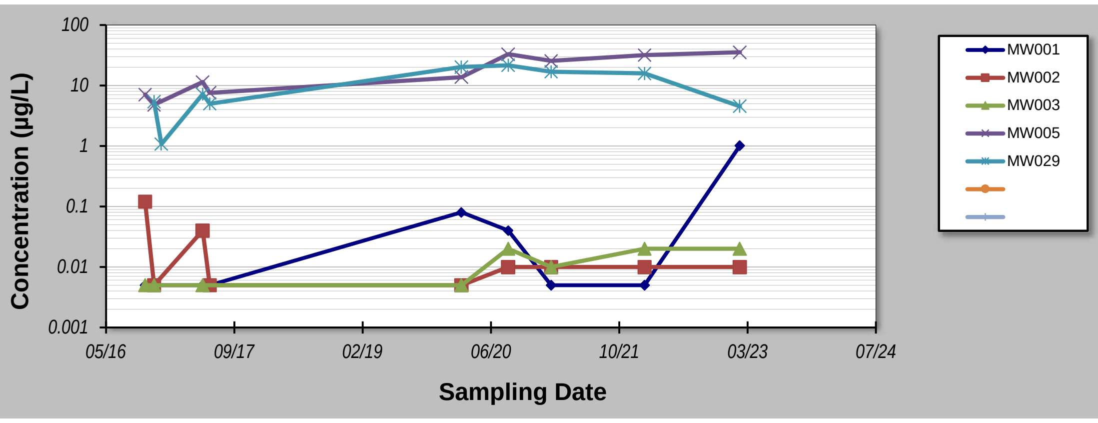
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

Eastern site boundary

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date: **11-Feb-24**
Job ID: **60612562**
Facility Name: **HMAS Albatross**
Constituent: **PFOS+PFHxS**
Conducted By: **DDT**
Concentration Units: µg/L

Sampling Point ID:		MW001	MW002	MW003	MW005	MW029		
Sampling Event	Sampling Date	PFOS+PFHXS CONCENTRATION (µg/L)						
1	10-Oct-16	0.005	0.120	0.005	7.100			
2	14-Nov-16	0.005	0.005	0.005	4.800	5.400		
3	12-Dec-16					1.080		
4	22-May-17	0.005	0.040	0.005	11.400	7.200		
5	19-Jun-17	0.005	0.005		7.600	5.000		
6	24-Feb-20	0.080	0.005	0.005	13.800	20.200		
7	24-Aug-20	0.040	0.010	0.020	32.800	21.600		
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	0.005	0.010	0.010	25.500	16.900		
11	7-Feb-22	0.005	0.010	0.020	31.700	15.800		
12	13-Feb-23	1.010	0.010	0.020	35.300	4.530		
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		2.57	1.58	0.66	0.65	0.71		
Mann-Kendall Statistic (S):		11	-1	17	28	6		
Confidence Factor:		84.6%	50.0%	97.7%	99.9%	69.4%		
Concentration Trend:		-	No Trend	Increasing	Increasing	No Trend		



Notes:

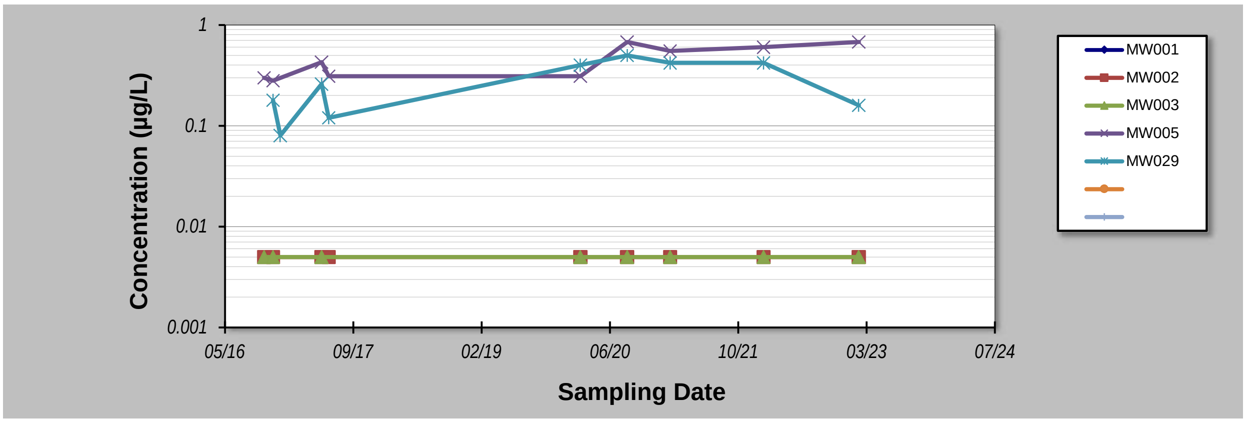
1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

Eastern site boundary

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	**11-Feb-24**	Job ID:	**60612562**
Facility Name:	**HMAS Albatross**	Constituent:	**PFOA**
Conducted By:	**DDT**	Concentration Units:	µg/L

Sampling Point ID:		MW001	MW002	MW003	MW005	MW029		
Sampling Event	Sampling Date	PFOA CONCENTRATION (µg/L)						
1	10-Oct-16	0.005	0.005	0.005	0.300			
2	14-Nov-16	0.005	0.005	0.005	0.280	0.180		
3	12-Dec-16					0.080		
4	22-May-17	0.005	0.005	0.005	0.430	0.260		
5	19-Jun-17	0.005	0.005		0.310	0.120		
6	24-Feb-20	0.005	0.005	0.005	0.310	0.400		
7	24-Aug-20	0.005	0.005	0.005	0.680	0.500		
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	0.005	0.005	0.005	0.550	0.420		
11	7-Feb-22	0.005	0.005	0.005	0.600	0.420		
12	13-Feb-23	0.005	0.005	0.005	0.680	0.160		
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		0.00	0.00	0.00	0.37	0.55		
Mann-Kendall Statistic (S):		0	0	0	24	13		
Confidence Factor:		46.0%	46.0%	45.2%	99.4%	89.0%		
Concentration Trend:		-	-	-	Increasing	No Trend		



Notes:

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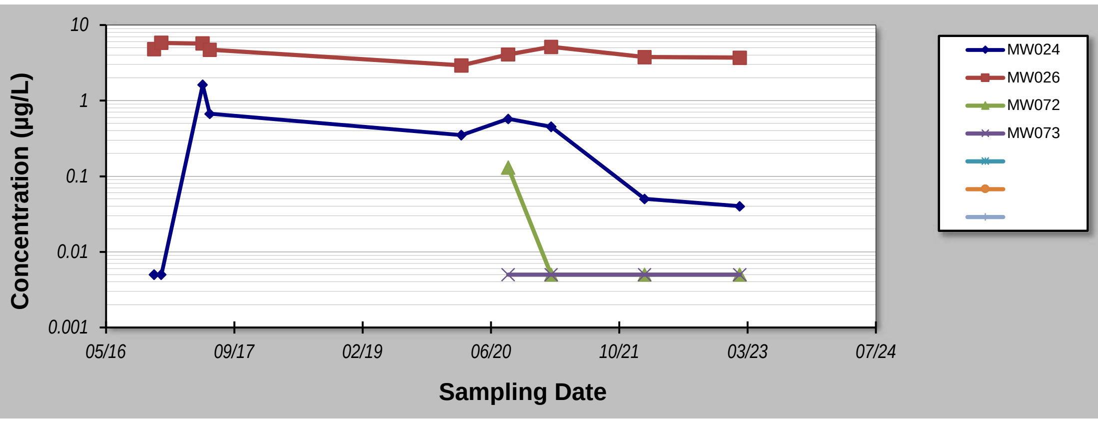
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water* , 41(3):355-367, 2003.

Off-site locations (northwest and southeast of the site)

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	**11-Feb-24**	Job ID:	**60612562**
Facility Name:	**HMAS Albatross**	Constituent:	**PFOS+PFHxS**
Conducted By:	**DDT**	Concentration Units:	µg/L

Sampling Point ID:		MW024	MW026	MW072	MW073			
Sampling Event	Sampling Date	PFOS+PFHXS CONCENTRATION (µg/L)						
1	10-Oct-16							
2	14-Nov-16	0.005	4.800					
3	12-Dec-16	0.005	5.800					
4	22-May-17	1.620	5.700					
5	19-Jun-17	0.670	4.700					
6	24-Feb-20	0.350	2.930					
7	24-Aug-20	0.570	4.090	0.130	0.005			
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	0.450	5.140	0.005	0.005			
11	7-Feb-22	0.050	3.750	0.005	0.005			
12	13-Feb-23	0.040	3.680	0.005	0.005			
13								
14								
15								
16								
17								
18								
19								
20								
Coefficient of Variation:		1.24	0.22	1.72	0.00			
Mann-Kendall Statistic (S):		-3	-18	-3	0			
Confidence Factor:		58.0%	96.2%	72.9%	37.5%			
Concentration Trend:		No Trend	Decreasing	-	-			



Notes:
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2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
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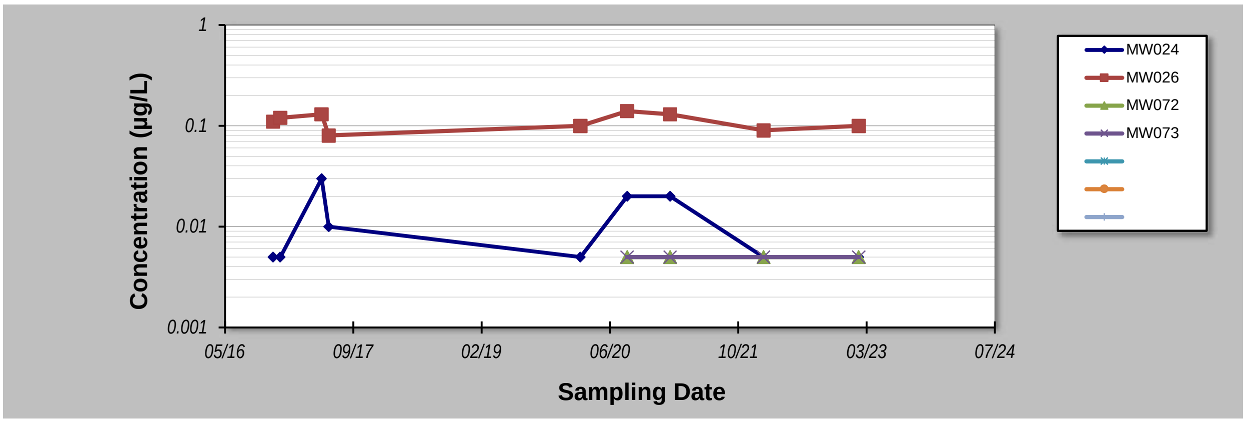
Off-site locations (northwest and southeast of the site)

GSI MANN-KENDALL TOOLKIT
for Constituent Trend Analysis

Evaluation Date:	**11-Feb-24**	Job ID:	**60612562**
Facility Name:	**HMAS Albatross**	Constituent:	**PFOA**
Conducted By:	**DDT**	Concentration Units:	µg/L

	Sampling Point ID:	MW024	MW026	MW072	MW073			
Sampling Event	Sampling Date	PFOA CONCENTRATION (µg/L)						
1	10-Oct-16							
2	14-Nov-16	0.005	0.110					
3	12-Dec-16	0.005	0.120					
4	22-May-17	0.030	0.130					
5	19-Jun-17	0.010	0.080					
6	24-Feb-20	0.005	0.100					
7	24-Aug-20	0.020	0.140	0.005	0.005			
8	7-Sep-20							
9	2-Nov-20							
10	8-Feb-21	0.020	0.130	0.005	0.005			
11	7-Feb-22	0.005	0.090	0.005	0.005			
12	13-Feb-23	0.005	0.100	0.005	0.005			
13								
14								
15								
16								
17								
18								
19								
20								
	Coefficient of Variation:	0.80	0.18	0.00	0.00			
	Mann-Kendall Statistic (S):	-1	-2	0	0			
	Confidence Factor:	50.0%	54.0%	37.5%	37.5%			
	Concentration Trend:	Stable	Stable	-	-			

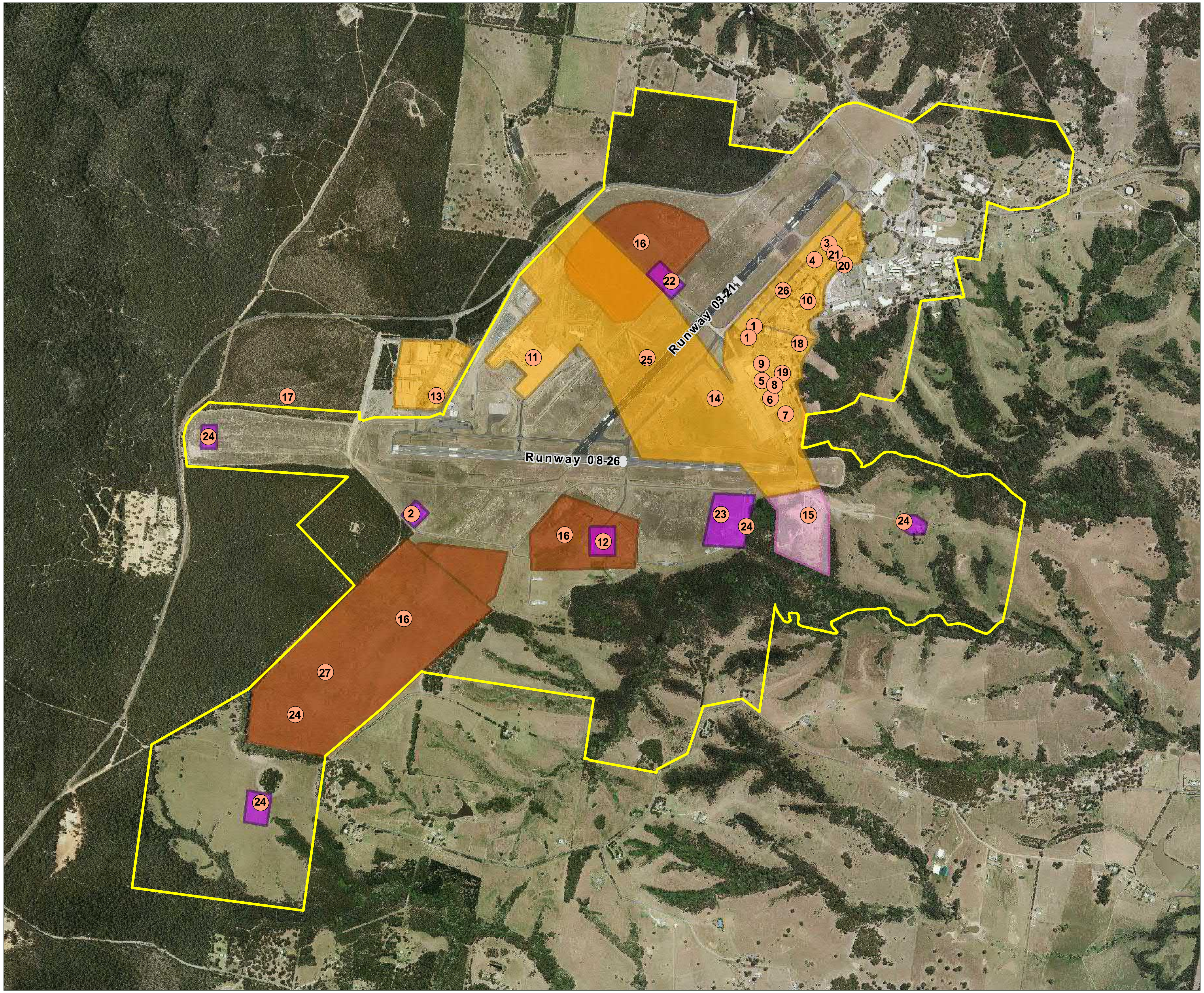


Notes:

1. At least four independent sampling events per well are required for calculating the trend. *Methodology is valid for 4 to 40 samples.*
2. Confidence in Trend = Confidence (in percent) that constituent concentration is increasing (S>0) or decreasing (S<0): >95% = Increasing or Decreasing; ≥ 90% = Probably Increasing or Probably Decreasing; < 90% and S>0 = No Trend; < 90%, S≤0, and COV ≥ 1 = No Trend; < 90% and COV < 1 = Stable.
3. Methodology based on "MAROS: A Decision Support System for Optimizing Monitoring Plans", J.J. Aziz, M. Ling, H.S. Rifai, C.J. Newell, and J.R. Gonzales, *Ground Water*, 41(3):355-367, 2003.

Appendix D

Maps



aurecon

Legend

- HMAS Albatross site boundary
- Potential sources

Key areas of concern

- Former firefighting training areas
- Hangars and flight lines, and associated activities
- Sewage treatment plant (STP)
- STP irrigation area

Key areas	Potential sources
Hangars, flight lines and associated activities	1. Fire station and suppression store
	3. Hangar A
	4. Hangar B
	5. Hangar K
	6. Hangar L
	7. Hangar J
	8. Hangar H (former)
	9. Hangar M (HATS)
	10. DNSDC
	11. ROMEO facility
	13. Albatross Aviation Technology Park
	14. Detention basin
	17. Skyhawk crash site
	18. Fuel farm and associated infrastructure (current)
	19. Fuel farm (former)
	20. Fire station (former)
	21. Storage and test area (dummy deck) (former)
	25. Hangar K AFFF spill (December 2014)
	26. Flight lines
Former firefighting training areas	2. Firefighting training area
	12. Flight deck procedural trainer area
	22. Firefighting training area (former)
	23. Engine test facility (former)
	24. AFFF exercise areas
STP	15. STP and effluent storage dam
STP irrigation areas	16. Effluent irrigation areas
	27. Parachute training area

Source: Imagery - Department of Defence (2015).

Date: 8/11/2017 Version: 1

A3 scale: 1:20,000

0 430 860 Metres

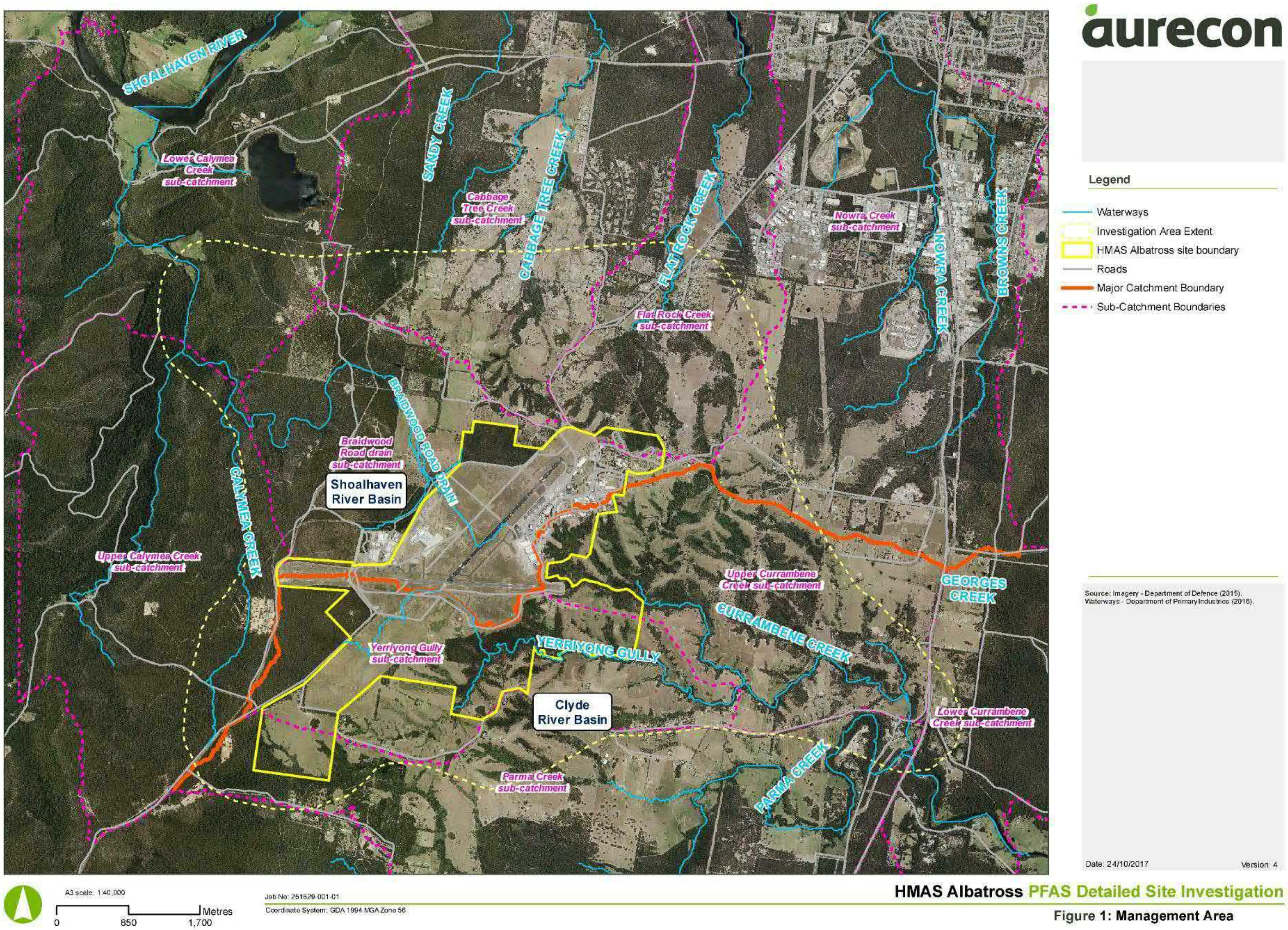
Job No: 251529-003-01

Coordinate System: GDA 1994 MGA Zone 56

HMAS Albatross PFAS Detailed Site Investigation

Figure 3.1: Key areas of concern

Figure 1 – Management area plan location



Appendix E

SAQP

Prepared for
Department of Defence
ABN: 68 706 814 312

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AECOM

HMAS Albatross - Sampling and Analysis Quality Plan

PFAS OMP

11-Aug-2023
PFAS Ongoing Monitoring Program
Doc No. 20230811_OMP002_Albatross_SAQP_Rev J

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HMAS Albatross - Sampling and Analysis Quality Plan

PFAS OMP

Client: Department of Defence

ABN: 68 706 814 312

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1.0 Introduction

1.1 Preamble

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

The SAQP supports the OMP presented in Appendix F of the *PFAS Management Area Plan* [PMAP] – *July 2019, HMAS Albatross* (Defence, 2019a), here-in referred to as OMP (Defence, 2019b).

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

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

Note that the initial 3-year monitoring period was completed in June 2022, and this SAQP covers the monitoring for the two-year extension period, between July 2022 and June 2024..

1.2 SAQP Objectives

The objectives of this SAQP are to:

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

1.3 Scope of Works

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

- monitor the nature and extent (spatial and temporal) of PFAS impact in groundwater, surface water and sediment pathways associated with site sources of PFAS derived from the historical use of aqueous film forming foam (AFFF)
- monitor the migration of PFAS in groundwater and surface water from the Site, utilising newly obtained and historical data
- provide confirmation of the current understanding of risk
- provide supporting data for assessment of management actions, where relevant.

1.4 Guidelines and Legislation

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

- Australian and New Zealand Guidelines, 2018. Australian and New Zealand Guidelines for Fresh and Marine Water Quality.
- Department of Defence, 2018. *Contamination Management Manual – Annex L Data Management*. August 2018, Amended June 2021.
- Department of Defence, 2022. *PFAS Investigation and Management, Guidance Document E Standard PFAS Analytical Suite*. June 2022.

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- Department of Health, 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- FSANZ, 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- Heads of EPAs Australia and New Zealand (HEPA) 2020. *PFAS National Environmental Management Plan 2.0*. January 2020.
- National Environment Protection Council (NEPC), 2013. *National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- Standards Australia, 1998. AS/NZ 5667:1998 Water Quality – Sampling. Part 11: Guidance on sampling of groundwaters.

1.5 Previous investigations

Defence commenced an environmental investigation of PFAS at HMAS Albatross and the surrounding areas in 2017. This investigation has involved Preliminary and Detailed Site Investigations (Aurecon, 2017) as well as a Human Health and Ecological Risk Assessment (HHERA) (En-Risks, 2017) and an Addendum HHERA (En-Risks, 2018). These reports detailed the nature and extent of PFAS at the Site, as well as the associated risks pertaining to PFAS contamination from legacy use of AFFF.

The PMAP (Defence, 2019a) was subsequently developed and includes the overall purpose and requirements of the OMP.

Additionally, to date, the following reports have been prepared under the OMP:

- 12 OMP Sampling Event Factual Reports (AECOM,2020a to 2020h, 2021a, 2022a, 2022b and 2023a).
- 2 OMP Annual Interpretive Reports (AECOM, 2021b and 2023b).

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2.0 Site Setting

2.1 Site Description

The Site is the Royal Australian Navy's (RAN) only active airbase, and provides logistical support to the Fleet Air Arm. The Site features include:

- an airfield and associated buildings
- operations, training, maintenance and administrative facilities
- road verges are generally unpaved
- surface drains and other water bodies on the Site and off-Site.

The Site is located in broader rural, agricultural and public open space (National Park and State Forest) setting.

In July 2019, Defence released the PMAP (Defence, 2019a), which defines the following key areas that define the Management Area:

- the Site, comprising approximately 900 ha Commonwealth owned land
- discrete residential properties off-site with surface water groundwater and soil containing PFAS
- the Braidwood Road drain sub-catchment, Nowra Creek sub-catchment, Upper Currambine Creek sub-catchment and the Cabbage Tree Creek sub-catchment.

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

2.1.1 Management Area

The Management Area is defined in the PMAP (Defence, 2019a) and includes the Site as well as discrete residential properties in off-Site areas where surface water, groundwater and soil were found to be containing PFAS, within the Braidwood Road drain sub-catchment, Nowra Creek sub-catchment, Upper Currambene Creek sub-catchment and Cabbage Tree Creek sub-catchment.

These properties, which are used for low intensity agriculture and residential purpose, are included within the Management Area as they were identified to contain actual or potential pathways for PFAS to move from Site. National Parks and Nature Reserves within the Management Area include the Colymea State Conservation Area and Colymea State Forest and the Parma Creek Nature Reserve (Defence, 2019a).

2.1.2 Regional Meteorology

The Bureau of Meteorology (BoM) at Nowra RAN Air Station AWS (station number: 068072) has been operational since 2000 and provides representative climate statistics for the Site and Management Area. The following is a summary of temperature and rainfall data from this station:

- Mean monthly maximum temperatures varied from 16.7 °C in July to 27.7 °C in January.
- Mean rainfall is 1023.1 mm per annum.
- Mean monthly rainfall is highest between February (141.2 mm) and March (139.5 mm) and lowest in September (44.2 mm).

2.1.3 Topography and Geology

The majority of the Site is relatively flat at 120 m Australian Height Datum (AHD) in the eastern region to 105 m to 120 m in the central-eastern developed area of the Site and 100 m AHD in the northern and western region of the Site (Defence, 2019a). A ridgeline is present roughly through the centre of the Site with topography in the east dropping steeply from 110 m AHD to 40 m AHD towards Currambene Creek and the topography west of the site dropping more gradually towards Calymea Creek. Nowra Hill is located in the north-eastern corner of the site and has a raised elevation of 197 m AHD (Defence, 2019a).

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The Site is underlain by the Berry Siltstone comprising siltstone, shale and sandstone, underlain by the Nowra Sandstone (quartzose sandstone, minor siltstone plus conglomerate beds), as per the Wollongong 1:250,000 Geological Series Sheet SI 56-9.The Berry Siltstone has an approximate thickness of 30 to 60 m, overlying Nowra Sandstone with an approximate thickness of 100 m, as per the Nowra-Toolijooa 1:50,000 Geological Series Sheets 9028. When fresh and un-weathered, the siltstone is generally quite hard and without joints. Where present, jointing is usually poorly developed and discontinuous (Defence, 2019a).

2.1.4 Hydrogeology

The Site is divided into two water catchment areas. The north-west portion of the Site forms part of the Shoalhaven River Basin while the south and east portion of the Site forms part of the Clyde River Basin. Groundwater within the Shoalhaven River Basin is inferred to flow north to northwest towards the Shoalhaven River (following the topographical profile), while groundwater within the Clyde River Basin is inferred to generally flow south to southeast towards Currambene Creek and Jervis Bay (Defence, 2019a).

Details of registered groundwater bores indicate that water supply aquifers are present in sandstone at 40-50 m below grade, beneath a 10-20 m thick shale (Berry Siltstone) body. Registered bores generally indicate confined aquifer conditions and the water bearing zones tapped by registered bores are mostly within sandstone and occasionally in the shales. The existing bores are licenced for stock and domestic use and the groundwater yield and quality (from available bore reports) appears to be suitable for all livestock and irrigation (Defence, 2019a).

2.1.5 Vegetation

The Site comprises the following vegetation:

- Remnant vegetation (12.5%)
- Regenerating native vegetation (9.0%)
- Maintained cleared grassland and Defence infrastructure (78.5%)

No Commonwealth or State listed threatened ecological species were recorded on Site, although several species are considered to potentially occur. Some areas of vegetation were considered to be Endangered Ecological Communities listed under the Threatened Species Conservation Act 1995 (NSW) (TSC Act), including the Illawarra Lowlands Grassy Woodland and Lowland Rainforest (Defence, 2019a).

2.1.6 Surface Water and Drainage

Surface water runoff from the southern portion of HMAS Albatross is generally captured within the Site's stormwater drainage network, and either directed in surface drainage lines to discharge into the Sewage Treatment Plant or released off Site to one of two major catchment areas. These major catchments are the Shoalhaven River (via Calymea Creek, Cabbage Tree Creek or Flat Rock Creek), and Currambene Creek and Yerriyong Gully (which flow into Jervis Bay) (Defence, 2019a).

Three freshwater creeks traverse the southern and eastern portion of the Site, including Currambene Creek, Yerriyong Gully (including headwaters) and Parma Creek. Yerriyong Gully and Parma Creek flow along the southern boundary of the Site and drain into Currambene Creek. Further downstream, the Currambene Creek flows into Jervis Bay at Huskisson. Surface runoff from the northern and western portions of the Site drain northwest to an unnamed tributary of Calymea Creek, referred to as Braidwood Road drain for the purposes this PMAP. Cabbage Tree Creek, Flat Rock Creek and Nowra Creek flow from the north of the Site and flow into the Shoalhaven River (Defence, 2019a).

2.1.7 Current Surrounding Land Use

The current land uses of the surrounding off-site areas are as follows:

- North: a mix of private properties used for agricultural and residential purposes. A quarry, two polo clubs and a number of creeks have also been identified. Tingira Child Care Centre is

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located on the north-eastern corner of the site while Nowra Hill Public School is located directly adjacent (north-east) to the site.

- South: predominantly an agricultural area, although some land is owned by Defence and used as a buffer zone. The sewage treatment plant is located in the south-east portion of the site.
- East: Currambene Creek and Yerriyong Gully, and areas predominantly used for agricultural purposes.
- West: Albatross Aviation Technology Park and private property used for agricultural purposes. Further west is the Colymea State and Conservation Area and State Forest.

2.2 Conceptual Site Model

The Conceptual Site Model (CSM) is presented in the PMAP (Defence, 2019a) and the 2021 Annual Interpretive Report (AECOM, 2022) which summarise the linkages between sources, exposure pathways and receptors.

Further assessments of risk exposure pathways are presented in the Human Health and Ecological Risk Assessment (HHERA) (Environmental Risk Sciences [EnRiskS], 2017) and the Addendum HHERA (EnRiskS, 2018).

The CSM identified several PFAS sources, subdivided into two distinct groups as detailed below:

- primary PFAS sources, which were identified as the distinct areas of soil with a high contaminant concentration and include:
  - Soil at the Firefighting training area
  - Soil at the Sewage treatment plant (STP)
- secondary PFAS sources which were distributed on- and off-Site and exist at generally low concentrations and include:
  - Soil at the STP irrigation areas
  - Soil at the Hangers, flight lines and associated activities
  - Groundwater
  - Surface water

The primary pathway for PFAS from the Site is identified to be via surface run-off with the major PFAS discharge point being at Braidwood Road Drain on the Site’s western boundary.

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3.0 Data Quality Objectives

3.1 DQO Process

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

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

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

Table 1 The seven steps in defining DQOs

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

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

3.1.1 Step 1 – State the Problem

Environmental investigations undertaken at the Site have identified PFAS in soil, sediment, surface water and groundwater primarily resulting from the historical use of aqueous film forming foam (AFFF) for fire protection purposes. The DSI (Aurecon, 2017) confirmed that the identified PFAS impacts in environmental media were not limited to within the Site boundary and appear to have migrated off-Site through a number of pathways.

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

The variability of PFAS flux is not well understood in surface water runoff leaving the Site and entering the receiving environment. The proposed time interval surface water monitoring (quarterly for the initial 12-month period, then biannually for the remainder of the contract period) is anticipated to provide an indication of PFAS concentrations during base flow conditions. The base flow condition data will be supplemented by event sampling data collected during or shortly after a significant rainfall event within the initial 12-month period.

The data collected by implementing the SAQP will provide a periodic dataset that can be used to assist with assessment of temporal changes in PFAS concentrations in groundwater and surface water on and off-Site.

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

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

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

3.1.2 Step 2 – Identify the Goal of the Study

The principal objectives of the ongoing monitoring plan are to:

- undertake surface water and groundwater monitoring to assess the changes in the nature and extent (spatial and temporal) of PFAS concentrations on and off Site
- collect further baseline data, for comparison during and after remediation of hotspot/source areas to assess the success of the remediation and management methods
- monitor the migration of PFAS in groundwater from the site, particularly in groundwater flowing from the northern boundary
- conduct surface water monitoring to assess seasonal effects on water flow and PFAS concentrations, including during or immediately after extreme or high rainfall events.

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

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

3.1.3 Step 3 – Identify Information Inputs

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

- objectives and scope of works of this plan
- findings from the DSI, Human Health and Ecological Risk Assessment (HHERA) and HHERA Addendum.
- CSM, including potential sources, pathways and receptors.
- contaminants of concern (PFAS).
- field methods, such as sampling, sample storage and preservation, laboratory methods, quality control (QC) and quality assurance (QA).
- media to be sampled (surface water and groundwater samples), and location of samples.
- adopted assessment criteria for surface water and groundwater.
- statistical analysis of data to identify trends.
- field data (including water quality parameters and visual/olfactory observations) and laboratory analysis.

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3.1.4 Step 4 – Define the Boundaries of the Study

The ongoing monitoring plan comprises sampling locations within HMAS Albatross and off site to assess variation in PFAS concentrations over time and to measure the success of the remediation and management methods. The groundwater and surface water sampling locations are detailed in **Section 4.3.1** and **Section 4.3.2**, respectively. It is noted that all proposed sampling locations, with the exception of surface water locations SW001 and SW04B, are located within the Management Area, as defined in the PMAP (Defence, 2019a).

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

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

3.1.5 Step 5 – Develop the Analytical Approach

The decision rules can be defined as:

- All samples analysed for the full PFAS suite and suitability of data assessed to ensure the laboratory QA/QC is within acceptable ranges
- Comparison of PFAS concentrations in surface water and groundwater against the drinking water and recreational water health-based guideline values and the ecological guideline values
- Comparison of PFAS concentrations in surface water and groundwater against previous results to determine any temporal or spatial trends or variations in concentrations.

Assessment of any trends (such as temporal or seasonal trends) may inform decision making to consider whether further monitoring may be reduced or continued following the initial implementation period.

The decision on the acceptance of analytical data should be made on the basis of data quality indicators (DQIs) as detailed in **Table 2**.

3.1.6 Step 6 – Specify Performance or Acceptance Criteria

Acceptance limits on field and laboratory data collected for this investigation will be in accordance with NEPM 2013 and the NEMP 2020.

The acceptable limits on decision errors to be applied in the investigation and the manner of addressing possible decision errors have been developed based on the (DQIs) of precision, accuracy, representativeness, comparability and completeness.

The potential for significant decision errors will be minimised by completing a robust QA/QC program and by completing an investigation that has an appropriate sampling and analytical density for the purposes of the investigation.

3.1.7 Step 7 – Optimise the Design for Obtaining Data

The plan for obtaining data has been developed in accordance with relevant guidelines through targeted monitoring of potential source-pathway-receptors.

Optimisation of the data collection process will be achieved by:

- working closely with the analytical laboratories and sampling equipment suppliers to ensure that appropriate procedures and processes are developed and implemented prior to and during the fieldwork, to ensure that sample handling, and transport to and processing by the analytical laboratories is appropriate
- conducting sampling according to Defence and Australian Standards for the type of sampling being conducted (i.e. groundwater monitoring well sampling versus landholder bore water sampling). These standards are as follows:

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- Department of Defence *Contamination Management Manual* (August 2018, Amended June 2021),
- Standards Australia (AS/NZS5667.11–1998) *Water Quality – Sampling, part 11: Guidance on sampling of groundwater,*
- Standards Australia (AS 4482.1-2005) *Guide to the sampling and investigation of potentially contaminated soil. Part 1: Non-volatile and semi-volatile compounds.*

- conducting sampling in accordance with AECOM's internal PFAS Sample Collection Guidance
- sampling conducted by suitably qualified and experienced field staff who have completed AECOM's internal PFAS 101 Training
- basing the sampling upon a CSM developed using the information available at the implementation of the OMP (Defence, 2019b). Updating the CSM as new data becomes available in the course of the implementation of the OMP (Defence, 2019b), as required
- progressive review of the data and modification of sampling programs to optimise the value of data generated
- continually seeking to identify opportunities for refinement and optimisation of the OMP, including, but not limited to, identifying redundant locations that can be excluded from the monitoring program. This will be achieved through an annual review of the SAQP across the three-year primary implementation period.

3.2 Assessment of Data Quality

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

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

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

The acceptance criteria for DQIs for samples are based on those outlined in Table F-4 of the OMP (Defence, 2019b) and are provided in **Table 2**.

Table 2 Acceptance Criteria for Data Quality Indicators for Sample Analysis

Data Quality Indicators	Acceptance Criteria
Field Program	Sampling to be completed by suitably qualified and experienced field teams employing appropriate sampling procedures.
Rinsate Blanks	Rinsate blank samples are to be collected at a rate of one per day of sampling (where sampling equipment is reused). Concentrations of PFAS should be less than the laboratory LOR.
Field duplicates/Inter-lab duplicates	Field duplicates and inter-laboratory duplicates are to be collected and analysed at a rate of 10% (1 per 10 primary samples). The relative percentage differences (RPDs) will be assessed as acceptable if less than or equal to 30% as per the NEPM Schedule B3. Where the results show greater than 30% difference a review of the cause will be conducted (NEPM, 2013). It is noted that RPDs that exceed this range may be considered acceptable where: • results are less than 10 times the LOR (no limit) • results are less than 20 times the LOR and the RPD is less than 50% • heterogeneous materials are encountered.

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Data Quality Indicators	Acceptance Criteria
Laboratory duplicates	The RPD will be assessed as acceptable based on the magnitude of the result: • 0-20% for results more than 20 times the LOR • 0-50% for results between 10 and 20 times the LOR No limit for results between 0 and 10 times the LOR •
Matrix spikes	Recoveries between 70-130% of the theoretical recovery or as nominated in the laboratory's Quality Control report.
Method blanks	Less than the laboratory LOR.
Laboratory control samples	Recoveries between laboratory specified range for each particular analyte/analytical suite.

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4.0 Sampling Location Rationale and Methodology

4.1 OMP

The OMP (Defence, 2019b) presents an overview of specific monitoring works to be undertaken and provides the basis for the preparation of this SAQP. This scope of works presented in this SAQP is consistent with that detailed in the OMP (Defence, 2019b), with the exception of those points of deviation presented in **Section 4.15**.

4.2 Proposed Schedule

The OMP (Defence, 2019b) outlines the monitoring, as follows:

- during the initial 12-month monitoring period, surface water monitoring will be completed on a quarterly basis and groundwater will be undertaken on a bi-annual basis
- following the initial 12-month period, surface water sampling will be undertaken on a bi-annual basis and groundwater will be sampled annually.

The initial quarterly surface water sampling round was completed in November 2019, with the initial groundwater monitoring event undertaken in February 2020.

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

Table 3 Proposed Fieldwork Schedule

Sampling Round No.	Description of works	Proposed Schedule
1	Quarterly surface water sampling	November 2019 (Completed)
2	Bi-annual groundwater and Quarterly surface water sampling	February 2020 (Completed)
3	Quarterly surface water sampling	May 2020 (Completed)
4	Bi-annual groundwater and Quarterly surface water sampling	August 2020 (Completed)
5	Annual groundwater and Bi-annual surface water sampling	February 2021 (Completed)
6	Bi-annual surface water sampling	August 2021 (Completed)
7	Annual groundwater and Bi-annual surface water sampling	February 2022 (Completed)
8	Bi-annual surface water sampling	August 2022 (Completed)
9	Annual groundwater and Bi-annual surface water sampling	February 2023
10	Bi-annual surface water sampling	August 2023
11	Annual groundwater and Bi-annual surface water sampling	February 2024

In addition to the scheduled sampling outlined in **Section 0**, surface water samples were collected during or immediately after extreme or high rainfall events to capture the ‘first flush’ rainfall on up to three occasions during the first 12-month monitoring period.

The Bureau of Meteorology (http://www.bom.gov.au) reports that the average monthly rainfall recorded at the Nowra Royal Australian Navy Air Station (Station No. 068072) is 75.8 mm. Therefore, an

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“extreme or high rainfall event” is defined as a cumulative rainfall total of greater than 40 mm (>50% the monthly average rainfall) within a single 24-hour period.

The event sampling component of the OMP scope was completed in November 2020.

4.3 Sampling Locations

4.3.1 Groundwater Sampling Locations

The OMP (Defence, 2019b) states that the groundwater monitoring locations were selected based on the following:

- locations that will provide sufficient coverage to assess PFAS movement/variations on and off-Site
- locations where groundwater flows from known sources of PFAS to sensitive receptors
- where existing monitoring locations and data points are present.

The groundwater locations to be monitored on a bi-annual or annual basis are provided in Table 4 below and are presented on **Figure 2** in **Appendix A**.

Note that the monitoring well IDs presented in the OMP (Defence, 2019b) have been updated to comply with Defence Contamination Management Manual (DCMM) nomenclature requirements.

Off-Site private property monitoring locations will require the agreement of the landholder/leaseholder.

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Table 4 Groundwater Sample Locations

On/Off-Site	Sub-catchment Area	Location ID	Historical Name	Easting	Northing	Top of Casing Elevation (m AHD)	Screen Interval (mbgl)	Sampling Frequency	Total
On-Site	Braidwood Road drain	MW012P	BH12s, MW012_P	274932.61	6130642.49	104.086	1.3 - 5.3	Annual	4
		MW001	BH01	276547.15	6130950.51	116.622	6 - 9	Annual	
		MW002	BH02	276395.77	6130918.38	114.335	6 - 9	Annual	
		MW012	BH12	274933.98	6130645.22	104.087	9 - 12	Annual	
	Flat Rock Creek	MW004	BH04	277645.65	6131447.60	144.135	5.5 - 8.5	Annual	2
		MW037	BH37	277349.08	6131391.10	135.030	3.4 - 6.4	Annual	
	Upper Currambene Creek	MW029	BH29	276378.00	6130609.00	110.154	5 - 7.7	Annual	4
		MW003	BH03	276813.96	6130475.22	112.337	15 - 20	Annual	
		MW005	BH05	276316.48	6130163.63	99.114	5.5 - 8.5	Annual	
		MW038	BH38	277293.71	6129484.47	86.383	5 - 8	Annual	
	Yerriyong Gully	MW009P	BH09s, MW009_P	274323.81	6129629.89	116.634	0.5 - 2.5	Annual	10
		MW006	BH06	276207.02	6129457.35	77.233	4 - 7	Annual	
		MW008	BH08	275959.90	6129546.00	104.912	6 - 9	Annual	
		MW009	BH09	274324.58	6129628.30	116.632	12 - 15	Annual	
		MW015	BH15	274549.04	6129141.47	119.178	8 - 11	Annual	
		MW016	BH16	273692.64	6128565.25	126.040	6 - 9	Annual	
		MW017	BH17	274991.40	6129626.93	112.476	11 - 14	Annual	
		MW039	BH39	275431.82	6128747.33	74.701	1 - 4	Annual	
		MW045	BH45	273973.67	6129819.43	124.484	7 - 10	Annual	
		MW046	BH46	274016.46	6129306.21	122.911	5.5 - 8.5	Annual	

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On/Off-Site	Sub-catchment Area	Location ID	Historical Name	Easting	Northing	Top of Casing Elevation (m AHD)	Screen Interval (mbgl)	Sampling Frequency	Total
Off-site Road Reserve	Braidwood Road drain	MW018	BH18	274921.00	6131092.00	100.782	9.5 - 12.5	Annual	1
	Cabbage Tree Creek	MW072	MW72	275439.10	6132021.22	120.833	4.85 - 7.85	Annual	2
		MW073	MW73	276437.62	6131923.65	108.005	6 - 11.5	Annual	
	Yerriyong Gully	MW044	BH44	276133.84	6131427.97	111.923	5 - 7	Annual	1
Off-site Private Property	Braidwood Road drain	MW024	BH24	*	*	97.015	6.5 - 9.5	Annual	2
		MW031	BH31	*	*	103.386	3 - 6	Annual	
	Upper Currambene Creek	MW026	BH26	*	*	31.685	5.5 - 7.5	Annual	1
Total									**27**

Note: Historical Name, Eastings, Northings, Top of Casing Elevation and Screen Interval are sourced from Defence Esdat database.

*Coordinates are not displayed for privacy reasons.

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4.3.2 Surface Water Sampling Locations

The OMP (Defence, 2019b) states that the surface water monitoring locations have been selected based on the following:

- Surface water bodies (creeks/drains) where surface water flows are known to flow from Site
- Surface water bodies where groundwater is known to have intercepted creeks as a spring
- Where existing monitoring locations and points are present.

The locations to be monitored on a bi-annual or annual basis are provided in **Table 5** below and are presented on **Figure 3** (in **Appendix A**).

Table 5 Surface Water Sampling Locations

On/Off-Site	Sub-catchment Area	Location ID	Easting	Northing	Sampling Frequency	Total
On-Site	Braidwood Road drain	SW007	274962.31	6131013.95	Bi-annual	4
		SW018	275199.10	6130736.19	Bi-annual	
	Yerriyong Gully	SW009	276181.07	6129485.14	Bi-annual	
		SW012	277223.12	6128990.81	Bi-annual	
Off-Site	Braidwood Road drain	SW005	273155.40	6131486.88	Bi-annual	9
		SW006	274908.33	6131094.75	Bi-annual	
		SW020	274735.08	6130823.25	Bi-annual	
	Cabbage Tree Creek	SW001	276777.45	6136090.47	Bi-annual	
	Calymea Creek	SW004B	271827.11	6132551.56	Bi-annual	
	Currambene Creek	SW008	277426.60	6129652.00	Bi-annual	
	Flat Rock Creek	SW002	277762.28	6133531.56	Bi-annual	
	Parma Creek	SW013	280563.97	6128241.51	Bi-annual	
		SW014	280483.28	6127826.86	Bi-annual	
Total						**13**

Note: Eastings and Northings are sourced from Defence Esdat database.

4.4 Sample Collection and Handling

4.4.1 Sampling Methodology

The sampling methodology is presented in **Table 6**.

Table 6 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater will be measured in each monitoring well prior to collection of groundwater samples.

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Item	Details
Groundwater Sample Collection Methodology	**Groundwater Monitoring Wells** Groundwater samples will be collected from monitoring wells using no-purge methodology with HydraSleeves™ which will be installed within the screened interval of the wells a minimum of 4 to 24 hours prior to sampling for the initial sampling round or when necessary to re-deploy. Care should be taken to avoid placing the base of the HydraSleeves™ at the base of the monitoring well, where a build-up of sediment may be present. The installation depth of the HydraSleeves™ is to be recorded (generally as HydraSleeve™ collar depth in mbTOC). HydraSleeves™ are to be installed / deployed in monitoring wells for a minimum of 4 hours prior to sampling, when deployed with bottom weights only, and for a minimum of 24 hours prior to sampling, when deployed with both top and bottom weights, to allow re-stabilisation of the well following disturbance, and if applicable, for the top weight to compress. Following sampling, field parameters are recorded ex-situ, from any excess water available in the Hydrasleeve™. In the event that a HydraSleeve™ fails to deploy or has been removed inadvertently (i.e. by non-OMP project), the sample will be collected using a dedicated disposable high-density polyethylene (HDPE) bailer, if time or access constraints do not permit re-deployment of the HydraSleeve™ and subsequent sampling in the same sampling event. When sampling with a bailer, a minimum of three well volumes should be purged and purging should be continued until stabilisation of water quality parameters (to be collected continuously ex-situ) is achieved. If recharge is insufficient during purging, care should be taken to avoid purging the well dry and collecting the sample when reasonable to do so. Once sampling is completed, a new HydraSleeve™ will be deployed at the screened interval depth at each location in preparation for the next scheduled sampling round, where practicable. Hydrasleeve™ sampling will be completed in accordance with the manufacturer's guidance.
Surface Water Sample Collection Methodology	Surface water samples will be collected in accordance with the ASC NEPM (NEPC, 2013) and PFAS NEMP (HEPA, 2020). Samples will be collected from either mid-way through the water column or approximately 0.5 m below the surface (if possible) using a 'grab' sample method, without disturbing the bottom of the surface water body and without capturing any surface film, to minimise collection of sediment, or floating materials in the samples. At each location, a new, laboratory supplied container should be lowered into the water with the cap immediately applied once the container is full. Where sampling points cannot be accessed safely, surface water samples will be collected with use of a sampling pole. Description of each sampling location will be recorded (including physical setting, flow observations, presence of sheen or foam etc).
QA/QC Samples to be Collected	Field QA/QC samples are to include intra-laboratory duplicate and inter-laboratory duplicate samples (i.e. blind and split duplicates), as well as rinsate blank samples, as specified in **Section 4.12**. AECOM will collect extra sample volume to enable the laboratory to complete their internal QA/QC analysis. AECOM personnel will attempt to reduce potential heterogeneity in the sample media matrix by dividing the sample collected between primary and intra-laboratory jars or bottles during sampling.

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Item	Details
Field Parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), ORP (oxidation-reduction potential), pH and observations of water quality will be recorded for all groundwater and surface water samples, including: • physical indicators such as the presence (and approximate proportion) of suspended solids, colour. • the presence/absence and nature of odours and the presence/absence of slicks or sheens on water.
Sample Analysis	All primary samples will be submitted for standard PFAS suite using the standard levels of detection.

4.4.2 Decontamination of Sampling Equipment

To avoid cross-contamination between samples and sample locations, all reusable sampling equipment, such as interface probe and trowel, will be de-contaminated between locations. The proposed method of decontamination is summarised below:

Preliminary wash and scrub with tap water, after each sampling location

- Wash using Liquinox®
- Rinsed with tap water
- Rinsed with deionised water (supplied by the laboratory).

Clean, disposable nitrile gloves will be worn and replaced between each sample.

4.4.3 Sample Handling and Transport to Laboratory

All samples will be placed on ice in eskies immediately after sampling. All water samples should be kept, where possible, at low temperatures (≤6°C) during transit to the laboratory, in accordance with ASC NEPM (NEPC, 2013).

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

4.5 Calibration

The calibration of the water quality meter will be tested each day via a “bump test” prior to the commencement of field activities with relevant solutions, including pH, EC and ORP.

The calibration will be in accordance with manufacturers’ instructions or National Association of Testing Authorities (NATA) publication “General Requirements for Registration: Supplementary Requirement: Chemical Testing (NATA 1993) and Technical Note No. 19 (NATA 1994)”. Where satisfactory calibration cannot be achieved, the water quality data will not be used for interpretive purposes.

Calibration details will be recorded on field sheets and included in the Sampling Event Factual Reports for each sampling round.

4.6 Logistics

The laboratory sample containers will be shipped from the laboratory to the AECOM office in Sydney prior to the commencement of fieldwork. All samples will be transported by field staff or couriered directly to the relevant laboratory at the completion of fieldwork. All inter-laboratory duplicate samples will be submitted under a separate COC for analysis.

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4.7 Analytical Suite and Laboratory Analysis Methods

4.7.1 Laboratory NATA Accreditation Details

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

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

4.7.2 Analytical Schedule

All media sampled shall be analysed for the standard PFAS suite in accordance with the Defence (2022) *Standard PFAS Analytical Suite - Guidance Document E* (**Appendix C**).

The current standard laboratory limits of reporting (LOR) are described in **Table 7** below.

Table 7 Laboratory Limits of Reporting

Sample Media	Parameter	Technique/Method Reference	LOR
Water	Standard PFAS Suite	LCMS	0.01 – 0.1 µg/L

LCMS = Liquid chromatography mass spectrometry

4.7.3 Validation of Analytical Results

Validation of analytical results may be required in the form of re-analysis by the reporting laboratory or through re-sampling and analysis, to confirm original results.

The requirement for re-sampling and/or re-analysis will be determined in consultation with Defence and will generally apply to results that are first-time detections of PFAS in water matrices or new exceedances of human health guidelines.

4.8 Sample Nomenclature

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

PPPP_XX000_ZZZ_YYMMDD

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

e.g. 0026_MW001_191015

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

Location Types relevant to this SAQP include:

- MW = monitoring well
- SW = surface water

QA/QC Samples will be labelled in accordance with the following convention:

- Blind duplicate (intra-laboratory duplicate): PPPP_QC1XX_YYMMDD
- Split duplicate (inter-laboratory duplicate): PPPP_QC2XX_YYMMDD
- Rinsate blank: PPPP_QC3XX_YYMMDD.

4.9 Defence Esdat Requirements

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

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

AECOM will ensure that electronic data deliverables (EDDs) from the laboratory include required information for automatic upload into the EDMS, such as including the correct Project ID in Esdat files and including the Defence ESdat auto-upload email address (DERP.LabReports@esdat.com.au) in the laboratory report recipient list.

AECOM will ensure that field data is uploaded, and laboratory data is uploaded and approved into the EDMS and that QA/QC data is correctly reconciled for each monitoring event.

4.10 Adopted Screening Criteria

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

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

- PFAS National Environmental Management Plan (NEMP) Version 2.0, Heads of EPA (HEPA) Australia and New Zealand. January 2020 (HEPA, 2020).
- Department of Health (DoH), 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. This document is based on the works undertaken by FSANZ (FSANZ, 2017).
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Wate*r. August 2019 (NHMRC, 2019).

The screening criteria adopted to assess the data generated as part of the SAQP are presented in **Table 8** and **Table 9** below.

Table 8 Summary of Adopted Screening Criteria

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Groundwater	Drinking water	Perfluorooctane-sulfonic acid (PFOS) + Perfluorohexane sulfonic acid (PFHxS)	0.07 µg/L	The values presented in the PFAS NEMP (HEPA, 2020) are from DoH (2017) which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the TDI for PFOS and PFOA from FSANZ (2017) and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council's (NHMRC) Australian Drinking Water Guidelines (ADWG, 2022) to determine drinking water values. *All groundwater results will be compared to these criteria.*
		Perfluorooctanoic acid (PFOA)	0.56 µg/L	

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Media	Pathway	Compound	Criteria	Comment/Reference
Water – Surface Water	Recreational use	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. *All surface water results will be compared to these criteria.*
		PFOA	10 µg/L	

Table 9 PFAS Adopted Screening Criteria – Ecological Receptors

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Groundwater and Surface Water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP (HEPA, 2020) which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality – draft default guideline values. AECOM understands that these guidelines are currently being reviewed and will consider the appropriateness of considering any future revision. The 99% species protection level has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All surface water and groundwater results will be compared to these criteria.*
		PFOA	19 µg/L	

4.11 Waste Management

Due to the proposed “no purge” sampling methodology adopted for the majority of the groundwater monitoring locations and the grab samples from the designated surface water sampling locations, it is not anticipated that significant volumes of liquid waste would be generated that would require onsite management and disposal.

All consumables (i.e. HydraSleeves^{TM}, disposable bailers, general rubbish) will be bagged and placed in on-Site general waste bins for disposal.

4.12 Quality Assurance/Quality Control Sampling

4.12.1 Intra-laboratory and Inter-laboratory Duplicate Samples

Intra-laboratory (blind) duplicate samples and inter-laboratory (split) duplicate samples will be collected and analysed at a minimum frequency of 1 in 10 primary samples, in accordance with the quality control and quality assurance requirements outlined in OMP and HEPA (2020).

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4.12.2 Rinsate Samples

Rinsate blanks will be collected by pouring laboratory supplied deionised water over decontaminated gauging and sampling equipment that will be re-used (e.g. interface probe).

4.13 Fieldwork Documentation

4.13.1 Field Notes

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

- Weather conditions, and visual or olfactory conditions at the location
- Location coordinates and means of access, and any changes from previous access to a specific location
- Groundwater samples – the observed characteristics of the sample (e.g. colour, turbidity, presence/absence and nature of odours, presence/absence of slicks or sheens) and measured field water quality parameters (pH, EC, DO, ORP, temperature) will be recorded. Condition of monitoring wells and gauging details will also be recorded.
- Surface water samples – the observed characteristics of the sample (e.g. colour, turbidity, presence/absence and nature of odours, presence/absence of slicks or sheens) and field water quality parameters (pH, EC, DO, ORP, temperature) will be recorded. Additionally, a description of each surface water sampling location will be recorded, such as indicating the waterbody type (lake, stream, etc.), presence/absence of water flow, and waterbody width.
- The quality control (e.g. duplicate and inter-laboratory duplicate) sample details be recorded.

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

4.13.2 Sample Labels

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

- AECOM project number
- name of sampler
- sample ID
- date of sample collection

An indelible felt pen will be used for labelling, to ensure that the lettering is not erased during transit to the laboratory. Sample containers that are sent to the primary laboratory, ALS, will also be scanned into the laboratory's custom-built mobile app (by scanning the barcode applied to each laboratory-supplied container) for streamlined labelling and Chain of Custody (COC) creation and to ensure compliant sample IDs are used in the field.

4.13.3 Chain of Custody Forms

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

The CoC form will include the following information:

- job number
- date and time of sample collection

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- sample ID
- type of containers
- name of sampler
- laboratory to be used
- analyses required
- any comments
- signatures of the sampler and laboratory receiver.

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

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

4.14 Reporting

4.14.1 Sampling Event Factual Report

AECOM will prepare and submit a Sampling Event Factual Report to Defence following the completion of each sampling event. The Sampling Event Factual Report will be prepared in accordance with Defence *PFAS OMP Factual Report Guidance* (Defence, 2021) and will include:

- details of the scope completed
- details of the analytical suite for PFAS analytes
- a description of the sampling methodologies used
- identification of any components of the scope that could not be completed
- a summary of field observations (e.g. any visual or olfactory observations that may indicate impacts to surface water or groundwater), water quality parameter measurements
- a summary of any changes to the monitoring network condition that may affect data integrity, or require rectification works, and recommendations for repair, replacement or decommissioning of a location
- evaluation of the applicability of adopted assessment levels
- a presentation of the analysis results in a table that includes comparisons with PFAS guidelines
- a presentation of groundwater levels for the event on a figure with inferred contours and inferred groundwater flow direction
- review of the suitability of the data for assessment purposes (QA/QC evaluation)
- inclusion of the following information as attachments:
    - Field data including field water quality parameter and gauging measurements
    - Chain of custody forms
    - Laboratory analytical certificates
    - Equipment calibration certificates.

The Sampling Event Factual Report will be provided to Defence no later than four weeks following receipt of all laboratory results. AECOM will inform Defence in the case of delays in laboratory results.

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4.14.2 Annual Interpretive Report

At the end of each 12-month monitoring period, AECOM will prepare and submit an Annual Interpretive Report to Defence. The Annual Interpretive Report will be prepared in accordance with Defence *PFAS OMP Annual Interpretive Report Guidance* (Defence, 2022) and will include:

- evidence of compliance or a summary of deviations to the requirements of the SAQP.
- identification of any components of the scope that could not be completed
- a summary of any changes to the monitoring network condition that may affect data integrity, or require rectification works, and recommendations for repair, replacement or decommissioning of a location
- contextual and ancillary information that have occurred in the Management area which may affect monitoring results including remediation projects, infrastructure projects and significant weather events.
- relevant figures depicting sampling locations and site-specific hydrogeological features
- laboratory results and analysis including comparison with relevant screening criteria
- assessment and commentary on appropriate QA/QC procedures
- data interpretation, including trends in groundwater concentration, gradient and flow directions
- assessment of statistically based trends (as described in Step 3 and 5 of the DQOs) that may inform decision making when it comes to the revision of the OMP including whether a review of the Conceptual Site Model is required or whether the risk profile has changed overall, or for any specific location at the Site, and a recommendation as to whether this should trigger an OMP and/or PMAP review, or other action.
- overall summary of the changes and extent of PFAS and whether monitoring has met objectives of the OMP.
- Inclusion of the following information as attachments:
  - past OMP factual reports
  - SAQP.

4.15 Deviations from OMP

While the scope of works and methodology described in this SAQP are generally consistent with that presented in the OMP (Defence, 2019b), a number of points of deviation are noted (refer to **Table 10** below).

Table 10 Deviations from OMP

No.	Description	Rationale
1	Adoption of Revised Recreational Screening Criteria for PFOS+PFHxS and PFOA	Following the release of the OMP (Defence, 2019b) in August 2019, the NHMRC, published guidance on PFAS in Recreational Water. The adopted screening criteria for PFOS+PFHxS and PFOA in surface water have therefore been revised to 2 µg/L and 10 µg/L, respectively. This is reflected in **Table 8**.
2	Surface water sampling methodology	While the OMP (Defence, 2019b) states that surface water samples shall be collected from the water surface, AECOM proposes to collect surface water samples from beneath the water surface to minimise the collection of sediment or other floating materials.

DRAFT

No.	Description	Rationale
3	Surface water and groundwater sample location IDs	AECOM has renamed the proposed surface water and groundwater sampling locations presented in the OMP (Defence, 2019b) to comply with DCMM Nomenclature requirements. The new location IDs are presented in the SAQP text and figures.
4	Reporting Requirements	It is noted that the reporting requirements outlined the OMP (Defence, 2019b) are superseded by the Reporting requirements outlined in the OMP Order.
5	Sampling Locations Omitted from OMP Figure F1	It is noted that monitoring locations MW018, MW024, MW026, MW031, MW034, MW036, MW040 and MW047 are listed in Table F-7 of the OMP as proposed sampling locations, however they appear to have been omitted from OMP Figure F1 – Proposed Sampling Locations. AECOM considers the omission of these locations from Figure F1 is likely to be an oversight, and is proposing to sample them as part of the OMP
6	Changes to groundwater sampling locations	Based on the summary from the Sampling Event Factual Report (August 2020), two groundwater monitoring wells (MW014 and MW040) were inaccessible. As agreed with Defence, MW014 has been removed from the program and MW040 has been replaced with MW041. This is reflected in **Table 4** and **Figure F2** (**Appendix A**).
7	Non-PFAS Analysis	On 27 January 2021, Defence instructed AECOM to discontinue the analysis of samples for non-PFAS analytes unless it was specifically requested in the OMP or approved by Defence.
8	Changes to groundwater sampling locations	Following consultation with the Lead Consultant, the 2021 Annual Interpretive Report (AECOM, 2022) recommended the removal of groundwater sampling locations MW034, MW036, MW041 and MW047 from the OMP as groundwater in these locations is either not hydraulically connected to the Site, or concentrations of PFAS have consistently been below the laboratory LOR. These locations have therefore been removed from the SAQP.
9	QA/QC Sampling Ratios	The proposed QA/QC sampling ratios for intra-laboratory and inter-laboratory duplicates has been revised to be 1 per 10 primary samples to align with NEMP 2.0 (HEPA, 2020) requirements.
10	Removal of MW032	During the February 2022 sampling event, off-Site monitoring well MW032 was observed to have been destroyed. As the monitoring well is no longer present, it has been removed from the OMP scope. Following discussions with Defence's Lead Consultant, it was agreed on 30 January 2023 that monitoring well MW032 would be removed from the OMP scope of works given that the groundwater beneath this location is not considered to be hydraulically connected to groundwater beneath the Site.

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D R A F T

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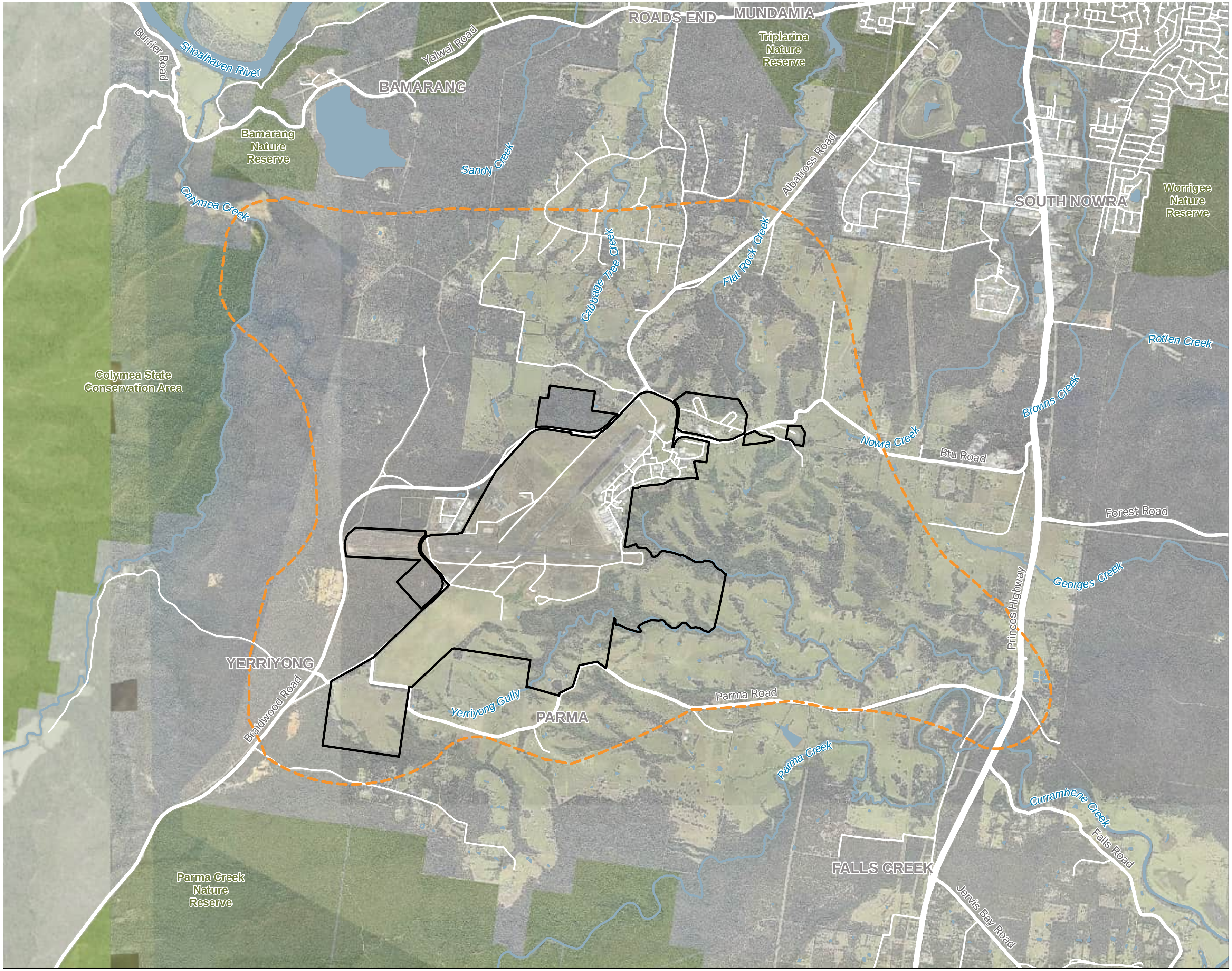
Appendix A

Figures



AECOM

Legend

Site Boundary

Management Area

FIGURE 1:
MANAGEMENT AREA

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Analysis and Quality Plan
HMAS Albatross (0026)

CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
© Department of Customer Service 2020

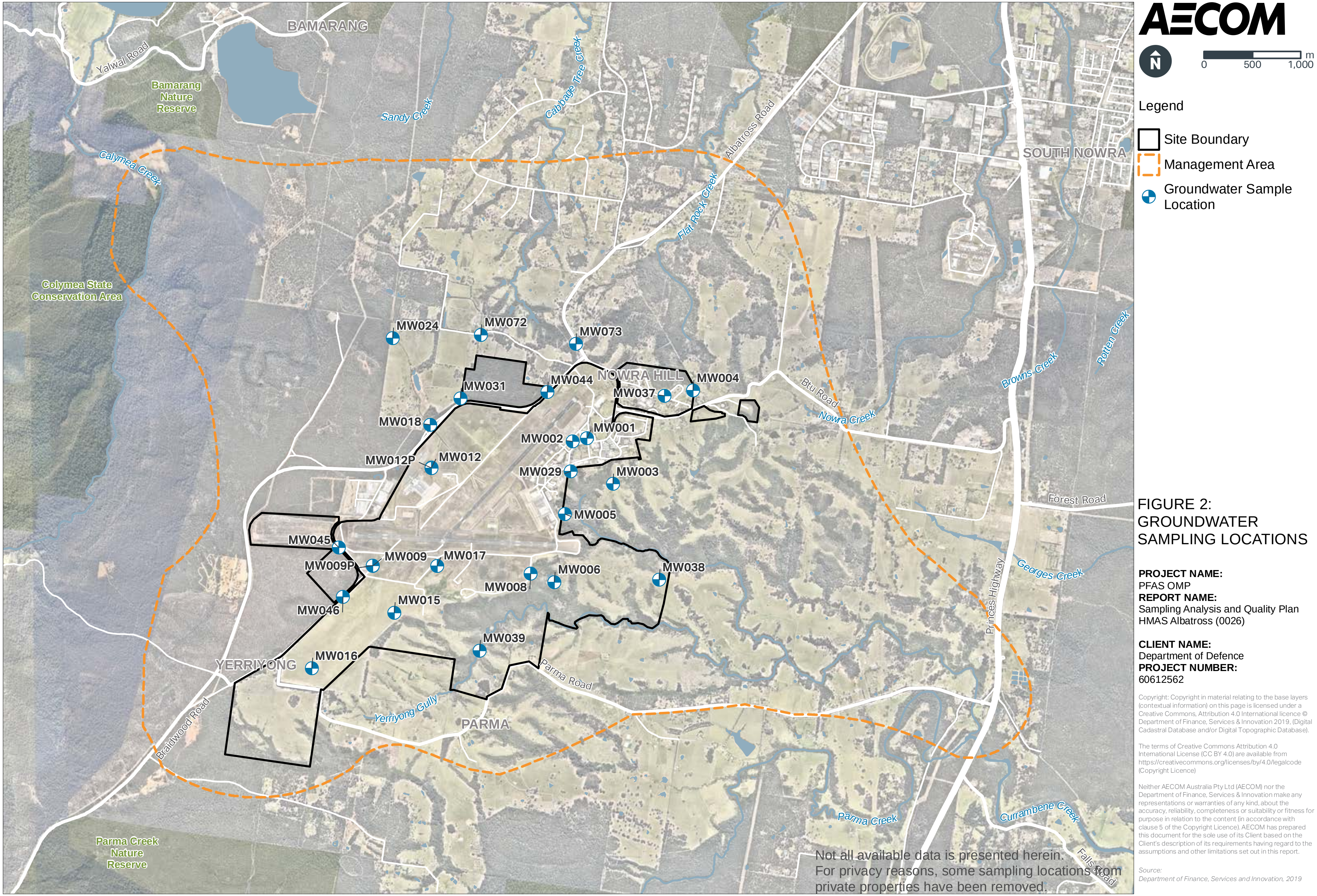


FIGURE 2: GROUNDWATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Analysis and Quality Plan
HMAS Albatross (0026)

CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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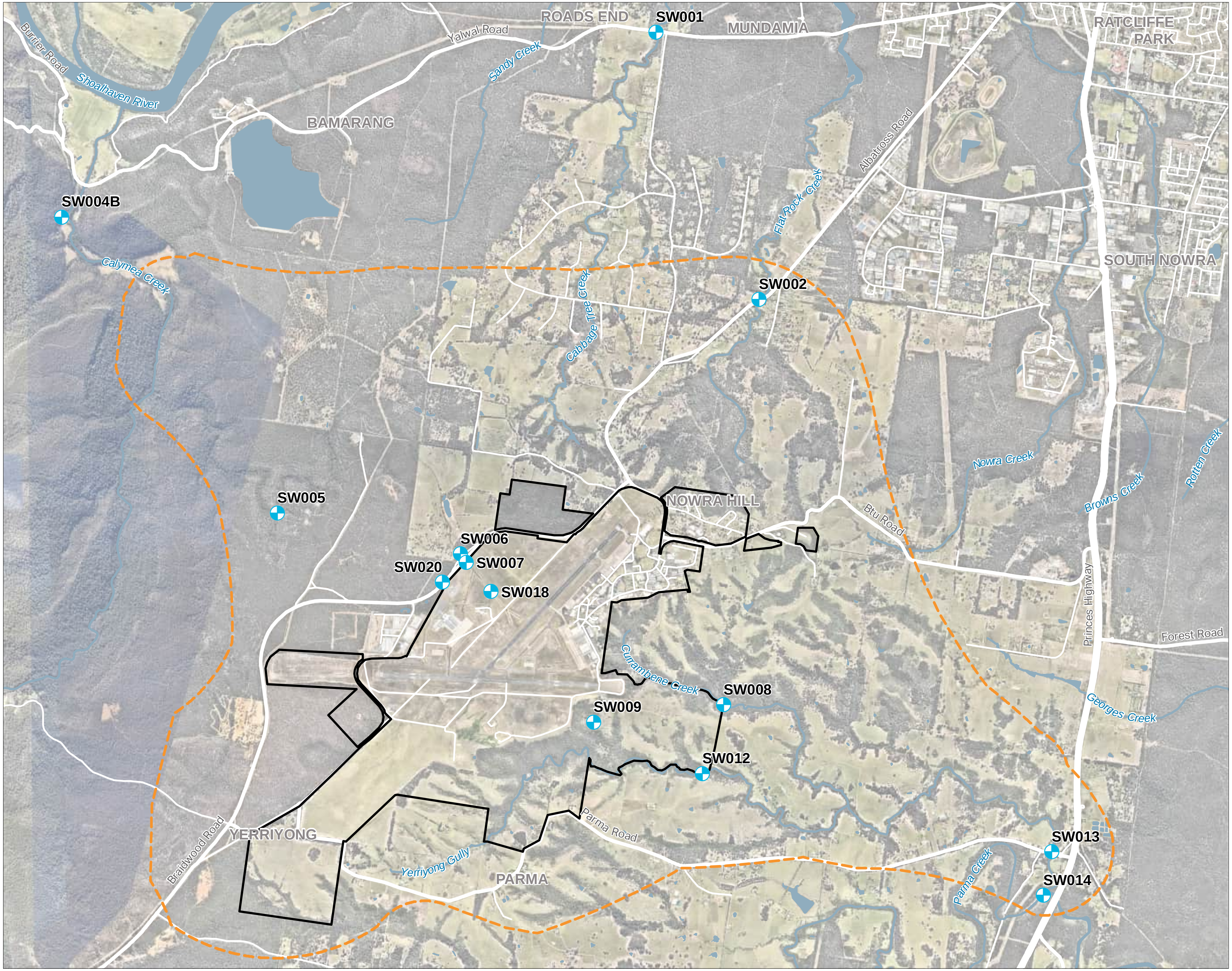

AECOM

N

0 500 1,000 m

Legend

- Site Boundary
- Management Area
- Surface Water Sample Location

FIGURE 3:
SURFACE WATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Analysis and Quality Plan
HMAS Albatross (0026)

CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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Appendix B

Standard PFAS Analytical Suite Guidance

Australian Government

Defence

Department of Defence

PFAS INVESTIGATION AND MANAGEMENT

GUIDANCE DOCUMENT E
STANDARD PFAS ANALYTICAL SUITE

Document Version History

Document Reference	Revision	Date
AF29889468	1	10 July 2017
AF32594670	2	21 March 2018
AF32594670	3	6 April 2018
BS24034025	4	1 October 2021
BS24034025	5	29 June 2022

Analytical laboratories analyse a range of PFAS which includes a small subset of all possible PFAS. These analytical suites vary between laboratories and over time as new chemical standards become available. The minimum suite required for Defence PFAS investigations and management is listed in Table 1.

Table 1 Minimum PFAS analytical suite for Defence PFAS investigations and management

Group	Acronym	Chemical Compound	CAS No.
Perfluoroalkane Sulfonic Acids	PFBS	Perfluorobutane sulfonic acid	375-73-5
	PFPeS	Perfluoropentane sulfonic acid	2706-91-4
	PFHxS	Perfluorohexane sulfonic acid	355-46-4
	PFHpS	Perfluoroheptane sulfonic acid	375-92-8
	PFOS	Perfluorooctane sulfonic acid	1763-23-1
	PFDS	Perfluorodecane sulfonic acid	335-77-3
Perfluoroalkane Carboxylic Acids	PFBA	Perfluorobutanoic acid	375-22-4
	PFPeA	Perfluoropentanoic acid	2706-90-3
	PFHxA	Perfluorohexanoic acid	307-24-4
	PFHpA	Perfluoroheptanoic acid	375-85-9
	PFOA	Perfluorooctanoic acid	335-67-1
	PFNA	Perfluorononanoic acid	375-95-1
	PFDA	Perfluorodecanoic acid	335-76-2
	PFUnDA	Perfluoroundecanoic acid	2058-94-8
	PFDoDA	Perfluorododecanoic acid	307-55-1
	PFTrDA	Perfluorotridecanoic acid	72629-94-8
	PFTeDA	Perfluorotetradecanoic acid	376-06-7
Perfluoroalkyl Sulfonamides	FOSA	Perfluorooctane sulfonamide	754-91-6
	MeFOSA	N-Methyl perfluorooctane sulfonamide	31506-32-8
	EtFOSA	N-Ethyl perfluorooctane sulfonamide	4151-50-2
	MeFOSE	N-methyl perfluorooctane sulfonamidoethanol	24448-09-7
	EtFOSE	N-Ethyl perfluorooctane sulfonamidoethanol	1691-99-2
	MeFOSAA	N-methyl perfluorooctane sulfonamidoacetic acid	2355-31-9
	EtFOSAA	N-ethyl perfluorooctane sulfonamidoacetic acid	2991-50-6
(n:2) Fluorotelomer Sulfonic Acids	4:2 FTS	4:2 Fluorotelomer sulfonic acid	757124-72-4
	6:2 FTS	6:2 Fluorotelomer sulfonic acid	27619-97-2
	8:2 FTS	8:2 Fluorotelomer sulfonic acid	39108-34-4
	10:2 FTS	10:2 Fluorotelomer sulfonic acid	120226-60-0

The minimum PFAS analytical suite is based on consideration of analytical capability and the dominant PFAS that are likely to be present in environmental media due to legacy contamination from AFFF used by Defence. In specific instances, for example analysis of AFFF concentrates, it may be necessary to use other methods such as the TOP and/or TOF assays. In these cases, the analytical methods need to be established by data quality objectives (DQOs) for the project.

The laboratory is required to use NATA accredited methods for PFAS quantification based on guidance in the *PFAS National Environmental Management Plan* (NEMP, 2020).

END OF TEXT

Appendix F

OMP Factual Reports

Prepared for
Department of Defence
ABN: 68 706 814 312

AECOM

Sampling Event Factual Report, February 2023

PFAS OMP - HMAS Albatross

24-Apr-2023
Doc No. 20230424_OMP002_ALB_SamplingEventFactualReport_Rev0

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Delivering a better world

Sampling Event Factual Report, February 2023

PFAS OMP - HMAS Albatross

Client: Department of Defence

ABN: 68 706 814 312

Prepared by

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24-Apr-2023

Job No.: 60612562

AECOM in Australia and New Zealand is certified to ISO9001, ISO14001 and ISO45001.

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Verifier/s	[redacted]

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			Name/Position	Signature
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B	05-Apr-2023	Draft	[redacted]	
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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AFFF	Aqueous Film Forming Foam
AHD	Australian Height Datum
AIR	Annual Interpretive Report
ASC NEPM	Assessment of Site Contamination National Environment Protection Measure
BOM	Bureau of Meteorology
DCMM	Defence Contamination Management Manual
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EPA	Environment Protection Authority
FSANZ	Food Standards Australia New Zealand
HEPA	Heads of Environment Protection Authority
HHERA	Human Health and Ecological Risk Assessment
JBT	Jervis Bay Territory
LOR	Limit of Reporting
MW	Monitoring Well
NATA	National Analytical Testing Authority
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMP	Ongoing Monitoring Plan
ORP	Oxidation Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control

Acronym	Term
RPD	Relative Percentage Difference
SAQP	Sample and Analysis Quality Plan
SD	Sediment
SW	Surface Water
SWL	Standing Water Level
TOC	Top of Casing
WQM	Water Quality Meter

List of Units

Units	Term
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	MicroSiemens per Centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
mAHD	Metres Australian Height Datum
mbgl	Metres below ground level
mbTOC	Metres below Top of Casing
mg/kg	Milligrams per kilogram
mg/L	Milligrams per Litre
mV	MilliVolts

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at the HMAS Albatross (hereafter referred to as the 'Site') in the NSW and JBT Region. The location of the Site and Management Area is shown in **Figure F1** in **Appendix A**.

The OMP (Defence, 2019a) outlines the sampling requirements for the Site and off-Site areas within the Management Area.

Following each sampling event, factual sampling event reports will be prepared. Annual interpretive reports will be prepared following the completion of each 12-month sampling period.

This Sampling Event Factual Report has been prepared to report the results of the February 2023 annual sampling event, specifically highlighting first-time detections and/or new exceedances of human health or ecological screening criteria for the sum of Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS) (herein referred to as PFOS+PFHxS), PFOS and/or Perfluorooctanoic acid (PFOA).

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

1.2 Objectives

The objectives were to:

- implement the OMP (Defence, 2019a) prepared as part of the Detailed Environmental Investigations; and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport, and transformation of PFAS.

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

The objective of this phase of works was to implement the scope of works for the February 2023 annual sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2023).

2.0 Scope of Work

The scope of works was completed in accordance with the SAQP (AECOM, 2023), as follows:

- obtain permission (where required) to conduct works at the Site, off-Site publicly accessible areas and at private properties
- gauging of groundwater level in monitoring wells prior to collection of samples
- groundwater sampling and collection of water quality parameters at all 27 scheduled monitoring wells (refer to **Table 1** below and **Figure F2** in **Appendix A** for specific locations)
- surface water sampling and collection of water quality parameters at all 13 scheduled surface water locations (refer to **Table 2** below and **Figure F3** in **Appendix A** for specific locations)
- collection of field duplicate samples at a rate of 1 in 10 primary samples
- analysis of samples for PFAS suite at the standard limit of reporting (LOR)
- data management of the OMP field and laboratory data in Defence ESdat database
- preparation of this factual monitoring event report.

Note: due to privacy considerations, selected monitoring locations are unable to be shown on the figures in **Appendix A**.

Table 1 Groundwater Sampling Locations

Area	Description	Sampling Location	Total
On-Site	Braidwood Road drain sub-catchment	MW001, MW002, MW012, MW012P	4
	Upper Currambene Creek sub-catchment	MW003, MW005, MW029, MW038	4
	Flat Rock Creek sub-catchment	MW004, MW037	2
	Yerriyong Gully sub-catchment	MW006, MW008, MW009, MW009P, MW015, MW016, MW017, MW039, MW045, MW046	10
Off-Site Road Reserve	Braidwood Road drain sub-catchment	MW018, MW044	2
	Cabbage Tree Creek sub-catchment	MW072, MW073	2
Off-Site Private Property	Braidwood Road drain sub-catchment	**MW024, MW031**	2
	Upper Currambene Creek sub-catchment	**MW026**	1
Total			**27**
Bold text denotes private property location			

Table 2 Surface Water Sampling Locations

Area	Description	Sampling Location	Total
On-Site	Braidwood Road drain	SW007, SW018	2
	Yerriyong Gully	SW009, SW012	2
Off-Site	Cabbage Tree Creek	SW001	1
	Flat Rock Creek	SW002	1
	Calymea Creek	SW004B	1
	Braidwood Road drain	SW005, SW006, SW020	3
	Currambene Creek	SW008	1

Area	Description	Sampling Location	Total
	Parma Creek	SW013, SW014	2
Total			13

3.0 Deviations from the SAQP

The February 2023 annual sampling event was completed in accordance with the SAQP (AECOM, 2023). No deviations from the SAQP were identified.

4.0 Methodology

4.1 Sampling Methodology

The methodology used for the February 2023 annual sampling event was in accordance with the SAQP (AECOM, 2023) and is summarised in **Table 3** below.

Table 3 Sampling Methodology

Item	Details
Groundwater gauging	The depth to groundwater was measured in each monitoring well immediately prior to collection of groundwater samples using an interface probe between 13 and 16 February 2023. Measurements of depth to groundwater were undertaken using an interface probe, which was serviced by the supplier prior to use. The equipment supplier records are provided in **Appendix C**.
Field parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality were recorded for groundwater and surface water samples. Field parameters were collected using a calibrated water quality meter (WQM). The equipment supplier and field calibration records are provided in **Appendix C**.
Sampling methodology	**Groundwater Monitoring Wells** Groundwater samples were generally collected from each monitoring well using HydraSleeves™, a no-purge sampling methodology. HydraSleeves™ were installed within the screened interval of the wells for a minimum of 24 hours prior to the sampling round, based on a review of the well construction log. For this event, the majority of HydraSleeves™ were installed during previous annual sampling event in February 2022. Once sampling was completed, new HydraSleeves™ were deployed in each of the monitoring wells, within the screened interval depth in preparation for the next sampling round. At locations where the HydraSleeves™ failed to deploy or had been removed prior to the sampling event, AECOM collected groundwater samples using dedicated, disposable bailers. During this sampling event, bailers were used at MW005, MW008 and MW009. It is noted that no HydraSleeve was able to be installed in MW005 following sampling as the monitoring well was identified to be damaged. **Surface Water** Surface water samples were collected from immediately below the water surface (approximately 10 centimetres [cm] below the surface water level, where depth permitted) to minimise collection of sediment, surface film or floating materials in the samples. At each location, a new, laboratory supplied container was lowered into the water (by hand) with the cap immediately applied once the container was full.

Item	Details
QA/QC Samples	A QA/QC program was implemented for the sampling and analysis program to obtain representative data and assess the reliability of the data collected. To facilitate the QA/QC program the following sample types were obtained during the sampling program: • *Intra-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Inter-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Rinsate blanks* collected at a frequency of one per set of sampling equipment per day where equipment was reused between locations. Analytical results should be below the LOR. For this February 2023 annual sampling event, the QA/QC samples included: • 4 x intra-laboratory duplicates (2 x groundwater, 2 x surface water) which met the target frequency • 4 x inter-laboratory duplicates (2 x groundwater, 2 x surface water) which met the target frequency • 4 x rinsate blanks, which met the target frequency. The data validation assessment is presented in **Appendix D**.
Sample analysis	Samples were submitted to the primary and secondary laboratories for PFAS suite at the standard LOR. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. Envirolab Services (Envirolab) Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). A summary of the laboratory results is presented in **Section 5.3** and the laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Guidance documents used to assess the dataset include the following:

- Heads of EPAs Australia and New Zealand (HEPA) 2020. *PFAS National Environmental Management Plan 2.0*. January 2020.
- Department of Health, 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- FSANZ, 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- National Environment Protection Council (NEPC), 2013. *Schedule B1. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B1 Guideline on Investigation Levels for Soil and Groundwater.*

The adopted PFAS screening criteria to assess the data generated as part of the OMP are presented in **Table 4** below.

Table 4 Summary of Adopted Screening Criteria: Water

<table>
<tr><th>Media</th><th>Pathway</th><th>Compound</th><th>Criteria</th><th>Comment/Reference</th></tr>
<tr><td colspan="5">Human Health Receptors</td></tr>
<tr><td rowspan="2">Water – Groundwater</td><td rowspan="2">Drinking water</td><td>PFOS + PFHxS</td><td>0.07 µg/L</td><td rowspan="2">The values presented in the PFAS NEMP, 2020 are from DoH 2017, which published final health-based guidance values for PFAS for use in site investigations in Australia. DoH utilised the TDI for PFOS and PFOA from FSANZ, 2017 and the methodology described in Chapter 6.3.3 of the National Health and Medical Research Council’s (NHMRC) Australian Drinking Water Guidelines (ADWG), 2011 (updated in January 2022) to determine drinking water values.

For PFHxS, DoH 2017 noted that ‘FSANZ concluded that there was not enough toxicological and epidemiological information to justify establishing a tolerable daily intake. However, as a precaution, and for the purposes of site investigations, the PFOS tolerable daily intake should apply to PFHxS. In practice, this means that the level of PFHxS exposure should be added to the level of PFOS exposure; and this combined level be compared to the tolerable daily intake for PFOS’.

All groundwater results were compared to these criteria.</td></tr>
<tr><td>PFOA</td><td>0.56 µg/L</td></tr>
</table>

Media	Pathway	Compound	Criteria	Comment/Reference
Water – Surface Water	Recreational use	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted in the PFAS NEMP, 2020. *All surface water results were compared to these criteria.*
		PFOA	10 µg/L	
Ecological Receptors				
Water – Groundwater and Surface Water	Freshwater	PFOS	0.00023 µg/L	The values are from the PFAS NEMP, 2020 which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality. The 99% species protection level (for freshwater and interim marine) has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. It is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All groundwater and surface water results were compared to these criteria.*
		PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023). Data validation assessment is provided in **Appendix D**.

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

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

5.0 Field Observations and Results

5.1 General Observations

The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the February 2023 annual sampling event completed between 13 and 16 February 2023 are summarised in **Table 5** below.

Table 5 General Observations

Items	Observations
Weather Conditions	During the sampling event, the weather was observed to be mostly dry and warm, with maximum daily temperatures between 22.3 ˚C (13 February 2023) and 30.0 ˚C (16 February 2023). A cumulative 0.6 mm of rainfall was recorded at Nowra (Nowra RAN Air AWS Station ID 68072) (Bureau of Meteorology, 2023) during the sampling event.
Estate Management Works, Training Activities and/or Construction Works.	No estate management works, training activities or construction works were observed during the sampling event, that would impact the sampling program.

5.2 Field Observations and Measurements

The observations and measurements recorded during the field activities for the February 2023 annual sampling event are summarised in **Table 6**, below.

Table 6 Field Observations and Measurements

Item	Description
Monitoring Well Network Condition	All wells sampled were observed to be in good condition with the exception of the following: • MW005 was observed to be in poor condition as the PVC casing was damaged at the base of the monument. The monument was not stable and therefore a HydraSleeve™ was unable to be installed. • MW024 was observed to be in good condition, however the water level was above ground level within the casing stick-up (inside the monument). Given the evidence of flooding in the area, there was potential for surface water to enter the well.
Water Observations	No visible signs of contamination were observed in groundwater and surface water at the locations sampled. Organic odours were noted at three groundwater locations (MW005, MW018 and MW039) and two surface water locations (SW009 and SW014). A sulphurous odour was noted at one groundwater location (MW015). A septic odour was noted at one groundwater location (MW006).

Item	Description
Depth to Groundwater and Flow Direction	Depth to groundwater ranged from 0.290 (MW012) and 13.150 (MW003) metres below top of casing (mbTOC). Groundwater elevation ranged between 26.198 (MW026) and 140.164 (MW004) metres Australian Height Datum (mAHD). Groundwater gauging data is presented in **Table T1** in **Appendix B**. Inferred groundwater contours and groundwater flow directions based on February 2023 data are shown on **Figure F4** in **Appendix A**. The inferred groundwater flow direction indicates the presence of a groundwater divide under the runway tarmac area, with flows on the southern half to the north and east, whereas in the northern half (from Nowra Hill) the flows are generally to the southwest and southeast. The flows are generally consistent with the inferred groundwater flow directions observed during the February 2022 sampling event. Note that gauging data from selected groundwater monitoring wells were omitted from the contour plan, due to the following: • MW009P and MW012P: the screens target perched aquifer • MW024: water depth was above ground level (within monument).
Geochemical Parameters	Groundwater and surface water geochemical parameters were measured during the collection of water samples. The readings are presented in **Table T2** and **Table T3** in **Appendix B** and are summarised below: **Groundwater Geochemical Parameters** • Dissolved oxygen ranged from 0.09 mg/L (MW017) to 6.15 mg/L (MW026) indicating poor to well oxygenated conditions. • Electrical conductivity ranged from 5.58 µS/cm (MW016) to 11,022 µS/cm (MW031) indicating fresh to saline conditions. • pH ranged from 3.56 (MW046) to 7.13 (MW038) indicating acidic to neutral conditions. • Redox ranged from 101.8 mV (MW006) to 521.1 mV (MW046) indicating moderately reducing to oxidising conditions. • Temperature ranged from 17.3 ˚C (MW003, MW005) to 22.9 ˚C (MW039). **Surface Water Geochemical Parameters** • Dissolved oxygen ranged from 1.19 mg/L (SW008) to 9.5 mg/L (SW018) indicating poor to well oxygenated conditions. • Electrical conductivity ranged from 167.2 µS/cm (SW020) to 532 µS/cm (SW009) indicating fresh conditions. • pH ranged from 5.99 (SW002) to 9.5 (SW009) indicating moderately acidic to alkaline conditions. • Redox (corrected) ranged from 168.3 mV (SW009) to 337.0 mV (SW007) indicating moderately reducing to oxidising conditions. • Temperature ranged from 18.8 ˚C (SW008) to 26.8 ˚C (SW009).

5.3 Summary of Analytical Results

5.3.1 Groundwater Analytical Results

The PFAS groundwater analytical results from this sampling event are presented in **Table T4** in **Appendix B**. In summary, 27 primary groundwater samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 20 primary samples
- PFOS+PFHxS and/or PFOA exceeded the adopted drinking water human health screening criteria in 14 primary samples
- PFOS and/or PFOA exceeded the adopted ecological screening criteria in 18 primary samples.

There were no first-time detections or new exceedances of adopted screening criteria for PFOS+PFHxS, PFOS and/or PFOA in the groundwater samples analysed.

5.3.2 Surface Water Analytical Results

The PFAS surface water analytical results from this sampling event are presented in **Table T5** in **Appendix B**. In summary, 13 primary surface water samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 12 primary samples
- PFOS+PFHxS and/or PFOA exceeded the adopted recreational use human health screening criteria in 7 primary samples
- PFOS and/or PFOA exceeded the adopted ecological screening criteria in 12 primary samples.

There were no first-time detections or new exceedances of adopted screening criteria for PFOS+PFHxS, PFOS and/or PFOA in the surface water samples analysed.

5.4 Historical Sampling Data

Historical groundwater and surface water sampling data are presented in **Tables T6** and **T7** in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The February 2023 annual sampling event was completed between 13 and 16 February 2023. The findings and the recommended actions are summarised in **Table 7** below.

Table 7 Summary of Sampling Event

Item	Comment	Recommended Action
Access to sampling locations	The following were accessed and able to be sampled: • 27 groundwater locations • 13 surface water locations	Nil.
Location unable to be located, inaccessible or dry	No monitoring locations were unable to be accessed or identified as dry.	Nil.
Monitoring well network condition	All monitoring wells that were able to be accessed were noted to be in good condition, with the exception of the following: • one monitoring well (MW005) had a damaged PVC casing and loose monument. • one monitoring well (MW024) was observed to be in good condition with potential for surface water ingress. Additionally, upon further review of the data, one monitoring well (MW039) may be filling with sediment.	AECOM proposes to mobilise ahead of the next sampling event to repair the damaged casing and monument at MW005 and attempt to clear sediment build up at MW039 by using a pump.
Analytical Results	27 groundwater primary samples and 13 surface water primary samples were analysed.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
First-time detections of PFOS+PFHxS, PFOS and/or PFOA	No groundwater or surface water locations reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted human health screening criteria	No groundwater or surface water locations reported new exceedances of the adopted human health screening criteria for PFOS+PFHxS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted ecological screening criteria	No groundwater or surface water locations reported new exceedances of the adopted ecological screening criteria for PFOS and/or PFOA	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.

6.2 Upcoming Sampling Events

The next OMP sampling event is scheduled for August 2023.

6.3 Upcoming Annual Interpretive Report

The next annual interpretive report is scheduled to be delivered in Q4 2023, covering data that is collected within the 12-month sampling period between December 2021 and November 2022.

7.0 References

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NEPC, 2013. *Schedule B2. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B2 Guideline on Site Characterisation*.

NEPC, 2013. *Schedule B4. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B4 Guideline on Site-Specific Health Risk Assessment Methodology*.

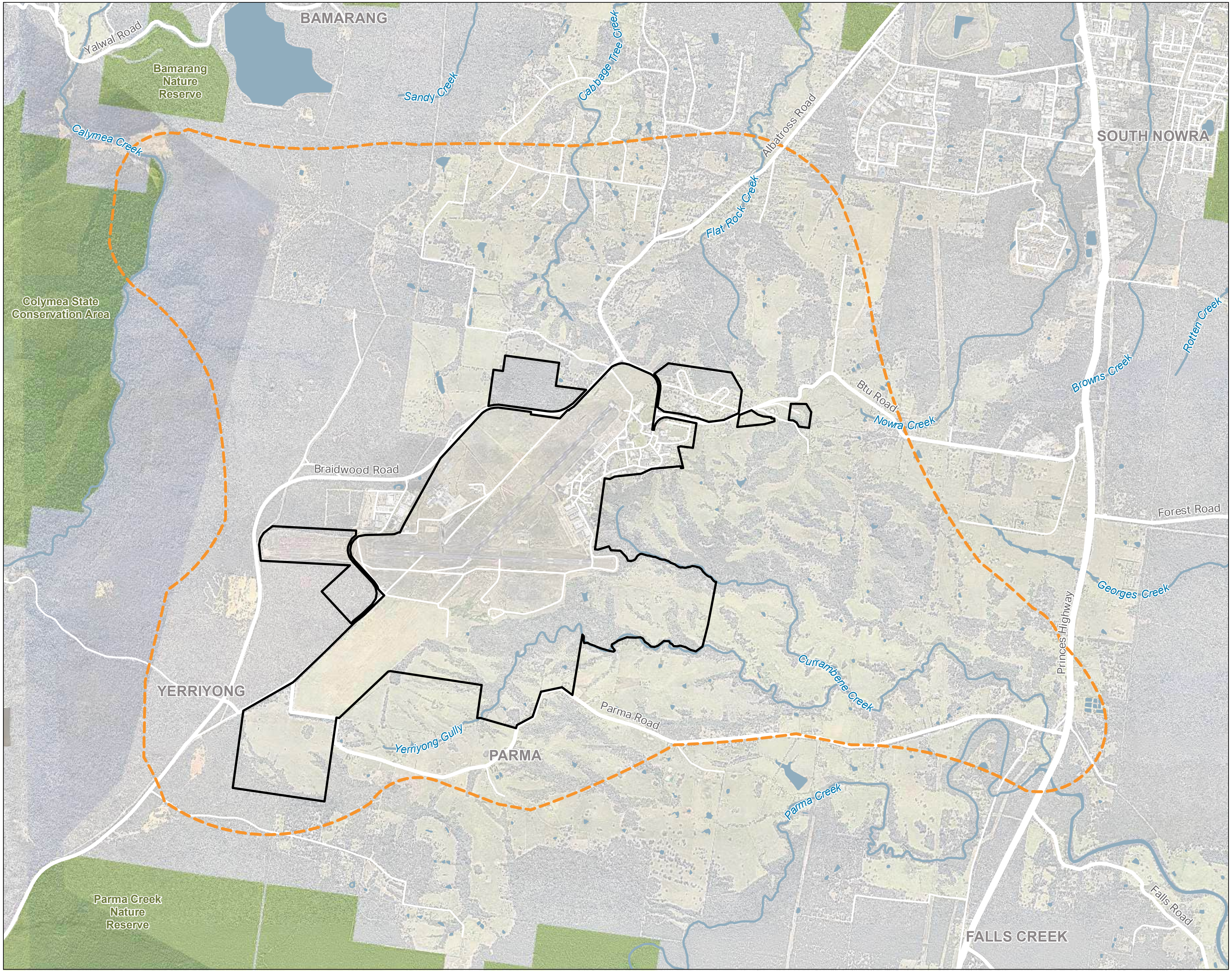
NEPC, 2013. *Schedule B7. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B7 Guideline on Derivation of Health-Based Investigation Levels*.

Standards Australia 1998. AS/NZ 5667:1998 *Water quality – sampling*

DRAFT

Appendix A

Figures



AECOM

N

0 500 1,000 m

Legend

Site Boundary

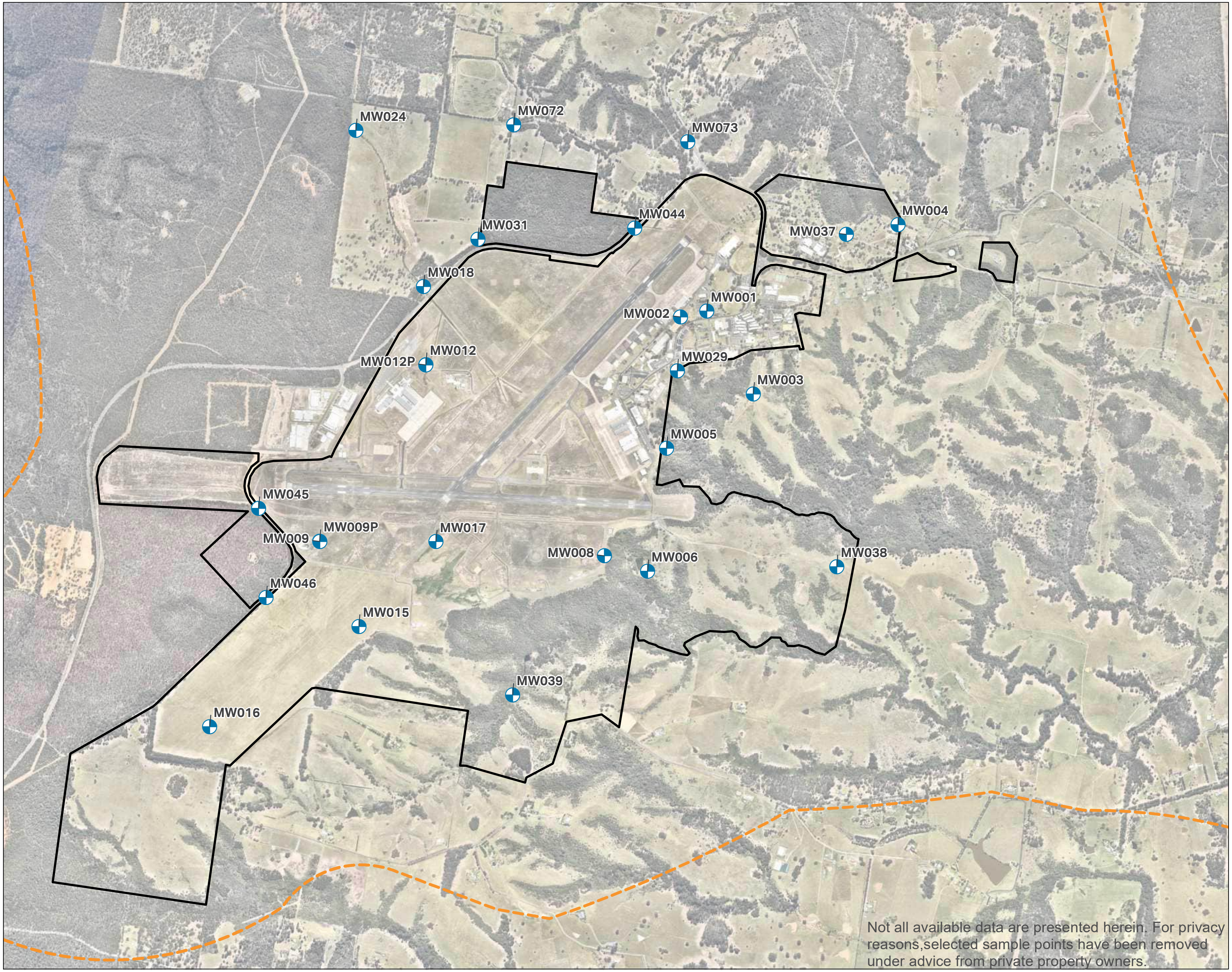
Management Area

FIGURE F1:
SITE LAYOUT

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
HMAS Albatross (0026)
February 2023
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:

\\na.aecomnet.com\lfs\APAC\Sydney-AUSYD1\Secure\Groups\GIS\7_Small_Jobs_INTERSTATE_PROJECTS\NTL_60612562\02_Maps\HMAS_Albatross\G058_01_A4L_Albatross_FEB2023_FactualReport_FIG-01_SiteLayout_230303.mxd Date Saved: 03/03/23



AECOM

N

0 300 600 m

Legend

Property Boundary

Management Area

Groundwater Sampling Location

FIGURE F2:
GROUNDWATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
HMAS Albatross (0026)
February 2023
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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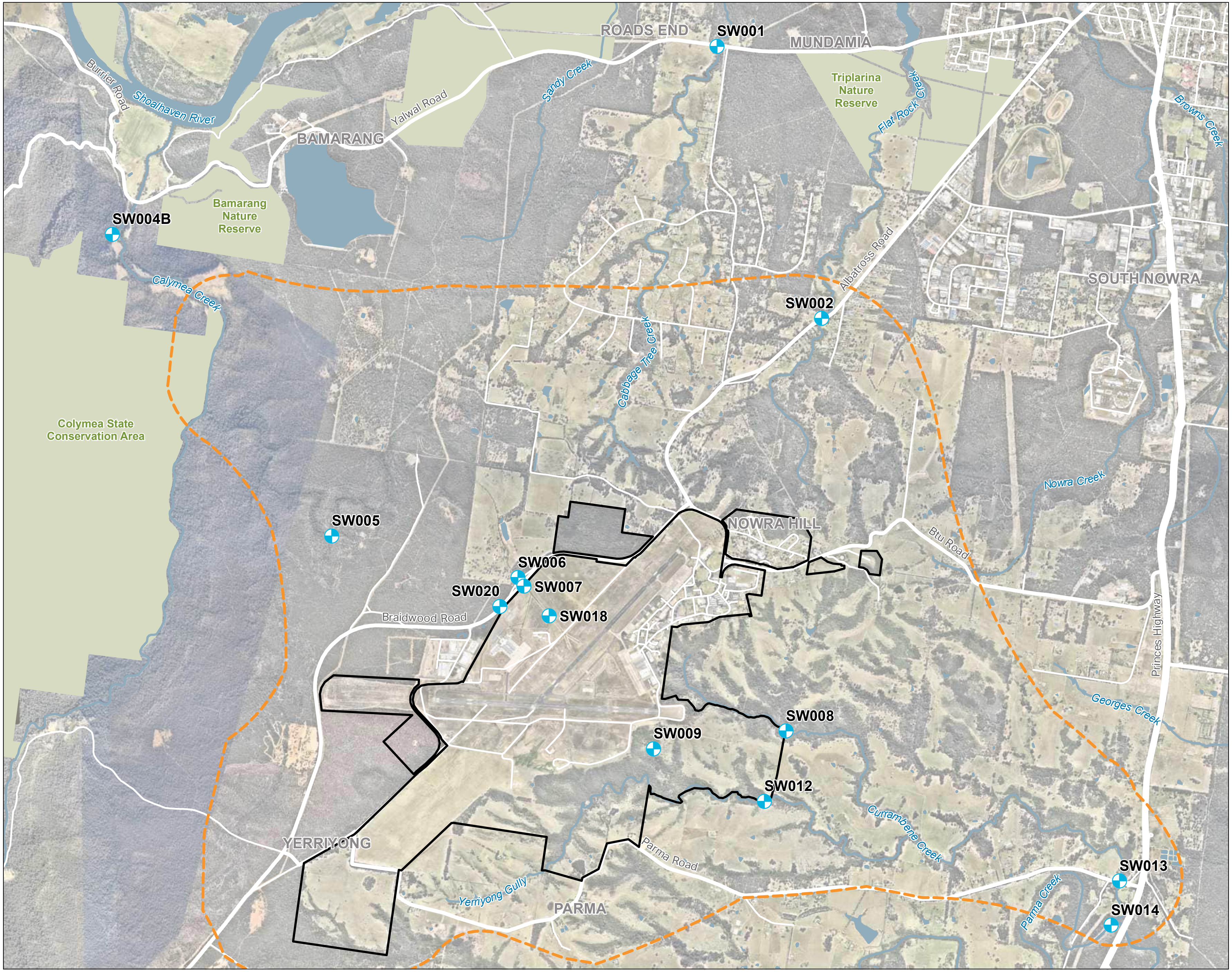

Legend

- Property Boundary
- Management Area
- Surface Water Sampling Locations

FIGURE F3:
SURFACE WATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
HMAS Albatross (0026)
February 2023
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

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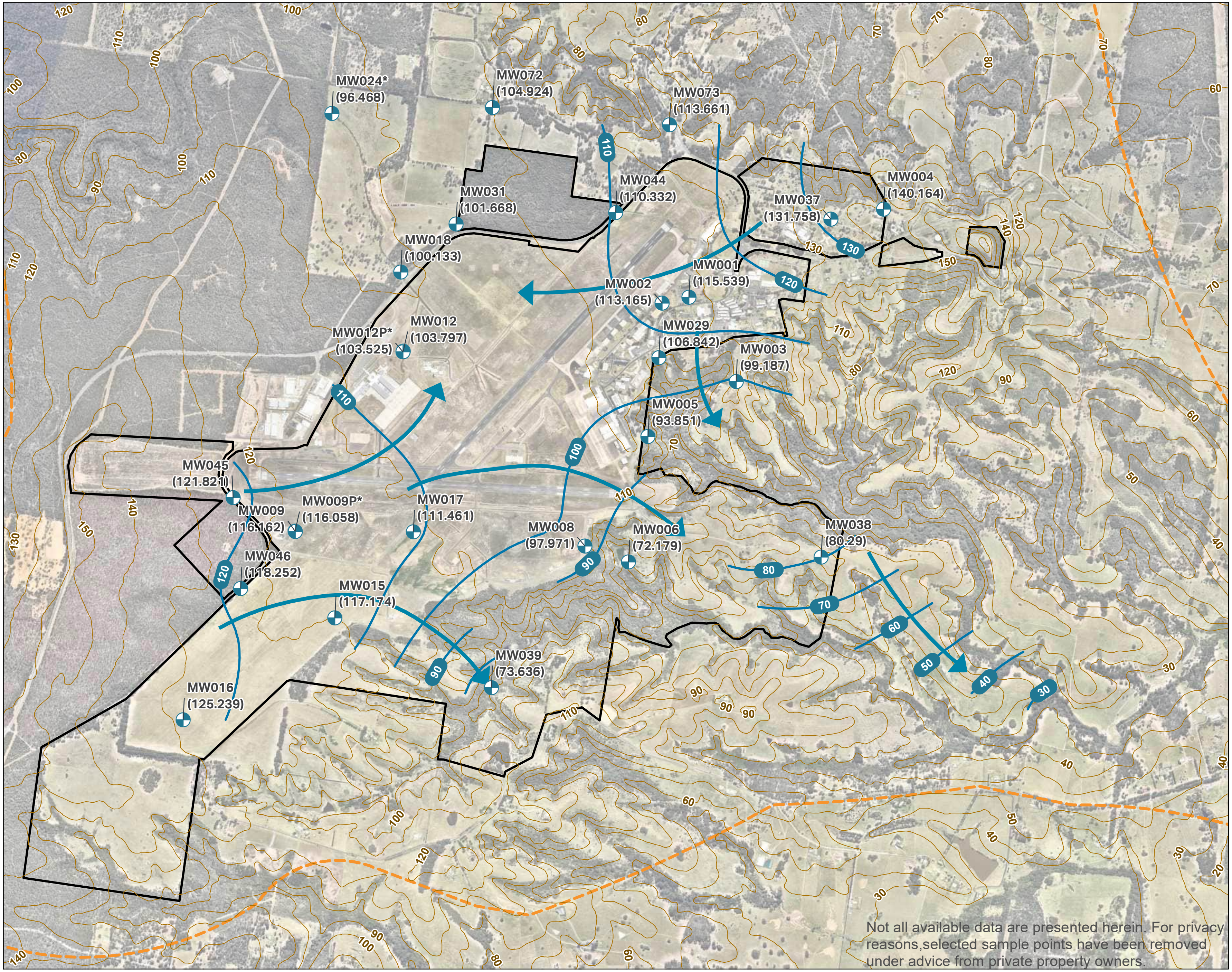

AECOM

N

0 300 600 m

Legend

- Property Boundary
- Inferred Groundwater Flow Direction
- Management Area
- Groundwater Contour (mAHD)
- 10m Contour
- Groundwater Sampling Location
- 1.11 Groundwater Elevation (mAHD, February 2023)

(*) Groundwater elevation data excluded from contouring

FIGURE F4:
GROUNDWATER ELEVATION PLAN

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
HMAS Albatross (0026)
February 2023
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

Appendix B

Tables

Table T1 - Groundwater Gauging

Location Code	Alternative Name	Top of Casing (mAHD)	Top Screen (mbTOC)	Bottom Screen (mbTOC)	HydraSleeve Collar Depth (mbTOC)	Gauging / Visit Date Time	Water Depth (mbTOC)	Water Elevation (mAHD)	Depth to Base of Well (mbTOC)	Visit / Gauging Comment
MW001	BH01	116.622	6	9	8	13/02/2023 15:05	1.083	115.539	9.98	Good condition.
MW002	BH02	114.335	6	9	8.5	13/02/2023 15:17	1.170	113.165	9.63	Good condition.
MW003	BH03	112.337	15	20	19	14/02/2023 9:30	13.150	99.187	22.08	Good condition.
MW004	BH04	144.135	5.5	8.5	8.25	14/02/2023 14:32	3.971	140.164	9.49	Good condition.
MW005	BH05	99.114	5.5	8.5	n/a	14/02/2023 9:57	5.263	93.851	10.50	Poor condition, casing broken at base of monument and can be removed. Monument is unstable. Data logger in well. Hydrasleeve not installed after sampling due to poor well condition.
MW006	BH06	77.233	4	7	6	13/02/2023 14:06	5.054	72.179	8.16	Good condition.
MW008	BH08	104.912	6	9	n/a	13/02/2023 13:46	6.941	97.971	9.50	Good condition. No Hydrasleeve in well. Hydrasleeve installed (at 8.5 mbTOC) after sampling.
MW009	BH09	116.632	12	15	n/a	13/02/2023 9:54	0.470	116.162	15.01	Good condition. No Hydrasleeve in well. Hydrasleeve installed (at 13 mbTOC) after sampling.
MW009P	BH09s, MW009_P	116.634	0.5	2.5	1.5	13/02/2023 9:48	0.576	116.058	2.46	Good condition.
MW012	BH12	104.087	9	12	11	13/02/2023 10:18	0.290	103.797	13.02	Good condition.
MW012P	BH12s, MW012_P	104.086	1.3	5.3	4.5	13/02/2023 10:25	0.561	103.525	5.29	Good condition.
MW015	BH15	119.178	8	11	10	13/02/2023 12:42	2.004	117.174	11.32	Good condition. Silt on interface probe.
MW016	BH16	126.040	6	9	8.5	13/02/2023 13:00	0.801	125.239	9.92	Good condition.
MW017	BH17	112.476	11	14	13	13/02/2023 9:19	1.015	111.461	15.33	Good condition. Silt on interface probe.
MW018	BH18	100.782	9.5	12.5	12	14/02/2023 15:26	0.649	100.133	13.82	Good condition.
MW024	BH24	97.015	6.5	9.5	9	16/02/2023 8:28	0.547	96.468	10.81	Good condition. Water level is above ground level (within monument). Evidence of flooding in area.
MW026	BH26	31.685	5.5	7.5	7	16/02/2023 9:20	5.487	26.198	8.51	Good condition.
MW029	BH29	110.154	5	7.7	6	14/02/2023 10:14	3.312	106.842	8.90	Good condition.
MW031	BH31	103.386	3	6	4	16/02/2023 8:14	1.718	101.668	5.85	Good condition.
MW037	BH37	135.030	3.4	6.4	5	14/02/2023 14:16	3.272	131.758	6.12	Good condition.
MW038	BH38	86.383	5	8	6.75	14/02/2023 12:17	6.093	80.290	7.74	Good condition.
MW039	BH39	74.701	1	4	1.7	14/02/2023 11:20	1.607	73.094	2.40	Good condition. Clay on interface probe. Data logger in well. Hydrasleeve install visit only.
MW039	BH39	74.701	1	4	1.7	15/02/2023 11:27	1.065	73.636	2.37	Good condition. Data logger in well.
MW044	BH44	111.923	5	7	5.5	14/02/2023 15:49	1.591	110.332	7.01	Good condition.
MW045	BH45	124.484	7	10	8	13/02/2023 11:53	2.663	121.821	9.30	Good condition.
MW046	BH46	122.911	5.5	8.5	7.5	13/02/2023 12:09	4.659	118.252	9.45	Good condition.
MW072	MW72	108.106	4.85	7.85	6	15/02/2023 8:03	3.182	104.924	7.63	Good condition.
MW073	MW73	120.919	6	11.5	10	15/02/2023 13:34	7.258	113.661	11.43	Good condition.

Notes

mbTOC	metres below Top of Casing
mAHD	metres Australian Height Datum
n/a	not applicable

Table T2 - Groundwater Geochemical Parameters and Observations

				Field Measurements					
				Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	Alternative Name	Sampled Date Time	Sample Comment	mg/L	°C	µS/cm	pH_Units	mV	mV
MW001	BH01	13/02/2023 15:06	Light grey, low turbidity, no odour, no sheen.	1.30	20.7	3,745.0	7.02	-9.8	196.0
MW002	BH02	13/02/2023 15:20	Clear, low turbidity, no odour, no sheen.	1.60	21.0	1,381.0	6.71	85.0	290.8
MW003	BH03	14/02/2023 9:35	Clear, no turbidity, no odour, no sheen.	1.70	17.3	4,712.0	4.87	6.7	212.5
MW004	BH04	14/02/2023 14:35	Clear, no turbidity, no odour, no sheen.	1.43	18.5	2,122.0	6.92	71.0	276.8
MW005	BH05	14/02/2023 9:59	Clear, low turbidity, organic odour, no sheen. Suspended organics. Sampled with bailer.	1.45	17.3	6.4	6.23	21.5	227.3
MW006	BH06	13/02/2023 14:11	Black, high turbidity, septic odour, no sheen.	1.17	22.3	781.0	6.41	-104.0	101.8
MW008	BH08	13/02/2023 13:48	Light brown, medium turbidity, no odour, no sheen. Sampled with bailer.	3.90	20.2	510.0	6.01	100.1	305.9
MW009	BH09	13/02/2023 10:01	Clear, no turbidity, no odour, no sheen. Sampled with bailer.	1.06	18.6	439.5	6.56	-80.7	125.1
MW009P	BH09s, MW009_P	13/02/2023 9:50	Light brown, medium turbidity, no odour, no sheen.	0.73	20.7	229.2	5.79	68.8	274.6
MW012	BH12	13/02/2023 10:20	Clear, no turbidity, no odour, no sheen.	1.58	18.5	1,485.0	6.96	23.9	229.7
MW012P	BH12s, MW012_P	13/02/2023 10:29	Brown/orange, medium turbidity, no odour, no sheen.	1.26	20.9	583.0	5.99	12.4	218.2
MW015	BH15	13/02/2023 12:45	Clear, no turbidity, sulfurous odour, no sheen.	1.50	18.6	5,282.0	5.23	208.8	414.6
MW016	BH16	13/02/2023 13:02	Grey, low turbidity, no odour, no sheen.	1.87	18.2	5.6	5.59	80.5	286.3
MW017	BH17	13/02/2023 9:25	Grey, low turbidity, no odour, no sheen.	0.09	19	1,776.0	6.76	221.2	427.0
MW018	BH18	14/02/2023 15:27	Grey, low turbidity, organic odour, no sheen. Black suspended sediment.	1.08	17.9	4,366.0	3.80	6.7	212.5
MW024	BH24	16/02/2023 8:32	Light yellow, low turbidity, no odour, no sheen.	1.91	18.5	698.0	6.92	5.6	211.4
MW026	BH26	16/02/2023 9:25	Clear, low turbidity, no odour, no sheen.	6.15	19.5	74.7	6.94	102.1	307.9
MW029	BH29	14/02/2023 10:16	Clear, no turbidity, no odour, no sheen.	1.22	17.7	7,653.0	6.63	-6.0	199.8
MW031	BH31	16/02/2023 8:15	Orange, medium turbidity, no odour, no sheen.	2.22	18.8	11,022.0	5.30	115.0	320.8
MW037	BH37	14/02/2023 14:20	Light grey, low turbidity, no odour, no sheen.	3.50	19.4	1,717.0	4.93	177.3	383.1
MW038	BH38	14/02/2023 12:20	Light brown, low turbidity, no odour, no sheen.	2.59	17.6	949.0	7.13	61.4	267.2
MW039	BH39	15/02/2023 11:30	Light brown, medium turbidity, organic odour, no sheen. Silt at base of Hydrasleeve.	3.03	22.9	1,887.0	6.00	104.5	310.3
MW044	BH44	14/02/2023 15:52	Light yellow, no turbidity, no odour, no sheen.	1.54	18.8	152.7	6.73	-48.8	157.0
MW045	BH45	13/02/2023 11:56	Orange, low turbidity, no odour, no sheen.	1.49	18.9	129.5	4.47	230.6	436.4
MW046	BH46	13/02/2023 12:12	Clear, no turbidity, no odour, no sheen.	1.57	17.6	2,032.0	3.56	315.3	521.1
MW072	MW72	15/02/2023 8:06	Light grey, medium turbidity, no odour, no sheen.	1.36	18.6	6,717.0	6.56	83.2	289.0
MW073	MW73	15/02/2023 13:38	Clear, low turbidity, no odour, no sheen.	1.56	21.0	1,725.0	6.66	33.7	239.5

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre

Corrected field Redox measurement Eh = Er + 205.8

Table T3 - Surface Water Geochemical Parameters and Observations

					Field Measurements					
					Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	Alternative Name	Sampled Date Time	Location Comments	Sample Comment	mg/L	°C	µS/cm	pH_Units	mV	mV
SW001	SW01	15/02/2023 7:43	Creek. 4 m wide, 1 m deep. Water flow observed.	Light yellow, low turbidity, no odour, no sheen.	1.80	19.1	260.7	6.34	118.9	324.7
SW002	SW02	15/02/2023 10:10	Drainage channel under bridge. 0.2 m wide, 0.1 m deep. Water flow not observed.	Light yellow, no turbidity, no odour, no sheen.	4.03	20.4	383.9	5.99	42.9	248.7
SW004B	SW03/SW04B	15/02/2023 8:50	Creek. 5 m wide, 0.5 m deep. Biofilm on surface. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	7.35	19.1	333.1	7.07	35.1	240.9
SW005	SW05	15/02/2023 9:30	Stream flowing into lagoon. 10 m wide, > 1 m deep. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	5.89	20.6	199.8	6.75	128.7	334.5
SW006	BRD/SW06	14/02/2023 15:22	Culvert. 0.5 m wide. 0.2 m deep. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	6.40	20.7	308.2	7.14	89.4	295.2
SW007	SW07	13/02/2023 11:05	Culvert on drainage line. 1.5 m wide, 0.5 m deep. Fish observed near sample location. Reeds present. Water flow not observed.	Light brown, low turbidity, no odour, biosheen.	6.32	20.9	234.4	6.62	131.2	337.0
SW008	SW5/SW08	14/02/2023 12:50	Creek. 2 m wide, 0.15 m deep. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	1.19	18.8	397.7	7.40	113.4	319.2
SW009	SW09	13/02/2023 14:15	Sewage treatment plant pond. 25 m wide, >5m deep. Water flow not observed.	Clear, no turbidity, organic odour, no sheen.	4.76	26.8	532.0	9.50	-37.5	168.3
SW012	SW6/SW12	14/02/2023 13:30	Creek. 1.5 m wide, 0.15 m deep. No vegetation. Water flow observed.	Light yellow, no turbidity, no odour, no sheen.	7.79	19.5	353.2	7.61	116.8	322.6
SW013	SW13	15/02/2023 10:46	Creek. 4 m wide, >1 m deep. Water flow observed.	Light yellow, low turbidity, no odour, no sheen.	4.58	20.7	479.7	7.18	89.9	295.7
SW014	SW14	15/02/2023 10:55	Creek flowing into lagoon. 3 m wide, 0.2 m deep Water flow observed.	Light yellow, no turbidity, organic odour, no sheen.	8.30	23.5	232.2	6.41	122.7	328.5
SW018	SW18	13/02/2023 10:54	Drainage line. 1 m wide, 0.5 m deep. Water flow not observed.	Light brown, low turbidity, no odour, no sheen.	9.5	21.3	337.3	6.42	112.7	318.5
SW020	SW20	14/02/2023 15:12	Creek. 1.0 m wide, 0.4 m deep. Water flow observed.	Light yellow, low turbidity, no odour, no sheen.	7.52	19.6	167.2	7.71	48.5	254.3

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre

Corrected field Redox measurement Eh = Er + 205.8

						Per- and Poly-fluoroalkyl Substances																														
						Perfluorooctanoic Acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Sum of PFAS	Sum of PFAS (WA DER List)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05	0.01	0.01
PFAS NEMP 2020 Drinking Water						**0.56**			**0.07**																											
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
Location_Code	**Alt. Name**	**Date**	**Field_ID**	**Sample_Type**	**Lab_Report #**																															
MW001	BH01	13/02/2023	0026_MW001_230213	Normal	ES2305242	<0.01	*0.76*	0.25	**1.01**	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.05	1.03
MW002	BH02	13/02/2023	0026_MW002_230213	Normal	ES2305242	<0.01	*0.01*	<0.01	0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01
MW003	BH03	14/02/2023	0026_MW003_230214	Normal	ES2305242	<0.01	*0.01*	0.01	0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.02	0.02
MW003	BH03	14/02/2023	0026_QC201_230214	Interlab_D	316695	<0.01	*0.01*	<0.01	0.01	<0.01	0.04	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.07	-
MW004	BH04	14/02/2023	0026_MW004_230214	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
MW005	BH05	14/02/2023	0026_MW005_230214	Normal	ES2305242	**0.68**	*22.9*	12.4	**35.3**	<0.05	<0.05	<0.05	<0.05	1.19	0.2	<0.02	<0.02	<0.02	0.61	0.27	1.82	<0.02	<0.02	1.44	0.38	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	41.9	39.8
MW006	BH06	13/02/2023	0026_MW006_230213	Normal	ES2305242	0.16	*4.47*	3.53	**8**	<0.05	<0.05	<0.05	<0.05	0.36	<0.1	<0.02	<0.02	<0.02	0.14	0.07	0.63	<0.02	<0.02	0.4	0.18	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	9.94	9.4
MW008	BH08	13/02/2023	0026_MW008_230213	Normal	ES2305242	0.34	*2.36*	15.7	**18.1**	<0.05	<0.05	<0.05	<0.05	1.26	0.1	0.03	<0.02	<0.02	0.4	0.33	2.74	<0.02	<0.02	1.78	0.36	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	25.4	23.2
MW009	BH09	13/02/2023	0026_MW009_230213	Normal	ES2305242	**0.96**	*2.65*	28	**30.6**	<0.05	<0.05	<0.05	<0.05	3.53	1.1	<0.02	<0.02	<0.02	0.22	2.07	11.7	<0.02	<0.02	4.79	1.78	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	56.8	51.8
MW009P	BH09s, MW009P	13/02/2023	0026_MW009P_230213	Normal	ES2305242	**4.49**	*189*	43.9	**233**	<0.05	0.25	2.18	<0.05	3.64	1.8	1.26	0.66	0.21	4.83	2.08	13.6	0.52	0.55	4.39	2.75	0.05	0.05	0.2	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	276	264
MW012	BH12	13/02/2023	0026_MW012_230213	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
MW012	BH12	13/02/2023	0026_QC200_230213	Interlab_D	316695	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	<0.01	-
MW012P	BH12s, MW012P	13/02/2023	0026_MW012P_230213	Normal	ES2305242	<0.01	*0.24*	0.19	**0.43**	<0.05	<0.05	<0.05	<0.05	0.03	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.5	0.48
MW015	BH15	13/02/2023	0026_MW015_230213	Normal	ES2305242	0.08	*1.35*	8.26	**9.61**	<0.05	<0.05	<0.05	<0.05	0.92	<0.1	<0.02	<0.02	<0.02	0.21	0.05	0.33	<0.02	<0.02	1.18	0.06	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.4	11
MW016	BH16	13/02/2023	0026_MW016_230213	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
MW016	BH16	13/02/2023	0026_QC101_230213	Field_D	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
MW017	BH17	13/02/2023	0026_MW017_230213	Normal	ES2305242	0.03	*0.18*	1.19	**1.37**	<0.05	<0.05	<0.05	<0.05	0.18	<0.1	<0.02	<0.02	<0.02	<0.02	0.03	0.23	<0.02	<0.02	0.16	0.06	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.06	1.9
MW017	BH17	13/02/2023	0026_QC100_230213	Field_D	ES2305242	0.07	*0.41*	2.53	**2.94**	<0.05	<0.05	<0.05	<0.05	0.41	0.1	<0.02	<0.02	<0.02	0.04	0.08	0.48	<0.02	<0.02	0.38	0.15	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.65	4.23
MW018	BH18	14/02/2023	0026_MW018_230214	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
MW024	BH24	16/02/2023	0026_MW024_230216	Normal	ES2305240	<0.01	*0.02*	0.02	0.04	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04
MW026	BH26	16/02/2023	0026_MW026_230216	Normal	ES2305241	0.1	*1.43*	2.25	**3.68**	<0.05	<0.05	<0.05	<0.05	0.42	0.1	<0.02	<0.02	<0.02	0.08	0.08	0.65	<0.02	<0.02	0.34	0.16	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.61	5.19
MW029	BH29	14/02/2023	0026_MW029_230214	Normal	ES2305242	0.16	*1.3*	3.23	**4.53**	<0.05	<0.05	<0.05	<0.05	2.07	0.3	<0.02	<0.02	<0.02	0.07	0.28	2.99	<0.02	<0.02	1.4	0.7	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.5	11
MW031	BH31	16/02/2023	0026_MW031_230216	Normal	ES2305240	<0.01	<0.01	0.06	0.06	<0.05	<0.05	<0.05	<0.05	0.12	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	0.07	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.27	0.2
MW037	BH37	14/02/2023	0026_MW037_230214	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
MW038	BH38	14/02/2023	0026_MW038_230214	Normal	ES2305242	<0.01	*0.01*	0.02	0.03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.07	0.07
MW039	BH39	15/02/2023	0026_MW039_230215	Normal	ES2305242	<0.01	*0.01*	<0.01	0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.01	0.01
MW044	BH44	14/02/2023	0026_MW044_230214	Normal	ES2305242	<0.01	*0.02*	0.07	**0.09**	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.09	0.09
MW045	BH45	13/02/2023	0026_MW045_230213	Normal	ES2305242	<0.01	*0.02*	0.09	**0.11**	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.11	0.11
MW046	BH46	13/02/2023	0026_MW046_230213	Normal	ES2305242	<0.01	<0.01	0.08	**0.08**	<0.05	<0.05	<0.05	<0.05	0.05	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.16	0.13
MW072	-	15/02/2023	0026_MW072_230215	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
MW073	-	15/02/2023	0026_MW073_230215	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

Table T5 - Surface Water Analytical Results

						Per- and Poly-fluoroalkyl Substances																														
						Perfluorooctanoic Acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer Sulfonate (6:2 FtS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorobutane sulfonic acid (PFBS)	Perfluorobutanoic acid (PFBA)	Perfluorodecanesulfonic acid (PFDS)	Perfluorodecanoic acid (PFDA)	Perfluorododecanoic acid (PFDoDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexanoic acid (PFHxA)	Perfluorononanoic acid (PFNA)	Perfluorooctane sulfonamide (FOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoropentanoic acid (PFPeA)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	Sum of PFAS	Sum of PFAS (WA DER List)
						µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR						0.01	0.01	0.01	0.01	0.05	0.05	0.05	0.05	0.02	0.1	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05	0.01	0.01
PFAS NEMP 2020 Freshwater 99%						*19*	*0.00023*																													
PFAS NEMP 2020 Recreational Water						**10**			**2**																											
Location_Code	**Alt. Name**	**Date**	**Field_ID**	**Sample_Type**	**Lab_Report_#**																															
SW001	SW01	15/02/2023	0026_SW001_230215	Normal	ES2305242	<0.01	*0.02*	0.01	0.03	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.03	0.03
SW002	SW02	15/02/2023	0026_SW002_230215	Normal	ES2305242	<0.01	*0.02*	0.02	0.04	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.04	0.04
SW002	SW02	15/02/2023	0026_QC203_230215	Interlab_D	316695	<0.01	*0.03*	0.03	0.06	<0.01	<0.01	<0.02	<0.02	<0.01	<0.02	<0.02	<0.02	<0.05	<0.01	<0.01	<0.01	<0.01	<0.1	<0.01	<0.02	<0.5	<0.1	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	0.06	-
SW004B	SW03/SW04B	15/02/2023	0026_SW004B_230215	Normal	ES2305242	0.01	*0.2*	0.18	0.38	<0.05	<0.05	<0.05	<0.05	0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	<0.02	<0.02	0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	0.47	0.45
SW005	SW05	15/02/2023	0026_SW005_230215	Normal	ES2305242	0.09	*1.95*	1.57	**3.52**	<0.05	<0.05	<0.05	<0.05	0.17	<0.1	<0.02	<0.02	<0.02	0.09	0.05	0.35	<0.02	<0.02	0.2	0.08	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.55	4.26
SW005	SW05	15/02/2023	0026_QC103_230215	Field_D	ES2305242	0.12	*3.2*	1.78	**4.98**	<0.05	<0.05	<0.05	<0.05	0.23	<0.1	<0.02	<0.02	<0.02	0.09	0.06	0.36	<0.02	<0.02	0.23	0.11	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	6.18	5.86
SW006	BRD/SW06	14/02/2023	0026_SW006_230214	Normal	ES2305242	0.08	*2.14*	1.47	**3.61**	<0.05	<0.05	<0.05	<0.05	0.16	<0.1	<0.02	<0.02	<0.02	0.09	0.04	0.32	<0.02	<0.02	0.18	0.08	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	4.56	4.29
SW007	SW07	13/02/2023	0026_SW007_230213	Normal	ES2305242	0.02	*0.74*	0.84	1.58	<0.05	<0.05	<0.05	<0.05	0.08	<0.1	<0.02	<0.02	<0.02	0.06	<0.02	0.13	<0.02	<0.02	0.09	0.03	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	1.99	1.84
SW008	SW5/SW08	14/02/2023	0026_SW008_230214	Normal	ES2305242	0.05	*1.52*	1.01	**2.53**	<0.05	<0.05	<0.05	<0.05	0.09	<0.1	<0.02	<0.02	<0.02	0.06	0.02	0.24	<0.02	<0.02	0.13	0.04	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.16	2.97
SW008	SW5/SW08	14/02/2023	0026_QC102_230214	Field_D	ES2305242	0.07	*1.42*	1.11	**2.53**	<0.05	<0.05	<0.05	<0.05	0.13	<0.1	<0.02	<0.02	<0.02	0.04	0.03	0.24	<0.02	<0.02	0.14	0.05	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.23	3.05
SW009	SW09	13/02/2023	0026_SW009_230213	Normal	ES2305242	0.08	*3.28*	1.5	**4.78**	<0.05	<0.05	<0.05	<0.05	0.16	<0.1	<0.02	<0.02	<0.02	0.08	0.04	0.36	<0.02	<0.02	0.14	0.09	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.73	5.51
SW012	SW6/SW12	14/02/2023	0026_SW012_230214	Normal	ES2305242	0.07	*2.7*	1.74	**4.44**	<0.05	<0.05	<0.05	<0.05	0.2	<0.1	<0.02	<0.02	<0.02	0.1	0.05	0.31	<0.02	<0.02	0.2	0.09	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	5.46	5.16
SW012	SW6/SW12	14/02/2023	0026_QC202_230214	Interlab_D	316695	0.09	*2.8*	2.4	**5.2**	<0.01	<0.01	<0.02	<0.02	0.23	0.05	<0.02	<0.02	<0.05	0.11	0.07	0.36	<0.01	<0.1	0.24	0.1	<0.5	<0.1	<0.02	<0.1	<0.02	<0.5	<0.05	<0.02	<0.05	6.4	-
SW013	SW13	15/02/2023	0026_SW013_230215	Normal	ES2305242	0.05	*1.59*	1.49	**3.08**	<0.05	<0.05	<0.05	<0.05	0.16	<0.1	<0.02	<0.02	<0.02	0.08	0.04	0.26	<0.02	<0.02	0.17	0.06	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	3.9	3.65
SW014	SW14	15/02/2023	0026_SW014_230215	Normal	ES2305242	<0.01	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	<0.01	<0.01
SW018	SW18	13/02/2023	0026_SW018_230213	Normal	ES2305242	0.28	*4.6*	4.34	**8.94**	<0.05	<0.05	<0.05	<0.05	0.6	0.1	<0.02	<0.02	<0.02	0.24	0.16	1.08	<0.02	<0.02	0.59	0.22	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	12.2	11.4
SW020	SW20	14/02/2023	0026_SW020_230214	Normal	ES2305242	0.03	*0.78*	0.94	1.72	<0.05	<0.05	<0.05	<0.05	0.09	<0.1	<0.02	<0.02	<0.02	0.02	<0.02	0.11	<0.02	<0.02	0.1	<0.02	<0.05	<0.02	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05	2.07	1.95

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
Location Code	Date	Field ID	Sample Type	Project ID	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
MW001	14/10/2016	0026_MW01_161014	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW001	15/11/2016	0026_MW01_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW001	24/05/2017	0026_MW01_170524	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW001	20/06/2017	0026_MW01_170620	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW001	28/02/2020	0026_MW01_200228	Normal	NSW_0026_PFASOMP	<0.01	0.06	0.02	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	28/02/2020	0026_QC103_200228	Field_D	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	24/08/2020	0026_MW001_200824	Normal	NSW_0026_PFASOMP	<0.01	0.01	0.03	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	8/02/2021	0026_MW001_210208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	9/02/2022	0026_MW001_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW001	13/02/2023	0026_MW001_230213	Normal	NSW_0026_PFASOMP_23	<0.01	0.76	0.25	1.01	1.05	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	14/10/2016	0026_MW02_161014	Normal	NSW_0026_PFAS	<0.01	0.12	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW002	14/10/2016	0026_QC232_161014	Interlab_D	NSW_0026_PFAS	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.1	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.05	<0.05	<0.05	<0.05	<0.12	<0.05	<0.12	<0.12	<0.05	<0.12
MW002	15/11/2016	0026_MW02_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW002	24/05/2017	0026_MW02_170524	Normal	NSW_0026_PFAS	<0.01	0.04	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW002	19/06/2017	0026_QC237_170619	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	20/06/2017	0026_MW02_170620	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW002	20/06/2017	0026_QC158_170620	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW002	28/02/2020	0026_MW02_200228	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	28/02/2020	0026_QC203_200228	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	-	-	0.011	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW002	24/08/2020	0026_MW002_200824	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.02	0.01	1.12	1.04	0.03	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	24/08/2020	0026_QC200_200824	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	0.01	0.01	0.15	0.10	0.02	<0.01	<0.02	<0.02	<0.02	0.02	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW002	8/02/2021	0026_MW002_210208	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.02	0.01	0.35	0.32	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	8/02/2022	0026_MW002_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.01	0.01	0.09	0.08	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	8/02/2022	0026_QC101_220208	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	0.01	0.01	0.10	0.07	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW002	13/02/2023	0026_MW002_230213	Normal	NSW_0026_PFASOMP_23	<0.01	0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	14/10/2016	0026_MW03_161014	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW003	15/11/2016	0026_MW03_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW003	23/05/2017	0026_MW03_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW003	27/02/2020	0026_MW03_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	25/08/2020	0026_MW003_200825	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	25/08/2020	0026_QC101_200825	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	8/02/2021	0026_MW003_210208	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	8/02/2022	0026_MW003_220208	Normal	NSW_0026_PFASOMP	<0.01	0.01	0.01	0.02	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	14/02/2023	0026_MW003_230214	Normal	NSW_0026_PFASOMP_23	<0.01	0.01	0.01	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW003	14/02/2023	0026_QC201_230214	Interlab_D	NSW_0026_PFASOMP_23	<0.01	0.01	<0.01	0.01	0.07	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.04	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW004	14/10/2016	0026_MW04_161014	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW004	15/11/2016	0026_MW04_161114	Normal	NSW_0026_PFAS	<0.01	0.02	<0.01	-	-	<0.01	-	-	<0.01	<0.05	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW004	22/05/2017	0026_MW04_170522	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW004	19/06/2017	0026_MW04_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW004	26/08/2020	0026_QC202_200827	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW004	27/08/2020	0026_MW004_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW004	10/02/2021	0026_MW004_210210	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW004	10/02/2021	0026_QC200_210210	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW004	14/02/2023	0026_MW004_230214	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	14/10/2016	0026_MW05_161014	Normal	NSW_0026_PFAS	0.30	2.0	5.1	-	-	1.5	-	-	<0.01	0.23	0.43	2.0	0.32	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW005	15/11/2016	0026_MW05_161116	Normal	NSW_0026_PFAS	0.28	2.4	2.4	-	-	0.89	-	-	<0.01	0.24	0.32	2.0	0.18	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW005	23/05/2017	0026_MW05_170523	Normal	NSW_0026_PFAS	0.43	5.4	6.0	-	-	0.96	0.63	0.17	<0.01	0.21	0.40	1.8	0.27	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW005	20/06/2017	0026_MW05_170620	Normal	NSW_0026_PFAS	0.31	3.9	3.7	-	-	1.0	0.72	0.11	<0.01	0.21	0.39	1.9	0.23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW005	27/02/2020	0026_MW05_200227	Normal	NSW_0026_PFASOMP	0.31	7.88	5.90	13.8	17.6	0.72	0.78	0.24	<0.02	0.2	0.25	1.13	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	25/08/2020	0026_MW005_200825	Normal	NSW_0026_PFASOMP	0.68	19.9	12.9	32.8	40.5	1.29	1.74	0.70	<0.02	0.2	0.45	2.32	0.32	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	10/02/2021	0026_MW005_210210	Normal	NSW_0026_PFASOMP	0.55	15.3	10.2	25.5	32.7	1.54	1.71	0.56	<0.02	0.2	0.39	1.94	0.29	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	10/02/2022	0026_MW005_220210	Normal	NSW_0026_PFASOMP	0.60	20.0	11.7	31.7	39.0	1.35	1.40	0.54	<0.02	0.2	0.41	2.54	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW005	14/02/2023	0026_MW005_230214	Normal	NSW_0026_PFASOMP_23	0.68	22.9	12.4	35.3	41.9	1.19	1.44	0.61	<0.02	0.2	0.38	1.82	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	15/11/2016	0026_MW06_161115	Normal	NSW_0026_PFAS	0.33	15	7.6	-	-	1.1	-	-	<0.01	0.18	0.30	1.7	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW006	23/05/2017	0026_MW06_170523	Normal	NSW_0026_PFAS	0.36	15	7.4	-	-	0.52	0.53	0.30	0.02	0.16	0.32	1.2	0.15	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW006	20/06/2017	0026_MW06_170620	Normal	NSW_0026_PFAS	<0.2	6.8	6.4	-	-	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
MW006	27/02/2020	0026_MW06_200227	Normal	NSW_0026_PFASOMP	0.21	8.11	5.10	13.2	15.7	0.38	0.46	0.18	<0.02	0.1	0.23	0.83	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	26/08/2020	0026_MW006_200826	Normal	NSW_0026_PFASOMP	0.20	8.46	4.83	13.3	15.9	0.32	0.50	0.22	0.03	0.1	0.20	0.94	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	8/02/2021	0026_MW006_210208	Normal	NSW_0026_PFASOMP	0.23	8.54	4.54	13.1	15.5	0.34	0.50	0.18	<0.02	<0.1	0.20	0.87	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	9/02/2022	0026_MW006_220209	Normal	NSW_0026_PFASOMP	0.12	4.45	2.96	7.41	8.94	0.23	0.27	0.15	<0.02	<0.1	0.12	0.59	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW006	13/02/2023	0026_MW006_230213	Normal	NSW_0026_PFASOMP_23	0.16	4.47	3.53	8.00	9.94	0.36	0.40	0.14	<0.02	<0.1	0.18	0.63	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	13/10/2016	0026_MW08_161013	Normal	NSW_0026_PFAS	0.36	4.0	12	-	-	2.0	-	-	<0.01	0.22	0.55	3.1	0.34	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-

Location Code	Date	Field ID	Sample Type	Project ID	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
MW008	15/11/2016	0026_MW08_161115	Normal	NSW_0026_PFAS	0.24	*3.4*	3.6	-	-	0.93	-	-	<0.01	0.16	0.27	2.2	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW008	23/05/2017	0026_MW08_170523	Normal	NSW_0026_PFAS	0.20	*3.1*	7.1	-	-	1.0	0.68	0.32	<0.01	0.14	0.40	2.2	0.23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW008	20/06/2017	0026_MW08_170620	Normal	NSW_0026_PFAS	0.20	*3.1*	5.0	-	-	1.1	0.92	0.30	<0.01	0.13	0.36	2.3	0.20	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW008	27/02/2020	0026_MW08_200227	Normal	NSW_0026_PFASOMP	0.27	*3.07*	9.88	13.0	20.2	1.48	1.46	0.37	<0.02	0.1	0.44	2.85	0.27	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	25/08/2020	0026_MW008_200825	Normal	NSW_0026_PFASOMP	0.52	*4.64*	19.9	24.5	38.4	2.46	3.07	0.96	<0.02	0.2	0.77	5.34	0.56	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	11/02/2021	0026_MW008_210211	Normal	NSW_0026_PFASOMP	0.28	*1.77*	13.9	15.7	24.3	1.73	2.33	0.54	<0.02	<0.1	0.42	3.02	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	10/02/2022	0026_MW008_220210	Normal	NSW_0026_PFASOMP	0.83	*12.7*	24.3	37.0	54.2	3.58	3.13	1.47	<0.02	0.2	0.74	6.64	0.57	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW008	13/02/2023	0026_MW008_230213	Normal	NSW_0026_PFASOMP_23	0.34	*2.36*	15.7	18.1	25.4	1.26	1.78	0.40	0.03	0.1	0.36	2.74	0.33	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	13/10/2016	0026_MW09_161013	Normal	NSW_0026_PFAS	0.05	*1.0*	0.46	-	-	0.08	-	-	<0.01	<0.05	0.04	0.16	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW009	15/11/2016	0026_MW09_161115	Normal	NSW_0026_PFAS	0.03	*0.66*	0.23	-	-	0.04	-	-	<0.01	<0.05	0.01	0.08	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW009	23/05/2017	0026_MW09_170523	Normal	NSW_0026_PFAS	0.03	*1.7*	0.31	-	-	0.03	0.03	0.03	<0.01	<0.05	0.01	0.07	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	20/06/2017	0026_MW09_170620	Normal	NSW_0026_PFAS	0.08	*1.8*	0.71	-	-	0.16	0.15	0.05	<0.01	0.06	0.08	0.39	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	27/02/2020	0026_MW09_200227	Normal	NSW_0026_PFASOMP	1.58	*18.4*	19.1	37.5	74.4	7.04	6.05	1.13	0.02	1.7	2.67	15.0	1.65	0.04	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	26/08/2020	0026_MW009_200826	Normal	NSW_0026_PFASOMP	2.74	*10.3*	17.7	28.0	88.9	10.2	6.44	1.11	<0.02	2.9	5.18	29.1	3.09	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	26/08/2020	0026_QC102_200826	Field_D	NSW_0026_PFASOMP	2.58	*9.89*	16.3	26.2	82.4	9.23	5.91	1.08	<0.02	2.8	4.76	26.6	3.10	0.06	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	8/09/2020	0026_FFTA_MW09_080920	Normal	NSW_0026_PFASMGMT	0.42	*2.3*	3.1	5.4	13.99	1.1	1.0	0.10	<0.01	0.58	0.64	3.4	0.41	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.10	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	8/09/2020	0026_QC111_080920	Field_D	NSW_0026_PFASMGMT	0.28	*1.5*	2.3	3.8	10.15	0.94	0.76	0.08	<0.01	0.44	0.31	2.6	0.31	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	8/09/2020	0026_QC210_080920	Field_D	NSW_0026_PFASMGMT	0.15	*1.0*	1.4	2.4	5.79	0.55	0.42	0.06	<0.01	0.20	0.25	1.4	0.15	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	4/11/2020	0026_FFTA_MW09_041120	Normal	NSW_0026_PFASMGMT	0.11	*1.4*	1.1	2.5	4.18	0.26	0.28	0.08	<0.01	0.11	0.11	0.53	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009	11/02/2021	0026_MW009_210211	Normal	NSW_0026_PFASOMP	1.94	*29.9*	28.1	58.0	98.1	6.69	6.58	1.82	0.16	2.0	3.12	15.4	1.87	0.11	0.05	0.02	<0.02	<0.02	<0.05	<0.05	0.20	0.06	<0.05	0.04	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	10/02/2022	0902_MW009_220210	Normal	NSW_0026_PFASOMP	0.08	*0.94*	1.05	1.99	3.78	0.26	0.20	0.04	<0.02	0.2	0.18	0.74	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009	13/02/2023	0026_MW009_230213	Normal	NSW_0026_PFASOMP_23	0.96	*2.65*	28.0	30.6	56.8	3.53	4.79	0.22	<0.02	1.1	1.78	11.7	2.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	13/10/2016	0026_MW09_P_161013	Normal	NSW_0026_PFAS	10	*300*	77	-	-	10	-	-	<1.5	<7.5	8.1	31	6.0	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<7.5	2.0	-	<7.5	<7.5	-	-	<7.5	-	-
MW009P	15/11/2016	0026_MW09_P_161115	Normal	NSW_0026_PFAS	13	*430*	81	-	-	11	-	-	<0.01	5.5	8.8	46	6.6	0.91	0.48	0.02	<0.01	0.02	0.03	<0.01	1.1	2.0	-	<0.05	<0.05	-	-	<0.05	-	-
MW009P	15/11/2016	0026_QC151_161115	Field_D	NSW_0026_PFAS	13	*430*	87	-	-	11	-	-	<0.3	5.3	8.9	44	6.5	0.93	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<1.5	2.0	-	<1.5	<1.5	-	-	<1.5	-	-
MW009P	15/11/2016	0026_QC151_161115	Field_D	NSW_0026_PFAS	13	*440*	87	-	-	12	-	-	<0.3	5.6	9.1	46	6.7	0.98	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3	<1.5	2.1	-	<1.5	<1.5	-	-	<1.5	-	-
MW009P	23/05/2017	0026_MW09_P_170523	Normal	NSW_0026_PFAS	15	*460*	110	-	-	11	10	9.9	<0.01	6.2	12	49	8.4	1.1	0.43	<0.01	<0.01	<0.01	<0.01	<0.01	2.2	2.3	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009P	20/06/2017	0026_MW09_P_170620	Normal	NSW_0026_PFAS	11	*350*	70	-	-	9.0	8.2	4.6	<2	4.7	10	40	6.1	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
MW009P	27/02/2020	0026_MW09_P_200227	Normal	NSW_0026_PFASOMP	9.79	*252*	57.8	310	400	7.57	10.9	7.28	0.42	4.2	7.23	34.9	4.78	0.76	0.36	0.03	<0.02	<0.02	<0.05	<0.05	0.87	1.13	<0.05	0.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	26/08/2020	0026_MW009_P_200826	Normal	NSW_0026_PFASOMP	*23.1*	*496*	120	616	827	17.5	23.2	14.7	1.31	8.2	18.1	83.8	12.5	2.21	0.74	0.02	<0.02	<0.02	<0.05	<0.05	2.44	2.77	<0.05	0.07	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	8/09/2020	0026_FFTA_MW09S_080920	Normal	NSW_0026_PFASMGMT	9.0	*260*	75	335	432.11	9.8	10	6.0	<0.01	7.6	12	23	9.3	1.6	0.35	<0.01	<0.01	<0.01	<0.01	<0.01	1.3	1.4	<0.01	0.16	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW009P	4/11/2020	0026_FFTA_MW09s_041120	Normal	NSW_0026_PFASMGMT	11	*320*	97	417	533.02	10	10	4.5	<0.01	6.4	9.8	45	7.6	1.5	0.58	0.21	0.19	<0.01	0.19	<0.01	1.7	1.7	<0.01	0.08	<0.05	0.29	<0.05	0.11	<0.05	<0.05
MW009P	11/02/2021	0026_MW009_P_210211	Normal	NSW_0026_PFASOMP	14.4	*387*	85.3	472	611	14.6	14.8	9.36	1.55	4.5	11.4	54.4	7.69	1.69	0.61	0.03	<0.02	<0.02	<0.05	<0.05	1.37	1.78	<0.05	0.17	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	7/02/2022	0026_MW009P_220207	Normal	NSW_0026_PFASOMP	8.63	*333*	66.8	400	495	8.47	8.22	5.08	0.38	3.6	6.97	43.2	5.64	1.14	0.79	0.03	<0.02	<0.02	<0.05	<0.05	0.92	2.10	<0.05	0.27	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW009P	13/02/2023	0026_MW009P_230213	Normal	NSW_0026_PFASOMP_23	4.49	*189*	43.9	233	276	3.64	4.39	4.83	1.26	1.8	2.75	13.6	2.08	0.52	0.66	0.20	0.21	0.05	0.05	<0.05	0.25	2.18	<0.05	0.55	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	13/10/2016	0026_MW12_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012	15/11/2016	0026_MW12_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012	23/05/2017	0026_MW12_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012	20/06/2017	0026_MW12_170620	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012	27/02/2020	0026_MW12_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	26/08/2020	0026_MW012_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.37*	0.02	0.39	0.39	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	11/02/2021	0026_MW012_210211	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	7/02/2022	0026_MW012_220207	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	7/02/2022	0026_QC100_220207	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	13/02/2023	0026_MW012_230213	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012	13/02/2023	0026_QC200_230213	Interlab_D	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW012P	13/10/2016	0026_MW12_P_161013	Normal	NSW_0026_PFAS	<0.01	*0.04*	0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012P	15/11/2016	0026_MW12_P_161115	Normal	NSW_0026_PFAS	<0.01	*0.03*	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW012P	23/05/2017	0026_MW12_P_170523	Normal	NSW_0026_PFAS	<0.01	*0.05*	0.03	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012P	20/06/2017	0026_MW12_P_170620	Normal	NSW_0026_PFAS	<0.01	*0.08*	0.15	-	-	0.01	0.02	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW012P	27/02/2020	0026_MW12_P_200227	Normal	NSW_0026_PFASOMP	0.04	*2.63*	1.45	4.08	4.75	0.20	0.15	0.04	<0.02	<0.1	0.06	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	26/08/2020	0026_MW012_P_200826	Normal	NSW_0026_PFASOMP	0.02	*0.80*	0.59	1.39	1.61	0.08	0.07	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	11/02/2021	0026_MW012_P_210211	Normal	NSW_0026_PFASOMP	<0.01	*0.29*	0.12	0.41	0.41	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	7/02/2022	0026_MW012P_220207	Normal	NSW_0026_PFASOMP	0.02	*0.57*	0.43	1.00	1.23	0.07	0.05	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW012P	13/02/2023	0026_MW012P_230213	Normal	NSW_0026_PFASOMP_23	<0.01	*0.24*	0.19	0.43	0.50	0.03	0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	13/10/2016	0026_MW15_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	0.03	-	-	0.02	-	-	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW015	15/11/2016	0026_MW15_161116	Normal	NSW_0026_PFAS	<0.01	<0.01	0.05	-	-	0.02	-	-	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW015	23/05/2017	0026_MW15_170523	Normal	NSW_0026_PFAS	0.01	*0.04*	0.47	-	-	0.09	0.06	<0.01	<0.01	<0.05	0.02	0.08	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW015	20/06/2017	0026_MW15_170620	Normal	NSW_0026_PFAS	0.34	*6.4*	21	-	-	3.5	2.9	0.82	<0.01	0.10	0.23	1.8	0.25	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW015	27/02/2020	0026_MW15_200227	Normal	NSW_0026_PFASOMP	0.34	*5.06*	11.1	16.2	22.9	1.23	1.28	0.70	<0.02	0.4	0.49	2.09	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	26/08/2020	0026_MW015_200826	Normal	NSW_0026_PFASOMP	0.07	*1.29*	3.94	5.23	7.11	0.54	0.57	0.17	<0.02	<0.1	0.05	0.43	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	11/02/2021	0026_MW015_210211	Normal	NSW_0026_PFASOMP	<0.01	*0.06*	0.07	0.13	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Location Code	Date	Field ID	Sample Type	Project ID	PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
MW015	7/02/2022	0026_MW015_220207	Normal	NSW_0026_PFASOMP	0.05	1.17	2.33	3.50	4.69	0.39	0.35	0.08	<0.02	<0.1	0.06	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW015	13/02/2023	0026_MW015_230213	Normal	NSW_0026_PFASOMP_23	0.08	1.35	8.26	9.61	12.4	0.92	1.18	0.21	<0.02	<0.1	0.06	0.33	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	13/10/2016	0026_MW16_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW016	15/11/2016	0026_MW16_161116	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW016	23/05/2017	0026_MW16_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW016	20/06/2017	0026_MW16_170620	Normal	NSW_0026_PFAS	<0.01	0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW016	27/02/2020	0026_MW16_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	27/02/2020	0026_QC202_200227	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW016	26/08/2020	0026_MW016_200826	Normal	NSW_0026_PFASOMP	<0.01	0.09	<0.02	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	11/02/2021	0026_MW016_210211	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	7/02/2022	0026_MW016_220207	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	7/02/2022	0026_QC200_220207	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW016	13/02/2023	0026_MW016_230213	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW016	13/02/2023	0026_QC101_230213	Field_D	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	13/10/2016	0026_MW17_161013	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW017	15/11/2016	0026_MW17_161116	Normal	NSW_0026_PFAS	<0.01	0.05	0.27	-	-	0.04	-	-	<0.01	<0.05	0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW017	23/05/2017	0026_MW17_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	0.07	-	-	0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW017	20/06/2017	0026_MW17_170620	Normal	NSW_0026_PFAS	<0.01	0.01	0.07	-	-	0.01	0.01	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW017	27/02/2020	0026_MW17_200227	Normal	NSW_0026_PFASOMP	0.01	0.09	0.59	0.68	0.95	0.07	0.07	<0.02	<0.02	<0.1	0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	26/08/2020	0026_MW017_200826	Normal	NSW_0026_PFASOMP	0.34	0.88	10.8	11.7	21.2	2.01	2.27	0.22	<0.02	0.4	0.69	3.24	0.39	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	11/02/2021	0026_MW017_210211	Normal	NSW_0026_PFASOMP	0.21	0.81	5.89	6.70	10.6	0.90	0.88	0.16	<0.02	0.1	0.21	1.19	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	11/02/2021	0026_QC102_210211	Field_D	NSW_0026_PFASOMP	0.21	0.81	5.52	6.33	10.3	0.95	0.83	0.15	<0.02	0.1	0.21	1.25	0.23	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	7/02/2022	0026_MW017_220207	Normal	NSW_0026_PFASOMP	0.14	0.82	8.74	9.56	14.6	1.18	1.47	0.12	<0.02	0.2	0.28	1.50	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	13/02/2023	0026_MW017_230213	Normal	NSW_0026_PFASOMP_23	0.03	0.18	1.19	1.37	2.06	0.18	0.16	<0.02	<0.02	<0.1	0.06	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW017	13/02/2023	0026_QC100_230213	Field_D	NSW_0026_PFASOMP_23	0.07	0.41	2.53	2.94	4.65	0.41	0.38	0.04	<0.02	0.1	0.15	0.48	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	14/11/2016	0026_QC147_161114	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	14/11/2016	0026_QC148_161114	Field_D	NSW_0026_PFAS	<0.01	0.13	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	15/11/2016	0026_MW18_161114	Normal	NSW_0026_PFAS	<0.01	0.02	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	13/12/2016	0026_MW18_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	13/12/2016	0026_QC153_161213	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW018	13/12/2016	0026_QC233_161213	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
MW018	8/02/2017	0026_MW18_161114	Normal	NSW_0026_PFAS	0.11	3.3	1.7	-	-	0.24	-	-	<0.01	0.07	0.05	0.47	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
MW018	22/05/2017	0026_MW18_170522	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW018	19/06/2017	0026_MW18_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW018	19/06/2017	0026_QC157_170619	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW018	20/06/2017	0026_QC238_170620	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	26/02/2020	0026_MW18_200226	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	24/08/2020	0026_MW018_200824	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	0.72	0.72	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	9/02/2021	0026_MW018_210209	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.02	0.01	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.08	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	9/02/2022	0026_MW018_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW018	14/02/2023	0026_MW018_230214	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	15/11/2016	0026_MW24_161115	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	15/11/2016	0026_QC149_161115	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	15/11/2016	0026_QC150_161115	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	14/12/2016	0026_MW24_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW024	25/05/2017	0026_MW24_170525	Normal	NSW_0026_PFAS	0.03	0.62	1.0	-	-	0.07	0.07	0.03	<0.01	<0.05	0.03	0.13	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW024	21/06/2017	0026_MW24_170621	Normal	NSW_0026_PFAS	0.01	0.26	0.41	-	-	0.03	0.03	<0.01	<0.01	<0.05	0.02	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW024	28/02/2020	0026_MW24_200228	Normal	NSW_0026_PFASOMP	<0.01	0.22	0.13	0.35	0.38	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	25/08/2020	0026_MW024_200825	Normal	NSW_0026_PFASOMP	0.02	0.26	0.31	0.57	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.04	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	9/02/2021	0026_MW024_210209	Normal	NSW_0026_PFASOMP	0.02	0.17	0.28	0.45	0.74	0.05	0.03	<0.02	<0.02	<0.1	0.04	0.12	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	9/02/2022	0026_MW024_220209	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW024	16/02/2023	0026_MW024_230216	Normal	NSW_0026_PFASOMP_23	<0.01	0.02	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	16/11/2016	0026_MW26_161116	Normal	NSW_0026_PFAS	0.11	3.2	1.6	-	-	0.28	-	-	<0.01	0.09	0.07	0.69	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW026	13/12/2016	0026_MW26_161213	Normal	NSW_0026_PFAS	0.12	3.6	2.2	-	-	0.44	-	-	<0.01	0.07	0.08	0.66	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
MW026	23/05/2017	0026_MW26_170523	Normal	NSW_0026_PFAS	0.13	2.8	2.9	-	-	0.29	0.28	0.09	<0.01	0.06	0.12	0.49	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW026	21/06/2017	0026_MW26_170621	Normal	NSW_0026_PFAS	0.08	2.8	1.9	-	-	0.30	0.30	0.09	<0.01	0.06	0.11	0.49	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW026	28/02/2020	0026_MW26_200228	Normal	NSW_0026_PFASOMP	0.10	0.83	2.10	2.93	7.94	1.04	0.54	0.04	<0.02	0.4	0.56	2.16	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	25/08/2020	0026_MW026_200825	Normal	NSW_0026_PFASOMP	0.14	1.08	3.01	4.09	8.12	0.76	0.55	0.07	<0.02	0.2	0.40	1.74	0.17	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	9/02/2021	0026_MW026_210209	Normal	NSW_0026_PFASOMP	0.13	2.09	3.05	5.14	7.62	0.47	0.43	0.10	<0.02	0.1	0.22	0.90	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	9/02/2022	0026_MW026_220209	Normal	NSW_0026_PFASOMP	0.09	1.48	2.27	3.75	5.62	0.42	0.35	0.09	<0.02	<0.1	0.16	0.68	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW026	16/02/2023	0026_MW026_230216	Normal	NSW_0026_PFASOMP_23	0.10	1.43	2.25	3.68	5.61	0.42	0.34	0.08	<0.02	0.1	0.16	0.65	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	15/11/2016	0026_MW29_161115	Normal	NSW_0026_PFAS	0.18	3.0	2.4	-	-	1.2	-	-	<0.01	0.25	0.38	2.5	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water					0.56			0.07																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Date	Field ID	Sample Type	Project ID																														
MW029	12/12/2016	0026_MW29_161212	Normal	NSW_0026_PFAS	0.08	0.63	0.45	-	-	0.17	-	-	<0.01	0.09	0.08	0.28	0.08	0.03	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
MW029	24/05/2017	0026_MW29_170524	Normal	NSW_0026_PFAS	0.26	3.5	3.7	-	-	1.8	1.0	0.13	<0.01	0.25	0.80	3.0	0.28	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW029	20/06/2017	0026_MW29_170620	Normal	NSW_0026_PFAS	0.12	2.6	2.4	-	-	1.0	0.81	0.09	<0.01	0.14	0.43	1.7	0.14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW029	27/02/2020	0026_MW29_200227	Normal	NSW_0026_PFASOMP	0.37	9.19	9.92	19.1	32.8	3.47	2.60	0.34	0.04	0.4	1.12	4.95	0.42	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	27/02/2020	0026_QC102_200227	Field_D	NSW_0026_PFASOMP	0.40	10.5	9.65	20.2	34.0	3.54	2.70	0.33	0.04	0.4	1.09	4.90	0.41	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.03	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	25/08/2020	0026_MW029_200825	Normal	NSW_0026_PFASOMP	0.50	7.43	14.2	21.6	43.8	5.74	3.84	0.32	<0.02	0.6	1.75	8.63	0.79	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	25/08/2020	0026_QC201_200825	Interlab_D	NSW_0026_PFASOMP	0.34	5.2	9.5	15	31	4.5	3.2	0.22	<0.02	0.48	1.1	6.0	0.62	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW029	8/02/2021	0026_MW029_210208	Normal	NSW_0026_PFASOMP	0.42	5.72	11.2	16.9	37.4	5.49	4.29	0.29	<0.02	0.3	1.33	7.51	0.80	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	8/02/2022	0026_MW029_220208	Normal	NSW_0026_PFASOMP	0.42	5.65	10.1	15.8	35.9	5.00	3.55	0.23	<0.02	0.4	1.25	8.68	0.65	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW029	14/02/2023	0026_MW029_230214	Normal	NSW_0026_PFASOMP_23	0.16	1.30	3.23	4.53	12.5	2.07	1.40	0.07	<0.02	0.3	0.70	2.99	0.28	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	25/05/2017	0026_MW31_170525	Normal	NSW_0026_PFAS	<0.01	<0.01	0.02	-	-	0.11	0.06	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW031	21/06/2017	0026_MW31_170621	Normal	NSW_0026_PFAS	<0.01	<0.01	0.02	-	-	0.07	0.05	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW031	21/06/2017	0026_QC159_170621	Field_D	NSW_0026_PFAS	<0.01	<0.01	0.02	-	-	0.07	0.05	<0.01	<0.01	<0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW031	21/06/2017	0026_QC239_170621	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	0.03	0.03	0.20	0.09	0.06	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	28/02/2020	0026_MW31_200228	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	0.11	0.07	0.04	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	25/08/2020	0026_MW031_200825	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.10	0.10	0.48	0.20	0.13	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	9/02/2021	0026_MW031_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.03	0.03	0.28	0.14	0.08	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	9/02/2022	0026_MW031_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.04	0.04	0.33	0.17	0.08	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW031	16/02/2023	0026_MW031_230216	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	0.06	0.06	0.27	0.12	0.07	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	22/05/2017	0026_MW37_170522	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW037	22/05/2017	0026_QC154_170522	Field_D	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW037	22/05/2017	0026_QC234_170522	Interlab_D	NSW_0026_PFAS	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	19/06/2017	0026_MW37_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW037	27/08/2020	0026_MW037_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	9/02/2021	0026_MW037_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	9/02/2022	0026_MW037_220209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	9/02/2022	0026_QC103_220209	Field_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW037	14/02/2023	0026_MW037_230214	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	23/05/2017	0026_MW38_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	0.04	-	-	0.01	<0.01	<0.01	<0.01	<0.05	0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW038	20/06/2017	0026_MW38_170620	Normal	NSW_0026_PFAS	<0.01	0.01	0.03	-	-	0.02	0.01	<0.01	<0.01	<0.05	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW038	27/02/2020	0026_MW38_200227	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	26/08/2020	0026_MW038_200826	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	8/02/2021	0026_MW038_210208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	7/02/2022	0026_MW038_220207	Normal	NSW_0026_PFASOMP	<0.01	<0.01	0.06	0.06	0.20	<0.02	<0.02	<0.02	<0.02	<0.1	0.04	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW038	14/02/2023	0026_MW038_230214	Normal	NSW_0026_PFASOMP_23	<0.01	0.01	0.02	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	23/05/2017	0026_MW39_170523	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW039	21/06/2017	0026_MW39_170621	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW039	28/02/2020	0026_MW39_200228	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	25/08/2020	0026_MW039_200825	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	9/02/2021	0026_MW039_210209	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	10/02/2022	0026_MW039_220210	Normal	NSW_0026_PFASOMP	<0.01	0.04	0.01	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW039	15/02/2023	0026_MW039_230215	Normal	NSW_0026_PFASOMP_23	<0.01	0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	22/05/2017	0026_MW44_170522	Normal	NSW_0026_PFAS	0.24	0.06	5.1	-	-	3.4	1.4	0.05	<0.01	0.70	1.2	4.1	0.42	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW044	20/06/2017	0026_MW44_170620	Normal	NSW_0026_PFAS	0.39	0.17	11	-	-	5.1	3.0	0.08	<0.01	0.92	1.3	6.9	0.65	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW044	26/02/2020	0026_MW44_200226	Normal	NSW_0026_PFASOMP	0.50	0.69	15.8	16.5	33.4	4.00	3.94	0.24	<0.02	0.7	1.08	5.81	0.59	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	24/08/2020	0026_MW044_200824	Normal	NSW_0026_PFASOMP	0.38	0.47	12.7	13.2	27.0	3.24	3.33	0.20	<0.02	0.5	0.85	4.86	0.50	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	24/08/2020	0026_QC100_200824	Field_D	NSW_0026_PFASOMP	0.45	0.58	16.4	17.0	33.6	3.96	3.92	0.24	<0.02	0.6	1.02	5.80	0.58	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	9/02/2021	0026_MW044_210209	Normal	NSW_0026_PFASOMP	0.46	0.55	10.1	10.6	22.4	2.52	3.38	0.24	<0.02	0.4	0.71	3.55	0.53	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	9/02/2021	0026_QC100_210209	Field_D	NSW_0026_PFASOMP	0.54	0.58	10.7	11.3	26.0	3.43	3.24	0.21	<0.02	0.4	0.84	5.46	0.62	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	9/02/2022	0026_MW044_220209	Normal	NSW_0026_PFASOMP	0.01	0.04	0.32	0.36	0.59	0.06	0.06	<0.02	<0.02	<0.1	<0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW044	9/02/2022	0026_QC203_220209	Interlab_D	NSW_0026_PFASOMP	<0.01	0.02	0.14	0.16	0.19	<0.01	0.01	<0.01	<0.02	<0.02	<0.02	0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW044	14/02/2023	0026_MW044_230214	Normal	NSW_0026_PFASOMP_23	<0.01	0.02	0.07	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	22/05/2017	0026_MW45_170522	Normal	NSW_0026_PFAS	<0.01	0.05	0.15	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW045	19/06/2017	0026_MW45_170619	Normal	NSW_0026_PFAS	<0.01	0.04	0.11	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW045	27/02/2020	0026_MW45_200227	Normal	NSW_0026_PFASOMP	<0.01	0.12	0.18	0.30	0.30	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	26/08/2020	0026_MW045_200826	Normal	NSW_0026_PFASOMP	<0.01	0.10	0.19	0.29	0.29	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	11/02/2021	0026_MW045_210211	Normal	NSW_0026_PFASOMP	<0.01	0.03	0.10	0.13	0.13	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	11/02/2021	0026_QC202_210211	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	0.091	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
MW045	7/02/2022	0026_MW045_220207	Normal	NSW_0026_PFASOMP	<0.01	0.03	0.12	0.15	0.15	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW045	13/02/2023	0026_MW045_230213	Normal	NSW_0026_PFASOMP_23	<0.01	0.02	0.09	0.11	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	22/05/2017	0026_MW46_170522	Normal	NSW_0026_PFAS	<0.01	0.03	0.10	-	-	0.02	0.01	<0.01	<0.01	<0.05	0.01	0.09	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
MW046	19/06/2017	0026_MW46_170619	Normal	NSW_0026_PFAS	<0.01	<0.01	0.06	-	-	0.02	0.01	<0.01	<0.01	<0.05	0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

Location Code	Date	Field ID	Sample Type	Project ID	PFAS					PFAS - Perfluoroalkyl Sulfonic Acids			
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
PFAS NEMP 2020 Drinking Water					0.56			0.07					
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*							
MW046	26/08/2020	0026_MW046_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.11*	0.10	0.21	0.29	0.03	<0.02	<0.02	<0.02
MW046	11/02/2021	0026_MW046_210211	Normal	NSW_0026_PFASOMP	<0.01	*0.07*	0.07	0.14	0.21	0.03	<0.02	<0.02	<0.02
MW046	7/02/2022	0026_MW046_220207	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.09	0.12	0.22	0.02	<0.02	<0.02	<0.02
MW046	13/02/2023	0026_MW046_230213	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	0.08	0.08	0.16	0.05	0.03	<0.02	<0.02
MW072	27/08/2020	0026_MW072_200827	Normal	NSW_0026_PFASOMP	<0.01	*0.13*	<0.02	0.13	0.13	<0.02	<0.02	<0.02	<0.02
MW072	9/02/2021	0026_MW072_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02
MW072	8/02/2022	0026_MW072_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02
MW072	15/02/2023	0026_MW072_230215	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02
MW073	27/08/2020	0026_MW073_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02
MW073	9/02/2021	0026_MW073_210209	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02
MW073	8/02/2022	0026_MW073_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02
MW073	8/02/2022	0026_QC201_220208	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02
MW073	15/02/2023	0026_MW073_230215	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02

Location Code	Date	Field ID	PFAS - Perfluoroalkyl Carboxylic Acids									
			Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR			0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005
PFAS NEMP 2020 Drinking Water												
PFAS NEMP 2020 Freshwater 99%												
MW046	26/08/2020	0026_MW046_200826	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	11/02/2021	0026_MW046_210211	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	7/02/2022	0026_MW046_220207	<0.1	<0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW046	13/02/2023	0026_MW046_230213	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW072	27/08/2020	0026_MW072_200827	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW072	9/02/2021	0026_MW072_210209	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW072	8/02/2022	0026_MW072_220208	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW072	15/02/2023	0026_MW072_230215	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW073	27/08/2020	0026_MW073_200827	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW073	9/02/2021	0026_MW073_210209	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW073	8/02/2022	0026_MW073_220208	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW073	8/02/2022	0026_QC201_220208	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5
MW073	15/02/2023	0026_MW073_230215	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05

Location Code	Date	Field ID	PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
			4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR			0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Drinking Water													
PFAS NEMP 2020 Freshwater 99%													
MW046	26/08/2020	0026_MW046_200826	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	11/02/2021	0026_MW046_210211	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	7/02/2022	0026_MW046_220207	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW046	13/02/2023	0026_MW046_230213	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	27/08/2020	0026_MW072_200827	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	9/02/2021	0026_MW072_210209	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	8/02/2022	0026_MW072_220208	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW072	15/02/2023	0026_MW072_230215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	27/08/2020	0026_MW073_200827	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	9/02/2021	0026_MW073_210209	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	8/02/2022	0026_MW073_220208	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
MW073	8/02/2022	0026_QC201_220208	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
MW073	15/02/2023	0026_MW073_230215	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
Bold	Denotes exceedance of adoped human health screening criteria
Italics	Denotes exceedance of adopted ecological screening criteria

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water					10			2																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Date	Field ID	Sample Type	Project ID																														
SW001	15/11/2016	0026_SW01_161115	Normal	NSW_0026_PFAS	<0.01	0.05	0.02	-	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW001	13/12/2016	0026_SW01_161213	Normal	NSW_0026_PFAS	<0.01	0.06	0.03	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW001	17/12/2016	0026_SW01_161217	Normal	NSW_0026_PFAS	<0.01	0.18	0.02	-	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW001	9/02/2017	0026_SW01_170209	Normal	NSW_0026_PFAS	<0.01	0.05	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW001	30/03/2017	0026_SW01_170330	Normal	NSW_0026_PFAS	<0.01	0.1	0.08	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW001	27/06/2019	SW01_270619	Normal	NSW_0026_FSBGME	0.05	0.97	1.36	2.33	3.6	0.14	0.13	0.04	<0.02	<0.1	0.18	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.28	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	11/02/2020	0026_SW01_200211	Normal	NSW_0026_PFASOMP	<0.01	0.04	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	26/02/2020	0026_SW01_200226	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	20/05/2020	0026_SW001_200520	Normal	NSW_0026_PFASOMP	<0.01	0.03	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	14/07/2020	0026_SW001_200714	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	27/08/2020	0026_SW001_200827	Normal	NSW_0026_PFASOMP	<0.01	0.06	0.02	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	2/11/2020	0026_SW001_201102	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	10/02/2021	0026_SW001_210210	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	10/02/2021	0026_QC101_210210	Field_D	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	11/08/2021	0026_SW001_210811	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	8/02/2022	0026_SW001_220208	Normal	NSW_0026_PFASOMP	<0.01	0.05	0.04	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	15/08/2022	0026_SW001_220815	Normal	NSW_0026_PFASOMP	<0.01	0.03	0.04	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	15/02/2023	0026_SW001_230215	Normal	NSW_0026_PFASOMP_23	<0.01	0.02	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15/11/2016	0026_SW02_161115	Normal	NSW_0026_PFAS	<0.01	0.03	0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15/11/2016	0026_QC164_161114	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15/11/2016	0026_QC164_161114	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15/11/2016	0026_QC244_161114	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	13/12/2016	0026_SW02_161213	Normal	NSW_0026_PFAS	0.04	0.03	0.02	-	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	17/12/2016	0026_SW02_161217	Normal	NSW_0026_PFAS	<0.01	0.04	0.02	-	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	17/12/2016	0026_QC174_161217	Field_D	NSW_0026_PFAS	<0.01	0.05	0.02	-	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	17/12/2016	0026_QC248_161217	Interlab_D	NSW_0026_PFAS	0.01	0.04	0.06	0.10	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	9/02/2017	0026_SW02_170209	Normal	NSW_0026_PFAS	<0.01	0.03	0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	9/02/2017	0026_QC179_170209	Field_D	NSW_0026_PFAS	<0.01	0.03	0.01	-	-	<0.01	-	-	0.04	<0.05	<0.01	<0.01	<0.01	<0.01	0.01	0.05	0.04	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	31/03/2017	0026_SW02_170403	Normal	NSW_0026_PFAS	<0.01	0.03	0.05	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW002	27/06/2019	SW02_270619	Normal	NSW_0026_FSBGME	0.04	0.75	1.19	1.94	3.29	0.12	0.11	0.03	<0.02	<0.1	0.21	0.4	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.37	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	11/02/2020	0026_SW02_200211	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	26/02/2020	0026_SW02_200226	Normal	NSW_0026_PFASOMP	<0.01	0.08	0.04	0.12	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	20/05/2020	0026_SW002_200520	Normal	NSW_0026_PFASOMP	<0.01	0.03	0.03	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	14/07/2020	0026_SW002_200714	Normal	NSW_0026_PFASOMP	<0.01	0.02	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	27/08/2020	0026_SW002_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	27/08/2020	0026_QC104_200827	Field_D	NSW_0026_PFASOMP	<0.01	0.10	<0.02	0.10	0.10	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	2/11/2020	0026_SW002_201102	Normal	NSW_0026_PFASOMP	<0.01	0.01	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	10/02/2021	0026_SW002_210210	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	10/02/2021	0026_QC201_210210	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	0.015	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW002	11/08/2021	0026_SW002_210811	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	8/02/2022	0026_SW002_220208	Normal	NSW_0026_PFASOMP	<0.01	0.02	0.04	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	8/02/2022	0026_QC202_220208	Interlab_D	NSW_0026_PFASOMP	<0.01	0.01	0.03	0.04	0.04	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW002	15/08/2022	0026_SW002_220815	Normal	NSW_0026_PFASOMP	<0.01	0.01	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15/02/2023	0026_SW002_230215	Normal	NSW_0026_PFASOMP_23	<0.01	0.02	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15/02/2023	0026_QC203_230215	Interlab_D	NSW_0026_PFASOMP_23	<0.01	0.03	0.03	0.06	0.06	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW004B	10/12/2019	0026_SW04B_191211	Normal	NSW_0026_PFASOMP	<0.01	0.05	0.08	0.13	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	11/02/2020	0026_SW04B_200211	Normal	NSW_0026_PFASOMP	0.02	0.38	0.31	0.69	0.93	0.05	0.04	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	26/02/2020	0026_SW04B_200226	Normal	NSW_0026_PFASOMP	0.01	0.31	0.22	0.53	0.69	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	20/05/2020	0026_SW04B_200520	Normal	NSW_0026_PFASOMP	0.03	0.86	0.59	1.45	1.94	0.10	0.08	0.02	<0.02	<0.1	0.07	0.16	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	14/07/2020	0026_SW004B_200714	Normal	NSW_0026_PFASOMP	0.02	0.36	0.44	0.80	1.11	0.06	0.05	<0.02	<0.02	<0.1	0.04	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	27/08/2020	0026_SW04B_200827	Normal	NSW_0026_PFASOMP	<0.01	0.46	0.15	0.61	0.67	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	27/08/2020	0026_QC204_200827	Interlab_D	NSW_0026_PFASOMP	<0.01	0.30	0.14	0.44	0.51	0.02	0.02	<0.01	<0.02	<0.02	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW004B	2/11/2020	0026_SW004B_201102	Normal	NSW_0026_PFASOMP	0.02	0.35	0.44	0.79	1.09	0.06	0.06	<0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	10/02/2021	0026_SW004B_210210	Normal	NSW_0026_PFASOMP	0.02	0.41	0.24	0.65	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	11/08/2021	0026_SW004B_210811	Normal	NSW_0026_PFASOMP	<0.01	0.20	0.18	0.38	0.46	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	11/08/2021	0026_QC200_210811	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW004B	8/02/2022	0026_SW004B_220208	Normal	NSW_0026_PFASOMP	<0.01	0.19	0.14	0.33	0.37	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water					10			2																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Date	Field ID	Sample Type	Project ID																														
SW004B	15/08/2022	0026_SW004B_220815	Normal	NSW_0026_PFASOMP	<0.01	*0.14*	0.11	0.25	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	15/02/2023	0026_SW004B_230215	Normal	NSW_0026_PFASOMP_23	0.01	*0.20*	0.18	0.38	0.47	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	14/11/2016	0026_SW05_161114	Normal	NSW_0026_PFAS	0.20	*3.5*	2.3	-	-	0.30	-	-	<0.01	0.31	0.89	6.8	0.21	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	21	0.02	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	12/12/2016	0026_SW05_161212	Normal	NSW_0026_PFAS	0.09	*2.6*	1.3	-	-	0.15	-	-	<0.01	0.07	0.24	0.59	0.10	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.2	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	17/12/2016	0026_SW05_161217	Normal	NSW_0026_PFAS	0.01	*0.71*	0.22	-	-	0.06	-	-	<0.01	<0.05	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	9/02/2017	0026_SW05_170209	Normal	NSW_0026_PFAS	0.11	*3.4*	1.1	-	-	0.15	-	-	<0.01	0.10	0.11	0.54	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW005	29/03/2017	0026_SW05_170329	Normal	NSW_0026_PFAS	0.15	*3.6*	2.8	-	-	0.25	0.2	0.09	<0.01	0.14	0.22	0.81	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.36	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW005	10/12/2019	0026_SW05_191211	Normal	NSW_0026_PFASOMP	0.06	*1.68*	2.96	4.64	6.68	0.31	0.32	0.08	<0.02	0.1	0.22	0.78	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	11/02/2020	0026_SW05_200211	Normal	NSW_0026_PFASOMP	0.05	*1.64*	1.02	2.66	3.45	0.15	0.12	0.03	<0.02	<0.1	0.12	0.29	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	26/02/2020	0026_SW05_200226	Normal	NSW_0026_PFASOMP	0.11	*3.86*	1.72	5.58	7.15	0.23	0.20	0.07	0.05	<0.1	0.26	0.56	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	20/05/2020	0026_SW005_200520	Normal	NSW_0026_PFASOMP	0.16	*3.65*	2.88	6.53	8.99	0.45	0.40	0.13	<0.02	<0.1	0.31	0.85	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	14/07/2020	0026_SW005_200714	Normal	NSW_0026_PFASOMP	0.10	*1.95*	2.09	4.04	5.69	0.25	0.26	0.08	<0.02	<0.1	0.19	0.67	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	27/08/2020	0026_SW005_200827	Normal	NSW_0026_PFASOMP	0.13	*2.43*	2.27	4.70	6.45	0.29	0.34	0.10	<0.02	<0.1	0.16	0.64	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	2/11/2020	0026_SW005_201102	Normal	NSW_0026_PFASOMP	0.17	*4.23*	2.92	7.15	9.37	0.37	0.35	0.13	<0.02	0.1	0.18	0.81	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	9/02/2021	0026_SW005_210209	Normal	NSW_0026_PFASOMP	0.14	*2.84*	1.65	4.49	6.10	0.32	0.24	0.08	<0.02	<0.1	0.13	0.58	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	11/08/2021	0026_SW005_210811	Normal	NSW_0026_PFASOMP	0.47	*6.36*	6.52	12.9	20.1	1.29	1.40	0.29	0.07	0.2	0.47	2.67	0.38	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	8/02/2022	0026_SW005_220208	Normal	NSW_0026_PFASOMP	0.13	*2.61*	1.81	4.42	5.79	0.20	0.22	0.08	<0.02	<0.1	0.12	0.55	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15/08/2022	0026_SW005_220815	Normal	NSW_0026_PFASOMP	0.28	*4.22*	3.27	7.49	10.5	0.47	0.58	0.18	<0.02	0.1	0.18	1.02	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15/02/2023	0026_SW005_230215	Normal	NSW_0026_PFASOMP_23	0.09	*1.95*	1.57	3.52	4.55	0.17	0.20	0.09	<0.02	<0.1	0.08	0.35	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15/02/2023	0026_QC103_230215	Field_D	NSW_0026_PFASOMP_23	0.12	*3.20*	1.78	4.98	6.18	0.23	0.23	0.09	<0.02	<0.1	0.11	0.36	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	2/05/2016	0026_SW06_160502	Normal	NSW_0026_PFAS	0.05	*0.33*	0.89	-	-	0.15	-	-	<0.01	<0.05	0.06	0.24	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	2/05/2016	0026_QC160_160502	Field_D	NSW_0026_PFAS	0.05	*0.22*	0.94	-	-	0.15	-	-	<0.01	<0.05	0.06	0.24	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	31/10/2016	0026_SW06_161031	Normal	NSW_0026_PFAS	0.10	*2.7*	1.9	-	-	0.23	-	-	<0.01	0.15	0.31	1.4	0.10	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	12	0.06	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	14/11/2016	0026_SW06_161114	Normal	NSW_0026_PFAS	0.16	*13*	2.2	-	-	0.16	-	-	<0.01	0.05	0.10	0.45	0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	3.1	0.08	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	12/12/2016	0026_SW06_161212	Normal	NSW_0026_PFAS	0.11	*3.7*	2.2	-	-	0.23	-	-	<0.01	0.10	0.33	0.74	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.2	0.02	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	16/12/2016	0026_SW06_161216	Normal	NSW_0026_PFAS	0.10	*5.0*	1.2	-	-	0.13	-	-	<0.01	0.06	0.07	0.40	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.80	0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	9/02/2017	0026_SW06_170209	Normal	NSW_0026_PFAS	0.20	*6.4*	2.0	-	-	0.28	-	-	<0.01	0.14	0.13	0.92	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW006	10/12/2019	0026_SW06_191211	Normal	NSW_0026_PFASOMP	0.04	*1.10*	3.43	4.53	5.76	0.26	0.31	0.08	<0.02	<0.1	0.09	0.41	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11/02/2020	0026_SW06_200211	Normal	NSW_0026_PFASOMP	0.09	*2.10*	1.66	3.76	5.15	0.30	0.24	0.08	<0.02	<0.1	0.16	0.47	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	26/02/2020	0026_SW06_200226	Normal	NSW_0026_PFASOMP	0.13	*5.98*	2.30	8.28	9.96	0.28	0.27	0.10	0.02	<0.1	0.18	0.56	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	20/05/2020	0026_SW006_200520	Normal	NSW_0026_PFASOMP	0.10	*4.35*	2.24	6.59	8.07	0.23	0.26	0.13	<0.02	<0.1	0.16	0.44	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	14/07/2020	0026_SW006_200714	Normal	NSW_0026_PFASOMP	0.05	*1.53*	1.32	2.85	3.64	0.15	0.16	0.04	<0.02	<0.1	0.06	0.29	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	26/08/2020	0026_SW006_200826	Normal	NSW_0026_PFASOMP	0.16	*4.04*	3.53	7.57	9.82	0.39	0.47	0.18	<0.02	<0.1	0.16	0.79	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	2/11/2020	0026_SW006_201102	Normal	NSW_0026_PFASOMP	0.20	*4.19*	3.57	7.76	10.4	0.45	0.45	0.15	<0.02	0.1	0.20	1.00	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	9/02/2021	0026_SW006_210209	Normal	NSW_0026_PFASOMP	0.22	*13.0*	2.30	15.3	17.2	0.31	0.27	0.22	0.08	<0.1	0.08	0.54	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11/08/2021	0026_SW006_210811	Normal	NSW_0026_PFASOMP	0.21	*4.87*	3.48	8.35	10.6	0.36	0.45	0.18	<0.02	<0.1	0.16	0.74	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11/08/2021	0026_QC101_210811	Field_D	NSW_0026_PFASOMP	0.18	*5.24*	3.20	8.44	10.3	0.30	0.40	0.18	<0.02	<0.1	0.11	0.59	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	8/02/2022	0026_SW006_220208	Normal	NSW_0026_PFASOMP	0.10	*2.48*	1.95	4.43	8.07	0.20	0.21	0.08	<0.02	<0.1	0.15	0.74	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	2.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	15/08/2022	0026_SW006_220815	Normal	NSW_0026_PFASOMP	0.43	*12.2*	4.73	16.9	21.2	0.61	0.83	0.32	0.03	0.2	0.24	1.33	0.22	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	15/08/2022	0026_QC201_220815	Interlab_D	NSW_0026_PFASOMP	0.42	*12*	4.3	16	20	0.59	0.58	0.30	<0.02	0.1	0.26	1.3	0.22	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW006	14/02/2023	0026_SW006_230214	Normal	NSW_0026_PFASOMP_23	0.08	*2.14*	1.47	3.61	4.56	0.16	0.18	0.09	<0.02	<0.1	0.08	0.32	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	14/12/2016	0026_SW07_161214	Normal	NSW_0026_PFAS	0.12	*3.6*	1.1	-	-	0.13	-	-	<0.01	0.30	1.4	1.8	0.42	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.3	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW007	16/12/2016	0026_SW07_161216	Normal	NSW_0026_PFAS	0.02	*0.59*	0.43	-	-	0.03	-	-	<0.01	<0.05	0.03	0.09	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW007	8/02/2017	0026_SW07_170208	Normal	NSW_0026_PFAS	0.06	*2.7*	0.67	-	-	0.08	-	-	<0.01	<0.05	0.05	0.26	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.14	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW007	11/02/2020	0026_SW07_200211	Normal	NSW_0026_PFASOMP	0.02	*0.36*	0.36	0.72	0.99	0.07	0.05	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	26/02/2020	0026_SW07_200226	Normal	NSW_0026_PFASOMP	0.04	*1.11*	0.62	1.73	2.54	0.11	0.08	0.02	<0.02	<0.1	0.17	0.26	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	20/05/2020	0026_SW007_200520	Normal	NSW_0026_PFASOMP	0.04	*1.50*	1.97	3.47	4.29	0.18	0.24	0.08	<0.02	<0.1	0.04	0.22	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	14/07/2020	0026_SW007_200714	Normal	NSW_0026_PFASOMP	0.01	*0.39*	0.37	0.76	0.88	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	26/08/2020	0026_SW007_200826	Normal	NSW_0026_PFASOMP	0.03	*0.94*	1.34	2.28	2.87	0.14	0.16	0.05	<0.02	<0.1	0.02	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	2/11/2020	0026_SW007_201102	Normal	NSW_0026_PFASOMP	0.02	*0.73*	0.84	1.57	1.90	0.08	0.08	0.03	<0.02	<0.1	0.02	0.10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	2/11/2020	0026_QC100_201102	Field_D	NSW_0026_PFASOMP	0.02	*0.62*	0.80	1.42	1.70	0.07	0.08	0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	11/02/2021	0026_SW007_210211	Normal	NSW_0026_PFASOMP	0.01	*0.47*	0.18	0.65	0.90	0.03	0.02	<0.02	<0.02	<0.1	0.06	0.10	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	11/08/2021	0026_SW007_210811	Normal	NSW_0026_PFASOMP	0.02	*0.25*	0.93	1.18	1.74	0.13	0.13	0.02	<0.02	<0.1	0.05	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	7/02/2022	0026_SW007_220207	Normal	NSW_0026_PFASOMP	0.01	*0.28*	0.24	0.52	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.10	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	15/08/2022	0026_SW007_220815	Normal	NSW_0026_PFASOMP	0.05	*1.20*	0.70	1.90	2.53	0.12	0.12	0.04	<0.02	<0.1	0.07	0.19	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	15/08/2022	0026_QC101_220815	Field_D	NSW_0026_PFASOMP	0.05	*0.97*	0.63	1.60	2.24	0.13	0.12	0.03	<0.02	<0.1	0.08	0.19	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	13/02/2023	0026_SW007_230213	Normal	NSW_0026_PFASOMP_23	0.02	*0.74*	0.84	1.58	1.99	0.08	0.09	0.06	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water					10			2																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Date	Field ID	Sample Type	Project ID																														
SW008	6/05/2016	0026_SW08_160506	Normal	NSW_0026_PFAS	0.04	*0.42*	0.61	-	-	0.06	-	-	<0.01	<0.05	0.04	0.16	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	16/11/2016	0026_SW08_161116	Normal	NSW_0026_PFAS	0.04	*2.0*	0.68	-	-	0.07	-	-	<0.01	<0.05	0.03	0.22	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	14/12/2016	0026_SW08_161214	Normal	NSW_0026_PFAS	0.06	*2.8*	1.5	-	-	0.16	-	-	<0.01	0.06	0.06	0.42	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	17/12/2016	0026_SW08_161217	Normal	NSW_0026_PFAS	0.03	*2.0*	0.56	-	-	0.05	-	-	<0.01	<0.05	0.02	0.14	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	9/02/2017	0026_SW08_170209	Normal	NSW_0026_PFAS	0.04	*1.6*	0.52	-	-	0.05	-	-	<0.01	<0.05	0.02	0.15	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW008	10/12/2019	0026_SW08_191210	Normal	NSW_0026_PFASOMP	0.10	*0.77*	4.53	5.30	7.93	0.35	0.27	0.07	<0.02	<0.1	0.22	1.55	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	11/02/2020	0026_SW08_200211	Normal	NSW_0026_PFASOMP	0.02	*1.11*	0.76	1.87	2.23	0.08	0.06	0.03	<0.02	<0.1	0.03	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	26/02/2020	0026_SW08_200226	Normal	NSW_0026_PFASOMP	0.04	*0.92*	0.92	1.84	2.39	0.10	0.09	0.02	<0.02	<0.1	0.04	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	20/05/2020	0026_SW008_200520	Normal	NSW_0026_PFASOMP	0.07	*1.90*	1.74	3.64	4.66	0.14	0.18	0.06	<0.02	<0.1	0.08	0.44	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14/07/2020	0026_SW008_200714	Normal	NSW_0026_PFASOMP	0.02	*0.82*	0.35	1.17	1.33	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	26/08/2020	0026_SW008_200826	Normal	NSW_0026_PFASOMP	0.03	*0.80*	0.90	1.70	2.23	0.10	0.12	0.03	<0.02	<0.1	0.03	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	2/11/2020	0026_SW008_201102	Normal	NSW_0026_PFASOMP	0.03	*1.06*	0.72	1.78	2.10	0.07	0.07	0.03	<0.02	<0.1	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	8/02/2021	0026_SW008_210208	Normal	NSW_0026_PFASOMP	0.05	*2.49*	0.88	3.37	3.94	0.11	0.09	0.04	<0.02	<0.1	0.03	0.22	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	11/08/2021	0026_SW008_210811	Normal	NSW_0026_PFASOMP	0.04	*0.51*	0.70	1.21	1.92	0.13	0.13	<0.02	<0.02	<0.1	0.05	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	10/02/2022	0026_SW008_220210	Normal	NSW_0026_PFASOMP	0.10	*2.21*	2.05	4.26	5.55	0.19	0.24	0.07	<0.02	<0.1	0.09	0.55	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	15/08/2022	0026_SW008_220815	Normal	NSW_0026_PFASOMP	0.11	*1.28*	1.89	3.17	4.52	0.24	0.31	0.06	<0.02	<0.1	0.08	0.49	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14/02/2023	0026_SW008_230214	Normal	NSW_0026_PFASOMP_23	0.05	*1.52*	1.01	2.53	3.16	0.09	0.13	0.06	<0.02	<0.1	0.04	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14/02/2023	0026_QC102_230214	Field_D	NSW_0026_PFASOMP_23	0.07	*1.42*	1.11	2.53	3.23	0.13	0.14	0.04	<0.02	<0.1	0.05	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	15/11/2016	0026_SW09_161115	Normal	NSW_0026_PFAS	0.06	*3.8*	0.95	-	-	0.09	-	-	<0.01	<0.05	0.04	0.29	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	16/11/2016	0026_SW09_161116	Normal	NSW_0026_PFAS	0.07	*3.7*	1.0	-	-	0.10	-	-	<0.01	<0.05	0.04	0.29	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	12/12/2016	0026_SW09_161212	Normal	NSW_0026_PFAS	0.05	*3.2*	0.73	-	-	0.06	-	-	<0.01	<0.05	0.03	0.17	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.16	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW009	16/12/2016	0026_SW09_161216	Normal	NSW_0026_PFAS	0.52	*25*	5.3	-	-	0.84	-	-	<0.01	0.27	0.25	2.0	0.16	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	9/02/2017	0026_SW09_170209	Normal	NSW_0026_PFAS	0.51	*23*	5.1	-	-	0.63	-	-	<0.01	0.29	0.23	2.1	0.12	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW009	10/12/2019	0026_SW09_191211	Normal	NSW_0026_PFASOMP	0.03	*1.34*	1.00	2.34	2.92	0.15	0.07	0.04	<0.02	<0.1	0.03	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11/02/2020	0026_SW09_200211	Normal	NSW_0026_PFASOMP	0.35	*25.4*	8.95	34.4	38.0	0.42	0.57	0.36	0.04	0.1	0.31	1.39	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	26/02/2020	0026_SW09_200226	Normal	NSW_0026_PFASOMP	0.30	*16.9*	7.07	24.0	27.2	0.41	0.51	0.29	<0.02	<0.1	0.30	1.28	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	20/05/2020	0026_SW009_200520	Normal	NSW_0026_PFASOMP	0.42	*7.04*	2.33	9.37	11.2	0.25	0.18	0.14	<0.02	<0.1	0.12	0.54	0.09	0.05	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	14/07/2020	0026_SW009_200714	Normal	NSW_0026_PFASOMP	0.07	*2.56*	1.33	3.89	5.12	0.12	0.11	0.07	<0.02	<0.1	0.07	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.32	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	26/08/2020	0026_SW009_200826	Normal	NSW_0026_PFASOMP	0.28	*15.8*	7.60	23.4	26.9	0.42	0.66	0.35	<0.02	0.1	0.26	1.31	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	2/11/2020	0026_SW009_201102	Normal	NSW_0026_PFASOMP	0.19	*12.7*	4.57	17.3	19.4	0.33	0.29	0.19	0.02	<0.1	0.18	0.87	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	8/02/2021	0026_SW009_210208	Normal	NSW_0026_PFASOMP	0.16	*6.66*	2.08	8.74	10.5	0.27	0.26	0.12	<0.02	<0.1	0.13	0.73	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11/08/2021	0026_SW009_210811	Normal	NSW_0026_PFASOMP	0.07	*2.03*	1.61	3.64	4.57	0.17	0.16	0.06	<0.02	<0.1	0.08	0.35	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11/08/2021	0026_QC100_210811	Field_D	NSW_0026_PFASOMP	0.07	*1.92*	1.56	3.48	4.42	0.17	0.16	0.07	<0.02	<0.1	0.07	0.35	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	9/02/2022	0026_SW009_220209	Normal	NSW_0026_PFASOMP	0.19	*11.8*	4.78	16.6	20.5	0.32	0.41	0.22	0.03	0.1	0.23	1.23	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	15/08/2022	0026_SW009_220815	Normal	NSW_0026_PFASOMP	0.21	*8.44*	3.93	12.4	14.6	0.31	0.45	0.20	<0.02	0.1	0.14	0.76	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	13/02/2023	0026_SW009_230213	Normal	NSW_0026_PFASOMP_23	0.08	*3.28*	1.50	4.78	5.73	0.16	0.14	0.08	<0.02	<0.1	0.09	0.36	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	6/05/2016	0026_SW12_160506	Normal	NSW_0026_PFAS	0.05	*0.43*	0.98	-	-	0.19	-	-	<0.01	<0.05	0.05	0.23	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	16/11/2016	0026_SW12_161116	Normal	NSW_0026_PFAS	0.09	*2.6*	1.8	-	-	0.27	-	-	<0.01	0.06	0.07	0.47	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	14/12/2016	0026_SW12_161214	Normal	NSW_0026_PFAS	0.08	*2.2*	2.0	-	-	0.27	-	-	<0.01	<0.05	0.04	0.35	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	14/12/2016	0026_QC171_161214	Field_D	NSW_0026_PFAS	0.10	*2.9*	2.0	-	-	0.28	-	-	<0.01	0.06	0.05	0.44	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	17/12/2016	0026_SW12_161217	Normal	NSW_0026_PFAS	0.09	*2.3*	1.9	-	-	0.27	-	-	<0.01	0.06	0.05	0.41	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	9/02/2017	0026_SW12_170209	Normal	NSW_0026_PFAS	0.09	*4.3*	1.3	-	-	0.19	-	-	<0.01	0.06	0.06	0.34	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW012	10/12/2019	0026_SW12_191210	Normal	NSW_0026_PFASOMP	0.01	*0.84*	0.30	1.14	1.20	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	10/12/2019	0026_QC100_191210	Field_D	NSW_0026_PFASOMP	0.01	*0.83*	0.29	1.12	1.18	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11/02/2020	0026_SW12_200211	Normal	NSW_0026_PFASOMP	<0.01	*0.13*	0.21	0.34	0.36	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11/02/2020	0026_QC100_200211	Field_D	NSW_0026_PFASOMP	<0.01	*0.20*	0.23	0.43	0.47	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	26/02/2020	0026_SW12_200226	Normal	NSW_0026_PFASOMP	<0.01	*0.08*	0.22	0.30	0.36	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	14/07/2020	0026_SW012_200714	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	26/08/2020	0026_SW012_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.10*	0.19	0.29	0.34	0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	8/02/2021	0026_SW012_210208	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11/08/2021	0026_SW012_210811	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	10/02/2022	0026_SW012_220210	Normal	NSW_0026_PFASOMP	0.06	*1.18*	1.43	2.61	3.44	0.18	0.18	0.05	<0.02	<0.1	0.06	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	15/08/2022	0026_SW012_220815	Normal	NSW_0026_PFASOMP	0.13	*3.25*	3.15	6.40	8.13	0.35	0.42	0.11	<0.02	<0.1	0.10	0.54	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	14/02/2023	0026_SW012_230214	Normal	NSW_0026_PFASOMP_23	0.07	*2.70*	1.74	4.44	5.46	0.20	0.20	0.10	<0.02	<0.1	0.09	0.31	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	14/02/2023	0026_QC202_230214	Interlab_D	NSW_0026_PFASOMP_23	0.09	*2.8*	2.4	5.2	6.4	0.23	0.24	0.11	<0.02	0.05	0.1	0.36	0.07	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW013	14/11/2016	0026_SW13_161114	Normal	NSW_0026_PFAS	0.07	*2.7*	1.7	-	-	0.27	-	-	<0.01	0.06	0.06	0.42	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW013	13/12/2016	0026_SW13_161213	Normal	NSW_0026_PFAS	<0.01	*<0.01*	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-

Location Code	Date	Field ID	Sample Type	Project ID	PFAS: Perfluorooctanoic acid (PFOA)	PFAS: Perfluorooctane sulfonic acid (PFOS)	PFAS: Perfluorohexane sulfonic acid (PFHxS)	PFAS: Sum of PFHxS and PFOS	PFAS: Sum of PFAS	PFAS - Perfluoroalkyl Sulfonic Acids: Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	PFAS - Perfluoroalkyl Carboxylic Acids: Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	PFAS - (n:2) Fluorotelomer Sulfonic Acids: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	PFAS - Perfluoroalkyl Sulfonamides: Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water					10			2																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
SW013	16/12/2016	0026_SW13_161216	Normal	NSW_0026_PFAS	0.05	2.3	1.0	-	-	0.12	-	-	<0.01	<0.05	0.04	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW013	8/02/2017	0026_SW13_170208	Normal	NSW_0026_PFAS	0.02	0.64	0.29	-	-	0.03	-	-	<0.01	<0.05	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW013	28/03/2017	0026_SW13_170328	Normal	NSW_0026_PFAS	0.06	2.2	1.5	-	-	0.12	0.11	0.05	<0.01	<0.05	0.07	0.27	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW013	12/11/2019	0026_QC200_191211	Interlab_D	NSW_0026_PFASOMP	0.064	0.83	1.8	-	-	0.27	0.22	0.034	<0.01	0.086	0.13	0.46	0.067	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	10/12/2019	0026_SW13_191211	Normal	NSW_0026_PFASOMP	0.06	0.78	2.84	3.62	5.34	0.36	0.30	0.05	<0.02	<0.1	0.12	0.76	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11/02/2020	0026_SW13_200211	Normal	NSW_0026_PFASOMP	0.03	0.82	0.71	1.53	1.89	0.08	0.07	0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11/02/2020	0026_QC200_200211	Interlab_D	NSW_0026_PFASOMP	0.019	0.61	0.57	-	-	0.064	0.059	0.016	<0.01	<0.05	0.031	0.10	0.014	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	26/02/2020	0026_SW13_200226	Normal	NSW_0026_PFASOMP	0.08	1.41	1.54	2.95	3.95	0.17	0.15	0.05	<0.02	<0.1	0.11	0.39	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26/02/2020	0026_QC101_200226	Field_D	NSW_0026_PFASOMP	0.08	1.55	1.55	3.10	4.07	0.16	0.15	0.05	<0.02	<0.1	0.11	0.38	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	20/05/2020	0026_SW013_200520	Normal	NSW_0026_PFASOMP	0.07	1.57	1.84	3.41	4.54	0.24	0.23	0.08	<0.02	<0.1	0.10	0.35	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	20/05/2020	0026_QC100_200520	Field_D	NSW_0026_PFASOMP	0.08	1.47	1.74	3.21	4.32	0.22	0.23	0.07	<0.02	<0.1	0.10	0.35	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14/07/2020	0026_SW013_200714	Normal	NSW_0026_PFASOMP	0.07	1.18	2.23	3.41	4.71	0.23	0.26	0.06	<0.02	<0.1	0.10	0.51	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14/07/2020	0026_QC100_200714	Field_D	NSW_0026_PFASOMP	0.06	1.12	2.02	3.14	4.41	0.23	0.25	0.06	<0.02	<0.1	0.10	0.50	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26/08/2020	0026_SW013_200826	Normal	NSW_0026_PFASOMP	0.03	0.78	0.76	1.54	1.99	0.10	0.10	0.03	<0.02	<0.1	0.03	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26/08/2020	0026_QC103_200826	Field_D	NSW_0026_PFASOMP	0.03	0.62	0.82	1.44	1.92	0.10	0.11	0.03	<0.02	<0.1	0.03	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	2/11/2020	0026_SW013_201102	Normal	NSW_0026_PFASOMP	0.03	0.84	0.77	1.61	2.02	0.09	0.08	0.03	<0.02	<0.1	0.03	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	2/11/2020	0026_QC200_201102	Interlab_D	NSW_0026_PFASOMP	0.021	0.53	0.61	-	-	0.071	0.061	0.015	<0.01	<0.05	0.027	0.1	0.015	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	8/02/2021	0026_SW013_210208	Normal	NSW_0026_PFASOMP	0.08	2.25	1.30	3.55	4.61	0.25	0.18	0.06	<0.02	<0.1	0.07	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11/08/2021	0026_SW013_210811	Normal	NSW_0026_PFASOMP	0.08	1.22	2.44	3.66	5.02	0.30	0.31	0.07	<0.02	<0.1	0.09	0.44	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	8/02/2022	0026_SW013_220208	Normal	NSW_0026_PFASOMP	0.07	1.64	1.54	3.18	4.10	0.18	0.18	0.06	<0.02	<0.1	0.07	0.32	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	8/02/2022	0026_QC102_220208	Field_D	NSW_0026_PFASOMP	0.06	1.15	1.44	2.59	3.45	0.17	0.17	0.05	<0.02	<0.1	0.06	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	15/08/2022	0026_SW013_220815	Normal	NSW_0026_PFASOMP	0.06	1.03	1.16	2.19	3.05	0.19	0.21	0.04	<0.02	<0.1	0.05	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	15/02/2023	0026_SW013_230215	Normal	NSW_0026_PFASOMP_23	0.05	1.59	1.49	3.08	3.90	0.16	0.17	0.08	<0.02	<0.1	0.06	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	14/11/2016	0026_SW14_161114	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW014	13/12/2016	0026_SW14_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	-	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW014	16/12/2016	0026_SW14_161216	Normal	NSW_0026_PFAS	0.08	3.1	1.8	-	-	0.22	-	-	<0.01	0.06	0.05	0.41	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW014	8/02/2017	0026_SW14_170208	Normal	NSW_0026_PFAS	0.02	0.57	0.21	-	-	0.02	-	-	<0.01	<0.05	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW014	28/03/2017	0026_SW14_170328	Normal	NSW_0026_PFAS	0.01	0.25	0.21	-	-	0.02	0.02	<0.01	<0.01	<0.05	0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW014	10/12/2019	0026_SW14_191211	Normal	NSW_0026_PFASOMP	0.04	0.78	2.02	2.80	3.88	0.24	0.21	0.05	<0.02	<0.1	0.07	0.43	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11/02/2020	0026_SW14_200211	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	26/02/2020	0026_SW14_200226	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	20/05/2020	0026_SW014_200520	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	14/07/2020	0026_SW014_200714	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	14/07/2020	0026_QC200_140720	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	-	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW014	26/08/2020	0026_SW014_200826	Normal	NSW_0026_PFASOMP	<0.01	0.03	0.04	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	26/08/2020	0026_QC203_200826	Interlab_D	NSW_0026_PFASOMP	<0.01	0.03	0.03	0.06	0.06	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW014	2/11/2020	0026_SW014_201102	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	8/02/2021	0026_SW014_210208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11/08/2021	0026_SW014_210811	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11/08/2021	0026_QC201_210811	Interlab_D	NSW_0026_PFASOMP	<0.01	0.14	0.14	-	-	0.019	0.016	<0.01	<0.01	<0.05	<0.02	0.028	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW014	8/02/2022	0026_SW014_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	15/08/2022	0026_SW014_220815	Normal	NSW_0026_PFASOMP	<0.01	0.01	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	15/02/2023	0026_SW014_230215	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	16/11/2016	0026_SW18_161116	Normal	NSW_0026_PFAS	0.28	8.6	6.1	-	-	0.97	-	-	<0.01	0.12	0.18	1.3	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	16/12/2016	0026_SW18_161216	Normal	NSW_0026_PFAS	0.10	2.3	1.1	-	-	0.14	-	-	<0.01	0.07	0.06	0.42	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.90	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	16/12/2016	0026_QC173_161216	Field_D	NSW_0026_PFAS	0.10	2.5	1.2	-	-	0.16	-	-	<0.01	0.06	0.06	0.43	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.89	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	8/02/2017	0026_SW18_170208	Normal	NSW_0026_PFAS	0.09	3.7	0.93	-	-	0.11	-	-	<0.01	<0.05	0.04	0.32	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW018	8/02/2017	0026_QC177_170208	Field_D	NSW_0026_PFAS	0.09	3.7	0.97	-	-	0.12	-	-	<0.01	0.05	0.05	0.32	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW018	11/02/2020	0026_SW18_200211	Normal	NSW_0026_PFASOMP	0.09	2.28	1.72	4.00	5.37	0.29	0.23	0.08	<0.02	<0.1	0.14	0.48	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	26/02/2020	0026_SW18_200226	Normal	NSW_0026_PFASOMP	0.11	2.18	1.54	3.72	5.06	0.26	0.21	0.07	<0.02	<0.1	0.14	0.46	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	26/02/2020	0026_QC201_200226	Interlab_D	NSW_0026_PFASOMP	0.074	1.8	1.7	-	-	0.23	0.19	0.052	<0.01	0.092	0.12	0.41	0.053	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.015	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW018	20/05/2020	0026_SW018_200520	Normal	NSW_0026_PFASOMP	0.50	7.16	8.29	15.4	24.3	1.66	1.68	0.40	<0.02	0.4	0.69	2.99	0.46	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	14/07/2020	0026_SW018_200714	Normal	NSW_0026_PFASOMP	0.02	0.71	0.56	1.27	1.63	0.05	0.06	0.02	<0.02	<0.1	0.04	0.14	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	26/08/2020	0026_SW018_200826	Normal	NSW_0026_PFASOMP	0.05	0.80	2.16	2.96	4.10	0.23	0.31	0.05	<0.02	<0.1	0.08	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	2/11/2020	0026_SW018_201102	Normal	NSW_0026_PFASOMP	0.29	5.02	5.19	10.2	14.4	0.71	0.71	0.19	<0.02	0.2	0.30	1.59	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	11/02/2021	0026_SW018_210211	Normal	NSW_0026_PFASOMP	0.31	8.25	4.72	13.0	16.5	0.63	0.63	0.27	0.02	0.1	0.21	1.14	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	11/08/2021	0026_SW018_210811	Normal	NSW_0026_PFASOMP	0.06	0.52	2.15	2.67	4.23	0.32	0.37	0.04	<0.02	<0.1	0.12	0.51	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.01	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.005	0.005	0.005	0.005	0.005	0.002	0.005	0.002	0.005	0.005	0.002	0.005
PFAS NEMP 2020 Recreational Water					10			2																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	Date	Field ID	Sample Type	Project ID																														
SW018	7/02/2022	0026_SW018_220207	Normal	NSW_0026_PFASOMP	0.19	*3.82*	3.27	7.09	9.53	0.44	0.46	0.13	<0.02	0.1	0.18	0.85	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15/08/2022	0026_SW018_220815	Normal	NSW_0026_PFASOMP	0.16	*3.18*	3.23	6.41	7.84	0.26	0.37	0.15	<0.02	<0.1	0.06	0.35	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15/08/2022	0026_QC100_220815	Field_D	NSW_0026_PFASOMP	0.16	*3.09*	3.48	6.57	7.99	0.25	0.39	0.14	<0.02	<0.1	0.06	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	13/02/2023	0026_SW018_230213	Normal	NSW_0026_PFASOMP_23	0.28	*4.60*	4.34	8.94	12.2	0.60	0.59	0.24	<0.02	0.1	0.22	1.08	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	12/12/2016	0026_SW20_161212	Normal	NSW_0026_PFAS	<0.01	*0.48*	0.20	-	-	0.02	-	-	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	12/12/2016	0026_QC166_161212	Field_D	NSW_0026_PFAS	0.04	*1.6*	1.9	-	-	0.15	-	-	<0.01	<0.05	0.03	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	12/12/2016	0026_QC166_161212	Field_D	NSW_0026_PFAS	0.05	*1.5*	2.0	-	-	0.18	-	-	<0.01	<0.05	0.03	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	16/12/2016	0026_SW20_161216	Normal	NSW_0026_PFAS	0.05	*1.0*	2.1	-	-	0.16	-	-	<0.01	<0.05	0.03	0.19	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	9/02/2017	0026_SW20_170209	Normal	NSW_0026_PFAS	0.03	*1.2*	0.39	-	-	0.03	-	-	<0.01	<0.05	0.02	0.12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW020	11/02/2020	0026_SW20_200211	Normal	NSW_0026_PFASOMP	0.01	*0.35*	0.39	0.74	0.88	0.04	0.04	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	26/02/2020	0026_SW20_200226	Normal	NSW_0026_PFASOMP	0.03	*0.89*	1.16	2.05	2.49	0.12	0.11	0.03	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	20/05/2020	0026_SW020_200520	Normal	NSW_0026_PFASOMP	0.11	*1.47*	1.40	2.87	3.50	0.11	0.14	0.06	<0.02	<0.1	0.03	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	20/05/2020	0026_QC200_200520	Interlab_D	NSW_0026_PFASOMP	0.064	*0.82*	1.1	-	-	0.071	0.075	0.024	<0.01	<0.05	<0.02	0.10	0.011	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW020	14/07/2020	0026_SW020_200714	Normal	NSW_0026_PFASOMP	0.01	*0.48*	0.31	0.79	0.87	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	26/08/2020	0026_SW020_200826	Normal	NSW_0026_PFASOMP	0.03	*0.78*	1.24	2.02	2.48	0.11	0.14	0.04	<0.02	<0.1	<0.02	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	2/11/2020	0026_SW020_201102	Normal	NSW_0026_PFASOMP	0.02	*0.75*	0.71	1.46	1.72	0.07	0.06	0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	9/02/2021	0026_SW020_210209	Normal	NSW_0026_PFASOMP	0.03	*1.13*	1.15	2.28	2.77	0.14	0.13	0.04	<0.02	<0.1	<0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	11/08/2021	0026_SW020_210811	Normal	NSW_0026_PFASOMP	0.05	*1.34*	1.95	3.29	4.05	0.15	0.19	0.07	<0.02	<0.1	0.04	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	8/02/2022	0026_SW020_220208	Normal	NSW_0026_PFASOMP	0.04	*0.99*	1.36	2.35	2.93	0.12	0.13	0.04	<0.02	<0.1	0.03	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	15/08/2022	0026_SW020_220815	Normal	NSW_0026_PFASOMP	0.04	*0.90*	1.23	2.13	2.75	0.13	0.18	0.05	<0.02	<0.1	0.02	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	15/08/2022	0026_QC200_220815	Interlab_D	NSW_0026_PFASOMP	0.03	*0.77*	1.2	2.0	2.5	0.13	0.13	0.04	<0.02	<0.02	0.03	0.17	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW020	14/02/2023	0026_SW020_230214	Normal	NSW_0026_PFASOMP_23	0.03	*0.78*	0.94	1.72	2.07	0.09	0.10	0.02	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes:

LOR Limit of Reporting
Normal Primary sample
Field_D Intra-laboratory duplicate sample
Interlab_D Inter-laboratory duplicate sample
Bold Denotes exceedance of adoped human health screening criteria
Italics Denotes exceedance of adopted ecological screening criteria

Appendix C

Calibration Certificates

Certificate of Service and Calibration

Interface Meter

Heron H.Oil

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	+61 405 241 484
Contact Name	William Pak
Instrument	Heron H.Oil Interface Meter (30m)
Serial Number	01-8142
Client Name	Nicola Tomlin (AECOM Australia Pty Ltd)
Project Number	60612562_3.1

Instrument Check			
Item	Test	Test Passed	Comments
9V Battery	Klein Tools MM300 Multimeter	✓	Battery voltage reading above 7.9V
Battery Box	Check	✓	No damage
Face and Back Plates	Check	✓	No damage
Thumb Screws	Check	✓	Rubber ends intact
Tape Hangar/Protector	Check	✓	No damage
On/Off Button	Operation	✓	Button is functional
Buzzer	Operation	✓	Intermittent tone in H_2O, solid tone in product
LED Signal Light	Operation	✓	LED light functional – green and red
Probe	Operation/Check	✓	Decontaminated, cleaned and tested
Tape	Condition/Check	✓	Decontaminated and cleaned, no damage
Connection	Check	✓	Probe and link connected correctly and tightly
PCB	Operation	✓	Unit is fully functional
Electronics Panel	Orientation	✓	Correctly aligned

Instrument Readings		
Product	Buzzer	LED Light
H_2O	Intermittent	Blinking – Red
Petroleum	Solid	Steady – Red

Declaration
WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The interface meter was decontaminated, cleaned and tested with a mixture of tap water and petrol, shielded from ambient light.

Checked By	William Pak
Calibration Date	08/02/2023
Calibration Due	08/08/2023

Certificate of Service and Calibration

Water Quality Meter

YSI Professional Plus

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	+61 405 241 484
Contact Name	William Pak
Instrument	YSI ProQuatro Water Quality Meter w/ 1m Quatro Cable
Serial Number	21A103000
Client Name	Nicola Tomlin (AECOM Australia Pty Ltd)
Project Number	60612562_3.1
Comments	-

Instrument Check

Item	Test	Test Passed	Comments
2 x Alkaline C-size Batteries	Klein Tools MM300 Multimeter	✓	Both batteries reading above 2.9V
Battery Saver Function	Operation	✓	Automatically turns off after 60 minutes if idle
Unit Display	Operation	✓	Screen visible, no damage
Keypad	Operation	✓	Responsive, no damage
Connection Port and Cable	Condition/Check	✓	Clean, no damage
Monitor Housing	Condition/Check	✓	No damage
Firmware	Version	✓	4.0.0
pH Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
pH millivolts for pH 7.00	Calibration	✓	pH 7.00 calibration range between 0 mV ± 50 mV
pH millivolts for pH 4.00	Calibration	✓	pH 4 mV range +165 to +180 from 7 buffer mV value
pH slope	Calibration	✓	Range between 55 to 60 mV/pH (ideal value 59 mV)
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
ORP Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
ORP Reading	Calibration	✓	Within ± 80 mV of reference Zobell Reading
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
Conductivity/Temp Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
Conductivity Cell	Calibration	✓	Conductivity cell constant 5.0 ± 1.0 in GLP file
Clean Sensor Readings	Calibration	✓	Clean sensor reads less than 3 uS/cm in dry air
Dissolved Oxygen Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
DO Cap	Condition/Calibration	✓	1.25 mil PE membrane (yellow membrane)
DO Sensor in Use	Condition	✓	Polarographic DO sensor
DO Sensor Value	Calibration	✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA

Instrument Readings

Parameter	Standard Used	Reference No.	Calibration Value	Observed	Actual	Units
Temperature	Centre 370 Thermometer	Room Temp.	24.9	25.0	24.9	°C
pH	pH 4.00	386466	4.01	4.05	4.01	pH
pH	pH 7.00	387329	7.00	7.12	7.00	pH
Conductivity	2760 µs/cm at 25°C	388521	2760	2828	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	380835/382785	232.1	234.9	232.1	mV
Zero Dissolved O_2	$NaSO_3$ in Distilled H_2O	389912	0.0	-0.3	0.0	%
100% Dissolved O_2	100% Air Saturated H_2O	Fresh Air	100.0	115.0	100.0	%

7Declaration

WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The calibration data supplied was obtained in accordance with manufacturer's specifications using solutions of known values.

Calibrated By	William Pak
Calibration Date	08/02/2023
Calibration Due	08/08/2023

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	HMAS Albatross	**Client:**	Department of Defence
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	B.Mansfield, N.Tomlin

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

INSTRUMENT DETAILS

Supplier:	WAM
Make and Model:	YSI PRO PLUS
Serial Number:	21A103000

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time: 13/2/23 0840

Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:			2627		
Calibration Reading:			2627		
Calibration Temperature:			22.5		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time: 13/2/23 0840

Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2627	0	
Bump Test Reading:	4.00	7.03	2385	0.00	
Bump Test Temperature:	22.5	22.4	22.5	22.0	

COMMENTS

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

Approval and Distribution

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

ntomlin — **Fieldwork Staff Signature**

13/2/23 — **Date**

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	HMAS Albatross	**Client:**	Department of Defence
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	B.Mansfield, N.Tomlin

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

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PRO PLUS
Serial Number:	21A103000

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	14/2/23 0750				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:			2444		
Calibration Reading:			2451		
Calibration Temperature:			19.0		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	14/2/23 0750				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2444	0	
Bump Test Reading:	3.98	7.02	3736	0.05	
Bump Test Temperature:	19.4	19.4	19.0	19.2	

COMMENTS

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

Approval and Distribution

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

[signature] — Fieldwork Staff Signature

14/2/23 — Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	HMAS Albatross	**Client:**	Department of Defence
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	B.Mansfield, N.Tomlin

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

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PRO PLUS
Serial Number:	21A103000

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time: 15/2/23 0715

Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:			2469		
Calibration Reading:			2469		
Calibration Temperature:			19.6		

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time: 15/2/23 0715

Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2469	0	
Bump Test Reading:	4.00	6.99	2419	0.02	
Bump Test Temperature:	19.9	20.0	19.6	19.9	

COMMENTS

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

Approval and Distribution

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

[signature]
Fieldwork Staff Signature

15/2/23
Date

Distribution: Project Central File

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	HMAS Albatross	**Client:**	Department of Defence
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	B.Mansfield, N.Tomlin

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

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PRO PLUS
Serial Number:	21A103000

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	16/2/23				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	ppm	ppm
Calibration Standard Concentration:					
Calibration Reading:					
Calibration Temperature:					

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	16/2/23 0730				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2496	0	
Bump Test Reading:	3.96	7.02	2400	0.01	
Bump Test Temperature:	18.2	19.2	20.0	19.9	

COMMENTS

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

Approval and Distribution

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

NTomlin — **Fieldwork Staff Signature**

16/2/23 — **Date**

Distribution: Project Central File

Appendix D

Analytical Data Validation

DATA VALIDATION REPORT

Project number:	60612562	Validation by:	[redacted]	Date:	01/03/2023
Client:	Department of Defence	Data verified by:		Date:	15/03/2023
Site:	HMAS Albatross	Project Manager:			
Matrix type:	Groundwater and Surface Water				
Primary samples:	27 Groundwater samples and 13 Surface Water samples				
Laboratory:	Primary: ALS Secondary: Envirolab				
Lab reference:	ES2305240, ES2305241, ES2305242 (ALS) 316695 (Envirolab)				
Key Issues:	No QA/QC issues were identified in the field or laboratory datasets that could have a material implication to decision-making on the project.				

Field Quality Assurance and Quality Control

Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023).
Sampling personnel	Sampling was conducted by Nicola Tomlin and Bridget Mansfield between 13/02/2023 and 16/02/2023. Field personnel were both suitably qualified and experienced AECOM Environmental Scientists and Engineers.
Sampling Methodology	All water samples were collected in accordance with the methodology outlined in the SAQP (AECOM, 2023). While not a deviation from the SAQP, it is noted that three groundwater samples were collected with the use of a bailer, as no HydraSleeves™ were installed. After each sample was collected, reusable equipment was decontaminated using Liquinox and potable water, and the consumables (nitrile gloves, HydraSleeve™ materials and/or bailers) were disposed of in waste bins.
Chain of Custody (COC)	All samples collected were reported on the Chain of Custody documents (COC) and subsequent email amendments and analysed for requested analytes.
Rinsate Blank	Rinsate blank samples were collected at a frequency of 1 per day of sampling where equipment was re-used and decontaminated between sample points (for a total of 4 rinsate blank samples collected). Rinsate blank samples were collected from the final rinse of the interface probe following decontamination, using laboratory-supplied de-ionised water.
Frequency of field QC	Field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were collected at a frequency of one in ten primary samples (10%), meeting the DQI. In total, for the 40 primary water samples, four field duplicate samples and four field triplicate samples were collected (10%).
Handling and preservation	All samples were received by the primary laboratory in appropriate containers, with ice present and at 4.6 °C, within the recommended temperature range (<6°C). All samples were received by the secondary laboratory in appropriate containers, with ice present and at 1°C, within the recommended temperature range (<6°C).
Calibration of equipment	Measurements of water geochemical parameters were undertaken using YSI Professional Plus water quality meters, which were calibrated by the supplier prior to use, in accordance with the manufacturer's instructions and bump tested daily by the field personnel. Measurements of depth to groundwater were undertaken using interface probes, which were serviced by the supplier prior to use. All equipment calibration and service certificates are presented in Appendix C.

DATA VALIDATION REPORT

Laboratory QA/QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023).
Tests requested/reported	All samples were analysed for per- and polyfluoroalkyl substances (PFAS) extended suite, at the standard level of detection. All sample requests for analysis are reported on the Chain of Custody (COC).
Holding time compliance	All samples were extracted and analysed by the laboratory within the recommended holding times.
Laboratory accreditation	The primary laboratory analysis was conducted by ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary samples were analysed at Envirolab Services, also a NATA accredited laboratory (accreditation number 2901).
Frequency of laboratory QC	The primary laboratory ALS reported a sufficient frequency of quality control samples to assess whether the results have been reported with acceptable accuracy and precision.
Method Blank	All method blank concentrations were reported <LOR (limit of reporting) for the analytes tested, meeting the project requirements. This is presented in the Quality Control Reports for both laboratories.
Laboratory duplicate RPDs	The reported laboratory duplicate's Relative Percentage Differences (RPDs) were within laboratory control limits. The laboratory duplicate RPDs are presented in the Quality Control Reports for both laboratories.
LCS recovery	Laboratory control spike (LCS) recoveries were within control limits. This is presented in the Quality Control Reports for both laboratories.
Matrix spike recovery	Matrix spike (MS) recoveries were within control limits with the exception of: Non-determined MS recoveries • ES2305242: Perfluorohexane sulfonic acid (PFHxS), QC100_230213 This non-determination was due to background levels being greater than or equal to four times spike levels, which do not reflect method bias or affect data interpretation.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits.
QA/QC Data Evaluation	
Comparison of Field Observations and Laboratory Results	No anomalies between field observations and analytical results were noted.
Anomalous data / Repeat Analysis	All data was within historical ranges, and no repeat analysis was required.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and the tables generated by AECOM.
Limits of reporting	With the exception of the PFAS NEMP Freshwater 99% species protection (HEPA 2020) values for PFOS, the laboratory LORs were sufficiently low to enable assessment against adopted guideline criteria.
Rinsate Blank sample results	The concentrations of PFAS in the Rinsate Blank samples (Table D2) were below the LOR, indicating decontamination procedures were adequate.

DATA VALIDATION REPORT	
Intra/Inter-laboratory duplicate RPDs for Field Duplicates / Triplicates	Field duplicates (intra-laboratory duplicates) RPDs for field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were reported within acceptable limits (≤30%, or ≤50% for results 10-20 x LOR, or No Limit for results <10 x LOR), with the exception of: <u>Intra-laboratory duplicates (Field Duplicates) RPDs</u> 0026_MW017/QC100 - Perfluorobutane sulfonic acid (PFBS): 78% - Perfluoroheptanoic acid (PFHpA): 91% - Perfluorohexanoic acid (PFHxA): 70% - Perfluoropentane sulfonic acid (PFPeS): 81% - Perfluoropentanoic acid (PFPeA): 86% - Perfluorooctane sulfonic acid (PFOS): 78% - Perfluorohexane sulfonic acid (PFHxS): 72% - Perfluorooctanoic Acid (PFOA): 80% 0026_SW005/QC103 - Perfluorooctane sulfonic acid (PFOS): 49% <u>Inter-laboratory duplicates (Field Triplicates) RPDs</u> 0026_SW012/QC202 - Perfluorohexane sulfonic acid (PFHxS): 32% The elevated RPDs for the duplicate pairs are likely to be attributable to the variable PFAS concentrations along the water column in the monitoring well, and given that the concentrations were generally within the same order of magnitude, AECOM considers that these are not significant to impact the interpretation of results. Where required for quantitative purposes, the highest concentrations from the primary and duplicate pairs will be used in the assessment.
Overall Assessment	
	Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Attached:

Table D1 – Water Duplicate RPDs

Table D2 – Rinsate Blanks

Table D1 - Water Duplicate RPDs

			Lab Report Number	ES2305242	ES2305242		ES2305242	ES2305242		ES2305242	ES2305242	
			Field ID	0026_MW017_230213	0026_QC100_230213	**RPD**	0026_MW016_230213	0026_QC101_230213	**RPD**	0026_SW008_230214	0026_QC102_230214	**RPD**
			Sampled Date/Time	13/02/2023 9:25	13/02/2023 9:25		13/02/2023 13:05	13/02/2023 13:05		14/02/2023 12:50	14/02/2023 12:50	
			Sample Type	Primary	Intralab Duplicate		Primary	Intralab Duplicate		Primary	Intralab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	6:2 Fluorotelomer Sulfonate (6:2 FtS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	**0.18**	**0.41**	**78**	<0.02	<0.02	nc	0.09	0.13	36
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	0.1	nc	<0.1	<0.1	nc	<0.1	<0.1	nc
	Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	<0.02	0.04	67	<0.02	<0.02	nc	0.06	0.04	40
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	0.03	0.08	91	<0.02	<0.02	nc	0.02	0.03	40
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	**1.19**	**2.53**	**72**	<0.01	<0.01	nc	1.01	1.11	9
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	**0.23**	**0.48**	**70**	<0.02	<0.02	nc	0.24	0.24	0
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	**0.18**	**0.41**	**78**	<0.01	<0.01	nc	1.52	1.42	7
	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.03	0.07	80	<0.01	<0.01	nc	0.05	0.07	33
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	**0.16**	**0.38**	**81**	<0.02	<0.02	nc	0.13	0.14	7
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.06	0.15	86	<0.02	<0.02	nc	0.04	0.05	22
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFAS	µg/L	0.01	**2.06**	**4.65**	**77**	<0.01	<0.01	nc	3.16	3.23	2
	Sum of PFHxS and PFOS	µg/L	0.01	**1.37**	**2.94**	**73**	<0.01	<0.01	nc	2.53	2.53	0

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
nc = non calculable as concentrations in one or both samples are below the LOR
RPDs have only been considered where a concentration is greater than 1 times the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold.

Table D1 - Water Duplicate RPDs

			Lab Report Number	ES2305242	ES2305242		ES2305242	316695		ES2305242	316695	
			Field ID	0026_SW005_230215	0026_QC103_230215	**RPD**	0026_MW012_230213	0026_QC200_230213	**RPD**	0026_MW003_230214	0026_QC201_230214	**RPD**
			Sampled Date/Time	15/02/2023 9:33	15/02/2023 9:33		13/02/2023 10:22	13/02/2023 10:22		14/02/2023 9:39	14/02/2023 9:39	
			Sample Type	Primary	Intralab Duplicate		Primary	Interlab Duplicate		Primary	Interlab Duplicate	
Chem_Group	**ChemName**	**Units**	**LOR**									
Per- and Poly-fluoroalkyl Substances	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.01	nc
	6:2 Fluorotelomer Sulfonate (6:2 FtS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	0.04	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.02	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.05	nc	<0.05	<0.1	nc	<0.05	<0.1	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.17	0.23	30	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	<0.1	nc	<0.1	<0.02	nc	<0.1	<0.02	nc
	Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.02	nc	<0.02	<0.05	nc	<0.02	<0.05	nc
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	0.09	0.09	0	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	0.05	0.06	18	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	1.57	1.78	13	<0.01	<0.01	nc	0.01	<0.01	nc
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0.35	0.36	3	<0.02	<0.01	nc	<0.02	0.01	nc
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	**1.95**	**3.2**	**49**	<0.01	<0.01	nc	0.01	0.01	nc
	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.09	0.12	29	<0.01	<0.01	nc	<0.01	<0.01	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0.2	0.23	14	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.08	0.11	32	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.5	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.1	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFAS	µg/L	0.01	**4.55**	**6.18**	**30**	<0.01	<0.01	nc	0.02	0.07	111
	Sum of PFHxS and PFOS	µg/L	0.01	**3.52**	**4.98**	**34**	<0.01	<0.01	nc	0.02	0.01	67

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
nc = non calculable as concentrations in one or both samples are below the LOR
RPDs have only been considered where a concentration is greater than 1 times the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold.

Table D1 - Water Duplicate RPDs

Chem_Group	ChemName	Units	LOR						
			Lab Report Number	ES2305242	316695		ES2305242	316695	
			Field ID	0026_SW012_230214	0026_QC202_230214	**RPD**	0026_SW002_230215	0026_QC203_230215	**RPD**
			Sampled Date/Time	14/02/2023 13:30	14/02/2023 13:30		15/02/2023 10:13	15/02/2023 10:13	
			Sample Type	Primary	Interlab Duplicate		Primary	Interlab Duplicate	
Per- and Poly-fluoroalkyl Substances	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	<0.01	nc
	6:2 Fluorotelomer Sulfonate (6:2 FtS)	µg/L	0.05 : 0.01 (Interlab)	<0.05	<0.01	nc	<0.05	<0.01	nc
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05 : 0.02 (Interlab)	<0.05	<0.02	nc	<0.05	<0.02	nc
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05 : 0.1 (Interlab)	<0.05	<0.1	nc	<0.05	<0.1	nc
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc
	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	nc	<0.05	<0.05	nc
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02 : 0.01 (Interlab)	0.2	0.23	14	<0.02	<0.01	nc
	Perfluorobutanoic acid (PFBA)	µg/L	0.1 : 0.02 (Interlab)	<0.1	0.05	nc	<0.1	<0.02	nc
	Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02 : 0.05 (Interlab)	<0.02	<0.05	nc	<0.02	<0.05	nc
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02 : 0.01 (Interlab)	0.1	0.11	10	<0.02	<0.01	nc
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02 : 0.01 (Interlab)	0.05	0.07	33	<0.02	<0.01	nc
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	**1.74**	**2.4**	**32**	0.02	0.03	40
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02 : 0.01 (Interlab)	0.31	0.36	15	<0.02	<0.01	nc
	Perfluorononanoic acid (PFNA)	µg/L	0.02 : 0.01 (Interlab)	<0.02	<0.01	nc	<0.02	<0.01	nc
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	2.7	2.8	4	0.02	0.03	40
	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	0.07	0.09	25	<0.01	<0.01	nc
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02 : 0.01 (Interlab)	0.2	0.24	18	<0.02	<0.01	nc
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	0.09	0.1	11	<0.02	<0.02	nc
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05 : 0.5 (Interlab)	<0.05	<0.5	nc	<0.05	<0.5	nc
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02 : 0.1 (Interlab)	<0.02	<0.1	nc	<0.02	<0.1	nc
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	nc	<0.02	<0.02	nc
	Sum of PFAS	µg/L	0.01	5.46	6.4	16	0.04	0.06	40
	Sum of PFHxS and PFOS	µg/L	0.01	4.44	5.2	16	0.04	0.06	40

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre
nc = non calculable as concentrations in one or both samples are below the LOR
RPDs have only been considered where a concentration is greater than 1 times the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold.

Table D2 - Rinsate Blanks

			Lab Report Number	ES2305242	ES2305242	ES2305242	ES2305242
			Field ID	0026_QC300_230213	0026_QC301_230214	0026_QC302_230215	0026_QC303_230216
			Sampled_Date/Time	13/02/2023 15:27	14/02/2023 16:40	15/02/2023 13:56	16/02/2023 9:32
			Sample Type	Rinsate	Rinsate	Rinsate	Rinsate
Chem_Group	**ChemName**	**Units**	**LOR**				
Per- and Poly-fluoroalkyl Substances	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	6:2 Fluorotelomer Sulfonate (6:2 FtS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	N-Methyl perfluorooctane sulfonamidoacetic acid (MFOSAA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	<0.1	<0.1	<0.1
	Perfluorodecanesulfonic acid (PFDS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
	Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
	Perfluorooctanoic Acid (PFOA)	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
	Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05	<0.05	<0.05	<0.05
	Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02	<0.02	<0.02	<0.02
	Sum of PFAS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01
	Sum of PFHxS and PFOS	µg/L	0.01	<0.01	<0.01	<0.01	<0.01

Notes
LOR = Limit of Reporting
µg/L = micrograms per litre

Appendix E

Laboratory Certificates

CERTIFICATE OF ANALYSIS

Work Order	: **ES2305240**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023 10:45
Order number	: 60612562_3.1	Date Analysis Commenced	: 17-Feb-2023
C-O-C number	: 47882	Issue Date	: 22-Feb-2023 12:56
Sampler	: [redacted]		
Site	: 0026 Offsite		
Quote number	: SY/139/19 v4 60612562_3.1		
No. of samples received	: 2		
No. of samples analysed	: 2		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

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

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

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

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

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

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

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW024_230216	0026_MW031_230216	----	----	----
			Sampling date / time	16-Feb-2023 08:31	16-Feb-2023 08:16	----	----	----
Compound	CAS Number	LOR	Unit	ES2305240-001	ES2305240-002	--------	--------	--------
				Result	Result	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**0.12**	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	**0.07**	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.02**	**0.06**	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.02**	<0.01	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	**0.02**	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW024_230216	0026_MW031_230216	----	----	----
			Sampling date / time	16-Feb-2023 08:31	16-Feb-2023 08:16	----	----	----
Compound	CAS Number	LOR	Unit	ES2305240-001	ES2305240-002	--------	--------	--------
				Result	Result	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**0.04**	**0.27**	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.04**	**0.06**	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	**0.04**	**0.20**	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**89.9**	**104**	----	----	----
13C8-PFOA	----	0.02	%	**106**	**111**	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

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

ALS Environmental

QUALITY CONTROL REPORT

Work Order	: **ES2305240**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023
Order number	: 60612562_3.1	Date Analysis Commenced	: 17-Feb-2023
C-O-C number	: 47882	Issue Date	: 22-Feb-2023
Sampler	: [redacted]		
Site	: 0026 Offsite		
Quote number	: SY/139/19 v4 60612562_3.1		
No. of samples received	: 2		
No. of samples analysed	: 2		

NATA

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

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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4879784)									
ES2305240-001	0026_MW024_230216	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2305242-008	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	28.0	27.7	1.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	2.65	2.19	19.2	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	3.53	3.61	2.2	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	4.79	4.87	1.8	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.22	0.19	17.6	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4879784)									
ES2305240-001	0026_MW024_230216	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4879784) - continued									
ES2305242-008	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.96	0.93	3.2	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	1.78	1.76	1.2	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	11.7	11.1	5.3	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	2.07	2.06	0.0	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	1.1	1.1	0.0	0% - 50%
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4879784)									
ES2305240-001	0026_MW024_230216	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4879784)									
ES2305240-001	0026_MW024_230216	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4879784) - continued									
ES2305240-001	0026_MW024_230216	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-008	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4879784)									
ES2305240-001	0026_MW024_230216	EP231X: Sum of PFAS	----	0.01	µg/L	0.04	0.04	0.0	No Limit
ES2305242-008	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	56.8	55.5	2.3	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4879784)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	79.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	84.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	69.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	84.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	76.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	78.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4879784)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	76.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	80.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	82.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	80.8	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	83.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	84.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	81.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	72.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	77.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	78.2	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	87.4	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.4	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	85.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	73.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	87.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	68.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	83.4	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	71.6	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4879784)							
ES2305240-002	0026_MW031_230216	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	103	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	89.0	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	107	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	91.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.0	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4879784)							
ES2305240-002	0026_MW031_230216	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	99.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	103	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	104	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	113	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	100	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	110	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	127	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784)							
ES2305240-002	0026_MW031_230216	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	91.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	102	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	107	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	117	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.6	65.0	136

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784) - continued							
ES2305240-002	0026_MW031_230216	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	106	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784)							
ES2305240-002	0026_MW031_230216	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	117	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	89.0	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2305240**	Page	: 1 of 4
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	[redacted]
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023
Site	: 0026 Offsite	Issue Date	: 22-Feb-2023
Sampler	[redacted]	No. of samples received	: 2
Order number	: 60612562_3.1	No. of samples analysed	: 2

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER** Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method		*Sample Date*	*Extraction / Preparation*			*Analysis*		
Container / Client Sample ID(s)			*Date extracted*	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0026_MW024_230216,	0026_MW031_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0026_MW024_230216,	0026_MW031_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0026_MW024_230216,	0026_MW031_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0026_MW024_230216,	0026_MW031_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0026_MW024_230216,	0026_MW031_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	Method	QC	Regular	**Actual**	**Expected**	Evaluation	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	*Method*	*Matrix*	*Method Descriptions*
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	*Method*	*Matrix*	*Method Descriptions*
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

Environmental

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order	: **ES2305240**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0026_PFASOMP_23	Page	: 1 of 3
Order number	: 60612562_3.1	Quote number	: ES2021AECOMAU0025 (SY/139/19 v4 60612562_3.1)
C-O-C number	: 47882	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0026 Offsite		
Sampler	: [redacted]		

Dates

Date Samples Received	: 17-Feb-2023 10:45	Issue Date	: 17-Feb-2023
Client Requested Due Date	: 23-Feb-2023	Scheduled Reporting Date	: **23-Feb-2023**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 2	Temperature	: 4.6' C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 2 / 2

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

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

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

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

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2305240-001	16-Feb-2023 08:31	0026_MW024_230216	✓
ES2305240-002	16-Feb-2023 08:16	0026_MW031_230216	✓

Proactive Holding Time Report

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

Requested Deliverables

ACCOUNTS PAYABLE

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

CATHERINE HANSEN

- *AU Certificate of Analysis - NATA (COA) Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - ENMRG (ENMRG) Email
- EDI Format - ESDAT (ESDAT) Email
- Electronic SRN for EQuIS (ESRN_EQUIS) Email

DERP ESDAT REPORTS

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

GEOFF TREDINNICK

- *AU Certificate of Analysis - NATA (COA) Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - ENMRG (ENMRG) Email
- EDI Format - ESDAT (ESDAT) Email
- Electronic SRN for EQuIS (ESRN_EQUIS) Email

JESSICA ROY

- *AU Certificate of Analysis - NATA (COA) Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM) Email
- EDI Format - ESDAT (ESDAT) Email
- EDI Format - XTab (XTAB) Email
- Electronic SRN for EQuIS (ESRN_EQUIS) Email

MAT JENKINS

- *AU Certificate of Analysis - NATA (COA) Email [redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI) Email
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC) Email
- A4 - AU Sample Receipt Notification - Environmental HT (SRN) Email
- Chain of Custody (CoC) (COC) Email
- EDI Format - ENMRG (ENMRG) Email
- EDI Format - ESDAT (ESDAT) Email
- Electronic SRN for EQuIS (ESRN_EQUIS) Email

NICOLA TOMLIN

- Chain of Custody (CoC) (COC) Email [redacted]

5240

CHAIN OF CUSTODY

COC#: 47882 ALS Laboratory: ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026 Offsite

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Fan DATE TIME: 17/2/23 10.45am	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU002 5

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0026_MW024_230216		16/02/2023 08:31 AM	WATER	ALS: 4 Non ALS: 0	No	X		
002	0026_MW031_230216		16/02/2023 08:16 AM	WATER	ALS: 4 Non ALS: 0	No	X		

Environmental Division
Sydney
Work Order Reference
ES2305240

Telephone : + 61-2-8784 8555

5240

CHAIN OF CUSTODY

ALS COC#: **47882** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 17/2/23	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026 Offsite

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0026_MW024_230216	HDPE (no PTFE)	20 mL	00350821014974	Grey	No	
001	0026_MW024_230216	HDPE (no PTFE)	20 mL	00350821015049	Grey	No	
001	0026_MW024_230216	HDPE (no PTFE)	20 mL	00350821015174	Grey	No	
001	0026_MW024_230216	HDPE (no PTFE)	20 mL	00350821015170	Grey	No	
002	0026_MW031_230216	HDPE (no PTFE)	20 mL	00350821010825	Grey	No	
002	0026_MW031_230216	HDPE (no PTFE)	20 mL	00350821010704	Grey	No	
002	0026_MW031_230216	HDPE (no PTFE)	20 mL	00350821010912	Grey	No	
002	0026_MW031_230216	HDPE (no PTFE)	20 mL	00350821010758	Grey	No	

Total Bottle Count: ALS: 8, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2305241**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023 10:45
Order number	: 60612562_3.1	Date Analysis Commenced	: 17-Feb-2023
C-O-C number	: 47883	Issue Date	: 22-Feb-2023 14:15
Sampler	: [redacted]		
Site	: 0026 Offsite		
Quote number	: SY/139/19 v4 60612562_3.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

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

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

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

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

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

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

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW026_230216	----	----	----	----
			Sampling date / time	16-Feb-2023 09:19	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2305241-001	--------	--------	--------	--------
				Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.42**	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.34**	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**2.25**	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	**0.08**	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**1.43**	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	**0.1**	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.16**	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.65**	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.08**	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.10**	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW026_230216	----	----	----	----
			Sampling date / time	16-Feb-2023 09:19	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2305241-001	--------	--------	--------	--------
				Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	----	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**5.61**	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**3.68**	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	**5.19**	----	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**89.3**	----	----	----	----
13C8-PFOA	----	0.02	%	**111**	----	----	----	----

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

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

QUALITY CONTROL REPORT

Work Order	: **ES2305241**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	[redacted]	Contact	[redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023
Order number	: 60612562_3.1	Date Analysis Commenced	: 17-Feb-2023
C-O-C number	: 47883	Issue Date	: 22-Feb-2023
Sampler	[redacted]		
Site	: 0026 Offsite		
Quote number	: SY/139/19 v4 60612562_3.1		
No. of samples received	: 1		
No. of samples analysed	: 1		

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

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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2305242-008	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	28.0	27.7	1.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	2.65	2.19	19.2	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	3.53	3.61	2.2	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	4.79	4.87	1.8	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.22	0.19	17.6	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory Duplicate (DUP) Report

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4879784) - continued									
ES2305242-008	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.96	0.93	3.2	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	1.78	1.76	1.2	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	11.7	11.1	5.3	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	2.07	2.06	0.0	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	1.1	1.1	0.0	0% - 50%
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-008	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4879784) - continued									
ES2305240-001	Anonymous	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-008	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.04	0.04	0.0	No Limit
ES2305242-008	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	56.8	55.5	2.3	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4879784)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	79.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	84.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	69.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	84.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	76.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	78.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4879784)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	76.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	80.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	82.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	80.8	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	83.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	84.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	81.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	72.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	77.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	78.2	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	87.4	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.4	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	85.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	73.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	87.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	68.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	83.4	67.0	138

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784) - continued								
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	71.6	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	103	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	89.0	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	107	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	91.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.0	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	99.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	103	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	104	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	113	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	100	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	110	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	127	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	91.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	102	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	107	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	117	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.6	65.0	136

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784) - continued							
ES2305240-002	Anonymous	EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	106	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	117	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	89.0	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2305241**	Page	: 1 of 4
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023
Site	: 0026 Offsite	Issue Date	: 22-Feb-2023
Sampler	: [redacted]	No. of samples received	: 1
Order number	: 60612562_3.1	No. of samples analysed	: 1

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method	*Sample Date*	*Extraction / Preparation*			*Analysis*		
Container / Client Sample ID(s)		*Date extracted*	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0026_MW026_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X)							
0026_MW026_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X)							
0026_MW026_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X)							
0026_MW026_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X)							
0026_MW026_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: × = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type / Analytical Methods	Method	Count QC	Count Regular	Rate (%) Actual	Rate (%) Expected	Evaluation	Quality Control Specification
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	**10.00**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	**5.00**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

Environmental

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2305241**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0026_PFASOMP_23	Page	: 1 of 3
Order number	: 60612562_3.1	Quote number	: ES2021AECOMAU0025 (SY/139/19 v4 60612562_3.1)
C-O-C number	: 47883	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0026 Offsite		
Sampler	: [redacted]		

Dates

Date Samples Received	: 17-Feb-2023 10:45	Issue Date	: 17-Feb-2023
Client Requested Due Date	: 23-Feb-2023	Scheduled Reporting Date	: **23-Feb-2023**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 2	Temperature	: 4.6' C
Receipt Detail	:	No. of samples received / analysed	: 1 / 1

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

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

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

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

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2305241-001	16-Feb-2023 09:19	0026_MW026_230216	✓

Proactive Holding Time Report

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

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com
CATHERINE HANSEN		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
DERP ESDAT REPORTS		
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
GEOFF TREDINNICK		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
JESSICA ROY		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- EDI Format - XTab (XTAB)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
MAT JENKINS		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
NICOLA TOMLIN		
- Chain of Custody (CoC) (COC)	Email	[redacted]

5241

CHAIN OF CUSTODY

COC#: **47883** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Fam DATE TIME: 17/2/23 10:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd
PROJECT: NSW_0026_PFASOMP_23
SITE: 0026 Offsite
ORDER NO: 60612562_3.1
PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:
EMAIL REPORTS TO:
EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days
Biohazard info:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:		°C	
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0026_MW026_230216		16/02/2023 09:19 AM	WATER	ALS: 4 Non ALS: 0	No	X		

Environmental Division
Sydney
Work Order Reference
ES2305241

Telephone : + 61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: **47883** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Fmr. DATE TIME: 17/2/23 10:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026 Offsite

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0026_MW026_230216	HDPE (no PTFE)	20 mL	00350821010922	Grey	No	
001	0026_MW026_230216	HDPE (no PTFE)	20 mL	00350821015150	Grey	No	
001	0026_MW026_230216	HDPE (no PTFE)	20 mL	00350821010881	Grey	No	
001	0026_MW026_230216	HDPE (no PTFE)	20 mL	00350821015183	Grey	No	

Total Bottle Count: ALS: 4, Non ALS: 0

ALS Environmental

CERTIFICATE OF ANALYSIS

Work Order	: **ES2305242**	Page	: 1 of 23
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023 10:45
Order number	: 60612562_3.1	Date Analysis Commenced	: 17-Feb-2023
C-O-C number	: 47884	Issue Date	: 02-Mar-2023 17:43
Sampler	: [redacted]		
Site	: 0026		
Quote number	: SY/139/19 v4 60612562_3.1		
No. of samples received	: 45		
No. of samples analysed	: 45		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

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

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

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

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

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

- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20ml or 125ml bottles have been tested in accordance with the QSM5.3 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP231X: Positive results for samples #18,19,20,21,22,25 and 26 confirmed by re-extraction and re-analysis.
- Amendment (2/03/2023):This report has been amended to update sample 7 and 29 ID's.
- EP231: Stable isotope enriched internal standards are added to samples prior to extraction. Target compounds have a direct analogous internal standard with the exception of PFPeS, PFHpA, PFDS, PFTrDA and 10:2 FTS. These compounds use an internal standard that is chemically related and has a retention time close to that of the target compound. The DQO for internal standard response is 50-150% of that established at initial calibration. PFOS is quantified using a certified, traceable standard consisting of linear and branched PFOS isomers. These practices are in line with recommendations in the National Environmental Management Plan for PFAS (Australian HEPA) and also conform to QSM 5.3 (US DoD) requirements.

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW001_230213	0026_MW002_230213	0026_MW003_230214	0026_MW004_230214	0026_MW005_230214
			Sampling date / time	13-Feb-2023 15:05	13-Feb-2023 15:20	14-Feb-2023 09:39	14-Feb-2023 14:37	14-Feb-2023 10:04
Compound	CAS Number	LOR	Unit	ES2305242-001	ES2305242-002	ES2305242-003	ES2305242-004	ES2305242-005
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**1.19**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.02**	<0.02	<0.02	<0.02	**1.44**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.25**	<0.01	**0.01**	<0.01	**12.4**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.61**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.76**	**0.01**	**0.01**	<0.01	**22.9**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	**0.2**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.38**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.02**	<0.02	<0.02	<0.02	**1.82**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.27**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	**0.68**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW001_230213	0026_MW002_230213	0026_MW003_230214	0026_MW004_230214	0026_MW005_230214
			Sampling date / time	13-Feb-2023 15:05	13-Feb-2023 15:20	14-Feb-2023 09:39	14-Feb-2023 14:37	14-Feb-2023 10:04
Compound	CAS Number	LOR	Unit	ES2305242-001	ES2305242-002	ES2305242-003	ES2305242-004	ES2305242-005
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**1.05**	**0.01**	**0.02**	<0.01	**41.9**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**1.01**	**0.01**	**0.02**	<0.01	**35.3**
Sum of PFAS (WA DER List)	----	0.01	µg/L	**1.03**	**0.01**	**0.02**	<0.01	**39.8**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**94.4**	**96.2**	**92.2**	**97.5**	**91.9**
13C8-PFOA	----	0.02	%	**110**	**108**	**111**	**112**	**111**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW006_230213	0026_MW008_230213	0026_MW009_230213	0026_MW009P_230213	0026_MW012_230213
			Sampling date / time	13-Feb-2023 14:09	13-Feb-2023 13:51	13-Feb-2023 09:59	13-Feb-2023 09:48	13-Feb-2023 10:22
Compound	CAS Number	LOR	Unit	ES2305242-006	ES2305242-007	ES2305242-008	ES2305242-009	ES2305242-010
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.36**	**1.26**	**3.53**	**3.64**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.40**	**1.78**	**4.79**	**4.39**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**3.53**	**15.7**	**28.0**	**43.9**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	**0.14**	**0.40**	**0.22**	**4.83**	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**4.47**	**2.36**	**2.65**	**189**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	**0.03**	<0.02	**1.26**	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	**0.1**	**1.1**	**1.8**	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.18**	**0.36**	**1.78**	**2.75**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.63**	**2.74**	**11.7**	**13.6**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.07**	**0.33**	**2.07**	**2.08**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.16**	**0.34**	**0.96**	**4.49**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	**0.52**	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	**0.66**	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	**0.20**	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	**0.21**	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	**0.05**	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	**0.05**	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	**0.55**	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW006_230213	0026_MW008_230213	0026_MW009_230213	0026_MW009P_230213	0026_MW012_230213
			Sampling date / time	13-Feb-2023 14:09	13-Feb-2023 13:51	13-Feb-2023 09:59	13-Feb-2023 09:48	13-Feb-2023 10:22
Compound	CAS Number	LOR	Unit	ES2305242-006	ES2305242-007	ES2305242-008	ES2305242-009	ES2305242-010
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	**0.25**	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	**2.18**	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**9.94**	**25.4**	**56.8**	**276**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**8.00**	**18.1**	**30.6**	**233**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	**9.40**	**23.2**	**51.8**	**264**	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**104**	**87.3**	**92.8**	**81.4**	**96.2**
13C8-PFOA	----	0.02	%	**110**	**114**	**110**	**105**	**106**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)			Sample ID	**0026_MW012P_230213**	**0026_MW015_230213**	**0026_MW016_230213**	**0026_MW017_230213**	**0026_MW018_230214**
			Sampling date / time	13-Feb-2023 10:30	13-Feb-2023 12:44	13-Feb-2023 13:05	13-Feb-2023 09:25	14-Feb-2023 15:30
Compound	CAS Number	LOR	Unit	**ES2305242-011**	**ES2305242-012**	**ES2305242-013**	**ES2305242-014**	**ES2305242-015**
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.03**	**0.92**	<0.02	**0.18**	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.02**	**1.18**	<0.02	**0.16**	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.19**	**8.26**	<0.01	**1.19**	<0.01
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	**0.21**	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.24**	**1.35**	<0.01	**0.18**	<0.01
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	**0.06**	<0.02	**0.06**	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.02**	**0.33**	<0.02	**0.23**	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	**0.05**	<0.02	**0.03**	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	**0.08**	<0.01	**0.03**	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW012P_230213	0026_MW015_230213	0026_MW016_230213	0026_MW017_230213	0026_MW018_230214
			Sampling date / time	13-Feb-2023 10:30	13-Feb-2023 12:44	13-Feb-2023 13:05	13-Feb-2023 09:25	14-Feb-2023 15:30
Compound	CAS Number	LOR	Unit	ES2305242-011	ES2305242-012	ES2305242-013	ES2305242-014	ES2305242-015
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**0.50**	**12.4**	<0.01	**2.06**	<0.01
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.43**	**9.61**	<0.01	**1.37**	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L	**0.48**	**11.0**	<0.01	**1.90**	<0.01
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**95.6**	**93.4**	**93.1**	**90.3**	**90.4**
13C8-PFOA	----	0.02	%	**107**	**107**	**111**	**109**	**104**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW029_230214	0026_MW037_230214	0026_MW038_230214	0026_MW039_230215	0026_MW044_230214
			Sampling date / time	14-Feb-2023 10:18	14-Feb-2023 14:22	14-Feb-2023 12:20	15-Feb-2023 11:31	14-Feb-2023 15:53
Compound	CAS Number	LOR	Unit	ES2305242-016	ES2305242-017	ES2305242-018	ES2305242-019	ES2305242-020
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**2.07**	<0.02	<0.02	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**1.40**	<0.02	<0.02	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**3.23**	<0.01	**0.02**	<0.01	**0.07**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	**0.07**	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**1.30**	<0.01	**0.01**	**0.01**	**0.02**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	**0.3**	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.70**	<0.02	<0.02	<0.02	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**2.99**	<0.02	**0.04**	<0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.28**	<0.02	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.16**	<0.01	<0.01	<0.01	<0.01
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW029_230214	0026_MW037_230214	0026_MW038_230214	0026_MW039_230215	0026_MW044_230214
			Sampling date / time	14-Feb-2023 10:18	14-Feb-2023 14:22	14-Feb-2023 12:20	15-Feb-2023 11:31	14-Feb-2023 15:53
Compound	CAS Number	LOR	Unit	ES2305242-016	ES2305242-017	ES2305242-018	ES2305242-019	ES2305242-020
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**12.5**	<0.01	**0.07**	**0.01**	**0.09**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**4.53**	<0.01	**0.03**	**0.01**	**0.09**
Sum of PFAS (WA DER List)	----	0.01	µg/L	**11.0**	<0.01	**0.07**	**0.01**	**0.09**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**94.5**	**89.3**	**101**	**104**	**101**
13C8-PFOA	----	0.02	%	**110**	**110**	**103**	**99.6**	**98.0**

Analytical Results

Sub-Matrix: **GROUNDWATER** (Matrix: **WATER**)			Sample ID	**0026_MW045_230213**	**0026_MW046_230213**	**0026_MW072_230215**	**0026_MW073_230215**	**0026_QC100_230213**
			Sampling date / time	13-Feb-2023 11:57	13-Feb-2023 12:12	15-Feb-2023 08:07	15-Feb-2023 13:38	13-Feb-2023 09:26
Compound	CAS Number	LOR	Unit	**ES2305242-021**	**ES2305242-022**	**ES2305242-023**	**ES2305242-024**	**ES2305242-038**
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**0.05**	<0.02	<0.02	**0.41**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	**0.03**	<0.02	<0.02	**0.38**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.09**	**0.08**	<0.01	<0.01	**2.53**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.04**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.02**	<0.01	<0.01	<0.01	**0.41**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	**0.1**
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.15**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.48**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	**0.08**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	**0.07**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_MW045_230213	0026_MW046_230213	0026_MW072_230215	0026_MW073_230215	0026_QC100_230213
			Sampling date / time	13-Feb-2023 11:57	13-Feb-2023 12:12	15-Feb-2023 08:07	15-Feb-2023 13:38	13-Feb-2023 09:26
Compound	CAS Number	LOR	Unit	ES2305242-021	ES2305242-022	ES2305242-023	ES2305242-024	ES2305242-038
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**0.11**	**0.16**	<0.01	<0.01	**4.65**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.11**	**0.08**	<0.01	<0.01	**2.94**
Sum of PFAS (WA DER List)	----	0.01	µg/L	**0.11**	**0.13**	<0.01	<0.01	**4.23**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**96.6**	**104**	**96.0**	**99.5**	**93.3**
13C8-PFOA	----	0.02	%	**99.5**	**101**	**101**	**98.4**	**115**

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_QC101_230213	----	----	----	----
			Sampling date / time	13-Feb-2023 13:06	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2305242-039	--------	--------	--------	--------
				Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	----	----	----	----

Analytical Results

Sub-Matrix: GROUNDWATER (Matrix: WATER)			Sample ID	0026_QC101_230213	----	----	----	----
			Sampling date / time	13-Feb-2023 13:06	----	----	----	----
Compound	*CAS Number*	*LOR*	*Unit*	ES2305242-039	--------	--------	--------	--------
				Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	----	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**94.6**	----	----	----	----
13C8-PFOA	----	0.02	%	**119**	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0026_QC300_230213	0026_QC301_230214	0026_QC302_230215	0026_QC303_230216	----
			Sampling date / time	13-Feb-2023 15:27	14-Feb-2023 16:40	15-Feb-2023 13:56	16-Feb-2023 09:32	----
Compound	CAS Number	LOR	Unit	ES2305242-042	ES2305242-043	ES2305242-044	ES2305242-045	--------
				Result	Result	Result	Result	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0026_QC300_230213	0026_QC301_230214	0026_QC302_230215	0026_QC303_230216	----
			Sampling date / time	13-Feb-2023 15:27	14-Feb-2023 16:40	15-Feb-2023 13:56	16-Feb-2023 09:32	----
Compound	CAS Number	LOR	Unit	ES2305242-042	ES2305242-043	ES2305242-044	ES2305242-045	--------
				Result	Result	Result	Result	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**93.7**	**90.4**	**95.6**	**95.6**	----
13C8-PFOA	----	0.02	%	**115**	**118**	**119**	**118**	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW001_230215	0026_SW002_230215	0026_SW004B_230215	0026_SW005_230215	0026_SW006_230214
			Sampling date / time	15-Feb-2023 07:47	15-Feb-2023 10:13	15-Feb-2023 08:52	15-Feb-2023 09:33	14-Feb-2023 15:20
Compound	CAS Number	LOR	Unit	ES2305242-025	ES2305242-026	ES2305242-027	ES2305242-028	ES2305242-029
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	**0.02**	**0.17**	**0.16**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	**0.02**	**0.20**	**0.18**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.01**	**0.02**	**0.18**	**1.57**	**1.47**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	<0.02	**0.09**	**0.09**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.02**	**0.02**	**0.20**	**1.95**	**2.14**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	<0.02	**0.08**	**0.08**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	**0.04**	**0.35**	**0.32**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	<0.02	**0.05**	**0.04**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	**0.01**	**0.09**	**0.08**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW001_230215	0026_SW002_230215	0026_SW004B_230215	0026_SW005_230215	0026_SW006_230214
			Sampling date / time	15-Feb-2023 07:47	15-Feb-2023 10:13	15-Feb-2023 08:52	15-Feb-2023 09:33	14-Feb-2023 15:20
Compound	CAS Number	LOR	Unit	ES2305242-025	ES2305242-026	ES2305242-027	ES2305242-028	ES2305242-029
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**0.03**	**0.04**	**0.47**	**4.55**	**4.56**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.03**	**0.04**	**0.38**	**3.52**	**3.61**
Sum of PFAS (WA DER List)	----	0.01	µg/L	**0.03**	**0.04**	**0.45**	**4.26**	**4.29**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**96.7**	**99.3**	**95.3**	**102**	**105**
13C8-PFOA	----	0.02	%	**102**	**103**	**102**	**103**	**101**

Analytical Results

Sub-Matrix: **SURFACE WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	0026_SW007_230213	0026_SW008_230214	0026_SW009_230213	0026_SW012_230214	0026_SW013_230215
			Sampling date / time	13-Feb-2023 11:06	14-Feb-2023 12:50	13-Feb-2023 14:17	14-Feb-2023 13:30	15-Feb-2023 10:46
				ES2305242-030	ES2305242-031	ES2305242-032	ES2305242-033	ES2305242-034
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.08**	**0.09**	**0.16**	**0.20**	**0.16**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.09**	**0.13**	**0.14**	**0.20**	**0.17**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.84**	**1.01**	**1.50**	**1.74**	**1.49**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	**0.06**	**0.06**	**0.08**	**0.10**	**0.08**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.74**	**1.52**	**3.28**	**2.70**	**1.59**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.03**	**0.04**	**0.09**	**0.09**	**0.06**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.13**	**0.24**	**0.36**	**0.31**	**0.26**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	**0.02**	**0.04**	**0.05**	**0.04**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.02**	**0.05**	**0.08**	**0.07**	**0.05**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW007_230213	0026_SW008_230214	0026_SW009_230213	0026_SW012_230214	0026_SW013_230215
			Sampling date / time	13-Feb-2023 11:06	14-Feb-2023 12:50	13-Feb-2023 14:17	14-Feb-2023 13:30	15-Feb-2023 10:46
Compound	CAS Number	LOR	Unit	ES2305242-030	ES2305242-031	ES2305242-032	ES2305242-033	ES2305242-034
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**1.99**	**3.16**	**5.73**	**5.46**	**3.90**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**1.58**	**2.53**	**4.78**	**4.44**	**3.08**
Sum of PFAS (WA DER List)	----	0.01	µg/L	**1.84**	**2.97**	**5.51**	**5.16**	**3.65**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**96.1**	**103**	**95.4**	**99.1**	**99.1**
13C8-PFOA	----	0.02	%	**98.7**	**102**	**102**	**101**	**98.7**

Analytical Results

Sub-Matrix: **SURFACE WATER** (Matrix: **WATER**)			*Sample ID*	**0026_SW014_230215**	**0026_SW018_230213**	**0026_SW020_230214**	**0026_QC102_230214**	**0026_QC103_230215**
			Sampling date / time	15-Feb-2023 10:57	13-Feb-2023 10:54	14-Feb-2023 15:12	14-Feb-2023 12:50	15-Feb-2023 09:32
Compound	*CAS Number*	*LOR*	*Unit*	**ES2305242-035**	**ES2305242-036**	**ES2305242-037**	**ES2305242-040**	**ES2305242-041**
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**0.60**	**0.09**	**0.13**	**0.23**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	**0.59**	**0.10**	**0.14**	**0.23**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	**4.34**	**0.94**	**1.11**	**1.78**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	**0.24**	**0.02**	**0.04**	**0.09**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	**4.60**	**0.78**	**1.42**	**3.20**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	**0.1**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	**0.22**	<0.02	**0.05**	**0.11**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	**1.08**	**0.11**	**0.24**	**0.36**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	**0.16**	<0.02	**0.03**	**0.06**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	**0.28**	**0.03**	**0.07**	**0.12**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: **SURFACE WATER**
(Matrix: **WATER**)

Compound	CAS Number	LOR	Unit	0026_SW014_230215	0026_SW018_230213	0026_SW020_230214	0026_QC102_230214	0026_QC103_230215
			Sampling date / time	15-Feb-2023 10:57	13-Feb-2023 10:54	14-Feb-2023 15:12	14-Feb-2023 12:50	15-Feb-2023 09:32
				ES2305242-035	ES2305242-036	ES2305242-037	ES2305242-040	ES2305242-041
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	**12.2**	**2.07**	**3.23**	**6.18**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	**8.94**	**1.72**	**2.53**	**4.98**
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	**11.4**	**1.95**	**3.05**	**5.86**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**100**	**104**	**89.8**	**93.1**	**89.0**
13C8-PFOA	----	0.02	%	**100**	**104**	**113**	**112**	**111**

Surrogate Control Limits

Sub-Matrix: **GROUNDWATER**

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

Sub-Matrix: **RINSATE**

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

Sub-Matrix: **SURFACE WATER**

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

QUALITY CONTROL REPORT

Work Order	: **ES2305242**		Page	: 1 of 14	
Amendment	: **1**				
Client	: **AECOM AUSTRALIA PTY LTD**		Laboratory	: Environmental Division Sydney	
Contact	[redacted]		Contact	[redacted]	
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000		Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164	
Telephone	: ----		Telephone	: +61 2 8784 8555	
Project	: NSW_0026_PFASOMP_23		Date Samples Received	: 17-Feb-2023	
Order number	: 60612562_3.1		Date Analysis Commenced	: 17-Feb-2023	
C-O-C number	: 47884		Issue Date	: 02-Mar-2023	
Sampler	: [redacted]				
Site	: 0026				
Quote number	: SY/139/19 v4 60612562_3.1				
No. of samples received	: 45				
No. of samples analysed	: 45				

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

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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2305242-008	0026_MW009_230213	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	28.0	27.7	1.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	2.65	2.19	19.2	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	3.53	3.61	2.2	0% - 20%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	4.79	4.87	1.8	0% - 20%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.22	0.19	17.6	0% - 50%
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4880144)									
ES2305242-018	0026_MW038_230214	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.02	0.02	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2305242-028	0026_SW005_230215	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.57	1.57	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.95	1.99	2.2	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.17	0.17	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.20	0.20	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.09	0.08	12.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4880144) - continued									
ES2305242-028	0026_SW005_230215	EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 4880324)									
ES2305242-037	0026_SW020_230214	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.94	0.95	1.5	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.78	0.75	3.3	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.09	0.10	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.10	0.10	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.02	0.03	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2305242-041	0026_QC103_230215	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	1.78	1.71	4.3	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	3.20	2.85	11.3	0% - 20%
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.23	0.23	0.0	0% - 50%
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.23	0.20	12.2	0% - 50%
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.09	0.08	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2305242-008	0026_MW009_230213	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.96	0.93	3.2	0% - 20%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	1.78	1.76	1.2	0% - 20%
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	11.7	11.1	5.3	0% - 20%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	2.07	2.06	0.0	0% - 20%
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	1.1	1.1	0.0	0% - 50%
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4880144)									
ES2305242-018	0026_MW038_230214	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4880144) - continued									
ES2305242-018	0026_MW038_230214	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.04	0.04	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2305242-028	0026_SW005_230215	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.09	0.09	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.08	0.09	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.35	0.34	0.0	0% - 50%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.05	0.04	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4880324)									
ES2305242-037	0026_SW020_230214	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.11	0.11	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
ES2305242-041	0026_QC103_230215	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.12	0.12	0.0	0% - 50%
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.11	0.14	20.3	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.36	0.39	6.7	0% - 50%
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.06	0.07	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 4880324) - continued									
ES2305242-041	0026_QC103_230215	EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-008	0026_MW009_230213	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4880144)									
ES2305242-018	0026_MW038_230214	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4880144) - continued									
ES2305242-018	0026_MW038_230214	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-028	0026_SW005_230215	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4880324)									
ES2305242-037	0026_SW020_230214	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-041	0026_QC103_230215	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 4880324) - continued									
ES2305242-041	0026_QC103_230215	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-008	0026_MW009_230213	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4880144)									
ES2305242-018	0026_MW038_230214	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-028	0026_SW005_230215	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4880324)									
ES2305242-037	0026_SW020_230214	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 4880324) - continued									
ES2305242-037	0026_SW020_230214	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2305242-041	0026_QC103_230215	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 4879784)									
ES2305240-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	0.04	0.04	0.0	No Limit
ES2305242-008	0026_MW009_230213	EP231X: Sum of PFAS	----	0.01	µg/L	56.8	55.5	2.3	0% - 20%
EP231P: PFAS Sums (QC Lot: 4880144)									
ES2305242-018	0026_MW038_230214	EP231X: Sum of PFAS	----	0.01	µg/L	0.07	0.07	0.0	No Limit
ES2305242-028	0026_SW005_230215	EP231X: Sum of PFAS	----	0.01	µg/L	4.55	4.57	0.4	0% - 20%
EP231P: PFAS Sums (QC Lot: 4880324)									
ES2305242-037	0026_SW020_230214	EP231X: Sum of PFAS	----	0.01	µg/L	2.07	2.07	0.0	0% - 20%
ES2305242-041	0026_QC103_230215	EP231X: Sum of PFAS	----	0.01	µg/L	6.18	5.79	6.5	0% - 20%

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4879784)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	79.8	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	84.8	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	69.6	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	84.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	76.4	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	78.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4880144)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	78.4	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	89.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	79.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	88.2	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	83.6	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	88.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4880324)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	76.3	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	78.3	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	72.1	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	93.8	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	82.8	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	83.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4879784)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	76.2	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	80.6	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	82.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	80.8	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	83.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	89.4	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	84.2	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.0	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	97.0	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	81.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	104	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4880144)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	88.0	73.0	129

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result	Concentration	LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4880144) - continued								
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	91.0	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	84.6	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	82.4	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	83.2	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	80.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	80.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	81.6	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	80.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	74.8	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	84.2	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4880324)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	106	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	90.0	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	73.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	84.0	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	102	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	71.3	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	89.6	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	93.2	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	79.2	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	91.3	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	76.0	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	72.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	77.0	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	78.2	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	87.4	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	90.4	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	85.0	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	73.2	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4880144)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	81.4	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	85.4	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	73.2	62.6	147

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4880144) - continued								
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	85.0	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	86.7	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	85.4	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	81.4	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4880324)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	88.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	85.4	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	121	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	75.9	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	86.4	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	108	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	93.2	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	87.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	68.4	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	83.4	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	71.6	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4880144)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	81.0	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	82.2	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	93.2	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	91.4	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4880324)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	73.1	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	97.2	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	121	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	77.6	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*Concentration*	*MS*	*Low*	*High*
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	103	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	104	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	89.0	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	107	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	91.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	97.0	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4880144)							
ES2305242-019	0026_MW039_230215	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	76.6	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	79.2	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	78.4	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	87.0	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	77.2	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	75.4	53.0	142
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 4880324)							
ES2305242-038	0026_QC100_230213	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	90.0	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	80.8	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	# Not Determined	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	112	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	77.0	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	102	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	99.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	102	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	105	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	103	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	104	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	113	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	100	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	110	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	113	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	96.4	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	127	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4880144)							
ES2305242-019	0026_MW039_230215	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	81.9	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	83.0	72.0	129

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report: Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	Acceptable Limits (%) High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4880144) - continued							
ES2305242-019	0026_MW039_230215	EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	85.4	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	81.8	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	83.0	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	79.4	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	81.0	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	79.6	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	83.6	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	72.8	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	84.1	71.0	132
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 4880324)							
ES2305242-038	0026_QC100_230213	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	118	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	96.5	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	76.3	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	97.7	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	124	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	80.0	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	103	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	118	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	116	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	122	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	83.2	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	91.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	102	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	107	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	117	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	111	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	94.6	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	106	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4880144)							
ES2305242-019	0026_MW039_230215	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	76.4	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	75.6	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	78.4	62.6	147

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4880144) - continued							
ES2305242-019	0026_MW039_230215	EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	86.9	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	83.9	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	81.0	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	96.0	61.0	135
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 4880324)							
ES2305242-038	0026_QC100_230213	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	121	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	116	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	121	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	104	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	124	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	125	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	114	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4879784)							
ES2305240-002	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	103	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	117	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	106	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	89.0	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4880144)							
ES2305242-019	0026_MW039_230215	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	79.8	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	88.2	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	85.4	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	88.6	71.4	144
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 4880324)							
ES2305242-038	0026_QC100_230213	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	121	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	122	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	130	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	114	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2305242**	Page	: 1 of 8
Amendment	: **1**		
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Feb-2023
Site	: 0026	Issue Date	: 02-Mar-2023
Sampler	: [redacted]	No. of samples received	: 45
Order number	: 60612562_3.1	No. of samples analysed	: 45

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **Matrix Spike outliers exist - please see following pages for full details.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Outliers : Quality Control Samples

Duplicates, Method Blanks, Laboratory Control Samples and Matrix Spikes

Matrix: **WATER**

Compound Group Name	Laboratory Sample ID	Client Sample ID	Analyte	CAS Number	Data	Limits	Comment
Matrix Spike (MS) Recoveries							
EP231A: Perfluoroalkyl Sulfonic Acids	ES2305242--038	0026_QC100_230213	**Perfluorohexane sulfonic acid (PFHxS)**	355-46-4	Not Determined	----	**MS recovery not determined, background level greater than or equal to 4x spike level.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method		*Sample Date*	*Extraction / Preparation*			*Analysis*		
Container / Client Sample ID(s)			*Date extracted*	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X) 0026_MW001_230213, 0026_MW006_230213, 0026_MW009_230213, 0026_MW012_230213, 0026_MW015_230213, 0026_MW017_230213, 0026_QC101_230213,	 0026_MW002_230213, 0026_MW008_230213, 0026_MW009P_230213, 0026_MW012P_230213, 0026_MW016_230213, 0026_QC100_230213, 0026_QC300_230213	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**21-Feb-2023**	12-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW045_230213, 0026_SW007_230213, 0026_SW018_230213	 0026_MW046_230213, 0026_SW009_230213,	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**22-Feb-2023**	12-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW003_230214, 0026_MW005_230214, 0026_MW029_230214, 0026_SW020_230214, 0026_QC301_230214	 0026_MW004_230214, 0026_MW018_230214, 0026_MW037_230214, 0026_QC102_230214,	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**21-Feb-2023**	13-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW038_230214, 0026_SW006_230214, 0026_SW012_230214	 0026_MW044_230214, 0026_SW008_230214,	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**22-Feb-2023**	13-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_QC103_230215,	 0026_QC302_230215	**15-Feb-2023**	**20-Feb-2023**	14-Aug-2023	✓	**21-Feb-2023**	14-Aug-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Due for extraction	Evaluation	Analysis: Date analysed	Due for analysis	Evaluation
EP231A: Perfluoroalkyl Sulfonic Acids - Continued							
HDPE (no PTFE) (EP231X) 0026_MW039_230215, 0026_MW072_230215, 0026_MW073_230215, 0026_SW001_230215, 0026_SW002_230215, 0026_SW004B_230215, 0026_SW005_230215, 0026_SW013_230215, 0026_SW014_230215	15-Feb-2023	20-Feb-2023	14-Aug-2023	✓	22-Feb-2023	14-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_QC303_230216	16-Feb-2023	20-Feb-2023	15-Aug-2023	✓	21-Feb-2023	15-Aug-2023	✓
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) 0026_MW001_230213, 0026_MW002_230213, 0026_MW006_230213, 0026_MW008_230213, 0026_MW009_230213, 0026_MW009P_230213, 0026_MW012_230213, 0026_MW012P_230213, 0026_MW015_230213, 0026_MW016_230213, 0026_MW017_230213, 0026_QC100_230213, 0026_QC101_230213, 0026_QC300_230213	13-Feb-2023	20-Feb-2023	12-Aug-2023	✓	21-Feb-2023	12-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW045_230213, 0026_MW046_230213, 0026_SW007_230213, 0026_SW009_230213, 0026_SW018_230213	13-Feb-2023	20-Feb-2023	12-Aug-2023	✓	22-Feb-2023	12-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW003_230214, 0026_MW004_230214, 0026_MW005_230214, 0026_MW018_230214, 0026_MW029_230214, 0026_MW037_230214, 0026_SW020_230214, 0026_QC102_230214, 0026_QC301_230214	14-Feb-2023	20-Feb-2023	13-Aug-2023	✓	21-Feb-2023	13-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW038_230214, 0026_MW044_230214, 0026_SW006_230214, 0026_SW008_230214, 0026_SW012_230214	14-Feb-2023	20-Feb-2023	13-Aug-2023	✓	22-Feb-2023	13-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_QC103_230215, 0026_QC302_230215	15-Feb-2023	20-Feb-2023	14-Aug-2023	✓	21-Feb-2023	14-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW039_230215, 0026_MW072_230215, 0026_MW073_230215, 0026_SW001_230215, 0026_SW002_230215, 0026_SW004B_230215, 0026_SW005_230215, 0026_SW013_230215, 0026_SW014_230215	15-Feb-2023	20-Feb-2023	14-Aug-2023	✓	22-Feb-2023	14-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_QC303_230216	16-Feb-2023	20-Feb-2023	15-Aug-2023	✓	21-Feb-2023	15-Aug-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)	Sample Date	Extraction / Preparation: Date extracted	Due for extraction	Evaluation	Analysis: Date analysed	Due for analysis	Evaluation
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) 0026_MW001_230213, 0026_MW002_230213, 0026_MW006_230213, 0026_MW008_230213, 0026_MW009_230213, 0026_MW009P_230213, 0026_MW012_230213, 0026_MW012P_230213, 0026_MW015_230213, 0026_MW016_230213, 0026_MW017_230213, 0026_QC100_230213, 0026_QC101_230213, 0026_QC300_230213	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**21-Feb-2023**	12-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW045_230213, 0026_MW046_230213, 0026_SW007_230213, 0026_SW009_230213, 0026_SW018_230213	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**22-Feb-2023**	12-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW003_230214, 0026_MW004_230214, 0026_MW005_230214, 0026_MW018_230214, 0026_MW029_230214, 0026_MW037_230214, 0026_SW020_230214, 0026_QC102_230214, 0026_QC301_230214	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**21-Feb-2023**	13-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW038_230214, 0026_MW044_230214, 0026_SW006_230214, 0026_SW008_230214, 0026_SW012_230214	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**22-Feb-2023**	13-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_QC103_230215, 0026_QC302_230215	**15-Feb-2023**	**20-Feb-2023**	14-Aug-2023	✓	**21-Feb-2023**	14-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_MW039_230215, 0026_MW072_230215, 0026_MW073_230215, 0026_SW001_230215, 0026_SW002_230215, 0026_SW004B_230215, 0026_SW005_230215, 0026_SW013_230215, 0026_SW014_230215	**15-Feb-2023**	**20-Feb-2023**	14-Aug-2023	✓	**22-Feb-2023**	14-Aug-2023	✓
HDPE (no PTFE) (EP231X) 0026_QC303_230216	**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation			Analysis		
			Date extracted	Due for extraction	Evaluation	Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0026_MW001_230213, 0026_MW006_230213, 0026_MW009_230213, 0026_MW012_230213, 0026_MW015_230213, 0026_MW017_230213, 0026_QC101_230213,	0026_MW002_230213, 0026_MW008_230213, 0026_MW009P_230213, 0026_MW012P_230213, 0026_MW016_230213, 0026_QC100_230213, 0026_QC300_230213	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**21-Feb-2023**	12-Aug-2023	✓
HDPE (no PTFE) (EP231X)								
0026_MW045_230213, 0026_SW007_230213, 0026_SW018_230213	0026_MW046_230213, 0026_SW009_230213,	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**22-Feb-2023**	12-Aug-2023	✓
HDPE (no PTFE) (EP231X)								
0026_MW003_230214, 0026_MW005_230214, 0026_MW029_230214, 0026_SW020_230214, 0026_QC301_230214	0026_MW004_230214, 0026_MW018_230214, 0026_MW037_230214, 0026_QC102_230214,	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**21-Feb-2023**	13-Aug-2023	✓
HDPE (no PTFE) (EP231X)								
0026_MW038_230214, 0026_SW006_230214, 0026_SW012_230214	0026_MW044_230214, 0026_SW008_230214,	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**22-Feb-2023**	13-Aug-2023	✓
HDPE (no PTFE) (EP231X)								
0026_QC103_230215,	0026_QC302_230215	**15-Feb-2023**	**20-Feb-2023**	14-Aug-2023	✓	**21-Feb-2023**	14-Aug-2023	✓
HDPE (no PTFE) (EP231X)								
0026_MW039_230215, 0026_MW073_230215, 0026_SW002_230215, 0026_SW005_230215, 0026_SW014_230215	0026_MW072_230215, 0026_SW001_230215, 0026_SW004B_230215, 0026_SW013_230215,	**15-Feb-2023**	**20-Feb-2023**	14-Aug-2023	✓	**22-Feb-2023**	14-Aug-2023	✓
HDPE (no PTFE) (EP231X)								
0026_QC303_230216		**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation: Date extracted	Due for extraction	Evaluation	Analysis: Date analysed	Due for analysis	Evaluation
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0026_MW001_230213,	0026_MW002_230213,	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**21-Feb-2023**	12-Aug-2023	✓
0026_MW006_230213,	0026_MW008_230213,							
0026_MW009_230213,	0026_MW009P_230213,							
0026_MW012_230213,	0026_MW012P_230213,							
0026_MW015_230213,	0026_MW016_230213,							
0026_MW017_230213,	0026_QC100_230213,							
0026_QC101_230213,	0026_QC300_230213							
HDPE (no PTFE) (EP231X)								
0026_MW045_230213,	0026_MW046_230213,	**13-Feb-2023**	**20-Feb-2023**	12-Aug-2023	✓	**22-Feb-2023**	12-Aug-2023	✓
0026_SW007_230213,	0026_SW009_230213,							
0026_SW018_230213								
HDPE (no PTFE) (EP231X)								
0026_MW003_230214,	0026_MW004_230214,	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**21-Feb-2023**	13-Aug-2023	✓
0026_MW005_230214,	0026_MW018_230214,							
0026_MW029_230214,	0026_MW037_230214,							
0026_SW020_230214,	0026_QC102_230214,							
0026_QC301_230214								
HDPE (no PTFE) (EP231X)								
0026_MW038_230214,	0026_MW044_230214,	**14-Feb-2023**	**20-Feb-2023**	13-Aug-2023	✓	**22-Feb-2023**	13-Aug-2023	✓
0026_SW006_230214,	0026_SW008_230214,							
0026_SW012_230214								
HDPE (no PTFE) (EP231X)								
0026_QC103_230215,	0026_QC302_230215	**15-Feb-2023**	**20-Feb-2023**	14-Aug-2023	✓	**21-Feb-2023**	14-Aug-2023	✓
HDPE (no PTFE) (EP231X)								
0026_MW039_230215,	0026_MW072_230215,	**15-Feb-2023**	**20-Feb-2023**	14-Aug-2023	✓	**22-Feb-2023**	14-Aug-2023	✓
0026_MW073_230215,	0026_SW001_230215,							
0026_SW002_230215,	0026_SW004B_230215,							
0026_SW005_230215,	0026_SW013_230215,							
0026_SW014_230215								
HDPE (no PTFE) (EP231X)								
0026_QC303_230216		**16-Feb-2023**	**20-Feb-2023**	15-Aug-2023	✓	**21-Feb-2023**	15-Aug-2023	✓

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: ✗ = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	6	59	**10.17**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	3	59	**5.08**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	Method	Matrix	Method Descriptions
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	Method	Matrix	Method Descriptions
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2305242**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0026_PFASOMP_23	Page	: 1 of 4
Order number	: 60612562_3.1	Quote number	: ES2021AECOMAU0025 (SY/139/19 v4 60612562_3.1)
C-O-C number	: 47884	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0026		
Sampler	: [redacted]		

Dates

Date Samples Received	: 17-Feb-2023 10:45	Issue Date	: 20-Feb-2023
Client Requested Due Date	: 23-Feb-2023	Scheduled Reporting Date	: **23-Feb-2023**

Delivery Details

Mode of Delivery	: Carrier	Security Seal	: Intact.
No. of coolers/boxes	: 2	Temperature	: 4.6' C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 45 / 45

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **(20/02/2023) This is an updated SRN which reflects a change in sampling time for samples 024 and 040.**
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

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

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

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

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2305242-001	13-Feb-2023 15:05	0026_MW001_230213	✓
ES2305242-002	13-Feb-2023 15:20	0026_MW002_230213	✓
ES2305242-003	14-Feb-2023 09:39	0026_MW003_230214	✓
ES2305242-004	14-Feb-2023 14:37	0026_MW004_230214	✓
ES2305242-005	14-Feb-2023 10:04	0026_MW005_230214	✓
ES2305242-006	13-Feb-2023 14:09	0026_MW006_230213	✓
ES2305242-007	13-Feb-2023 13:51	0026_MW008_220213	✓
ES2305242-008	13-Feb-2023 09:59	0026_MW009_230213	✓
ES2305242-009	13-Feb-2023 09:48	0026_MW009P_230213	✓
ES2305242-010	13-Feb-2023 10:22	0026_MW012_230213	✓
ES2305242-011	13-Feb-2023 10:30	0026_MW012P_230213	✓
ES2305242-012	13-Feb-2023 12:44	0026_MW015_230213	✓
ES2305242-013	13-Feb-2023 13:05	0026_MW016_230213	✓
ES2305242-014	13-Feb-2023 09:25	0026_MW017_230213	✓
ES2305242-015	14-Feb-2023 15:30	0026_MW018_230214	✓
ES2305242-016	14-Feb-2023 10:18	0026_MW029_230214	✓
ES2305242-017	14-Feb-2023 14:22	0026_MW037_230214	✓
ES2305242-018	14-Feb-2023 12:20	0026_MW038_230214	✓
ES2305242-019	15-Feb-2023 11:31	0026_MW039_230215	✓
ES2305242-020	14-Feb-2023 15:53	0026_MW044_230214	✓
ES2305242-021	13-Feb-2023 11:57	0026_MW045_230213	✓
ES2305242-022	13-Feb-2023 12:12	0026_MW046_230213	✓
ES2305242-023	15-Feb-2023 08:07	0026_MW072_230215	✓
ES2305242-024	15-Feb-2023 13:38	0026_MW073_230215	✓
ES2305242-025	15-Feb-2023 07:47	0026_SW001_230215	✓
ES2305242-026	15-Feb-2023 10:13	0026_SW002_230215	✓
ES2305242-027	15-Feb-2023 08:52	0026_SW004B_230215	✓
ES2305242-028	15-Feb-2023 09:33	0026_SW005_230215	✓
ES2305242-029	14-Feb-2023 15:20	0026_SW006_220214	✓
ES2305242-030	13-Feb-2023 11:06	0026_SW007_230213	✓
ES2305242-031	14-Feb-2023 12:50	0026_SW008_230214	✓
ES2305242-032	13-Feb-2023 14:17	0026_SW009_230213	✓
ES2305242-033	14-Feb-2023 13:30	0026_SW012_230214	✓
ES2305242-034	15-Feb-2023 10:46	0026_SW013_230215	✓
ES2305242-035	15-Feb-2023 10:57	0026_SW014_230215	✓

			WATER - EP231X PFAS - Full Suite (28 analytes)
ES2305242-036	13-Feb-2023 10:54	0026_SW018_230213	✓
ES2305242-037	14-Feb-2023 15:12	0026_SW020_230214	✓
ES2305242-038	13-Feb-2023 09:26	0026_QC100_230213	✓
ES2305242-039	13-Feb-2023 13:06	0026_QC101_230213	✓
ES2305242-040	14-Feb-2023 12:50	0026_QC102_230214	✓
ES2305242-041	15-Feb-2023 09:32	0026_QC103_230215	✓
ES2305242-042	13-Feb-2023 15:27	0026_QC300_230213	✓
ES2305242-043	14-Feb-2023 16:40	0026_QC301_230214	✓
ES2305242-044	15-Feb-2023 13:56	0026_QC302_230215	✓
ES2305242-045	16-Feb-2023 09:32	0026_QC303_230216	✓

Proactive Holding Time Report

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

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com
CATHERINE HANSEN		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
DERP ESDAT REPORTS		
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
GEOFF TREDINNICK		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
JESSICA ROY		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- EDI Format - XTab (XTAB)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
MAT JENKINS		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
NICOLA TOMLIN		
- Chain of Custody (CoC) (COC)	Email	[redacted]

5242

CHAIN OF CUSTODY

ALS COC#: 47884 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd
PROJECT: NSW_0026_PFASOMP_23
SITE: 0026
ORDER NO: 60612562_3.1
PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:
EMAIL REPORTS TO:
EMAIL INVOICES TO:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Fam: DATE TIME: 17/2/23 10:45am	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days
Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: °C
Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0026_MW001_230213		13/02/2023 03:05 PM	WATER	ALS: 4 Non ALS: 0	No	X		
002	0026_MW002_230213		13/02/2023 03:20 PM	WATER	ALS: 4 Non ALS: 0	No	X		
003	0026_MW003_230214		14/02/2023 09:39 AM	WATER	ALS: 4 Non ALS: 0	No	X		
004	0026_MW004_230214		14/02/2023 02:37 PM	WATER	ALS: 4 Non ALS: 0	No	X		
005	0026_MW005_230214		14/02/2023 10:04 AM	WATER	ALS: 4 Non ALS: 0	No	X		
006	0026_MW006_230213		13/02/2023 02:09 PM	WATER	ALS: 4 Non ALS: 0	No	X		
007	0026_MW008_220213		13/02/2023 01:51 PM	WATER	ALS: 4 Non ALS: 0	No	X		
008	0026_MW009_230213		13/02/2023 09:59 AM	WATER	ALS: 4 Non ALS: 0	No	X		
009	0026_MW009P_230213		13/02/2023 09:48 AM	WATER	ALS: 4 Non ALS: 0	No	X		

Environmental Division
Sydney
Work Order Reference
ES2305242

Telephone : + 61-2-8784 8555

CHAIN OF COUNTODY

COC#: **47884** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Fami DATE TIME: 17/2/23 10:42	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
010	0026_MW012_230213		13/02/2023 10:22 AM	WATER	ALS: 4 Non ALS: 0	No	X		
011	0026_MW012P_230213		13/02/2023 10:30 AM	WATER	ALS: 4 Non ALS: 0	No	X		
012	0026_MW015_230213		13/02/2023 12:44 PM	WATER	ALS: 4 Non ALS: 0	No	X		
013	0026_MW016_230213		13/02/2023 01:05 PM	WATER	ALS: 4 Non ALS: 0	No	X		
014	0026_MW017_230213		13/02/2023 09:25 AM	WATER	ALS: 4 Non ALS: 0	No	X		
015	0026_MW018_230214		14/02/2023 03:30 PM	WATER	ALS: 4 Non ALS: 0	No	X		
016	0026_MW029_230214		14/02/2023 10:18 AM	WATER	ALS: 4 Non ALS: 0	No	X		
017	0026_MW037_230214		14/02/2023 02:22 PM	WATER	ALS: 4 Non ALS: 0	No	X		
018	0026_MW038_230214		14/02/2023 12:20 PM	WATER	ALS: 4 Non ALS: 0	No	X		

CHAIN OF CUSTODY

COC#: **47884** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY: Fazi	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 17/2/23 10:42	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
019	0026_MW039_230215		15/02/2023 11:31 AM	WATER	ALS: 4 Non ALS: 0	No	X		
020	0026_MW044_230214		14/02/2023 03:53 PM	WATER	ALS: 4 Non ALS: 0	No	X		
021	0026_MW045_230213		13/02/2023 11:57 AM	WATER	ALS: 4 Non ALS: 0	No	X		
022	0026_MW046_230213		13/02/2023 12:12 PM	WATER	ALS: 4 Non ALS: 0	No	X		
023	0026_MW072_230215		15/02/2023 08:07 AM	WATER	ALS: 4 Non ALS: 0	No	X		
024	0026_MW073_230215		15/02/2023 01:51 PM	WATER	ALS: 4 Non ALS: 0	No	X		
025	0026_SW001_230215		15/02/2023 07:47 AM	WATER	ALS: 4 Non ALS: 0	No	X		
026	0026_SW002_230215		15/02/2023 10:13 AM	WATER	ALS: 4 Non ALS: 0	No	X		
027	0026_SW004B_230215		15/02/2023 08:52 AM	WATER	ALS: 4 Non ALS: 0	No	X		

CHAIN OF CUSTODY

COC#: 47884 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Fanzi DATE TIME: 17/2/23 10:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
028	0026_SW005_230215		15/02/2023 09:33 AM	WATER	ALS: 4 Non ALS: 0	No	X		
029	0026_SW006_220214		14/02/2023 03:20 PM	WATER	ALS: 4 Non ALS: 0	No	X		
030	0026_SW007_230213		13/02/2023 11:06 AM	WATER	ALS: 4 Non ALS: 0	No	X		
031	0026_SW008_230214		14/02/2023 12:50 PM	WATER	ALS: 4 Non ALS: 0	No	X		
032	0026_SW009_230213		13/02/2023 02:17 PM	WATER	ALS: 4 Non ALS: 0	No	X		
033	0026_SW012_230214		14/02/2023 01:30 PM	WATER	ALS: 4 Non ALS: 0	No	X		
034	0026_SW013_230215		15/02/2023 10:46 AM	WATER	ALS: 4 Non ALS: 0	No	X		
035	0026_SW014_230215		15/02/2023 10:57 AM	WATER	ALS: 4 Non ALS: 0	No	X		
036	0026_SW018_230213		13/02/2023 10:54 AM	WATER	ALS: 4 Non ALS: 0	No	X		

CHAIN OF CUSTODY

ALS COC#: 47884 *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY: Fboo	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 17/2/23 10.40	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
037	0026_SW020_230214		14/02/2023 03:12 PM	WATER	ALS: 4 Non ALS: 0	No	X		
038	0026_QC100_230213		13/02/2023 09:26 AM	WATER	ALS: 4 Non ALS: 0	No	X		
039	0026_QC101_230213		13/02/2023 01:06 PM	WATER	ALS: 4 Non ALS: 0	No	X		
040	0026_QC102_230214		14/02/2023 01:00 PM	WATER	ALS: 4 Non ALS: 0	No	X		
041	0026_QC103_230215		15/02/2023 09:32 AM	WATER	ALS: 4 Non ALS: 0	No	X		
042	0026_QC300_230213		13/02/2023 03:27 PM	WATER	ALS: 4 Non ALS: 0	No	X		
043	0026_QC301_230214		14/02/2023 04:40 PM	WATER	ALS: 4 Non ALS: 0	No	X		
044	0026_QC302_230215		15/02/2023 01:56 PM	WATER	ALS: 4 Non ALS: 0	No	X		
045	0026_QC303_230216		16/02/2023 09:32 AM	WATER	ALS: 4 Non ALS: 0	No	X		

CHAIN OF CUSTODY

ALS COC#: **47884** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Fitzr DATE TIME: 17/2/23	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0026_MW001_230213	HDPE (no PTFE)	20 mL	00350522084709	Grey	No	
001	0026_MW001_230213	HDPE (no PTFE)	20 mL	00350522084645	Grey	No	
001	0026_MW001_230213	HDPE (no PTFE)	20 mL	00350522084706	Grey	No	
001	0026_MW001_230213	HDPE (no PTFE)	20 mL	00350522084637	Grey	No	
002	0026_MW002_230213	HDPE (no PTFE)	20 mL	00350522084376	Grey	No	
002	0026_MW002_230213	HDPE (no PTFE)	20 mL	00350522084876	Grey	No	
002	0026_MW002_230213	HDPE (no PTFE)	20 mL	00350522084894	Grey	No	
002	0026_MW002_230213	HDPE (no PTFE)	20 mL	00350522084526	Grey	No	
003	0026_MW003_230214	HDPE (no PTFE)	20 mL	00350522084528	Grey	No	
003	0026_MW003_230214	HDPE (no PTFE)	20 mL	00350522084756	Grey	No	
003	0026_MW003_230214	HDPE (no PTFE)	20 mL	00350522084641	Grey	No	
003	0026_MW003_230214	HDPE (no PTFE)	20 mL	00350522084481	Grey	No	
004	0026_MW004_230214	HDPE (no PTFE)	20 mL	00350522084601	Grey	No	
004	0026_MW004_230214	HDPE (no PTFE)	20 mL	00350522084479	Grey	No	
004	0026_MW004_230214	HDPE (no PTFE)	20 mL	00350522084620	Grey	No	
004	0026_MW004_230214	HDPE (no PTFE)	20 mL	00350522084606	Grey	No	
005	0026_MW005_230214	HDPE (no PTFE)	20 mL	00350522084373	Grey	No	
005	0026_MW005_230214	HDPE (no PTFE)	20 mL	00350522084701	Grey	No	
005	0026_MW005_230214	HDPE (no PTFE)	20 mL	00350522084521	Grey	No	
005	0026_MW005_230214	HDPE (no PTFE)	20 mL	00350522084524	Grey	No	
006	0026_MW006_230213	HDPE (no PTFE)	20 mL	00350522084547	Grey	No	
006	0026_MW006_230213	HDPE (no PTFE)	20 mL	00350522084715	Grey	No	
006	0026_MW006_230213	HDPE (no PTFE)	20 mL	00350522084393	Grey	No	
006	0026_MW006_230213	HDPE (no PTFE)	20 mL	00350522084495	Grey	No	
007	0026_MW008_220213	HDPE (no PTFE)	20 mL	00350522084872	Grey	No	
007	0026_MW008_220213	HDPE (no PTFE)	20 mL	00350522084949	Grey	No	

CHAIN OF CUSTODY

ALS COC#: **47884** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY: Frans	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 17/2/23 10:52	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd
PROJECT: NSW_0026_PFASOMP_23
SITE: 0026
ORDER NO: 60612562_3.1
PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:
EMAIL REPORTS TO:
EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days
Biohazard info:
CONTACT PH: SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)
Custody Seal intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: °C
Other comments:

007	0026_MW008_220213	HDPE (no PTFE)	20 mL	00350522084905	Grey	No	
007	0026_MW008_220213	HDPE (no PTFE)	20 mL	00350522084514	Grey	No	
008	0026_MW009_230213	HDPE (no PTFE)	20 mL	00350522084401	Grey	No	
008	0026_MW009_230213	HDPE (no PTFE)	20 mL	00350522084409	Grey	No	
008	0026_MW009_230213	HDPE (no PTFE)	20 mL	00350522084434	Grey	No	
008	0026_MW009_230213	HDPE (no PTFE)	20 mL	00350522084371	Grey	No	
009	0026_MW009P_230213	HDPE (no PTFE)	20 mL	00350522084927	Grey	No	
009	0026_MW009P_230213	HDPE (no PTFE)	20 mL	00350522084405	Grey	No	
009	0026_MW009P_230213	HDPE (no PTFE)	20 mL	00350522084717	Grey	No	
009	0026_MW009P_230213	HDPE (no PTFE)	20 mL	00350522084881	Grey	No	
010	0026_MW012_230213	HDPE (no PTFE)	20 mL	00350522084803	Grey	No	
010	0026_MW012_230213	HDPE (no PTFE)	20 mL	00350522084968	Grey	No	
010	0026_MW012_230213	HDPE (no PTFE)	20 mL	00350522084624	Grey	No	
010	0026_MW012_230213	HDPE (no PTFE)	20 mL	00350522084732	Grey	No	
011	0026_MW012P_230213	HDPE (no PTFE)	20 mL	00350522084454	Grey	No	
011	0026_MW012P_230213	HDPE (no PTFE)	20 mL	00350522084511	Grey	No	
011	0026_MW012P_230213	HDPE (no PTFE)	20 mL	00350522084849	Grey	No	
011	0026_MW012P_230213	HDPE (no PTFE)	20 mL	00350522084896	Grey	No	
012	0026_MW015_230213	HDPE (no PTFE)	20 mL	00350522084598	Grey	No	
012	0026_MW015_230213	HDPE (no PTFE)	20 mL	00350522084539	Grey	No	
012	0026_MW015_230213	HDPE (no PTFE)	20 mL	00350522084826	Grey	No	
012	0026_MW015_230213	HDPE (no PTFE)	20 mL	00350522084397	Grey	No	
013	0026_MW016_230213	HDPE (no PTFE)	20 mL	00350522084805	Grey	No	
013	0026_MW016_230213	HDPE (no PTFE)	20 mL	00350522084662	Grey	No	
013	0026_MW016_230213	HDPE (no PTFE)	20 mL	00350522084752	Grey	No	
013	0026_MW016_230213	HDPE (no PTFE)	20 mL	00350522084660	Grey	No	
014	0026_MW017_230213	HDPE (no PTFE)	20 mL	00350522084571	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 47884   *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd
PROJECT: NSW_0026_PFASOMP_23
SITE: 0026
ORDER NO: 60612562_3.1
PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:
EMAIL REPORTS TO:
EMAIL INVOICES TO:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Tran: DATE TIME: 17/2/23 10:40	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)
Custody Seal intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: °C
Other comments:

014	0026_MW017_230213	HDPE (no PTFE)	20 mL	00350522084389	Grey	No	
014	0026_MW017_230213	HDPE (no PTFE)	20 mL	00350522084921	Grey	No	
014	0026_MW017_230213	HDPE (no PTFE)	20 mL	00350522084757	Grey	No	
015	0026_MW018_230214	HDPE (no PTFE)	20 mL	00350522084443	Grey	No	
015	0026_MW018_230214	HDPE (no PTFE)	20 mL	00350522084659	Grey	No	
015	0026_MW018_230214	HDPE (no PTFE)	20 mL	00350522084640	Grey	No	
015	0026_MW018_230214	HDPE (no PTFE)	20 mL	00350522084765	Grey	No	
016	0026_MW029_230214	HDPE (no PTFE)	20 mL	00350522084748	Grey	No	
016	0026_MW029_230214	HDPE (no PTFE)	20 mL	00350522084665	Grey	No	
016	0026_MW029_230214	HDPE (no PTFE)	20 mL	00350522084428	Grey	No	
016	0026_MW029_230214	HDPE (no PTFE)	20 mL	00350522084792	Grey	No	
017	0026_MW037_230214	HDPE (no PTFE)	20 mL	00350522084675	Grey	No	
017	0026_MW037_230214	HDPE (no PTFE)	20 mL	00350522084447	Grey	No	
017	0026_MW037_230214	HDPE (no PTFE)	20 mL	00350522084864	Grey	No	
017	0026_MW037_230214	HDPE (no PTFE)	20 mL	00350522084939	Grey	No	
018	0026_MW038_230214	HDPE (no PTFE)	20 mL	00350522084797	Grey	No	
018	0026_MW038_230214	HDPE (no PTFE)	20 mL	00350522084922	Grey	No	
018	0026_MW038_230214	HDPE (no PTFE)	20 mL	00350522084760	Grey	No	
018	0026_MW038_230214	HDPE (no PTFE)	20 mL	00350522084646	Grey	No	
019	0026_MW039_230215	HDPE (no PTFE)	20 mL	00350821010969	Grey	No	
019	0026_MW039_230215	HDPE (no PTFE)	20 mL	00350821015033	Grey	No	
019	0026_MW039_230215	HDPE (no PTFE)	20 mL	00350821010842	Grey	No	
019	0026_MW039_230215	HDPE (no PTFE)	20 mL	00350821015034	Grey	No	
020	0026_MW044_230214	HDPE (no PTFE)	20 mL	00350522084769	Grey	No	
020	0026_MW044_230214	HDPE (no PTFE)	20 mL	00350522084378	Grey	No	
020	0026_MW044_230214	HDPE (no PTFE)	20 mL	00350522084396	Grey	No	
020	0026_MW044_230214	HDPE (no PTFE)	20 mL	00350522084458	Grey	No	

CHAIN OF CUSTODY

COC#: **47884** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd
PROJECT: NSW_0026_PFASOMP_23
SITE: 0026
ORDER NO: 60612562_3.1
PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:
EMAIL REPORTS TO:
EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 17/2/23	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days
Biohazard info:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)
Custody Seal intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: °C
Other comments:

021	0026_MW045_230213	HDPE (no PTFE)	20 mL	00350522084852	Grey	No	
021	0026_MW045_230213	HDPE (no PTFE)	20 mL	00350522084561	Grey	No	
021	0026_MW045_230213	HDPE (no PTFE)	20 mL	00350522084413	Grey	No	
021	0026_MW045_230213	HDPE (no PTFE)	20 mL	00350522084493	Grey	No	
022	0026_MW046_230213	HDPE (no PTFE)	20 mL	00350522084421	Grey	No	
022	0026_MW046_230213	HDPE (no PTFE)	20 mL	00350522084654	Grey	No	
022	0026_MW046_230213	HDPE (no PTFE)	20 mL	00350522084817	Grey	No	
022	0026_MW046_230213	HDPE (no PTFE)	20 mL	00350522084644	Grey	No	
023	0026_MW072_230215	HDPE (no PTFE)	20 mL	00350522084967	Grey	No	
023	0026_MW072_230215	HDPE (no PTFE)	20 mL	00350522084720	Grey	No	
023	0026_MW072_230215	HDPE (no PTFE)	20 mL	00350522084499	Grey	No	
023	0026_MW072_230215	HDPE (no PTFE)	20 mL	00350522084650	Grey	No	
024	0026_MW073_230215	HDPE (no PTFE)	20 mL	00350821010802	Grey	No	
024	0026_MW073_230215	HDPE (no PTFE)	20 mL	00350821015137	Grey	No	
024	0026_MW073_230215	HDPE (no PTFE)	20 mL	00350821014993	Grey	No	
024	0026_MW073_230215	HDPE (no PTFE)	20 mL	00350821010828	Grey	No	
025	0026_SW001_230215	HDPE (no PTFE)	20 mL	00350522084422	Grey	No	
025	0026_SW001_230215	HDPE (no PTFE)	20 mL	00350821010769	Grey	No	
025	0026_SW001_230215	HDPE (no PTFE)	20 mL	00350821010865	Grey	No	
025	0026_SW001_230215	HDPE (no PTFE)	20 mL	00350522084775	Grey	No	
026	0026_SW002_230215	HDPE (no PTFE)	20 mL	00350821014925	Grey	No	
026	0026_SW002_230215	HDPE (no PTFE)	20 mL	00350821014943	Grey	No	
026	0026_SW002_230215	HDPE (no PTFE)	20 mL	00350821015098	Grey	No	
026	0026_SW002_230215	HDPE (no PTFE)	20 mL	00350821015189	Grey	No	
027	0026_SW004B_230215	HDPE (no PTFE)	20 mL	00350522084567	Grey	No	
027	0026_SW004B_230215	HDPE (no PTFE)	20 mL	00350522084591	Grey	No	
027	0026_SW004B_230215	HDPE (no PTFE)	20 mL	00350821015190	Grey	No	

CHAIN OF CUSTODY

ALS COC#: **47884** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:

DATE TIME:

RECEIVED BY: Faro

DATE TIME: 17/2/23 10:42

RELINQUISHED BY:

DATE TIME:

RECEIVED BY:

DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU002 5

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

027	0026_SW004B_230215	HDPE (no PTFE)	20 mL	00350821015145	Grey	No	
028	0026_SW005_230215	HDPE (no PTFE)	20 mL	00350522084807	Grey	No	
028	0026_SW005_230215	HDPE (no PTFE)	20 mL	00350821010779	Grey	No	
028	0026_SW005_230215	HDPE (no PTFE)	20 mL	00350821010925	Grey	No	
028	0026_SW005_230215	HDPE (no PTFE)	20 mL	00350522084639	Grey	No	
029	0026_SW006_220214	HDPE (no PTFE)	20 mL	00350522084473	Grey	No	
029	0026_SW006_220214	HDPE (no PTFE)	20 mL	00350522084698	Grey	No	
029	0026_SW006_220214	HDPE (no PTFE)	20 mL	00350522084821	Grey	No	
029	0026_SW006_220214	HDPE (no PTFE)	20 mL	00350522084517	Grey	No	
030	0026_SW007_230213	HDPE (no PTFE)	20 mL	00350522084816	Grey	No	
030	0026_SW007_230213	HDPE (no PTFE)	20 mL	00350522084417	Grey	No	
030	0026_SW007_230213	HDPE (no PTFE)	20 mL	00350522084494	Grey	No	
030	0026_SW007_230213	HDPE (no PTFE)	20 mL	00350522084492	Grey	No	
031	0026_SW008_230214	HDPE (no PTFE)	20 mL	00350522084763	Grey	No	
031	0026_SW008_230214	HDPE (no PTFE)	20 mL	00350522084683	Grey	No	
031	0026_SW008_230214	HDPE (no PTFE)	20 mL	00350522084586	Grey	No	
031	0026_SW008_230214	HDPE (no PTFE)	20 mL	00350522084787	Grey	No	
032	0026_SW009_230213	HDPE (no PTFE)	20 mL	00350522084811	Grey	No	
032	0026_SW009_230213	HDPE (no PTFE)	20 mL	00350522084943	Grey	No	
032	0026_SW009_230213	HDPE (no PTFE)	20 mL	00350522084865	Grey	No	
032	0026_SW009_230213	HDPE (no PTFE)	20 mL	00350522084649	Grey	No	
033	0026_SW012_230214	HDPE (no PTFE)	20 mL	00350522084377	Grey	No	
033	0026_SW012_230214	HDPE (no PTFE)	20 mL	00350522084542	Grey	No	
033	0026_SW012_230214	HDPE (no PTFE)	20 mL	00350522084478	Grey	No	
033	0026_SW012_230214	HDPE (no PTFE)	20 mL	00350522084673	Grey	No	
034	0026_SW013_230215	HDPE (no PTFE)	20 mL	00350821010707	Grey	No	
034	0026_SW013_230215	HDPE (no PTFE)	20 mL	00350821010709	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 47884 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY: Fan	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 17/2/23 10:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU002 5

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

034	0026_SW013_230215	HDPE (no PTFE)	20 mL	00350821010792	Grey	No	
034	0026_SW013_230215	HDPE (no PTFE)	20 mL	00350821010702	Grey	No	
035	0026_SW014_230215	HDPE (no PTFE)	20 mL	00352101040529	Grey	No	
035	0026_SW014_230215	HDPE (no PTFE)	20 mL	00350821014967	Grey	No	
035	0026_SW014_230215	HDPE (no PTFE)	20 mL	00352101040373	Grey	No	
035	0026_SW014_230215	HDPE (no PTFE)	20 mL	00350821015099	Grey	No	
036	0026_SW018_230213	HDPE (no PTFE)	20 mL	00350522084498	Grey	No	
036	0026_SW018_230213	HDPE (no PTFE)	20 mL	00350522084594	Grey	No	
036	0026_SW018_230213	HDPE (no PTFE)	20 mL	00350522084631	Grey	No	
036	0026_SW018_230213	HDPE (no PTFE)	20 mL	00350522084599	Grey	No	
037	0026_SW020_230214	HDPE (no PTFE)	20 mL	00350522084623	Grey	No	
037	0026_SW020_230214	HDPE (no PTFE)	20 mL	00350522084444	Grey	No	
037	0026_SW020_230214	HDPE (no PTFE)	20 mL	00350522084647	Grey	No	
037	0026_SW020_230214	HDPE (no PTFE)	20 mL	00350522084928	Grey	No	
038	0026_QC100_230213	HDPE (no PTFE)	20 mL	00350522084477	Grey	No	
038	0026_QC100_230213	HDPE (no PTFE)	20 mL	00350522084535	Grey	No	
038	0026_QC100_230213	HDPE (no PTFE)	20 mL	00350522084723	Grey	No	
038	0026_QC100_230213	HDPE (no PTFE)	20 mL	00350522084464	Grey	No	
039	0026_QC101_230213	HDPE (no PTFE)	20 mL	00350522084915	Grey	No	
039	0026_QC101_230213	HDPE (no PTFE)	20 mL	00350522084860	Grey	No	
039	0026_QC101_230213	HDPE (no PTFE)	20 mL	00350522084942	Grey	No	
039	0026_QC101_230213	HDPE (no PTFE)	20 mL	00350522084712	Grey	No	
040	0026_QC102_230214	HDPE (no PTFE)	20 mL	00350522084482	Grey	No	
040	0026_QC102_230214	HDPE (no PTFE)	20 mL	00350522084824	Grey	No	
040	0026_QC102_230214	HDPE (no PTFE)	20 mL	00350522084841	Grey	No	
040	0026_QC102_230214	HDPE (no PTFE)	20 mL	00350522084822	Grey	No	
041	0026_QC103_230215	HDPE (no PTFE)	20 mL	00350522084758	Grey	No	

CHAIN OF CUSTODY

COC#: 47884 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	FAD DATE TIME: 17/2/23 10:45	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

041	0026_QC103_230215	HDPE (no PTFE)	20 mL	00350821010950	Grey	No	
041	0026_QC103_230215	HDPE (no PTFE)	20 mL	00350821010951	Grey	No	
041	0026_QC103_230215	HDPE (no PTFE)	20 mL	00350522084585	Grey	No	
042	0026_QC300_230213	HDPE (no PTFE)	20 mL	00350522084385	Grey	No	
042	0026_QC300_230213	HDPE (no PTFE)	20 mL	00350522084383	Grey	No	
042	0026_QC300_230213	HDPE (no PTFE)	20 mL	00350522084635	Grey	No	
042	0026_QC300_230213	HDPE (no PTFE)	20 mL	00350522084446	Grey	No	
043	0026_QC301_230214	HDPE (no PTFE)	20 mL	00350522084488	Grey	No	
043	0026_QC301_230214	HDPE (no PTFE)	20 mL	00350522084406	Grey	No	
043	0026_QC301_230214	HDPE (no PTFE)	20 mL	00350522084842	Grey	No	
043	0026_QC301_230214	HDPE (no PTFE)	20 mL	00350522084560	Grey	No	
044	0026_QC302_230215	HDPE (no PTFE)	20 mL	00350821015066	Grey	No	
044	0026_QC302_230215	HDPE (no PTFE)	20 mL	00350821015148	Grey	No	
044	0026_QC302_230215	HDPE (no PTFE)	20 mL	00350821014961	Grey	No	
044	0026_QC302_230215	HDPE (no PTFE)	20 mL	00350821015068	Grey	No	
045	0026_QC303_230216	HDPE (no PTFE)	20 mL	00350821014953	Grey	No	
045	0026_QC303_230216	HDPE (no PTFE)	20 mL	00350821014941	Grey	No	
045	0026_QC303_230216	HDPE (no PTFE)	20 mL	00350821010759	Grey	No	
045	0026_QC303_230216	HDPE (no PTFE)	20 mL	00350821010747	Grey	No	

Total Bottle Count: ALS: 180, Non ALS: 0

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 316695

Client Details

Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details

Your Reference	**60612562 - 3.1**
Number of Samples	4 Water
Date samples received	16/02/2023
Date completed instructions received	16/02/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details

Date results requested by	23/02/2023
Date of Issue	03/03/2023
Reissue Details	This report replaces R00 created on 20/02/2023 due to: Sample ID Amended (Client Request)

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By

[redacted]

Authorised By

[redacted]

PFAS in Waters Extended					
Our Reference		316695-1	316695-2	316695-3	316695-4
Your Reference	UNITS	0026_QC200_230213	0026_QC201_230214	0026_QC202_230214	0026_QC203_230215
Date Sampled		13/02/2023	14/02/2023	14/02/2023	15/02/2023
Type of sample		Water	Water	Water	Water
Date prepared	-	17/02/2023	17/02/2023	17/02/2023	17/02/2023
Date analysed	-	17/02/2023	17/02/2023	17/02/2023	17/02/2023
Perfluorobutanesulfonic acid	µg/L	<0.01	<0.01	0.23	<0.01
Perfluoropentanesulfonic acid	µg/L	<0.01	<0.01	0.24	<0.01
Perfluorohexanesulfonic acid - PFHxS	µg/L	<0.01	<0.01	2.4	0.03
Perfluoroheptanesulfonic acid	µg/L	<0.01	<0.01	0.11	<0.01
Perfluorooctanesulfonic acid PFOS	µg/L	<0.01	0.01	2.8	0.03
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	<0.02	0.05	<0.02
Perfluoropentanoic acid	µg/L	<0.02	<0.02	0.1	<0.02
Perfluorohexanoic acid	µg/L	<0.01	0.01	0.36	<0.01
Perfluoroheptanoic acid	µg/L	<0.01	<0.01	0.07	<0.01
Perfluorooctanoic acid PFOA	µg/L	<0.01	<0.01	0.09	<0.01
Perfluorononanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01	<0.01	<0.01
6:2 FTS	µg/L	<0.01	0.04	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	100	100	104	102
Surrogate $^{13}C_2$ *PFOA*	%	115	112	111	115
Extracted ISTD $^{13}C_3$ *PFBS*	%	91	89	95	91
Extracted ISTD $^{18}O_2$ *PFHxS*	%	97	105	103	106
Extracted ISTD $^{13}C_4$ *PFOS*	%	100	103	101	102

PFAS in Waters Extended					
Our Reference		316695-1	316695-2	316695-3	316695-4
Your Reference	UNITS	0026_QC200_23 0213	0026_QC201_23 0214	0026_QC202_23 0214	0026_QC203_23 0215
Date Sampled		13/02/2023	14/02/2023	14/02/2023	15/02/2023
Type of sample		Water	Water	Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	107	77	89	79
Extracted ISTD $^{13}C_3$ *PFPeA*	%	94	92	103	101
Extracted ISTD $^{13}C_2$ *PFHxA*	%	85	93	100	106
Extracted ISTD $^{13}C_4$ *PFHpA*	%	101	105	106	113
Extracted ISTD $^{13}C_4$ *PFOA*	%	101	101	104	104
Extracted ISTD $^{13}C_5$ *PFNA*	%	110	106	108	106
Extracted ISTD $^{13}C_2$ *PFDA*	%	115	109	115	114
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	116	112	109	120
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	108	108	111	113
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	85	85	90	96
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	94	100	118	118
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	101	99	109	115
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	107	103	115	122
Extracted ISTD $^{13}C_8$ *FOSA*	%	103	99	106	107
Extracted ISTD d_3 *N MeFOSA*	%	97	96	103	104
Extracted ISTD d_5 *N EtFOSA*	%	100	101	106	104
Extracted ISTD d_7 *N MeFOSE*	%	102	98	105	106
Extracted ISTD d_9 *N EtFOSE*	%	103	100	104	102
Extracted ISTD d_3 *N MeFOSAA*	%	111	109	120	123
Extracted ISTD d_5 *N EtFOSAA*	%	109	100	110	113
Total Positive PFHxS & PFOS	µg/L	<0.01	0.01	5.2	0.06
Total Positive PFOA & PFOS	µg/L	<0.01	0.01	2.9	0.03
Total Positive PFAS	µg/L	<0.01	0.07	6.4	0.06

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Waters Extended						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			17/02/2023	1	17/02/2023	17/02/2023		17/02/2023	[NT]
Date analysed	-			17/02/2023	1	17/02/2023	17/02/2023		17/02/2023	[NT]
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	100	[NT]
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	103	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	107	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	112	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	107	[NT]
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	102	[NT]
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	108	[NT]
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	107	[NT]
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	111	[NT]
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	109	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	112	[NT]
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	106	[NT]
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	102	[NT]
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	112	[NT]
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	112	[NT]
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	109	[NT]
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	109	[NT]
4:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	101	[NT]
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	97	[NT]
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	115	[NT]
10:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	124	[NT]
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	106	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	111	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	103	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	112	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	115	[NT]
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	102	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	106	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	102	1	100	98	2	102	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	108	1	115	112	3	111	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	98	1	91	94	3	101	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	98	1	97	103	6	100	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	102	1	100	104	4	99	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	105	1	107	103	4	101	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	104	1	94	100	6	102	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	100	1	85	99	15	97	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	106	1	101	105	4	101	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	105	1	101	102	1	97	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	103	1	110	107	3	103	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	109	1	115	116	1	110	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	107	1	116	113	3	108	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	110	1	108	110	2	100	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	93	1	85	86	1	85	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	106	1	94	106	12	109	[NT]
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	111	1	101	104	3	108	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	110	1	107	112	5	103	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	106	1	103	103	0	103	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	103	1	97	98	1	98	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	102	1	100	102	2	98	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	101	1	102	102	0	98	[NT]

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	104	1	103	102	1	96	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	117	1	111	116	4	108	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	113	1	109	111	2	110	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]

Sample Login Details	
Your reference	60612562 - 3.1
Envirolab Reference	316695
Date Sample Received	16/02/2023
Date Instructions Received	16/02/2023
Date Results Expected to be Reported	23/02/2023

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	4 Water
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	1
Cooling Method	Ice
Sampling Date Provided	YES

Comments

Sample No. 2 - labelled as 0026-QC201-230214, instead of 0026-QC201-230213 in COC, assumed 4 x 20 ml sample correct

Please direct any queries to:

[redacted]

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200   fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	PFAS in Waters Extended
0026_QC200_230213	✓
0026_QC201_230213	✓
0026_QC202_230214	✓
0026_QC203_230215	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

AECOM

Chain of Custody

AECOM Australia Pty Ltd Level 21, 420 George Street Sydney, NSW, 2000 PO Box Q410, QVB PO, Sydney, NSW, 1230	T +61 2 8934 1000 F +61 2 8934 0001 [redacted]	**Laboratory Details** Lab. Name: Envirolab Lab. Address: 12 Ashley St, Chaswood NSW 2067 Contact Name: [redacted] Lab. Ref:
		Tel: 02 8784 8555 Fax: NA Preliminary Report by: Final Report by: Lab Quote No:

Sampled By: [redacted] **Project Name: NSW_0026_PFASOMP** **AECOM Project #: 60612562 - 3.1** **Purchase Order No:**

Specifications: Please report in ESdat format

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

6. Report Format: ESdat

7. Project Manager:

Analysis Request

Lab. ID	Sample ID	Sampling Date	Matrix: soil	Matrix: water	Matrix: sed	Preservation: filt'ed	Preservation: acid	Preservation: ice	Preservation: other	Container (No. & type)	PFAS in Water Extended	HOLD	Notes
1	0026_QC200_230213	13/2/23		X				X		4 x 20mL	X		
2	0026_QC201_230213	13/2/23		X				X		4x20mL	X		
3	0026_QC202_230214	14/2/23		X				X		4x20mL	X		
4	0026_QC203_230215	15/2/23		X				X		4x20mL	X		

Envirolab Services
12 Ashlay St
Chatswood NSW 2067
Ph: (02) 9910 6200
Job No: 316695
Date Received: 16/2/23
Time Received: 1615.
Received By: EW
Temp: Cool/Ambient
Cooling: Ice/Icepack
Security: Intact/Broken/None

Comments: Please send ESdat files to DERP.labreports@esdat.com.au and esdat.apac@aecom.com and ensure that the files use the PROJECT NAME

Temp. received: °C

Report & Invoice: geoff.tredinnick@aecom.com

Lab Report No / Esky ID

Relinquished by: [redacted]	Signed:	Date: 16/2/23	Relinquished by:	Signed:	Date:
Received by:	Signed:	Date:	Received by: EW	Signed:	Date: 16/2/23.

Prepared for
Department of Defence
ABN: 68 706 814 312

AECOM

Sampling Event Factual Report, August 2023

PFAS OMP - HMAS Albatross

01-Dec-2023
Doc No. 20231201_OMP002_ALB_SamplingEventFactualReport_Rev0

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Delivering a better world

Sampling Event Factual Report, August 2023

PFAS OMP - HMAS Albatross

Client: Department of Defence

ABN: 68 706 814 312

Prepared by

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01-Dec-2023

Job No.: 60612562

AECOM in Australia and New Zealand is certified to ISO9001, ISO14001 and ISO45001.

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List of Acronyms

Acronym	Term
ADWG	Australian Drinking Water Guidelines
AECOM	AECOM Australia Pty Ltd
AFFF	Aqueous Film Forming Foam
AHD	Australian Height Datum
ASC NEPM	Assessment of Site Contamination National Environment Protection Measure
BOM	Bureau of Meteorology
DCMM	Defence Contamination Management Manual
Defence	Department of Defence
DO	Dissolved Oxygen
DoH	Department of Health
DQI	Data Quality Indicator
DQO	Data Quality Objective
EC	Electrical Conductivity
EPA	Environment Protection Authority
FSANZ	Food Standards Australia New Zealand
HEPA	Heads of Environment Protection Authority
HHERA	Human Health and Ecological Risk Assessment
JBT	Jervis Bay Territory
LOR	Limit of Reporting
MW	Monitoring Well
NATA	National Analytical Testing Authority
NEMP	National Environmental Management Plan
NEPM	National Environment Protection Measure
NHMRC	National Health and Medical Research Council
NSW	New South Wales
OMIR	Ongoing Monitoring Interpretive Report
OMP	Ongoing Monitoring Plan
ORP	Oxidation Reduction Potential
PFAS	Per- and poly-fluoroalkyl substances
PFHxS	Perfluorohexane sulfonic acid
PFOA	Perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
PMAP	PFAS Management Area Plan
QA/QC	Quality Assurance and Quality Control

Acronym	Term
RPD	Relative Percentage Difference
SAQP	Sample and Analysis Quality Plan
SD	Sediment
SW	Surface Water
SWL	Standing Water Level
TOC	Top of Casing
WQM	Water Quality Meter

List of Units

Units	Term
°C	Degrees Celsius
µg/L	Micrograms per Litre
µS/cm	MicroSiemens per Centimetre
g	Grams
km	Kilometre
L	Litre
m	Metre
mg/L	Milligrams per Litre
mV	MilliVolts

1.0 Introduction

1.1 General

AECOM Australia Pty Ltd (AECOM) has been engaged by the Department of Defence (Defence) to implement the per- and poly-fluoroalkyl substances (PFAS) Ongoing Monitoring Plan (OMP) at His/Her Majesty's Australian Ship (HMAS) Albatross (hereafter referred to as the 'Site') in the New South Wales (NSW) and Jervis Bay Territory (JBT) Region.

The OMP (Defence, 2019a) outlines the sampling requirements for the Site and off-Site areas within the Management Area.

The location of the Site and Management Area is shown in **Figure F1** in **Appendix A**.

This Sampling Event Factual Report has been prepared to report the results of the August 2023 biannual sampling event, specifically highlighting first-time detections and/or new exceedances of human health or ecological screening criteria for the sum of Perfluorooctane sulfonic acid (PFOS) and Perfluorohexane sulfonic acid (PFHxS) (herein referred to as PFOS+PFHxS), PFOS and/or Perfluorooctanoic acid (PFOA).

Ongoing Monitoring Interpretive Reports (OMIR) will be prepared following the completion of each 12-month sampling period.

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

1.2 Objectives

The objectives were to:

- implement the OMP (Defence, 2019a) prepared as part of the Detailed Environmental Investigations; and
- collect data that will enable Defence to maintain an up to date understanding of the distribution, concentration, transport, and transformation of PFAS.

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

The objective of this phase of works was to implement the scope of works for the August 2023 biannual sampling event in accordance with the Sampling and Analysis Quality Plan (SAQP) (AECOM, 2023).

2.0 Scope of Work

The scope of works was completed in accordance with the SAQP (AECOM, 2023), as follows:

- obtain permission (where required) to conduct works at the Site and off-Site publicly accessible areas
- collection of surface water samples and water quality parameters at all 13 scheduled surface water locations (refer to **Table 1** below and **Figure F3** in **Appendix A** for specific locations)
- collection of field duplicate samples at a rate of 1 in 10 primary samples
- analysis of samples for PFAS suite at the standard limit of reporting (LOR)
- data management of the OMP field and laboratory data in Defence ESdat database
- preparation of this Sampling Event Factual Report.

Table 1 Surface Water Sampling Locations

Area	Description	Sampling Location	Total
On-Site	Braidwood Road drain	SW007, SW018	2
	Yerriyong Gully	SW009, SW012	2
Off-Site	Cabbage Tree Creek	SW001	1
	Flat Rock Creek	SW002	1
	Calymea Creek	SW004B	1
	Braidwood Road drain	SW005, SW006, SW020	3
	Currambene Creek	SW008	1
	Parma Creek	SW013, SW014	2
Total			**13**

3.0 Deviations from the SAQP

The August 2023 biannual sampling event was completed in general accordance with the SAQP (AECOM, 2023), with the exception of the deviations outlined in **Table 2** below.

Table 2 Deviations from SAQP

SAQP Deviation	Comment / Justification	Impact on Dataset
Samples from 4 of the 13 surface water sampling locations were not collected by lowering the laboratory supplied container below surface using a 'grab' sample method.	Due to safety and access considerations, the surface water samples at locations SW001, SW005, SW009, and SW013 were collected using dedicated disposable high-density polyethylene (HDPE) bailers, before being decanted into laboratory supplied bottles.	Given that sampling results for SW001, SW005, SW009, and SW013 were within the historical range reported at these locations, the change in sampling methodology is not considered to have impacted upon the reliability of the data for the purposes of the OMP.

4.0 Methodology

4.1 Sampling Methodology

The methodology used for the August 2023 biannual sampling event was in general accordance with the SAQP (AECOM, 2023) and is summarised in **Table 3** below.

Table 3 Sampling Methodology

Item	Details
Field parameters	Temperature, electrical conductivity (EC), dissolved oxygen (DO), oxidation-reduction potential (ORP), pH and observations of water quality were recorded for surface water samples. Field parameters were collected using a calibrated water quality meter (WQM). The equipment supplier and field calibration records are provided in **Appendix C**.
Sampling methodology	The majority of surface water samples were collected from either mid-way through the water column or approximately 0.5 metres below the surface, without disturbing the bottom of the surface water body, and without capturing any surface film or floating materials in the samples. At each location, a new, laboratory supplied container was lowered into the water (either by hand or using a sampling pole) with the cap immediately applied once the container was full. Due to safety considerations, at locations SW001, SW005, SW009, and SW013 the samples were collected using dedicated, disposable high-density polyethylene (HDPE) bailers before being decanted into laboratory supplied bottles.
QA/QC Samples	A Quality Assurance and Quality Control (QA/QC) program was implemented for the sampling and analysis program to obtain representative data and assess the reliability of the data collected. To facilitate the QA/QC program the following sample types were obtained during the sampling program: • *Intra-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The relative percentage difference (RPD) should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Inter-laboratory duplicates* collected at a rate of 1 in 10 primary samples. The RPD should be less than 30%, or less than 50% if results are less than 20 times the LOR. Higher RPDs may also be acceptable if results are less than 10 times the LOR. • *Rinsate blanks* collected at a frequency of one per set of sampling equipment per day where equipment was reused between locations. Analytical results should be below the LOR. For this August 2023 biannual sampling event, the QA/QC samples included: • 2 x intra-laboratory duplicates (2 x surface water) which met the target frequency • 2 x inter-laboratory duplicates (2 x surface water) which met the target frequency • 1 x rinsate blank, which met the target frequency. The data validation assessment is presented in **Appendix D**.

Item	Details
Sample analysis	Samples were submitted to the primary and secondary laboratories for PFAS suite at the standard LOR. ALS Environmental (ALS) Sydney, NSW was used as the primary laboratory. Envirolab Services (Envirolab) Sydney, NSW was used as the secondary laboratory. ALS and Envirolab methods for analyses were certified by the National Association of Testing Authorities (NATA). A summary of the laboratory results is presented in **Section 5.3** and the laboratory certificates are presented in **Appendix E**.

4.2 Adopted Screening Criteria

Guidance documents used to assess the dataset include the following:

- Heads of EPAs Australia and New Zealand (HEPA) 2020. *PFAS National Environmental Management Plan 2.0*. January 2020.
- Department of Health, 2017. *Health Based Guidance Values for PFAS for use in site investigations in Australia*. April 2017.
- FSANZ, 2017. *Supporting Document 1: Hazard assessment report – Perfluorooctane Sulfonate (PFOS), Perfluorooctanoic Acid (PFOA), Perfluorohexane Sulfonate (PFHxS).*
- National Health and Medical Research Council (NHMRC), 2019. *Guidance on PFAS in Recreational Water.* August 2019.
- National Environment Protection Council (NEPC), 2013. *Schedule B1. National Environment Protection (Assessment of Site Contamination) Measure 1999 (as amended 2013) Schedule B1 Guideline on Investigation Levels for Soil and Groundwater.*

The adopted PFAS screening criteria to assess the data generated as part of the OMP are presented in **Table 4** and **Table 5** below.

Table 4 Summary of Adopted Screening Criteria – Human Health

Pathway	Compound	Criteria	Comment/Reference
Recreational use	PFOS + PFHxS	2 µg/L	In August 2019, NHMRC released guidance on the assessment of PFAS in surface water. Rather than adopting an ingestion rate of 0.2 L of water per day (as per the ADWG formula), NHMRC adjusted this rate with consideration of an event frequency (150 events/year) to calculate an annual ingestion rate of 30 L per year. These values were adopted in HEPA, 2020. *All surface water results were compared to these criteria.*
	PFOA	10 µg/L	

Table 5 Summary of Adopted Screening Criteria – Ecological

Pathway	Compound	Criteria	Comment/Reference
Freshwater	PFOS	0.00023 µg/L	These values are from HEPA, 2020 which endorsed the Australian and New Zealand Guidelines for Fresh and Marine Water Quality. The 99% species protection level (for freshwater and interim marine) has been applied for high value conservation systems. This approach is generally adopted for chemicals that bioaccumulate and biomagnify in wildlife. For PFOS, it is proposed that the laboratory LOR is adopted for the purposes of preliminary screening of analytical water results, rather than sole use of the criteria value. *All surface water results were compared to these criteria.*
	PFOA	19 µg/L	

4.3 Data Quality Objectives and Data Validation

The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023). Data validation assessment is provided in **Appendix D**.

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

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

5.0 Field Observations and Results

5.1 General Observations

The weather conditions and general observations (including activities that may impact the monitoring program) recorded during the August 2023 biannual sampling event completed on 16 August 2023 are summarised in **Table 6** below.

Table 6 General Observations

Items	Observations
Weather Conditions	During the sampling event on 16 August 2023, the weather was observed to be mostly dry and cool, with a maximum daily temperature of 17.1 ˚C. Rainfall was recorded to be 0.2 mm on 16 August 2023 at Nowra (Nowra RAN Air AWS Station ID 68072) (Bureau of Meteorology, 2023), while a cumulative 12.4 mm of rainfall was recorded in the 48 hours prior to the sampling event.
Estate Management Works, Training Activities and/or Construction Works.	No estate management works, training activities or construction works were observed during the sampling event, that would impact the sampling program.

5.2 Field Observations and Measurements

The observations and measurements recorded during the field activities for the August 2023 biannual sampling event are summarised in **Table 7**, below.

Table 7 Field Observations and Measurements

Item	Description
Access and Sample Collection	All sampling locations were accessible and able to be sampled.
Water Observations	No visible signs of contamination were observed in surface water at the locations sampled. No odours were noted at the surface water locations.
Geochemical Parameters	Surface water geochemical parameters were measured during the collection of water samples. The readings are presented in **Table T1** in **Appendix B** and are summarised below: **Surface Water Geochemical Parameters** • Dissolved oxygen ranged from 0.23 mg/L (SW002) to 18.44 mg/L (SW009) indicating poor to well oxygenated conditions. • Electrical conductivity ranged from 139.2 µS/cm (SW020) to 1590 µS/cm (SW009) indicating fresh to brackish conditions. • pH ranged from 6.42 (SW002) to 8.27 (SW009) indicating neutral to slightly alkaline conditions. • Redox (corrected) ranged from 171.4 mV (SW001) to 320.9 mV (SW007) indicating moderately reducing to oxidising conditions. • Temperature ranged from 9.1 ˚C (SW005, SW008) to 16.4 ˚C (SW018).

5.3 Summary of Analytical Results

The PFAS surface water analytical results from this sampling event are presented in **Table T2** in **Appendix B**. In summary, 13 primary surface water samples were analysed for PFAS compounds, with concentrations of:

- PFOS+PFHxS, PFOS and/or PFOA reported above laboratory LOR in 12 primary samples
- PFOS+PFHxS and/or PFOA exceeded the adopted recreational use human health screening criteria in 7 primary samples
- PFOS and/or PFOA exceeded the adopted ecological screening criteria in 12 primary samples.

There were no first-time detections or new exceedances of adopted screening criteria for PFOS+PFHxS, PFOS and/or PFOA in the surface water samples analysed.

5.4 Historical Sampling Data

Historical surface water sampling data are presented in **Table T3** in **Appendix B**.

6.0 Summary and Next Sampling Events

6.1 Summary of Monitoring Event

The August 2023 biannual sampling event was completed on 16 August 2023. The findings and the recommended actions are summarised in **Table 8** below.

Table 8 Summary of Sampling Event

Item	Comment	Recommended Action
Access to sampling locations	The following locations were accessed and able to be sampled: • 13 surface water locations	Nil.
Location unable to be located, inaccessible or dry	No monitoring locations were unable to be accessed or identified as dry.	Nil.
Analytical Results	13 surface water primary samples were analysed.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
First-time detections of PFOS+PFHxS, PFOS and/or PFOA	No surface water locations reported first-time detections of PFOS+PFHxS, PFOS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted human health screening criteria	No surface water locations reported new exceedances of the adopted human health screening criteria for PFOS+PFHxS and/or PFOA.	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.
New exceedance of adopted ecological screening criteria	No surface water locations reported new exceedances of the adopted ecological screening criteria for PFOS and/or PFOA	Locations will be sampled again during the next scheduled sampling event to continue to monitor concentrations over time.

6.2 Upcoming Sampling Events

The next OMP sampling event is scheduled for February 2024.

6.3 Upcoming Ongoing Monitoring Interpretive Report

The next OMIR will present data that is collected within the 12-month sampling period between December 2022 and November 2023.

7.0 References

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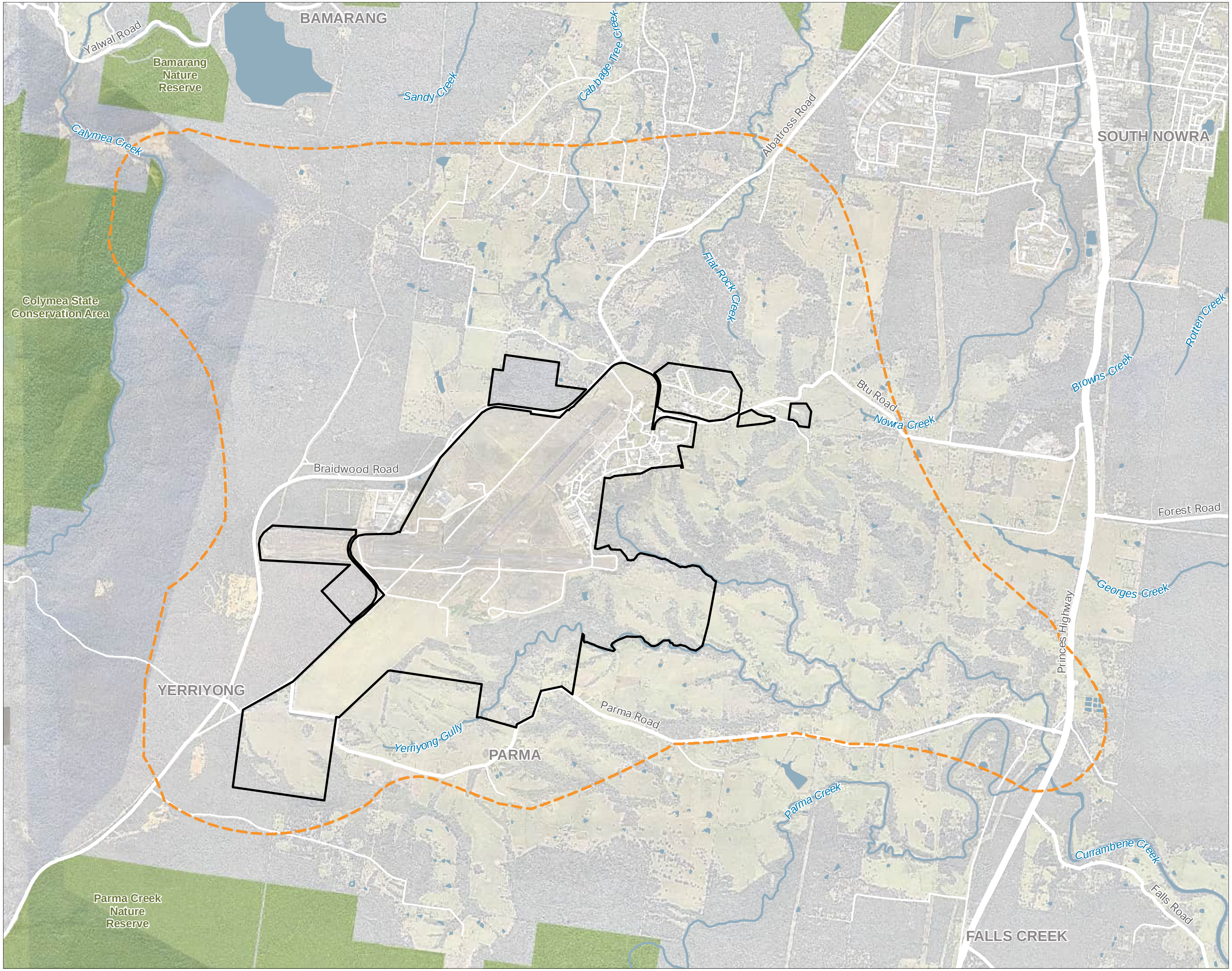
Appendix A

Figures



AECOM

m
0 500 1,000

Legend

Site Boundary

Management Area

FIGURE F1:
SITE LAYOUT

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
HMAS Albatross (0026)
August 2023
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:

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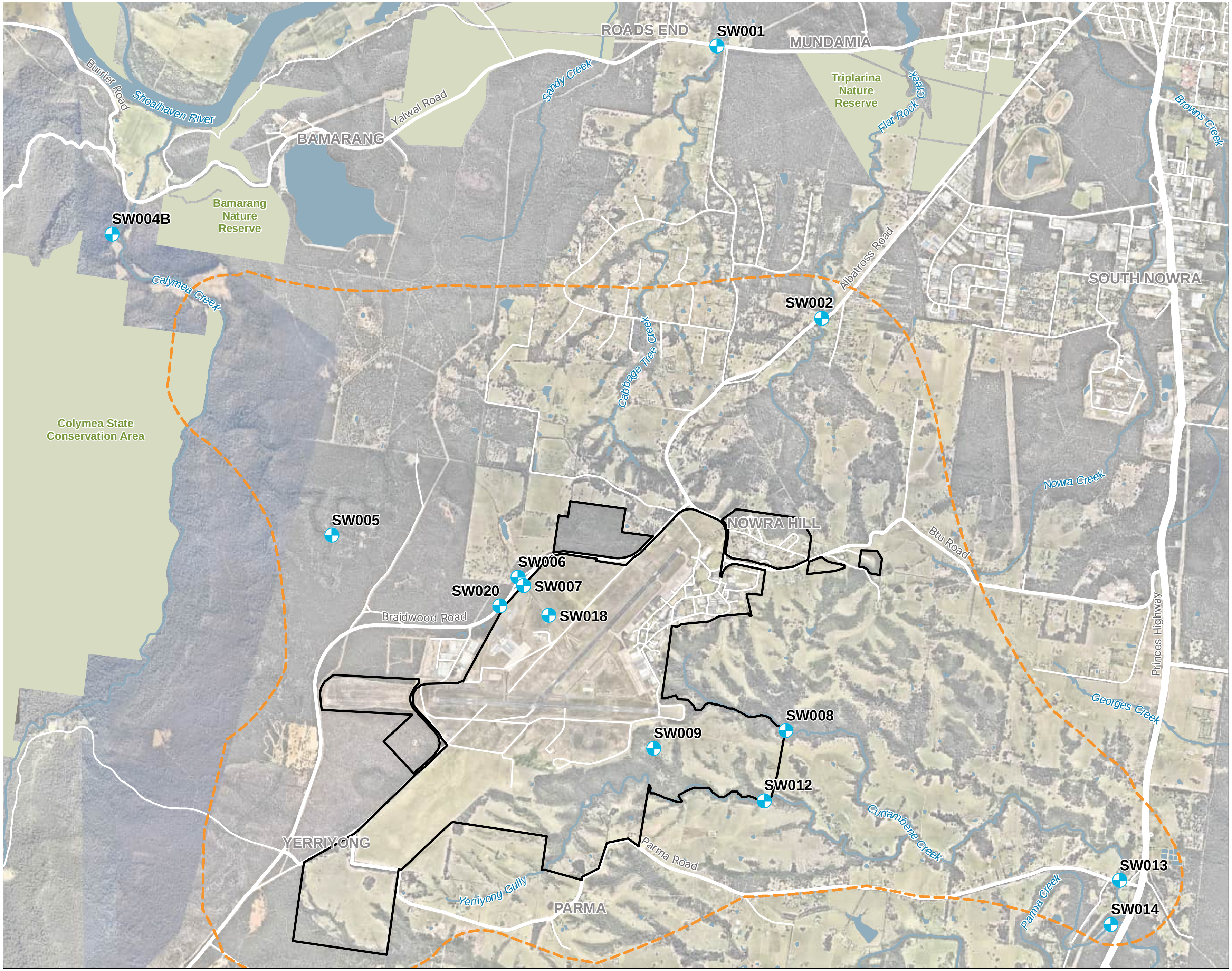

AECOM

0 500 1,000 m

Legend

- Property Boundary
- Management Area
- Surface Water Sampling Locations

FIGURE F2:
SURFACE WATER SAMPLING LOCATIONS

PROJECT NAME:
PFAS OMP
REPORT NAME:
Sampling Event Factual Report
HMAS Albatross (0026)
August 2023
CLIENT NAME:
Department of Defence
PROJECT NUMBER:
60612562

Source:
Department of Finance, Services and Innovation, 2019

L:\Secure\Groups\GIS\7_Small_Jobs_INTERSTATE_PROJECTS\NTL_60612562\02_Maps\HMAS_Albatross\G063_01_A4L_Albatross_AUG2023_FactualReport_FIG-03_SurfaceWaterLocations_230303 - Copy.mxd Date Saved: 15/09/23

Appendix B

Tables

Table T1 - Surface Water Quality Parameters and Observations

						Water Quality Parameters					
						Dissolved Oxygen	Temperature	Electrical Conductivity	pH	Redox Potential Er	Redox Potential Eh (Corrected)
Location Code	**Location Alt. Name**	**Date**	**Location Comments**	**Sample Depth (m)**	**Sample Comments**	mg/L	°C	µS/cm	pH_Units	mV	mV
SW001	SW01	16 Aug 2023	Creek, 7 m wide, 1 m deep. Water flow not observed.	0.5 - 0.5	Brown, medium turbidity, no odour, biosheen.	0.57	12.0	298.3	6.81	-34.4	171.4
SW002	SW02	16 Aug 2023	Stagnant puddle under bridge, 1.5 m wide, 0.3 m deep. Water flow not observed.	0.15 - 0.15	Ligh yellow, medium turbidity, no odour, biosheen	0.23	12.9	407.4	6.42	-25.4	180.4
SW004B	SW03/04B	16 Aug 2023	Creek, 5 m wide, 0.2 m deep. Water flow observed.	0.1 - 0.1	Light brown, low turbidity, no odour, no sheen	8.22	12.6	288.7	6.75	37.5	243.3
SW005	SW05	16 Aug 2023	Pond, 15 m wide, unknown depth. Water flow observed.	0.5 - 0.5	Clear, no turbidity, no odour, no sheen	9.44	9.1	355.4	7.60	53.1	258.9
SW006	BRD/SW06	16 Aug 2023	Culvert, 1 m wide, 0.2 m deep. Water flow observed.	0.1 - 0.1	Clear, no turbidity, no odour, no sheen	12.59	12.5	383.5	7.13	97.0	302.8
SW007	SW07	16 Aug 2023	Drainage swale, 4 m wide, 0.2 m deep. Water flow not observed.	0.1 - 0.1	Orange, low turbidity, no odour, no sheen. Suspended organic black solids.	9.78	11.4	426.4	6.47	115.1	320.9
SW008	SW5/SW08	16 Aug 2023	Bedrock creek, 2 m wide, 0.2 m deep. Water flow observed.	0.1 - 0.1	Light brown, low turbidity, no odour, no sheen	9.44	9.1	335.4	7.60	53.1	258.9
SW009	SW09	16 Aug 2023	Sewage treatment pond, 20 m wide, approx 1 m deep. Water flow not observed.	0.5 - 0.5	Ligh green, low turbidity, no odour, no sheen	18.44	11.9	1590.0	8.27	43.4	249.2
SW012	SW6/SW12	16 Aug 2023	Bedrock creek, 2 m wide, 0.2 m deep. Water flow observed.	0.05 - 0.05	Light brown, no turbidity, no odour, no sheen	9.67	10.7	577.0	7.95	72.1	277.9
SW013	SW13	16 Aug 2023	Creek, 4 m wide, unknown depth. Water flow observed.	0.5 - 0.5	Clear, no turbidity, no odour, biosheen	5.28	11.6	1342.0	7.10	51.9	257.7
SW014	SW14	16 Aug 2023	Creek, 1 m wide flowing into waterbody, 0.2 m deep. Water flow observed.	0.1 - 0.1	Light brown, low turbidity, no odour, no sheen	6.43	14.8	246.2	6.93	69.9	275.7
SW018	SW18	16 Aug 2023	Drainage swale, 2 m wide, 0.1 m deep. Water flow not observed.	0.1 - 0.1	Orange, low turbidity, no odour, no sheen	11.30	16.4	702.0	6.61	84.0	289.8
SW020	SW20	16 Aug 2023	Drainage channel, 1.5 m wide, 0.5 m deep. Water flow observed.	0.25 - 0.25	Clear, low turbidity, no odour, no sheen	7.78	12.2	139.2	7.16	83.6	289.4

Notes

mV	milliVolts
mg/L	milligrams per Litre
°C	degrees Celsius
µS/cm	microSiemens per centimetre

Corrected field Redox measurement Eh = Er + 205.8

Location Code	Date	Field ID	Sample Type	Lab Report #	PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	**Perfluorooctane sulfonic acid (PFOS)**	**Perfluorohexane sulfonic acid (PFHxS)**	**Sum of PFHxS and PFOS**	**Sum of PFAS**	**Perfluorobutane sulfonic acid (PFBS)**	**Perfluoropentane sulfonic acid (PFPeS)**	**Perfluoroheptane sulfonic acid (PFHpS)**	**Perfluorodecane sulfonic acid (PFDS)**	**Perfluorobutanoic acid (PFBA)**	**Perfluoropentanoic acid (PFPeA)**	**Perfluorohexanoic acid (PFHxA)**	**Perfluoroheptanoic acid (PFHpA)**	**Perfluorononanoic acid (PFNA)**	**Perfluorodecanoic acid (PFDA)**	**Perfluoroundecanoic acid (PFUnDA)**	**Perfluorododecanoic acid (PFDoDA)**	**Perfluorotridecanoic acid (PFTrDA)**	**Perfluorotetradecanoic acid (PFTeDA)**	**4:2 Fluorotelomer sulfonic acid (4:2 FTS)**	**6:2 Fluorotelomer sulfonic acid (6:2 FTS)**	**8:2 Fluorotelomer sulfonic acid (8:2 FTS)**	**10:2 Fluorotelomer sulfonic acid (10:2 FTS)**	**Perfluorooctane sulfonamide (FOSA)**	**N-Methyl perfluorooctane sulfonamide (MeFOSA)**	**N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)**	**N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)**	**N-Ethyl perfluorooctane sulfonamide (EtFOSA)**	**N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)**	**N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)**
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.05	0.01	0.01	0.02	0.02	0.02	0.05	0.02	0.05	0.05	0.02	0.05
PFAS NEMP 2020 Recreational Water					**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Lab Report #**																														
SW001	16 Aug 2023	0026_SW001_230816	Normal	ES2327664	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	16 Aug 2023	0026_SW002_230816	Normal	ES2327664	<0.01	*0.03*	0.06	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	16 Aug 2023	0026_SW004B_230816	Normal	ES2327664	0.04	*0.62*	0.81	1.43	1.95	0.10	0.09	0.03	<0.02	<0.1	0.05	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	16 Aug 2023	0026_QC101_230816	Field_D	ES2327664	0.09	*1.99*	1.88	**3.87**	4.93	0.18	0.18	0.07	<0.02	<0.1	0.11	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	16 Aug 2023	0026_QC201_230816	Interlab_D	330738	0.07	*1.5*	1.5	**3.0**	4.0	0.18	0.18	0.07	<0.02	0.04	0.1	0.32	0.05	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	16 Aug 2023	0026_SW005_230816	Normal	ES2327664	0.09	*1.92*	1.87	**3.79**	4.87	0.19	0.18	0.07	<0.02	<0.1	0.11	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	16 Aug 2023	0026_SW006_230816	Normal	ES2327664	0.09	*2.06*	1.90	**3.96**	5.03	0.18	0.19	0.08	<0.02	<0.1	0.10	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	16 Aug 2023	0026_SW007_230816	Normal	ES2327664	0.01	*0.32*	0.32	0.64	0.94	0.04	0.03	<0.02	<0.02	<0.1	0.08	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	16 Aug 2023	0026_SW008_230816	Normal	ES2327664	0.04	*0.97*	0.89	1.86	2.42	0.05	0.06	0.03	<0.02	<0.1	0.05	0.30	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	16 Aug 2023	0026_QC100_230816	Field_D	ES2327664	0.06	*2.61*	0.98	**3.59**	4.09	0.08	0.06	0.05	<0.02	<0.1	0.04	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	16 Aug 2023	0026_QC200_230816	Interlab_D	330738	0.04	*1.8*	0.77	**2.5**	3.0	0.06	0.07	0.05	<0.02	<0.02	0.04	0.15	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW009	16 Aug 2023	0026_SW009_230816	Normal	ES2327664	0.06	*2.56*	0.95	**3.51**	4.00	0.08	0.06	0.05	<0.02	<0.1	0.04	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	16 Aug 2023	0026_SW012_230816	Normal	ES2327664	0.17	*3.79*	3.87	**7.66**	9.60	0.37	0.34	0.17	<0.02	<0.1	0.18	0.60	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	16 Aug 2023	0026_SW013_230816	Normal	ES2327664	0.08	*1.03*	1.75	**2.78**	3.98	0.24	0.19	0.05	<0.02	<0.1	0.13	0.43	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	16 Aug 2023	0026_SW014_230816	Normal	ES2327664	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	16 Aug 2023	0026_SW018_230816	Normal	ES2327664	0.52	*3.97*	8.35	**12.3**	18.4	1.03	0.98	0.32	<0.02	0.4	0.49	1.94	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	16 Aug 2023	0026_SW020_230816	Normal	ES2327664	0.05	*1.63*	1.55	**3.18**	3.74	0.10	0.11	0.05	<0.02	<0.1	0.03	0.20	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water					**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
SW001	15 Nov 2016	0026_SW01_161115	Normal	NSW_0026_PFAS	<0.01	*0.05*	0.02	0.07	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW001	13 Dec 2016	0026_SW01_161213	Normal	NSW_0026_PFAS	<0.01	*0.06*	0.03	0.09	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW001	17 Dec 2016	0026_SW01_161217	Normal	NSW_0026_PFAS	<0.01	*0.18*	0.02	0.2	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW001	09 Feb 2017	0026_SW01_170209	Normal	NSW_0026_PFAS	<0.01	*0.05*	<0.01	0.05	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW001	30 Mar 2017	0026_SW01_170330	Normal	NSW_0026_PFAS	<0.01	*0.1*	0.08	0.18	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW001	27 Jun 2019	SW01_270619	Normal	NSW_0026_FSBGME	0.05	*0.97*	1.36	**2.33**	3.6	0.14	0.13	0.04	<0.02	<0.1	0.18	0.39	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.28	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	11 Feb 2020	0026_SW01_200211	Normal	NSW_0026_PFASOMP	<0.01	*0.04*	0.03	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	26 Feb 2020	0026_SW01_200226	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	20 May 2020	0026_SW001_200520	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	14 Jul 2020	0026_SW001_200714	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	27 Aug 2020	0026_SW001_200827	Normal	NSW_0026_PFASOMP	<0.01	*0.06*	0.02	0.08	0.08	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	02 Nov 2020	0026_SW001_201102	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	10 Feb 2021	0026_QC101_210210	Field_D	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	10 Feb 2021	0026_SW001_210210	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	11 Aug 2021	0026_SW001_210811	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	08 Feb 2022	0026_SW001_220208	Normal	NSW_0026_PFASOMP	<0.01	*0.05*	0.04	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	15 Aug 2022	0026_SW001_220815	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.04	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	15 Feb 2023	0026_SW001_230215	Normal	NSW_0026_PFASOMP_23	<0.01	*0.02*	0.01	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW001	16 Aug 2023	0026_SW001_230816	Normal	NSW_0026_PFASOMP_23	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15 Nov 2016	0026_QC164_161114	Field_D	NSW_0026_PFAS	<0.01	*0.03*	0.01	0.04	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15 Nov 2016	0026_QC164_161114	Field_D	NSW_0026_PFAS	<0.01	*0.03*	0.01	0.04	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15 Nov 2016	0026_QC244_161114	Field_D	NSW_0026_PFAS	<0.01	*0.03*	0.01	0.04	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	15 Nov 2016	0026_SW02_161115	Normal	NSW_0026_PFAS	<0.01	*0.03*	0.01	0.04	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	13 Dec 2016	0026_SW02_161213	Normal	NSW_0026_PFAS	0.04	*0.03*	0.02	0.05	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	17 Dec 2016	0026_QC174_161217	Field_D	NSW_0026_PFAS	<0.01	*0.05*	0.02	0.07	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	17 Dec 2016	0026_QC248_161217	Interlab_D	NSW_0026_PFAS	0.01	*0.04*	0.06	0.1	0.11	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	17 Dec 2016	0026_SW02_161217	Normal	NSW_0026_PFAS	<0.01	*0.04*	0.02	0.06	-	<0.01	-	-	<0.01	<0.05	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW002	09 Feb 2017	0026_QC179_170209	Field_D	NSW_0026_PFAS	<0.01	*0.03*	0.01	0.04	-	<0.01	-	-	0.04	<0.05	<0.01	<0.01	<0.01	<0.01	0.01	0.05	0.04	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	09 Feb 2017	0026_SW02_170209	Normal	NSW_0026_PFAS	<0.01	*0.03*	0.01	0.04	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW002	31 Mar 2017	0026_SW02_170403	Normal	NSW_0026_PFAS	<0.01	*0.03*	0.05	0.08	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW002	27 Jun 2019	SW02_270619	Normal	NSW_0026_FSBGME	0.04	*0.75*	1.19	1.94	3.29	0.12	0.11	0.03	<0.02	<0.1	0.21	0.4	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.37	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	11 Feb 2020	0026_SW02_200211	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	0.03	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	26 Feb 2020	0026_SW02_200226	Normal	NSW_0026_PFASOMP	<0.01	*0.08*	0.04	0.12	0.12	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	20 May 2020	0026_SW002_200520	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.03	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	14 Jul 2020	0026_SW002_200714	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	27 Aug 2020	0026_QC104_200827	Field_D	NSW_0026_PFASOMP	<0.01	*0.1*	<0.02	0.1	0.1	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	27 Aug 2020	0026_SW002_200827	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	02 Nov 2020	0026_SW002_201102	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	10 Feb 2021	0026_QC201_210210	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	0.015	0.015	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW002	10 Feb 2021	0026_SW002_210210	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.02	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	11 Aug 2021	0026_SW002_210811	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	08 Feb 2022	0026_QC202_220208	Interlab_D	NSW_0026_PFASOMP	<0.01	*0.01*	0.03	0.04	0.04	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW002	08 Feb 2022	0026_SW002_220208	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	0.04	0.06	0.06	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15 Aug 2022	0026_SW002_220815	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	15 Feb 2023	0026_QC203_230215	Interlab_D	NSW_0026_PFASOMP_23	<0.01	*0.03*	0.03	0.06	0.06	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW002	15 Feb 2023	0026_SW002_230215	Normal	NSW_0026_PFASOMP_23	<0.01	*0.02*	0.02	0.04	0.04	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW002	16 Aug 2023	0026_SW002_230816	Normal	NSW_0026_PFASOMP_23	<0.01	*0.03*	0.06	0.09	0.09	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water					**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
SW004B	10 Dec 2019	0026_SW04B_191211	Normal	NSW_0026_PFASOMP	<0.01	*0.05*	0.08	0.13	0.16	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	11 Feb 2020	0026_SW04B_200211	Normal	NSW_0026_PFASOMP	0.02	*0.38*	0.31	0.69	0.93	0.05	0.04	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	26 Feb 2020	0026_SW04B_200226	Normal	NSW_0026_PFASOMP	0.01	*0.31*	0.22	0.53	0.69	0.03	0.02	<0.02	<0.02	<0.1	0.03	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	20 May 2020	0026_SW04B_200520	Normal	NSW_0026_PFASOMP	0.03	*0.86*	0.59	1.45	1.94	0.1	0.08	0.02	<0.02	<0.1	0.07	0.16	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	14 Jul 2020	0026_SW004B_200714	Normal	NSW_0026_PFASOMP	0.02	*0.36*	0.44	0.8	1.11	0.06	0.05	<0.02	<0.02	<0.1	0.04	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	27 Aug 2020	0026_QC204_200827	Interlab_D	NSW_0026_PFASOMP	<0.01	*0.3*	0.14	0.44	0.51	0.02	0.02	<0.01	<0.02	<0.02	<0.02	0.03	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW004B	27 Aug 2020	0026_SW04B_200827	Normal	NSW_0026_PFASOMP	<0.01	*0.46*	0.15	0.61	0.67	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	02 Nov 2020	0026_SW004B_201102	Normal	NSW_0026_PFASOMP	0.02	*0.35*	0.44	0.79	1.09	0.06	0.06	<0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	10 Feb 2021	0026_SW004B_210210	Normal	NSW_0026_PFASOMP	0.02	*0.41*	0.24	0.65	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.02	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	11 Aug 2021	0026_QC200_210811	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW004B	11 Aug 2021	0026_SW004B_210811	Normal	NSW_0026_PFASOMP	<0.01	*0.2*	0.18	0.38	0.46	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	08 Feb 2022	0026_SW004B_220208	Normal	NSW_0026_PFASOMP	<0.01	*0.19*	0.14	0.33	0.37	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	15 Aug 2022	0026_SW004B_220815	Normal	NSW_0026_PFASOMP	<0.01	*0.14*	0.11	0.25	0.28	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	15 Feb 2023	0026_SW004B_230215	Normal	NSW_0026_PFASOMP_23	0.01	*0.2*	0.18	0.38	0.47	0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW004B	16 Aug 2023	0026_SW004B_230816	Normal	NSW_0026_PFASOMP_23	0.04	*0.62*	0.81	1.43	1.95	0.1	0.09	0.03	<0.02	<0.1	0.05	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	14 Nov 2016	0026_SW05_161114	Normal	NSW_0026_PFAS	0.2	*3.5*	2.3	**5.8**	-	0.3	-	-	<0.01	0.31	0.89	6.8	0.21	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	21	0.02	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	12 Dec 2016	0026_SW05_161212	Normal	NSW_0026_PFAS	0.09	*2.6*	1.3	**3.9**	-	0.15	-	-	<0.01	0.07	0.24	0.59	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.2	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	17 Dec 2016	0026_SW05_161217	Normal	NSW_0026_PFAS	0.01	*0.71*	0.22	0.93	-	0.06	-	-	<0.01	<0.05	<0.01	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW005	09 Feb 2017	0026_SW05_170209	Normal	NSW_0026_PFAS	0.11	*3.4*	1.1	**4.5**	-	0.15	-	-	<0.01	0.1	0.11	0.54	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.17	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW005	29 Mar 2017	0026_SW05_170329	Normal	NSW_0026_PFAS	0.15	*3.6*	2.8	**6.4**	-	0.25	0.2	0.09	<0.01	0.14	0.22	0.81	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.36	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW005	10 Dec 2019	0026_SW05_191211	Normal	NSW_0026_PFASOMP	0.06	*1.68*	2.96	**4.64**	6.68	0.31	0.32	0.08	<0.02	0.1	0.22	0.78	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	11 Feb 2020	0026_SW05_200211	Normal	NSW_0026_PFASOMP	0.05	*1.64*	1.02	**2.66**	3.45	0.15	0.12	0.03	<0.02	<0.1	0.12	0.29	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	26 Feb 2020	0026_SW05_200226	Normal	NSW_0026_PFASOMP	0.11	*3.86*	1.72	**5.58**	7.15	0.23	0.2	0.07	0.05	<0.1	0.26	0.56	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	20 May 2020	0026_SW005_200520	Normal	NSW_0026_PFASOMP	0.16	*3.65*	2.88	**6.53**	8.99	0.45	0.4	0.13	<0.02	<0.1	0.31	0.85	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	14 Jul 2020	0026_SW005_200714	Normal	NSW_0026_PFASOMP	0.1	*1.95*	2.09	**4.04**	5.69	0.25	0.26	0.08	<0.02	<0.1	0.19	0.67	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	27 Aug 2020	0026_SW005_200827	Normal	NSW_0026_PFASOMP	0.13	*2.43*	2.27	**4.7**	6.45	0.29	0.34	0.1	<0.02	<0.1	0.16	0.64	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	02 Nov 2020	0026_SW005_201102	Normal	NSW_0026_PFASOMP	0.17	*4.23*	2.92	**7.15**	9.37	0.37	0.35	0.13	<0.02	0.1	0.18	0.81	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	09 Feb 2021	0026_SW005_210209	Normal	NSW_0026_PFASOMP	0.14	*2.84*	1.65	**4.49**	6.1	0.32	0.24	0.08	<0.02	<0.1	0.13	0.58	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	11 Aug 2021	0026_SW005_210811	Normal	NSW_0026_PFASOMP	0.47	*6.36*	6.52	**12.9**	20.1	1.29	1.4	0.29	0.07	0.2	0.47	2.67	0.38	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	08 Feb 2022	0026_SW005_220208	Normal	NSW_0026_PFASOMP	0.13	*2.61*	1.81	**4.42**	5.79	0.2	0.22	0.08	<0.02	<0.1	0.12	0.55	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15 Aug 2022	0026_SW005_220815	Normal	NSW_0026_PFASOMP	0.28	*4.22*	3.27	**7.49**	10.5	0.47	0.58	0.18	<0.02	0.1	0.18	1.02	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15 Feb 2023	0026_QC103_230215	Field_D	NSW_0026_PFASOMP_23	0.12	*3.2*	1.78	**4.98**	6.18	0.23	0.23	0.09	<0.02	<0.1	0.11	0.36	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	15 Feb 2023	0026_SW005_230215	Normal	NSW_0026_PFASOMP_23	0.09	*1.95*	1.57	**3.52**	4.55	0.17	0.2	0.09	<0.02	<0.1	0.08	0.35	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	16 Aug 2023	0026_QC101_230816	Field_D	NSW_0026_PFASOMP_23	0.09	*1.99*	1.88	**3.87**	4.93	0.18	0.18	0.07	<0.02	<0.1	0.11	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW005	16 Aug 2023	0026_QC201_230816	Interlab_D	NSW_0026_PFASOMP_23	0.07	*1.5*	1.5	**3**	4	0.18	0.18	0.07	<0.02	0.04	0.1	0.32	0.05	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW005	16 Aug 2023	0026_SW005_230816	Normal	NSW_0026_PFASOMP_23	0.09	*1.92*	1.87	**3.79**	4.87	0.19	0.18	0.07	<0.02	<0.1	0.11	0.38	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	02 May 2016	0026_QC160_160502	Field_D	NSW_0026_PFAS	0.05	*0.22*	0.94	1.16	-	0.15	-	-	<0.01	<0.05	0.06	0.24	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	02 May 2016	0026_SW06_160502	Normal	NSW_0026_PFAS	0.05	*0.33*	0.89	1.22	-	0.15	-	-	<0.01	<0.05	0.06	0.24	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	31 Oct 2016	0026_SW06_161031	Normal	NSW_0026_PFAS	0.1	*2.7*	1.9	**4.6**	-	0.23	-	-	<0.01	0.15	0.31	1.4	0.1	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	12	0.06	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	14 Nov 2016	0026_SW06_161114	Normal	NSW_0026_PFAS	0.16	*13*	2.2	**15.2**	-	0.16	-	-	<0.01	0.05	0.1	0.45	0.05	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	3.1	0.08	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	12 Dec 2016	0026_SW06_161212	Normal	NSW_0026_PFAS	0.11	*3.7*	2.2	**5.9**	-	0.23	-	-	<0.01	0.1	0.33	0.74	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	1.2	0.02	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	16 Dec 2016	0026_SW06_161216	Normal	NSW_0026_PFAS	0.1	*5*	1.2	**6.2**	-	0.13	-	-	<0.01	0.06	0.07	0.4	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.8	0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW006	09 Feb 2017	0026_SW06_170209	Normal	NSW_0026_PFAS	0.2	*6.4*	2	**8.4**	-	0.28	-	-	<0.01	0.14	0.13	0.92	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.19	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW006	10 Dec 2019	0026_SW06_191211	Normal	NSW_0026_PFASOMP	0.04	*1.1*	3.43	**4.53**	5.76	0.26	0.31	0.08	<0.02	<0.1	0.09	0.41	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11 Feb 2020	0026_SW06_200211	Normal	NSW_0026_PFASOMP	0.09	*2.1*	1.66	**3.76**	5.15	0.3	0.24	0.08	<0.02	<0.1	0.16	0.47	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	26 Feb 2020	0026_SW06_200226	Normal	NSW_0026_PFASOMP	0.13	*5.98*	2.3	**8.28**	9.96	0.28	0.27	0.1	0.02	<0.1	0.18	0.56	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	20 May 2020	0026_SW006_200520	Normal	NSW_0026_PFASOMP	0.1	*4.35*	2.24	**6.59**	8.07	0.23	0.26	0.13	<0.02	<0.1	0.16	0.44	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Location Code	Date	Field ID	Sample Type	Project ID	Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water					10			2																										
PFAS NEMP 2020 Freshwater 99%					19	0.00023																												
SW006	14 Jul 2020	0026_SW006_200714	Normal	NSW_0026_PFASOMP	0.05	1.53	1.32	2.85	3.64	0.15	0.16	0.04	<0.02	<0.1	0.06	0.29	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	26 Aug 2020	0026_SW006_200826	Normal	NSW_0026_PFASOMP	0.16	4.04	3.53	7.57	9.82	0.39	0.47	0.18	<0.02	<0.1	0.16	0.79	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	02 Nov 2020	0026_SW006_201102	Normal	NSW_0026_PFASOMP	0.2	4.19	3.57	7.76	10.4	0.45	0.45	0.15	<0.02	0.1	0.2	1	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	09 Feb 2021	0026_SW006_210209	Normal	NSW_0026_PFASOMP	0.22	13	2.3	15.3	17.2	0.31	0.27	0.22	0.08	<0.1	0.08	0.54	0.11	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11 Aug 2021	0026_QC101_210811	Field_D	NSW_0026_PFASOMP	0.18	5.24	3.2	8.44	10.3	0.3	0.4	0.18	<0.02	<0.1	0.11	0.59	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	11 Aug 2021	0026_SW006_210811	Normal	NSW_0026_PFASOMP	0.21	4.87	3.48	8.35	10.6	0.36	0.45	0.18	<0.02	<0.1	0.16	0.74	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	08 Feb 2022	0026_SW006_220208	Normal	NSW_0026_PFASOMP	0.1	2.48	1.95	4.43	8.07	0.2	0.21	0.08	<0.02	<0.1	0.15	0.74	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	2.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	15 Aug 2022	0026_QC201_220815	Interlab_D	NSW_0026_PFASOMP	0.42	12	4.3	16	20	0.59	0.58	0.3	<0.02	0.1	0.26	1.3	0.22	0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW006	15 Aug 2022	0026_SW006_220815	Normal	NSW_0026_PFASOMP	0.43	12.2	4.73	16.9	21.2	0.61	0.83	0.32	0.03	0.2	0.24	1.33	0.22	0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	14 Feb 2023	0026_SW006_230214	Normal	NSW_0026_PFASOMP_23	0.08	2.14	1.47	3.61	4.56	0.16	0.18	0.09	<0.02	<0.1	0.08	0.32	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW006	16 Aug 2023	0026_SW006_230816	Normal	NSW_0026_PFASOMP_23	0.09	2.06	1.9	3.96	5.03	0.18	0.19	0.08	<0.02	<0.1	0.1	0.37	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	14 Dec 2016	0026_SW07_161214	Normal	NSW_0026_PFAS	0.12	3.6	1.1	4.7	-	0.13	-	-	<0.01	0.3	1.4	1.8	0.42	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	2.3	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW007	16 Dec 2016	0026_SW07_161216	Normal	NSW_0026_PFAS	0.02	0.59	0.43	1.02	-	0.03	-	-	<0.01	<0.05	0.03	0.09	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.12	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW007	08 Feb 2017	0026_SW07_170208	Normal	NSW_0026_PFAS	0.06	2.7	0.67	3.37	-	0.08	-	-	<0.01	<0.05	0.05	0.26	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.14	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW007	11 Feb 2020	0026_SW07_200211	Normal	NSW_0026_PFASOMP	0.02	0.36	0.36	0.72	0.99	0.07	0.05	<0.02	<0.02	<0.1	0.04	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	26 Feb 2020	0026_SW07_200226	Normal	NSW_0026_PFASOMP	0.04	1.11	0.62	1.73	2.54	0.11	0.08	0.02	<0.02	<0.1	0.17	0.26	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	20 May 2020	0026_SW007_200520	Normal	NSW_0026_PFASOMP	0.04	1.5	1.97	3.47	4.29	0.18	0.24	0.08	<0.02	<0.1	0.04	0.22	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	14 Jul 2020	0026_SW007_200714	Normal	NSW_0026_PFASOMP	0.01	0.39	0.37	0.76	0.88	0.03	0.03	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	26 Aug 2020	0026_SW007_200826	Normal	NSW_0026_PFASOMP	0.03	0.94	1.34	2.28	2.87	0.14	0.16	0.05	<0.02	<0.1	0.02	0.19	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	02 Nov 2020	0026_QC100_201102	Field_D	NSW_0026_PFASOMP	0.02	0.62	0.8	1.42	1.7	0.07	0.08	0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	02 Nov 2020	0026_SW007_201102	Normal	NSW_0026_PFASOMP	0.02	0.73	0.84	1.57	1.9	0.08	0.08	0.03	<0.02	<0.1	0.02	0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	11 Feb 2021	0026_SW007_210211	Normal	NSW_0026_PFASOMP	0.01	0.47	0.18	0.65	0.9	0.03	0.02	<0.02	<0.02	<0.1	0.06	0.1	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	11 Aug 2021	0026_SW007_210811	Normal	NSW_0026_PFASOMP	0.02	0.25	0.93	1.18	1.74	0.13	0.13	0.02	<0.02	<0.1	0.05	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	07 Feb 2022	0026_SW007_220207	Normal	NSW_0026_PFASOMP	0.01	0.28	0.24	0.52	0.84	0.04	0.03	<0.02	<0.02	<0.1	0.1	0.12	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	15 Aug 2022	0026_QC101_220815	Field_D	NSW_0026_PFASOMP	0.05	0.97	0.63	1.6	2.24	0.13	0.12	0.03	<0.02	<0.1	0.08	0.19	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	15 Aug 2022	0026_SW007_220815	Normal	NSW_0026_PFASOMP	0.05	1.2	0.7	1.9	2.53	0.12	0.12	0.04	<0.02	<0.1	0.07	0.19	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	13 Feb 2023	0026_SW007_230213	Normal	NSW_0026_PFASOMP_23	0.02	0.74	0.84	1.58	1.99	0.08	0.09	0.06	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW007	16 Aug 2023	0026_SW007_230816	Normal	NSW_0026_PFASOMP_23	0.01	0.32	0.32	0.64	0.94	0.04	0.03	<0.02	<0.02	<0.1	0.08	0.11	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	06 May 2016	0026_SW08_160506	Normal	NSW_0026_PFAS	0.04	0.42	0.61	1.03	-	0.06	-	-	<0.01	<0.05	0.04	0.16	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	16 Nov 2016	0026_SW08_161116	Normal	NSW_0026_PFAS	0.04	2	0.68	2.68	-	0.07	-	-	<0.01	<0.05	0.03	0.22	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	14 Dec 2016	0026_SW08_161214	Normal	NSW_0026_PFAS	0.06	2.8	1.5	4.3	-	0.16	-	-	<0.01	0.06	0.06	0.42	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	17 Dec 2016	0026_SW08_161217	Normal	NSW_0026_PFAS	0.03	2	0.56	2.56	-	0.05	-	-	<0.01	<0.05	0.02	0.14	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW008	09 Feb 2017	0026_SW08_170209	Normal	NSW_0026_PFAS	0.04	1.6	0.52	2.12	-	0.05	-	-	<0.01	<0.05	0.02	0.15	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW008	10 Dec 2019	0026_SW08_191210	Normal	NSW_0026_PFASOMP	0.1	0.77	4.53	5.3	7.93	0.35	0.27	0.07	<0.02	<0.1	0.22	1.55	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	11 Feb 2020	0026_SW08_200211	Normal	NSW_0026_PFASOMP	0.02	1.11	0.76	1.87	2.23	0.08	0.06	0.03	<0.02	<0.1	0.03	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	26 Feb 2020	0026_SW08_200226	Normal	NSW_0026_PFASOMP	0.04	0.92	0.92	1.84	2.39	0.1	0.09	0.02	<0.02	<0.1	0.04	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	20 May 2020	0026_SW008_200520	Normal	NSW_0026_PFASOMP	0.07	1.9	1.74	3.64	4.66	0.14	0.18	0.06	<0.02	<0.1	0.08	0.44	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14 Jul 2020	0026_SW008_200714	Normal	NSW_0026_PFASOMP	0.02	0.82	0.35	1.17	1.33	0.02	0.03	<0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	26 Aug 2020	0026_SW008_200826	Normal	NSW_0026_PFASOMP	0.03	0.8	0.9	1.7	2.23	0.1	0.12	0.03	<0.02	<0.1	0.03	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	02 Nov 2020	0026_SW008_201102	Normal	NSW_0026_PFASOMP	0.03	1.06	0.72	1.78	2.1	0.07	0.07	0.03	<0.02	<0.1	<0.02	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	08 Feb 2021	0026_SW008_210208	Normal	NSW_0026_PFASOMP	0.05	2.49	0.88	3.37	3.94	0.11	0.09	0.04	<0.02	<0.1	0.03	0.22	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	11 Aug 2021	0026_SW008_210811	Normal	NSW_0026_PFASOMP	0.04	0.51	0.7	1.21	1.92	0.13	0.13	<0.02	<0.02	<0.1	0.05	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.09	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	10 Feb 2022	0026_SW008_220210	Normal	NSW_0026_PFASOMP	0.1	2.21	2.05	4.26	5.55	0.19	0.24	0.07	<0.02	<0.1	0.09	0.55	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	15 Aug 2022	0026_SW008_220815	Normal	NSW_0026_PFASOMP	0.11	1.28	1.89	3.17	4.52	0.24	0.31	0.06	<0.02	<0.1	0.08	0.49	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14 Feb 2023	0026_QC102_230214	Field_D	NSW_0026_PFASOMP_23	0.07	1.42	1.11	2.53	3.23	0.13	0.14	0.04	<0.02	<0.1	0.05	0.24	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	14 Feb 2023	0026_SW008_230214	Normal	NSW_0026_PFASOMP_23	0.05	1.52	1.01	2.53	3.16	0.09	0.13	0.06	<0.02	<0.1	0.04	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW008	16 Aug 2023	0026_SW008_230816	Normal	NSW_0026_PFASOMP_23	0.04	0.97	0.89	1.86	2.42	0.05	0.06	0.03	<0.02	<0.1	0.05	0.3	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids											PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water					**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
SW009	15 Nov 2016	0026_SW09_161115	Normal	NSW_0026_PFAS	0.06	*3.8*	0.95	**4.75**	-	0.09	-	-	<0.01	<0.05	0.04	0.29	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	16 Nov 2016	0026_SW09_161116	Normal	NSW_0026_PFAS	0.07	*3.7*	1	**4.7**	-	0.1	-	-	<0.01	<0.05	0.04	0.29	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	12 Dec 2016	0026_SW09_161212	Normal	NSW_0026_PFAS	0.05	*3.2*	0.73	**3.93**	-	0.06	-	-	<0.01	<0.05	0.03	0.17	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.16	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW009	16 Dec 2016	0026_SW09_161216	Normal	NSW_0026_PFAS	0.52	*25*	5.3	**30.3**	-	0.84	-	-	<0.01	0.27	0.25	2	0.16	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW009	09 Feb 2017	0026_SW09_170209	Normal	NSW_0026_PFAS	0.51	*23*	5.1	**28.1**	-	0.63	-	-	<0.01	0.29	0.23	2.1	0.12	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW009	10 Dec 2019	0026_SW09_191211	Normal	NSW_0026_PFASOMP	0.03	*1.34*	1	**2.34**	2.92	0.15	0.07	0.04	<0.02	<0.1	0.03	0.24	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11 Feb 2020	0026_SW09_200211	Normal	NSW_0026_PFASOMP	0.35	*25.4*	8.95	**34.4**	38	0.42	0.57	0.36	0.04	0.1	0.31	1.39	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	26 Feb 2020	0026_SW09_200226	Normal	NSW_0026_PFASOMP	0.3	*16.9*	7.07	**24**	27.2	0.41	0.51	0.29	<0.02	<0.1	0.3	1.28	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	20 May 2020	0026_SW009_200520	Normal	NSW_0026_PFASOMP	0.42	*7.04*	2.33	**9.37**	11.2	0.25	0.18	0.14	<0.02	<0.1	0.12	0.54	0.09	0.05	0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.07	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	14 Jul 2020	0026_SW009_200714	Normal	NSW_0026_PFASOMP	0.07	*2.56*	1.33	**3.89**	5.12	0.12	0.11	0.07	<0.02	<0.1	0.07	0.41	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.32	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	26 Aug 2020	0026_SW009_200826	Normal	NSW_0026_PFASOMP	0.28	*15.8*	7.6	**23.4**	26.9	0.42	0.66	0.35	<0.02	0.1	0.26	1.31	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	02 Nov 2020	0026_SW009_201102	Normal	NSW_0026_PFASOMP	0.19	*12.7*	4.57	**17.3**	19.4	0.33	0.29	0.19	0.02	<0.1	0.18	0.87	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	08 Feb 2021	0026_SW009_210208	Normal	NSW_0026_PFASOMP	0.16	*6.66*	2.08	**8.74**	10.5	0.27	0.26	0.12	<0.02	<0.1	0.13	0.73	0.12	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11 Aug 2021	0026_QC100_210811	Field_D	NSW_0026_PFASOMP	0.07	*1.92*	1.56	**3.48**	4.42	0.17	0.16	0.07	<0.02	<0.1	0.07	0.35	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	11 Aug 2021	0026_SW009_210811	Normal	NSW_0026_PFASOMP	0.07	*2.03*	1.61	**3.64**	4.57	0.17	0.16	0.06	<0.02	<0.1	0.08	0.35	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	09 Feb 2022	0026_SW009_220209	Normal	NSW_0026_PFASOMP	0.19	*11.8*	4.78	**16.6**	20.5	0.32	0.41	0.22	0.03	0.1	0.23	1.23	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	1.11	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	15 Aug 2022	0026_SW009_220815	Normal	NSW_0026_PFASOMP	0.21	*8.44*	3.93	**12.4**	14.6	0.31	0.45	0.2	<0.02	0.1	0.14	0.76	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.06	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	13 Feb 2023	0026_SW009_230213	Normal	NSW_0026_PFASOMP_23	0.08	*3.28*	1.5	**4.78**	5.73	0.16	0.14	0.08	<0.02	<0.1	0.09	0.36	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	16 Aug 2023	0026_QC100_230816	Field_D	NSW_0026_PFASOMP_23	0.06	*2.61*	0.98	**3.59**	4.09	0.08	0.06	0.05	<0.02	<0.1	0.04	0.18	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW009	16 Aug 2023	0026_QC200_230816	Interlab_D	NSW_0026_PFASOMP_23	0.04	*1.8*	0.77	**2.5**	3	0.06	0.07	0.05	<0.02	<0.02	0.04	0.15	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW009	16 Aug 2023	0026_SW009_230816	Normal	NSW_0026_PFASOMP_23	0.06	*2.56*	0.95	**3.51**	4	0.08	0.06	0.05	<0.02	<0.1	0.04	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	06 May 2016	0026_SW12_160506	Normal	NSW_0026_PFAS	0.05	*0.43*	0.98	1.41	-	0.19	-	-	<0.01	<0.05	0.05	0.23	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	16 Nov 2016	0026_SW12_161116	Normal	NSW_0026_PFAS	0.09	*2.6*	1.8	**4.4**	-	0.27	-	-	<0.01	0.06	0.07	0.47	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	14 Dec 2016	0026_QC171_161214	Field_D	NSW_0026_PFAS	0.1	*2.9*	2	**4.9**	-	0.28	-	-	<0.01	0.06	0.05	0.44	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	14 Dec 2016	0026_SW12_161214	Normal	NSW_0026_PFAS	0.08	*2.2*	2	**4.2**	-	0.27	-	-	<0.01	<0.05	0.04	0.35	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	17 Dec 2016	0026_SW12_161217	Normal	NSW_0026_PFAS	0.09	*2.3*	1.9	**4.2**	-	0.27	-	-	<0.01	0.06	0.05	0.41	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW012	09 Feb 2017	0026_SW12_170209	Normal	NSW_0026_PFAS	0.09	*4.3*	1.3	**5.6**	-	0.19	-	-	<0.01	0.06	0.06	0.34	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW012	10 Dec 2019	0026_QC100_191210	Field_D	NSW_0026_PFASOMP	0.01	*0.83*	0.29	1.12	1.18	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	10 Dec 2019	0026_SW12_191210	Normal	NSW_0026_PFASOMP	0.01	*0.84*	0.3	1.14	1.2	<0.02	<0.02	0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11 Feb 2020	0026_QC100_200211	Field_D	NSW_0026_PFASOMP	<0.01	*0.2*	0.23	0.43	0.47	0.02	0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11 Feb 2020	0026_SW12_200211	Normal	NSW_0026_PFASOMP	<0.01	*0.13*	0.21	0.34	0.36	0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	26 Feb 2020	0026_SW12_200226	Normal	NSW_0026_PFASOMP	<0.01	*0.08*	0.22	0.3	0.36	0.03	<0.02	<0.02	<0.02	<0.1	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	14 Jul 2020	0026_SW012_200714	Normal	NSW_0026_PFASOMP	<0.01	*0.02*	<0.02	0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	26 Aug 2020	0026_SW012_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.1*	0.19	0.29	0.34	0.02	0.03	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	08 Feb 2021	0026_SW012_210208	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	<0.02	0.03	0.03	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	11 Aug 2021	0026_SW012_210811	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.02	0.05	0.05	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	10 Feb 2022	0026_SW012_220210	Normal	NSW_0026_PFASOMP	0.06	*1.18*	1.43	**2.61**	3.44	0.18	0.18	0.05	<0.02	<0.1	0.06	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	15 Aug 2022	0026_SW012_220815	Normal	NSW_0026_PFASOMP	0.13	*3.25*	3.15	**6.4**	8.13	0.35	0.42	0.11	<0.02	<0.1	0.1	0.54	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	14 Feb 2023	0026_QC202_230214	Interlab_D	NSW_0026_PFASOMP_23	0.09	*2.8*	2.4	**5.2**	6.4	0.23	0.24	0.11	<0.02	0.05	0.1	0.36	0.07	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW012	14 Feb 2023	0026_SW012_230214	Normal	NSW_0026_PFASOMP_23	0.07	*2.7*	1.74	**4.44**	5.46	0.2	0.2	0.1	<0.02	<0.1	0.09	0.31	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW012	16 Aug 2023	0026_SW012_230816	Normal	NSW_0026_PFASOMP_23	0.17	*3.79*	3.87	**7.66**	9.6	0.37	0.34	0.17	<0.02	<0.1	0.18	0.6	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14 Nov 2016	0026_SW13_161114	Normal	NSW_0026_PFAS	0.07	*2.7*	1.7	**4.4**	-	0.27	-	-	<0.01	0.06	0.06	0.42	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW013	13 Dec 2016	0026_SW13_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW013	16 Dec 2016	0026_SW13_161216	Normal	NSW_0026_PFAS	0.05	*2.3*	1	**3.3**	-	0.12	-	-	<0.01	<0.05	0.04	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW013	08 Feb 2017	0026_SW13_170208	Normal	NSW_0026_PFAS	0.02	*0.64*	0.29	0.93	-	0.03	-	-	<0.01	<0.05	<0.01	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW013	28 Mar 2017	0026_SW13_170328	Normal	NSW_0026_PFAS	0.06	*2.2*	1.5	**3.7**	-	0.12	0.11	0.05	<0.01	<0.05	0.07	0.27	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water					**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
SW013	12 Nov 2019	0026_QC200_191211	Interlab_D	NSW_0026_PFASOMP	0.064	*0.83*	1.8	**2.63**	-	0.27	0.22	0.034	<0.01	0.086	0.13	0.46	0.067	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	10 Dec 2019	0026_SW13_191211	Normal	NSW_0026_PFASOMP	0.06	*0.78*	2.84	**3.62**	5.34	0.36	0.3	0.05	<0.02	<0.1	0.12	0.76	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11 Feb 2020	0026_QC200_200211	Interlab_D	NSW_0026_PFASOMP	0.019	*0.61*	0.57	1.18	-	0.064	0.059	0.016	<0.01	<0.05	0.031	0.1	0.014	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	11 Feb 2020	0026_SW13_200211	Normal	NSW_0026_PFASOMP	0.03	*0.82*	0.71	1.53	1.89	0.08	0.07	0.02	<0.02	<0.1	0.03	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Feb 2020	0026_QC101_200226	Field_D	NSW_0026_PFASOMP	0.08	*1.55*	1.55	**3.1**	4.07	0.16	0.15	0.05	<0.02	<0.1	0.11	0.38	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Feb 2020	0026_SW13_200226	Normal	NSW_0026_PFASOMP	0.08	*1.41*	1.54	**2.95**	3.95	0.17	0.15	0.05	<0.02	<0.1	0.11	0.39	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	20 May 2020	0026_QC100_200520	Field_D	NSW_0026_PFASOMP	0.08	*1.47*	1.74	**3.21**	4.32	0.22	0.23	0.07	<0.02	<0.1	0.1	0.35	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	20 May 2020	0026_SW013_200520	Normal	NSW_0026_PFASOMP	0.07	*1.57*	1.84	**3.41**	4.54	0.24	0.23	0.08	<0.02	<0.1	0.1	0.35	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14 Jul 2020	0026_QC100_200714	Field_D	NSW_0026_PFASOMP	0.06	*1.12*	2.02	**3.14**	4.41	0.23	0.25	0.06	<0.02	<0.1	0.1	0.5	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	14 Jul 2020	0026_SW013_200714	Normal	NSW_0026_PFASOMP	0.07	*1.18*	2.23	**3.41**	4.71	0.23	0.26	0.06	<0.02	<0.1	0.1	0.51	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Aug 2020	0026_QC103_200826	Field_D	NSW_0026_PFASOMP	0.03	*0.62*	0.82	1.44	1.92	0.1	0.11	0.03	<0.02	<0.1	0.03	0.18	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	26 Aug 2020	0026_SW013_200826	Normal	NSW_0026_PFASOMP	0.03	*0.78*	0.76	1.54	1.99	0.1	0.1	0.03	<0.02	<0.1	0.03	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	02 Nov 2020	0026_QC200_201102	Interlab_D	NSW_0026_PFASOMP	0.021	*0.53*	0.61	1.14	-	0.071	0.061	0.015	<0.01	<0.05	0.027	0.1	0.015	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW013	02 Nov 2020	0026_SW013_201102	Normal	NSW_0026_PFASOMP	0.03	*0.84*	0.77	1.61	2.02	0.09	0.08	0.03	<0.02	<0.1	0.03	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	08 Feb 2021	0026_SW013_210208	Normal	NSW_0026_PFASOMP	0.08	*2.25*	1.3	**3.55**	4.61	0.25	0.18	0.06	<0.02	<0.1	0.07	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	11 Aug 2021	0026_SW013_210811	Normal	NSW_0026_PFASOMP	0.08	*1.22*	2.44	**3.66**	5.02	0.3	0.31	0.07	<0.02	<0.1	0.09	0.44	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	08 Feb 2022	0026_QC102_220208	Field_D	NSW_0026_PFASOMP	0.06	*1.15*	1.44	**2.59**	3.45	0.17	0.17	0.05	<0.02	<0.1	0.06	0.31	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	08 Feb 2022	0026_SW013_220208	Normal	NSW_0026_PFASOMP	0.07	*1.64*	1.54	**3.18**	4.1	0.18	0.18	0.06	<0.02	<0.1	0.07	0.32	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	15 Aug 2022	0026_SW013_220815	Normal	NSW_0026_PFASOMP	0.06	*1.03*	1.16	**2.19**	3.05	0.19	0.21	0.04	<0.02	<0.1	0.05	0.27	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	15 Feb 2023	0026_SW013_230215	Normal	NSW_0026_PFASOMP_23	0.05	*1.59*	1.49	**3.08**	3.9	0.16	0.17	0.08	<0.02	<0.1	0.06	0.26	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW013	16 Aug 2023	0026_SW013_230816	Normal	NSW_0026_PFASOMP_23	0.08	*1.03*	1.75	**2.78**	3.98	0.24	0.19	0.05	<0.02	<0.1	0.13	0.43	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	14 Nov 2016	0026_SW14_161114	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW014	13 Dec 2016	0026_SW14_161213	Normal	NSW_0026_PFAS	<0.01	<0.01	<0.01	<0.01	-	<0.01	-	-	<0.01	<0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW014	16 Dec 2016	0026_SW14_161216	Normal	NSW_0026_PFAS	0.08	*3.1*	1.8	**4.9**	-	0.22	-	-	<0.01	0.06	0.05	0.41	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW014	08 Feb 2017	0026_SW14_170208	Normal	NSW_0026_PFAS	0.02	*0.57*	0.21	0.78	-	0.02	-	-	<0.01	<0.05	<0.01	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW014	28 Mar 2017	0026_SW14_170328	Normal	NSW_0026_PFAS	0.01	*0.25*	0.21	0.46	-	0.02	0.02	<0.01	<0.01	<0.05	0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
SW014	10 Dec 2019	0026_SW14_191211	Normal	NSW_0026_PFASOMP	0.04	*0.78*	2.02	**2.8**	3.88	0.24	0.21	0.05	<0.02	<0.1	0.07	0.43	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11 Feb 2020	0026_SW14_200211	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	26 Feb 2020	0026_SW14_200226	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	20 May 2020	0026_SW014_200520	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	14 Jul 2020	0026_QC200_140720	Interlab_D	NSW_0026_PFASOMP	<0.01	<0.02	<0.01	<0.01	-	<0.01	<0.01	<0.01	<0.01	<0.05	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW014	14 Jul 2020	0026_SW014_200714	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	26 Aug 2020	0026_QC203_200826	Interlab_D	NSW_0026_PFASOMP	<0.01	*0.03*	0.03	0.06	0.06	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.01	<0.01	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW014	26 Aug 2020	0026_SW014_200826	Normal	NSW_0026_PFASOMP	<0.01	*0.03*	0.04	0.07	0.07	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	02 Nov 2020	0026_SW014_201102	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	08 Feb 2021	0026_SW014_210208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	11 Aug 2021	0026_QC201_210811	Interlab_D	NSW_0026_PFASOMP	<0.01	*0.14*	0.14	0.28	-	0.019	0.016	<0.01	<0.01	<0.05	<0.02	0.028	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW014	11 Aug 2021	0026_SW014_210811	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.02	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	08 Feb 2022	0026_SW014_220208	Normal	NSW_0026_PFASOMP	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	15 Aug 2022	0026_SW014_220815	Normal	NSW_0026_PFASOMP	<0.01	*0.01*	<0.01	0.01	0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	15 Feb 2023	0026_SW014_230215	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW014	16 Aug 2023	0026_SW014_230816	Normal	NSW_0026_PFASOMP_23	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.1	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	16 Nov 2016	0026_SW18_161116	Normal	NSW_0026_PFAS	0.28	*8.6*	6.1	**14.7**	-	0.97	-	-	<0.01	0.12	0.18	1.3	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	16 Dec 2016	0026_QC173_161216	Field_D	NSW_0026_PFAS	0.1	*2.5*	1.2	**3.7**	-	0.16	-	-	<0.01	0.06	0.06	0.43	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.89	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	16 Dec 2016	0026_SW18_161216	Normal	NSW_0026_PFAS	0.1	*2.3*	1.1	**3.4**	-	0.14	-	-	<0.01	0.07	0.06	0.42	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.9	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW018	08 Feb 2017	0026_QC177_170208	Field_D	NSW_0026_PFAS	0.09	*3.7*	0.97	**4.67**	-	0.12	-	-	<0.01	0.05	0.05	0.32	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-

					PFAS					PFAS - Perfluoroalkyl Sulfonic Acids				PFAS - Perfluoroalkyl Carboxylic Acids										PFAS - (n:2) Fluorotelomer Sulfonic Acids				PFAS - Perfluoroalkyl Sulfonamides						
					Perfluorooctanoic acid (PFOA)	Perfluorooctane sulfonic acid (PFOS)	Perfluorohexane sulfonic acid (PFHxS)	Sum of PFHxS and PFOS	Sum of PFAS	Perfluorobutane sulfonic acid (PFBS)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorodecane sulfonic acid (PFDS)	Perfluorobutanoic acid (PFBA)	Perfluoropentanoic acid (PFPeA)	Perfluorohexanoic acid (PFHxA)	Perfluoroheptanoic acid (PFHpA)	Perfluorononanoic acid (PFNA)	Perfluorodecanoic acid (PFDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluorotetradecanoic acid (PFTeDA)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	Perfluorooctane sulfonamide (FOSA)	N-Methyl perfluorooctane sulfonamide (MeFOSA)	N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	N-Ethyl perfluorooctane sulfonamide (EtFOSA)	N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)
					µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LOR					0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.05	0.02	0.01	0.05
PFAS NEMP 2020 Recreational Water					**10**			**2**																										
PFAS NEMP 2020 Freshwater 99%					*19*	*0.00023*																												
Location Code	**Date**	**Field ID**	**Sample Type**	**Project ID**																														
SW018	08 Feb 2017	0026_SW18_170208	Normal	NSW_0026_PFAS	0.09	*3.7*	0.93	**4.63**	-	0.11	-	-	<0.01	<0.05	0.04	0.32	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW018	11 Feb 2020	0026_SW18_200211	Normal	NSW_0026_PFASOMP	0.09	*2.28*	1.72	**4**	5.37	0.29	0.23	0.08	<0.02	<0.1	0.14	0.48	0.06	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	26 Feb 2020	0026_QC201_200226	Interlab_D	NSW_0026_PFASOMP	0.074	*1.8*	1.7	**3.5**	-	0.23	0.19	0.052	<0.01	0.092	0.12	0.41	0.053	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	0.015	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW018	26 Feb 2020	0026_SW18_200226	Normal	NSW_0026_PFASOMP	0.11	*2.18*	1.54	**3.72**	5.06	0.26	0.21	0.07	<0.02	<0.1	0.14	0.46	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	20 May 2020	0026_SW018_200520	Normal	NSW_0026_PFASOMP	0.5	*7.16*	8.29	**15.4**	24.3	1.66	1.68	0.4	<0.02	0.4	0.69	2.99	0.46	0.03	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	14 Jul 2020	0026_SW018_200714	Normal	NSW_0026_PFASOMP	0.02	*0.71*	0.56	1.27	1.63	0.05	0.06	0.02	<0.02	<0.1	0.04	0.14	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	26 Aug 2020	0026_SW018_200826	Normal	NSW_0026_PFASOMP	0.05	*0.8*	2.16	**2.96**	4.1	0.23	0.31	0.05	<0.02	<0.1	0.08	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	02 Nov 2020	0026_SW018_201102	Normal	NSW_0026_PFASOMP	0.29	*5.02*	5.19	**10.2**	14.4	0.71	0.71	0.19	<0.02	0.2	0.3	1.59	0.21	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	11 Feb 2021	0026_SW018_210211	Normal	NSW_0026_PFASOMP	0.31	*8.25*	4.72	**13**	16.5	0.63	0.63	0.27	0.02	0.1	0.21	1.14	0.26	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	11 Aug 2021	0026_SW018_210811	Normal	NSW_0026_PFASOMP	0.06	*0.52*	2.15	**2.67**	4.23	0.32	0.37	0.04	<0.02	<0.1	0.12	0.51	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	07 Feb 2022	0026_SW018_220207	Normal	NSW_0026_PFASOMP	0.19	*3.82*	3.27	**7.09**	9.53	0.44	0.46	0.13	<0.02	0.1	0.18	0.85	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 Aug 2022	0026_QC100_220815	Field_D	NSW_0026_PFASOMP	0.16	*3.09*	3.48	**6.57**	7.99	0.25	0.39	0.14	<0.02	<0.1	0.06	0.35	0.07	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	15 Aug 2022	0026_SW018_220815	Normal	NSW_0026_PFASOMP	0.16	*3.18*	3.23	**6.41**	7.84	0.26	0.37	0.15	<0.02	<0.1	0.06	0.35	0.08	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	13 Feb 2023	0026_SW018_230213	Normal	NSW_0026_PFASOMP_23	0.28	*4.6*	4.34	**8.94**	12.2	0.6	0.59	0.24	<0.02	0.1	0.22	1.08	0.16	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW018	16 Aug 2023	0026_SW018_230816	Normal	NSW_0026_PFASOMP_23	0.52	*3.97*	8.35	**12.3**	18.4	1.03	0.98	0.32	<0.02	0.4	0.49	1.94	0.35	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	12 Dec 2016	0026_QC166_161212	Field_D	NSW_0026_PFAS	0.04	*1.6*	1.9	**3.5**	-	0.15	-	-	<0.01	<0.05	0.03	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	12 Dec 2016	0026_QC166_161212	Field_D	NSW_0026_PFAS	0.05	*1.5*	2	**3.5**	-	0.18	-	-	<0.01	<0.05	0.03	0.23	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	12 Dec 2016	0026_SW20_161212	Normal	NSW_0026_PFAS	<0.01	*0.48*	0.2	0.68	-	0.02	-	-	<0.01	<0.05	<0.01	0.04	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	16 Dec 2016	0026_SW20_161216	Normal	NSW_0026_PFAS	0.05	*1*	2.1	**3.1**	-	0.16	-	-	<0.01	<0.05	0.03	0.19	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	<0.05	-	-	<0.05	-	-
SW020	09 Feb 2017	0026_SW20_170209	Normal	NSW_0026_PFAS	0.03	*1.2*	0.39	1.59	-	0.03	-	-	<0.01	<0.05	0.02	0.12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	<0.01	-	<0.05	-	<0.05	-	-	<0.05	-
SW020	11 Feb 2020	0026_SW20_200211	Normal	NSW_0026_PFASOMP	0.01	*0.35*	0.39	0.74	0.88	0.04	0.04	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	26 Feb 2020	0026_SW20_200226	Normal	NSW_0026_PFASOMP	0.03	*0.89*	1.16	**2.05**	2.49	0.12	0.11	0.03	<0.02	<0.1	0.02	0.13	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	20 May 2020	0026_QC200_200520	Interlab_D	NSW_0026_PFASOMP	0.064	*0.82*	1.1	1.92	-	0.071	0.075	0.024	<0.01	<0.05	<0.02	0.1	0.011	<0.01	<0.01	<0.01	<0.01	<0.02	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.02	<0.01	<0.05	<0.02	<0.01	<0.05
SW020	20 May 2020	0026_SW020_200520	Normal	NSW_0026_PFASOMP	0.11	*1.47*	1.4	**2.87**	3.5	0.11	0.14	0.06	<0.02	<0.1	0.03	0.16	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	14 Jul 2020	0026_SW020_200714	Normal	NSW_0026_PFASOMP	0.01	*0.48*	0.31	0.79	0.87	<0.02	0.02	<0.02	<0.02	<0.1	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	26 Aug 2020	0026_SW020_200826	Normal	NSW_0026_PFASOMP	0.03	*0.78*	1.24	**2.02**	2.48	0.11	0.14	0.04	<0.02	<0.1	<0.02	0.14	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	02 Nov 2020	0026_SW020_201102	Normal	NSW_0026_PFASOMP	0.02	*0.75*	0.71	1.46	1.72	0.07	0.06	0.02	<0.02	<0.1	<0.02	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	09 Feb 2021	0026_SW020_210209	Normal	NSW_0026_PFASOMP	0.03	*1.13*	1.15	**2.28**	2.77	0.14	0.13	0.04	<0.02	<0.1	<0.02	0.15	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	11 Aug 2021	0026_SW020_210811	Normal	NSW_0026_PFASOMP	0.05	*1.34*	1.95	**3.29**	4.05	0.15	0.19	0.07	<0.02	<0.1	0.04	0.23	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	08 Feb 2022	0026_SW020_220208	Normal	NSW_0026_PFASOMP	0.04	*0.99*	1.36	**2.35**	2.93	0.12	0.13	0.04	<0.02	<0.1	0.03	0.22	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	15 Aug 2022	0026_QC200_220815	Interlab_D	NSW_0026_PFASOMP	0.03	*0.77*	1.2	2	2.5	0.13	0.13	0.04	<0.02	<0.02	0.03	0.17	0.02	<0.01	<0.02	<0.02	<0.05	<0.1	<0.5	<0.01	<0.01	<0.02	<0.02	<0.1	<0.05	<0.02	<0.05	<0.1	<0.02	<0.5
SW020	15 Aug 2022	0026_SW020_220815	Normal	NSW_0026_PFASOMP	0.04	*0.9*	1.23	**2.13**	2.75	0.13	0.18	0.05	<0.02	<0.1	0.02	0.18	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	14 Feb 2023	0026_SW020_230214	Normal	NSW_0026_PFASOMP_23	0.03	*0.78*	0.94	1.72	2.07	0.09	0.1	0.02	<0.02	<0.1	<0.02	0.11	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05
SW020	16 Aug 2023	0026_SW020_230816	Normal	NSW_0026_PFASOMP_23	0.05	*1.63*	1.55	**3.18**	3.74	0.1	0.11	0.05	<0.02	<0.1	0.03	0.2	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.05	<0.05	<0.05	<0.05	<0.02	<0.05	<0.02	<0.05	<0.05	<0.02	<0.05

Notes:

LOR	Limit of Reporting
Normal	Primary sample
Field_D	Intra-laboratory duplicate sample
Interlab_D	Inter-laboratory duplicate sample
Bold	Denotes exceedance of adoped human health screening criteria
Italics	Denotes exceedance of adopted ecological screening criteria

Appendix C

Calibration Certificates

Certificate of Service and Calibration

Water Quality Meter

YSI Professional Plus

Company Name	WAM Scientific
Office Address	26 Bungarra Crescent, Chipping Norton NSW 2170
Phone Number	+61 405 241 484
Contact Name	William Pak
Instrument	YSI Pro Plus Water Quality Meter w/ 1m Quatro Cable
Serial Number	21A102654
Client Name	Jessica Roy (AECOM Australia Pty Ltd)
Project Number	60612562_3.1
Comments	-

Instrument Check

Item	Test	Test Passed	Comments
2 x Alkaline C-size Batteries	Klein Tools MM300 Multimeter	✓	Both batteries reading above 2.9V
Battery Saver Function	Operation	✓	Automatically turns off after 60 minutes if idle
Unit Display	Operation	✓	Screen visible, no damage
Keypad	Operation	✓	Responsive, no damage
Connection Port and Cable	Condition/Check	✓	Clean, no damage
Monitor Housing	Condition/Check	✓	No damage
Firmware	Version	✓	4.0.0
pH Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
pH millivolts for pH 7.00	Calibration	✓	pH 7.00 calibration range between 0 mV ± 50 mV
pH millivolts for pH 4.00	Calibration	✓	pH 4 mV range +165 to +180 from 7 buffer mV value
pH slope	Calibration	✓	Range between 55 to 60 mV/pH (ideal value 59 mV)
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
ORP Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
ORP Reading	Calibration	✓	Within ± 80 mV of reference Zobell Reading
Response time < 90 seconds	Calibration	✓	Responds to correct value within 90 seconds
Conductivity/Temp Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
Conductivity Cell	Calibration	✓	Conductivity cell constant 5.0 ± 1.0 in GLP file
Clean Sensor Readings	Calibration	✓	Clean sensor reads less than 3 uS/cm in dry air
Dissolved Oxygen Probe	Condition/Calibration	✓	Calibrated and conforms to manufacturer's specs
DO Cap	Condition/Calibration	✓	1.25 mil PE membrane (yellow membrane)
DO Sensor in Use	Condition	✓	Polarographic DO sensor
DO Sensor Value	Calibration	✓	(min 4.31 uA - max 8.00 uA) Avg 6.15 uA

Instrument Readings

Parameter	Standard Used	Reference No.	Calibration Value	Observed	Actual	Units
Temperature	Centre 370 Thermometer	Room Temp.	14.5	14.8	14.5	°C
pH	pH 4.00	386466	4.01	4.06	4.01	pH
pH	pH 7.00	387329	7.00	7.01	7.00	pH
Conductivity	2760 µs/cm at 25°C	388521	2760	2745	2760	µs/cm
ORP (Ref. check only)	Zobell A & B	380835/382785	253.5	254.5	253.5	mV
Zero Dissolved O_2	$NaSO_3$ in Distilled H_2O	389912	0.0	0.3	0.0	%
100% Dissolved O_2	100% Air Saturated H_2O	Fresh Air	100.0	101.0	100.0	%

Declaration

WAM Scientific certifies that the above instrument was successfully tested according to manufacturer's standards and all necessary checks were conducted to ensure the instrument was fully operational prior to dispatch. The calibration data supplied was obtained in accordance with manufacturer's specifications using solutions of known values.

Calibrated By	William Pak
Calibration Date	14/08/2023
Calibration Due	14/02/2024

AECOM

ANZ

FQM - Water Quality Meter Calibration Record

Q4AN(EV)-410-FM1

Project Name:	PFAS OMP	**Project Number:**	60612562
Project Location:	Albatross	**Client:**	DoD
PM Name:	G.Tredinnick	**Fieldwork Staff Name:**	NT, JJ

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

INSTRUMENT DETAILS

Supplier:	WAM SCIENTIFIC
Make and Model:	YSI PRO PLUS
Serial Number:	21A102654

CALIBRATION

CALIBRATE WITH CALIBRATION SOLUTIONS

Date and Time:	16/8/23 0830				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:			2180	0	
Calibration Reading:			2180	0	
Calibration Temperature:			13.9	13.1	

ONGOING CHECKS

BUMP TEST WITH CALIBRATION SOLUTION

Date and Time:	16/8/23 0830				
Parameter	Acidity		Conductivity	Dissolved Oxygen	
Units	pH	pH	µS/cm	~~ppm~~ mg/L	ppm
Calibration Standard Concentration:	4	7	2180	0	
Bump Test Reading:	4.02	7.0	2801	1.15	
Bump Test Temperature:	10.4	13.3	13.8	13.1	

COMMENTS

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

Approval and Distribution

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

[signature] 16/8/23

Fieldwork Staff Signature — Date

Distribution: Project Central File

Appendix D

Analytical Data Validation

DATA VALIDATION REPORT

Project number:	60612562	**Validation by:**	[redacted]	**Date:**	14/09/2023
Client:	Department of Defence	**Data verified by:**		**Date:**	15/09/2023
Site:	HMAS Albatross	**Project Manager:**			
Matrix type:	Surface Water				
Primary samples:	13 Surface Water samples				
Laboratory:	Primary: ALS Secondary: Envirolab				
Lab reference:	ES2327664 (ALS), 330738 (Envirolab)				

Key Issues:	No QA/QC issues were identified in the field or laboratory datasets that could have a material implication to decision-making on the project.
Field Quality Assurance and Quality Control	
Field DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023).
Sampling personnel	Sampling was conducted by Nicola Tomlin and Jessica Jian on 16/08/2023. Field personnel were both suitably qualified and experienced AECOM Environmental Scientists.
Sampling Methodology	All water samples were collected in accordance with the methodology outlined in the SAQP (AECOM, 2023).
Chain of Custody (COC)	All samples collected were reported on the Chain of Custody documents (COC) and subsequent email amendments and analysed for requested analytes.
Rinsate Blank	Rinsate blank samples were collected at a frequency of 1 per day of sampling (one in total), meeting the DQI.
Frequency of field QC	Field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) comprised: - two field duplicate samples; and - two field triplicate samples For the 13 primary water samples, this equated to a frequency of 15%, which met the DQI of one in ten primary samples (10%).
Handling and preservation	All samples were received by the primary laboratory in appropriate containers, with ice present and at 7˚C, 8.6 ˚C and 10˚C, outside the recommended temperature of <6°C. Given that the laboratory reported the cooling media was ice and that the analytical groups tested are of non-volatile nature, AECOM considers that the temperature anomaly is not significant. All samples were received by the secondary laboratory in appropriate containers, with ice present and at 1.5˚C, within the recommended temperature range (<6°C).
Calibration of equipment	Measurements of water geochemical parameters were undertaken using YSI Professional Plus water quality meters, which were calibrated by the supplier prior to use, in accordance with the manufacturer's instructions and bump tested daily by the field personnel. Equipment calibration and service certificates are presented in **Appendix C**.
Laboratory QA/QC	
Laboratory DQOs and DQIs	The data quality objectives (DQOs) and data quality indicators (DQIs) adopted for these works are presented in the SAQP (AECOM, 2023).

DATA VALIDATION REPORT	
Tests requested/reported	All samples were analysed for per- and polyfluoroalkyl substances (PFAS) extended suite, at the standard level of detection. All sample requests for analysis are reported on the Chain of Custody (COC).
Holding time compliance	All samples were extracted and analysed by the laboratory within the recommended holding times.
Laboratory accreditation	The primary laboratory analysis was conducted by ALS Environmental Pty Ltd (Sydney) a National Association of Testing Authorities (NATA) accredited laboratory (Accreditation No. 825). The secondary samples were analysed at Envirolab Services, also a NATA accredited laboratory (accreditation number 2901).
Frequency of laboratory QC	The primary laboratory ALS reported a sufficient frequency of quality control samples to assess whether the results have been reported with acceptable accuracy and precision.
Method Blank	All method blank concentrations were reported <LOR (limit of reporting) for the analytes tested, meeting the project requirements. This is presented in the Quality Control Reports for both laboratories.
Laboratory duplicate RPDs	The reported laboratory duplicate's Relative Percentage Differences (RPDs) were within laboratory control limits. The laboratory duplicate RPDs are presented in the Quality Control Reports for both laboratories.
LCS recovery	Laboratory control spike (LCS) recoveries were within control limits. This is presented in the Quality Control Reports for both laboratories.
Matrix spike recovery	Matrix spike (MS) recoveries were within control limits.
Surrogate spike recovery	The reported surrogate spike recoveries were within laboratory control limits.
QA/QC Data Evaluation	
Comparison of Field Observations and Laboratory Results	No anomalies between field observations and analytical results were noted.
Anomalous data / Repeat Analysis	All data was within historical ranges, and no repeat analysis was required.
Data transcription	A check of the laboratory results identified no anomalies within the electronic data, the laboratory reports, and the tables generated by AECOM.
Limits of reporting	With the exception of the PFAS NEMP Freshwater 99% species protection (HEPA 2020) values for PFOS, the laboratory LORs were sufficiently low to enable assessment against adopted guideline criteria.
Rinsate Blank sample results	The concentrations of PFAS in the Rinsate Blank sample (**Table D2**) were below the LOR, indicating decontamination procedures were adequate.
Intra/Inter-laboratory duplicate RPDs for Field Duplicates / Triplicates	Field duplicates (intra-laboratory duplicates) RPDs for field duplicates (intra-laboratory duplicates) and triplicates (inter-laboratory duplicates) were reported within acceptable limits (≤30%, or ≤50% for results 10-20 x LOR, or No Limit for results <10 x LOR), with the exception of: <u>Inter-laboratory duplicates (Field Triplicates) RPDs</u> **0026_SW009/QC200** - Perfluorooctane sulfonic acid (PFOS): 35%

DATA VALIDATION REPORT	
	Given that the concentrations were generally within the same order of magnitude, AECOM considers that these are not significant to impact the interpretation of results. Where required for quantitative purposes, the highest concentrations from the primary and duplicate pairs will be used in the assessment.
Overall Assessment	
	Data validation procedure employed in the assessment of the field and laboratory QA/QC data indicated that the reported analytical results are representative of the sample locations and that the overall quality of the analytical data produced is acceptably reliable for the purpose of this report.

Attached:

Table D1 – Duplicate RPDs

Table D2 – Rinsate Blank Results

			Lab Report Number	ES2327664	ES2327664		ES2327664	330738		ES2327664	ES2327664		ES2327664	330738	
			Field ID	0026_SW009_230816	0026_QC100_230816		0026_SW009_230816	0026_QC200_230816		0026_SW005_230816	0026_QC101_230816		0026_SW005_230816	0026_QC201_230816	
			Matrix Type	Water	Water		Water	Water		Water	Water		Water	Water	
			Date	16 Aug 2023	16 Aug 2023	RPD	16 Aug 2023	16 Aug 2023	RPD	16 Aug 2023	16 Aug 2023	RPD	16 Aug 2023	16 Aug 2023	RPD
	Unit	LOR	**RPD**												
PFAS															
Perfluorooctanoic acid (PFOA)	µg/L	0.01		0.06	0.06	0	0.06	0.04	40	0.09	0.09	0	0.09	0.07	25
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01		2.56	2.61	2	2.56	1.8	**35**	1.92	1.99	4	1.92	1.5	25
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01		0.95	0.98	3	0.95	0.77	21	1.87	1.88	1	1.87	1.5	22
Sum of PFHxS and PFOS	µg/L	0.01		3.51	3.59	2	3.51	2.5	**34**	3.79	3.87	2	3.79	3.0	23
Sum of PFAS	µg/L	0.01		4.00	4.09	2	4.00	3.0	29	4.87	4.93	1	4.87	4.0	20
PFAS - Perfluoroalkyl Sulfonic Acids															
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.01		0.08	0.08	0	0.08	0.06	29	0.19	0.18	5	0.19	0.18	5
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01		0.06	0.06	0	0.06	0.07	15	0.18	0.18	0	0.18	0.18	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01		0.05	0.05	0	0.05	0.05	0	0.07	0.07	0	0.07	0.07	0
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
PFAS - Perfluoroalkyl Carboxylic Acids															
Perfluorobutanoic acid (PFBA)	µg/L	0.02		<0.1	<0.1	nc	<0.1	<0.02	nc	<0.1	<0.1	nc	<0.1	0.04	nc
Perfluoropentanoic acid (PFPeA)	µg/L	0.02		0.04	0.04	0	0.04	0.04	0	0.11	0.11	0	0.11	0.1	10
Perfluorohexanoic acid (PFHxA)	µg/L	0.01		0.18	0.18	0	0.18	0.15	18	0.38	0.37	3	0.38	0.32	17
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01		0.02	0.03	40	0.02	0.02	0	0.06	0.06	0	0.06	0.05	18
Perfluorononanoic acid (PFNA)	µg/L	0.01		<0.02	<0.02	nc	<0.02	<0.01	nc	<0.02	<0.02	nc	<0.02	<0.01	nc
Perfluorodecanoic acid (PFDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.05	nc	<0.02	<0.02	nc	<0.02	<0.05	nc
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc
PFAS - (n:2) Fluorotelomer Sulfonic Acids						nc									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	<0.01	nc
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.01		<0.05	<0.05	nc	<0.05	<0.01	nc	<0.05	<0.05	nc	<0.05	<0.01	nc
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.02		<0.05	<0.05	nc	<0.05	<0.02	nc	<0.05	<0.05	nc	<0.05	<0.02	nc
PFAS - Perfluoroalkyl Sulfonamides															
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.1	nc	<0.02	<0.02	nc	<0.02	<0.1	nc
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc	<0.05	<0.05	nc
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.1	nc	<0.05	<0.05	nc	<0.05	<0.1	nc
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02		<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc	<0.02	<0.02	nc
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05		<0.05	<0.05	nc	<0.05	<0.5	nc	<0.05	<0.05	nc	<0.05	<0.5	nc

Notes
LOR = Limit of Reporting
nc = non calculable as concentrations in one or both samples are below the LOR
High RPDs (>30%, or >50% for results 10-20 x LOR) are highlighted in bold

		Lab Report Number	ES2327664
		Field ID	0026_QC300_230816
		Matrix Type	Water
		Date	16 Aug 2023
	Unit	LOR	
PFAS			
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01
Perfluorooctane sulfonic acid (PFOS)	µg/L	0.01	<0.01
Perfluorohexane sulfonic acid (PFHxS)	µg/L	0.01	<0.01
Sum of PFHxS and PFOS	µg/L	0.01	<0.01
Sum of PFAS	µg/L	0.01	<0.01
PFAS - Perfluoroalkyl Sulfonic Acids			
Perfluorobutane sulfonic acid (PFBS)	µg/L	0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.02	<0.02
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.02	<0.02
Perfluorodecane sulfonic acid (PFDS)	µg/L	0.02	<0.02
PFAS - Perfluoroalkyl Carboxylic Acids			
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1
Perfluoropentanoic acid (PFPeA)	µg/L	0.02	<0.02
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02
Perfluorononanoic acid (PFNA)	µg/L	0.02	<0.02
Perfluorodecanoic acid (PFDA)	µg/L	0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	µg/L	0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.05	<0.05
PFAS - (n:2) Fluorotelomer Sulfonic Acids			
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.05	<0.05
PFAS - Perfluoroalkyl Sulfonamides			
Perfluorooctane sulfonamide (FOSA)	µg/L	0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	µg/L	0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	µg/L	0.02	<0.02
N-methyl perfluorooctane sulfonamidoethanol (MeFOSE)	µg/L	0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	µg/L	0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	µg/L	0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	µg/L	0.05	<0.05

Notes
LOR = Limit of Reporting

Appendix E

Laboratory Certificates

CERTIFICATE OF ANALYSIS

Work Order	: **ES2327664**	Page	: 1 of 11
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	[redacted]	Contact	[redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Aug-2023 10:00
Order number	: 60612562_3.1	Date Analysis Commenced	: 18-Aug-2023
C-O-C number	: 55930	Issue Date	: 23-Aug-2023 13:35
Sampler	[redacted]		
Site	: 0026		
Quote number	: SY/139/19 v4 60612562_3.1		
No. of samples received	: 16		
No. of samples analysed	: 16		

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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results
- Surrogate Control Limits

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

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

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

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

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

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

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

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

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0026_QC300_230816	----	----	----	----
			Sampling date / time	16-Aug-2023 13:51	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2327664-016	--------	--------	--------	--------
				Result	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	----	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	----	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	----	----	----	----
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	----	----	----	----
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	----	----	----	----
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	----	----	----	----
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	----	----	----	----
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	----	----	----	----
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	----	----	----	----
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	----	----	----	----

Analytical Results

Sub-Matrix: RINSATE (Matrix: WATER)			Sample ID	0026_QC300_230816	----	----	----	----
			Sampling date / time	16-Aug-2023 13:51	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2327664-016	--------	--------	--------	--------
				Result	----	----	----	----
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	----	----	----	----
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	----	----	----	----
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	----	----	----	----
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	----	----
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	----	----	----	----
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	----	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	----	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	----	----
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**104**	----	----	----	----
13C8-PFOA	----	0.02	%	**98.6**	----	----	----	----

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW001_230816	0026_SW002_230816	0026_SW004B_230816	0026_SW005_230816	0026_SW006_230816
			Sampling date / time	16-Aug-2023 12:50	16-Aug-2023 12:31	16-Aug-2023 13:09	16-Aug-2023 11:44	16-Aug-2023 11:13
Compound	CAS Number	LOR	Unit	ES2327664-001	ES2327664-002	ES2327664-003	ES2327664-004	ES2327664-005
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	**0.10**	**0.19**	**0.18**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	**0.09**	**0.18**	**0.19**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	**0.06**	**0.81**	**1.87**	**1.90**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	**0.03**	**0.07**	**0.08**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.01**	**0.03**	**0.62**	**1.92**	**2.06**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	**0.05**	**0.11**	**0.10**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	**0.18**	**0.38**	**0.37**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	**0.03**	**0.06**	**0.06**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	**0.04**	**0.09**	**0.09**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER
(Matrix: WATER)

Compound	CAS Number	LOR	Unit	0026_SW001_230816	0026_SW002_230816	0026_SW004B_230816	0026_SW005_230816	0026_SW006_230816
Sampling date / time				16-Aug-2023 12:50	16-Aug-2023 12:31	16-Aug-2023 13:09	16-Aug-2023 11:44	16-Aug-2023 11:13
				ES2327664-001	ES2327664-002	ES2327664-003	ES2327664-004	ES2327664-005
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**0.01**	**0.09**	**1.95**	**4.87**	**5.03**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.01**	**0.09**	**1.43**	**3.79**	**3.96**
Sum of PFAS (WA DER List)	----	0.01	µg/L	**0.01**	**0.09**	**1.83**	**4.62**	**4.76**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**98.6**	**98.4**	**97.2**	**99.5**	**100**
13C8-PFOA	----	0.02	%	**100**	**95.5**	**97.8**	**99.3**	**98.6**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW007_230816	0026_SW008_230816	0026_SW009_230816	0026_SW012_230816	0026_SW013_230816
			Sampling date / time	16-Aug-2023 10:51	16-Aug-2023 09:42	16-Aug-2023 09:07	16-Aug-2023 10:01	16-Aug-2023 13:50
Compound	CAS Number	LOR	Unit	ES2327664-006	ES2327664-007	ES2327664-008	ES2327664-009	ES2327664-010
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	**0.04**	**0.05**	**0.08**	**0.37**	**0.24**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	**0.03**	**0.06**	**0.06**	**0.34**	**0.19**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	**0.32**	**0.89**	**0.95**	**3.87**	**1.75**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	**0.03**	**0.05**	**0.17**	**0.05**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	**0.32**	**0.97**	**2.56**	**3.79**	**1.03**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	**0.08**	**0.05**	**0.04**	**0.18**	**0.13**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	**0.11**	**0.30**	**0.18**	**0.60**	**0.43**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	**0.03**	**0.03**	**0.02**	**0.11**	**0.08**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	**0.01**	**0.04**	**0.06**	**0.17**	**0.08**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW007_230816	0026_SW008_230816	0026_SW009_230816	0026_SW012_230816	0026_SW013_230816
			Sampling date / time	16-Aug-2023 10:51	16-Aug-2023 09:42	16-Aug-2023 09:07	16-Aug-2023 10:01	16-Aug-2023 13:50
Compound	CAS Number	LOR	Unit	ES2327664-006	ES2327664-007	ES2327664-008	ES2327664-009	ES2327664-010
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	**0.94**	**2.42**	**4.00**	**9.60**	**3.98**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	**0.64**	**1.86**	**3.51**	**7.66**	**2.78**
Sum of PFAS (WA DER List)	----	0.01	µg/L	**0.91**	**2.33**	**3.89**	**9.09**	**3.74**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**94.2**	**100**	**98.8**	**94.9**	**97.0**
13C8-PFOA	----	0.02	%	**98.5**	**97.8**	**98.0**	**98.6**	**99.0**

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW014_230816	0026_SW018_230816	0026_SW020_230816	0026_QC100_230816	0026_QC101_230816
			Sampling date / time	16-Aug-2023 14:04	16-Aug-2023 10:38	16-Aug-2023 12:13	16-Aug-2023 09:08	16-Aug-2023 11:43
Compound	CAS Number	LOR	Unit	ES2327664-011	ES2327664-012	ES2327664-013	ES2327664-014	ES2327664-015
				Result	Result	Result	Result	Result
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	**1.03**	**0.10**	**0.08**	**0.18**
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	**0.98**	**0.11**	**0.06**	**0.18**
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	**8.35**	**1.55**	**0.98**	**1.88**
Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	**0.32**	**0.05**	**0.05**	**0.07**
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	**3.97**	**1.63**	**2.61**	**1.99**
Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231B: Perfluoroalkyl Carboxylic Acids								
Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	**0.4**	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	**0.49**	**0.03**	**0.04**	**0.11**
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	**1.94**	**0.20**	**0.18**	**0.37**
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	**0.35**	**0.02**	**0.03**	**0.06**
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	**0.52**	**0.05**	**0.06**	**0.09**
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231C: Perfluoroalkyl Sulfonamides								
Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

Analytical Results

Sub-Matrix: SURFACE WATER (Matrix: WATER)			Sample ID	0026_SW014_230816	0026_SW018_230816	0026_SW020_230816	0026_QC100_230816	0026_QC101_230816
			Sampling date / time	16-Aug-2023 14:04	16-Aug-2023 10:38	16-Aug-2023 12:13	16-Aug-2023 09:08	16-Aug-2023 11:43
Compound	CAS Number	LOR	Unit	ES2327664-011	ES2327664-012	ES2327664-013	ES2327664-014	ES2327664-015
				Result	Result	Result	Result	Result
EP231C: Perfluoroalkyl Sulfonamides - Continued								
N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EP231P: PFAS Sums								
Sum of PFAS	----	0.01	µg/L	<0.01	**18.4**	**3.74**	**4.09**	**4.93**
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	**12.3**	**3.18**	**3.59**	**3.87**
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	**17.0**	**3.58**	**3.98**	**4.68**
EP231S: PFAS Surrogate								
13C4-PFOS	----	0.02	%	**101**	**100**	**94.8**	**105**	**103**
13C8-PFOA	----	0.02	%	**98.7**	**95.9**	**97.3**	**101**	**98.7**

Surrogate Control Limits

Sub-Matrix: **RINSATE**

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

Sub-Matrix: **SURFACE WATER**

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

QUALITY CONTROL REPORT

Work Order	: **ES2327664**	Page	: 1 of 7
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Aug-2023
Order number	: 60612562_3.1	Date Analysis Commenced	: 18-Aug-2023
C-O-C number	: 55930	Issue Date	: 23-Aug-2023
Sampler	: [redacted]		
Site	: 0026		
Quote number	: SY/139/19 v4 60612562_3.1		
No. of samples received	: 16		
No. of samples analysed	: 16		

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

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

This Quality Control Report contains the following information:

- Laboratory Duplicate (DUP) Report; Relative Percentage Difference (RPD) and Acceptance Limits
- Method Blank (MB) and Laboratory Control Spike (LCS) Report; Recovery and Acceptance Limits
- Matrix Spike (MS) Report; Recovery and Acceptance Limits

Signatories

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

Signatories	*Position*	*Accreditation Category*
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW

General Comments

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

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

Where a reported less than (<) result is higher than the LOR, this may be due to primary sample extract/digestate dilution and/or insufficient sample for analysis. Where the LOR of a reported result differs from standard LOR, this may be due to high moisture content, insufficient sample (reduced weight employed) or matrix interference.

Key : Anonymous = Refers to samples which are not specifically part of this work order but formed part of the QC process lot
CAS Number = CAS registry number from database maintained by Chemical Abstracts Services. The Chemical Abstracts Service is a division of the American Chemical Society.
LOR = Limit of reporting
RPD = Relative Percentage Difference
# = Indicates failed QC

Laboratory Duplicate (DUP) Report

The quality control term Laboratory Duplicate refers to a randomly selected intralaboratory split. Laboratory duplicates provide information regarding method precision and sample heterogeneity. The permitted ranges for the Relative Percent Deviation (RPD) of Laboratory Duplicates are specified in ALS Method QWI-EN/38 and are dependent on the magnitude of results in comparison to the level of reporting: Result < 10 times LOR: No Limit; Result between 10 and 20 times LOR: 0% - 50%; Result > 20 times LOR: 0% - 20%.

Sub-Matrix: **WATER**

				Laboratory Duplicate (DUP) Report					
Laboratory sample ID	*Sample ID*	*Method: Compound*	*CAS Number*	*LOR*	*Unit*	*Original Result*	*Duplicate Result*	*RPD (%)*	*Acceptable RPD (%)*
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 5242734)									
ES2327664-001	0026_SW001_230816	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	0.01	0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
ES2327664-011	0026_SW014_230816	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5242734)									
ES2327664-001	0026_SW001_230816	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Laboratory Duplicate (DUP) Report					
				LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
EP231B: Perfluoroalkyl Carboxylic Acids (QC Lot: 5242734) - continued									
ES2327664-011	0026_SW014_230816	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	<0.1	0.0	No Limit
EP231C: Perfluoroalkyl Sulfonamides (QC Lot: 5242734)									
ES2327664-001	0026_SW001_230816	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2327664-011	0026_SW014_230816	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	<0.02	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5242734)									
ES2327664-001	0026_SW001_230816	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	LOR	Unit	Original Result	Duplicate Result	RPD (%)	Acceptable RPD (%)
				Laboratory Duplicate (DUP) Report					
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 5242734) - continued									
ES2327664-001	0026_SW001_230816	EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
ES2327664-011	0026_SW014_230816	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	<0.05	0.0	No Limit
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	<0.05	0.0	No Limit
EP231P: PFAS Sums (QC Lot: 5242734)									
ES2327664-001	0026_SW001_230816	EP231X: Sum of PFAS	----	0.01	µg/L	0.01	0.01	0.0	No Limit
ES2327664-011	0026_SW014_230816	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit

Method Blank (MB) and Laboratory Control Sample (LCS) Report

The quality control term Method / Laboratory Blank refers to an analyte free matrix to which all reagents are added in the same volumes or proportions as used in standard sample preparation. The purpose of this QC parameter is to monitor potential laboratory contamination. The quality control term Laboratory Control Sample (LCS) refers to a certified reference material, or a known interference free matrix spiked with target analytes. The purpose of this QC parameter is to monitor method precision and accuracy independent of sample matrix. Dynamic Recovery Limits are based on statistical evaluation of processed LCS.

Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	*CAS Number*	*LOR*	*Unit*	*Result*	*Concentration*	*LCS*	*Low*	*High*
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5242734)								
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	95.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	99.6	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	104	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	102	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	108	65.0	140
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	95.4	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5242734)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	90.8	73.0	129
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	100	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	107	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	107	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	100	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	105	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	114	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	104	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	98.6	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	106	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5242734)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	107	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	115	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	101	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	106	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	105	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	105	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	108	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5242734)								

Sub-Matrix: **WATER**

Method: Compound	CAS Number	LOR	Unit	Method Blank (MB) Report Result	Laboratory Control Spike (LCS) Report Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low	High
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5242734) - continued								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	108	63.0	143
EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	0.25 µg/L	106	64.0	140
EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	0.25 µg/L	128	67.0	138
EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	0.25 µg/L	110	71.4	144

Matrix Spike (MS) Report

The quality control term Matrix Spike (MS) refers to an intralaboratory split sample spiked with a representative set of target analytes. The purpose of this QC parameter is to monitor potential matrix effects on analyte recoveries. Static Recovery Limits as per laboratory Data Quality Objectives (DQOs). Ideal recovery ranges stated may be waived in the event of sample matrix interference.

Sub-Matrix: **WATER**

Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Matrix Spike (MS) Report Spike Concentration	SpikeRecovery(%) MS	Acceptable Limits (%) Low	High
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 5242734)							
ES2327664-002	0026_SW002_230816	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	94.7	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	89.7	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	104	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	102	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	105	65.0	140
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	90.9	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 5242734)							
ES2327664-002	0026_SW002_230816	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	102	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	104	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	101	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	105	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	106	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	95.9	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	114	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	107	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	106	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	92.5	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	105	71.0	132
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5242734)							
ES2327664-002	0026_SW002_230816	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	102	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	114	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	107	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	108	66.0	145

Sub-Matrix: **WATER**

				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 5242734) - continued							
ES2327664-002	0026_SW002_230816	EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	103	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	99.4	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	93.3	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 5242734)							
ES2327664-002	0026_SW002_230816	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	85.4	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	107	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	115	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	92.4	71.4	144

QA/QC Compliance Assessment to assist with Quality Review

Work Order	: **ES2327664**	Page	: 1 of 5
Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Telephone	: +61 2 8784 8555
Project	: NSW_0026_PFASOMP_23	Date Samples Received	: 17-Aug-2023
Site	: 0026	Issue Date	: 23-Aug-2023
Sampler	: [redacted]	No. of samples received	: 16
Order number	: 60612562_3.1	No. of samples analysed	: 16

This report is automatically generated by the ALS LIMS through interpretation of the ALS Quality Control Report and several Quality Assurance parameters measured by ALS. This automated reporting highlights any non-conformances, facilitates faster and more accurate data validation and is designed to assist internal expert and external Auditor review. Many components of this report contribute to the overall DQO assessment and reporting for guideline compliance.

Brief method summaries and references are also provided to assist in traceability.

Summary of Outliers

Outliers : Quality Control Samples

This report highlights outliers flagged in the Quality Control (QC) Report.

- **NO Method Blank value outliers occur.**
- **NO Duplicate outliers occur.**
- **NO Laboratory Control outliers occur.**
- **NO Matrix Spike outliers occur.**
- **For all regular sample matrices, NO surrogate recovery outliers occur.**

Outliers : Analysis Holding Time Compliance

- **NO Analysis Holding Time Outliers exist.**

Outliers : Frequency of Quality Control Samples

- **NO Quality Control Sample Frequency Outliers exist.**

Analysis Holding Time Compliance

If samples are identified below as having been analysed or extracted outside of recommended holding times, this should be taken into consideration when interpreting results.

This report summarizes extraction / preparation and analysis times and compares each with ALS recommended holding times (referencing USEPA SW 846, APHA, AS and NEPM) based on the sample container provided. Dates reported represent first date of extraction or analysis and preclude subsequent dilutions and reruns. A listing of breaches (if any) is provided herein.

Holding time for leachate methods (e.g. TCLP) vary according to the analytes reported. Assessment compares the leach date with the shortest analyte holding time for the equivalent soil method. These are: organics 14 days, mercury 28 days & other metals 180 days. A recorded breach does not guarantee a breach for all non-volatile parameters.

Holding times for ***VOC in soils*** vary according to analytes of interest. Vinyl Chloride and Styrene holding time is 7 days; others 14 days. A recorded breach does not guarantee a breach for all VOC analytes and should be verified in case the reported breach is a false positive or Vinyl Chloride and Styrene are not key analytes of interest/concern.

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method		*Sample Date*	*Extraction / Preparation*			*Analysis*		
Container / Client Sample ID(s)			*Date extracted*	*Due for extraction*	*Evaluation*	*Date analysed*	*Due for analysis*	*Evaluation*
EP231A: Perfluoroalkyl Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0026_SW001_230816,	0026_SW002_230816,	**16-Aug-2023**	**21-Aug-2023**	12-Feb-2024	✓	**23-Aug-2023**	12-Feb-2024	✓
0026_SW004B_230816,	0026_SW005_230816,							
0026_SW006_230816,	0026_SW007_230816,							
0026_SW008_230816,	0026_SW009_230816,							
0026_SW012_230816,	0026_SW013_230816,							
0026_SW014_230816,	0026_SW018_230816,							
0026_SW020_230816,	0026_QC100_230816,							
0026_QC101_230816,	0026_QC300_230816							
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X)								
0026_SW001_230816,	0026_SW002_230816,	**16-Aug-2023**	**21-Aug-2023**	12-Feb-2024	✓	**23-Aug-2023**	12-Feb-2024	✓
0026_SW004B_230816,	0026_SW005_230816,							
0026_SW006_230816,	0026_SW007_230816,							
0026_SW008_230816,	0026_SW009_230816,							
0026_SW012_230816,	0026_SW013_230816,							
0026_SW014_230816,	0026_SW018_230816,							
0026_SW020_230816,	0026_QC100_230816,							
0026_QC101_230816,	0026_QC300_230816							
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X)								
0026_SW001_230816,	0026_SW002_230816,	**16-Aug-2023**	**21-Aug-2023**	12-Feb-2024	✓	**23-Aug-2023**	12-Feb-2024	✓
0026_SW004B_230816,	0026_SW005_230816,							
0026_SW006_230816,	0026_SW007_230816,							
0026_SW008_230816,	0026_SW009_230816,							
0026_SW012_230816,	0026_SW013_230816,							
0026_SW014_230816,	0026_SW018_230816,							
0026_SW020_230816,	0026_QC100_230816,							
0026_QC101_230816,	0026_QC300_230816							

Matrix: **WATER**

Evaluation: × = Holding time breach ; ✓ = Within holding time.

Method / Container / Client Sample ID(s)		Sample Date	Extraction / Preparation: Date extracted	Due for extraction	Evaluation	Analysis: Date analysed	Due for analysis	Evaluation
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X)								
0026_SW001_230816,	0026_SW002_230816,	**16-Aug-2023**	**21-Aug-2023**	12-Feb-2024	✓	**23-Aug-2023**	12-Feb-2024	✓
0026_SW004B_230816,	0026_SW005_230816,							
0026_SW006_230816,	0026_SW007_230816,							
0026_SW008_230816,	0026_SW009_230816,							
0026_SW012_230816,	0026_SW013_230816,							
0026_SW014_230816,	0026_SW018_230816,							
0026_SW020_230816,	0026_QC100_230816,							
0026_QC101_230816,	0026_QC300_230816							
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X)								
0026_SW001_230816,	0026_SW002_230816,	**16-Aug-2023**	**21-Aug-2023**	12-Feb-2024	✓	**23-Aug-2023**	12-Feb-2024	✓
0026_SW004B_230816,	0026_SW005_230816,							
0026_SW006_230816,	0026_SW007_230816,							
0026_SW008_230816,	0026_SW009_230816,							
0026_SW012_230816,	0026_SW013_230816,							
0026_SW014_230816,	0026_SW018_230816,							
0026_SW020_230816,	0026_QC100_230816,							
0026_QC101_230816,	0026_QC300_230816							

Quality Control Parameter Frequency Compliance

The following report summarises the frequency of laboratory QC samples analysed within the analytical lot(s) in which the submitted sample(s) was(were) processed. Actual rate should be greater than or equal to the expected rate. A listing of breaches is provided in the Summary of Outliers.

Matrix: **WATER**

Evaluation: ✗ = Quality Control frequency not within specification ; ✓ = Quality Control frequency within specification.

Quality Control Sample Type		Count		Rate (%)			Quality Control Specification
Analytical Methods	*Method*	*QC*	*Regular*	***Actual***	***Expected***	*Evaluation*	
Laboratory Duplicates (DUP)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	16	**12.50**	**10.00**	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	16	**6.25**	**5.00**	✓	NEPM 2013 B3 & ALS QC Standard

Brief Method Summaries

The analytical procedures used by the Environmental Division have been developed from established internationally recognized procedures such as those published by the US EPA, APHA, AS and NEPM. In house developed procedures are employed in the absence of documented standards or by client request. The following report provides brief descriptions of the analytical procedures employed for results reported in the Certificate of Analysis. Sources from which ALS methods have been developed are provided within the Method Descriptions.

Analytical Methods	*Method*	*Matrix*	*Method Descriptions*
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by Solid Phase Extraction (SPE) followed by LC-Electrospray-MS-MS, Negative Mode using MRM and internal standard quantitation. Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures and data quality objectives conform to US DoD QSM 5.3, table B-15 requirements.

Preparation Methods	*Method*	*Matrix*	*Method Descriptions*
Solid Phase Extraction (SPE) for PFAS in water	ORG72	WATER	In-house: Isotopically labelled analogues of target analytes used as internal standards and surrogates are added to the sample container. The entire contents are transferred to a solid phase extraction (SPE) cartridge. The sample container is successively rinsed with aliquots of the elution solvent. The eluted extract is combined with an equal volume of reagent water and a portion is filtered for analysis. Method procedures conform to US DoD QSM 5.3, table B-15 requirements.

SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2327664**

Client	: **AECOM AUSTRALIA PTY LTD**	Laboratory	: Environmental Division Sydney
Contact	: [redacted]	Contact	: [redacted]
Address	: LEVEL 21 420 GEORGE STREET SYDNEY NSW, AUSTRALIA 2000	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: [redacted]	E-mail	: [redacted]
Telephone	: ----	Telephone	: +61 2 8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: NSW_0026_PFASOMP_23	Page	: 1 of 3
Order number	: 60612562_3.1	Quote number	: ES2021AECOMAU0025 (SY/139/19 v4 60612562_3.1)
C-O-C number	: 55930	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: 0026		
Sampler	: [redacted]		

Dates

Date Samples Received	: 17-Aug-2023 10:00	Issue Date	: 17-Aug-2023
Client Requested Due Date	: 23-Aug-2023	Scheduled Reporting Date	: **23-Aug-2023**

Delivery Details

Mode of Delivery	: Undefined	Security Seal	: Intact.
No. of coolers/boxes	: 1	Temperature	: 7.0'C, 8.6'C, 10.0'C - Ice present
Receipt Detail	: ICE MELTED	No. of samples received / analysed	: 16 / 16

General Comments

- This report contains the following information:
  - Sample Container(s)/Preservation Non-Compliances
  - Summary of Sample(s) and Requested Analysis
  - Proactive Holding Time Report
  - Requested Deliverables
- **Please refer to the Proactive Holding Time Report table below which summarises breaches of recommended holding times that have occurred prior to samples/instructions being received at the laboratory. The laboratory will process these samples unless instructions are received from you indicating you do not wish to proceed. The absence of this summary table indicates that all samples have been received within the recommended holding times for the analysis requested.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Analytical work for this work order will be conducted at ALS Sydney.
- Sample Disposal - Aqueous (3 weeks), Solid (2 months ± 1 week) from receipt of samples.
- Please be aware that APHA/NEPM recommends water and soil samples be chilled to less than or equal to 6°C for chemical analysis, and less than or equal to 10°C but unfrozen for Microbiological analysis. Where samples are received above this temperature, it should be taken into consideration when interpreting results. Refer to ALS EnviroMail 85 for ALS recommendations of the best practice for chilling samples after sampling and for maintaining a cool temperature during transit.

Sample Container(s)/Preservation Non-Compliances

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

- **No sample container / preservation non-compliance exists.**

Summary of Sample(s) and Requested Analysis

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

Matrix: **WATER**

Laboratory sample ID	*Sampling date / time*	*Sample ID*	WATER - EP231X PFAS - Full Suite (28 analytes)
ES2327664-001	16-Aug-2023 12:50	0026_SW001_230816	✓
ES2327664-002	16-Aug-2023 12:31	0026_SW002_230816	✓
ES2327664-003	16-Aug-2023 13:09	0026_SW004B_230816	✓
ES2327664-004	16-Aug-2023 11:44	0026_SW005_230816	✓
ES2327664-005	16-Aug-2023 11:13	0026_SW006_230816	✓
ES2327664-006	16-Aug-2023 10:51	0026_SW007_230816	✓
ES2327664-007	16-Aug-2023 09:42	0026_SW008_230816	✓
ES2327664-008	16-Aug-2023 09:07	0026_SW009_230816	✓
ES2327664-009	16-Aug-2023 10:01	0026_SW012_230816	✓
ES2327664-010	16-Aug-2023 13:50	0026_SW013_230816	✓
ES2327664-011	16-Aug-2023 14:04	0026_SW014_230816	✓
ES2327664-012	16-Aug-2023 10:38	0026_SW018_230816	✓
ES2327664-013	16-Aug-2023 12:13	0026_SW020_230816	✓
ES2327664-014	16-Aug-2023 09:08	0026_QC100_230816	✓
ES2327664-015	16-Aug-2023 11:43	0026_QC101_230816	✓
ES2327664-016	16-Aug-2023 13:51	0026_QC300_230816	✓

Proactive Holding Time Report

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

Requested Deliverables

ACCOUNTS PAYABLE		
- A4 - AU Tax Invoice (INV)	Email	AP_CustomerService.ANZ@aecom.com
DERP ESDAT REPORTS		
- EDI Format - ESDAT (ESDAT)	Email	derp.labreports@esdat.com.au
GEOFF TREDINNICK		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- A4 - AU Tax Invoice (INV)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	
JESSICA ROY		
- *AU Certificate of Analysis - NATA (COA)	Email	[redacted]
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	
- Chain of Custody (CoC) (COC)	Email	
- EDI Format - ENMRG (ENMRG)	Email	
- EDI Format - EQUIS V5 AECOM (EQUIS_V5_AECOM)	Email	
- EDI Format - ESDAT (ESDAT)	Email	
- EDI Format - XTab (XTAB)	Email	
- Electronic SRN for EQuIS (ESRN_EQUIS)	Email	

CHAIN OF COUSTODY

ALS COC#: **55930** *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
	Jack		
DATE TIME:	DATE TIME: 17/08/23 10am	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU002 5

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
001	0026_SW001_230816		16/08/2023 12:50 PM	WATER	ALS: 4 Non ALS: 0	No	X		
002	0026_SW002_230816		16/08/2023 12:31 PM	WATER	ALS: 4 Non ALS: 0	No	X		
003	0026_SW004B_230816		16/08/2023 01:09 PM	WATER	ALS: 4 Non ALS: 0	No	X		
004	0026_SW005_230816		16/08/2023 11:44 AM	WATER	ALS: 4 Non ALS: 0	No	X		
005	0026_SW006_230816		16/08/2023 11:13 AM	WATER	ALS: 4 Non ALS: 0	No	X		
006	0026_SW007_230816		16/08/2023 10:51 AM	WATER	ALS: 4 Non ALS: 0	No	X		
007	0026_SW008_230816		16/08/2023 09:42 AM	WATER	ALS: 3 Non ALS: 0	No	X		

Environmental Division
Sydney
Work Order Reference
ES2327664

Telephone : + 61-2-8784 8555

CHAIN OF CUSTODY

ALS COC#: 55930 ALS Laboratory: ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	Jach DATE TIME: 17/08/23 10am	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
008	0026_SW009_230816		16/08/2023 09:07 AM	WATER	ALS: 4 Non ALS: 0	No	X		
009	0026_SW012_230816		16/08/2023 10:01 AM	WATER	ALS: 4 Non ALS: 0	No	X		
010	0026_SW013_230816		16/08/2023 01:50 PM	WATER	ALS: 4 Non ALS: 0	No	X		
011	0026_SW014_230816		16/08/2023 02:04 PM	WATER	ALS: 4 Non ALS: 0	No	X		
012	0026_SW018_230816		16/08/2023 10:38 AM	WATER	ALS: 4 Non ALS: 0	No	X		
013	0026_SW020_230816		16/08/2023 12:13 PM	WATER	ALS: 4 Non ALS: 0	No	X		
014	0026_QC100_230816		16/08/2023 09:08 AM	WATER	ALS: 4 Non ALS: 0	No	X		

CHAIN OF CUSTODY

ALS COC#: **55930**   *ALS Laboratory:* ES Sydney

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
	Jack		
DATE TIME:	DATE TIME: 17/08/23 10am	DATE TIME:	DATE TIME:

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]

PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

LABORATORY USE ONLY (Circle)

Custody Seal intact?	Yes	No	N/A
Free ice / frozen ice bricks present upon receipt?	Yes	No	N/A
Random Sample Temperature on Receipt:	°C		
Other comments:			

SAMPLE DETAILS							ANALYSIS REQUIRED		
SAMPLE	NAME	DESCRIPTION	DATE / TIME	MATRIX	TOTAL BOTTLES	ON HOLD	PFAS Waters - New Analysis WATER	ALTERNATIVE ANALYSIS	ADDITIONAL INFORMATION
015	0026_QC101_230816		16/08/2023 11:43 AM	WATER	ALS: 4 Non ALS: 0	No	X		
016	0026_QC300_230816		16/08/2023 01:51 PM	WATER	ALS: 4 Non ALS: 0	No	X		

CHAIN OF CUSTODY

ALS COC#: **55930** *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd
PROJECT: NSW_0026_PFASOMP_23
SITE: 0026
ORDER NO: 60612562_3.1
PROJECT MANAGER [redacted]
PRIMARY SAMPLER:
EMAIL REPORTS TO:
EMAIL INVOICES TO:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

RELINQUISHED BY:	RECEIVED BY: Jach	RELINQUISHED BY:	RECEIVED BY:
DATE TIME:	DATE TIME: 17/08/23 10am	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A
Free ice / frozen ice bricks present upon receipt? Yes No N/A
Random Sample Temperature on Receipt: °C
Other comments:

SAMPLE	SAMPLE NAME	BOTTLE NAME	VOLUME	BARCODE	TYPE	FILTERED	REASON
001	0026_SW001_230816	HDPE (no PTFE)	20 mL	00351221011177	Grey	No	
001	0026_SW001_230816	HDPE (no PTFE)	20 mL	00351221011211	Grey	No	
001	0026_SW001_230816	HDPE (no PTFE)	20 mL	00351221011224	Grey	No	
001	0026_SW001_230816	HDPE (no PTFE)	20 mL	00351221011038	Grey	No	
002	0026_SW002_230816	HDPE (no PTFE)	20 mL	00351221011113	Grey	No	
002	0026_SW002_230816	HDPE (no PTFE)	20 mL	00351221011096	Grey	No	
002	0026_SW002_230816	HDPE (no PTFE)	20 mL	00351221011210	Grey	No	
002	0026_SW002_230816	HDPE (no PTFE)	20 mL	00351221011057	Grey	No	
003	0026_SW004B_230816	HDPE (no PTFE)	20 mL	00351221011142	Grey	No	
003	0026_SW004B_230816	HDPE (no PTFE)	20 mL	00351221011215	Grey	No	
003	0026_SW004B_230816	HDPE (no PTFE)	20 mL	00351221011061	Grey	No	
003	0026_SW004B_230816	HDPE (no PTFE)	20 mL	00351221011165	Grey	No	
004	0026_SW005_230816	HDPE (no PTFE)	20 mL	00350621036952	Grey	No	
004	0026_SW005_230816	HDPE (no PTFE)	20 mL	00350621009011	Grey	No	
004	0026_SW005_230816	HDPE (no PTFE)	20 mL	00350621008752	Grey	No	
004	0026_SW005_230816	HDPE (no PTFE)	20 mL	00350621036866	Grey	No	
005	0026_SW006_230816	HDPE (no PTFE)	20 mL	00351221011303	Grey	No	
005	0026_SW006_230816	HDPE (no PTFE)	20 mL	00351221011156	Grey	No	
005	0026_SW006_230816	HDPE (no PTFE)	20 mL	00351221011261	Grey	No	
005	0026_SW006_230816	HDPE (no PTFE)	20 mL	00351221011315	Grey	No	
006	0026_SW007_230816	HDPE (no PTFE)	20 mL	00351221011300	Grey	No	
006	0026_SW007_230816	HDPE (no PTFE)	20 mL	00351221011229	Grey	No	
006	0026_SW007_230816	HDPE (no PTFE)	20 mL	00351221011304	Grey	No	
006	0026_SW007_230816	HDPE (no PTFE)	20 mL	00351221011237	Grey	No	
007	0026_SW008_230816	HDPE (no PTFE)	20 mL	00351221011089	Grey	No	
007	0026_SW008_230816	HDPE (no PTFE)	20 mL	00351221011255	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 55930 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
	Jack		
DATE TIME:	DATE TIME: 17/08/23 10am	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

CONTACT PH: SAMPLER MOBILE:
QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU002 5

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

007	0026_SW008_230816	HDPE (no PTFE)	20 mL	00351221011035	Grey	No	
008	0026_SW009_230816	HDPE (no PTFE)	20 mL	00351221011173	Grey	No	
008	0026_SW009_230816	HDPE (no PTFE)	20 mL	00351221011189	Grey	No	
008	0026_SW009_230816	HDPE (no PTFE)	20 mL	00351221011186	Grey	No	
008	0026_SW009_230816	HDPE (no PTFE)	20 mL	00351221011150	Grey	No	
009	0026_SW012_230816	HDPE (no PTFE)	20 mL	00351221011234	Grey	No	
009	0026_SW012_230816	HDPE (no PTFE)	20 mL	00351221011281	Grey	No	
009	0026_SW012_230816	HDPE (no PTFE)	20 mL	00351221011190	Grey	No	
009	0026_SW012_230816	HDPE (no PTFE)	20 mL	00351221011314	Grey	No	
010	0026_SW013_230816	HDPE (no PTFE)	20 mL	00351221011069	Grey	No	
010	0026_SW013_230816	HDPE (no PTFE)	20 mL	00351221011161	Grey	No	
010	0026_SW013_230816	HDPE (no PTFE)	20 mL	00351221011068	Grey	No	
010	0026_SW013_230816	HDPE (no PTFE)	20 mL	00351221011212	Grey	No	
011	0026_SW014_230816	HDPE (no PTFE)	20 mL	00351221011136	Grey	No	
011	0026_SW014_230816	HDPE (no PTFE)	20 mL	00351221011275	Grey	No	
011	0026_SW014_230816	HDPE (no PTFE)	20 mL	00351221011289	Grey	No	
011	0026_SW014_230816	HDPE (no PTFE)	20 mL	00351221011029	Grey	No	
012	0026_SW018_230816	HDPE (no PTFE)	20 mL	00350822063675	Grey	No	
012	0026_SW018_230816	HDPE (no PTFE)	20 mL	00350822063734	Grey	No	
012	0026_SW018_230816	HDPE (no PTFE)	20 mL	00350822064009	Grey	No	
012	0026_SW018_230816	HDPE (no PTFE)	20 mL	00350822063689	Grey	No	
013	0026_SW020_230816	HDPE (no PTFE)	20 mL	00352101060011	Grey	No	
013	0026_SW020_230816	HDPE (no PTFE)	20 mL	00352101040451	Grey	No	
013	0026_SW020_230816	HDPE (no PTFE)	20 mL	00352101040480	Grey	No	
013	0026_SW020_230816	HDPE (no PTFE)	20 mL	00352101040497	Grey	No	
014	0026_QC100_230816	HDPE (no PTFE)	20 mL	00351221011251	Grey	No	
014	0026_QC100_230816	HDPE (no PTFE)	20 mL	00351221011245	Grey	No	

CHAIN OF CUSTODY

ALS COC#: 55930 *ALS Laboratory:* ES Sydney

CLIENT: AECOMAU - AECOM Australia Pty Ltd

PROJECT: NSW_0026_PFASOMP_23

SITE: 0026

ORDER NO: 60612562_3.1

PROJECT MANAGER: [redacted]
PRIMARY SAMPLER:

CONTACT PH: SAMPLER MOBILE:

QUOTE NO: SY/139/19 v4 60612562_3.1 / ES2021AECOMAU0025

EMAIL REPORTS TO:

EMAIL INVOICES TO:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
	Jack		
DATE TIME:	DATE TIME: 17/08/23 10am	DATE TIME:	DATE TIME:

TURNAROUND REQUIREMENTS : 5 Days

Biohazard info:

LABORATORY USE ONLY (Circle)

Custody Seal intact? Yes No N/A

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

Random Sample Temperature on Receipt: °C

Other comments:

014	0026_QC100_230816	HDPE (no PTFE)	20 mL	00351221011060	Grey	No	
014	0026_QC100_230816	HDPE (no PTFE)	20 mL	00351221011032	Grey	No	
015	0026_QC101_230816	HDPE (no PTFE)	20 mL	00350621036566	Grey	No	
015	0026_QC101_230816	HDPE (no PTFE)	20 mL	00350621036475	Grey	No	
015	0026_QC101_230816	HDPE (no PTFE)	20 mL	00350621037017	Grey	No	
015	0026_QC101_230816	HDPE (no PTFE)	20 mL	00350621036911	Grey	No	
016	0026_QC300_230816	HDPE (no PTFE)	20 mL	00351221011095	Grey	No	
016	0026_QC300_230816	HDPE (no PTFE)	20 mL	00351221011205	Grey	No	
016	0026_QC300_230816	HDPE (no PTFE)	20 mL	00351221011083	Grey	No	
016	0026_QC300_230816	HDPE (no PTFE)	20 mL	00351221011297	Grey	No	

Total Bottle Count: ALS: 63, Non ALS: 0

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

SAMPLE RECEIPT ADVICE

Client Details	
Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]

Sample Login Details	
Your reference	60612562_3.1, NSW_0026_PFASOMP_23
Envirolab Reference	330738
Date Sample Received	17/08/2023
Date Instructions Received	17/08/2023
Date Results Expected to be Reported	24/08/2023

Sample Condition	
Samples received in appropriate condition for analysis	Yes
No. of Samples Provided	2 waters
Turnaround Time Requested	Standard
Temperature on Receipt (°C)	1.5
Cooling Method	Ice
Sampling Date Provided	YES

Comments
Nil

Please direct any queries to:

[redacted]

[redacted]

Analysis Underway, details on the following page:

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

Sample ID	AECOM checks	AECOM checks	AECOM checks	AECOM checks	PFAS in Waters Extended
0026_QC200_230816	✓	✓	✓	✓	✓
0026_QC201_230816	✓	✓	✓	✓	✓

The '✓' indicates the testing you have requested. **THIS IS NOT A REPORT OF THE RESULTS.**

Additional Info
Sample storage - Waters are routinely disposed of approximately 1 month and soils approximately 2 months from receipt.
Requests for longer term sample storage must be received in writing.
Please contact the laboratory immediately if observed settled sediment present in water samples is to be included in the extraction and/or analysis (exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, Total Recoverable metals and PFAS analysis where solids are included by default.
TAT for Micro is dependent on incubation. This varies from 3 to 6 days.

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 330738

Client Details	
Client	AECOM Australia Pty Ltd (Sydney)
Attention	[redacted]
Address	PO Box Q410, QVB Post Office, Sydney, NSW, 1230

Sample Details	
Your Reference	**NSW_0026_PFASOMP_23**
Number of Samples	2 waters
Date samples received	17/08/2023
Date completed instructions received	17/08/2023

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Report Details	
Date results requested by	24/08/2023
Date of Issue	04/09/2023
Reissue Details	This report replaces R00 created on 24/08/2023 due to: Project ID Amended (Client Request)

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Accredited for compliance with ISO/IEC 17025 - Testing. **Tests not covered by NATA are denoted with ***

Results Approved By **Authorised By**

[redacted]

PFAS in Waters Extended			
Our Reference		330738-1	330738-2
Your Reference	UNITS	0026_QC200_23 0816	0026_QC201_23 0816
Date Sampled		16/08/2023	16/08/2023
Type of sample		Water	Water
Date prepared	-	18/08/2023	18/08/2023
Date analysed	-	18/08/2023	18/08/2023
Perfluorobutanesulfonic acid	µg/L	0.06	0.18
Perfluoropentanesulfonic acid	µg/L	0.07	0.18
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.77	1.5
Perfluoroheptanesulfonic acid	µg/L	0.05	0.07
Perfluorooctanesulfonic acid PFOS	µg/L	1.8	1.5
Perfluorodecanesulfonic acid	µg/L	<0.02	<0.02
Perfluorobutanoic acid	µg/L	<0.02	0.04
Perfluoropentanoic acid	µg/L	0.04	0.1
Perfluorohexanoic acid	µg/L	0.15	0.32
Perfluoroheptanoic acid	µg/L	0.02	0.05
Perfluorooctanoic acid PFOA	µg/L	0.04	0.07
Perfluorononanoic acid	µg/L	<0.01	<0.01
Perfluorodecanoic acid	µg/L	<0.02	<0.02
Perfluoroundecanoic acid	µg/L	<0.02	<0.02
Perfluorododecanoic acid	µg/L	<0.05	<0.05
Perfluorotridecanoic acid	µg/L	<0.1	<0.1
Perfluorotetradecanoic acid	µg/L	<0.5	<0.5
4:2 FTS	µg/L	<0.01	<0.01
6:2 FTS	µg/L	<0.01	<0.01
8:2 FTS	µg/L	<0.02	<0.02
10:2 FTS	µg/L	<0.02	<0.02
Perfluorooctane sulfonamide	µg/L	<0.1	<0.1
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5
MePerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.02	<0.02
Surrogate $^{13}C_8$ *PFOS*	%	97	95
Surrogate $^{13}C_2$ *PFOA*	%	96	92
Extracted ISTD $^{13}C_3$ *PFBS*	%	101	101
Extracted ISTD $^{18}O_2$ *PFHxS*	%	100	99
Extracted ISTD $^{13}C_4$ *PFOS*	%	107	110

PFAS in Waters Extended			
Our Reference		330738-1	330738-2
Your Reference	UNITS	0026_QC200_23 0816	0026_QC201_23 0816
Date Sampled		16/08/2023	16/08/2023
Type of sample		Water	Water
Extracted ISTD $^{13}C_4$ *PFBA*	%	88	103
Extracted ISTD $^{13}C_3$ *PFPeA*	%	104	110
Extracted ISTD $^{13}C_2$ *PFHxA*	%	96	101
Extracted ISTD $^{13}C_4$ *PFHpA*	%	96	102
Extracted ISTD $^{13}C_4$ *PFOA*	%	97	108
Extracted ISTD $^{13}C_5$ *PFNA*	%	92	92
Extracted ISTD $^{13}C_2$ *PFDA*	%	101	97
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	96	102
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	109	117
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	96	101
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	68	97
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	70	95
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	76	95
Extracted ISTD $^{13}C_8$ *FOSA*	%	101	107
Extracted ISTD d_3 *N MeFOSA*	%	106	105
Extracted ISTD d_5 *N EtFOSA*	%	107	102
Extracted ISTD d_7 *N MeFOSE*	%	111	116
Extracted ISTD d_9 *N EtFOSE*	%	119	135
Extracted ISTD d_3 *N MeFOSAA*	%	94	114
Extracted ISTD d_5 *N EtFOSAA*	%	92	107
Total Positive PFHxS & PFOS	µg/L	2.5	3.0
Total Positive PFOA & PFOS	µg/L	1.8	1.6
Total Positive PFAS	µg/L	3.0	4.0

Method ID	Methodology Summary
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM 5.4 Table B-15 terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	330738-2
Date prepared	-			18/08/2023	1	18/08/2023	18/08/2023		18/08/2023	18/08/2023
Date analysed	-			18/08/2023	1	18/08/2023	18/08/2023		18/08/2023	18/08/2023
Perfluorobutanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.06	0.06	0	108	113
Perfluoropentanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.07	0.07	0	107	121
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.01	Org-029	<0.01	1	0.77	0.77	0	106	124
Perfluoroheptanesulfonic acid	µg/L	0.01	Org-029	<0.01	1	0.05	0.05	0	111	128
Perfluorooctanesulfonic acid PFOS	µg/L	0.01	Org-029	<0.01	1	1.8	1.8	0	103	113
Perfluorodecanesulfonic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	85	97
Perfluorobutanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	107	116
Perfluoropentanoic acid	µg/L	0.02	Org-029	<0.02	1	0.04	0.04	0	106	113
Perfluorohexanoic acid	µg/L	0.01	Org-029	<0.01	1	0.15	0.15	0	106	111
Perfluoroheptanoic acid	µg/L	0.01	Org-029	<0.01	1	0.02	0.02	0	108	113
Perfluorooctanoic acid PFOA	µg/L	0.01	Org-029	<0.01	1	0.04	0.04	0	103	108
Perfluorononanoic acid	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	111	117
Perfluorodecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	106	103
Perfluoroundecanoic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	103	110
Perfluorododecanoic acid	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	101	109
Perfluorotridecanoic acid	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	94	98
Perfluorotetradecanoic acid	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	107	109
4:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	100	108
6:2 FTS	µg/L	0.01	Org-029	<0.01	1	<0.01	<0.01	0	106	113
8:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	116	119
10:2 FTS	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	129	112
Perfluorooctane sulfonamide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	110	123
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	109	119
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	1	<0.1	<0.1	0	100	109
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	1	<0.05	<0.05	0	110	111
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	1	<0.5	<0.5	0	104	91
MePerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	103	103
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.02	Org-029	<0.02	1	<0.02	<0.02	0	109	122
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	105	1	97	103	6	101	96
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	99	1	96	96	0	100	96

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	330738-2
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	101	1	101	99	2	98	98
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	101	1	100	99	1	104	97
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	100	1	107	105	2	106	107
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	105	1	88	91	3	109	97
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	104	1	104	107	3	106	105
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	101	1	96	98	2	101	96
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	102	1	96	98	2	105	98
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	109	1	97	102	5	106	99
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	102	1	92	92	0	98	94
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	105	1	101	102	1	101	101
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	107	1	96	96	0	111	97
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	110	1	109	122	11	117	108
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	85	1	96	99	3	94	93
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	109	1	68	71	4	111	94
Extracted ISTD $^{13}C_2$ *6:2FTS*	%		Org-029	116	1	70	73	4	114	85
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	108	1	76	81	6	103	81
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	110	1	101	101	0	108	98
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	104	1	106	108	2	106	102
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	102	1	107	109	2	108	102
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	112	1	111	112	1	109	112

QUALITY CONTROL: PFAS in Waters Extended					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	330738-2
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	117	1	119	131	10	118	138
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	130	1	94	105	11	121	102
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	122	1	92	96	4	118	91

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Australian Drinking Water Guidelines recommend that Thermotolerant Coliform, Faecal Enterococci, & E.Coli levels are less than 1cfu/100mL. The recommended maximums are taken from "Australian Drinking Water Guidelines", published by NHMRC & ARMC 2011.

The recommended maximums for analytes in urine are taken from “2018 TLVs and BEIs”, as published by ACGIH (where available). Limit provided for Nickel is a precautionary guideline as per Position Paper prepared by AIOH Exposure Standards Committee, 2016.

Guideline limits for Rinse Water Quality reported as per analytical requirements and specifications of AS 4187, Amdt 2 2019, Table 7.2

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Where matrix spike recoveries fall below the lower limit of the acceptance criteria (e.g. for non-labile or standard Organics <60%), positive result(s) in the parent sample will subsequently have a higher than typical estimated uncertainty (MU estimates supplied on request) and in these circumstances the sample result is likely biased significantly low.

Measurement Uncertainty estimates are available for most tests upon request.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

Samples for Microbiological analysis (not Amoeba forms) received outside of the 2-8°C temperature range do not meet the ideal cooling conditions as stated in AS2031-2012.

CHAIN OF CUSTODY FORM

ENVIROLAB ENVIROLAB mpl

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Company:	AECOM	Client Project Name/Number/Site etc (ie report title):	NSW_0026_PFASOMP_23
Contact Person:	[redacted]	PO No. (if applicable):	60612562_3.1
Project Mgr:	[redacted]	Envirolab Quote No. :	
Sampler:	[redacted]	Date results required:	
Address:	Level 6, 420 George St, Sydney, NSW, 2000	Or choose:	☑ Standard ☐ Same Day ☐ 1 day ☐ 2 day ☐ 3 day
Phone:	Mob: 0402 163 223	*Note: Inform lab in advance if urgent turnaround is required - surcharges apply*	
Email Results to:	[redacted]	Additional report format:	☑ Esdat ☐ Equis
Email Invoice to:	[redacted]	Lab Comments:	

Envirolab Sample ID (Lab use only)	Client Sample ID or Information	Depth	Date Sampled	Type of Sample	PFAS Extended Suite - Routine Level	Comments: Provide as much information about the sample as you can
1	0026_QC200_230816	x	16/08/2023	Water	X	
2	0026_QC201_230816	x	16/08/2023	Water	X	

☐ *Please tick the box if observed settled sediment present in water samples is to be included in the extraction and/or analysis*

Relinquished by (Company): AECOM	Received by (Company): ELS	*Lab Use Only*
Print Name: [redacted]	Print Name: [redacted]	Job number: 330738 — Cooling: Ice / Ice pack / None
Date & Time: 17/8/23 0800	Date & Time: 1300 17/08/23	Temperature: 1.5 °C — Security seal: Intact / Broken / None
Signature:	Signature:	TAT Req - SAME day / 1 / 2 / 3 / 4 / STD

Please send ESdat files to DERP.labreports@esdat.com.au and ensure that the files use the PROJECT NAME