

Project Caymus - Quarterly Environmental Report – February 2026

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Crowley Australia Pty Ltd

Project Caymus

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Executive summary

Jacobs Group (Australia) Pty Ltd (Jacobs) was engaged by Crowley Australia (Crowley) to undertake the quarterly groundwater and surface water monitoring as required by their Environmental Monitoring Program (EMP) and Environmental Approval (EA) EP2021/008-002.

As required by condition 10 (l) of EP2021/008-002, quarterly monitoring of surface water and groundwater within the premises has been undertaken in accordance with the EA Table 2 Appendix 2 and the Environmental Monitoring Program (Jacobs, 2024). The purpose of the monitoring program is to assess the potential impacts the operation of site is having on the groundwater and surface water within and around site.

The scope of work for the February monitoring event included:

- Groundwater sampling of six groundwater wells, surface water sampling at seven locations and the collection of quality assurance/ quality control samples (QA/QC).
- Laboratory analysis for the suite of contaminants outlined in the EMP.
- Assessment of analytical results against the adopted water quality objectives.
- A report of the results, conclusions and recommendations of the monitoring event.

Conclusions and recommendations

Groundwater

General groundwater quality is reflective of the baseline conditions. Several nutrient concentrations including ammonia nitrogen, total phosphorous and total nitrogen are above the adopted water quality objectives(WQO). These nutrient detections are in line with those reported in the Pre-Operations Report (Jacobs, 2025a). The recorded *E. coli* concentration at MW03 are above both the WQO and baseline maximum. This is not the first reported result of *E. coli* above the WQO, however more data is required to assess if a trend is present.

Copper and zinc concentrations detected above the adopted water quality objective are in line with baseline results. Elevated levels of lead, nickel and zinc detected at MW05 are in line with baseline results and are likely due to the unique conditions at this location.

Hydrocarbons were not detected, suggesting no fuel leaks/spills have occurred/breached containment from the site.

PFAS in groundwater was not reported above the WQO, but elevated concentrations were noted. It is understood that this contamination is not due to site activities.

Surface water

Nutrient concentrations (including ammonia nitrogen, chlorophyll-*a*, total nitrogen and total phosphorus) were reported above the adopted water quality objectives but below baseline results (with the exception of chlorophyll-*a*). Chlorophyll-*a* increased relatively sharply at two locations, a similar increase was seen in ammonia nitrogen.

Elevated *E. coli* and enterococci concentrations were noted in the majority of samples. No baseline data is available for either analyte, however the two largest concentrations are at locations likely effected by offsite activities.

Zinc concentrations were reported above the water quality objective at four locations. This is in line with baseline monitoring.

Recommendations

It is proposed that site-specific water quality objectives are derived, specifically targeting the following:

- **Nutrients** – Ammonia nitrogen, total nitrogen and total phosphorous in both groundwater and surface water.
- **Metals** – Zinc in surface water and copper in groundwater.

The Australian and New Zealand Guidelines for Marine and Fresh Water Quality (ANZG, 2024) outline several possible methodologies for deriving site-specific water quality objectives, one method being adopting the 80th percentile of results from a reference site (in this case the baseline data). This methodology could be applied to this site, however consideration for seasonal variability may need to be made.

The next monitoring events will compromise:

Groundwater: End-wet season (April 2026)

Surface Water: End-wet season (April 2026)

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1. Introduction

Crowley Australia (Crowley) as proponent for the Project Caymus Bulk Fuel Storage Facility (site) was issued with an Environmental Approval under the Environment Protection Act 2019 (EP Act) (EP2021/008-001) on 29 November 2021. The Approval was subsequently amended by variations to conditions 6(d), 11(i), 11(j) made pursuant to Section 65 of the EP Act. The Environmental Approval (EP2021/008-002) includes the following conditions related to this report:

- **Condition 7(a)** *"Crowley to design and implement a monitoring program, to the satisfaction of the CEO, which demonstrates compliance with condition 10(g) and 10(l) of the environmental approval. The monitoring program must include:*
 - *The collection of baseline data over an appropriate time period;*
 - *Appropriate monitoring of relevant parameters in accordance with appendix 2 of this approval;*
 - *A system for recording and maintaining monitoring details and data records; and*
 - *A quality assurance and quality control system."*
- **Condition 10 (l)** *"The approval holder must conduct surface water and groundwater quality monitoring within the premises, in accordance with the monitoring program under conditions 7 that measures the parameters listed in Appendix 2."*

Crowley engaged Jacobs Group (Australia) Pty Ltd (Jacobs) to prepare an Environmental Monitoring Program (EMP) to guide the ongoing environmental monitoring at site to ensure compliance with the environmental approval. The EMP was submitted to the Department of Lands, Planning and Environment (DLPE) Northern Territory Government who acknowledged receipt in November 2024. The EMP guides the ongoing monitoring conducted for this report.

1.1 Purpose of this report

The purpose of this report is to:

- Fulfil the requirements of the EMP and EP2021/008-002.
- Assess potential impacts of the operation of site on the groundwater and surface water within and around site.

1.2 Scope of works

The scope of the monitoring program (for surface water and groundwater) was defined in the EMP and included the:

- location and frequency of surface water and groundwater samples.
- proposed analytical suite for each sample.
- Water quality objectives to be adopted for evaluation of sample results.

The scope of work for the January monitoring program included:

- Groundwater sampling of six groundwater wells, surface water sampling at seven locations and the collection of quality assurance/ quality control samples (QA/QC).
- Laboratory analysis for the suite of contaminants outlined in the EMP.
- Assessment of analytical results against the adopted water quality objectives.

- A report of the results, conclusions and recommendations of the monitoring event

2. Previous Investigations

2.1 Sampling Events

The below table outlines the environmental monitoring that has previously been conducted on site. Note samples of surface water and groundwater collected pre-construction and/or during construction are considered to represent background water quality (i.e. water quality not impacted by site operations).

Table 2-1 Previous sampling events

Date	Site Operation status	Report
June 2021	Pre-construction	Detailed Site Investigation (DSI) Parcels 5720, 6350,5711 and Southern Section of Parcel 5673, Berrimah Road, East Arm, NT – CDM Smith
November/ December 2024	During construction	Project Caymus - Pre-Operations Environmental Investigation - Jacobs
March 2025	During construction	
July 2025	During construction	
October/November 2025	Partial Operation	Project Caymus - Quarterly Environmental Report – November 2025

2.2 Key findings of Pre-operations Environmental Investigation

Groundwater

A total of four pre-operation groundwater monitoring events were completed (the first conducted by CDM Smith was prior to construction). The following conclusions were made regarding groundwater onsite:

- Groundwater quality was generally consistent across site, except for MW05. Water quality at MW05 is notably different to other locations, with **acidic water and larger concentrations of metals** reported at this location compared to other locations. The cause of lower pH at this location was not identified but was concluded not to be attributable to construction activities.
- Average nutrient concentrations including **ammonia nitrogen, total phosphorous, total nitrogen and dissolved reactive phosphorous** are above the adopted water quality objectives. These nutrient detections are believed to be indicative of natural occurring concentrations.
- Average **copper** concentrations across the site are above the adopted water quality objectives. This is representative of pre-existing site conditions, which are consistent with the neighbouring Vopak site.
- Notable concentrations of several **PFAS** compounds (mainly 6:2 FTS) were recorded in MW01. It is believed that this is a result of an incident that occurred at the neighbouring Vopak site, leading to PFAS contaminated groundwater and surface water migrating across the boundary. No concentrations were reported above the adopted criteria. However, these guidelines are under constant review and updated based on new scientific evidence, as such ongoing monitoring of these substances should be continued and reviewed in future when necessary.
- Historical groundwater results can be found in **Appendix G**.

Surface water

A total of 13 surface water samples were collected over two monitoring events. The following conclusions were found:

- Average nutrient concentrations including of **ammonia nitrogen, total nitrogen and total phosphorous** are above the adopted water quality objectives. In general, algal growth was identified at monitoring locations, this indicates natural organic material such as leaf litter or debris is washing into the drains and undergoing decomposition, likely resulting in the elevated nutrient concentrations.
- Average **zinc** concentrations were reported above the adopted water quality objectives. There were also several **copper** concentrations reported above the adopted criteria across the site. These concentrations are consistent with those of the neighbouring Vopak site.
- Elevated **PFAS** concentrations were identified at several locations across the site. It is understood that the PFAS is migrating to the site from the adjacent Vopak site.
- Historical surface water results can be found in **Appendix G**.

3. Methodology

The investigation work by Jacobs was undertaken in general accordance with the Environmental Monitoring Program (Jacobs, 2024). Departures from the program are discussed in **Section 3.3**.

The field works for the investigation were undertaken on 3 and 4 February 2026.

3.1 Monitoring Locations

3.1.1 Groundwater monitoring

The locations of the groundwater monitoring wells are summarised in **Table 3-1** and displayed in **Figure 1 - Appendix A**. The distribution of groundwater wells across the site aims to facilitate detection of any potential groundwater contamination that may arise from the site operations, such as product leakage from storage tanks, spills during product transfer, or from general operations on site.

Table 3-1 Summary of groundwater monitoring wells

Location	Ground level elevation (mAHD)	Screen interval (m bgl)	Total Depth (m bgl)	Description
MW01	5.643	1.0 – 6.8	6.8	To assess groundwater quality at north-eastern corner
MW02	5.629	1.0 – 4.8	4.8	To assess groundwater quality at western boundary.
MW03	6.491	1.0 – 8.3	8.3	To assess groundwater quality at southern corner.
MW04	6.274	1.0 – 7.0	7.0	To assess groundwater quality at northeastern corner.
MW05	6.143	1.0 – 7.9	7.9	To assess groundwater quality at the northern corner.
MW06	5.759	1.0 – 5.5	5.5	To assess groundwater quality at the western boundary.

mbgl – metres below ground level

3.1.2 Surface water sampling

The surface water sampling locations are summarised in **Table 3-2** and displayed in **Figure 2 - Appendix A**. The spatial distribution of surface water sampling locations aims to identify contamination entering and/or leaving the site.

Table 3-2 Summary of surface water sampling locations

Location	Description
SW01	To assess quality of water entering northern drain from northeastern Humeceptor and upgradient drain.
SW02	To assess water quality entering site from Vopak plot.

Location	Description
SW03	To assess quality of water entering southern swale.
SW04	To assess quality of runoff water from nearby hardstand areas.
SW05	To assess water quality entering northeastern drain discharged from northeastern industrial area.
SW06	To assess water quality before being discharged into the marine environment
SW07	To assess water pooling in southern swale.
SW08	To assess water in the northern drain.

3.2 Investigation methodologies and timing

The methodology undertaken as part of the investigation was generally consistent with those detailed in the Environmental Monitoring Program (Jacobs, 2024). Departures from the program are discussed in **Section 3.3**.

As stated in the Appendix 2 Table 2 of the Environmental Approval groundwater and surface water monitoring is to be conducted on a quarterly basis, the schedule of the monitoring events was:

- Q1 – April – End of wet season
- Q2 – July – Middle of dry season
- Q3 – October – End of dry season/ beginning of wet season
- Q4 – January – Middle of wet season

3.3 Laboratory Analysis

Analytical laboratory testing of environmental samples was conducted by National Association of Testing Authorities (NATA) accredited laboratories ALS (primary) and Eurofins MGT (secondary).

The analytical schedule undertaken as part of this monitoring event is detailed in **Table 3-3**.

Table 3-3 Analytical schedule

Sample type	Number of locations	Analysis	No. of primary samples analysed
Groundwater	6	▪ pH, Electrical Conductivity (EC), Suspended Solids (TSS), Turbidity, Dissolved Oxygen (DO) ▪ Ammonia as NH₃, Total Nitrogen, Total Phosphorous, Dissolved Reactive Phosphate, Chlorophyll a, BOD ▪ TRH/BTEXN/PAH/ Metals ▪ Per-and Polyfluoroalkyl Substances (PFAS)	6

Sample type	Number of locations	Analysis	No. of primary samples analysed
Surface Water	8	- pH, Electrical Conductivity (EC), Suspended Solids, Turbidity, Dissolved Oxygen (DO) - Ammonia as NH₃, Total Nitrogen, Total Phosphorous, Dissolved Reactive Phosphate, Chlorophyll a, BOD - TRH/BTEXN/PAH/ Metals - Per- and Polyfluoroalkyl Substances (PFAS)	7 (1 location did not have enough sampleable material, refer to Section 2.4)

3.4 Investigation Departures

Based on the site conditions and constraints applied to the scope of works, there was two departures from the Environmental Monitoring Program (Jacobs, 2024), as noted below.

Table 3-4 Investigation departures

Scope Item	Deviation description	Impact to investigation
Date in which sampling was conducted	This monitoring event was scheduled to be conducted in January, however due to delays in receiving monitoring equipment, the event was postponed to the first week of February.	The proposed timing of the monitoring event in January is to target mid-wet season conditions. The modified timing still achieved capturing these conditions. As such this deviation has had no impact on the investigation.
SW02	It appears due to recent earthworks in the drainage area in which SW02 is located, water now disperses very rapidly. As a result, there was no water present as SW02 during the monitoring event.	As a result of the identified earthworks, it is possible that the collection of SW02 may not be possible going forward. The absence of surface water at this location does not have an impact on the overall investigation. Going forward, moving this location to an area more likely to have water present, should be considered.

3.5 Water Quality Objectives

The below **Table 3-5** presents the adopted water quality objectives that were specified in the EMP.

Table 3-5 Water Quality Objectives

Parameter	Units	Surface water		Groundwater	
		Value	Frequency	Value	Frequency
Field Parameters					
pH	-	7.0-8.5 ¹	Quarterly	7.0-8.5 ¹	Quarterly
Electrical conductivity	µS/cm	NA	Quarterly	NA	Quarterly
Total suspended solids	mg/L	30 ¹	Quarterly	30 ¹	Quarterly
Turbidity	NTU	4	Quarterly	4	Quarterly
Dissolved oxygen	DO% saturation	80-100	Quarterly	80-100	Quarterly
Temperature	°C	NA	Quarterly	NA	Quarterly
Environmental Indicators ³					
Ammonia nitrogen (NH3-N)	mg/L	0.02	Quarterly	0.02	Quarterly
Dissolved reactive phosphorous (PO4-P)	mg/L	0.01	Quarterly	0.01	Quarterly
Chlorophyll-a	µg/L	4	Quarterly	4	Quarterly
Biological oxygen demand	mg/L	NA	Quarterly	NA	Quarterly
Total Recoverable Hydrocarbons	mg/L	10 ¹	Quarterly	10 ¹	Quarterly
Total nitrogen	mg/L	0.30	Quarterly	0.30	Quarterly
Total phosphorus	µg/L	0.03	Quarterly	0.03	Quarterly
<i>E.coli</i>	CFU/100ml	200	Quarterly	200	Quarterly
Enterococci	CFU/100ml	50	Quarterly	50	Quarterly
Metals ^{2,4}					
Arsenic	µg/L	NA	Quarterly	NA	Quarterly
Cadmium	µg/L	0.7	Quarterly	0.7	Quarterly
Chromium (CrIII)	µg/L	27	Quarterly	27	Quarterly

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Parameter	Units	Surface water		Groundwater	
		Value	Frequency	Value	Frequency
Chromium (CrVI)	µg/L	4.4	Quarterly	4.4	Quarterly
Copper	µg/L	1.3	Quarterly	1.3	Quarterly
Iron	µg/L	NA	Quarterly	NA	Quarterly
Lead	µg/L	4.4	Quarterly	4.4	Quarterly
Manganese	µg/L	NA	Quarterly	NA	Quarterly
Mercury	µg/L	0.4	Quarterly	0.4	Quarterly
Nickel	µg/L	70	Quarterly	70	Quarterly
Silver	µg/L	1.4	Quarterly	1.4	Quarterly
Zinc	µg/L	8.0	Quarterly	8.0	Quarterly
BTEXN^{2,4}					
Benzene	µg/L	700	Quarterly	700	Quarterly
Ethyl Benzene	µg/L	80	Quarterly	80	Quarterly
Toluene	µg/L	180	Quarterly	180	Quarterly
m-Xylene	µg/L	75	Quarterly	75	Quarterly
o-Xylene	µg/L	350	Quarterly	350	Quarterly
p-Xylene	µg/L	200	Quarterly	200	Quarterly
Polycyclic aromatic hydrocarbons^{2,4}					
Anthracene	µg/L	0.01	Quarterly	0.01	Quarterly
Benzo(a) pyrene	µg/L	0.1	Quarterly	0.1	Quarterly
Fluoranthene	µg/L	1.0	Quarterly	1.0	Quarterly
Naphthalene	µg/L	50	Quarterly	50	Quarterly
Phenanthrene	µg/L	0.6	Quarterly	0.6	Quarterly
TPH²					
TPH C10-C14	µg/L	600	Quarterly	600	Quarterly
TPH C15-C28	µg/L	600	Quarterly	600	Quarterly
TPH C29-C36	µg/L	600	Quarterly	600	Quarterly
TPHC6-C9	µg/L	600	Quarterly	600	Quarterly
PFAS²					

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Parameter	Units	Surface water		Groundwater	
		Value	Frequency	Value	Frequency
PFOS	µg/L	0.13	Quarterly	0.13	Quarterly
PFOA	µg/L	220	Quarterly	220	Quarterly

Notes:

1. Values taken from Table 1 Appendix 2 of environmental approval EP2021/008 – 001
2. Parameters required by Table 2 Appendix 2 of environmental approval EP2021/008 – 002 for groundwater monitoring.
3. Guideline Values taken from Darwin Harbour Water Quality Objectives (DNRETAS, 2010)
4. Values taken from Australian & New Zealand Guidelines for Fresh and Marine Water Quality (ANZG 2018)

3.6 Quality Control

A QA/QC assessment was completed and is shown in **Appendix B**. The purpose of this QA/QC assessment is to identify any issues that need to be addressed to allow for accurate and precise data collection and does not address all Data Quality Objectives outlined in the EMP (this will be completed in the annual report).

Based on the review of data quality associated with this sampling event, the data quality was concluded to be suitable for the purposes of this assessment.

4. Results

4.1 Meteorology

Rainfall data was collected from the Darwin Airport weather station (station number 14015) (BOM, 2025). Rainfall and site condition information during sampling has been summarised in **Table 4-1**.

Table 4-1 Rainfall conditions

Sampling date	Rainfall on day of sampling (mm)	Rainfall prior (7-day lead up) (mm)	Conditions during sampling
03/02/2026	0.2	103.8	Cloudy and humid
04/02/2026	3.0	99.6	

4.2 Groundwater results

Groundwater sampling was conducted on the 3rd and 4th February 2026. This period is considered the middle of the wet season.

4.2.1 Water quality parameters and field observations

The standing water level measurements, field parameters and observations are captured in **Table 4-2**.

Water quality parameters recorded across the site generally varied. In summary:

- Groundwater is acidic (varying from slightly acidic to very acidic).
- Groundwater at MW01, MW02, MW04 and MW05 is saline and at MW03 and MW06 is fresh.
- No obvious visual or olfactory indicators of contamination were noted.
- The inferred groundwater flow direction was calculated using groundwater elevations. The groundwater flow and direction is shown in **Figure 3 - Appendix C** and is compared against historical groundwater elevations and flow directions **Figure 4 - Appendix C**. The inferred groundwater flow direction for this monitoring event was in a south-westerly direction.

Table 4-2 Groundwater level, quality and observations

Location	Date	Standing Water Level (pre-purged)		Temp (°C)	pH	DO (mg/L)	EC (µS/cm)	Redox (mV)	Non-conformance	Observations
		mbTOC	mAHD							
Water Quality Objective				NA	7.0 – 8.5		NA	NA		
MW01	03/02/2026	1.304	4.871	31	6.24	0.02	5385	218.9	Yes - pH	At MW01, pH was slightly acidic. Groundwater is saline (potential interaction with seawater). Groundwater was observed to be clear, with low suspended solids and turbidity, no sheen, no odour.
MW02	03/02/2026	0.08	5.473	30.6	6.01	1.19	7735	210	Yes - pH	At MW02, pH was slightly acidic. Groundwater is saline (potential interaction with seawater). Groundwater was observed to be Clear/cloudy - orange/brown, with moderate suspended solid and turbidity, no sheen, no odour.
MW03	04/02/2026	1.815	5.574	31	6.48	0.52	672	221.3	Yes - pH	At MW03, water was acidic and fresh. Groundwater was observed to be clear yellow, with low suspended solids and turbidity, no sheen, no odour.
MW04	04/02/2026	0.691	5.499	32.1	4.53	1.13	2557	243.6	Yes - pH	At MW04, water was acidic and fresh. Groundwater was observed to be clear/cloudy white, with low suspended solid and turbidity, no sheen, no odour.

Location	Date	Standing Water Level (pre-purged)		Temp (°C)	pH	DO (mg/L)	EC (µS/cm)	Redox (mV)	Non-conformance	Observations
		mbTOC	mAHD							
MW05	03/02/2026	1.42	5.626	31.1	3.25	1.47	15003	266.1	Yes - pH	At MW05, water was acidic and saline. Groundwater was observed to be clear, with low suspended solids and turbidity, no sheen, no odour.
MW06	03/02/2026	0.81	4.854	31.6	5.72	0.67	543	240	Yes - pH	At MW06, water was acidic and fresh. Water was observed to be clear, with low suspended solids and turbidity, no sheen, no odour.

4.2.2 Discussion of Groundwater Results

Laboratory analytical results for this monitoring event were tabulated and provided in **Appendix C** and historical results are tabulated in **Appendix G**. Screening of the results against the water quality objectives (WQO) and baseline results are summarised in **Table 4-3**. Reported chemical concentrations that were above the adopted water quality objectives are **bolded** and highlighted.

As noted in Section 2, pre-operation/baseline monitoring identified several pre-existing conditions relevant to the interpretation of groundwater, as summarised below:

- Average nutrient (ammonia nitrogen, total phosphorous, total nitrogen and dissolved reactive phosphorous) and copper concentrations above the adopted water quality objectives and were associated with background/naturally occurring conditions.
- Concentrations of metals at MW05 were considered outliers to the data set and therefore were excluded from the baseline average/maximum calculation provided in Table 4-3 (below)
- PFAS was reported at MW01 and was attributed to an incident that occurred at the neighbouring Vopak site, leading to PFAS contaminated groundwater and surface water migrating across the boundary.

Given the presence of elevated nutrient and copper concentrations in the background groundwater, the quarterly monitoring results have been compared to the pre-operation/baseline data to assist with the evaluation of the significance of the reported results and the impact of the site operation on the groundwater quality.

To further illustrate this point, **Figure 4-1** to **Figure 4-15** ¹ provide the concentration trends for key analytes with concentrations reported above the water quality objectives.

pH across the site (with the exception of MW03) was outside the WQO. All results are consistent with the baseline results. MW05 reports a low pH (3.5), as seen in **Figure 4-1**, this is consistent with previous results.

Several nutrients were detected above the WQO, including reactive phosphorous, ammonia nitrogen, total nitrogen and total phosphorous. All detections are below the baseline average and/or maximum. **Figure 4-4** depicts a relatively sharp increase in total phosphorous at MW02, however the result is still below the maximum baseline result. This trend should be examined further in future monitoring events.

E. coli at MW03 was reported above the WQO and the baseline maximum. It should be noted that the baseline average/maximum for *E. coli* is based off a singular monitoring event. As seen in **Figure 4-5** this is not the first elevated *E. coli* result, however no discernible trend can be assessed at this stage.

Copper and zinc concentrations were consistently reported above the WQO. All results were below baseline average and/or maximum with the exception of zinc at MW02. **Figure 4-14** shows that zinc concentrations fluctuate across the site with no discernible trend. This should be examined further in future monitoring events. MW05 also recorded cadmium, lead and nickel concentrations above the WQO. All concentrations are below the maximums recorded at MW05. **Figure 4-7**, **Figure 4-9**, **Figure 4-11** and **Figure 4-13** show the consistently elevated metal concentrations at MW05.

There were no detection of any hydrocarbons above the limit of reporting (LOR - shown in **Table 4-3**).

PFAS concentrations were detected in varying concentrations, with the highest concentrations noted in MW01 and MW02, but did not exceed the adopted water quality objective. **Table G-3 Appendix G** displays the

¹ These graphs do not show data collected in the DSI (CDM Smith, 2021) however the data was used to calculate site averages and maximums.

results for all PFAS analytes across all the monitoring events. In general results are in line with what have been previously reported.

Table 4-3 Groundwater Laboratory Results

Parameter	Units	Water Quality Objective	Baseline Results		MW01	MW02	MW03	MW04	MW05	MW06
			Average	Maximum						
Field Parameters										
pH	-	7.0-8.5	6.61	7.89	6.89	6.10	7.02	5.35	3.50	6.70
Electrical conductivity	µS/cm	NA	11627	60600	4,960	7,410	573	2,300	12,100	470
Total suspended solids	mg/L	30	166	805	NS	NS	NS	NS	NS	NS
Turbidity	NTU	4	141	465	13.8	829	6.6	51.8	6.7	1.8
Dissolved oxygen	DO%	80-100	NS	NS	NS	NS	NS	NS	NS	NS
Temperature	°C	NA	NS	NS	NS	NS	NS	NS	NS	NS
Environmental Indicators										
Ammonia nitrogen (NH3-N)	mg/L	0.02	2.74	13.1	0.60	0.53	0.21	0.02	0.16	0.01
Dissolved reactive phosphorous (PO4-P)	mg/L	0.01	0.011	0.06	<0.01	<0.10	<0.10	0.02	0.03	<0.01
Chlorophyll-a	µg/L	4	0.8	3	<1	<2	<1	<1	<1	<1
Biological oxygen demand	mg/L	NA	3.6	16	<2	<2	<2	<2	<2	<2
Total Recoverable Hydrocarbons	mg/L	10	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total nitrogen	mg/L	0.3	4.0	12.5	0.7	1.4	1.4	1.1	4.0	1.3
Total phosphorus	mg/L	0.03	0.17	1.29	0.02	0.31	<0.10	0.07	0.04	0.01
E.coli	CFU/100ml	200	10	48	1	2	450	<1	<1	8
Enterococci	CFU/100ml	50	<1	<1	<1	3	11	<1	<1	<1
Metals										
Arsenic	µg/L	NA	7.2	16 (190) ¹	10	5	8	4	34	<1
Cadmium	µg/L	0.7	0.06	0.1 (2.1) ¹	<0.1	<0.1	<0.1	0.1	0.7	<0.1
Chromium (CrIII)	µg/L	27	<10	<10 (10) ¹	<10	<10	<100	<10	<10	<10
Chromium (CrVI)	µg/L	4.4	<10	<10	<10	<10	<100	<10	<10	<10
Copper	µg/L	1.3	70	1050 (1810) ¹	<1	<1	2	504	459	<1
Iron	µg/L	NA	20034	109000	NS	NS	NS	NS	NS	NS
Lead	µg/L	4.4	0.53	1.0 (83) ¹	<1	<1	<1	<1	41	<1
Manganese	µg/L	NA	1827	5980 (856) ¹	869	3,300	648	658	2,240	273
Mercury	µg/L	0.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	µg/L	70	3.6	12 (611) ¹	<1	<1	2	11	184	<1
Silver	µg/L	1.4	<1.0	<1.0 (5) ¹	NS	NS	NS	NS	NS	NS
Zinc	µg/L	8.0	5.4	15 (659)	<5	20	<5	14	183	<5
BTEXN										

Parameter	Units	Water Quality Objective	Baseline Results		MW01	MW02	MW03	MW04	MW05	MW06
			Average	Maximum						
Benzene	µg/L	700	<1.0	<1.0	<1	<1	<1	<1	<1	<1
Ethyl Benzene	µg/L	80	<2.0	<2.0	<2	<2	<2	<2	<2	<2
Toulene	µg/L	180	<2.0	<2.0	<2	<2	<2	<2	<2	<2
m-Xylene	µg/L	75	<2.0	<2.0	<2	<2	<2	<2	<2	<2
o-Xylene	µg/L	350	<2.0	<2.0	<2	<2	<2	<2	<2	<2
p-Xylene	µg/L	200	<2.0	<2.0	<2	<2	<2	<2	<2	<2
Polycyclic aromatic hydrocarbons										
Anthracene	µg/L	0.01	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a) pyrene	µg/L	0.1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	µg/L	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	µg/L	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	µg/L	0.6	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TPH										
TPH C10-C14	µg/L	600	<50	<50	<50	<50	<50	<50	<50	<50
TPH C15-C28	µg/L	600	<100	<100	<100	<100	<100	<100	<100	<100
TPH C29-C36	µg/L	600	<50	<50	<50	<50	<50	<50	<50	<50
TPHC6-C9	µg/L	600	<20	<20	<20	<20	<20	<20	<20	<20
PFAS										
PFOS	µg/L	0.13	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFOA	µg/L	220	0.072	0.52	0.10	0.02	<0.01	<0.01	<0.01	<0.01

NS – Not Sampled

¹ – Outlier results recorded at MW05 in the Pre-Operations monitoring were excluded from the baseline average/maximum. Maximum baseline results recorded at MW05 have been included in brackets.

Figure 4-1 Groundwater Results - pH

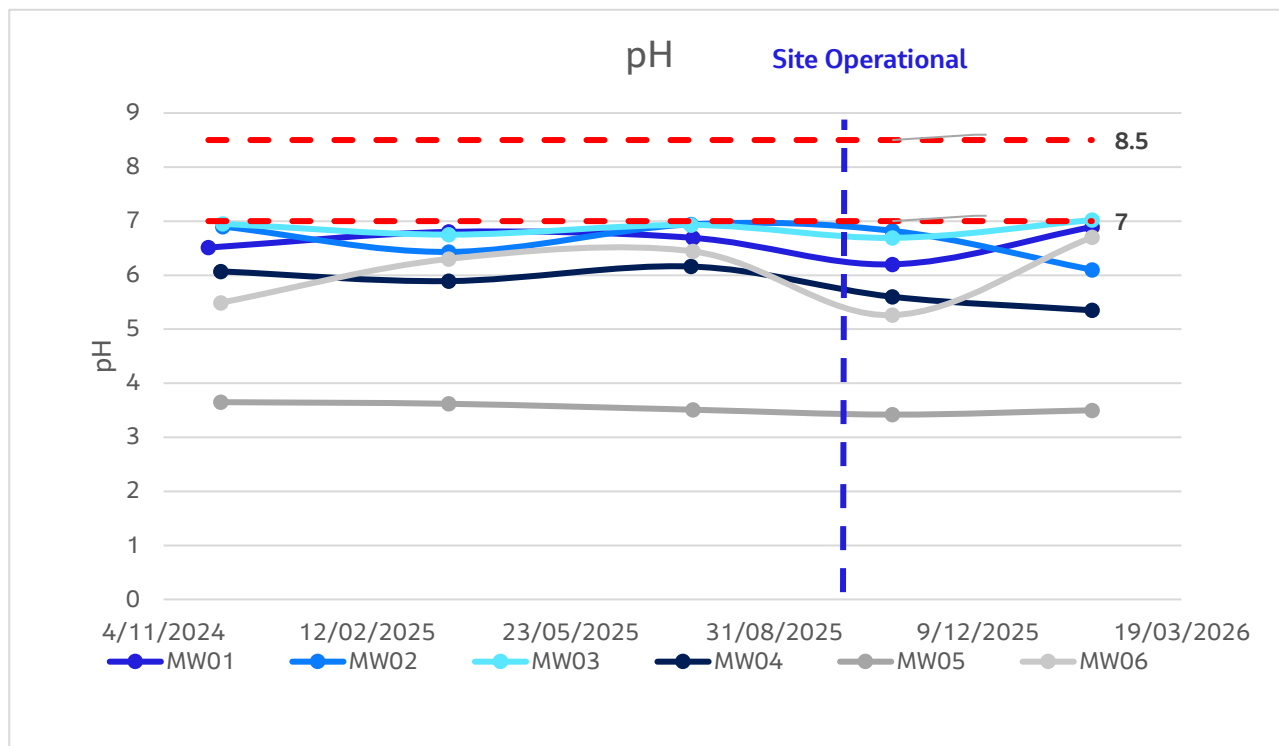


Figure 4-2 Groundwater Results – Ammonia as N

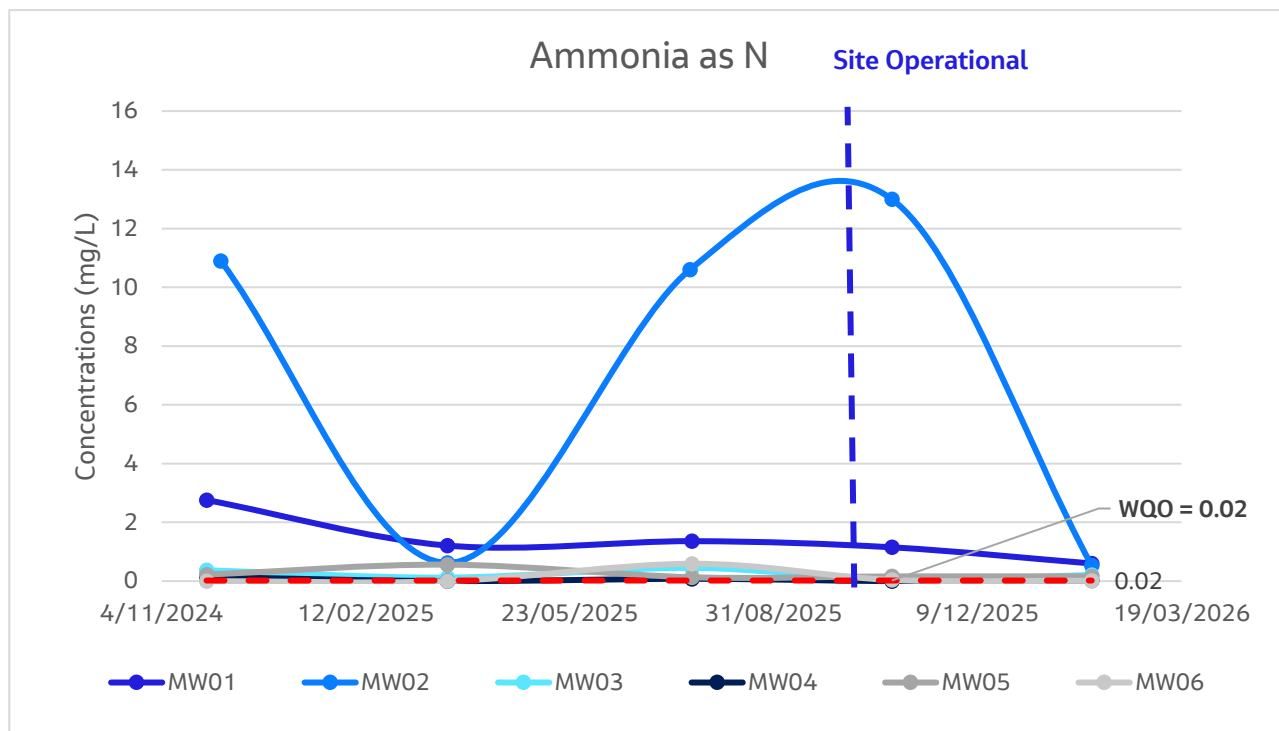


Figure 4-3 Groundwater Results – Total Nitrogen

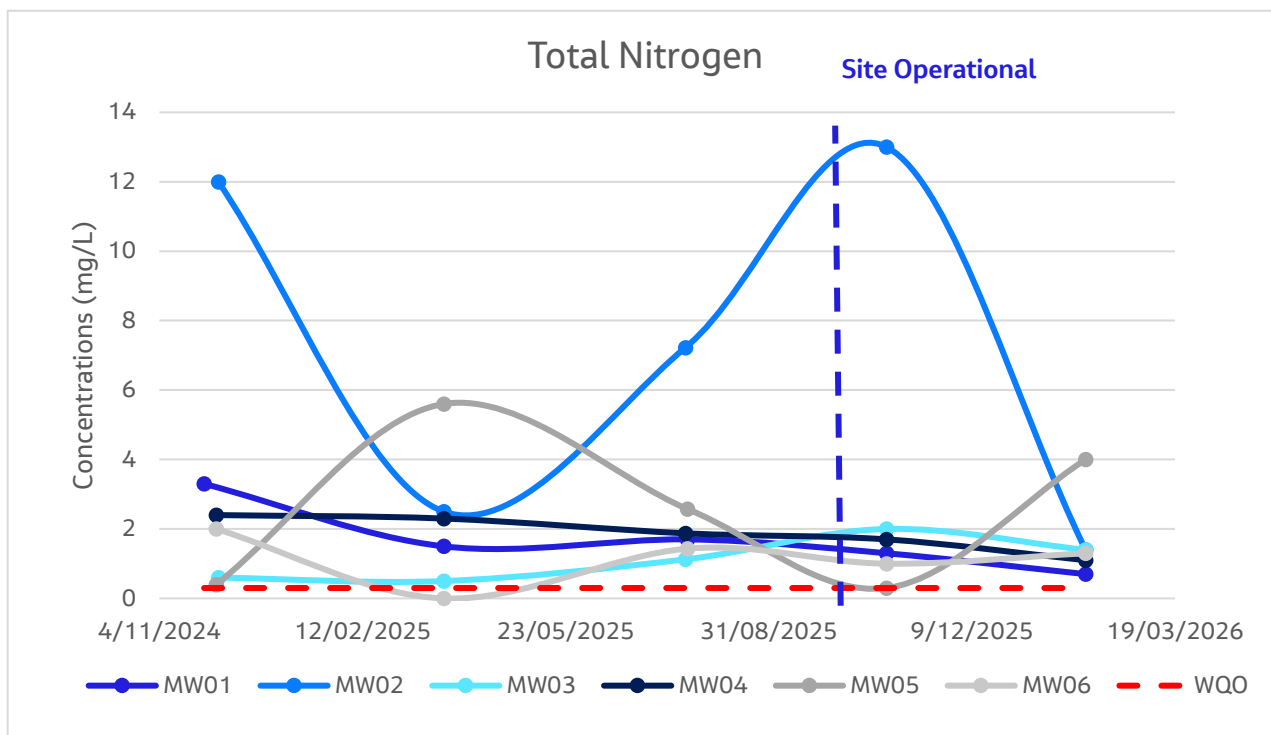


Figure 4-4 Groundwater Results – Total Phosphorous

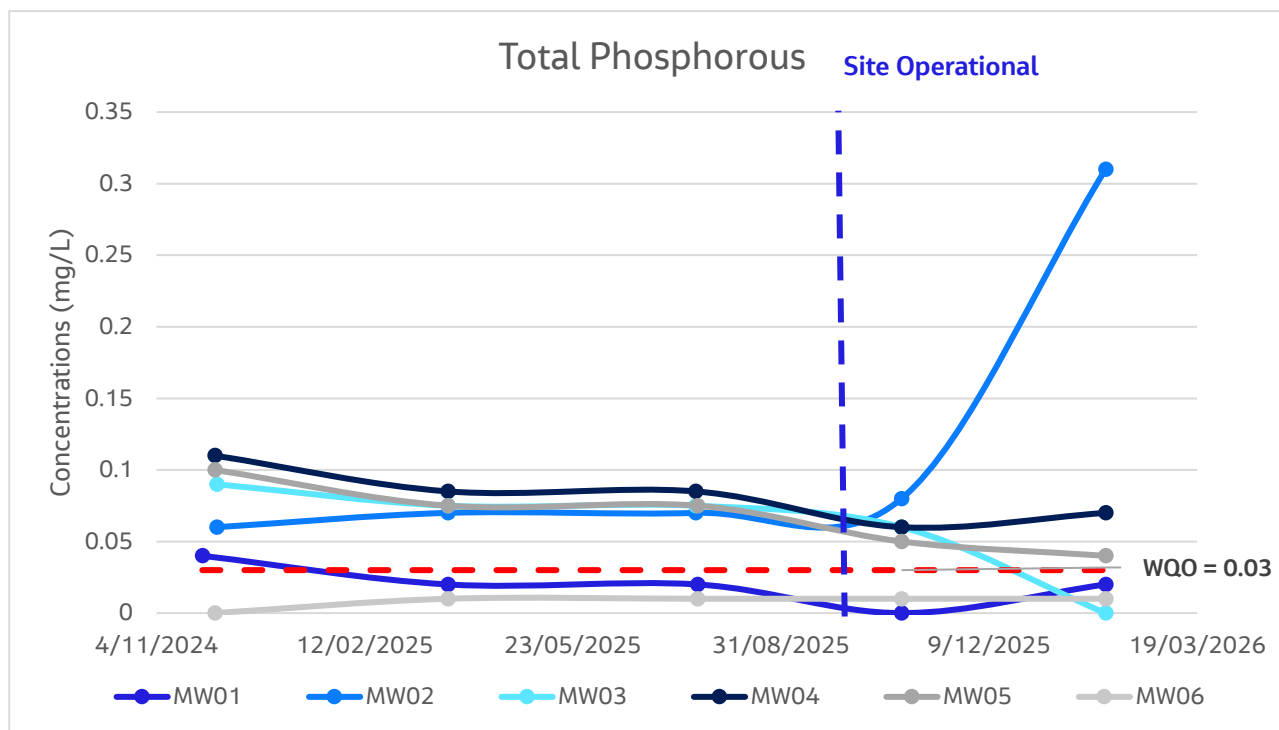


Figure 4-5 Groundwater Results – *E. coli*

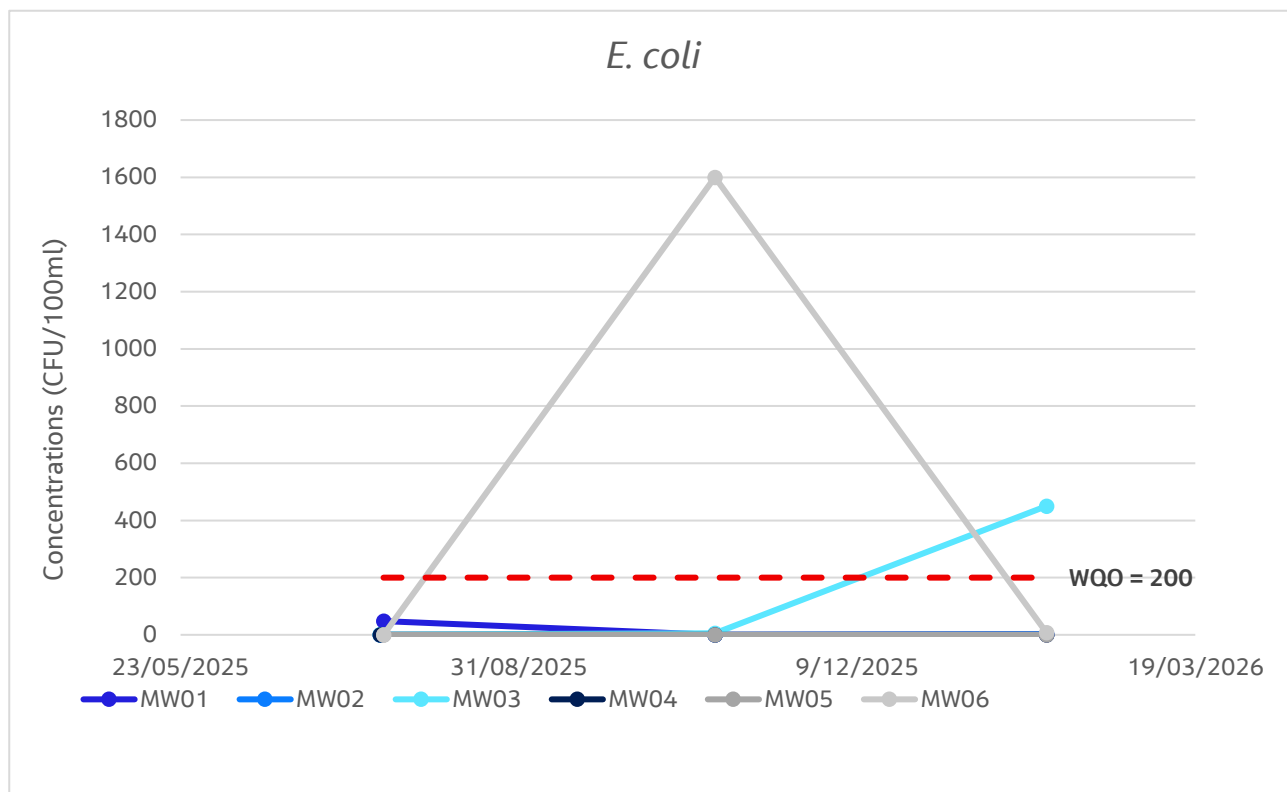


Figure 4-6 Groundwater Results – Cadmium

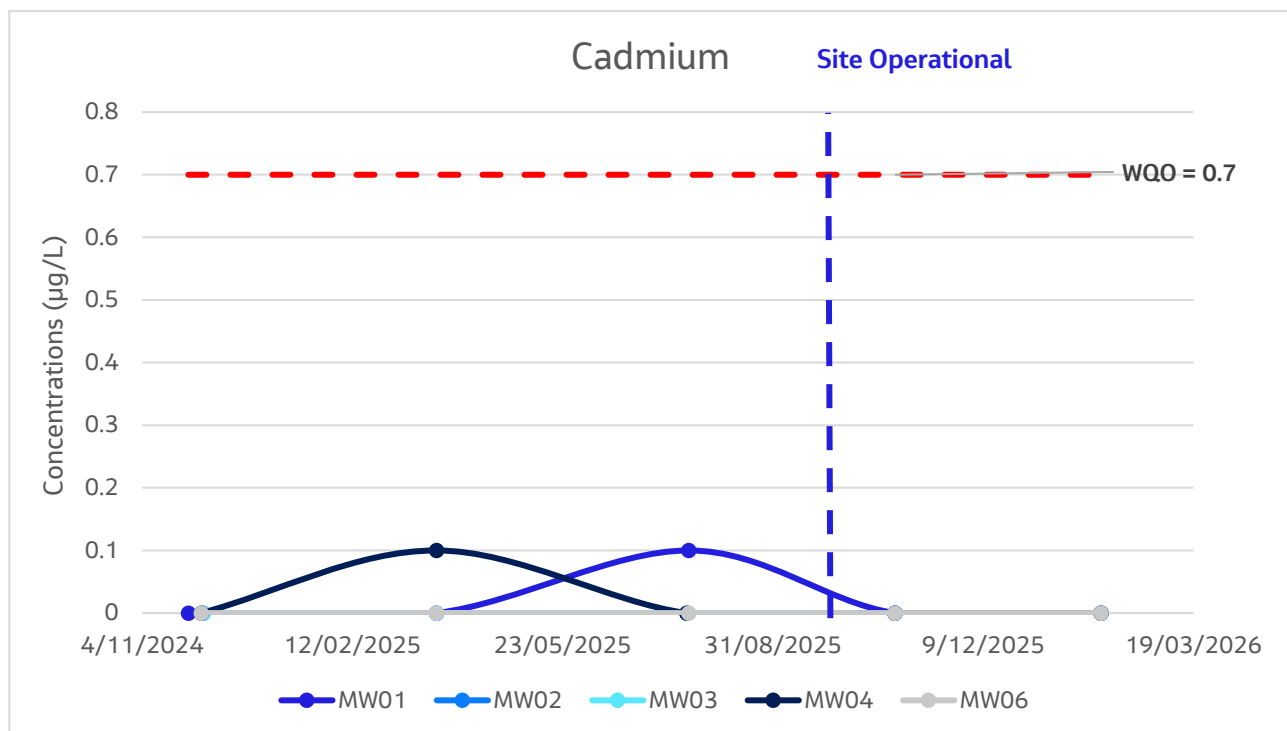


Figure 4-7 Groundwater Results – Cadmium MW05

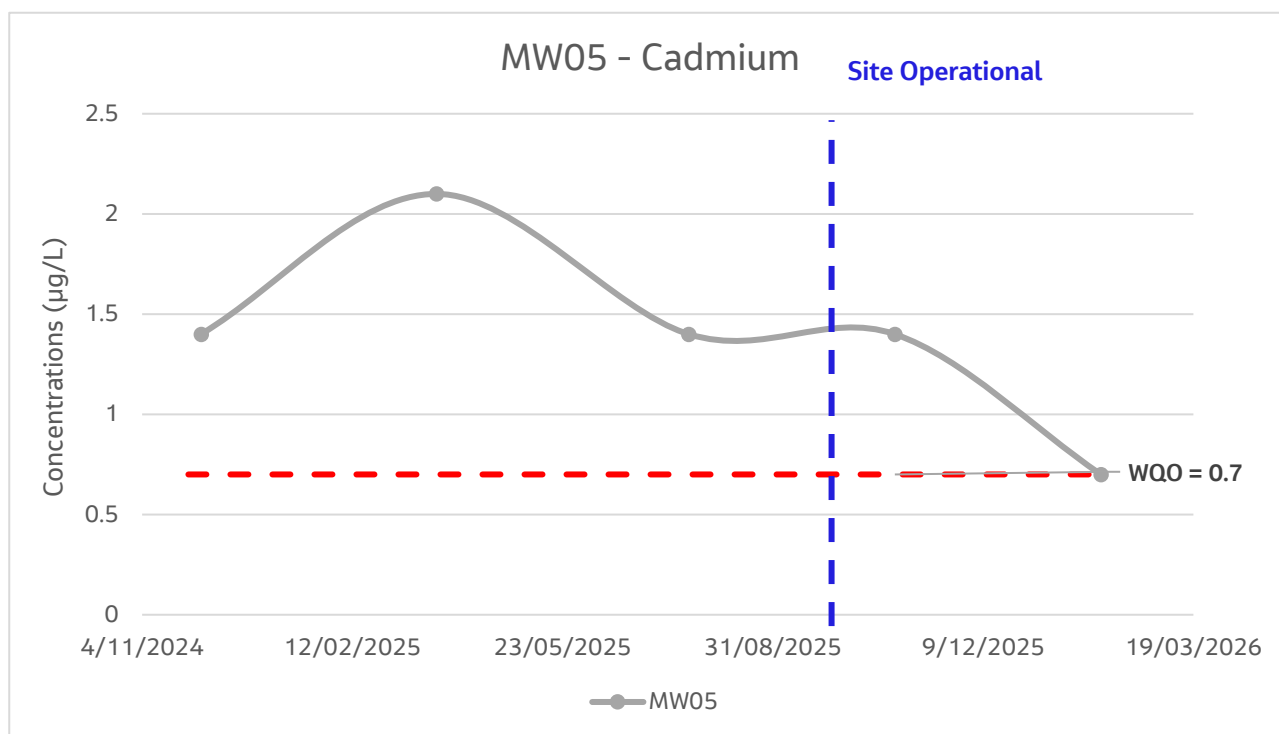


Figure 4-8 Groundwater Results – Copper

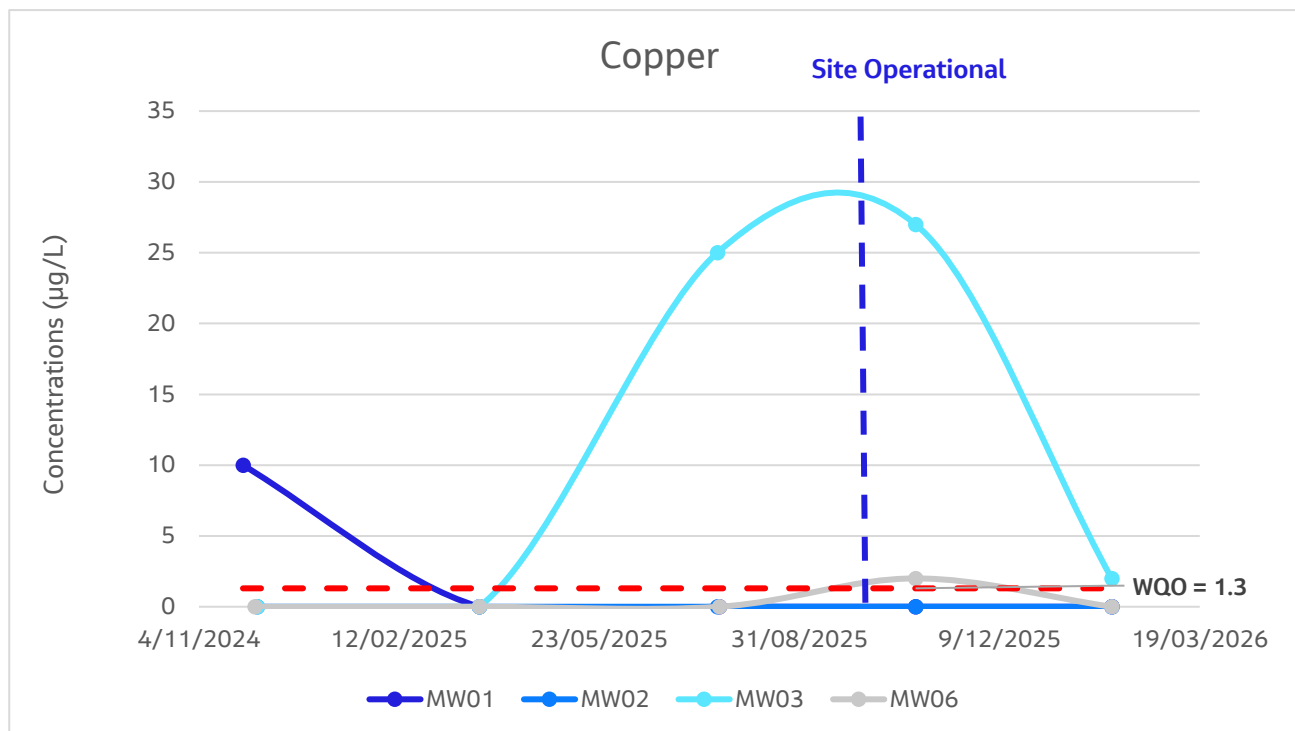


Figure 4-9 Groundwater Results – Copper MW04/MW05

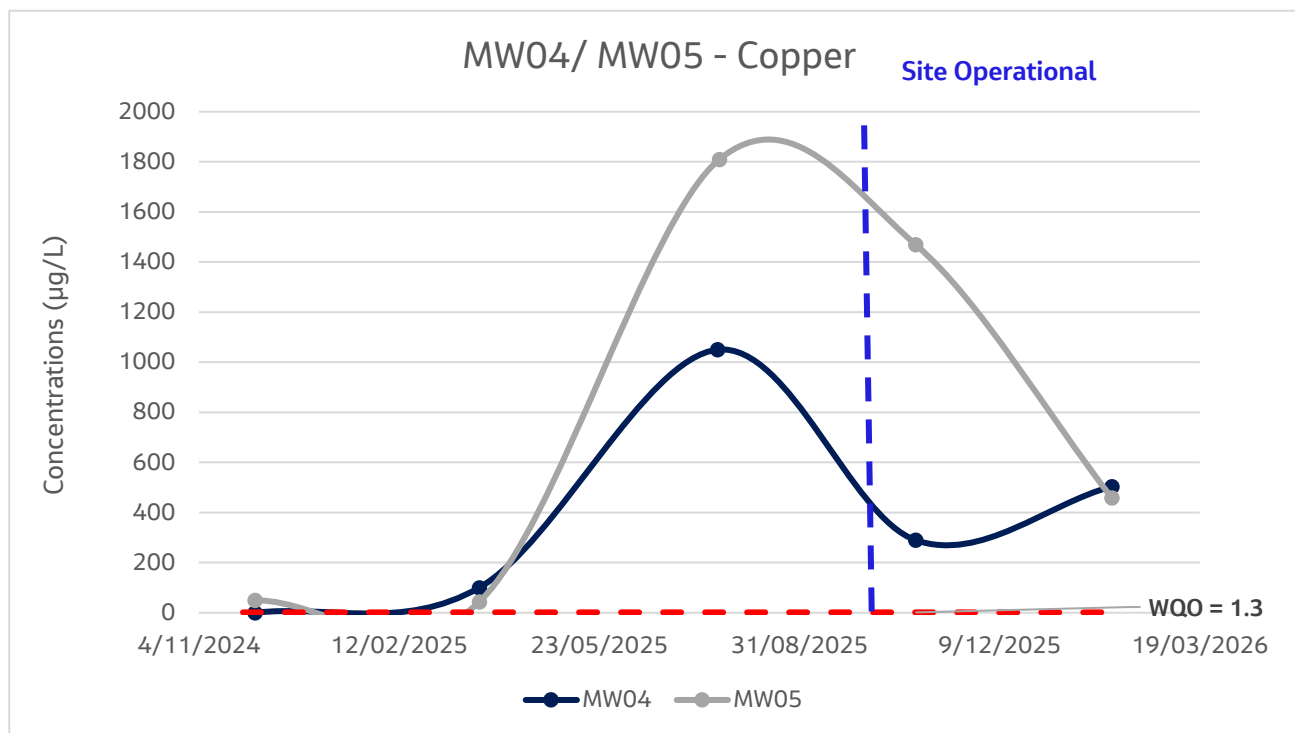


Figure 4-10 Groundwater Results - Lead

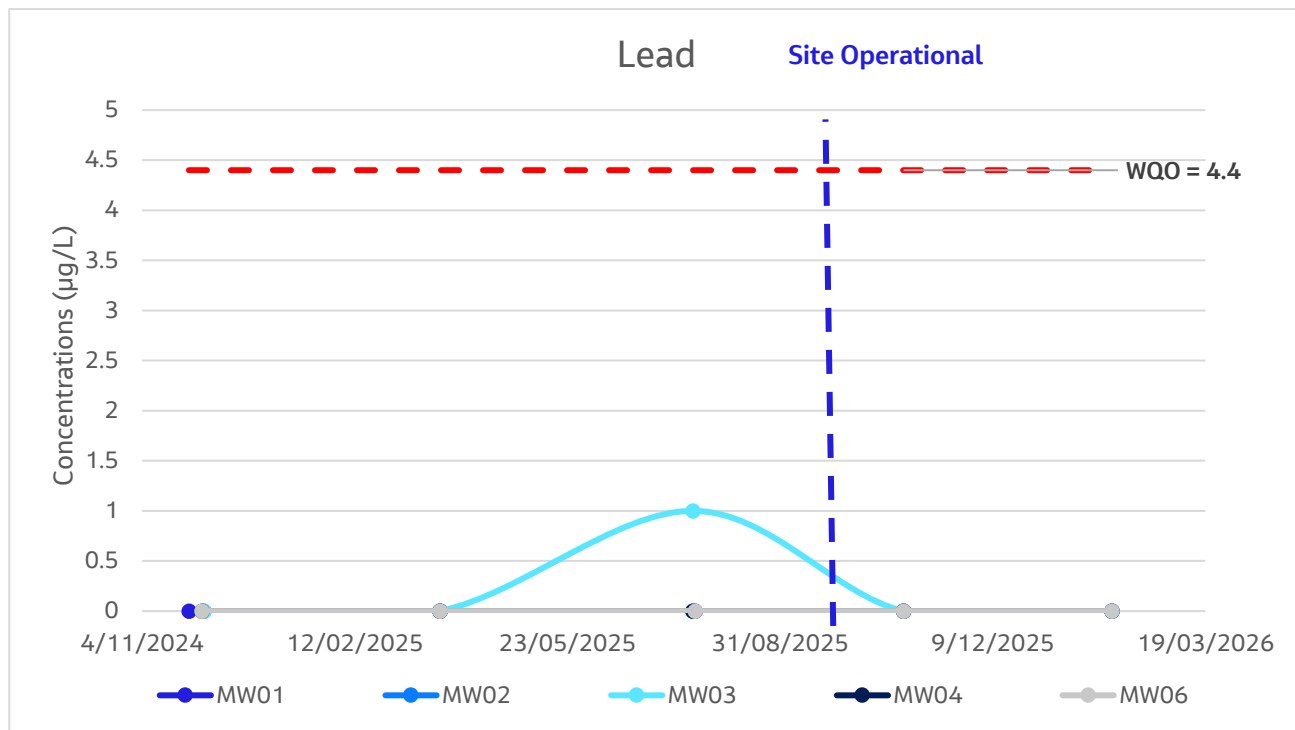


Figure 4-11 Groundwater Results – Lead MW05

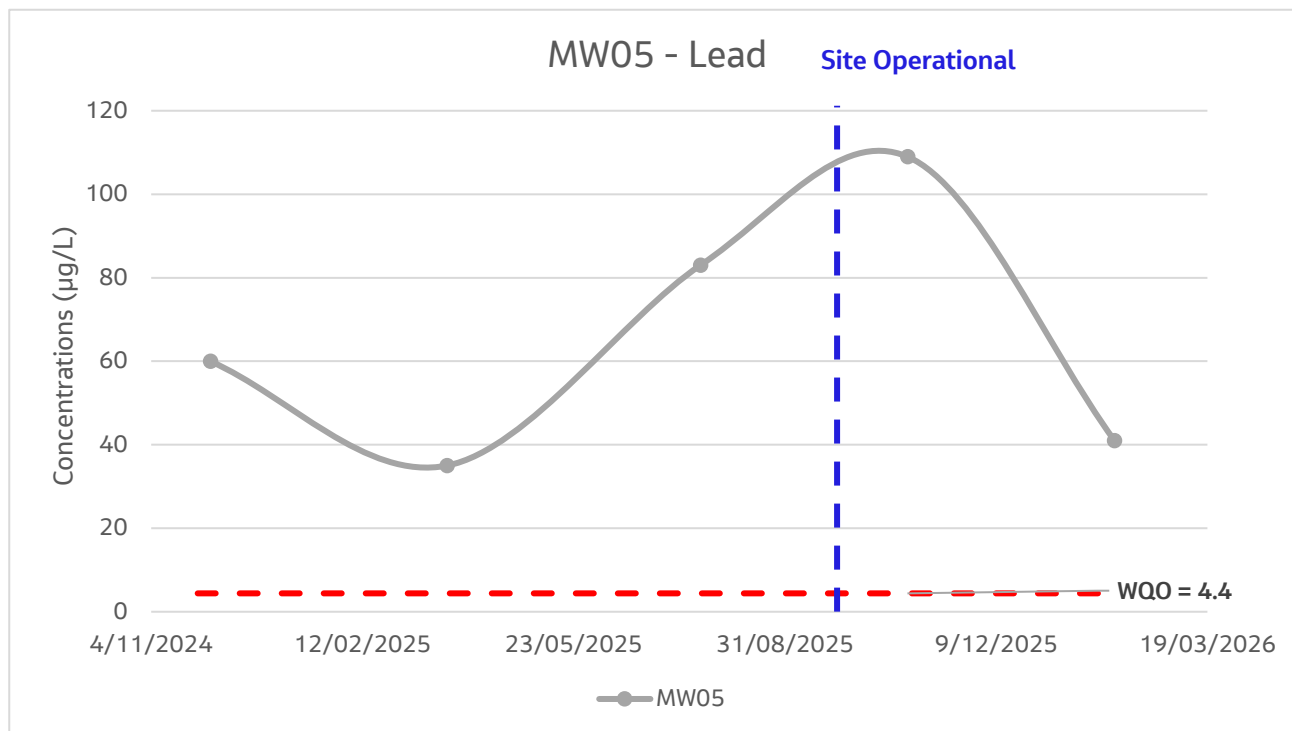


Figure 4-12 Groundwater Results – Nickel

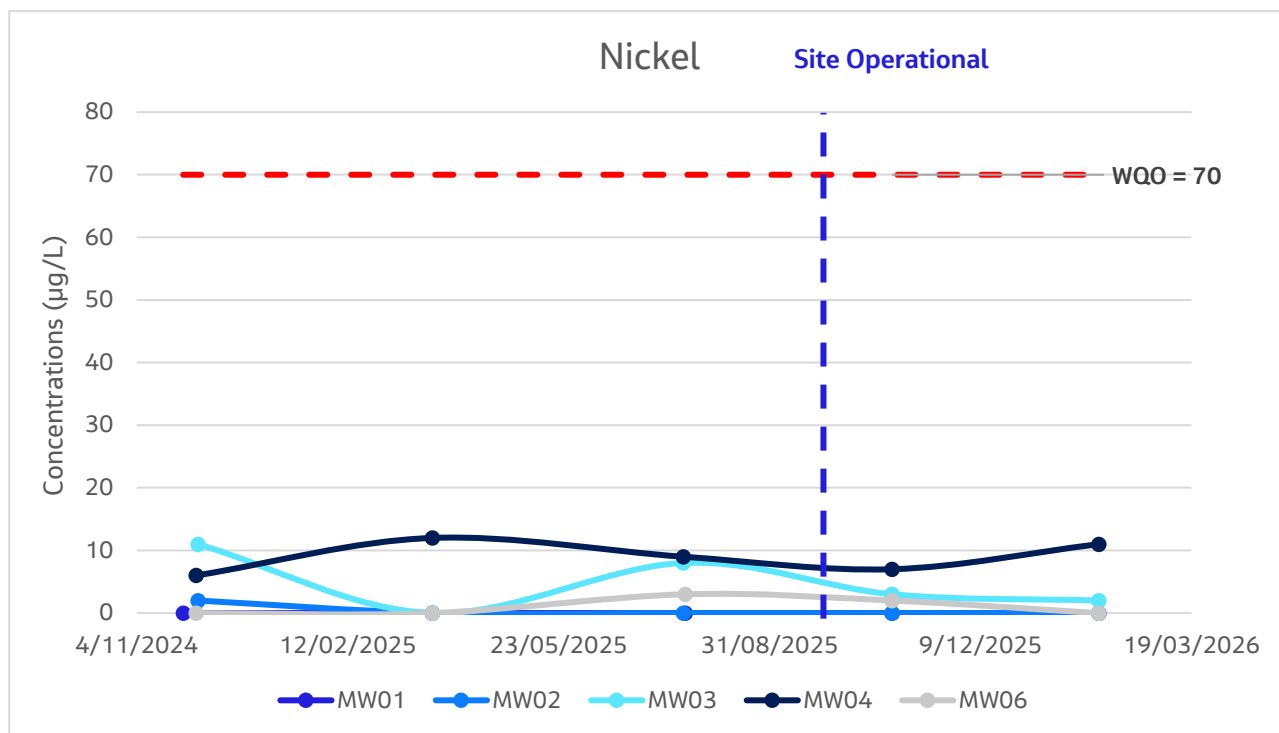


Figure 4-13 Groundwater Results – Nickel MW05

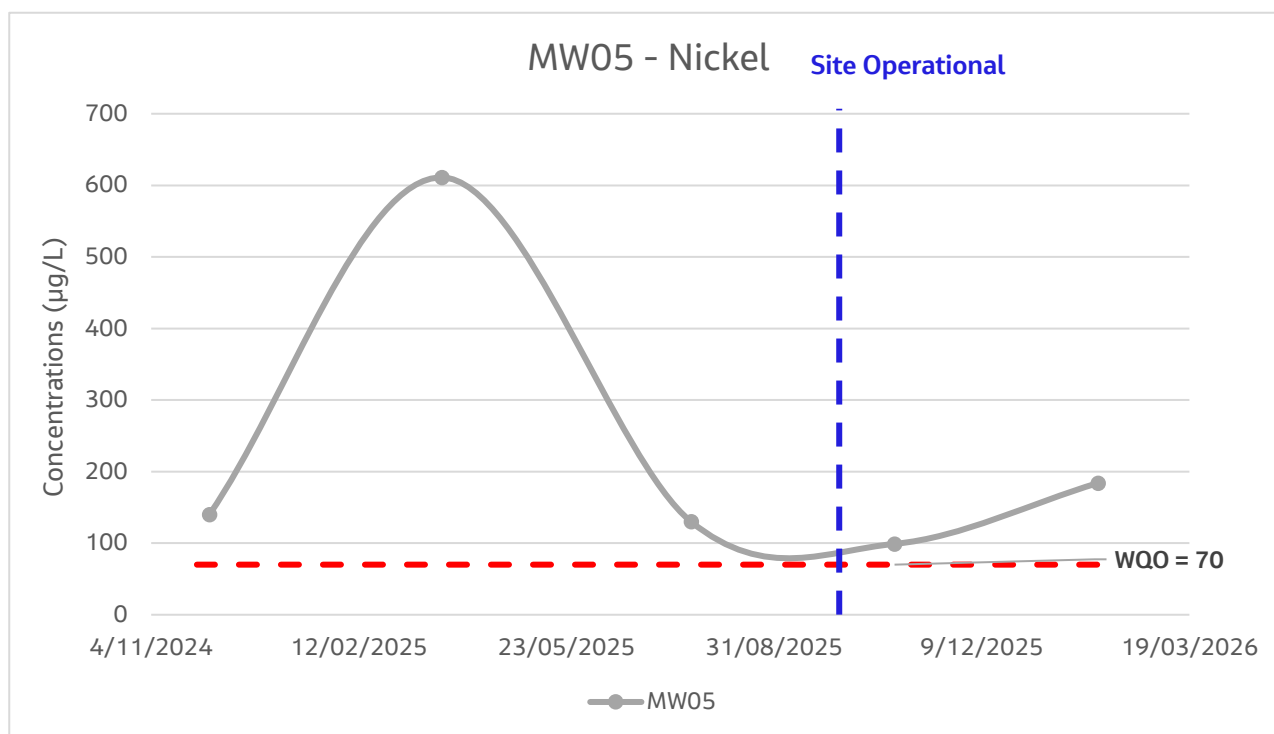


Figure 4-14 Groundwater Results – Zinc

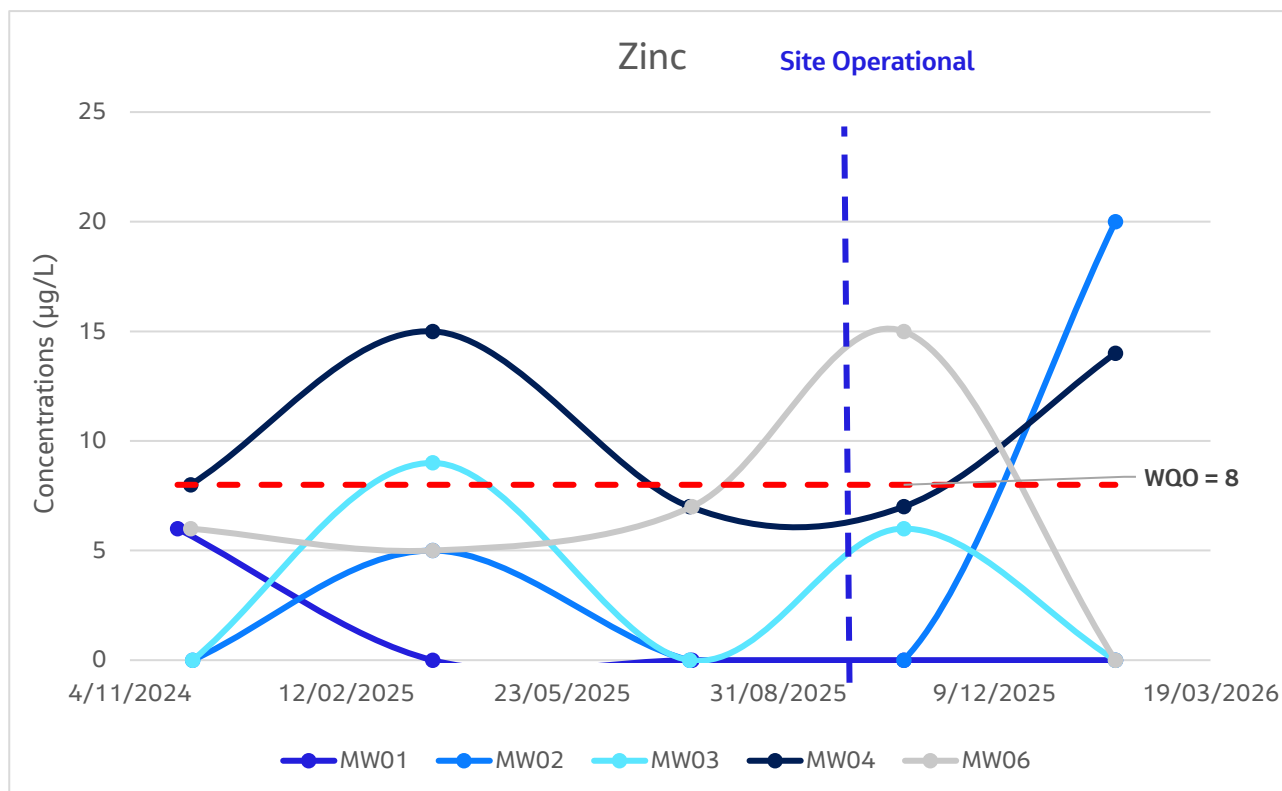
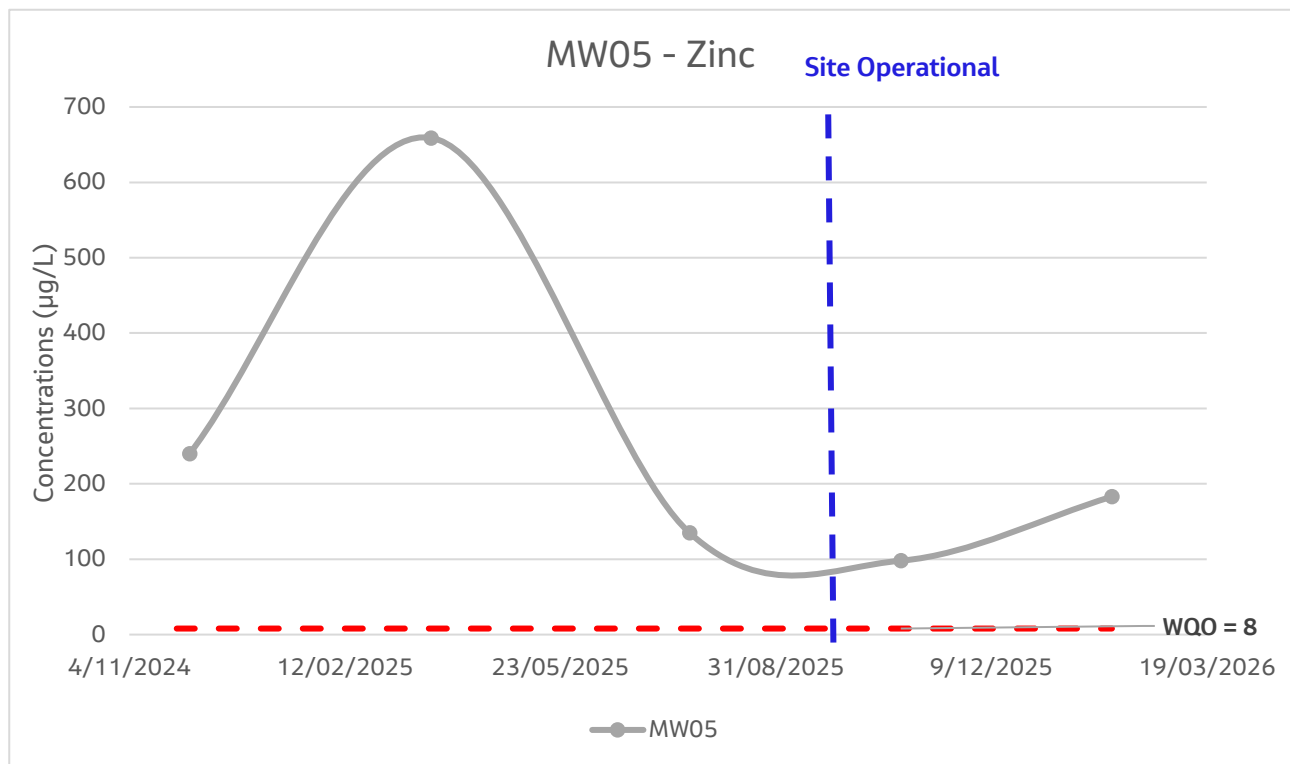


Figure 4-15 Groundwater Results – Zinc MW05



4.3 Surface water quality monitoring

Surface water sampling was conducted on the 3rd and 4th February 2026.

4.3.1 Water quality parameters and field observations

Water quality parameters recorded at surface water monitoring locations are presented in **Table 4-4**.

Based on the recorded measurements, the following observations were recorded.

- pH measured across the site was generally slightly acidic.
- Electrical conductivity (EC) ranged from 90 µS/cm (SW08) to 334 (SW06). The relatively low EC is likely representative of relatively recent rainwater.
- Redox potential ranged from 175 (SW01 and SW06) to 255.3 (SW03) and dissolved oxygen from 3.18 (SW06) to 4.88 (SW08).
- A bacterial sheen (potentially iron fixing) was observed at location SW04 and SW05.
- SW02 was dry during the sampling event.

Table 4-4 Surface water quality parameters

Location	Date	Temp (°C)	pH	DO (mg/L)	EC (µS/cm)	Redox (mV)	Non-conformance	Observations
Water Quality Objective		NA	7.0 – 8.5		NA	NA		
SW01	04/02/2026	28.6	6.41	3.18	751	175	Yes - pH	Clear/ slightly brown, substantial flow, no sheen, no odour
SW02	04/02/2026	-	-	-	-	-	-	Dry
SW03	03/02/2026	31.2	6.44	4.63	97.4	255.3	Yes - pH	Clear/ slightly brown, low flow, organic sheen, no odour
SW04	04/02/2026	30.1	9.34	3.65	335	236	Yes - pH	Clear/ slightly brown, low flow, algal growth, organic sheen, no odour
SW05	04/02/2026	29.3	6.53	3.84	287	241.7	Yes - pH	Clear/ slightly brown, low flow, algal growth, organic sheen, no odour
SW06	04/02/2026	29.1	6.41	3.18	751	175	Yes - pH	Clear/slightly cloudy, substantial flow, slight sheen, no odour
SW07	03/02/2026	30.5	6.43	4.17	38.9	254.4	Yes - pH	Clear/ slightly brown, no flow/stagnant, no sheen, no odour
SW08	04/02/2026	29.3	7.01	4.88	90	237.6	-	Clear/ slightly brown, low flow, no sheen, no odour

4.3.2 Discussion of Surface Water Results

Laboratory analytical results for this monitoring event were tabulated and provided in **Appendix C** and historical results are tabulated in **Appendix G**. Screening of the results against the water quality objectives (WQO) and baseline results are summarised in **Table 4-3**, concentrations above the water quality objectives are **bolded** and **highlighted**.

As noted in Section 2, pre-operation/baseline monitoring identified several pre-existing conditions relevant to the interpretation of surface water, as summarised below:

- Average nutrient (ammonia nitrogen, total phosphorous and total nitrogen) and zinc concentrations were identified above the adopted water quality objectives and were associated with background/naturally occurring conditions.
- Elevated PFAS concentrations were identified at several locations across the site. It is understood that the PFAS is migrating to the site from the adjacent Vopak site.

Given the presence of elevated nutrient and zinc concentrations in the background surface water, the quarterly monitoring results have been compared to the pre-operation/baseline data to assist with the evaluation of the significance of the reported results and the impact of the site operation on the surface water quality.

To further illustrate this point, **Figure 4-16** to **Figure 4-22**² provide the concentration trends for key analytes with concentrations reported above the water quality objectives.

pH across the site was generally outside the WQO and slightly below the site average. As seen in **Figure 4-16** pH across the site has stayed relatively similar across all the sampling events, with the exception of SW04 which has increased by a relatively large amount since the last monitoring event. This trend will be examined further in future monitoring events.

Several nutrients were detected above the WQO, including ammonia nitrogen, chlorophyll-*a*, total nitrogen and total phosphorous. All results (with the exception of chlorophyll-*a*) were below baseline maximums. As seen in **Figure 4-19** chlorophyll-*a* has increased relatively sharply at both SW07 and SW08. A similar increase in ammonia nitrogen can be seen at SW01 and SW05 in **Figure 4-18**. These trends will be examined further in future monitoring events.

E. coli and enterococci were reported above the WQO across the site. There is no baseline data for either analyte, however both have recorded several results above the WQO across the last two monitoring events. The highest recorded concentrations are at SW05, representing water entering site from the industrial area to the east and SW07, which receives runoff from site and the road. Further data is required to assess a trend and source.

Zinc concentrations were reported above the WQO at four locations. All reported concentrations were above the baseline average but below the baseline maximum. As seen in **Figure 4-22** there are no discernible trend at this stage, with concentrations both increasing and decreasing across the site.

There were no detection of any hydrocarbons above the limit of reporting (LOR – shown in **Table 4-5**).

PFAS concentrations were detected in varying concentrations, however no locations exceeded the WQO. **Table G-3 Appendix G** displays the results for all PFAS analytes across all the monitoring events. The majority

² These graphs do not show data collected in the DSI (CDM Smith, 2021) however the data was used to calculate site averages and maximums.

of results are in line with previous monitoring events, with the exception of a notable increase in PFAS concentrations at SW03. This location represents water leaving the Vopak terminal south of the site.

Table 4-5 Surface Water laboratory results

Parameter	Units	Water Quality Objectives	Baseline Results		SW01	SW02 ¹	SW03	SW04	SW05	SW06	SW07	SW08
			Average	Maximum								
Field Parameters												
pH	-	7.0-8.5	7.20	8.63	6.51	NS	6.82	8.28	6.80	6.77	6.70	6.66
Electrical conductivity	µS/cm	NA	304	739	79	NS	79	297	345	896	84	85
Total suspended solids	mg/L	30	13	37	NS	NS	NS	NS	NS	NS	NS	NS
Turbidity	NTU	4	18.3	65	3.8	NS	1.5	18.2	14.1	4.3	10.8	2.6
Dissolved oxygen	DO%	80-100	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Temperature	°C	NA	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
Environmental Indicators												
Ammonia nitrogen (NH3-N)	mg/L	0.02	0.05	0.22	0.09	NS	0.01	0.04	0.16	0.02	<0.01	<0.01
Dissolved reactive phosphorous (PO4-P)	mg/L	0.01	0.01	0.02	<0.01	NS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chlorophyll-a	µg/L	4	3.5	20	1	NS	2	<1	<1	3	66	27
Biological oxygen demand	mg/L	NA	5.6	12	<2	NS	2	<2	3	<2	5	<2
Total Recoverable Hydrocarbons	mg/L	10	<0.1	<0.1	<0.1	NS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Total nitrogen	mg/L	0.3	0.58	1.6	0.1	NS	0.4	0.5	0.4	0.7	0.3	0.1
Total phosphorus	mg/L	0.03	0.06	0.22	<0.01	NS	0.01	0.03	0.09	0.03	0.06	0.01
E.coli	CFU/100ml	200	NS	NS	82	NS	510	550	2,800	320	4,000	97
Enterococci	CFU/100ml	50	NS	NS	340	NS	110	320	530	12	780	180
Metals												
Arsenic	µg/L	NA	1.2	5.0	<1	NS	<1	<1	<1	<1	<1	<1
Cadmium	µg/L	0.7	<0.1	<0.1	<0.1	NS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Chromium (CrIII)	µg/L	27	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10
Chromium (CrVI)	µg/L	4.4	<10	<10	<10	NS	<10	<10	<10	<10	<10	<10
Copper	µg/L	1.3	1.0	4.0	<1	NS	<1	1.0	1.0	<1	<1	<1
Iron	µg/L	NA	517	2550	NS	NS	NS	NS	NS	NS	NS	NS
Lead	µg/L	4.4	<1.0	<1.0	<1	NS	<1	<1	<1	<1	<1	<1
Manganese	µg/L	NA	68.3	300	7	NS	6	29	343	409	11	11
Mercury	µg/L	0.4	<0.1	<0.1	<0.1	NS	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	µg/L	70	0.73	3.0	<1	NS	<1	<1	<1	2	<1	<1
Silver	µg/L	1.4	<1.0	<1.0	NS	NS	NS	NS	NS	NS	NS	NS
Zinc	µg/L	8.0	23	87	39	NS	<5	6	28	41	<5	26
BTEXN												

Parameter	Units	Water Quality Objectives	Baseline Results		SW01	SW02 ¹	SW03	SW04	SW05	SW06	SW07	SW08
			Average	Maximum								
Benzene	µg/L	700	<1.0	<1.0	<1	NS	<1	<1	<1	<1	<1	<1
Ethyl Benzene	µg/L	80	<2.0	<2.0	<2	NS	<2	<2	<2	<2	<2	<2
Toulene	µg/L	180	<2.0	<2.0	<2	NS	<2	<2	<2	<2	<2	<2
m-Xylene	µg/L	75	<2.0	<2.0	<2	NS	<2	<2	<2	<2	<2	<2
o-Xylene	µg/L	350	<2.0	<2.0	<2	NS	<2	<2	<2	<2	<2	<2
p-Xylene	µg/L	200	<2.0	<2.0	<2	NS	<2	<2	<2	<2	<2	<2
Polycyclic aromatic hydrocarbons												
Anthracene	µg/L	0.01	<1.0	<1.0	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a) pyrene	µg/L	0.1	<1.0	<1.0	<0.5	NS	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Fluoranthene	µg/L	1.0	<1.0	<1.0	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Naphthalene	µg/L	50	<1.0	<1.0	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	µg/L	0.6	<1.0	<1.0	<1.0	NS	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
TPH												
TPH C10-C14	µg/L	600	<50	<50	<50	NS	<50	<50	<50	<50	<50	<50
TPH C15-C28	µg/L	600	<100	<100	<100	NS	<100	<100	<100	<100	<100	<100
TPH C29-C36	µg/L	600	<50	<50	<50	NS	<50	<50	<50	<50	<50	<50
TPH C6-C9	µg/L	600	<20	<20	<20	NS	<20	<20	<20	<20	<20	<20
PFAS												
PFOS	µg/L	0.13	<0.01	<0.01	<0.01	NS	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
PFOA	µg/L	220	0.017	0.14	<0.01	NS	0.08	<0.01	<0.01	<0.01	<0.01	<0.01

NS – Not Sampled
¹ – Location dry during sampling event

Figure 4-16 Surface Water Results – pH

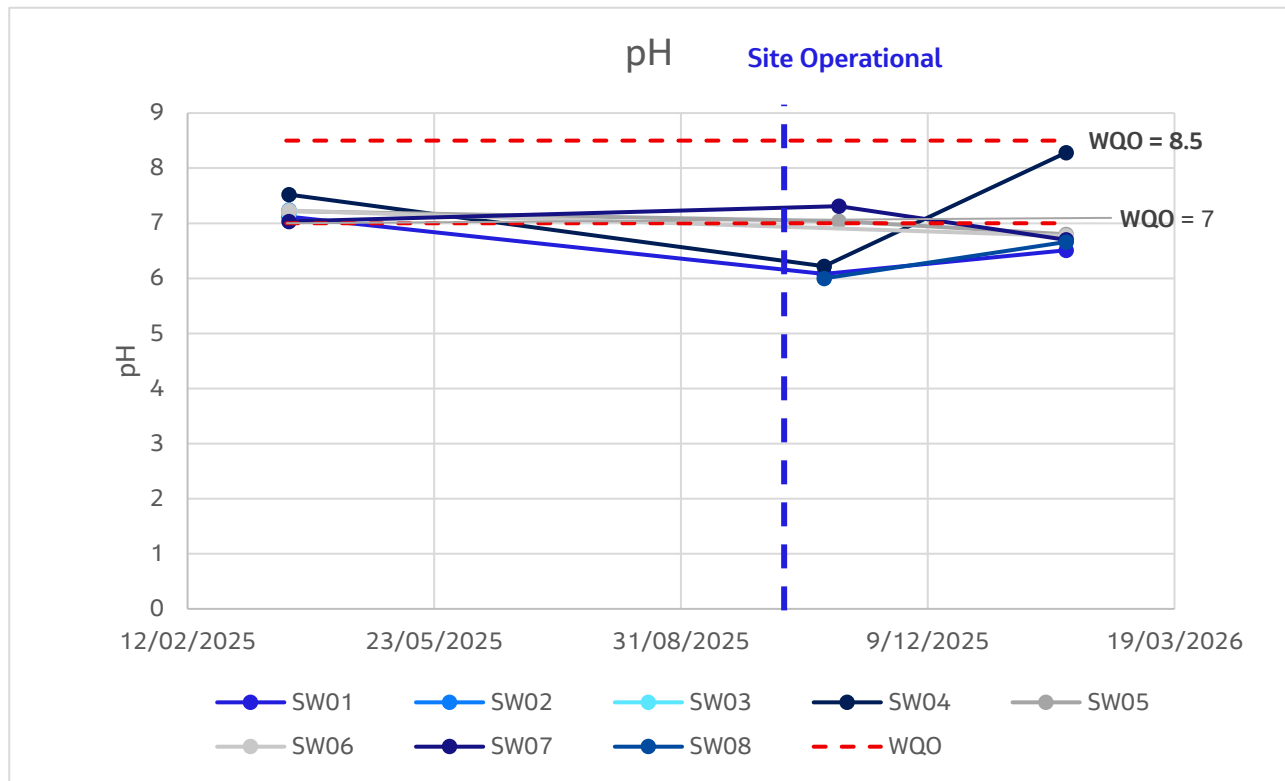


Figure 4-17 Surface Water Results – Turbidity

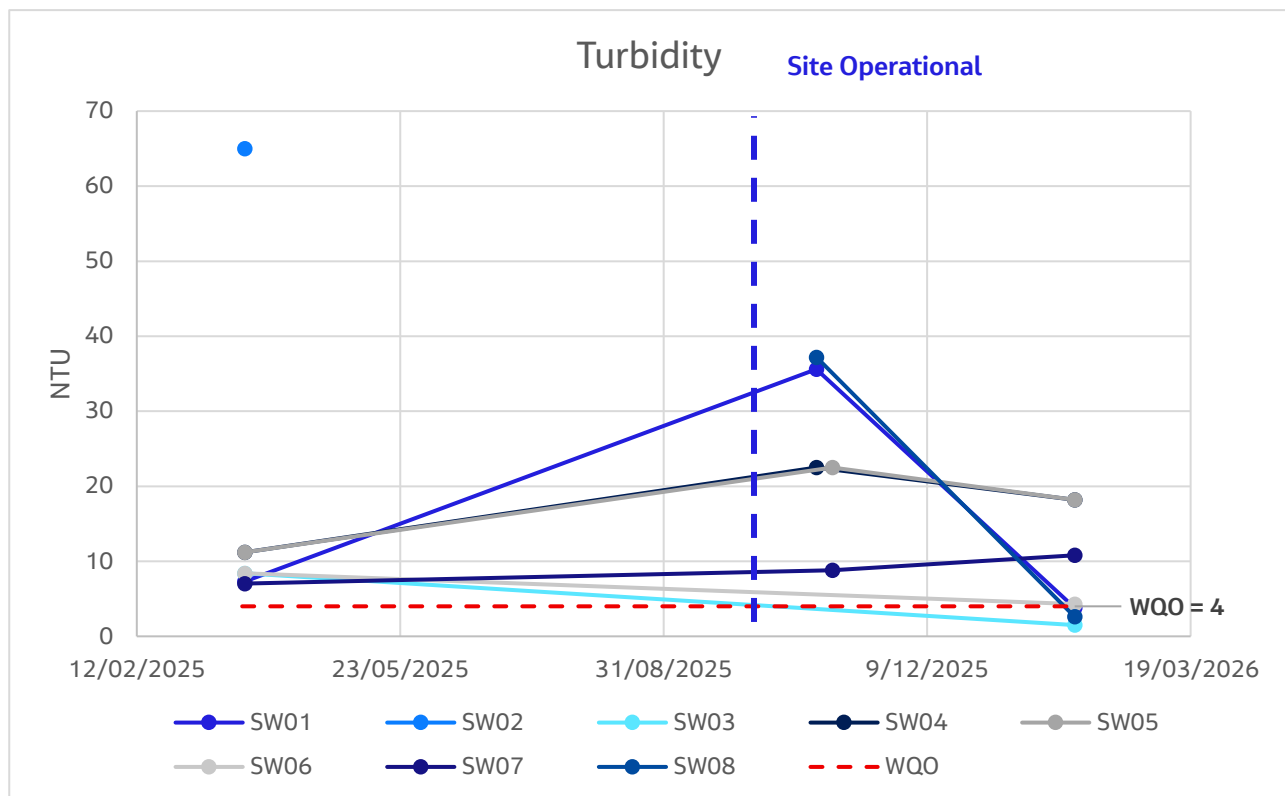


Figure 4-18 Surface Water Results – Ammonia as N

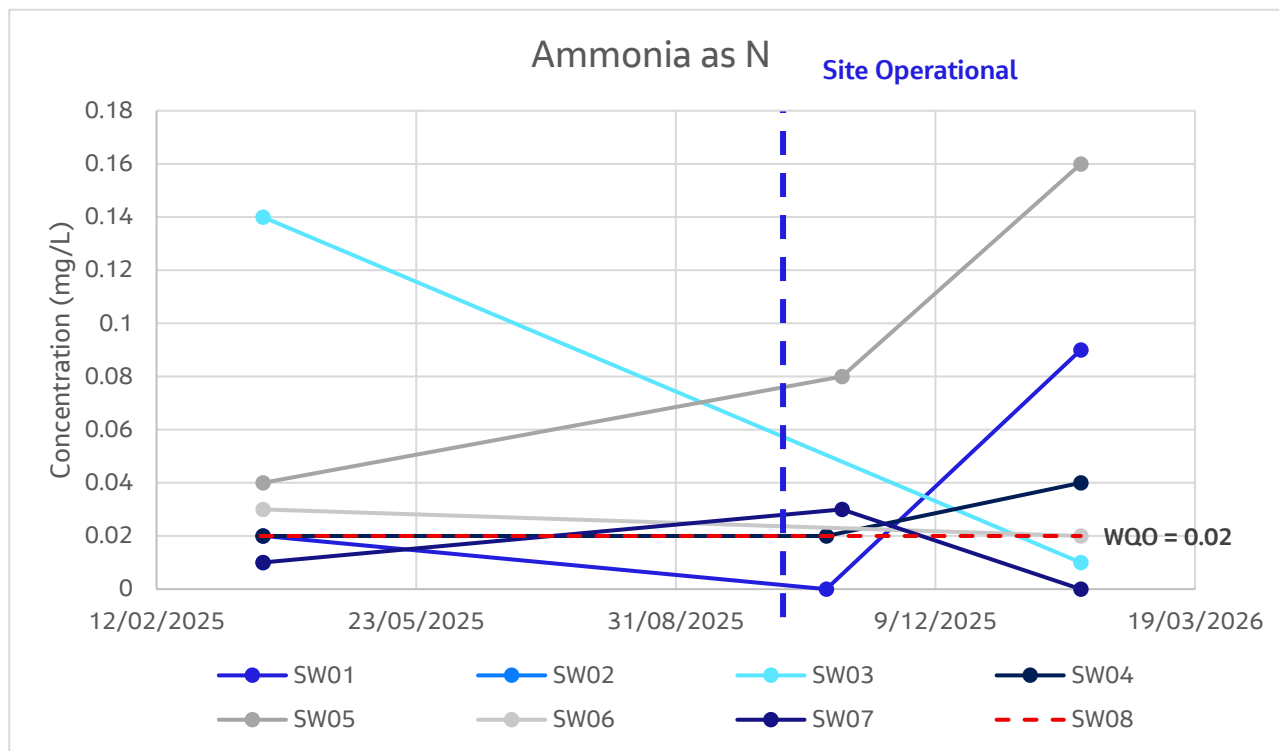


Figure 4-19 Surface Water Results – Chlorophyll-*a*

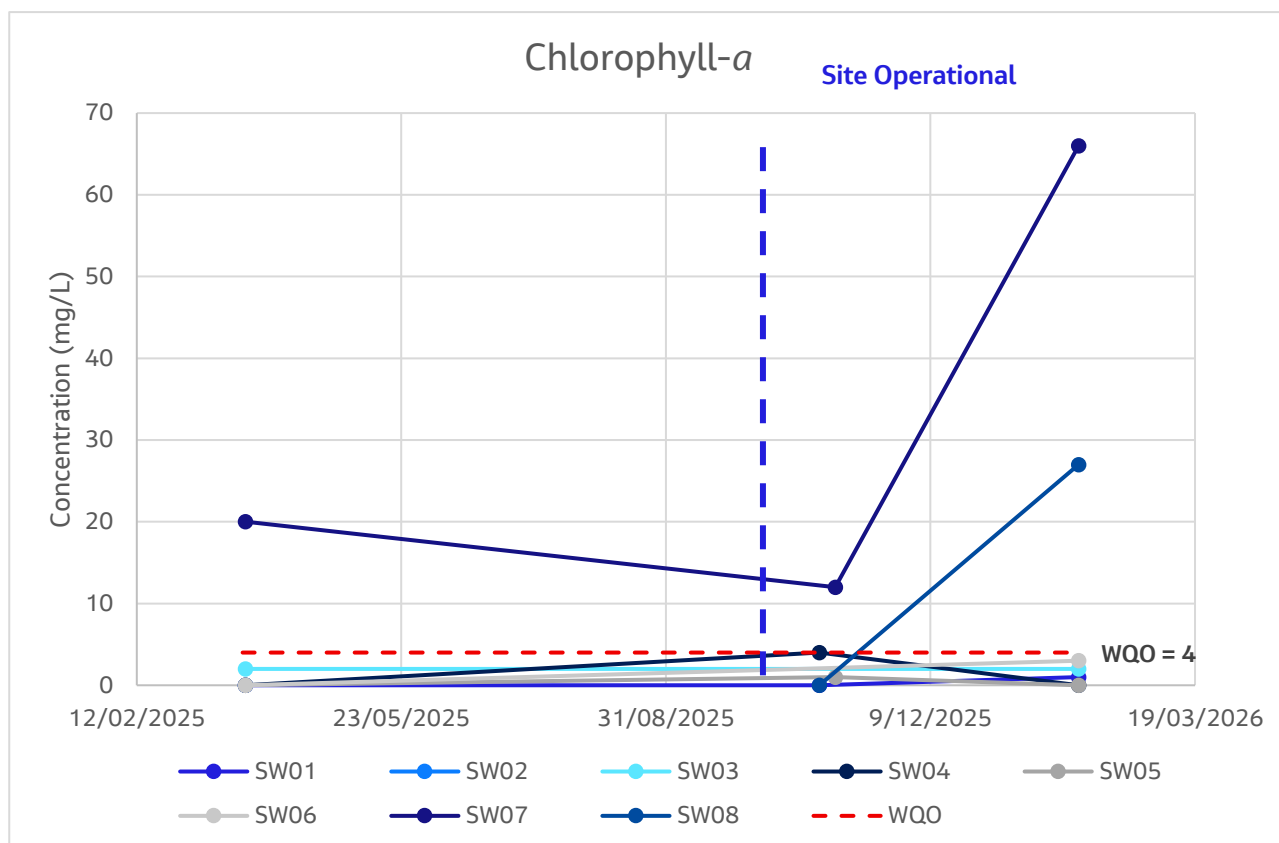


Figure 4-20 Surface Water Results – Total Nitrogen

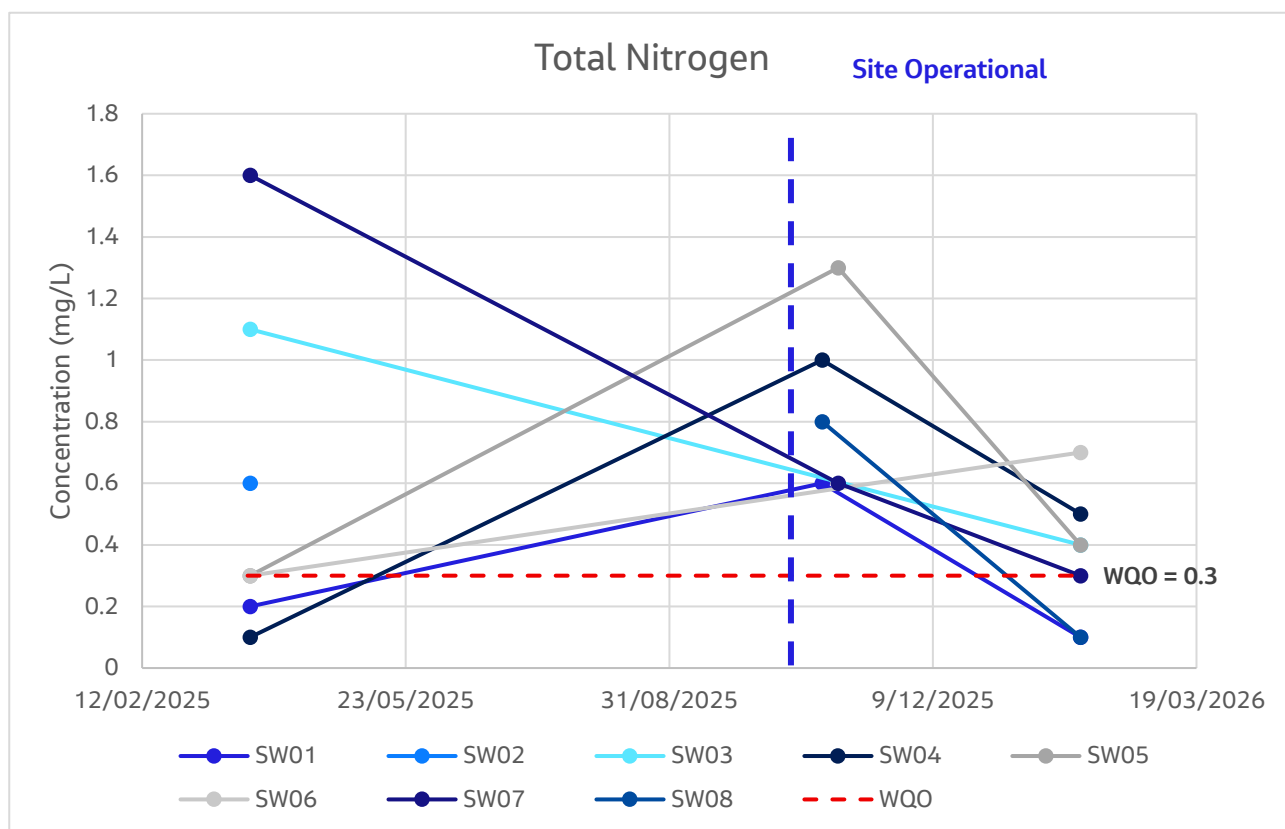


Figure 4-21 Surface Water Results – Total Phosphorous

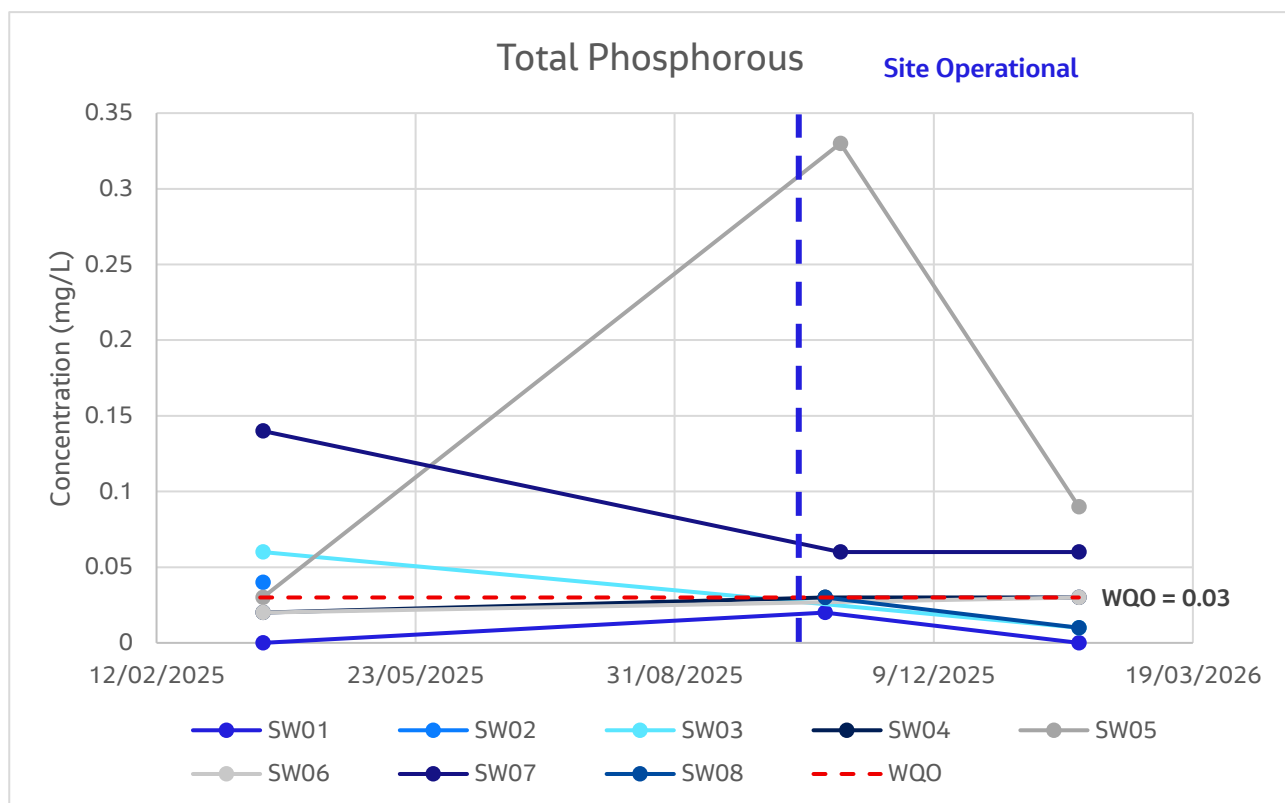
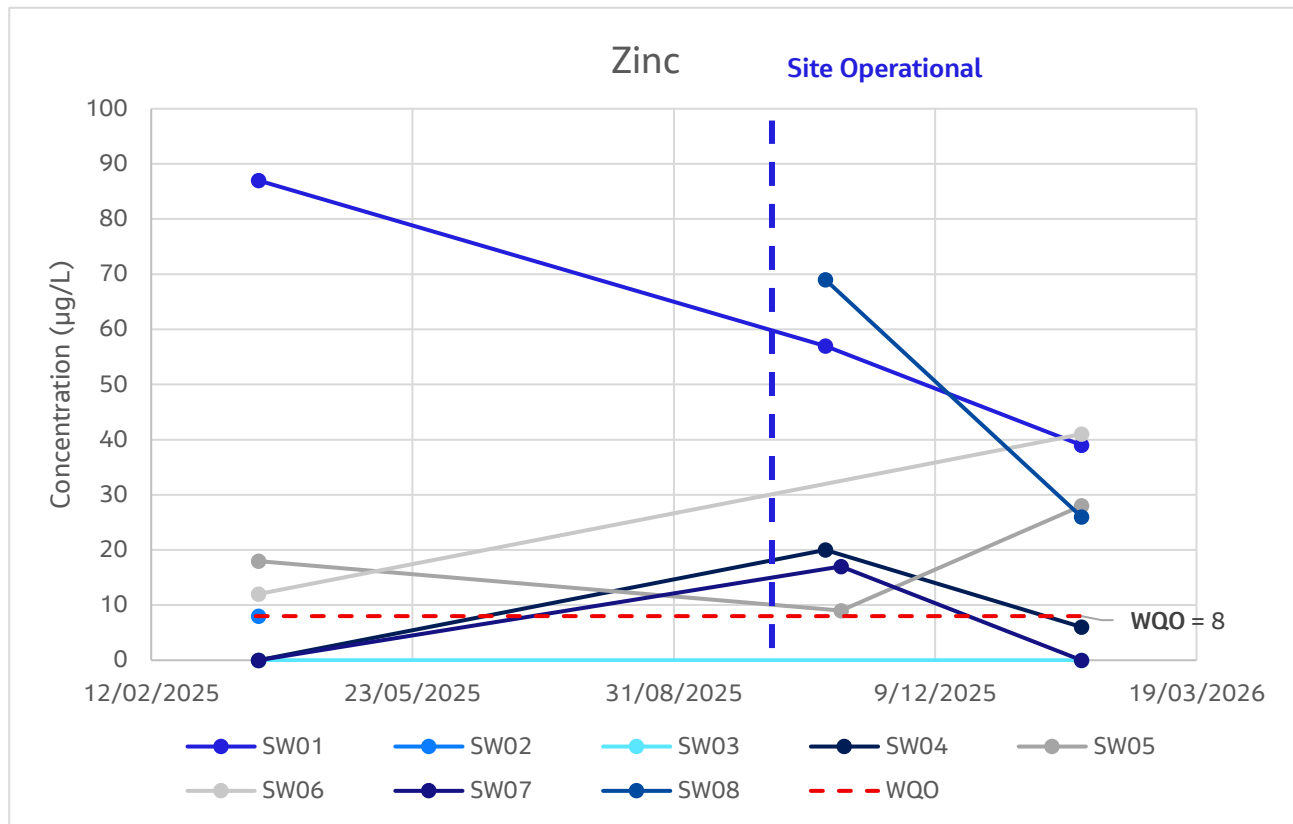


Figure 4-22 Surface Water Results – Zinc



5. Conclusion and recommendations

5.1 Groundwater

General groundwater quality is reflective of the baseline conditions. Several nutrient concentrations including ammonia nitrogen, total phosphorous and total nitrogen are above the adopted water quality objectives (WQO). These nutrient detections are in line with those reported in the Pre-Operations Report (Jacobs, 2025a). The recorded *E. coli* concentration at MW03 are above both the WQO and baseline maximum. This is not the first reported result of *E. coli* above the WQO, however more data is required to assess if a trend is present.

Copper and zinc concentrations detected above the adopted water quality objective are in line with baseline results. Elevated levels of lead, nickel and zinc detected at MW05 are in line with baseline results and are likely due to the unique conditions at this location.

Hydrocarbons were not detected, suggesting no fuel leaks/spills have occurred/breached containment from the site.

PFAS in groundwater was not reported above the WQO, but elevated concentrations were noted. It is understood that this contamination is not due to site activities.

5.2 Surface water

Nutrient concentrations (including ammonia nitrogen, chlorophyll-*a*, total nitrogen and total phosphorus) were reported above the adopted water quality objectives but below baseline results (with the exception of chlorophyll-*a*). Chlorophyll-*a* increased relatively sharply at two locations, a similar increase was seen in ammonia nitrogen.

Elevated *E. coli* and enterococci concentrations were noted in the majority of samples. No baseline data is available for either analyte, however the two largest concentrations are at locations likely effected by offsite activities.

Zinc concentrations were reported above the water quality objective at four locations. This is in line with baseline monitoring.

5.3 Recommendations

It is proposed that site-specific water quality objectives are derived, specifically targeting the following:

- **Nutrients** – Ammonia nitrogen, total nitrogen and total phosphorous in both groundwater and surface water.
- **Metals** – Zinc in surface water and copper in groundwater.

The Australian and New Zealand Guidelines for Marine and Fresh Water Quality (ANZG, 2024) outline several possible methodologies for deriving site-specific water quality objectives, one method being adopting the 80th percentile of results from a reference site (in this case the baseline data). This methodology could be applied to this site, however consideration for seasonal variability may need to be made.

The next monitoring events will compromise:

Groundwater: End of wet season (April 2026)

Surface Water: End of wet season (April 2026)

6. References

- Australian and New Zealand Governments and Australian State and Territory Governments - Australian and New Zealand Guidelines for Fresh and Marine Water Quality (Water Quality Guidelines) 2018 (ANZWQG, 2018)
- Australian Standard, 2005, Guide to the investigation and sampling of site with potentially contaminated soil, Part 1: Non-volatile and semi-volatile compounds, Reference no. AS4482.1 (AS4482.1, 2005)
- Australian Standard, 1999, Guide to the sampling and investigation of potentially contaminated soil, Part 2: Volatile Substances, Reference no. AS4482.2, (AS4482.2, 1999)
- AS/NZS 5667.11:1998 Water Quality – Guidance on Sampling Groundwaters (AS/NZS 5667.11, 1998)
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- Friebel, E & Nadebaum, P 2011, CRC Care Technical Report No.10, Health screening levels for petroleum hydrocarbons in soil and groundwater (Friebel, E & Nadebaum, P, 2011)
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- Northern Territory Environment Protection Authority (June 2017) Northern Territory Contaminated Land Guideline, Version 1.0. (NT EPA, 2017)

Appendix A. Figures

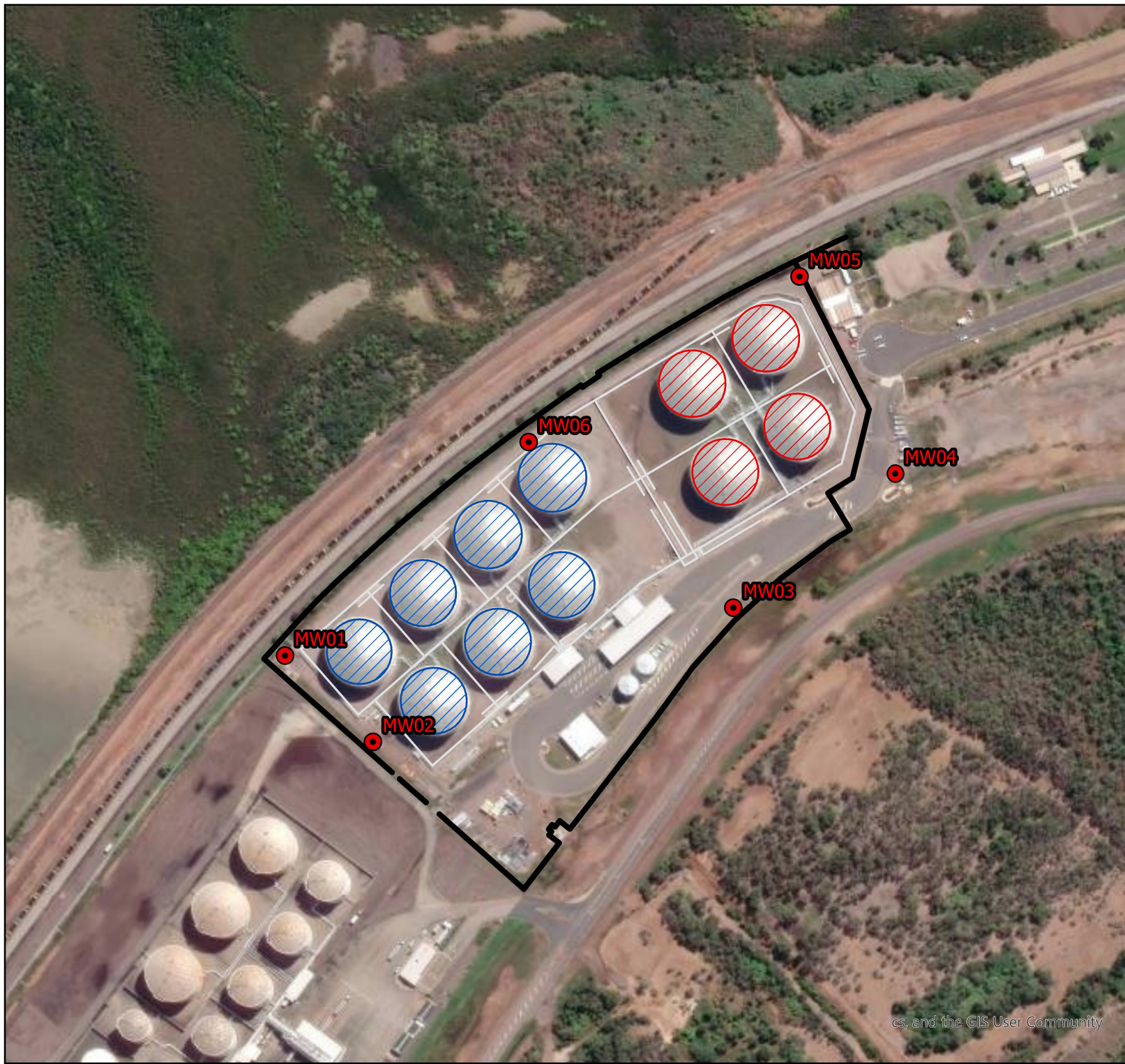


Figure 1: Groundwater Sampling Locations

Legend

Fuel Type

 JP-5

 Jet A1

 Bund Wall

 Site Fence

 Ground Water Monitoring Wells

N



Kilometers

0 0.04 0.08 0.16 0.24



Jacobs

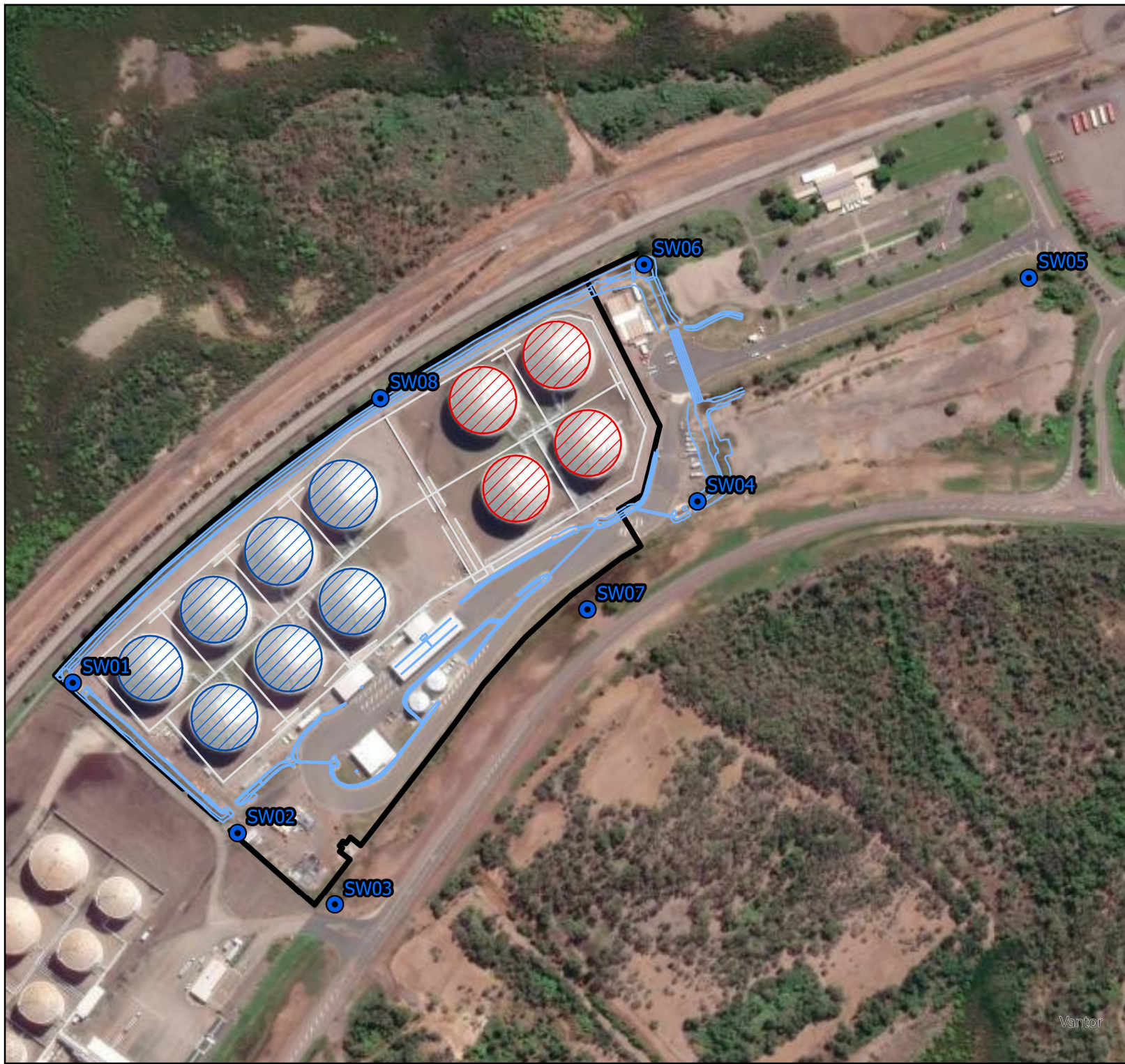


Figure 2: Surface Water Sampling Locations

Legend

● Surface Water Sampling Locations

Fuel Type

JP-5

Jet A1

Bund Wall

Drain

Site Fence



Kilometers

0 0.04 0.08 0.16 0.24



Sources: Esri, TomTom, Garmin, FAO, NOAA, GIS User Community

Jacobs



Figure 3: Groundwater contour modelling - January 2026

Legend

- Ground Water Monitoring Wells
- Groundwater Contour (mAHD)
- Site Fence
- Groundwater Flow Direction



Kilometers

0 0.03 0.07 0.13 0.2



Jacobs

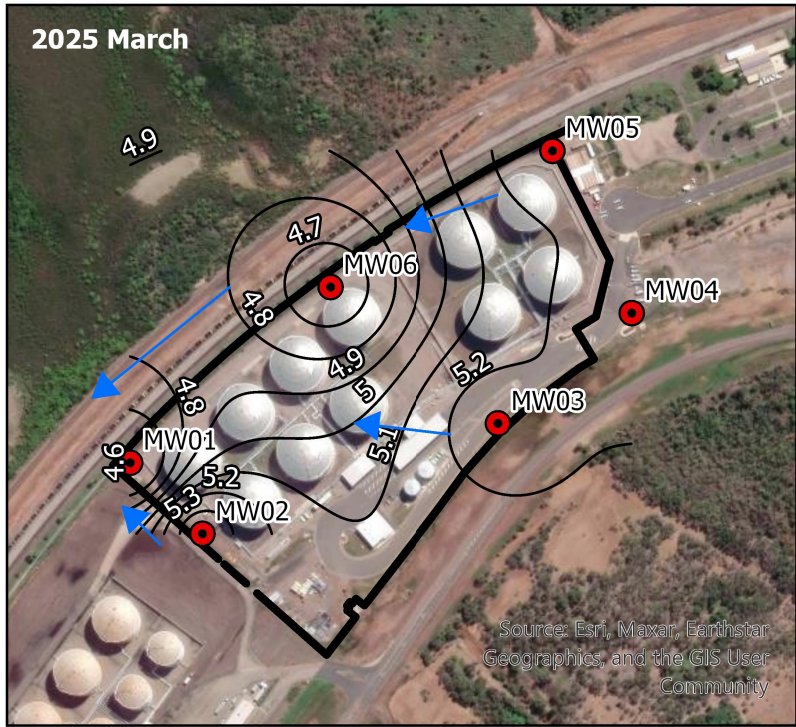
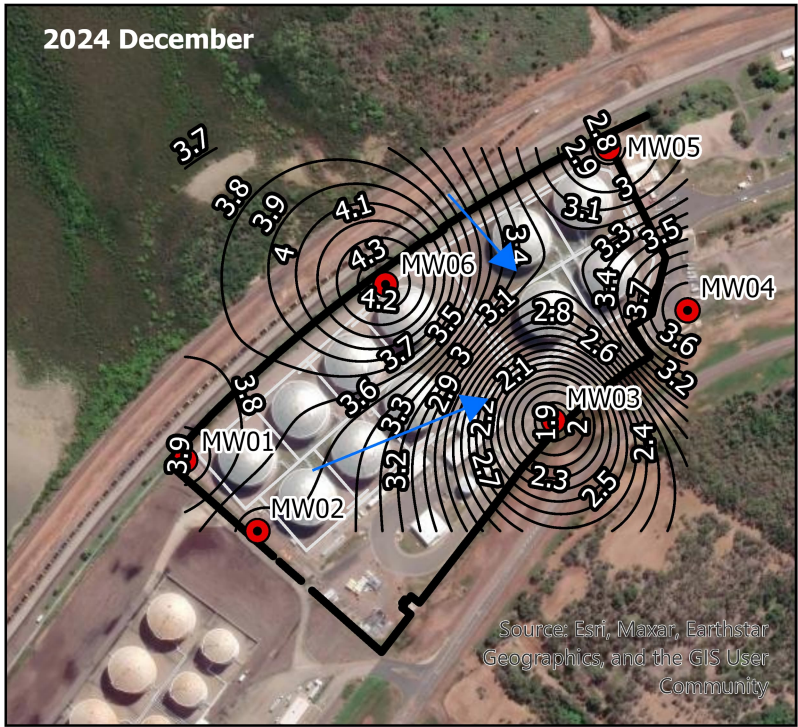


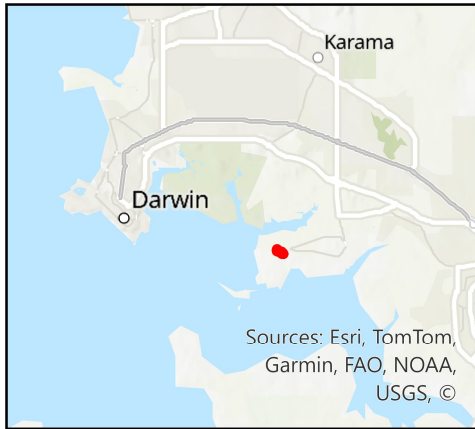
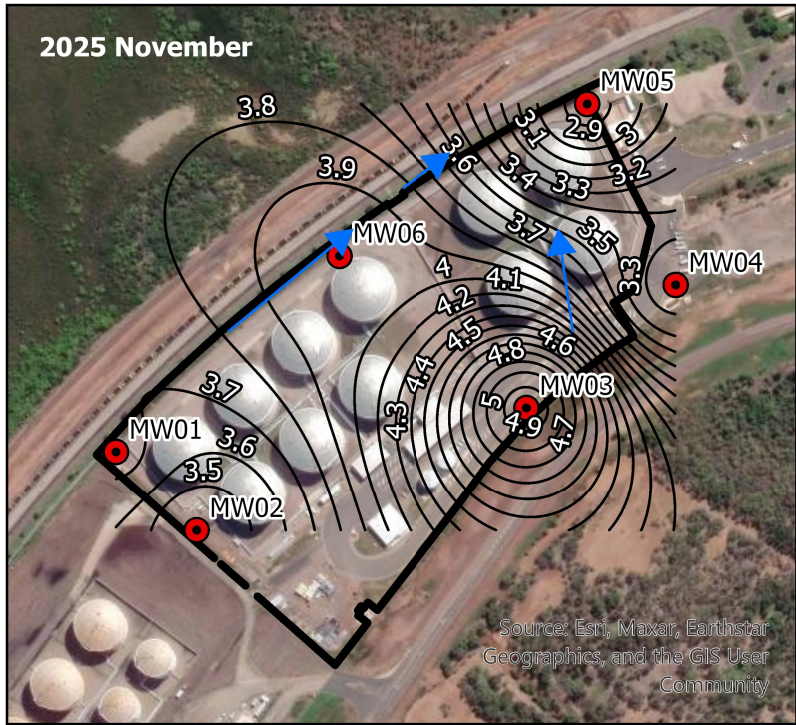
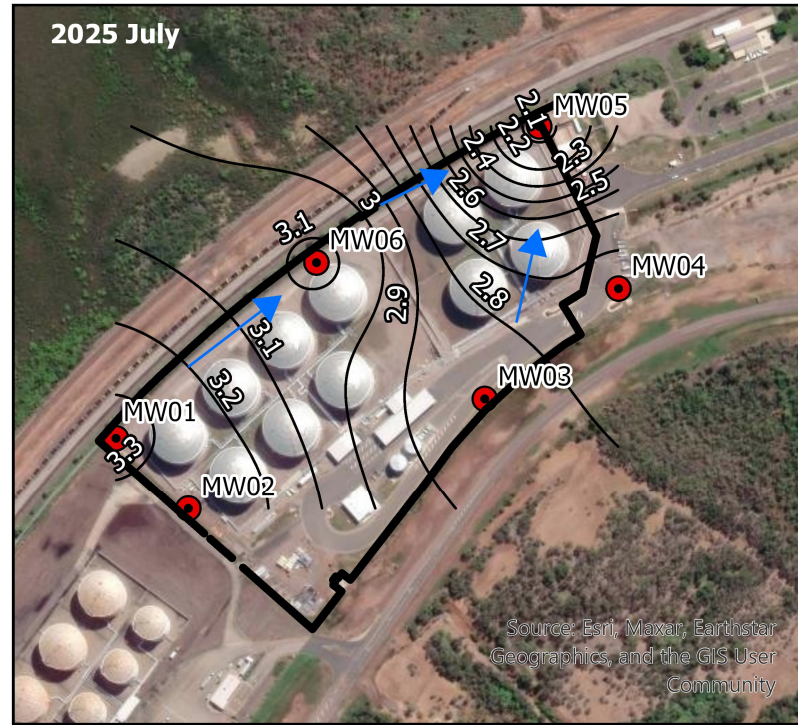
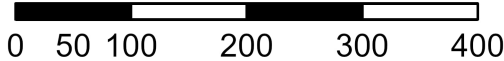
Figure 4: Historical Contour Mapping

Legend

- Site Fence
- Groundwater Contour (mAHD)
- Ground Water Monitoring Wells
- Groundwater Flow Direction

N

Meters



Jacobs

Appendix B. Quality Assurance / Quality Control

The following section provides a description of the QA/QC data collected during the February 2026 monitoring event and presents discussion about the validity of the sample data collected. A full assessment of the data quality objectives outlined in the EMP will be completed for the annual report.

The following quality control samples were collected during collected during the February monitoring event.

Field QA/QC:

- Primary samples: There were 13 primary samples collected and analysed. All primary samples were analysed by the primary laboratory (ALS).
- Duplicate samples: A total of two duplicate samples were collected and analysed exceeding the rate of $\geq 10\%$ data acceptance criteria (DAC). The duplicate samples were analysed by the primary laboratory (ALS).
- Triplicate samples: A total of two triplicate samples were collected, however due to a labelling error only one triplicate sample was analysed by the laboratory. The triplicate samples were analysed by an independent secondary laboratory (Eurofins).
- RPDs: Some RPD exceedances are noted for triplicate samples, however, 93% of RPD results were within acceptable limits. Duplicate and triplicate samples have been collected from groundwater locations. Overall completeness is considered acceptable.
- Trip blanks: Two trip blank samples were collected, however due to a miscommunication with the laboratory only one was analysed. As a result this does not meet the EMP requirement of one trip blank per sample batch. However, it is considered unlikely to impact on the overall quality and reliability of the dataset and sampling program based on:
 - samples were collected by suitably qualified and experienced staff
 - trip blank analysed reported concentrations < LOR for all analytes tested
- Rinsate samples: Two rinsate samples were collected from reusable sampling equipment (interface probe and surface water sampling pole), however due to a miscommunication with the laboratory only one was analysed. As a result this does not meet the EMP requirement of the collection of one rinsate sample per day. However, it is considered unlikely to impact on the overall quality and reliability of the dataset and sampling program based on:
 - samples were collected by suitably qualified and experienced staff
 - rinsate sample analysed reported concentrations < LOR for all analytes tested
- Holding Times: All samples were submitted within holding time for the selected analysis except for the following.
 - 15 samples x pH (holding time non-compliance of three days)
 - 15 samples x Oxygen – Dissolved (DO) (holding time non-compliance of three days)
 - 12 samples x Nitrite as N (holding time non-compliance of one day)
 - 13 samples x Reactive Phosphorous as P (holding time non-compliance of one day)
 - 6 samples x Biochemical Oxygen Demand (BOD) (holding time non-compliance of one day)
- Every sample batch was submitted to the laboratory at ALS Darwin within one day of sampling, before being sent to ALS Sydney. All the stated analysis have short holding times and will likely regularly record breaches. It is believed to be unlikely that these breaches have had significant impact on the overall completeness of the data.

- **Sample Temperature:** Samples were received by the primary laboratory (ALS) at temperatures of 9°C/14.54°C /17.1 °C /16.1 °C /18.2 °C /15.2 °C which is above the acceptance criteria outlined in the EMP of <5°C. All sample receipts note ice was present in eskies or an attempt to chill was made.
 - It is to be noted maximum temperatures recorded in Darwin (BoM weather station ID 14015) during the sampling program ranged from 30.3°C to 31.0°C. The temperature of samples received by the analytical laboratory were lower the ambient temperature at the time of sample collection. Prior to sample dispatch to ALS Sydney, ALS Darwin added ice where applicable. Given the transit times from ALS Darwin to ALS Sydney, and ice being present in all sample batches, Jacobs considers this non-conformance unlikely to materially impact the results.

Laboratory QA/QC:

- **Laboratory duplicates:** A total of 61 laboratory duplicates have been analysed by the primary laboratory. This exceeds the rate of One laboratory duplicate per process batch or two laboratory duplicates if the process batch exceeds 10 samples DAC. 99.9% of laboratory duplicate RPDs reported within the acceptable range. Overall completeness is considered appropriate.
- **Laboratory method blanks:** A total of 33 laboratory method blanks have been analysed by the primary laboratory. This exceeds the rate of one per process batch. All laboratory method blanks reported <LOR.
- **Matrix spike:** A total of 25 matrix spikes have been analysed by the primary laboratory. This meets the requirement of one per process batch. 99.9% of matrix spikes recoveries were reported within acceptable limits.
- **Laboratory control samples:** A total of 46 laboratory control samples have been analysed by the primary laboratory. This exceeds the rate of one per process batch. All laboratory control samples reported within the acceptable range.
- **Surrogate spike:** a total of 18 surrogate spike samples have been analysed by the primary laboratory exceeding the rate of one per sample analysed. All surrogate spikes reported within the acceptable range.

A review of primary, duplicate and triplicate sample relative percentage differences (RPDs), trip blank and rinsate laboratory results indicate that the data is suitable for the purposes of this assessment. QA/QC results are tabulated in **Appendix C**. A detailed QA/QC assessment will be provided in the Annual Report.

Appendix C. Analytical Results

	NA	Nutrients	Metals									
	Chlorophyll a	Phosphorus total (as P)	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Chromium (hexavalent) (filtered)	Chromium (II+VI) (filtered)	Chromium (trivalent) (filtered)	Cobalt (filtered)	Copper (filtered)
	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	1	0.01	1	1	1	50	0.1	10	1	10	1	1
Darwin Harbour WQO Marine Upper Estuary - Table 1	4	0.03										
Dutch Intervention (2000)			60	625			6		30		100	75
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs							0.7 ^{#2}	0.14 ^{#3}		7.7 ^{#4}	0.005 ^{#2}	0.3 ^{#3}
ANZG (2018) Marine water 95% toxicant DGVs							5.5 ^{#7}	4.4 ^{#3}		27.4 ^{#4}	1 ^{#2}	1.3 ^{#3}

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<1	0.02	10	72	<1	180	<0.1	<10	<1	<10	<1	<1
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<2 ^{#9}	0.31	5	257	<1	240	<0.1	<10	<1	<10	1	<1
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<1	<0.10 ^{#9}	8	50	<1	<50	<0.1	<100 ^{#9}	<1	<100 ^{#9}	2	2
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<1	0.07	4	53	<1	170	0.1	<10	1	<10	9	504
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<1	0.04	34	151	7	70	0.7	<10	5	<10	124	459
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<1	0.01	<1	60	<1	<50	<0.1	<10	<1	<10	<1	<1

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

#2 High reliability

#3 Very high reliability

#4 Low reliability

#5 Moderate reliability. Ammonia as total ammonia, measured as [NH3-N] at pH 8.

#6 Moderate reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for species). Check toxicant DGV technical brief for spread of data and its significance.

#7 High reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for species). Check toxicant DGV technical brief for spread of data and its significance.

#8 Result value is an approximate.

#9 Reported Analyte LOR is higher than Requested Analyte LOR

* Qualifiers are displayed in the following order: Lab ; Validation ; Final.

Environmental Standards

NT Gov, February 2010, Darwin Harbour WQO Marine Upper Estuary - Table 1

Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Lead (filtered)	Magnesium (filtered)	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Selenium (filtered)	Vanadium (filtered)	Zinc (filtered)	Reactive Phosphorus as P (Orthophosphate as P) (filtered)	Soluble Carbonate as CaCO3*	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L
EQL	1	1000	1	0.1	1	10	10	5	0.01	1	1	1
Darwin Harbour WQO Marine Upper Estuary - Table 1									0.01			
Dutch Intervention (2000)	75			0.3	75			800				
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs	2.2 ^{#4}			0.1 ^{#3}	7 ^{#2}		50 ^{#2}	7 ^{#3}				
ANZG (2018) Marine water 95% toxicant DGVs	4.4 ^{#4}			0.4 ^{#3}	70 ^{#2}		100 ^{#2}	8				

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<1	65,000	869	<0.1	<1	<10	<10	<5	<0.01	<1	<1	41
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<1	99,000	3,300	<0.1	<1	<10	<10	20	<0.10 ^{#9}	<1	<1	96
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<1	13,000	648	<0.1	2	<10	<10	<5	<0.10 ^{#9}	<1	<1	149
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<1	27,000	658	<0.1	11	<10	<10	14	0.02	<1	<1	2
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	41	232,000	2,240	<0.1	184	22	<10	183	0.03	<1	<1	<1
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<1	6,000	273	<0.1	<1	<10	<10	<5	<0.01	<1	<1	37

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

#2 High reliability

#3 Very high reliability

#4 Low reliability

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Environmental Standards

NT Gov, February 2010, Darwin Harbour WQO Marine Upper Estuary - Table 1

Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Inorganics											
	Ammonia as N	Anions Total	Bicarbonate Alkalinity as CaCO3	Calcium (filtered)	Cations Total	Chloride	Electrical conductivity (lab)	Fluoride	Ionic Balance	Kjeldahl Nitrogen Total	Nitrate & Nitrite (as N)	Nitrate (as N)
EQL	mg/L	meq/L	mg/L	mg/L	meq/L	mg/L	µS/cm	mg/L	%	mg/L	mg/L	mg/L
	0.01	0.01	1	1	0.01	1	1	0.1	0.01	0.1	0.01	0.01
Darwin Harbour WQO Marine Upper Estuary - Table 1	0.02											
Dutch Intervention (2000)												
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs	0.5 ^{#5}											
ANZG (2018) Marine water 95% toxicant DGVs	0.91 ^{#5}											

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	0.60	41.5	41	28	45.3	1,350	4,960	0.4	4.38	0.7	<0.01	<0.01
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	0.53	78.3	96	87	68.4	2,600	7,410	0.3	6.72	1.4	<0.01	<0.01
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	0.21	5.49	149	53	5.80	64	573	0.3	2.72	1.4	<0.10 ^{#9}	<0.10 ^{#9}
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	0.02	22.5	2	9	20.9	652	2,300	0.2	3.65	0.2	0.92	0.92
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	0.16	128	<1	150	114	4,250	12,100	1.1	5.63	0.3	3.66	3.66
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	0.01	4.39	37	21	4.24	72	470	0.3	1.74	0.2	1.13	1.13

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

#2 High reliability

#3 Very high reliability

#4 Low reliability

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Environmental Standards

NT Gov, February 2010, Darwin Harbour WQO Marine Upper Estuary - Table 1

Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sodium Absorption Ratio (filtered)	Sulfate as SO4 - Turbidimetric (filtered)	Total Dissolved Solids (Calc.)	Hardness as CaCO3 (filtered)	Physiochemical parameters			TRH >C6 - C10
									Turbidity (Lab)	Dissolved Oxygen (Lab)	pH (Lab)	
EQL	mg/L	mg/L	mg/L	mg/L	-	mg/L	mg/L	mg/L	NTU	%	pH Units	µg/L
	0.01	0.1	1	1	0.01	1	1	1	0.1	0.01048	0.01	20
Darwin Harbour WQO Marine Upper Estuary - Table 1		0.3									7-8.5	
Dutch Intervention (2000)												600
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs												
ANZG (2018) Marine water 95% toxicant DGVs												

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<0.01	0.7	28	871	20.6	127	3,220	338	13.8	0.77	6.89	<20
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<0.01	1.4	27	1,270	22.1	145	4,820	625	829	0.48	6.10	<20
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<0.10 ^{#9}	1.4	10	42	1.34	34	372	186	6.6	0.78	7.02	<20
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<0.01	1.1	14	411	15.5	195	1,500	134	51.8	0.81	5.35	<20
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<0.01	4.0	27	2,000	23.9	385	7,860	1,330	6.7	0.90	3.50	<20
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<0.01	1.3	7	58	2.87	78	306	77	1.8	0.75	6.70	<20

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

#2 High reliability

#3 Very high reliability

#4 Low reliability

#5 Moderate reliability. Ammonia as total ammonia, measured as [NH3-N] at pH 8.

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Environmental Standards

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Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	TRH - NEPM 2013 Fractions						TPH - NEPM 1999 Fractions					
	TRH >C10 - C16	TRH >C16 - C34	TRH >C34 - C40	TRH >C10 - C40 (Sum of total)	TRH >C6 - C10 less BTEX (F1)	TRH >C10 - C16 less Naphthalene (F2)	TPH C6 - C9	TPH C10 - C14	TPH C15 - C28	TPH C29-C36	TPH C10 - C36 (Sum of total)	
	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	100	100	100	0.1	20	100	20	50	100	50	50	1
Darwin Harbour WQO Marine Upper Estuary - Table 1												
Dutch Intervention (2000)	600	600	600									
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs												
ANZG (2018) Marine water 95% toxicant DGVs												

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<100	<100	<100	<0.1	<20	<100	<20	<50	<100	<50	<50	<1.0
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<100	<100	<100	<0.1	<20	<100	<20	<50	<100	<50	<50	<1.0
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<100	<100	<100	<0.1	<20	<100	<20	<50	<100	<50	<50	<1.0
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<100	<100	<100	<0.1	<20	<100	<20	<50	<100	<50	<50	<1.0
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<100	<100	<100	<0.1	<20	<100	<20	<50	<100	<50	<50	<1.0
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<100	<100	<100	<0.1	<20	<100	<20	<50	<100	<50	<50	<1.0

Comments
RED - Refers to adopted trigger values
#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes
#2 High reliability
#3 Very high reliability
#4 Low reliability
#5 Moderate reliability. Ammonia as total ammonia, measured as [NH3-N] at pH 8.
#6 Moderate reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for species). Check toxicant
#7 High reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for species). Check toxicant DGV t
#8 Result value is an approximate.
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Environmental Standards
NT Gov, February 2010, Darwin Harbour WQO Marine Upper Estuary - Table 1
Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)
HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%
HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%
ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs
ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Polycyclic aromatic hydrocarbons (PAHs)											
	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(a) pyrene	Benzo(a)pyrene TEQ calc (zero)	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	1	1	1	1	1	1	0.5	0.5	1	1	1	1
Darwin Harbour WQO Marine Upper Estuary - Table 1												
Dutch Intervention (2000)		5	0.5	0.05		0.05	0.05		0.2		1	
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs												
ANZG (2018) Marine water 95% toxicant DGVs		0.01					0.01				1	

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0	<1.0	<1.0

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

#2 High reliability

#3 Very high reliability

#4 Low reliability

#5 Moderate reliability. Ammonia as total ammonia, measured as [NH3-N] at pH 8.

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Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

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HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

						Microbiological			Monocyclic Aromatic Hydrocarbons			
	Indeno(1,2,3-c-d)pyrene	Phenanthrene	Pyrene	Naphthalene	PAHs (Sum of total)	Biological oxygen demand	E. Coli	Enterococci	Benzene	Toluene	Ethylbenzene	Xylene (m & p)
	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	cfu/100 ml	orgs/100mL	µg/L	µg/L	µg/L	µg/L
EQL	1	1	1	1	0.5	2	1	1	1	2	2	2
Darwin Harbour WQO Marine Upper Estuary - Table 1							200	50				
Dutch Intervention (2000)	0.05	5		70					30	1,000	150	
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs				50 ^{#6}					500 ^{#6}			
ANZG (2018) Marine water 95% toxicant DGVs		0.6		70 ^{#6}					700 ^{#6}	180	80	

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<1.0	<1.0	<1.0	<1.0	<0.5	<2	1 ^{#8}	<1	<1	<2	<2	<2
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<1.0	<1.0	<1.0	<1.0	<0.5	<2	2 ^{#8}	3 ^{#8}	<1	<2	<2	<2
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<1.0	<1.0	<1.0	<1.0	<0.5	<2	450	11	<1	<2	<2	<2
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<1.0	<1.0	<1.0	<1.0	<0.5	<2	<1	<1	<1	<2	<2	<2
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<1.0	<1.0	<1.0	<1.0	<0.5	<2	<1	<1	<1	<2	<2	<2
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<1.0	<1.0	<1.0	<1.0	<0.5	<2	8 ^{#8}	<1	<1	<2	<2	<2

Comments

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Environmental Standards

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HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	arbons (MAHs)			Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorooctanesulfonamide (PFOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluoronanesulfonic acid (PFNS)	Perfluorononanoic acid (PFNA)	Perfluorohexanoic acid (PFHxA)
	Xylene (o)	Xylene Total	Total BTEX									
EQL	2	2	1	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Darwin Harbour WQO Marine Upper Estuary - Table 1												
Dutch Intervention (2000)		70										
PFAS NEMP 2025 Table 8 Interim marine 95%				0.13 ^{#1}	220 ^{#1}							
PFAS NEMP 2025 Table 8 Interim marine 99%				0.00023 ^{#1}	19 ^{#1}							
ANZG (2018) Marine water 99% toxicant DGVs												
ANZG (2018) Marine water 95% toxicant DGVs	350											

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<2	<2	<1	<0.01	0.10	<0.02	<0.02	0.43	<0.02	<0.02	0.02	0.36
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<2	<2	<1	<0.01	0.02	<0.02	<0.02	0.24	<0.02	<0.02	<0.02	0.15
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	0.08	<0.02	<0.02	<0.02	0.04
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02

Comments

RED - Refers to adopted trigger values

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HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Per- and Poly-fluoroalkyl Substances (PFAS)											
	Perfluorohexanesulfonic acid (PFHxS)	Perfluoroheptanoic acid (PFHpA)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorobutanesulfonic acid (PFBS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorobutanoic acid (PFBA)
EQL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	0.01	0.02	0.05	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.1
Darwin Harbour WQO Marine Upper Estuary - Table 1												
Dutch Intervention (2000)												
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs												
ANZG (2018) Marine water 95% toxicant DGVs												

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<0.01	0.17	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<0.01	0.07	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1

Comments

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Environmental Standards

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HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

										(n:2) Fluorotelomer Sulfonic Acids		
	N-ethyl perfluorooctane sulfonamido acetic acid (N-EtFOSSA)	N-ethyl perfluorooctane sulfonamide (N-EtFOSA)	N-methyl perfluorooctanesulfonamido ethanol (N-MeFOSE)	N-ethyl perfluorooctanesulfonamido ethanol (N-EtFOSE)	N-Methyl perfluorooctane sulfonamide (N-MeFOSA)	N-methyl perfluorooctane sulfonamido acetic acid (N-MeFOSAA)	Sum (PFHxS + PFOS)	Sum of PFAS	Sum of PFAS (WA DER List)	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	8:2 Fluorotelomer sulfonic acid (8:2 FTS)
EQL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
	0.02	0.05	0.05	0.05	0.05	0.02	0.01	0.01	0.01	0.05	0.05	0.05
Darwin Harbour WQO Marine Upper Estuary - Table 1												
Dutch Intervention (2000)												
PFAS NEMP 2025 Table 8 Interim marine 95%												
PFAS NEMP 2025 Table 8 Interim marine 99%												
ANZG (2018) Marine water 99% toxicant DGVs												
ANZG (2018) Marine water 95% toxicant DGVs												

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code												
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	2.61	2.59	<0.05	1.53	<0.05
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.48	0.48	<0.05	<0.05	<0.05
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.12	0.12	<0.05	<0.05	<0.05
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.02	0.02	<0.05	<0.05	<0.05

Comments

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ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	ids
	10:2 Fluorotelomer sulfonic acid (10:2 FTS)
	µg/L
	0.05
EQL	
Darwin Harbour WQO Marine Upper Estuary - Table 1	
Dutch Intervention (2000)	
PFAS NEMP 2025 Table 8 Interim marine 95%	
PFAS NEMP 2025 Table 8 Interim marine 99%	
ANZG (2018) Marine water 99% toxicant DGVs	
ANZG (2018) Marine water 95% toxicant DGVs	

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code	
MW01	MW01_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436001	<0.05
MW02	MW02_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436012	<0.05
MW03	MW03_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595001	<0.05
MW04	MW04_260204	Groundwater Monitoring Well	04 Feb 2026	ES2603595	Normal	ES2603595002	<0.05
MW05	MW05_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436004	<0.05
MW06	MW06_260203	Groundwater Monitoring Well	03 Feb 2026	ES2603436	Normal	ES2603436003	<0.05

Comments
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ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs
ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	NA	Nutrients	Metals											
	Chlorophyll a	Phosphorus total (as P)	Arsenic (filtered)	Barium (filtered)	Beryllium (filtered)	Boron (filtered)	Cadmium (filtered)	Chromium (hexavalent) (filtered)	Chromium (III+VI) (filtered)	Chromium (trivalent) (filtered)	Cobalt (filtered)	Copper (filtered)	Lead (filtered)	Magnesium (filtered)
	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	1	0.01	1	1	1	50	0.1	10	1	10	1	1	1	1000
Darwin Harbour WQO Marine Upper Estuary - Table 1	4	0.01												
Dutch Intervention (2000)			60	625			6		30		100	75	75	
PFAS NEMP 2025 Table 8 Interim marine 95%														
PFAS NEMP 2025 Table 8 Interim marine 99%														
ANZG (2018) Marine water 99% toxicant DGVs							0.7 ^{#2}	0.14 ^{#3}		7.7 ^{#4}	0.005 ^{#2}	0.3 ^{#3}	2.2 ^{#4}	
ANZG (2018) Marine water 95% toxicant DGVs							5.5 ^{#7}	4.4 ^{#3}		27.4 ^{#4}	1 ^{#2}	1.3 ^{#3}	4.4 ^{#4}	

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	1	<0.01	<1	24	<1	<50	<0.1	<10	<1	<10	<1	<1	<1	<1,000
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	2	0.01	<1	31	<1	<50	<0.1	<10	<1	<10	<1	<1	<1	<1,000
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	<1	0.03	<1	30	<1	<50	<0.1	<10	4	<10	<1	1	<1	2,000
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	<1	0.09	<1	62	<1	<50	<0.1	<10	<1	<10	2	1	<1	3,000
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	3	0.03	<1	121	<1	<50	<0.1	<10	<1	<10	1	<1	<1	15,000
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	66	0.06	<1	14	<1	<50	<0.1	<10	<1	<10	<1	<1	<1	1,000
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	27	0.01	<1	22	<1	<50	<0.1	<10	<1	<10	<1	<1	<1	<1,000

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

#2 High reliability

#3 Very high reliability

#4 Low reliability

#5 Moderate reliability. Ammonia as total ammonia, measured as [NH3-N] at pH 8.

#6 Moderate reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for species). Check toxicant DGV technical brief for spread of data and its significance.

#7 High reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for species). Check toxicant DGV technical brief for spread of data and its significance.

#8 Result value is an approximate.

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Environmental Standards

NT Gov, February 2010, Darwin Harbour WQO Marine Upper Estuary - Table 1

Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Manganese (filtered)	Mercury (filtered)	Nickel (filtered)	Selenium (filtered)	Vanadium (filtered)	Zinc (filtered)	Reactive Phosphorus as P (Orthophosphate as P) (filtered)	Soluble Carbonate as CaCO3*	Alkalinity (Hydroxide) as CaCO3	Alkalinity (total) as CaCO3	Ammonia as N	Anions Total	Bicarbonate Alkalinity as CaCO3	Calcium (filtered)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	mg/L	mg/L	meq/L	mg/L	mg/L
EQL	1	0.1	1	10	10	5	0.01	1	1	1	0.01	0.01	1	1
Darwin Harbour WQO Marine Upper Estuary - Table 1							0.01				0.02			
Dutch Intervention (2000)		0.3	75			800								
PFAS NEMP 2025 Table 8 Interim marine 95%														
PFAS NEMP 2025 Table 8 Interim marine 99%														
ANZG (2018) Marine water 99% toxicant DGVs		0.1 ^{#3}	7 ^{#2}		50 ^{#2}	7 ^{#3}					0.5 ^{#5}			
ANZG (2018) Marine water 95% toxicant DGVs		0.4 ^{#3}	70 ^{#2}		100 ^{#2}	8 ^{#3}					0.91 ^{#5}			

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	7	<0.1	<1	<10	<10	39	<0.01	<1	<1	9	0.09	0.63	9	5
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	6	<0.1	<1	<10	<10	<5	<0.01	<1	<1	10	0.01	0.87	10	4
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	29	<0.1	<1	<10	<10	6	<0.01	<1	<1	39	0.04	2.58	39	21
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	343	<0.1	<1	<10	<10	28	<0.01	<1	<1	17	0.16	2.96	17	7
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	409	<0.1	2	<10	<10	41	<0.01	<1	<1	27	0.02	8.69	27	17
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	11	<0.1	<1	<10	<10	<5	<0.01	<1	<1	6	<0.01	0.68	6	2
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	11	<0.1	<1	<10	<10	26	<0.01	<1	<1	14	<0.01	0.74	14	5

Comments

RED - Refers to adopted trigger values

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#4 Low reliability

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Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

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ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Inorganics													
	Cations Total	Chloride	Electrical conductivity (lab)	Fluoride	Ionic Balance	Kjeldahl Nitrogen Total	Nitrate & Nitrite (as N)	Nitrate (as N)	Nitrite (as N)	Nitrogen (Total)	Potassium (filtered)	Sodium (filtered)	Sodium Absorption Ratio (filtered)	Sulfate as SO4 - Turbidimetric (filtered)
	meq/L	mg/L	µS/cm	mg/L	%	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	-	mg/L
EQL	0.01	1	1	0.1	0.01	0.1	0.01	0.01	0.01	0.1	1	1	0.01	1
Darwin Harbour WQO Marine Upper Estuary - Table 1										0.3				
Dutch Intervention (2000)														
PFAS NEMP 2025 Table 8 Interim marine 95%														
PFAS NEMP 2025 Table 8 Interim marine 99%														
ANZG (2018) Marine water 99% toxicant DGVs														
ANZG (2018) Marine water 95% toxicant DGVs														

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	0.60	13	79	0.2	-	0.1	<0.01	<0.01	<0.01	0.1	<1	8	0.91	4
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	0.59	15	79	<0.1	-	0.4	<0.01	<0.01	<0.01	0.4	<1	9	1.13	12
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	2.78	44	297	0.2	-	0.2	0.32	0.29	0.03	0.5	5	33	1.84	27
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	1.95	79	345	<0.1	-	0.3	0.05	0.05	<0.01	0.4	2	30	2.39	19
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	8.50	264	896	0.2	1.13	0.4	0.26	0.26	<0.01	0.7	6	144	6.14	34
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	0.70	19	84	<0.1	-	0.3	<0.01	<0.01	<0.01	0.3	<1	12	1.73	1
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	0.64	14	85	0.1	-	0.1	<0.01	<0.01	<0.01	0.1	<1	9	1.03	3

Comments

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ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

			Physiochemical parameters			TRH - NEPM 2013 Fractions							TPH - NEPM 2013 Fractions	
	Total Dissolved Solids (Calc.)	Hardness as CaCO3 (filtered)	Turbidity (Lab)	Dissolved Oxygen (Lab)	pH (Lab)	TRH >C6 - C10	TRH >C10 - C16	TRH >C16 - C34	TRH >C34 - C40	TRH >C10 - C40 (Sum of total)	TRH >C6 - C10 less BTEX (F1)	TRH >C10 - C16 less Naphthalene (F2)	TPH C6 - C9	TPH C10 - C14
	mg/L	mg/L	NTU	%	pH Units	µg/L	µg/L	µg/L	µg/L	mg/L	µg/L	µg/L	µg/L	µg/L
EQL	1	1	0.1	0.01048	0.01	20	100	100	100	0.1	20	100	20	50
Darwin Harbour WQO Marine Upper Estuary - Table 1	30				7-8.5									
Dutch Intervention (2000)													600	600
PFAS NEMP 2025 Table 8 Interim marine 95%														
PFAS NEMP 2025 Table 8 Interim marine 99%														
ANZG (2018) Marine water 99% toxicant DGVs														
ANZG (2018) Marine water 95% toxicant DGVs														

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	51	12	3.8	0.96	6.51	<20	<100	<100	<100	<0.1	<20	<100	<20	<50
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	51	10	1.5	0.90	6.82	<20	<100	<100	<100	<0.1	<20	<100	<20	<50
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	193	61	18.2	0.99	8.28	<20	<100	<100	<100	<0.1	<20	<100	<20	<50
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	224	30	14.1	0.87	6.80	<20	<100	<100	<100	<0.1	<20	<100	<20	<50
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	582	104	4.3	1.0	6.77	<20	<100	<100	<100	<0.1	<20	<100	<20	<50
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	55	9	10.8	0.99	6.70	<20	<100	<100	<100	<0.1	<20	<100	<20	<50
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	55	12	2.6	0.99	6.66	<20	<100	<100	<100	<0.1	<20	<100	<20	<50

Comments

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Environmental Standards

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ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	EPM 1999 Fractions			Polycyclic aromatic hydrocarbons (PAHs)										
	TPH C15 - C28	TPH C29-C36	TPH C10 - C36 (Sum of total)	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benzo(k)fluoranthene	Benzo(b+j)fluoranthene	Benzo(g,h,i)perylene	Benzo(a) pyrene	Benzo(a)pyrene TEQ calc (zero)	Chrysene	Dibenz(a,h)anthracene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	100	50	50	1	1	1	1	1	1	1	0.5	0.5	1	1
Darwin Harbour WQO Marine Upper Estuary - Table 1														
Dutch Intervention (2000)	600	600				5	0.5	0.05		0.05	0.05		0.2	
PFAS NEMP 2025 Table 8 Interim marine 95%														
PFAS NEMP 2025 Table 8 Interim marine 99%														
ANZG (2018) Marine water 99% toxicant DGVs														
ANZG (2018) Marine water 95% toxicant DGVs						0.01					0.01			

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	<100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	<100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	<100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	<100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	<100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	<100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	<100	<50	<50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<0.5	<1.0	<1.0

Comments

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Environmental Standards

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HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

								Microbiological			Monocyclic Aromatic Hydrocarbons			
	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Phenanthrene	Pyrene	Naphthalene	PAHs (Sum of total)	Biological oxygen demand	E. Coli	Enterococci	Benzene	Toluene	Ethylbenzene	Xylene (m & p)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	cfu/100 ml	orgs/100mL	µg/L	µg/L	µg/L	µg/L
EQL	1	1	1	1	1	1	0.5	2	1	1	1	2	2	2
Darwin Harbour WQO Marine Upper Estuary - Table 1									200	50				
Dutch Intervention (2000)	1		0.05	5		70					30	1,000	150	
PFAS NEMP 2025 Table 8 Interim marine 95%														
PFAS NEMP 2025 Table 8 Interim marine 99%														
ANZG (2018) Marine water 99% toxicant DGVs						50 ^{#6}					500 ^{#6}			
ANZG (2018) Marine water 95% toxicant DGVs	1					70 ^{#6}					700 ^{#6}	180	80	

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<2	82	340	<1	<2	<2	<2
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	2	510	110 ^{#8}	<1	<2	<2	<2
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<2	550	320	<1	<2	<2	<2
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	3	2,800	530	<1	<2	<2	<2
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<2	320	12	<1	<2	<2	<2
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	5	4,000	780	<1	<2	<2	<2
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5	<2	97	180	<1	<2	<2	<2

Comments

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HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	arbons (MAHs)			Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorooctanesulfonamide (PFOSA)	Perfluoropentanesulfonic acid (PFPeS)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorononanesulfonic acid (PFNS)	Perfluorononanoic acid (PFNA)	Perfluorohexanoic acid (PFHxA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorheptanoic acid (PFHpA)
	Xylene (o)	Xylene Total	Total BTEX											
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
EQL	2	2	1	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02
Darwin Harbour WQO Marine Upper Estuary - Table 1														
Dutch Intervention (2000)		70												
PFAS NEMP 2025 Table 8 Interim marine 95%				0.11 ^{#1}	229 ^{#1}									
PFAS NEMP 2025 Table 8 Interim marine 99%				0.00023 ^{#1}	19 ^{#1}									
ANZG (2018) Marine water 99% toxicant DGVs														
ANZG (2018) Marine water 95% toxicant DGVs	350													

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	<2	<2	<1	<0.01	0.08	<0.02	<0.02	0.79	<0.02	<0.02	0.03	0.76	<0.01	0.28
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	0.12	<0.02	<0.02	<0.02	0.06	<0.01	0.03
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	0.18	<0.02	<0.02	<0.02	0.12	<0.01	0.04
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	<2	<2	<1	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02

Comments

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Environmental Standards

NT Gov, February 2010, Darwin Harbour WQO Marine Upper Estuary - Table 1

Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 95%

HEPA, March 2025, PFAS NEMP 2025 Table 8 Interim marine 99%

ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

	Per- and Poly-fluoroalkyl Substances (PFAS)													
	Perfluorohexadecanoic acid (PFHxDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorodecanoic acid (PFDA)	Perfluoroheptane sulfonic acid (PFHpS)	Perfluorobutanesulfonic acid (PFBS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorotetradecanoic acid (PFTeDA)	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorobutanoic acid (PFBA)	N-ethyl perfluorooctane sulfonamido acetic acid (N-EtFOSSA)	N-ethyl perfluorooctane sulfonamide (N-EtFOSA)	N-methyl perfluorooctanesulfonamido ethanol (N-MeFOSE)	N-ethyl perfluorooctanesulfonamido ethanol (N-EtFOSE)
EQL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Darwin Harbour WQO Marine Upper Estuary - Table 1	0.05	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.02	0.1	0.02	0.05	0.05	0.05
Dutch Intervention (2000)														
PFAS NEMP 2025 Table 8 Interim marine 95%														
PFAS NEMP 2025 Table 8 Interim marine 99%														
ANZG (2018) Marine water 99% toxicant DGVs														
ANZG (2018) Marine water 95% toxicant DGVs														

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code														
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	0.1	<0.02	<0.05	<0.05	<0.05
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

#2 High reliability

#3 Very high reliability

#4 Low reliability

#5 Moderate reliability. Ammonia as total ammonia, measured as [NH3-N] at pH 8.

#6 Moderate reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for :

#7 High reliability. DGV may not protect key test species from chronic toxicity (this refers to experimental chronic values or geometric mean for specie

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Environmental Standards

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ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

						(n:2) Fluorotelomer Sulfonic Acids			
	N-Methyl perfluorooctane sulfonamide (N- MeFOSA)	N-methyl perfluorooctane sulfonamido acetic acid (N-MeFOSAA)	Sum (PFHxS + PFOS)	Sum of PFAS	Sum of PFAS (WA DER List)	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)
EQL	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Darwin Harbour WQO Marine Upper Estuary - Table 1	0.05	0.02	0.01	0.01	0.01	0.05	0.05	0.05	0.05
Dutch Intervention (2000)									
PFAS NEMP 2025 Table 8 Interim marine 95%									
PFAS NEMP 2025 Table 8 Interim marine 99%									
ANZG (2018) Marine water 99% toxicant DGVs									
ANZG (2018) Marine water 95% toxicant DGVs									

Location Code	Field ID	Location Type	Date	Lab Report Number	Sample Type	Sample Code									
SW01	SW01_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595003	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
SW03	SW03_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436010	<0.05	<0.02	<0.01	2.62	2.59	<0.05	0.49	0.09	<0.05
SW04	SW04_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595005	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
SW05	SW05_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436009	<0.05	<0.02	<0.01	0.37	0.37	<0.05	0.16	<0.05	<0.05
SW06	SW06_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595006	<0.05	<0.02	<0.01	0.90	0.90	<0.05	0.56	<0.05	<0.05
SW07	SW07_260203	Surface Water	03 Feb 2026	ES2603436	Normal	ES2603436011	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
SW08	SW08_260204	Surface Water	04 Feb 2026	ES2603595	Normal	ES2603595004	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05

Comments

RED - Refers to adopted trigger values

#1 Refer to Table 8 in PFAS NEMP 2025 for comments and notes

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Environmental Standards

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Rijkswaterstaat Environment, February 2000, Dutch Intervention (2000)

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ANZG, 2018, ANZG (2018) Marine water 99% toxicant DGVs

ANZG, 2018, ANZG (2018) Marine water 95% toxicant DGVs

Lab Report Number			Field ID	MW02_260203	Q101_260203	RPD	MW02_260203	QC202_260203	RPD
			Date	03 Feb 2026	03 Feb 2026		03 Feb 2026	03 Feb 2026	
			Sample Type	ES2603436	ES2603436		ES2603436	1320528	
			Matrix Type	Normal	Field_D		Normal	Interlab_D	
				Water	Water		Water	Water	
	Unit	EQL							
NA									
Phosphate total (as P)	mg/L	0.01	-	-	-	-	<0.01	-	
Chlorophyll a	µg/L	1	<2 ^{#1}	-	-	<2 ^{#1}	-	-	
Per- and polyfluoroalkyl substances (PFAS)									
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	
Perfluoro-n-pentanoic acid (PFPeA)	µg/L	0.01	0.24	0.25	4	0.24	0.02	169	
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	0.15	0.15	0	0.15	0.01	175	
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	0.07	0.07	0	0.07	<0.01	150	
Perfluorooctanoic acid (PFOA)	µg/L	0.01	0.02	0.02	0	0.02	<0.01	67	
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	
Perfluorooctanesulfonamide (PFOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	
N-Methyl perfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
N-ethyl perfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
N-methyl perfluorooctane sulfonamido acetic acid (N-MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	
N-ethyl perfluorooctane sulfonamido acetic acid (N-EtFOSSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	
N-methyl perfluorooctanesulfonamido ethanol (N-MeFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
N-ethyl perfluorooctanesulfonamido ethanol (N-EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
Metals									
Arsenic (filtered)	µg/L	1	5	3	50	5	<1	133	
Barium (filtered)	µg/L	1	257	256	0	257	60	124	
Beryllium (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Boron (filtered)	µg/L	50	240	230	4	240	<50	131	
Cadmium (filtered)	µg/L	0.1	<0.1	<0.1	0	<0.1	<0.2	0	
Chromium (hexavalent) (filtered)	µg/L	5	<10	<10	0	<10	<5	0	
Chromium (III+VI) (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Chromium (trivalent) (filtered)	µg/L	5	<10	<10	0	<10	<5	0	
Cobalt (filtered)	µg/L	1	1	1	0	1	<1	0	
Copper (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Lead (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Magnesium	µg/L	500	-	-	-	-	6,300	-	
Magnesium (filtered)	µg/L	500	99,000	97,000	2	99,000	-	-	
Manganese (filtered)	µg/L	1	3,300	3,250	2	3,300	270	170	
Mercury (filtered)	µg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0	
Nickel (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Selenium (filtered)	µg/L	1	<10	<10	0	<10	<1	0	
Vanadium (filtered)	µg/L	5	<10	<10	0	<10	<5	0	
Zinc (filtered)	µg/L	5	20	18	11	20	<5	120	
Inorganics									
Soluble Carbonate as CaCO3*	mg/L	1	<1	<1	0	<1	<20	0	
Alkalinity (Hydroxide) as CaCO3	mg/L	1	<1	<1	0	<1	-	-	
Alkalinity (total) as CaCO3	mg/L	1	96	108	12	96	-	-	
Bicarbonate Alkalinity as CaCO3	mg/L	1	96	108	12	96	38	87	
Calcium	mg/L	0.5	-	-	-	-	21	-	
Calcium (filtered)	mg/L	0.5	87	86	1	87	-	-	
Chloride	mg/L	1	2,600	2,510	4	2,600	67	190	
Electrical conductivity (lab)	µS/cm	1	7,410	7,350	1	7,410	470	176	
Fluoride	mg/L	0.1	0.3	0.4	29	0.3	0.2	40	
Nitrogen (Organic)	mg/L	0.2	-	-	-	-	0.3	-	
Potassium	mg/L	0.5	-	-	-	-	9.0	-	
Potassium (filtered)	mg/L	0.5	27	26	4	27	-	-	
Sodium	mg/L	0.5	-	-	-	-	63	-	
Sodium (filtered)	mg/L	0.5	1,270	1,250	2	1,270	-	-	
Sodium Absorption Ratio (filtered)	-	0.01	22.1	21.9	1	22.1	-	-	
Sulfate as SO4 - Turbidimetric (filtered)	mg/L	1	145	149	3	145	-	-	
Sulfate as SO4 2-	mg/L	2	-	-	-	-	65	-	
Total Dissolved Solids	mg/L	10	-	-	-	-	300	-	
Anions Total	meq/L	0.01	78.3	76.1	3	78.3	-	-	
Cations Total	meq/L	0.01	68.4	67.3	2	68.4	-	-	
Ionic Balance	%	0.01	6.72	6.10	10	6.72	-	-	
Hardness as CaCO3	mg/L	1	-	-	-	-	77	-	
Hardness as CaCO3 (filtered)	mg/L	1	625	614	2	625	-	-	
Physiochemical parameters									
Turbidity (Lab)	NTU	0.1	829	618	29	829	1.4	199	
Dissolved Oxygen (Lab)	%	0.01048	0.48	0.39	22	0.48	0.43	11	
pH (Lab)	pH Units	0.01	6.10	6.19	1	6.10	6.4	5	

Lab Report Number			Field ID	MW02_260203	Q101_260203	RPD	MW02_260203	QC202_260203	RPD
			Date	03 Feb 2026	03 Feb 2026		03 Feb 2026	03 Feb 2026	
			Sample Type	ES2603436	ES2603436		ES2603436	1320528	
			Matrix Type	Normal	Field_D		Normal	Interlab_D	
				Water	Water		Water	Water	
	Unit	EQL							
Nutrients									
Ammonia as N	mg/L	0.01	0.53	0.52	2	0.53	<0.01	193	
Nitrate (as N)	mg/L	0.01	<0.01	<0.01	0	<0.01	1.5	197	
Nitrite (as N)	mg/L	0.01	<0.01	<0.01	0	<0.01	<0.02	0	
Nitrate & Nitrite (as N)	mg/L	0.01	<0.01	<0.01	0	<0.01	1.5	197	
Kjeldahl Nitrogen Total	mg/L	0.1	1.4	1.6	13	1.4	0.3	129	
Phosphorus reactive (as P)	mg/L	0.01	-	-	-	-	<0.01	-	
Phosphorus reactive (as P) (filtered)	mg/L	0.01	<0.10 ^{#1}	<0.10 ^{#1}	0	<0.10 ^{#1}	-	-	
Nitrogen (Total)	mg/L	0.1	1.4	1.6	13	1.4	1.8	25	
Phosphorus total (as P)	mg/L	0.01	0.31	0.23	30	0.31	-	-	
Microbiological									
Biological oxygen demand	µg/L	2,000	<2,000	-	-	<2,000	-	-	
E. Coli	cfu/100 ml	1	2 ^{#2}	-	-	2 ^{#2}	-	-	
Enterococci	orgs/100mL	1	3 ^{#2}	-	-	3 ^{#2}	-	-	
TRH - NEPM 2013 Fractions									
TRH >C6 - C10	mg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	
TRH >C6 - C10 less BTEX (F1)	mg/L	0.02	<0.02	<0.02	0	<0.02	<0.02	0	
TRH >C10 - C16	mg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	
TRH >C10 - C16 less Naphthalene (F2)	mg/L	0.05	<0.1	<0.1	0	<0.1	<0.05	0	
TRH >C16 - C34	mg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0	
TRH >C34 - C40	mg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0	
TRH >C10 - C40 (Sum of total)	mg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0	
BTEXN									
Benzene	µg/L	1	<1	<1	0	<1	<1	0	
Toluene	µg/L	1	<2	<2	0	<2	<1	0	
Ethylbenzene	µg/L	1	<2	<2	0	<2	<1	0	
Xylene (m & p)	µg/L	2	<2	<2	0	<2	<2	0	
Xylene (o)	µg/L	1	<2	<2	0	<2	<1	0	
Xylene Total	µg/L	2	<2	<2	0	<2	<3	0	
Naphthalene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Total BTEX	µg/L	1	<1	<1	0	<1	-	-	
Polycyclic aromatic hydrocarbons (PAHs)									
Acenaphthene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Acenaphthylene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Anthracene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Benz(a)anthracene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Benzo(k)fluoranthene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Benzo(b+j)fluoranthene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Benzo(g,h,i)perylene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Benzo(a) pyrene	µg/L	0.5	<0.5	<0.5	0	<0.5	<1	0	
Benzo(a)pyrene TEQ calc (zero)	µg/L	0.5	<0.5	<0.5	0	<0.5	-	-	
Chrysene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Dibenz(a,h)anthracene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Fluoranthene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Fluorene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Phenanthrene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
Pyrene	µg/L	1	<1.0	<1.0	0	<1.0	<1	0	
PAHs (Sum of total)	µg/L	0.5	<0.5	<0.5	0	<0.5	<1	0	
Per- and Poly-fluoroalkyl Substances (PFAS)									
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Sum of PFAS (WA DER List)	µg/L	0.01	0.48	0.49	2	0.48	<0.05	162	
Sum (PFHxS + PFOS)	µg/L	0.01	<0.01	<0.01	0	<0.01	<0.01	0	
Sum of PFAS	µg/L	0.01	0.48	0.49	2	0.48	<0.1	131	
(n:2) Fluorotelomer Sulfonic Acids									
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	

Comments

- #1 Reported Analyte LOR is higher than Requested Analyte LOR
- #2 Result value is an approximate.
- #3 Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
- * Qualifiers are displayed in the following order: Lab ; Validation ; Final.

*RPDs have only been considered where a concentration is greater than 1 times the EQL.

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for each EQL multiplier range are: 80 (1 - 10 x EQL); 50 (10 - 30 x EQL); 30 (> 30 x EQL))

***Interlab Duplicates are matched on a per compound basis as methods vary between laboratories. Any methods in the row header relate to those used in the primary laboratory

Lab Report Number			Field ID	MW06_260203	QC102_260203	RPD	MW06_260203	Q201_260203	RPD
			Date	03 Feb 2026	03 Feb 2026		03 Feb 2026	03 Feb 2026	
			Sample Type	ES2603436	ES2603436		ES2603436	1320528	
			Matrix Type	Normal	Field_D		Normal	Interlab_D	
				Water	Water		Water	Water	
	Unit	EQL							
NA									
Phosphate total (as P)	mg/L	0.01	-	-	-	-	0.12	-	
Chlorophyll a	µg/L	1	<1	-	-	<1	-	-	
Per- and polyfluoroalkyl substances (PFAS)									
Perfluorobutanoic acid (PFBA)	µg/L	0.05	<0.1	<0.1	0	<0.1	0.06	0	
Perfluoro-n-pentanoic acid (PFPeA)	µg/L	0.01	0.02	0.02	0	0.02	0.21	165	
Perfluorohexanoic acid (PFHxA)	µg/L	0.01	<0.02	<0.02	0	<0.02	0.14	150	
Perfluoroheptanoic acid (PFHpA)	µg/L	0.01	<0.02	<0.02	0	<0.02	0.06 ^{#3}	100	
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	<0.01	0	<0.01	0.02 ^{#3}	67	
Perfluorononanoic acid (PFNA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorodecanoic acid (PFDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluoroundecanoic acid (PFUnDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorododecanoic acid (PFDoDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorotridecanoic acid (PFTrDA)	µg/L	0.01	<0.02	<0.02	0	<0.02	<0.01	0	
Perfluorohexadecanoic acid (PFHxDA)	µg/L	0.05	<0.05	<0.05	0	<0.05	-	-	
Perfluorotetradecanoic acid (PFTeDA)	µg/L	0.01	<0.05	<0.05	0	<0.05	<0.01	0	
Perfluorooctanesulfonamide (PFOSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	
N-Methyl perfluorooctane sulfonamide (N-MeFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
N-ethyl perfluorooctane sulfonamide (N-EtFOSA)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
N-methyl perfluorooctane sulfonamido acetic acid (N-MeFOSAA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	
N-ethyl perfluorooctane sulfonamido acetic acid (N-EtFOSSA)	µg/L	0.02	<0.02	<0.02	0	<0.02	<0.05	0	
N-methyl perfluorooctanesulfonamido ethanol (N-MeFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
N-ethyl perfluorooctanesulfonamido ethanol (N-EtFOSE)	µg/L	0.05	<0.05	<0.05	0	<0.05	<0.05	0	
Metals									
Arsenic (filtered)	µg/L	1	<1	<1	0	<1	1	0	
Barium (filtered)	µg/L	1	60	59	2	60	230	117	
Beryllium (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Boron (filtered)	µg/L	50	<50	<50	0	<50	310	144	
Cadmium (filtered)	µg/L	0.1	<0.1	<0.1	0	<0.1	<0.2	0	
Chromium (hexavalent) (filtered)	µg/L	5	<10	<10	0	<10	15	40	
Chromium (III+VI) (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Chromium (trivalent) (filtered)	µg/L	5	<10	<10	0	<10	15	40	
Cobalt (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Copper (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Lead (filtered)	µg/L	1	<1	<1	0	<1	<1	0	
Magnesium	µg/L	500	-	-	-	-	120,000	-	
Magnesium (filtered)	µg/L	500	6,000	6,000	0	6,000	-	-	
Manganese (filtered)	µg/L	1	273	276	1	273	3,300	169	
Mercury (filtered)	µg/L	0.1	<0.1	<0.1	0	<0.1	<0.1	0	
Nickel (filtered)	µg/L	1	<1	1	0	<1	<1	0	
Selenium (filtered)	µg/L	1	<10	<10	0	<10	1	0	
Vanadium (filtered)	µg/L	5	<10	<10	0	<10	<5	0	
Zinc (filtered)	µg/L	5	<5	<5	0	<5	8	46	
Inorganics									
Soluble Carbonate as CaCO3*	mg/L	1	<1	<1	0	<1	-	-	
Alkalinity (Hydroxide) as CaCO3	mg/L	1	<1	<1	0	<1	-	-	
Alkalinity (total) as CaCO3	mg/L	1	37	37	0	37	-	-	
Bicarbonate Alkalinity as CaCO3	mg/L	1	37	37	0	37	-	-	
Calcium	mg/L	0.5	-	-	-	-	90	-	
Calcium (filtered)	mg/L	0.5	21	21	0	21	-	-	
Chloride	mg/L	1	72	72	0	72	-	-	
Electrical conductivity (lab)	µS/cm	1	470	489	4	470	-	-	
Fluoride	mg/L	0.1	0.3	0.3	0	0.3	-	-	
Nitrogen (Organic)	mg/L	0.2	-	-	-	-	0.72	-	
Potassium	mg/L	0.5	-	-	-	-	35	-	
Potassium (filtered)	mg/L	0.5	7	8	13	7	-	-	
Sodium	mg/L	0.5	-	-	-	-	1,400	-	
Sodium (filtered)	mg/L	0.5	58	59	2	58	-	-	
Sodium Absorption Ratio (filtered)	-	0.01	2.87	2.92	2	2.87	-	-	
Sulfate as SO4 - Turbidimetric (filtered)	mg/L	1	78	78	0	78	-	-	
Sulfate as SO4 2-	mg/L	2	-	-	-	-	-	-	
Total Dissolved Solids	mg/L	10	-	-	-	-	5,100	-	
Anions Total	meq/L	0.01	4.39	4.39	0	4.39	-	-	
Cations Total	meq/L	0.01	4.24	4.31	2	4.24	-	-	
Ionic Balance	%	0.01	1.74	0.94	60	1.74	-	-	
Hardness as CaCO3	mg/L	1	-	-	-	-	700	-	
Hardness as CaCO3 (filtered)	mg/L	1	77	77	0	77	-	-	
Physiochemical parameters									
Turbidity (Lab)	NTU	0.1	1.8	10.2	140	1.8	-	-	
Dissolved Oxygen (Lab)	%	0.01048	0.75	0.62	20	0.75	0.02	189	
pH (Lab)	pH Units	0.01	6.70	6.63	1	6.70	5.7	16	

Lab Report Number	Field ID	MW06_260203	QC102_260203	RPD	MW06_260203	Q201_260203	RPD
	Date	03 Feb 2026	03 Feb 2026		03 Feb 2026	03 Feb 2026	
	Sample Type	ES2603436	ES2603436		ES2603436	1320528	
	Matrix Type	Normal	Field_D		Normal	Interlab_D	
	Unit	EQL			Water	Water	
Nutrients							
Ammonia as N	mg/L	0.01	0.01	143	0.01	0.88	196
Nitrate (as N)	mg/L	0.01	1.13	8	1.13	0.03	190
Nitrite (as N)	mg/L	0.01	<0.01	0	<0.01	<0.02	0
Nitrate & Nitrite (as N)	mg/L	0.01	1.13	8	1.13	<0.05	183
Kjeldahl Nitrogen Total	mg/L	0.1	0.2	0	0.2	1.6	156
Phosphorus reactive (as P)	mg/L	0.01	-	-	-	<0.05	-
Phosphorus reactive (as P) (filtered)	mg/L	0.01	<0.01	0	<0.01	-	-
Nitrogen (Total)	mg/L	0.1	1.3	8	1.3	1.6	21
Phosphorus total (as P)	mg/L	0.01	0.01	67	0.01	-	-
Microbiological							
Biological oxygen demand	µg/L	2,000	<2,000	-	<2,000	-	-
E. Coli	cfu/100 ml	1	8 ^{#2}	-	8 ^{#2}	-	-
Enterococci	orgs/100mL	1	<1	-	<1	-	-
TRH - NEPM 2013 Fractions							
TRH >C6 - C10	mg/L	0.02	<0.02	0	<0.02	<0.02	0
TRH >C6 - C10 less BTEX (F1)	mg/L	0.02	<0.02	0	<0.02	<0.02	0
TRH >C10 - C16	mg/L	0.05	<0.1	0	<0.1	<0.05	0
TRH >C10 - C16 less Naphthalene (F2)	mg/L	0.05	<0.1	0	<0.1	<0.05	0
TRH >C16 - C34	mg/L	0.1	<0.1	0	<0.1	0.7	150
TRH >C34 - C40	mg/L	0.1	<0.1	0	<0.1	<0.1	0
TRH >C10 - C40 (Sum of total)	mg/L	0.1	<0.1	0	<0.1	0.7	150
BTEXN							
Benzene	µg/L	1	<1	0	<1	<1	0
Toluene	µg/L	1	<2	0	<2	<1	0
Ethylbenzene	µg/L	1	<2	0	<2	<1	0
Xylene (m & p)	µg/L	2	<2	0	<2	<2	0
Xylene (o)	µg/L	1	<2	0	<2	<1	0
Xylene Total	µg/L	2	<2	0	<2	<3	0
Naphthalene	µg/L	1	<1.0	0	<1.0	<1	0
Total BTEX	µg/L	1	<1	0	<1	-	-
Polycyclic aromatic hydrocarbons (PAHs)							
Acenaphthene	µg/L	1	<1.0	0	<1.0	<1	0
Acenaphthylene	µg/L	1	<1.0	0	<1.0	<1	0
Anthracene	µg/L	1	<1.0	0	<1.0	<1	0
Benz(a)anthracene	µg/L	1	<1.0	0	<1.0	<1	0
Benzo(k)fluoranthene	µg/L	1	<1.0	0	<1.0	<1	0
Benzo(b+j)fluoranthene	µg/L	1	<1.0	0	<1.0	<1	0
Benzo(g,h,i)perylene	µg/L	1	<1.0	0	<1.0	<1	0
Benzo(a) pyrene	µg/L	0.5	<0.5	0	<0.5	<1	0
Benzo(a)pyrene TEQ calc (zero)	µg/L	0.5	<0.5	0	<0.5	-	-
Chrysene	µg/L	1	<1.0	0	<1.0	<1	0
Dibenz(a,h)anthracene	µg/L	1	<1.0	0	<1.0	<1	0
Fluoranthene	µg/L	1	<1.0	0	<1.0	<1	0
Fluorene	µg/L	1	<1.0	0	<1.0	<1	0
Indeno(1,2,3-c,d)pyrene	µg/L	1	<1.0	0	<1.0	<1	0
Phenanthrene	µg/L	1	<1.0	0	<1.0	<1	0
Pyrene	µg/L	1	<1.0	0	<1.0	<1	0
PAHs (Sum of total)	µg/L	0.5	<0.5	0	<0.5	<1	0
Per- and Poly-fluoroalkyl Substances (PFAS)							
Perfluoropropanesulfonic acid (PFPrS)	µg/L	0.01	<0.02	0	<0.02	<0.01	0
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.01	<0.02	0	<0.02	<0.01	0
Perfluoropentane sulfonic acid (PFPeS)	µg/L	0.01	<0.02	0	<0.02	<0.01	0
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.01	<0.01	0	<0.01	<0.01	0
Perfluoroheptane sulfonic acid (PFHpS)	µg/L	0.01	<0.02	0	<0.02	<0.01	0
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.01	<0.01	0	<0.01	<0.01	0
Perfluorononanesulfonic acid (PFNS)	µg/L	0.01	<0.02	0	<0.02	<0.01	0
Perfluorodecanesulfonic acid (PFDS)	µg/L	0.01	<0.02	0	<0.02	<0.01	0
Sum of PFAS (WA DER List)	µg/L	0.01	0.02	0	0.02	0.49	184
Sum (PFHxS + PFOS)	µg/L	0.01	<0.01	0	<0.01	<0.01	0
Sum of PFAS	µg/L	0.01	0.02	0	0.02	0.5	185
(n:2) Fluorotelomer Sulfonic Acids							
4:2 Fluorotelomer sulfonic acid (4:2 FTS)	µg/L	0.01	<0.05	0	<0.05	<0.01	0
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	µg/L	0.05	<0.05	0	<0.05	<0.05	0
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	µg/L	0.01	<0.05	0	<0.05	<0.01	0
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	µg/L	0.01	<0.05	0	<0.05	<0.01	0

Comments

- #1 Reported Analyte LOR is higher than Requested Analyte LOR
- #2 Result value is an approximate.
- #3 Quantification of linear and branched isomers has been conducted as a single tot:
- * Qualifiers are displayed in the following order: Lab ; Validation ; Final.

*RPDs have only been considered where a concentration is greater than 1 times the LOR

**Elevated RPDs are highlighted as per QAQC Profile settings (Acceptable RPDs for the LOR)

***Interlab Duplicates are matched on a per compound basis as methods vary between labs

Appendix C
Data Table C-4
Rinsate/Trip Blank Results

Field ID Date Lab Report Number Sample Type			QC301_260203	QC501_260203
			03 Feb 2026	03 Feb 2026
			ES2603436	ES2603436
			Rinsate	Trip_B
	Unit	EQL		
TRH - NEPM 2013 Fractions				
TRH >C6 - C10	µg/L	20	<20	<20
TRH >C6 - C10 less BTEX (F1)	µg/L	20	<20	<20
TPH - NEPM 1999 Fractions				
TPH C6 - C9	µg/L	20	<20	<20
Polycyclic aromatic hydrocarbons (PAHs)				
Naphthalene	µg/L	5	<5	<5
Monocyclic Aromatic Hydrocarbons (MAHs)				
Benzene	µg/L	1	<1	<1
Toluene	µg/L	2	<2	<2
Ethylbenzene	µg/L	2	<2	<2
Xylene (m & p)	µg/L	2	<2	<2
Xylene (o)	µg/L	2	<2	<2
Xylene Total	µg/L	2	<2	<2
Total BTEX	µg/L	1	<1	<1
Per- and Poly-fluoroalkyl Substances (PFAS)				
Perfluorooctanesulfonic acid (PFOS)	µg/L	0.01	<0.01	-
Perfluorooctanoic acid (PFOA)	µg/L	0.01	<0.01	-
Perfluoro-n-pentanoic acid (PFPeA)	µg/L	0.02	<0.02	-
Perfluorohexanoic acid (PFHxA)	µg/L	0.02	<0.02	-
Perfluorohexanesulfonic acid (PFHxS)	µg/L	0.01	<0.01	-
Perfluoroheptanoic acid (PFHpA)	µg/L	0.02	<0.02	-
Perfluorobutanesulfonic acid (PFBS)	µg/L	0.02	<0.02	-
Perfluorobutanoic acid (PFBA)	µg/L	0.1	<0.1	-
Sum (PFHxS + PFOS)	µg/L	0.01	<0.01	-
Sum of PFAS (WA DER List)	µg/L	0.01	<0.01	-
(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	-

* Qualifiers are displayed in the following order: Lab ; Validation ; Final.

Appendix D. Calibration Certificates



Air-Met Scientific Pty Ltd

PO Box 133

Nunawading VIC 3131

Australia

Phone: 1800 000 744

CERTIFICATE OF CALIBRATION

This document certifies that the instrument detailed has been calibrated to the parameters listed below

Certificate Number : 23E102253-R-10-20260120

Calibration Date: 20/01/2026

Next Calibration Due: 20/04/2026

Customer: Air-Met Scientific (National Rental)

Address: Unit 9, 130-132 Frederick Street , , WELLAND , 5007

Equipment No: EP021563

Unit Under Test: YSI ProQuatro Water Quality Meter

Serial No: 23E102253

Service Order No: CAL15797

Test Results

Item	Test	Pass	Comments
BATTERY	Capacity checked	Pass	
DISPLAY	Display/Backlight checked	Pass	
PCB	Inspected	Pass	
CASE	Inspected & Cleaned	Pass	
KEYPAD	Function checked	Pass	
SENSOR(S)	Inspected	Pass	

Reference Equipment:

Equipment ID	Description	Expiry Date	Reference Certificate Number
SACOND			480785
SAPH7			448192
SAPH4			448902
SAORP			446646/449303
SADO			445389

Results:

Sensor	Units	Applied Value	Results		Pass/ Fail	Comments
			As Found	As Left		
TEMPERATURE	°C	23.3	23.3	23.3	Pass	
CONDUCTIVITY	µS/cm	2760	2945	2760	Pass	
PH7	pH	7	7.25	7	Pass	
PH4	pH	4	4.24	4	Pass	



ORP	ORP	225.5	128.4	225.5	Pass	
DISSOLVED OXYGEN	%	0	0.8	0	Pass	

Notes:

Calibrated By: DESHENG.LI

Signed: DESHENG.LI





Air-Met Scientific Pty Ltd

PO Box 133

Nunawading VIC 3131

Australia

Phone: 1800 000 744

CERTIFICATE OF CALIBRATION

This document certifies that the instrument detailed has been calibrated to the parameters listed below

Certificate Number : 22G103291-R-12-20260120

Calibration Date: 20/01/2026

Next Calibration Due: 20/04/2026

Customer: Air-Met Scientific (National Rental)

Address: Unit 9, 130-132 Frederick Street , , WELLAND , 5007

Equipment No: EP021558

Unit Under Test: YSI ProQuatro Water Quality Meter

Serial No: 22G103291

Service Order No: CAL15790

Test Results

Item	Test	Pass	Comments
BATTERY	Capacity checked	Pass	
DISPLAY	Display/Backlight checked	Pass	
PCB	Inspected	Pass	
CASE	Inspected & Cleaned	Pass	
KEYPAD	Function checked	Pass	
SENSOR(S)	Inspected	Pass	

Reference Equipment:

Equipment ID	Description	Expiry Date	Reference Certificate Number
SACOND			480785
SAPH7			448192
SAPH4			448902
SAORP			446646/449303
SADO			445389

Results:

Sensor	Units	Applied Value	Results		Pass/ Fail	Comments
			As Found	As Left		
TEMPERATURE	°C	23.5	23.5	23.5	Pass	
CONDUCTIVITY	µS/cm	2760	2700	2760	Pass	
PH7	pH	7	7.28	7	Pass	
PH4	pH	4	4.3	4	Pass	



ORP	ORP	226.3	209.9	226.3	Pass	
DISSOLVED OXYGEN	%	0	2.4	0	Pass	

Notes:

Calibrated By: DESHENG.LI

Signed: DESHENG.LI





Air-Met Scientific Pty Ltd

PO Box 133

Nunawading VIC 3131

Australia

Phone: 1800 000 744

CERTIFICATE OF CALIBRATION

This document certifies that the instrument detailed has been calibrated to the parameters listed below

Certificate Number : UP-01057-S-1-20250718

Calibration Date: 18/07/2025

Next Calibration Due:

Customer: Air-Met Scientific (National Rental)

Address: Unit 9, 130-132 Frederick Street , , WELLAND , 5007

Equipment No: EP021637

Unit Under Test: Waterra 1 UP Peristaltic Sampling Pump

Serial No: UP-01057

Service Order No: SVO000866

Reference Equipment:

Equipment ID	Description		Expiry Date	Reference Certificate Number		
Results:						
Sensor	Units	Applied Value	Results		Pass/ Fail	Comments
			As Found	As Left		

Notes:

Calibrated By: PRASHANT.WAGHELA



Quality
ISO 9001
SAI GLOBAL

Appendix E. Laboratory documentation

Mandatory Fields				CHAIN OF CUSTODY			
CLIENT CODE:	*PROJECT MANAGER:	Daniel Coffey	SAMPLER:	Daniel Coffey	Page 1 of 2		
*CLIENT:	Jacobs	*PM MOBILE:	0421 403 579	SAMPLER MOBILE:	0421 403 579	COC # (if applicable)	
OFFICE (Invoiced Office):	Darwin	ALS QUOTE # (Client Pl. / Blank):	ES24SINKIN0008	PURCHASE ORDER NO.:	540003296	ALS	
PROJECT:	NO / PROJECT:	INW272400	SITE:				
INVOICE TO:	*EMAIL: daniel.coffey@jacobs.com			CC Invoice to PM			

REPORTS TO (Default is PM if blank)				*ANALYSIS REQUIRED															
*STORAGE REQUIREMENTS Please check box ☒ Standard Storage ☐ Extended Storage Standard Storage time limit is 90 days of sample. Water: 3 weeks Soil: 2 months Note: Extended storage incurs a fee and requires a signed agreement.				*TURNAROUND Please check box ☒ 5+ days (no surcharge) ☐ 3 day (+15%) ☐ 2 day (+30%) ☐ 1 day (+50%) (Not all tests can be expedited. Contact Client Services for more information)				Mark an X in the boxes below analysis to indicate the parameter listed above to be tested on that sample.											
				EA045 - Turbidity EP025 - DO EK071 - Phosphorus - Reactive Phosphorus as P EP008 - Chlorophyll a EP030 - BOD - Biochemical Oxygen Demand W-7: TRH (C6-C40) / BTEXN / PAH W-3: NEPM Suite, 15 Metals (As, B, Ba, Be, Cd, Cr, Co, Cu, Mn, Ni, Pb, Se, V, Zn, Hg) EG049 - Chromium - Trivalent Chromium - Dissolved NT-14: General Water Suite: Ca, Mg, Na, K, pH, EC, Cl, SO ₄ , Alkalinity, Fluoride, Hardness, TDS (Calc), Nitrate, Nitrite, Ammonia, Reactive Phosphorus, Total Phosphorus, Total EG050G: Chromium - Hexavalent Chromium - Dissolved EP231X: PFAS - Full Suite (28 analytes) MW006: E. coli (MF) MW023: Enterococci (MF) Rinsate: W-18, EP231 Trip Blank - PFAS & TRH Trip Spike															

ALS Use Only	Sample ID	Depth	Date/Time	No. Bottles	MATRIX: Soil/Solid(S) Water(W) Sediments (SD) Dust (D) Product (P) Biota (B) Biosolid (BS)	EA045 -	EP025 -	EK071 - Phosphorus -	EP008 - C	EP030 - BOD - Bioche	W-7: TRH (C-C	W-3: NEPM Suite, 15 Metals (As, Ni, Pb, Se	EG049 - Chromium - Triv	NT-14: General Water Suite: Alkalinity, Fluoride, Hardne Ammonia, Reactive Phosph	EG050G: Chromium - Hexa	EP231X: PFAS - Fu	MW006: E. coli (MF)	MW023: En	Rinsate: V	Trip Blank	Trip	Lab QC (Additional bottles req.)	Dup	MS	Additional Information (Comment on hazards - e.g. asbestos, known high contamination)	
						Yes / No / NA(Not)	Can Note #	Corner/Foot	Client	Packaging (Cred)	Hard Exty	Foam Exty	Box/Bag/Other													
1	MM01-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
2	MM02-0101-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
3	MM06-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
4	MM05-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
5	QC102-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
6	QC202-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
7	QC504-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
8	QC602-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
9	QC5405-260203				W	X	X	X	X	X	X	X	X	X	X	X	X								Forward to Eurofins	
Relinquished by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time
Relinquished by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time	Received by	Signature	Date/Time

Requisitioned by:	Daniel Coffey	Signature:	Date:	3/2/26	Received by:	Jonathon	Signature:	Date:	03/02/26
Requisitioned by:	Daniel Coffey	Signature:	Date:	3/2/26	Received by:	Jonathon	Signature:	Date:	03/02/26

ticked analysis confirmed by Daniel - Janna 03/02

Environmental Division
Sydney
Work Order Reference
ES2603436

Barcode: [Barcode]

Telephone: + 61-2-8794 8555

Mandatory Fields				CHAIN OF CUSTODY										Page 2 of 7					
CLIENT CODE:		PROJECT MANAGER:		Daniel Coffey		SAMPLER:		Daniel Coffey		COC # (if applicable)									
CLIENT:		JACOBS		0421 403 579		SAMPLER MOBILE:		0421 403 579											
OFFICE (Invoiced Office):		Darwin		ALS QUOTE # (Client PL if Blank)		PURCHASE ORDER NO.		540003296											
PROJECT NO. / PROJECT:		IW272400		SITE:															
INVOICE TO:				X				CC Invoice to PM				BIOSECURITY							
*EMAIL REPORTS TO: general.coffey@jacobson.com (Add any to PM if required)				*ANALYSIS REQUIRED Where Matrices are required, use only 'T' (Total and listed) or 'D' (Dissolved) and 'F' (Filtered) and 'S' (Sediment) and 'W' (Water) and 'B' (Biosolid) and 'P' (Product) and 'I' (Inorganic) and 'O' (Organic) and 'M' (Metals) and 'N' (Nutrients) and 'C' (Chemicals) and 'H' (Heavy Metals) and 'L' (Lead) and 'Pb' (Lead) and 'Cd' (Cadmium) and 'Cr' (Chromium) and 'Cu' (Copper) and 'Mn' (Manganese) and 'Ni' (Nickel) and 'Pb' (Lead) and 'Se' (Selenium) and 'V' (Vanadium) and 'Zn' (Zinc) and 'Hg' (Mercury). Mark an X in the boxes below to indicate the parameter listed above to be tested on that sample.										Country of Origin: (if not Australia)					
*STORAGE REQUIREMENTS Please check box: ☒ Standard Storage ☐ Extended Storage Standard Storage time from receipt of sample: Water: 3 weeks Sediment: 2 months Note: Extended storage incurs a fee and requires a signed agreement.				*TURNAROUND Please check box: ☒ 5+ days (no surcharge) ☐ 3 day (+15%) ☐ 2 day (+30%) ☐ 1 day (+50%) (Note: All tests can be expedited. Contact Client Services for more information.)				MATRIX: Soil/Solid (S) Water (W) Sediments (SD) Dust (D) Product (P) Biota (B) Biosolid (BS)		EA045 - Turbidity EP025 - DO EK071 - Phosphorus - Reactive Phosphorus as P EP008 - Chlorophyll a EP030 - BOD - Biochemical Oxygen Demand W-7: TRH (C6-C40) / BTEXN / PAH W-3: NEPM Suite: 15 Metals (As, B, Ba, Be, Cd, Cr, Co, Cu, Mn, Ni, Pb, Se, V, Zn, Hg) EG049 - Chromium - Trivalent Chromium - Dissolved NT-14: General Water Suite: Ca, Mg, Na, K, pH, EC, Cl, SO ₄ , Alkalinity, Fluoride, Hardness, TDS (Calc), Nitrate, Nitrite, Ammonia, Reactive Phosphorus, Total Phosphorus, Total EG050G: Chromium - Hexavalent Chromium - Dissolved EP231X: PFAS - Full Suite (28 analytes) MW006: E. coli (MF) MW023: Enterococci (MF) Rinsate: W-18, EP231 Trip Blank - PFAS & TRH Trip Spike		Lab QC (Additional bottles req.) Dup MS Additional Information (Comment on hazards - e.g., asbestos, known high contamination) Ticked							
Comments: NO Sucker to go here. (ALS use only)				Analysis confirmed by Daniel - June 03/02				Forward to Eurolina											
Lab ID 10 SW03-260203 11 SW03-260203 12 MW02-260203				Depth Date/Time No. Bottles				EA045 - Turbidity EP025 - DO EK071 - Phosphorus - Reactive Phosphorus as P EP008 - Chlorophyll a EP030 - BOD - Biochemical Oxygen Demand W-7: TRH (C6-C40) / BTEXN / PAH W-3: NEPM Suite: 15 Metals (As, B, Ba, Be, Cd, Cr, Co, Cu, Mn, Ni, Pb, Se, V, Zn, Hg) EG049 - Chromium - Trivalent Chromium - Dissolved NT-14: General Water Suite: Ca, Mg, Na, K, pH, EC, Cl, SO ₄ , Alkalinity, Fluoride, Hardness, TDS (Calc), Nitrate, Nitrite, Ammonia, Reactive Phosphorus, Total Phosphorus, Total EG050G: Chromium - Hexavalent Chromium - Dissolved EP231X: PFAS - Full Suite (28 analytes) MW006: E. coli (MF) MW023: Enterococci (MF) Rinsate: W-18, EP231 Trip Blank - PFAS & TRH Trip Spike				Lab QC (Additional bottles req.) Dup MS Additional Information (Comment on hazards - e.g., asbestos, known high contamination) Ticked		Forward to Eurolina					
Receipt Detail Chilling Method: Ice / Frozen / Mixed / Frozen / Thawed / None Sample Temp at Receipt: °C Sealed by: (initials) Yes / No / N/A (None) Carrier Details: ☐ Courier/Post ☐				Signature:  Date: 3/2/26 Time: 11:30				Received by:  Date: 4/5 Time: 11:30				Signature:  Date: 03/02/26 Time: 11:30		Date: 03/02/26 Time: 11:30					

no.2 - additional sample confirmed by Daniel - June 03/02



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2603436**

Client	: JACOBS GROUP (AUSTRALIA) PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: DANIEL COFFEY	Contact	: Jackie Chau
Address	: LEVEL 2 25 PARAP ROAD PARAP NT 0804	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: daniel.coffey@jacobs.com	E-mail	: jackie.chau@alsglobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: IW272400	Page	: 1 of 3
Order number	: 540003296	Quote number	: ES2024SINKNI0008_V2 (ES24SINKNI0008_V2)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: DANIEL COFFEY		

Dates

Date Samples Received	: 03-Feb-2026 16:50	Issue Date	: 05-Feb-2026
Client Requested Due Date	: 12-Feb-2026	Scheduled Reporting Date	: 12-Feb-2026

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Not Available
No. of coolers/boxes	: 3	Temperature	: 9.0°C, 14.54°C, 17.1°C - Ice Bricks present
Receipt Detail	:	No. of samples received / analysed	: 12 / 12

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.**
- **Sample(s) requiring volatile organic compound analysis received in airtight containers (ZHE).**
- **Sample QC501 received without PFAS containers. Unable to proceed with PFAS trip blank analysis.**
- Please direct any queries you have regarding this work order to the above ALS laboratory contact.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Sydney, NATA accreditation no. 825, site no. 10911.
- 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.
- Micro bottles were received in ALS Darwin on 03/02/26 at 16:50. Remaining bottles were received at ALS Sydney on DD/MM/YY at HH:MM.
- Micro bottles were received in ALS Darwin on 03/02/26 at 16:20. Remaining bottles were received at ALS Sydney on 05/02/26 at 11:30.



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 - EA045 Turbidity	WATER - EG049G-F Dissolved Trivalent Chromium by ICP & DA	WATER - EP008 Chlorophyll a	WATER - EP025 Dissolved Oxygen (DO)	WATER - EP030 Biochemical Oxygen Demand (BOD)	WATER - MW023 Enterococci - Enumeration by Membrane	WATER - W-03 15 Metals (NEPM Suite)
ES2603436-001	03-Feb-2026 00:00	MW01_260203	✓	✓	✓	✓	✓	✓	✓
ES2603436-002	03-Feb-2026 00:00	Q101_260203	✓	✓		✓			✓
ES2603436-003	03-Feb-2026 00:00	MW06_260203	✓	✓	✓	✓	✓	✓	✓
ES2603436-004	03-Feb-2026 00:00	MW05_260203	✓	✓	✓	✓	✓	✓	✓
ES2603436-005	03-Feb-2026 00:00	QC102_260203	✓	✓		✓			✓
ES2603436-009	03-Feb-2026 00:00	SW05_260203	✓	✓	✓	✓	✓	✓	✓
ES2603436-010	03-Feb-2026 00:00	SW03_260203	✓	✓	✓	✓	✓	✓	✓
ES2603436-011	03-Feb-2026 00:00	SW07_260203	✓	✓	✓	✓	✓	✓	✓
ES2603436-012	03-Feb-2026 00:00	MW02_260203	✓	✓	✓	✓	✓	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	WATER - EP080 BTEXN	WATER - EP231 PFAS - Short Suite (12 analytes)	WATER - EP231X PFAS - Full Suite (31 analytes)	WATER - MW006 (Ec) E.coli by Membrane Filtration	WATER - NT-14 Extended Water Suite B	WATER - W-07 TRH/BTEXN/PAH	WATER - W-18 TRH(C6 - C9)/BTEXN
ES2603436-001	03-Feb-2026 00:00	MW01_260203			✓	✓	✓	✓	
ES2603436-002	03-Feb-2026 00:00	Q101_260203			✓		✓	✓	
ES2603436-003	03-Feb-2026 00:00	MW06_260203			✓	✓	✓	✓	
ES2603436-004	03-Feb-2026 00:00	MW05_260203			✓	✓	✓	✓	
ES2603436-005	03-Feb-2026 00:00	QC102_260203			✓		✓	✓	
ES2603436-006	03-Feb-2026 00:00	QC301_260203		✓					✓
ES2603436-007	03-Feb-2026 00:00	QC501_260203							✓
ES2603436-008	03-Feb-2026 00:00	QC601_260203	✓						
ES2603436-009	03-Feb-2026 00:00	SW05_260203			✓	✓	✓	✓	
ES2603436-010	03-Feb-2026 00:00	SW03_260203			✓	✓	✓	✓	
ES2603436-011	03-Feb-2026 00:00	SW07_260203			✓	✓	✓	✓	
ES2603436-012	03-Feb-2026 00:00	MW02_260203			✓	✓	✓	✓	



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

Requested Deliverables

DANIEL COFFEY

- *AU Certificate of Analysis - NATA (COA)	Email	daniel.coffey@jacobs.com
- *AU Interpretive QC Report - DEFAULT (Anon QCI Rep) (QCI)	Email	daniel.coffey@jacobs.com
- *AU QC Report - DEFAULT (Anon QC Rep) - NATA (QC)	Email	daniel.coffey@jacobs.com
- A4 - AU Sample Receipt Notification - Environmental HT (SRN)	Email	daniel.coffey@jacobs.com
- A4 - AU Tax Invoice (INV)	Email	daniel.coffey@jacobs.com
- Chain of Custody (CoC) (COC)	Email	daniel.coffey@jacobs.com
- EDI Format - ESDAT (ESDAT)	Email	daniel.coffey@jacobs.com

JACOBS INVOICES

- A4 - AU Tax Invoice (INV)	Email	auapinvoices@jacobs.com
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Inter-Laboratory Testing

Analysis conducted by ALS Darwin, NATA accreditation no. 825, site no. 25820.

(WATER) MW023: Enterococci by Membrane Filtration

(WATER) MW006: Thermotolerant Coliforms & E.coli by MF



CERTIFICATE OF ANALYSIS

Work Order : **ES2603436**
Client : **JACOBS GROUP (AUSTRALIA) PTY LTD**
Contact : DANIEL COFFEY
Address : LEVEL 2 25 PARAP ROAD
PARAP NT 0804
Telephone : ----
Project : IW272400
Order number : 540003296
C-O-C number : ----
Sampler : DANIEL COFFEY
Site : ----
Quote number : ES24SINKNI0008_V2
No. of samples received : 12
No. of samples analysed : 12

Page : 1 of 24
Laboratory : Environmental Division Sydney
Contact : Jackie Chau
Address : 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone : +61-2-8784 8555
Date Samples Received : 03-Feb-2026 16:50
Date Analysis Commenced : 03-Feb-2026
Issue Date : 12-Feb-2026 14:48



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
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Prasanna Ganta	Team Leader - Microbiology/Phycology	Darwin Microbiology, Woolner, NT
Sanjeshni Jyoti	Senior Chemist Volatiles	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.

- EK071G: LOR raised for Reactive P on sample 2 & 12 due to sample matrix.
- Ep008: LOR raised for Chlorophyll-a due to sample matrix.
- MF = membrane filtration
- CFU = colony forming unit
- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 - 100cfu.
- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- MW006 is ALS's internal code and is equivalent to AS4276.5.
- Microbiological Comment: Membrane filtration results for MW006 sample no.003 are reported as estimate (~) due to the presence of many non-target organism colonies that may have inhibited the growth of the target organisms on the filter membrane. It may be informative to record this fact.
- EG035: Poor matrix spike recovery was obtained for Mercury on sample ES2603436 # 2. Confirmed by re-analysis.
- EN055: Ionic Balance out of acceptable limits for sample ES2603436-#009 due to analytes not quantified in this report.
- EP080: Sample TRIP SPIKE contains volatile compounds spiked into the sample containers prior to dispatch from the laboratory. BTEXN compounds spiked at 20 ug/L.
- MW023 is ALS's internal code and is equivalent to AS4276.9.
- EA016: Calculated TDS is determined from Electrical conductivity using a conversion factor of 0.65.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				MW01_260203	Q101_260203	MW06_260203	MW05_260203	QC102_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-001	ES2603436-002	ES2603436-003	ES2603436-004	ES2603436-005
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.89	6.19	6.70	3.50	6.63
EA006: Sodium Adsorption Ratio (SAR)								
^ Sodium Adsorption Ratio	----	0.01	-	20.6	21.9	2.87	23.9	2.92
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	4960	7350	470	12100	489
EA016: Calculated TDS (from Electrical Conductivity)								
Total Dissolved Solids (Calc.)	----	1	mg/L	3220	4780	306	7860	318
EA045: Turbidity								
Turbidity	----	0.1	NTU	13.8	618	1.8	6.7	10.2
EA065: Total Hardness as CaCO3								
Total Hardness as CaCO3	----	1	mg/L	338	614	77	1330	77
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	41	108	37	<1	37
Total Alkalinity as CaCO3	----	1	mg/L	41	108	37	<1	37
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	127	149	78	385	78
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1350	2510	72	4250	72
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	28	86	21	150	21
Magnesium	7439-95-4	1	mg/L	65	97	6	232	6
Sodium	7440-23-5	1	mg/L	871	1250	58	2000	59
Potassium	7440-09-7	1	mg/L	28	26	7	27	8
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	0.010	0.003	<0.001	0.034	<0.001
Boron	7440-42-8	0.05	mg/L	0.18	0.23	<0.05	0.07	<0.05

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW01_260203	Q101_260203	MW06_260203	MW05_260203	QC102_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-001	ES2603436-002	ES2603436-003	ES2603436-004	ES2603436-005	
				Result	Result	Result	Result	Result	
EG020F: Dissolved Metals by ICP-MS - Continued									
Barium	7440-39-3	0.001	mg/L	0.072	0.256	0.060	0.151	0.059	
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	0.007	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	0.0007	<0.0001	
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.001	<0.001	0.124	<0.001	
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	0.005	<0.001	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.459	<0.001	
Manganese	7439-96-5	0.001	mg/L	0.869	3.25	0.273	2.24	0.276	
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	0.184	0.001	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	0.041	<0.001	
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	0.022	<0.010	
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	0.018	<0.005	0.183	<0.005	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
EG049F: Dissolved Trivalent Chromium									
Trivalent Chromium	16065-83-1	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
EG050F: Dissolved Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.4	0.4	0.3	1.1	0.3	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.60	0.52	0.01	0.16	0.06	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	1.13	3.66	1.04	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW01_260203	Q101_260203	MW06_260203	MW05_260203	QC102_260203
Sampling date / time					03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit		ES2603436-001	ES2603436-002	ES2603436-003	ES2603436-004	ES2603436-005
					Result	Result	Result	Result	Result
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser - Continued									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	<0.01	1.13	3.66	1.04
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		0.7	1.6	0.2	0.3	0.2
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		0.7	1.6	1.3	4.0	1.2
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		0.02	0.23	0.01	0.04	0.02
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	<0.10	<0.01	0.03	<0.01
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		41.5	76.1	4.39	128	4.39
ø Total Cations	----	0.01	meq/L		45.3	67.3	4.24	114	4.31
ø Ionic Balance	----	0.01	%		4.38	6.10	1.74	5.63	0.94
EP008: Chlorophyll a & Pheophytin a									
Chlorophyll a	----	1	mg/m³		<1	----	<1	<1	----
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		7.3	3.7	7.2	8.6	5.9
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L		<2	----	<2	<2	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				MW01_260203	Q101_260203	MW06_260203	MW05_260203	QC102_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-001	ES2603436-002	ES2603436-003	ES2603436-004	ES2603436-005
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	<20	<20	<20
>C10 - C16 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	<100	<100	<100	<100
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	<100	<100	<100
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	<1



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				MW01_260203	Q101_260203	MW06_260203	MW05_260203	QC102_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-001	ES2603436-002	ES2603436-003	ES2603436-004	ES2603436-005
				Result	Result	Result	Result	Result
EP080: BTEXN - Continued								
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	<2
^ Total Xylenes	-----	2	µg/L	<2	<2	<2	<2	<2
^ Sum of BTEX	-----	1	µg/L	<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L	<5	<5	<5	<5	<5
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<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	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<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	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<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	<0.1	<0.1	<0.1	<0.1	<0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.43	0.25	0.02	0.08	0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.36	0.15	<0.02	0.04	<0.02
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.17	0.07	<0.02	<0.02	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.10	0.02	<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



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				MW01_260203	Q101_260203	MW06_260203	MW05_260203	QC102_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-001	ES2603436-002	ES2603436-003	ES2603436-004	ES2603436-005
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
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
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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
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	1.53	<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



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW01_260203	Q101_260203	MW06_260203	MW05_260203	QC102_260203
Sampling date / time					03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit		ES2603436-001	ES2603436-002	ES2603436-003	ES2603436-004	ES2603436-005
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
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		2.61	0.49	0.02	0.12	0.02
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		2.59	0.49	0.02	0.12	0.02
MW006: Thermotolerant Coliforms & E.coli by MF									
Escherichia coli	----	1	CFU/100mL		~1	----	~8	<1	----
MW023: Enterococci by Membrane Filtration									
Enterococci	----	1	CFU/100mL		<1	----	<1	<1	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		18.1	19.0	18.4	16.2	21.0
2-Chlorophenol-D4	93951-73-6	1.0	%		38.8	41.0	45.2	37.2	47.6
2,4,6-Tribromophenol	118-79-6	1.0	%		40.8	46.4	42.7	38.0	51.7
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		46.8	47.5	52.3	43.8	57.6
Anthracene-d10	1719-06-8	1.0	%		54.9	55.5	71.1	48.6	64.7
4-Terphenyl-d14	1718-51-0	1.0	%		65.4	69.0	65.7	57.2	79.1
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%		108	119	121	110	116
Toluene-D8	2037-26-5	2	%		93.2	104	104	94.1	94.8
4-Bromofluorobenzene	460-00-4	2	%		97.4	104	106	98.7	98.2
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		93.8	94.1	93.5	96.7	96.0
13C8-PFOA	----	0.02	%		95.5	97.8	98.0	94.2	97.6



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				QC301_260203	QC501_260203	QC601_260203	SW05_260203	SW03_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-006	ES2603436-007	ES2603436-008	ES2603436-009	ES2603436-010
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	----	----	----	6.80	6.82
EA006: Sodium Adsorption Ratio (SAR)								
^ Sodium Adsorption Ratio	----	0.01	-	----	----	----	2.39	1.13
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	----	----	----	345	79
EA016: Calculated TDS (from Electrical Conductivity)								
Total Dissolved Solids (Calc.)	----	1	mg/L	----	----	----	224	51
EA045: Turbidity								
Turbidity	----	0.1	NTU	----	----	----	14.1	1.5
EA065: Total Hardness as CaCO3								
Total Hardness as CaCO3	----	1	mg/L	----	----	----	30	10
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	----	----	----	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	----	----	----	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	----	----	----	17	10
Total Alkalinity as CaCO3	----	1	mg/L	----	----	----	17	10
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	----	----	----	19	12
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	----	----	----	79	15
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	----	----	----	7	4
Magnesium	7439-95-4	1	mg/L	----	----	----	3	<1
Sodium	7440-23-5	1	mg/L	----	----	----	30	9
Potassium	7440-09-7	1	mg/L	----	----	----	2	<1
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	----	----	----	<0.001	<0.001
Boron	7440-42-8	0.05	mg/L	----	----	----	<0.05	<0.05



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC301_260203	QC501_260203	QC601_260203	SW05_260203	SW03_260203
Sampling date / time					03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit		ES2603436-006	ES2603436-007	ES2603436-008	ES2603436-009	ES2603436-010
					Result	Result	Result	Result	Result
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser - Continued									
Nitrite + Nitrate as N	----	0.01	mg/L		----	----	----	0.05	<0.01
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		----	----	----	0.3	0.4
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		----	----	----	0.4	0.4
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		----	----	----	0.09	0.01
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		----	----	----	<0.01	<0.01
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	----	----	2.96	0.87
ø Total Cations	----	0.01	meq/L		----	----	----	1.95	0.59
EP008: Chlorophyll a & Pheophytin a									
Chlorophyll a	----	1	mg/m³		----	----	----	<1	2
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		----	----	----	8.3	8.6
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L		----	----	----	3	2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		----	----	----	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		----	----	----	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L		----	----	----	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L		----	----	----	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L		----	----	----	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L		----	----	----	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L		----	----	----	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L		----	----	----	<1.0	<1.0
Benz(a)anthracene	56-55-3	1.0	µg/L		----	----	----	<1.0	<1.0



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				QC301_260203	QC501_260203	QC601_260203	SW05_260203	SW03_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-006	ES2603436-007	ES2603436-008	ES2603436-009	ES2603436-010
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Chrysene	218-01-9	1.0	µg/L	----	----	----	<1.0	<1.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	----	----	----	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	----	----	----	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	----	----	----	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	----	----	----	<1.0	<1.0
Dibenz(a,h)anthracene	53-70-3	1.0	µg/L	----	----	----	<1.0	<1.0
Benzo(g,h,i)perylene	191-24-2	1.0	µg/L	----	----	----	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	----	----	----	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	----	----	----	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	----	<20	<20
C10 - C14 Fraction	----	50	µg/L	----	----	----	<50	<50
C15 - C28 Fraction	----	100	µg/L	----	----	----	<100	<100
C29 - C36 Fraction	----	50	µg/L	----	----	----	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	----	----	----	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	----	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	----	<20	<20
>C10 - C16 Fraction	----	100	µg/L	----	----	----	<100	<100
>C16 - C34 Fraction	----	100	µg/L	----	----	----	<100	<100
>C34 - C40 Fraction	----	100	µg/L	----	----	----	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	----	----	----	<100	<100
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	----	----	----	<100	<100
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	16	<1	<1
Toluene	108-88-3	2	µg/L	<2	<2	16	<2	<2



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				QC301_260203	QC501_260203	QC601_260203	SW05_260203	SW03_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-006	ES2603436-007	ES2603436-008	ES2603436-009	ES2603436-010
				Result	Result	Result	Result	Result
EP080: BTEXN - Continued								
Ethylbenzene	100-41-4	2	µg/L	<2	<2	15	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	15	<2	<2
ortho-Xylene	95-47-6	2	µg/L	<2	<2	17	<2	<2
^ Total Xylenes	----	2	µg/L	<2	<2	32	<2	<2
^ Sum of BTEX	----	1	µg/L	<1	<1	79	<1	<1
Naphthalene	91-20-3	5	µg/L	<5	<5	18	<5	<5
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	----	----	----	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	----	----	<0.02	<0.02
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	----	----	----	<0.02	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	----	----	<0.01	<0.01
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	<0.01	----	----	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	----	----	----	<0.02	<0.02
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	0.1
Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	----	----	0.12	0.79
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	----	----	0.06	0.76
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	----	----	0.03	0.28
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	----	----	<0.01	0.08
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	----	----	----	<0.02	0.03
Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	----	----	----	<0.02	<0.02



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				QC301_260203	QC501_260203	QC601_260203	SW05_260203	SW03_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603436-006	ES2603436-007	ES2603436-008	ES2603436-009	ES2603436-010
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
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
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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
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	<0.05
6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.05	µg/L	<0.05	----	----	0.16	0.49
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	<0.05	0.09
10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.05	µg/L	<0.05	----	----	<0.05	<0.05



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	QC301_260203	QC501_260203	QC601_260203	SW05_260203	SW03_260203
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	03-Feb-2026 00:00	
Compound	CAS Number	LOR	Unit	ES2603436-006	ES2603436-007	ES2603436-008	ES2603436-009	ES2603436-010	
				Result	Result	Result	Result	Result	
EP231P: PFAS Sums									
Sum of PFAS	----	0.01	µg/L	----	----	----	0.37	2.62	
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L	<0.01	----	----	<0.01	<0.01	
Sum of PFAS (WA DER List)	----	0.01	µg/L	<0.01	----	----	0.37	2.59	
MW006: Thermotolerant Coliforms & E.coli by MF									
Escherichia coli	----	1	CFU/100mL	----	----	----	2800	510	
MW023: Enterococci by Membrane Filtration									
Enterococci	----	1	CFU/100mL	----	----	----	530	~110	
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%	----	----	----	16.0	13.2	
2-Chlorophenol-D4	93951-73-6	1.0	%	----	----	----	38.4	31.1	
2,4,6-Tribromophenol	118-79-6	1.0	%	----	----	----	38.4	33.5	
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%	----	----	----	42.5	32.0	
Anthracene-d10	1719-06-8	1.0	%	----	----	----	49.7	38.9	
4-Terphenyl-d14	1718-51-0	1.0	%	----	----	----	60.4	46.0	
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%	122	115	104	111	109	
Toluene-D8	2037-26-5	2	%	100	98.3	101	101	101	
4-Bromofluorobenzene	460-00-4	2	%	104	102	100	102	101	
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%	97.4	----	----	97.0	95.9	
13C8-PFOA	----	0.02	%	97.6	----	----	99.2	96.6	



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SW07_260203	MW02_260203	----	----	----
Sampling date / time					03-Feb-2026 00:00	03-Feb-2026 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2603436-011	ES2603436-012	-----	-----	-----
				Result	Result		----	----	----
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit		6.70	6.10	----	----	----
EA006: Sodium Adsorption Ratio (SAR)									
[^] Sodium Adsorption Ratio	----	0.01	-		1.73	22.1	----	----	----
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm		84	7410	----	----	----
EA016: Calculated TDS (from Electrical Conductivity)									
Total Dissolved Solids (Calc.)	----	1	mg/L		55	4820	----	----	----
EA045: Turbidity									
Turbidity	----	0.1	NTU		10.8	829	----	----	----
EA065: Total Hardness as CaCO3									
Total Hardness as CaCO3	----	1	mg/L		9	625	----	----	----
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	----	1	mg/L		<1	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		6	96	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L		6	96	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		1	145	----	----	----
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		19	2600	----	----	----
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		2	87	----	----	----
Magnesium	7439-95-4	1	mg/L		1	99	----	----	----
Sodium	7440-23-5	1	mg/L		12	1270	----	----	----
Potassium	7440-09-7	1	mg/L		<1	27	----	----	----
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		<0.001	0.005	----	----	----
Boron	7440-42-8	0.05	mg/L		<0.05	0.24	----	----	----

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SW07_260203	MW02_260203	----	----	----
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	----	----	----	
Compound	CAS Number	LOR	Unit	ES2603436-011	ES2603436-012	-----	-----	-----	
				Result	Result	----	----	----	
EG020F: Dissolved Metals by ICP-MS - Continued									
Barium	7440-39-3	0.001	mg/L	0.014	0.257	----	----	----	
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	----	----	----	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	----	----	----	
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.001	----	----	----	
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	----	----	----	
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	----	----	----	
Manganese	7439-96-5	0.001	mg/L	0.011	3.30	----	----	----	
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	----	----	----	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	----	----	----	
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	----	----	----	
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	----	----	----	
Zinc	7440-66-6	0.005	mg/L	<0.005	0.020	----	----	----	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	----	----	----	
EG049F: Dissolved Trivalent Chromium									
Trivalent Chromium	16065-83-1	0.01	mg/L	<0.01	<0.01	----	----	----	
EG050F: Dissolved Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	<0.01	----	----	----	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	<0.1	0.3	----	----	----	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.53	----	----	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	----	----	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	----	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SW07_260203	MW02_260203	----	----	----
Sampling date / time					03-Feb-2026 00:00	03-Feb-2026 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2603436-011	ES2603436-012	-----	-----	-----
				Result	Result		----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser - Continued									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	<0.01	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		0.3	1.4	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		0.3	1.4	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		0.06	0.31	----	----	----
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	<0.10	----	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		0.68	78.3	----	----	----
ø Total Cations	----	0.01	meq/L		0.70	68.4	----	----	----
ø Ionic Balance	----	0.01	%		----	6.72	----	----	----
EP008: Chlorophyll a & Pheophytin a									
Chlorophyll a	----	1	mg/m³		66	<2	----	----	----
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		9.4	4.6	----	----	----
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L		5	<2	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	----	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	----	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	----	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	----	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	----	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	----	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SW07_260203	MW02_260203	----	----	----
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2603436-011	ES2603436-012	-----	-----	-----
				Result	Result	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	----	----	----
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	<1.0	<1.0	----	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	----	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	----	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	----	----	----
C10 - C14 Fraction	----	50	µg/L	<50	<50	----	----	----
C15 - C28 Fraction	----	100	µg/L	<100	<100	----	----	----
C29 - C36 Fraction	----	50	µg/L	<50	<50	----	----	----
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	<50	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	----	----	----
>C10 - C16 Fraction	----	100	µg/L	<100	<100	----	----	----
>C16 - C34 Fraction	----	100	µg/L	<100	<100	----	----	----
>C34 - C40 Fraction	----	100	µg/L	<100	<100	----	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	<100	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	----	----	----
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SW07_260203	MW02_260203	----	----	----
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2603436-011	ES2603436-012	-----	-----	-----
				Result	Result	----	----	----
EP080: BTEXN - Continued								
Toluene	108-88-3	2	µg/L	<2	<2	----	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	<2	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	----	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	<2	----	----	----
^ Total Xylenes	-----	2	µg/L	<2	<2	----	----	----
^ Sum of BTEX	-----	1	µg/L	<1	<1	----	----	----
Naphthalene	91-20-3	5	µg/L	<5	<5	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	<0.02	----	----	----
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<0.01	----	----	----
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	<0.01	<0.01	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	----	----	----
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	0.24	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.15	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.07	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.02	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	<0.02	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SW07_260203	MW02_260203	----	----	----
Sampling date / time				03-Feb-2026 00:00	03-Feb-2026 00:00	----	----	----
Compound	CAS Number	LOR	Unit	ES2603436-011	ES2603436-012	-----	-----	-----
				Result	Result	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
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	----	----	----
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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	----	----	----
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	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SW07_260203	MW02_260203	----	----	----
Sampling date / time					03-Feb-2026 00:00	03-Feb-2026 00:00	----	----	----
Compound	CAS Number	LOR	Unit		ES2603436-011	ES2603436-012	-----	-----	-----
				Result	Result		----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
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		<0.01	0.48	----	----	----
Sum of PFHxS and PFOS	355-46-4/1763-23-1	0.01	µg/L		<0.01	<0.01	----	----	----
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	0.48	----	----	----
MW006: Thermotolerant Coliforms & E.coli by MF									
Escherichia coli	----	1	CFU/100mL		4000	~2	----	----	----
MW023: Enterococci by Membrane Filtration									
Enterococci	----	1	CFU/100mL		780	~3	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		22.3	19.3	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		40.5	42.8	----	----	----
2,4,6-Tribromophenol	118-79-6	1.0	%		33.0	48.9	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		32.3	43.7	----	----	----
Anthracene-d10	1719-06-8	1.0	%		39.8	58.1	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		49.2	68.8	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%		104	111	----	----	----
Toluene-D8	2037-26-5	2	%		93.4	90.6	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		94.5	91.5	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		96.2	101	----	----	----
13C8-PFOA	----	0.02	%		96.7	97.5	----	----	----



Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2,4,6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72	143
Toluene-D8	2037-26-5	75	131
4-Bromofluorobenzene	460-00-4	73	137
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Inter-Laboratory Testing

Analysis conducted by ALS Darwin, NATA accreditation no. 825, site no. 25820.

(WATER) MW023: Enterococci by Membrane Filtration

(WATER) MW006: Thermotolerant Coliforms & E.coli by MF



QUALITY CONTROL REPORT

Work Order : **ES2603436**

Page : 1 of 16

Client : **JACOBS GROUP (AUSTRALIA) PTY LTD**

Laboratory : Environmental Division Sydney

Contact : **DANIEL COFFEY**

Contact : Jackie Chau

Address : **LEVEL 2 25 PARAP ROAD**
PARAP NT 0804

Address : 277-289 Woodpark Road Smithfield NSW Australia 2164

Telephone : ----

Telephone : +61-2-8784 8555

Project : **IW272400**

Date Samples Received : 03-Feb-2026

Order number : **540003296**

Date Analysis Commenced : 03-Feb-2026

C-O-C number : ----

Issue Date : 12-Feb-2026

Sampler : **DANIEL COFFEY**

Site : ----

Quote number : **ES24SINKNI0008_V2**

No. of samples received : 12

No. of samples analysed : 12



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
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Prasanna Ganta	Team Leader - Microbiology/Phycology	Darwin Microbiology, Woolner, NT
Sanjeshni Jyoti	Senior Chemist Volatiles	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

* = The final LOR has been raised due to dilution or other sample specific cause; adjusted LOR is shown in brackets. The duplicate ranges for Acceptable RPD% are applied to the final LOR where applicable.

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 (%)
EA005P: pH by PC Titrator (QC Lot: 7179790)									
ES2603436-001	MW01_260203	EA005-P: pH Value	----	0.01	pH Unit	6.89	6.95	0.9	0% - 20%
ES2603478-001	Anonymous	EA005-P: pH Value	----	0.01	pH Unit	4.32	4.35	0.7	0% - 20%
EA010P: Conductivity by PC Titrator (QC Lot: 7179793)									
EW2600630-007	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	<1	0.0	No Limit
ES2603436-001	MW01_260203	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	4960	4820	2.9	0% - 20%
EW2600625-011	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	<1	0.0	No Limit
EW2600630-002	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	179	182	1.2	0% - 20%
ES2603478-001	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	43700	43300	0.8	0% - 20%
EA045: Turbidity (QC Lot: 7179565)									
ES2603420-002	Anonymous	EA045: Turbidity	----	0.1	NTU	0.3	0.3	0.0	No Limit
ES2603436-005	QC102_260203	EA045: Turbidity	----	0.1	NTU	10.2	10.0	2.3	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 7179794)									
ES2603436-001	MW01_260203	ED037-P: Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	41	42	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO ₃	----	1	mg/L	41	42	0.0	0% - 20%
ES2603478-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Total Alkalinity as CaCO ₃	----	1	mg/L	<1	<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 (%)
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 7179155)									
ES2603436-001	MW01_260203	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	127	129	1.9	0% - 20%
ES2603505-002	Anonymous	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	<1	0.0	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 7179158)									
ES2603436-001	MW01_260203	ED045G: Chloride	16887-00-6	1	mg/L	1350	1370	1.1	0% - 20%
ES2603505-002	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	4	4	0.0	No Limit
ED093F: Dissolved Major Cations (QC Lot: 7187787)									
EN2601875-004	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	174	173	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	47	47	0.0	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	760	754	0.8	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	35	34	3.1	0% - 20%
ES2603436-002	Q101_260203	ED093F: Calcium	7440-70-2	1	mg/L	86	86	0.0	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	97	98	0.0	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	1250	1260	0.5	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	26	26	0.0	0% - 20%
EG020F: Dissolved Metals by ICP-MS (QC Lot: 7187789)									
EN2601924-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.003	0.003	0.0	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.088	0.091	2.6	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.003	0.004	0.0	No Limit
		EG020A-F: Selenium	7782-49-2	0.004 (0.010) *	mg/L	<0.010	<0.010	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	0.95	0.94	0.0	0% - 50%
ES2603436-002	Q101_260203	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.003	0.003	0.0	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.256	0.250	2.2	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	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 (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 7187789) - continued									
ES2603436-002	Q101_260203	EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	3.25	3.28	0.8	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Selenium	7782-49-2	0.004 (0.010) *	mg/L	<0.010	<0.010	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.018	0.017	0.0	No Limit
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	0.23	0.22	0.0	No Limit
EG020F: Dissolved Metals by ICP-MS (QC Lot: 7187791)									
EW2600573-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.004	0.004	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.001	<0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.094	0.095	0.0	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Selenium	7782-49-2	0.004	mg/L	<0.004	<0.004	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.015	0.015	0.0	No Limit
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	0.10	<0.05	62.3	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 7187785)									
EN2601875-005	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EN2601924-005	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 7187790)									
ES2603436-003	MW06_260203	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
ES2603606-001	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EG050F: Dissolved Hexavalent Chromium (QC Lot: 7187492)									
EN2601875-002	Anonymous	EG050G-F: Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2603436-001	MW01_260203	EG050G-F: Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK040P: Fluoride by PC Titrator (QC Lot: 7179792)									
ES2603436-001	MW01_260203	EK040P: Fluoride	16984-48-8	0.1	mg/L	0.4	0.4	0.0	No Limit
ES2603478-001	Anonymous	EK040P: Fluoride	16984-48-8	0.1	mg/L	0.3	0.3	0.0	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 7187981)									
EN2601924-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.11	0.11	0.0	0% - 50%



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 (%)
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 7187981) - continued									
EN2601924-010	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 7179157)									
ES2603436-001	MW01_260203	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2603505-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 7187980)									
EN2601924-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EN2601924-010	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 7187973)									
EN2601924-001	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.6	0.6	0.0	No Limit
ES2603436-001	MW01_260203	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.7	0.7	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 7187972)									
EN2601924-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.02	0.03	0.0	No Limit
ES2603436-001	MW01_260203	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.02	0.02	0.0	No Limit
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 7187974)									
ES2603716-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	12.3	12.0	2.1	0% - 20%
ES2603980-012	Anonymous	EK067G: Total Phosphorus as P	----	0.01	mg/L	0.06	0.07	16.0	No Limit
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 7179156)									
ES2603436-001	MW01_260203	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
ES2603505-002	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP030: Biochemical Oxygen Demand (BOD) (QC Lot: 7179236)									
EN2601721-005	Anonymous	EP030: Biochemical Oxygen Demand	----	2	mg/L	5	5	0.0	No Limit
ES2603436-010	SW03_260203	EP030: Biochemical Oxygen Demand	----	2	mg/L	2	<2	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 7181266)									
EN2601792-001	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2603436-004	MW05_260203	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 7181266)									
EN2601792-001	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2603436-004	MW05_260203	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 7181266)									
EN2601792-001	Anonymous	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	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 (%)
EP080: BTEXN (QC Lot: 7181266) - continued									
ES2603436-004	MW05_260203	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
		EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 7184960)									
ES2603722-001	Anonymous	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: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	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: Perfluorononane sulfonic acid (PFNS)	68259-12-1	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
ES2603722-003	Anonymous	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: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	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: Perfluorononane sulfonic acid (PFNS)	68259-12-1	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: 7184960)									
ES2603722-001	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: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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
		ES2603722-003	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<0.01

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: 7184960) - continued									
ES2603722-003	Anonymous	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: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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: 7184960)									
ES2603722-001	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
ES2603722-003	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: 7184960)									



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 (%)
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QC Lot: 7184960) - continued									
ES2603722-001	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
ES2603722-003	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: 7184960)									
ES2603722-001	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
ES2603722-003	Anonymous	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**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EA005P: pH by PC Titrator (QCLot: 7179790)								
EA005-P: pH Value	----	----	pH Unit	----	4 pH Unit	99.2	98.8	101
				----	7 pH Unit	99.9	99.2	101
EA010P: Conductivity by PC Titrator (QCLot: 7179793)								
EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	220 µS/cm	104	89.9	110
				<1	2100 µS/cm	103	90.2	111
EA045: Turbidity (QCLot: 7179565)								
EA045: Turbidity	----	0.1	NTU	<0.1	4 NTU	99.0	90.0	110
				<0.1	40 NTU	99.8	91.0	105
				<0.1	400 NTU	99.8	90.0	110
ED037P: Alkalinity by PC Titrator (QCLot: 7179794)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	97.7	81.0	115
				----	50 mg/L	99.6	80.0	128
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 7179155)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	102	82.0	122
				<1	500 mg/L	96.1	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 7179158)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	103	80.9	127
				<1	1000 mg/L	92.7	80.9	127
ED093F: Dissolved Major Cations (QCLot: 7187787)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	94.1	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	102	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	98.5	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	96.4	85.0	113
EG020F: Dissolved Metals by ICP-MS (QCLot: 7187789)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	93.6	85.0	114
EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	0.1 mg/L	96.3	85.0	115
EG020A-F: Barium	7440-39-3	0.001	mg/L	<0.001	0.1 mg/L	96.5	82.0	110
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	91.2	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	93.7	85.0	111
EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	0.1 mg/L	91.7	82.0	112
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	91.9	81.0	111



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 7187789) - continued								
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	89.5	83.0	111
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	90.8	82.0	110
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	93.0	82.0	112
EG020A-F: Selenium	7782-49-2	0.004	mg/L	<0.004	0.1 mg/L	91.0	85.0	115
EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	0.1 mg/L	93.6	83.0	109
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	93.7	81.0	117
EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	0.5 mg/L	105	85.0	115
EG020F: Dissolved Metals by ICP-MS (QCLot: 7187791)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	97.4	85.0	114
EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	0.1 mg/L	102	85.0	115
EG020A-F: Barium	7440-39-3	0.001	mg/L	<0.001	0.1 mg/L	97.8	82.0	110
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	93.4	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	98.2	85.0	111
EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	0.1 mg/L	98.5	82.0	112
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	97.7	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	93.6	83.0	111
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	91.2	82.0	110
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	101	82.0	112
EG020A-F: Selenium	7782-49-2	0.004	mg/L	<0.004	0.1 mg/L	94.9	85.0	115
EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	0.1 mg/L	96.0	83.0	109
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	97.1	81.0	117
EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	0.5 mg/L	89.3	85.0	115
EG035F: Dissolved Mercury by FIMS (QCLot: 7187785)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	95.3	83.0	105
EG035F: Dissolved Mercury by FIMS (QCLot: 7187790)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	97.1	83.0	105
EG050F: Dissolved Hexavalent Chromium (QCLot: 7187492)								
EG050G-F: Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	0.05 mg/L	99.3	86.0	112
EK040P: Fluoride by PC Titrator (QCLot: 7179792)								
EK040P: Fluoride	16984-48-8	0.1	mg/L	<0.1	5 mg/L	95.3	82.0	116
EK055G: Ammonia as N by Discrete Analyser (QCLot: 7187981)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.5 mg/L	107	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 7179157)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	97.8	82.0	114



Sub-Matrix: **WATER**

Method Blank (MB) Report				Laboratory Control Spike (LCS) Report				
				Spike Concentration	Spike Recovery (%)		Acceptable Limits (%)	
					LCS		Low	High
Method: Compound	CAS Number	LOR	Unit	Result				
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 7187980)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	104	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 7187973)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	93.7	69.0	123
				<0.1	2.5 mg/L	91.8	70.0	123
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 7187972)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	98.5	71.3	126
				<0.01	0.5 mg/L	90.1	71.3	126
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 7187974)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	96.3	71.3	126
				<0.01	0.5 mg/L	96.7	71.3	126
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 7179156)								
EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	92.1	85.0	117
EP008: Chlorophyll (QCLot: 7179257)								
EP008: Chlorophyll a	----	1	mg/m ³	<1	20 mg/m ³	91.6	70.0	130
EP030: Biochemical Oxygen Demand (BOD) (QCLot: 7179236)								
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	200 mg/L	82.0	74.0	112
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 7179049)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	69.6	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	67.6	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	66.4	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	72.1	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	74.8	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	83.7	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	90.9	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	91.5	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	89.8	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	95.6	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	1	µg/L	<1.0	5 µg/L	92.1	61.7	119
	205-82-3							
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	87.6	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	98.2	63.3	117
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	86.6	59.9	118
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	88.0	61.2	117
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	83.5	59.1	118



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP080/071: Total Petroleum Hydrocarbons (QCLot: 7179050)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	81.0	53.7	97.0
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	83.7	63.3	107
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	91.5	58.3	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 7181266)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	88.6	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 7179050)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	84.6	53.9	95.5
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	85.7	57.8	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	91.8	50.5	115
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 7181266)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	89.9	75.0	127
EP080: BTEXN (QCLot: 7181266)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	102	68.3	119
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	107	73.5	120
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	92.5	73.8	122
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	94.3	73.0	122
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	103	76.4	123
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	95.5	75.5	124
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 7184960)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.25 µg/L	95.6	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	94.7	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	93.9	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	88.2	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	103	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	91.3	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.25 µg/L	87.7	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	85.3	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7184960)								
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	114	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	106	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	112	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	101	71.0	133



Sub-Matrix: WATER

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result		LCS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7184960) - continued								
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	105	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	108	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	115	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	110	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	105	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	99.6	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 7184960)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	99.6	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	124	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	127	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	114	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	111	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	117	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	97.7	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 7184960)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	101	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	89.0	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	92.5	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	87.9	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

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 7179155)							
ES2603436-001	MW01_260203	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	10 mg/L	# Not Determined	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 7179158)							

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED045G: Chloride by Discrete Analyser (QCLot: 7179158) - continued							
ES2603436-001	MW01_260203	ED045G: Chloride	16887-00-6	250 mg/L	# Not Determined	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 7187789)							
EN2601924-002	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	102	70.0	130
		EG020A-F: Beryllium	7440-41-7	1 mg/L	90.2	70.0	130
		EG020A-F: Barium	7440-39-3	1 mg/L	97.7	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	93.1	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	95.7	70.0	130
		EG020A-F: Cobalt	7440-48-4	1 mg/L	99.0	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	98.9	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	99.6	70.0	130
		EG020A-F: Manganese	7439-96-5	1 mg/L	92.9	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	102	70.0	130
		EG020A-F: Vanadium	7440-62-2	1 mg/L	94.8	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	100	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 7187791)							
ES2603436-011	SW07_260203	EG020A-F: Arsenic	7440-38-2	1 mg/L	93.0	70.0	130
		EG020A-F: Beryllium	7440-41-7	1 mg/L	87.9	70.0	130
		EG020A-F: Barium	7440-39-3	1 mg/L	94.9	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	92.8	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	98.6	70.0	130
		EG020A-F: Cobalt	7440-48-4	1 mg/L	97.0	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	97.3	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	101	70.0	130
		EG020A-F: Manganese	7439-96-5	1 mg/L	95.9	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	100	70.0	130
		EG020A-F: Vanadium	7440-62-2	1 mg/L	95.7	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	98.7	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 7187785)							
EN2601875-004	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	106	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 7187790)							
ES2603436-002	Q101_260203	EG035F: Mercury	7439-97-6	0.01 mg/L	# 45.0	70.0	130
EG050F: Dissolved Hexavalent Chromium (QCLot: 7187492)							
EN2601875-002	Anonymous	EG050G-F: Hexavalent Chromium	18540-29-9	0.05 mg/L	105	70.0	130
EK040P: Fluoride by PC Titrator (QCLot: 7179792)							
ES2603436-002	Q101_260203	EK040P: Fluoride	16984-48-8	5 mg/L	96.5	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 7187981)							

EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7184960)



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7184960) - continued							
ES2603722-002	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	110	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	117	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	107	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	109	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	102	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	103	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	113	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	115	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	118	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	116	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	100	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 7184960)							
ES2603722-002	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	98.3	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	107	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	106	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	112	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	118	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	115	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	102	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 7184960)							
ES2603722-002	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	82.0	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	92.0	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	91.0	71.4	144



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: ES2603436	Page	: 1 of 15
Client	: JACOBS GROUP (AUSTRALIA) PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: DANIEL COFFEY	Telephone	: +61-2-8784 8555
Project	: IW272400	Date Samples Received	: 03-Feb-2026
Site	: ----	Issue Date	: 12-Feb-2026
Sampler	: DANIEL COFFEY	No. of samples received	: 12
Order number	: 540003296	No. of samples analysed	: 12

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, where applicable to the methodology, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers exist - please see following pages for full details.

Page : 2 of 15
 Work Order : ES2603436
 Client : JACOBS GROUP (AUSTRALIA) PTY LTD
 Project : IW272400



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							
ED041G: Sulfate (Turbidimetric) as SO ₄ 2- by DA	ES2603436--001	MW01_260203	Sulfate as SO ₄ - Turbidimetric	14808-79-8	Not Determined	----	MS recovery not determined, background level greater than or equal to 4x spike level.
ED045G: Chloride by Discrete Analyser	ES2603436--001	MW01_260203	Chloride	16887-00-6	Not Determined	----	MS recovery not determined, background level greater than or equal to 4x spike level.
EG035F: Dissolved Mercury by FIMS	ES2603436--002	Q101_260203	Mercury	7439-97-6	45.0 %	70.0-130%	Recovery less than lower data quality objective

Outliers : Analysis Holding Time Compliance

Matrix: **WATER**

Method		Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA005P: pH by PC Titrator							
Clear Plastic Bottle - Natural							
MW01_260203, MW06_260203, QC102_260203, SW03_260203, MW02_260203	Q101_260203, MW05_260203, SW05_260203, SW07_260203,	----	----	----	05-Feb-2026	03-Feb-2026	2
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural							
MW01_260203, MW06_260203, QC102_260203, SW03_260203,	Q101_260203, MW05_260203, SW05_260203, MW02_260203	----	----	----	06-Feb-2026	05-Feb-2026	1
EK071G: Reactive Phosphorus as P by discrete analyser							
Clear Plastic Bottle - Natural							
MW01_260203, MW05_260203, SW05_260203, SW07_260203	MW06_260203, QC102_260203, SW03_260203,	----	----	----	06-Feb-2026	05-Feb-2026	1
EP025: Oxygen - Dissolved (DO)							
Clear Plastic Bottle - Natural							
MW01_260203, MW06_260203, QC102_260203, SW03_260203, MW02_260203	Q101_260203, MW05_260203, SW05_260203, SW07_260203,	----	----	----	05-Feb-2026	03-Feb-2026	2



Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
Dissolved Metals by ICP-MS - Suite A	EG020A-F	3	35	8.57	10.00	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	9	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	17	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	9	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	17	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

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
EA005P: pH by PC Titrator								
Clear Plastic Bottle - Natural (EA005-P)		03-Feb-2026	----	----	----	05-Feb-2026	03-Feb-2026	✖
MW01_260203,	Q101_260203,							
MW06_260203,	MW05_260203,							
QC102_260203,	SW05_260203,							
SW03_260203,	SW07_260203,							
MW02_260203								
EA006: Sodium Adsorption Ratio (SAR)								
Clear Plastic Bottle - Filtered; Lab-acidified (ED093F)		03-Feb-2026	----	----	----	10-Feb-2026	03-Mar-2026	✔
MW01_260203,	Q101_260203,							
MW06_260203,	MW05_260203,							
QC102_260203,	SW05_260203,							
SW03_260203,	SW07_260203,							
MW02_260203								
EA010P: Conductivity by PC Titrator								
Clear Plastic Bottle - Natural (EA010-P)		03-Feb-2026	----	----	----	05-Feb-2026	03-Mar-2026	✔
MW01_260203,	Q101_260203,							
MW06_260203,	MW05_260203,							
QC102_260203,	SW05_260203,							
SW03_260203,	SW07_260203,							
MW02_260203								



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	
EA045: Turbidity								
Clear Plastic Bottle - Natural (EA045) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	05-Feb-2026	05-Feb-2026	✔	
EA065: Total Hardness as CaCO3								
Clear Plastic Bottle - Filtered; Lab-acidified (ED093F) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	10-Feb-2026	03-Mar-2026	✔	
ED037P: Alkalinity by PC Titrator								
Clear Plastic Bottle - Natural (ED037-P) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	05-Feb-2026	17-Feb-2026	✔	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Clear Plastic Bottle - Natural (ED041G) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	06-Feb-2026	03-Mar-2026	✔	
ED045G: Chloride by Discrete Analyser								
Clear Plastic Bottle - Natural (ED045G) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	06-Feb-2026	03-Mar-2026	✔	
ED093F: Dissolved Major Cations								
Clear Plastic Bottle - Filtered; Lab-acidified (ED093F) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	10-Feb-2026	03-Mar-2026	✔	



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
EG020F: Dissolved Metals by ICP-MS							
Clear Plastic Bottle - Filtered; Lab-acidified (EG020A-F) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	10-Feb-2026	02-Aug-2026	✓
EG035F: Dissolved Mercury by FIMS							
Clear Plastic Bottle - Filtered; Lab-acidified (EG035F) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	12-Feb-2026	03-Mar-2026	✓
EG050F: Dissolved Hexavalent Chromium							
Clear Plastic Bottle - NaOH Filtered (EG050G-F) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	09-Feb-2026	03-Mar-2026	✓
EK040P: Fluoride by PC Titrator							
Clear Plastic Bottle - Natural (EK040P) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	05-Feb-2026	03-Mar-2026	✓
EK055G: Ammonia as N by Discrete Analyser							
Clear Plastic Bottle - Sulfuric Acid (EK055G) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	10-Feb-2026	03-Mar-2026	✓



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	
EK057G: Nitrite as N by Discrete Analyser								
Clear Plastic Bottle - Natural (EK057G) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203	03-Feb-2026	----	----	----	06-Feb-2026	05-Feb-2026	✘	
Clear Plastic Bottle - Natural (EK057G) SW07_260203	03-Feb-2026	----	----	----	05-Feb-2026	05-Feb-2026	✔	
Clear Plastic Bottle - Natural (EK057G) MW02_260203	03-Feb-2026	----	----	----	06-Feb-2026	05-Feb-2026	✘	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK059G) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	10-Feb-2026	03-Mar-2026	✔	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK061G) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	10-Feb-2026	03-Mar-2026	✔	10-Feb-2026	03-Mar-2026	✔	
EK067G: Total Phosphorus as P by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK067G) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	10-Feb-2026	03-Mar-2026	✔	10-Feb-2026	03-Mar-2026	✔	
EK071G: Reactive Phosphorus as P by discrete analyser								
Clear Plastic Bottle - Natural (EK071G) MW01_260203	03-Feb-2026	----	----	----	06-Feb-2026	05-Feb-2026	✘	
Clear Plastic Bottle - Natural (EK071G) Q101_260203	03-Feb-2026	----	----	----	05-Feb-2026	05-Feb-2026	✔	
Clear Plastic Bottle - Natural (EK071G) MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203	03-Feb-2026	----	----	----	06-Feb-2026	05-Feb-2026	✘	
Clear Plastic Bottle - Natural (EK071G) MW02_260203	03-Feb-2026	----	----	----	05-Feb-2026	05-Feb-2026	✔	



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	
EP008: Chlorophyll a & Pheophytin a								
Opaque Plastic Bottle - Unpreserved (EP008) MW01_260203, MW05_260203, SW03_260203, MW02_260203	MW06_260203, SW05_260203, SW07_260203	03-Feb-2026	----	----	----	05-Feb-2026	05-Feb-2026	✔
EP025: Oxygen - Dissolved (DO)								
Clear Plastic Bottle - Natural (EP025) MW01_260203, MW06_260203, QC102_260203, SW03_260203, MW02_260203	Q101_260203, MW05_260203, SW05_260203, SW07_260203	03-Feb-2026	----	----	----	05-Feb-2026	03-Feb-2026	✖
EP030: Biochemical Oxygen Demand (BOD)								
Clear Plastic Bottle - Natural (EP030) MW01_260203, MW05_260203, SW03_260203, MW02_260203	MW06_260203, SW05_260203, SW07_260203	03-Feb-2026	----	----	----	05-Feb-2026	05-Feb-2026	✔
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons								
Amber Glass Bottle - Unpreserved (EP075(SIM)) MW01_260203, MW06_260203, QC102_260203, SW03_260203, MW02_260203	Q101_260203, MW05_260203, SW05_260203, SW07_260203	03-Feb-2026	05-Feb-2026	10-Feb-2026	✔	06-Feb-2026	17-Mar-2026	✔
EP080/071: Total Petroleum Hydrocarbons								
Amber Glass Bottle - Unpreserved (EP071) MW01_260203, MW05_260203, SW05_260203, SW07_260203	Q101_260203, QC102_260203, SW03_260203, MW02_260203	03-Feb-2026	05-Feb-2026	10-Feb-2026	✔	09-Feb-2026	17-Mar-2026	✔
Amber Glass Bottle - Unpreserved (EP071) MW06_260203		03-Feb-2026	05-Feb-2026	10-Feb-2026	✔	10-Feb-2026	17-Mar-2026	✔
Amber VOC Vial - Sulfuric Acid (EP080) MW01_260203, MW06_260203, QC102_260203, QC501_260203, SW03_260203, MW02_260203	Q101_260203, MW05_260203, QC301_260203, SW05_260203, SW07_260203	03-Feb-2026	06-Feb-2026	17-Feb-2026	✔	07-Feb-2026	17-Feb-2026	✔



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
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) MW01_260203, Q101_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	05-Feb-2026	10-Feb-2026	✔	09-Feb-2026	17-Mar-2026	✔
Amber Glass Bottle - Unpreserved (EP071) MW06_260203	03-Feb-2026	05-Feb-2026	10-Feb-2026	✔	10-Feb-2026	17-Mar-2026	✔
Amber VOC Vial - Sulfuric Acid (EP080) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, QC301_260203, QC501_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	06-Feb-2026	17-Feb-2026	✔	07-Feb-2026	17-Feb-2026	✔
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, QC301_260203, QC501_260203, QC601_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	06-Feb-2026	17-Feb-2026	✔	07-Feb-2026	17-Feb-2026	✔
EP231A: Perfluoroalkyl Sulfonic Acids							
HDPE (no PTFE) (EP231X) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, QC301_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	09-Feb-2026	02-Aug-2026	✔	11-Feb-2026	02-Aug-2026	✔
EP231B: Perfluoroalkyl Carboxylic Acids							
HDPE (no PTFE) (EP231X) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, QC301_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	09-Feb-2026	02-Aug-2026	✔	11-Feb-2026	02-Aug-2026	✔

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
EP231C: Perfluoroalkyl Sulfonamides							
HDPE (no PTFE) (EP231X) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	09-Feb-2026	02-Aug-2026	✓	11-Feb-2026	02-Aug-2026	✓
EP231D: (n:2) Fluorotelomer Sulfonic Acids							
HDPE (no PTFE) (EP231X) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, QC301_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	09-Feb-2026	02-Aug-2026	✓	11-Feb-2026	02-Aug-2026	✓
EP231P: PFAS Sums							
HDPE (no PTFE) (EP231X) MW01_260203, Q101_260203, MW06_260203, MW05_260203, QC102_260203, QC301_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	09-Feb-2026	02-Aug-2026	✓	11-Feb-2026	02-Aug-2026	✓
MW006: Thermotolerant Coliforms & E.coli by MF							
Sterile Plastic Bottle - Sodium Thiosulfate (MW006) MW01_260203, MW06_260203, MW05_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	03-Feb-2026	04-Feb-2026	✓
MW023: Enterococci by Membrane Filtration							
Sterile Plastic Bottle - Sodium Thiosulfate (MW023) MW01_260203, MW06_260203, MW05_260203, SW05_260203, SW03_260203, SW07_260203, MW02_260203	03-Feb-2026	----	----	----	03-Feb-2026	04-Feb-2026	✓



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)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Biochemical Oxygen Demand (BOD)	EP030	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	5	43	11.63	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	3	35	8.57	10.00	✗	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	2	18	11.11	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	9	0.00	10.00	✗	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	19	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	17	0.00	10.00	✗	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Turbidity	EA045	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Biochemical Oxygen Demand (BOD)	EP030	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chlorophyll a and Pheophytin a	EP008	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	4	43	9.30	8.33	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	35	5.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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 Control Samples (LCS) - Continued							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Turbidity	EA045	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Biochemical Oxygen Demand (BOD)	EP030	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chlorophyll a and Pheophytin a	EP008	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	3	43	6.98	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	35	5.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	9	11.11	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	17	5.88	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Turbidity	EA045	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	35	5.71	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	1	18	5.56	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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	
Matrix Spikes (MS) - Continued							
Nitrite as N by Discrete Analyser	EK057G	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	9	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	19	5.26	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	40	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	17	0.00	5.00	✖	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	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
pH by Auto Titrator	EA005-P	WATER	In house: Referenced to APHA 4500 H+ B. This procedure determines pH of water samples by automated ISE. This method is compliant with NEPM Schedule B(3)
Conductivity by Auto Titrator	EA010-P	WATER	In house: Referenced to APHA 2510 B. This procedure determines conductivity by automated ISE. This method is compliant with NEPM Schedule B(3)
Calculated TDS (from Electrical Conductivity)	EA016	WATER	In house: Calculation from Electrical Conductivity (APHA 2510 B) using a conversion factor specified in the analytical report. This method is compliant with NEPM Schedule B(3)
Turbidity	EA045	WATER	In house: Referenced to APHA 2130 B. This method is compliant with NEPM Schedule B(3)
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. Auto Titrator) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO ₄ 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO ₄ . Dissolved sulfate is determined in a 0.45µm filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO ₄ suspension is measured by a photometer and the SO ₄ -2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G. The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocyanate forms highly-coloured ferric thiocyanate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
Trivalent Chromium - Dissolved	EG049G-F	WATER	In house: Referenced to APHA 3500 Cr-B & 3120/3125. Trivalent Chromium is the difference between total dissolved and dissolved hexavalent chromium.



Analytical Methods	Method	Matrix	Method Descriptions
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	WATER	In house: Referenced to APHA 3500 Cr-A & B. Samples are 0.45µm filtered prior to analysis. Hexavalent chromium is determined directly on water sample by Discrete Analyser as received by pH adjustment and colour development using dephenylcarbazine. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3).
Fluoride by Auto Titrator	EK040P	WATER	In house: Referenced to APHA 4500-F C: CDTA is added to the sample to provide a uniform ionic strength background, adjust pH, and break up complexes. Fluoride concentration is determined by either manual or automatic ISE measurement. This method is compliant with NEPM Schedule B(3)
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined separately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Reactive Phosphorus as P-By Discrete Analyser	EK071G	WATER	In house: Referenced to APHA 4500-P F Ammonium molybdate and potassium antimonyl tartrate reacts in acid medium with orthophosphate to form a heteropoly acid -phosphomolybdic acid - which is reduced to intensely coloured molybdenum blue by ascorbic acid. Quantification is by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030E. This method is compliant with NEPM Schedule B(3)
Chlorophyll a and Pheophytin a	EP008	WATER	In house: Referenced to APHA 10200 H. The pigments are extracted into aqueous acetone. The optical density of the extract before and after acidification at both 664 nm and 665 nm is determined spectrometrically.
Oxygen - Dissolved	EP025	WATER	In house: Referenced to APHA 4500-O G. Dissolved Oxygen Probe. This method is compliant with NEPM Schedule B(3)
Biochemical Oxygen Demand (BOD)	EP030	WATER	In house: Referenced to APHA 5210 B. The 5-Day BOD test provides an empirical measure of the oxygen consumption capacity of a given water. A portion of the sample is diluted into oxygenated, nutrient rich water, and a seed added to begin biological decay. The initial dissolved oxygen content is measured, then the bottle is sealed and incubated for five days. The remaining dissolved oxygen is measured, and from the difference, the demand for oxygen, by biological decay, is determined. This method is compliant with NEPM Schedule B(3).



Analytical Methods	Method	Matrix	Method Descriptions
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by solid phase extraction (SPE) followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. Isotope dilution standards (where commercially available) and surrogates are added to the sample container. The entire contents are transferred to a weak anion exchange (WAX) 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. Data quality objectives for internal standard recoveries are based on US EPA method 1633.
Thermotolerant Coliforms & E.coli by Membrane Filtration	MW006	WATER	AS 4276.5
Enumeration of Enterococci by Membrane Filtration	MW023	WATER	AS4276.9
Preparation Methods	Method	Matrix	Method Descriptions
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.
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.

Mandatory Fields

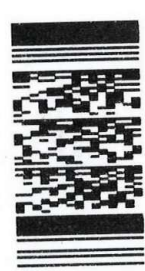
CHAIN OF CUSTODY

CLIENT CODE:	PROJECT MANAGER:	Daniel Coffey	SAMPLER:	Daniel Coffey
CLIENT:	JACOBS	0421 403 579	SAMPLER MOBILE:	0421 403 579
OFFICE:	Darwin	AUS QUOTE #	PURCHASE ORDER NO.:	540003296
PROJECT NO. / PROJECT:	INW72400	ES24SINKIN0008	SITE:	
INVOICE TO:	X			
REPORTS TO:	ANALYSIS REQUIRED			

STORAGE REQUIREMENTS	TURNAROUND	ANALYSIS REQUIRED
Standard Storage: 1 month (no receipt of samples)	Standard Storage: 1 month (no receipt of samples)	ANALYSIS REQUIRED: 1 day (+50%)
Extended Storage: 3 months	Extended Storage: 3 months	ANALYSIS REQUIRED: 2 day (+30%)
Specimen Disposal Date:	Specimen Disposal Date:	ANALYSIS REQUIRED: 1 day (+50%)

Lab ID	Sample ID	Depth	Date/Time	No. Bottles	EA045 - Turbidity	EP025 - DO	EK071 - Phosphorus - Reactive Phosphorus as P	EP008 - Chlorophyll a	EP030 - BOD - Biochemical Oxygen Demand	W-7: TRH (C6-C40) / BTEXN / PAH	W-3: NEPM Suite, 15 Metals (As, B, Ba, Be, Cd, Cr, Co, Cu, Mn, Ni, Pb, Se, V, Zn, Hg)	EG049 - Chromium - Trivalent Chromium - Dissolved	NT-14: General Water Suite: Ca, Mg, Na, K, pH, EC, Cl, SO ₄ , Alkalinity, Fluoride, Hardness, TDS (Calc), Nitrate, Nitrite, Ammonia, Reactive Phosphorus, Total Phosphorus, Total	EG050G: Chromium - Hexavalent Chromium - Dissolved	EP231X: PFAS - Full Suite (28 analytes)	MW006: E. coli (MF)	MW023: Enterococci (MF)	Rinsate: W-18, EP231	Trip Blank - PFAS & TRH	Trip Spike	Client	Count	Hard Esty	Form Esty	Box/Bag/Other		
1	MM03-260204		4/2/26	1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
2	Spot MM04-260204			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
3	Spot MM04-260204			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
4	Spot MM08-260204			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
5	Spot MM04-260204			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
6	Spot MM06-260204			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
7	Spot MM02-260204			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
8	Spot MM02-260204			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
9	Spot MM02-260204, Trip Spike			1	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Telephone : + 61-2-8784 8555

Environmental Division
Sydney
Work Order Reference
ES2603595Page 1 of 1
COC # (if applicable)
Date/Time: 04/02/26 1400
Date/Time: 6/4/26 1540



SAMPLE RECEIPT NOTIFICATION (SRN)

Work Order : **ES2603595**

Client	: JACOBS GROUP (AUSTRALIA) PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: DANIEL COFFEY	Contact	: Jackie Chau
Address	: LEVEL 2 25 PARAP ROAD PARAP NT 0804	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
E-mail	: daniel.coffey@jacobs.com	E-mail	: jackie.chau@alsglobal.com
Telephone	: ----	Telephone	: +61-2-8784 8555
Facsimile	: ----	Facsimile	: +61-2-8784 8500
Project	: IW272400	Page	: 1 of 3
Order number	: 540003296	Quote number	: ES2024SINKNI0008_V2 (ES24SINKNI0008_V2)
C-O-C number	: ----	QC Level	: NEPM 2013 B3 & ALS QC Standard
Site	: ----		
Sampler	: DANIEL COFFEY		

Dates

Date Samples Received	: 04-Feb-2026 14:00	Issue Date	: 06-Feb-2026
Client Requested Due Date	: 13-Feb-2026	Scheduled Reporting Date	: 13-Feb-2026

Delivery Details

Mode of Delivery	: Client Drop Off	Security Seal	: Not Available
No. of coolers/boxes	: 2	Temperature	: 16.1°C, 18.2°C, 15.2°C - Ice present
Receipt Detail	:	No. of samples received / analysed	: 9 / 6

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.
- Unless otherwise stated, analytical work for this work order will be conducted at ALS Sydney, NATA accreditation no. 825, site no. 10911.
- 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.
- Micro bottles were received in ALS Darwin on 04/02/2026 at 14:00. Remaining bottles were received at ALS Sydney on 6/02/2026 at 17:10.



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 - EA045 Turbidity	WATER - EG049G-F Dissolved Trivalent Chromium by ICP & DA	WATER - EP008 Chlorophyll a	WATER - EP025 Dissolved Oxygen (DO)	WATER - EP030 Biochemical Oxygen Demand (BOD)	WATER - MW023 Enterococci - Enumeration by Membrane	WATER - W-03 15 Metals (NEPM Suite)
ES2603595-001	04-Feb-2026 00:00	MW03_260204	✓	✓	✓	✓	✓	✓	✓
ES2603595-002	04-Feb-2026 00:00	MW04_260204	✓	✓	✓	✓	✓	✓	✓
ES2603595-003	04-Feb-2026 00:00	SW01_260204	✓	✓	✓	✓	✓	✓	✓
ES2603595-004	04-Feb-2026 00:00	SW08_260204	✓	✓	✓	✓	✓	✓	✓
ES2603595-005	04-Feb-2026 00:00	SW04_260204	✓	✓	✓	✓	✓	✓	✓
ES2603595-006	04-Feb-2026 00:00	SW06_260204	✓	✓	✓	✓	✓	✓	✓

Matrix: **WATER**

Laboratory sample ID	Sampling date / time	Sample ID	(On Hold) WATER No analysis requested	WATER - EP231X PFAS - Full Suite (31 analytes)	WATER - MW006 (Ec) E.coli by Membrane Filtration	WATER - NT-14 Extended Water Suite B	WATER - W-07 TRH/BTEXN/PAH
ES2603595-001	04-Feb-2026 00:00	MW03_260204		✓	✓	✓	✓
ES2603595-002	04-Feb-2026 00:00	MW04_260204		✓	✓	✓	✓
ES2603595-003	04-Feb-2026 00:00	SW01_260204		✓	✓	✓	✓
ES2603595-004	04-Feb-2026 00:00	SW08_260204		✓	✓	✓	✓
ES2603595-005	04-Feb-2026 00:00	SW04_260204		✓	✓	✓	✓
ES2603595-006	04-Feb-2026 00:00	SW06_260204		✓	✓	✓	✓
ES2603595-007	04-Feb-2026 00:00	QC302_260204	✓				
ES2603595-008	04-Feb-2026 00:00	QC502_260204	✓				
ES2603595-009	04-Feb-2026 00:00	QC602_260204	✓				

Proactive Holding Time Report

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



Requested Deliverables

DANIEL COFFEY

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

JACOBS INVOICES

- A4 - AU Tax Invoice (INV)	Email	auapinvoices@jacobs.com
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CERTIFICATE OF ANALYSIS

Work Order : **ES2603595**
Client : **JACOBS GROUP (AUSTRALIA) PTY LTD**
Contact : **DANIEL COFFEY**
Address : **LEVEL 2 25 PARAP ROAD**
PARAP NT 0804
Telephone : **----**
Project : **IW272400**
Order number : **540003296**
C-O-C number : **----**
Sampler : **DANIEL COFFEY**
Site : **----**
Quote number : **ES24SINKNI0008_V2**
No. of samples received : **9**
No. of samples analysed : **6**

Page : 1 of 17
Laboratory : Environmental Division Sydney
Contact : Jackie Chau
Address : 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone : +61-2-8784 8555
Date Samples Received : 04-Feb-2026 14:00
Date Analysis Commenced : 04-Feb-2026
Issue Date : 16-Feb-2026 12:18



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
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Prasanna Ganta	Team Leader - Microbiology/Phycology	Darwin Microbiology, Woolner, NT
Sanjeshni Jyoti	Senior Chemist Volatiles	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.

- EG050G: LOR raised for Hexavalent Chromium on sample 1 due to sample matrix.
- MF = membrane filtration
- CFU = colony forming unit
- Microbiological Comment: In accordance with ALS work instruction QWI-MIC/04, membrane filtration result is reported an approximate (~) when the count of colonies on the filtered membrane is outside the range of 10 - 100cfu.
- EP075 (SIM): Where reported, Benzo(a)pyrene Toxicity Equivalent Quotient (TEQ) per the NEPM (2013) is the sum total of the concentration of the eight carcinogenic PAHs multiplied by their Toxicity Equivalence Factor (TEF) relative to Benzo(a)pyrene. TEF values are provided in brackets as follows: Benz(a)anthracene (0.1), Chrysene (0.01), Benzo(b+j) & Benzo(k)fluoranthene (0.1), Benzo(a)pyrene (1.0), Indeno(1.2.3.cd)pyrene (0.1), Dibenz(a,h)anthracene (1.0), Benzo(g,h,i)perylene (0.01). Less than LOR results for 'TEQ Zero' are treated as zero.
- EP231X - Per- and Polyfluoroalkyl Substances (PFAS): Samples received in 20mL or 125mL bottles have been tested in accordance with the QSM5.4 compliant, NATA accredited method. 60mL or 250mL bottles have been tested to the legacy QSM 5.1 aligned, NATA accredited method.
- EP080: Where reported, Total Xylenes is the sum of the reported concentrations of m&p-Xylene and o-Xylene at or above the LOR.
- EP075(SIM): Where reported, Total Cresol is the sum of the reported concentrations of 2-Methylphenol and 3- & 4-Methylphenol at or above the LOR.
- As per QWI – EN55-3 Data Interpreting Procedures, Ionic balances are typically calculated using Major Anions - Chloride, Alkalinity and Sulfate; and Major Cations - Calcium, Magnesium, Potassium and Sodium. Where applicable and dependent upon sample matrix, the Ionic Balance may also include the additional contribution of Ammonia, Dissolved Metals by ICPMS and H+ to the Cations and Nitrate, SiO2 and Fluoride to the Anions.
- MW006 is ALS's internal code and is equivalent to AS4276.5.
- EP030: BOD LCS LOW Recovery <170 mg/L : LCS recovery below recommended APHA limits of the certified +/-30.5 mg/L; BOD results may bias low.
- EK057G: LOR raised for nitrite due to sample matrix.
- EK071G: LOR raised for reactive phosphorus due to sample matrix.
- EK067G: LOR raised for TP due to sample matrix.
- EK059G: LOR raised for NOx due to sample matrix.
- EK055G/EK061G: It has been noted that ammonia is greater than TKN, however this difference is within the limits of experimental variation.
- MW023 is ALS's internal code and is equivalent to AS4276.9.
- EA016: Calculated TDS is determined from Electrical conductivity using a conversion factor of 0.65.
- Sodium Adsorption Ratio (where reported): Where results for Na, Ca or Mg are <LOR, a concentration at half the reported LOR is incorporated into the SAR calculation. This represents a conservative approach for Na relative to the assumption that <LOR = zero concentration and a conservative approach for Ca & Mg relative to the assumption that <LOR is equivalent to the LOR concentration.
- ED045G: The presence of Thiocyanate, Thiosulfate and Sulfite can positively contribute to the chloride result, thereby may bias results higher than expected. Results should be scrutinised accordingly.



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW03_260204	MW04_260204	SW01_260204	SW08_260204	SW04_260204
Sampling date / time					04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00
Compound	CAS Number	LOR	Unit		ES2603595-001	ES2603595-002	ES2603595-003	ES2603595-004	ES2603595-005
					Result	Result	Result	Result	Result
EA005P: pH by PC Titrator									
pH Value	----	0.01	pH Unit		7.02	5.35	6.51	6.66	8.28
EA006: Sodium Adsorption Ratio (SAR)									
^ Sodium Adsorption Ratio	----	0.01	-		1.34	15.5	0.91	1.03	1.84
EA010P: Conductivity by PC Titrator									
Electrical Conductivity @ 25°C	----	1	µS/cm		573	2300	79	85	297
EA016: Calculated TDS (from Electrical Conductivity)									
Total Dissolved Solids (Calc.)	----	1	mg/L		372	1500	51	55	193
EA045: Turbidity									
Turbidity	----	0.1	NTU		6.6	51.8	3.8	2.6	18.2
EA065: Total Hardness as CaCO3									
Total Hardness as CaCO3	----	1	mg/L		186	134	12	12	61
ED037P: Alkalinity by PC Titrator									
Hydroxide Alkalinity as CaCO3	----	1	mg/L		<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L		<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L		149	2	9	14	39
Total Alkalinity as CaCO3	----	1	mg/L		149	2	9	14	39
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA									
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L		34	195	4	3	27
ED045G: Chloride by Discrete Analyser									
Chloride	16887-00-6	1	mg/L		64	652	13	14	44
ED093F: Dissolved Major Cations									
Calcium	7440-70-2	1	mg/L		53	9	5	5	21
Magnesium	7439-95-4	1	mg/L		13	27	<1	<1	2
Sodium	7440-23-5	1	mg/L		42	411	8	9	33
Potassium	7440-09-7	1	mg/L		10	14	<1	<1	5
EG020F: Dissolved Metals by ICP-MS									
Arsenic	7440-38-2	0.001	mg/L		0.008	0.004	<0.001	<0.001	<0.001
Boron	7440-42-8	0.05	mg/L		<0.05	0.17	<0.05	<0.05	<0.05

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW03_260204	MW04_260204	SW01_260204	SW08_260204	SW04_260204
Sampling date / time				04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	
Compound	CAS Number	LOR	Unit	ES2603595-001	ES2603595-002	ES2603595-003	ES2603595-004	ES2603595-005	
				Result	Result	Result	Result	Result	
EG020F: Dissolved Metals by ICP-MS - Continued									
Barium	7440-39-3	0.001	mg/L	0.050	0.053	0.024	0.022	0.030	
Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	
Cobalt	7440-48-4	0.001	mg/L	0.002	0.009	<0.001	<0.001	<0.001	
Chromium	7440-47-3	0.001	mg/L	<0.001	0.001	<0.001	<0.001	0.004	
Copper	7440-50-8	0.001	mg/L	0.002	0.504	<0.001	<0.001	0.001	
Manganese	7439-96-5	0.001	mg/L	0.648	0.658	0.007	0.011	0.029	
Nickel	7440-02-0	0.001	mg/L	0.002	0.011	<0.001	<0.001	<0.001	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	
Zinc	7440-66-6	0.005	mg/L	<0.005	0.014	0.039	0.026	0.006	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
EG049F: Dissolved Trivalent Chromium									
Trivalent Chromium	16065-83-1	0.01	mg/L	<0.10	<0.01	<0.01	<0.01	<0.01	
EG050F: Dissolved Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.10	<0.01	<0.01	<0.01	<0.01	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.3	0.2	0.2	0.1	0.2	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.21	0.02	0.09	<0.01	0.04	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.10	<0.01	<0.01	<0.01	0.03	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	<0.10	0.92	<0.01	<0.01	0.29	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW03_260204	MW04_260204	SW01_260204	SW08_260204	SW04_260204
Sampling date / time					04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00
Compound	CAS Number	LOR	Unit		ES2603595-001	ES2603595-002	ES2603595-003	ES2603595-004	ES2603595-005
					Result	Result	Result	Result	Result
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser - Continued									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.10	0.92	<0.01	<0.01	0.32
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		1.4	0.2	0.1	0.1	0.2
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		1.4	1.1	0.1	0.1	0.5
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		<0.10	0.07	<0.01	0.01	0.03
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.10	0.02	<0.01	<0.01	<0.01
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		5.49	22.5	0.63	0.74	2.58
ø Total Cations	----	0.01	meq/L		5.80	20.9	0.60	0.64	2.78
ø Ionic Balance	----	0.01	%		2.72	3.65	----	----	----
EP008: Chlorophyll a & Pheophytin a									
Chlorophyll a	----	1	mg/m ³		<1	<1	1	27	<1
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		7.4	7.7	9.2	9.4	9.4
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L		<2	<2	<2	<2	<2
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Acenaphthene	83-32-9	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluorene	86-73-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Phenanthrene	85-01-8	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Anthracene	120-12-7	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Fluoranthene	206-44-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0
Pyrene	129-00-0	1.0	µg/L		<1.0	<1.0	<1.0	<1.0	<1.0



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	MW03_260204	MW04_260204	SW01_260204	SW08_260204	SW04_260204
Sampling date / time				04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603595-001	ES2603595-002	ES2603595-003	ES2603595-004	ES2603595-005
				Result	Result	Result	Result	Result
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Chrysene	218-01-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	<1.0	<1.0	<1.0	<1.0
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	<20	<20	<20	<20
C10 - C14 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
C15 - C28 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
C29 - C36 Fraction	----	50	µg/L	<50	<50	<50	<50	<50
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	<50	<50	<50	<50
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	<20	<20	<20
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	<20	<20	<20	<20
>C10 - C16 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C16 - C34 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
>C34 - C40 Fraction	----	100	µg/L	<100	<100	<100	<100	<100
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	<100	<100	<100	<100
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	<100	<100	<100	<100
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	<1	<1	<1	<1



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				MW03_260204	MW04_260204	SW01_260204	SW08_260204	SW04_260204
Sampling date / time				04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603595-001	ES2603595-002	ES2603595-003	ES2603595-004	ES2603595-005
				Result	Result	Result	Result	Result
EP080: BTEXN - Continued								
Toluene	108-88-3	2	µg/L	<2	<2	<2	<2	<2
Ethylbenzene	100-41-4	2	µg/L	<2	<2	<2	<2	<2
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	<2	<2	<2	<2
ortho-Xylene	95-47-6	2	µg/L	<2	<2	<2	<2	<2
^ Total Xylenes	-----	2	µg/L	<2	<2	<2	<2	<2
^ Sum of BTEX	-----	1	µg/L	<1	<1	<1	<1	<1
Naphthalene	91-20-3	5	µg/L	<5	<5	<5	<5	<5
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<0.02
Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	<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	<0.02
Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	<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	<0.02
Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	<0.02	<0.02	<0.02	<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	<0.1	<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	<0.02
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	<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	<0.02
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	<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



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				MW03_260204	MW04_260204	SW01_260204	SW08_260204	SW04_260204
Sampling date / time				04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00
Compound	CAS Number	LOR	Unit	ES2603595-001	ES2603595-002	ES2603595-003	ES2603595-004	ES2603595-005
				Result	Result	Result	Result	Result
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
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
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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
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



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	MW03_260204	MW04_260204	SW01_260204	SW08_260204	SW04_260204
Sampling date / time					04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00	04-Feb-2026 00:00
Compound	CAS Number	LOR	Unit		ES2603595-001	ES2603595-002	ES2603595-003	ES2603595-004	ES2603595-005
					Result	Result	Result	Result	Result
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
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	<0.01	<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	<0.01
Sum of PFAS (WA DER List)	----	0.01	µg/L		<0.01	<0.01	<0.01	<0.01	<0.01
MW006: Thermotolerant Coliforms & E.coli by MF									
Escherichia coli	----	1	CFU/100mL		450	<1	82	97	550
MW023: Enterococci by Membrane Filtration									
Enterococci	----	1	CFU/100mL		11	<1	340	180	320
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		21.2	25.2	28.5	26.3	27.4
2-Chlorophenol-D4	93951-73-6	1.0	%		48.3	59.1	64.3	58.0	33.9
2,4,6-Tribromophenol	118-79-6	1.0	%		46.9	57.6	59.1	49.6	34.4
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		55.7	66.2	73.2	66.6	79.4
Anthracene-d10	1719-06-8	1.0	%		78.4	88.1	93.4	86.6	79.5
4-Terphenyl-d14	1718-51-0	1.0	%		72.7	84.9	91.9	84.7	85.8
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%		85.6	110	121	116	115
Toluene-D8	2037-26-5	2	%		84.9	110	115	108	113
4-Bromofluorobenzene	460-00-4	2	%		81.6	113	116	106	112
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		88.1	96.6	94.4	98.8	93.6
13C8-PFOA	----	0.02	%		113	104	107	109	108



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)			Sample ID	SW06_260204	----	----	----	----
Sampling date / time				04-Feb-2026 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2603595-006	-----	-----	-----	-----
Result				----	----	----	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.77	----	----	----	----
EA006: Sodium Adsorption Ratio (SAR)								
^ Sodium Adsorption Ratio	----	0.01	-	6.14	----	----	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	896	----	----	----	----
EA016: Calculated TDS (from Electrical Conductivity)								
Total Dissolved Solids (Calc.)	----	1	mg/L	582	----	----	----	----
EA045: Turbidity								
Turbidity	----	0.1	NTU	4.3	----	----	----	----
EA065: Total Hardness as CaCO3								
Total Hardness as CaCO3	----	1	mg/L	104	----	----	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	----	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	----	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	27	----	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	27	----	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	34	----	----	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	264	----	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	17	----	----	----	----
Magnesium	7439-95-4	1	mg/L	15	----	----	----	----
Sodium	7440-23-5	1	mg/L	144	----	----	----	----
Potassium	7440-09-7	1	mg/L	6	----	----	----	----
EG020F: Dissolved Metals by ICP-MS								
Arsenic	7440-38-2	0.001	mg/L	<0.001	----	----	----	----
Boron	7440-42-8	0.05	mg/L	<0.05	----	----	----	----

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SW06_260204	----	----	----	----
Sampling date / time				04-Feb-2026 00:00	----	----	----	----	
Compound	CAS Number	LOR	Unit	ES2603595-006	-----	-----	-----	-----	
				Result	----	----	----	----	
EG020F: Dissolved Metals by ICP-MS - Continued									
Barium	7440-39-3	0.001	mg/L	0.121	----	----	----	----	
Beryllium	7440-41-7	0.001	mg/L	<0.001	----	----	----	----	
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	----	----	----	----	
Cobalt	7440-48-4	0.001	mg/L	0.001	----	----	----	----	
Chromium	7440-47-3	0.001	mg/L	<0.001	----	----	----	----	
Copper	7440-50-8	0.001	mg/L	<0.001	----	----	----	----	
Manganese	7439-96-5	0.001	mg/L	0.409	----	----	----	----	
Nickel	7440-02-0	0.001	mg/L	0.002	----	----	----	----	
Lead	7439-92-1	0.001	mg/L	<0.001	----	----	----	----	
Selenium	7782-49-2	0.010	mg/L	<0.010	----	----	----	----	
Vanadium	7440-62-2	0.01	mg/L	<0.01	----	----	----	----	
Zinc	7440-66-6	0.005	mg/L	0.041	----	----	----	----	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	----	----	----	----	
EG049F: Dissolved Trivalent Chromium									
Trivalent Chromium	16065-83-1	0.01	mg/L	<0.01	----	----	----	----	
EG050F: Dissolved Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	----	----	----	----	
EK040P: Fluoride by PC Titrator									
Fluoride	16984-48-8	0.1	mg/L	0.2	----	----	----	----	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.02	----	----	----	----	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	----	----	----	----	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.26	----	----	----	----	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SW06_260204	----	----	----	----
Sampling date / time					04-Feb-2026 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2603595-006	-----	-----	-----	-----
Result						----	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser - Continued									
Nitrite + Nitrate as N	----	0.01	mg/L		0.26	----	----	----	----
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser									
Total Kjeldahl Nitrogen as N	----	0.1	mg/L		0.4	----	----	----	----
EK062G: Total Nitrogen as N (TKN + NOx) by Discrete Analyser									
^ Total Nitrogen as N	----	0.1	mg/L		0.7	----	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L		0.03	----	----	----	----
EK071G: Reactive Phosphorus as P by discrete analyser									
Reactive Phosphorus as P	14265-44-2	0.01	mg/L		<0.01	----	----	----	----
EN055: Ionic Balance									
∅ Total Anions	----	0.01	meq/L		8.69	----	----	----	----
∅ Total Cations	----	0.01	meq/L		8.50	----	----	----	----
∅ Ionic Balance	----	0.01	%		1.13	----	----	----	----
EP008: Chlorophyll a & Pheophytin a									
Chlorophyll a	----	1	mg/m ³		3	----	----	----	----
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		9.5	----	----	----	----
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L		<2	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons									
Naphthalene	91-20-3	1.0	µg/L		<1.0	----	----	----	----
Acenaphthylene	208-96-8	1.0	µg/L		<1.0	----	----	----	----
Acenaphthene	83-32-9	1.0	µg/L		<1.0	----	----	----	----
Fluorene	86-73-7	1.0	µg/L		<1.0	----	----	----	----
Phenanthrene	85-01-8	1.0	µg/L		<1.0	----	----	----	----
Anthracene	120-12-7	1.0	µg/L		<1.0	----	----	----	----
Fluoranthene	206-44-0	1.0	µg/L		<1.0	----	----	----	----
Pyrene	129-00-0	1.0	µg/L		<1.0	----	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SW06_260204	----	----	----	----
Sampling date / time				04-Feb-2026 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2603595-006	-----	-----	-----	-----
Result				----	----	----	----	----
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons - Continued								
Benz(a)anthracene	56-55-3	1.0	µg/L	<1.0	----	----	----	----
Chrysene	218-01-9	1.0	µg/L	<1.0	----	----	----	----
Benzo(b+j)fluoranthene	205-99-2 205-82-3	1.0	µg/L	<1.0	----	----	----	----
Benzo(k)fluoranthene	207-08-9	1.0	µg/L	<1.0	----	----	----	----
Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	----	----	----	----
Indeno(1.2.3.cd)pyrene	193-39-5	1.0	µg/L	<1.0	----	----	----	----
Dibenz(a.h)anthracene	53-70-3	1.0	µg/L	<1.0	----	----	----	----
Benzo(g.h.i)perylene	191-24-2	1.0	µg/L	<1.0	----	----	----	----
^ Sum of polycyclic aromatic hydrocarbons	----	0.5	µg/L	<0.5	----	----	----	----
^ Benzo(a)pyrene TEQ (zero)	----	0.5	µg/L	<0.5	----	----	----	----
EP080/071: Total Petroleum Hydrocarbons								
C6 - C9 Fraction	----	20	µg/L	<20	----	----	----	----
C10 - C14 Fraction	----	50	µg/L	<50	----	----	----	----
C15 - C28 Fraction	----	100	µg/L	<100	----	----	----	----
C29 - C36 Fraction	----	50	µg/L	<50	----	----	----	----
^ C10 - C36 Fraction (sum)	----	50	µg/L	<50	----	----	----	----
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions								
C6 - C10 Fraction	C6_C10	20	µg/L	<20	----	----	----	----
^ C6 - C10 Fraction minus BTEX (F1)	C6_C10-BTEX	20	µg/L	<20	----	----	----	----
>C10 - C16 Fraction	----	100	µg/L	<100	----	----	----	----
>C16 - C34 Fraction	----	100	µg/L	<100	----	----	----	----
>C34 - C40 Fraction	----	100	µg/L	<100	----	----	----	----
^ >C10 - C40 Fraction (sum)	----	100	µg/L	<100	----	----	----	----
^ >C10 - C16 Fraction minus Naphthalene (F2)	----	100	µg/L	<100	----	----	----	----
EP080: BTEXN								
Benzene	71-43-2	1	µg/L	<1	----	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SW06_260204	----	----	----	----
Sampling date / time				04-Feb-2026 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2603595-006	-----	-----	-----	-----
				Result	----	----	----	----
EP080: BTEXN - Continued								
Toluene	108-88-3	2	µg/L	<2	----	----	----	----
Ethylbenzene	100-41-4	2	µg/L	<2	----	----	----	----
meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	----	----	----	----
ortho-Xylene	95-47-6	2	µg/L	<2	----	----	----	----
^ Total Xylenes	----	2	µg/L	<2	----	----	----	----
^ Sum of BTEX	----	1	µg/L	<1	----	----	----	----
Naphthalene	91-20-3	5	µg/L	<5	----	----	----	----
EP231A: Perfluoroalkyl Sulfonic Acids								
Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	----	----	----	----
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	----	----	----	----
Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	----	----	----	----
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	0.18	----	----	----	----
Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.12	----	----	----	----
Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	0.04	----	----	----	----
Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	----	----	----	----
Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	----	----	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SW06_260204	----	----	----	----
Sampling date / time				04-Feb-2026 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit	ES2603595-006	-----	-----	-----	-----
				Result	----	----	----	----
EP231B: Perfluoroalkyl Carboxylic Acids - Continued								
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	----	----	----	----
Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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	----	----	----	----
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	0.56	----	----	----	----
8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.05	µg/L	<0.05	----	----	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SW06_260204	----	----	----	----
Sampling date / time					04-Feb-2026 00:00	----	----	----	----
Compound	CAS Number	LOR	Unit		ES2603595-006	-----	-----	-----	-----
				Result		----	----	----	----
EP231D: (n:2) Fluorotelomer Sulfonic Acids - Continued									
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		0.90	----	----	----	----
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		0.90	----	----	----	----
MW006: Thermotolerant Coliforms & E.coli by MF									
Escherichia coli	----	1	CFU/100mL		320	----	----	----	----
MW023: Enterococci by Membrane Filtration									
Enterococci	----	1	CFU/100mL		12	----	----	----	----
EP075(SIM)S: Phenolic Compound Surrogates									
Phenol-d6	13127-88-3	1.0	%		24.4	----	----	----	----
2-Chlorophenol-D4	93951-73-6	1.0	%		56.7	----	----	----	----
2,4,6-Tribromophenol	118-79-6	1.0	%		52.8	----	----	----	----
EP075(SIM)T: PAH Surrogates									
2-Fluorobiphenyl	321-60-8	1.0	%		65.2	----	----	----	----
Anthracene-d10	1719-06-8	1.0	%		87.0	----	----	----	----
4-Terphenyl-d14	1718-51-0	1.0	%		82.5	----	----	----	----
EP080S: TPH(V)/BTEX Surrogates									
1,2-Dichloroethane-D4	17060-07-0	2	%		117	----	----	----	----
Toluene-D8	2037-26-5	2	%		115	----	----	----	----
4-Bromofluorobenzene	460-00-4	2	%		113	----	----	----	----
EP231S: PFAS Surrogate									
13C4-PFOS	----	0.02	%		94.7	----	----	----	----
13C8-PFOA	----	0.02	%		107	----	----	----	----



Surrogate Control Limits

Sub-Matrix: WATER		Recovery Limits (%)	
Compound	CAS Number	Low	High
EP075(SIM)S: Phenolic Compound Surrogates			
Phenol-d6	13127-88-3	10	44
2-Chlorophenol-D4	93951-73-6	14	94
2,4,6-Tribromophenol	118-79-6	17	125
EP075(SIM)T: PAH Surrogates			
2-Fluorobiphenyl	321-60-8	20	104
Anthracene-d10	1719-06-8	27	113
4-Terphenyl-d14	1718-51-0	32	112
EP080S: TPH(V)/BTEX Surrogates			
1,2-Dichloroethane-D4	17060-07-0	72	143
Toluene-D8	2037-26-5	75	131
4-Bromofluorobenzene	460-00-4	73	137
EP231S: PFAS Surrogate			
13C4-PFOS	----	60	120
13C8-PFOA	----	60	120

Inter-Laboratory Testing

Analysis conducted by ALS Darwin, NATA accreditation no. 825, site no. 25820.

(WATER) MW023: Enterococci by Membrane Filtration

(WATER) MW006: Thermotolerant Coliforms & E.coli by MF



QUALITY CONTROL REPORT

Work Order : **ES2603595**

Page : 1 of 16

Client : **JACOBS GROUP (AUSTRALIA) PTY LTD**

Laboratory : Environmental Division Sydney

Contact : **DANIEL COFFEY**

Contact : Jackie Chau

Address : **LEVEL 2 25 PARAP ROAD**
PARAP NT 0804

Address : 277-289 Woodpark Road Smithfield NSW Australia 2164

Telephone : ----

Telephone : +61-2-8784 8555

Project : **IW272400**

Date Samples Received : 04-Feb-2026

Order number : **540003296**

Date Analysis Commenced : 04-Feb-2026

C-O-C number : ----

Issue Date : 16-Feb-2026

Sampler : **DANIEL COFFEY**

Site : ----

Quote number : **ES24SINKNI0008_V2**

No. of samples received : 9

No. of samples analysed : 6



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
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Edwandy Fadjar	Organic Coordinator	Sydney Organics, Smithfield, NSW
Franco Lentini	LCMS Coordinator	Sydney Organics, Smithfield, NSW
Ivan Taylor	Analyst	Sydney Inorganics, Smithfield, NSW
Prasanna Ganta	Team Leader - Microbiology/Phycology	Darwin Microbiology, Woolner, NT
Sanjeshni Jyoti	Senior Chemist Volatiles	Sydney Organics, Smithfield, NSW

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 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.

Laboratory Duplicate (DUP) Report

Sub-Matrix: **WATER**

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 (%)
EA005P: pH by PC Titrator (QC Lot: 7184045)									
ED2600162-001	Anonymous	EA005-P: pH Value	----	0.01	pH Unit	6.81	6.92	1.6	0% - 20%
ES2603595-005	SW04_260204	EA005-P: pH Value	----	0.01	pH Unit	8.28	8.45	2.0	0% - 20%
EA010P: Conductivity by PC Titrator (QC Lot: 7184046)									
ME2600179-014	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	1030	1020	0.7	0% - 20%
ME2600179-006	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	918	909	0.9	0% - 20%
ED2600162-001	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	7640	7580	0.8	0% - 20%
ES2603595-005	SW04_260204	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	297	302	1.4	0% - 20%
ME2600178-003	Anonymous	EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	2470	2480	0.4	0% - 20%
EA045: Turbidity (QC Lot: 7183700)									
ES2603595-001	MW03_260204	EA045: Turbidity	----	0.1	NTU	6.6	6.8	2.4	0% - 20%
ED037P: Alkalinity by PC Titrator (QC Lot: 7184047)									
ED2600162-001	Anonymous	ED037-P: Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	35	36	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	35	36	0.0	0% - 20%
ES2603595-005	SW04_260204	ED037-P: Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	0.0	No Limit
		ED037-P: Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	39	40	0.0	0% - 20%
		ED037-P: Total Alkalinity as CaCO3	----	1	mg/L	39	40	0.0	0% - 20%
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 7183651)									

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 Work Order : ES2603595
 Client : JACOBS GROUP (AUSTRALIA) PTY LTD
 Project : IW272400



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 (%)
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QC Lot: 7183651) - continued									
ES2603595-001	MW03_260204	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1 (10)*	mg/L	34	39	13.5	No Limit
ED045G: Chloride by Discrete Analyser (QC Lot: 7183654)									
ES2603595-001	MW03_260204	ED045G: Chloride	16887-00-6	1 (10)*	mg/L	64	69	6.9	No Limit
ES2603630-002	Anonymous	ED045G: Chloride	16887-00-6	1	mg/L	2	2	0.0	No Limit
ED093F: Dissolved Major Cations (QC Lot: 7194358)									
EN2601820-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	490	487	0.7	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	464	471	1.4	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	1270	1280	1.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	48	48	0.0	0% - 20%
EN2601820-013	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	371	368	0.8	0% - 20%
		ED093F: Magnesium	7439-95-4	1	mg/L	299	295	1.3	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	690	691	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	15	16	0.0	0% - 50%
ED093F: Dissolved Major Cations (QC Lot: 7194362)									
ES2603595-006	SW06_260204	ED093F: Calcium	7440-70-2	1	mg/L	17	17	0.0	0% - 50%
		ED093F: Magnesium	7439-95-4	1	mg/L	15	15	0.0	0% - 50%
		ED093F: Sodium	7440-23-5	1	mg/L	144	143	0.0	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	6	7	0.0	No Limit
ES2603943-001	Anonymous	ED093F: Calcium	7440-70-2	1	mg/L	7	9	28.4	No Limit
		ED093F: Magnesium	7439-95-4	1	mg/L	22	24	8.9	0% - 20%
		ED093F: Sodium	7440-23-5	1	mg/L	210	215	2.5	0% - 20%
		ED093F: Potassium	7440-09-7	1	mg/L	43	44	0.0	0% - 20%
EG020F: Dissolved Metals by ICP-MS (QC Lot: 7194360)									
EN2601820-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.066	0.064	3.6	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.005	0.005	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.564	0.559	1.0	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.012	0.012	0.0	0% - 50%
		EG020A-F: Selenium	7782-49-2	0.004 (0.010) *	mg/L	<0.010	<0.010	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	0.0	No Limit
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	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 (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 7194360) - continued									
EN2601820-001	Anonymous	EG020A-F: Boron	7440-42-8	0.05	mg/L	0.10	0.08	21.9	No Limit
EN2601820-013	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0042	0.0043	2.4	0% - 20%
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	0.004	0.005	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.005	0.006	0.0	No Limit
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	0.003	0.003	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.210	0.209	0.0	0% - 20%
		EG020A-F: Copper	7440-50-8	0.001	mg/L	0.017	0.017	0.0	0% - 50%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	11.6	11.6	0.1	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.919	0.922	0.3	0% - 20%
		EG020A-F: Selenium	7782-49-2	0.004 (0.010) *	mg/L	<0.010	<0.010	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.863	0.885	2.6	0% - 20%
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EG020A-F: Boron	7440-42-8	0.05	mg/L	0.26	0.28	7.2	No Limit		
EG020F: Dissolved Metals by ICP-MS (QC Lot: 7194363)									
ES2603595-006	SW06_260204	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.121	0.118	2.3	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.409	0.403	1.4	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Selenium	7782-49-2	0.004 (0.010) *	mg/L	<0.010	<0.010	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.041	0.039	5.4	No Limit
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	<0.05	0.0	No Limit		
ES2603943-001	Anonymous	EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	0.0002	0.0003	0.0	No Limit
		EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	<0.001	0.0	No Limit
		EG020A-F: Barium	7440-39-3	0.001	mg/L	0.077	0.077	0.0	0% - 20%
		EG020A-F: Chromium	7440-47-3	0.001	mg/L	0.002	0.002	0.0	No Limit
		EG020A-F: Cobalt	7440-48-4	0.001	mg/L	0.011	0.010	0.0	0% - 50%

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 Work Order : ES2603595
 Client : JACOBS GROUP (AUSTRALIA) PTY LTD
 Project : IW272400



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 (%)
EG020F: Dissolved Metals by ICP-MS (QC Lot: 7194363) - continued									
ES2603943-001	Anonymous	EG020A-F: Copper	7440-50-8	0.001	mg/L	0.061	0.060	0.0	0% - 20%
		EG020A-F: Lead	7439-92-1	0.001	mg/L	0.001	0.001	0.0	No Limit
		EG020A-F: Manganese	7439-96-5	0.001	mg/L	0.212	0.218	2.8	0% - 20%
		EG020A-F: Nickel	7440-02-0	0.001	mg/L	0.023	0.022	4.6	0% - 20%
		EG020A-F: Selenium	7782-49-2	0.004	mg/L	<0.004	<0.004	0.0	No Limit
		EG020A-F: Zinc	7440-66-6	0.005	mg/L	0.307	0.309	0.5	0% - 20%
		EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
		EG020A-F: Boron	7440-42-8	0.05	mg/L	0.10	0.09	0.0	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 7194359)									
EN2601820-002	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EN2601820-012	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EG035F: Dissolved Mercury by FIMS (QC Lot: 7194364)									
ES2603846-003	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
ES2603943-002	Anonymous	EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	0.0	No Limit
EG050F: Dissolved Hexavalent Chromium (QC Lot: 7187776)									
ES2603595-001	MW03_260204	EG050G-F: Hexavalent Chromium	18540-29-9	0.01 (0.10)*	mg/L	<0.10	<0.10	0.0	No Limit
EK040P: Fluoride by PC Titrator (QC Lot: 7184044)									
ED2600162-001	Anonymous	EK040P: Fluoride	16984-48-8	0.1	mg/L	0.3	0.3	0.0	No Limit
ES2603595-005	SW04_260204	EK040P: Fluoride	16984-48-8	0.1	mg/L	0.2	0.2	0.0	No Limit
EK055G: Ammonia as N by Discrete Analyser (QC Lot: 7191246)									
ED2600162-001	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	0.05	0.04	0.0	No Limit
ES2603823-002	Anonymous	EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK057G: Nitrite as N by Discrete Analyser (QC Lot: 7183653)									
ES2603595-001	MW03_260204	EK057G: Nitrite as N	14797-65-0	0.01 (0.10)*	mg/L	<0.10	<0.10	0.0	No Limit
ES2603630-002	Anonymous	EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QC Lot: 7191247)									
ED2600162-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	0.10	0.09	11.7	0% - 50%
ES2603823-002	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	9.09	9.26	1.9	0% - 20%
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QC Lot: 7191251)									
ES2603823-004	Anonymous	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	0.2	0.2	0.0	No Limit
ES2603595-001	MW03_260204	EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	1.4	1.2	13.7	0% - 50%
EK067G: Total Phosphorus as P by Discrete Analyser (QC Lot: 7191250)									
ES2603595-001	MW03_260204	EK067G: Total Phosphorus as P	----	0.01 (0.10)*	mg/L	<0.10	<0.10	0.0	No Limit
ES2603829-001	Anonymous	EK067G: Total Phosphorus as P	----	0.01 (0.50)*	mg/L	65.4	66.3	1.3	0% - 20%
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 7183652)									
ES2603595-001	MW03_260204	EK071G: Reactive Phosphorus as P	14265-44-2	0.01 (0.10)*	mg/L	<0.10	<0.10	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 (%)
EK071G: Reactive Phosphorus as P by discrete analyser (QC Lot: 7183652) - continued									
ES2603630-002	Anonymous	EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.0	No Limit
EP030: Biochemical Oxygen Demand (BOD) (QC Lot: 7183955)									
ES2603595-001	MW03_260204	EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	6	100	No Limit
ES2603854-001	Anonymous	EP030: Biochemical Oxygen Demand	----	2	mg/L	2	2	0.0	No Limit
EP080/071: Total Petroleum Hydrocarbons (QC Lot: 7185549)									
ES2603595-001	MW03_260204	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
ES2603823-009	Anonymous	EP080: C6 - C9 Fraction	----	20	µg/L	<20	<20	0.0	No Limit
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QC Lot: 7185549)									
ES2603595-001	MW03_260204	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
ES2603823-009	Anonymous	EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	<20	0.0	No Limit
EP080: BTEXN (QC Lot: 7185549)									
ES2603595-001	MW03_260204	EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
		EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit
ES2603823-009	Anonymous	EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit
		EP080: Benzene	71-43-2	1	µg/L	<1	<1	0.0	No Limit
		EP080: Toluene	108-88-3	2	µg/L	<2	<2	0.0	No Limit
		EP080: Ethylbenzene	100-41-4	2	µg/L	<2	<2	0.0	No Limit
		EP080: meta- & para-Xylene	108-38-3	2	µg/L	<2	<2	0.0	No Limit
			106-42-3						
	EP080: ortho-Xylene	95-47-6	2	µg/L	<2	<2	0.0	No Limit	
	EP080: Naphthalene	91-20-3	5	µg/L	<5	<5	0.0	No Limit	
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 7187165)									
ES2603917-032	Anonymous	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: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	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: Perfluorononane sulfonic acid (PFNS)	68259-12-1	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
ES2603881-005	Anonymous	EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	0.69	0.69	0.0	0% - 20%
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	1.37	1.28	6.6	0% - 20%
		EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	0.02	<0.02	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 (%)
EP231A: Perfluoroalkyl Sulfonic Acids (QC Lot: 7187165) - continued									
ES2603881-005	Anonymous	EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	0.04	0.05	0.0	No Limit
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	0.08	0.07	15.2	No Limit
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	0.05	0.04	0.0	No Limit
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	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: 7187165)									
ES2603917-032	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 (PFTTrDA)	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: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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
ES2603881-005	Anonymous	EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	0.05	0.05	0.0	No Limit
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	0.03	0.03	0.0	No Limit
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	0.14	0.14	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 (PFTTrDA)	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: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	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: 7187165)									
ES2603917-032	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



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: 7187165) - continued									
ES2603917-032	Anonymous	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
ES2603881-005	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: 7187165)									
ES2603917-032	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
ES2603881-005	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: 7187165)									
ES2603917-032	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	<0.01	<0.01	0.0	No Limit
ES2603881-005	Anonymous	EP231X: Sum of PFAS	----	0.01	µg/L	2.49	2.37	4.9	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**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EA005P: pH by PC Titrator (QCLot: 7184045)								
EA005-P: pH Value	----	----	pH Unit	----	4 pH Unit	99.2	98.8	101
				----	7 pH Unit	99.9	99.2	101
EA010P: Conductivity by PC Titrator (QCLot: 7184046)								
EA010-P: Electrical Conductivity @ 25°C	----	1	µS/cm	<1	220 µS/cm	103	89.9	110
				<1	2100 µS/cm	103	90.2	111
EA045: Turbidity (QCLot: 7183700)								
EA045: Turbidity	----	0.1	NTU	<0.1	4 NTU	97.5	90.0	110
				<0.1	40 NTU	100	91.0	105
				<0.1	400 NTU	100	90.0	110
ED037P: Alkalinity by PC Titrator (QCLot: 7184047)								
ED037-P: Total Alkalinity as CaCO3	----	----	mg/L	----	200 mg/L	98.9	81.0	115
				----	50 mg/L	100	80.0	128
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 7183651)								
ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	25 mg/L	103	82.0	122
				<1	500 mg/L	92.0	82.0	122
ED045G: Chloride by Discrete Analyser (QCLot: 7183654)								
ED045G: Chloride	16887-00-6	1	mg/L	<1	50 mg/L	104	80.9	127
				<1	1000 mg/L	98.6	80.9	127
ED093F: Dissolved Major Cations (QCLot: 7194358)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	98.8	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	101	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	100	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	104	85.0	113
ED093F: Dissolved Major Cations (QCLot: 7194362)								
ED093F: Calcium	7440-70-2	1	mg/L	<1	50 mg/L	96.1	80.0	114
ED093F: Magnesium	7439-95-4	1	mg/L	<1	50 mg/L	99.0	90.0	116
ED093F: Sodium	7440-23-5	1	mg/L	<1	50 mg/L	99.2	82.0	120
ED093F: Potassium	7440-09-7	1	mg/L	<1	50 mg/L	105	85.0	113
EG020F: Dissolved Metals by ICP-MS (QCLot: 7194360)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	114	85.0	114
EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	0.1 mg/L	96.0	85.0	115

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%)	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result		LCS	Low	High
EG020F: Dissolved Metals by ICP-MS (QCLot: 7194360) - continued								
EG020A-F: Barium	7440-39-3	0.001	mg/L	<0.001	0.1 mg/L	96.9	82.0	110
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	100	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	97.5	85.0	111
EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	0.1 mg/L	102	82.0	112
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	111	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	99.2	83.0	111
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	94.7	82.0	110
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	103	82.0	112
EG020A-F: Selenium	7782-49-2	0.004	mg/L	<0.004	0.1 mg/L	112	85.0	115
EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	0.1 mg/L	101	83.0	109
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	116	81.0	117
EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	0.5 mg/L	102	85.0	115
EG020F: Dissolved Metals by ICP-MS (QCLot: 7194363)								
EG020A-F: Arsenic	7440-38-2	0.001	mg/L	<0.001	0.1 mg/L	109	85.0	114
EG020A-F: Beryllium	7440-41-7	0.001	mg/L	<0.001	0.1 mg/L	95.5	85.0	115
EG020A-F: Barium	7440-39-3	0.001	mg/L	<0.001	0.1 mg/L	94.4	82.0	110
EG020A-F: Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.1 mg/L	95.5	84.0	110
EG020A-F: Chromium	7440-47-3	0.001	mg/L	<0.001	0.1 mg/L	97.6	85.0	111
EG020A-F: Cobalt	7440-48-4	0.001	mg/L	<0.001	0.1 mg/L	109	82.0	112
EG020A-F: Copper	7440-50-8	0.001	mg/L	<0.001	0.1 mg/L	103	81.0	111
EG020A-F: Lead	7439-92-1	0.001	mg/L	<0.001	0.1 mg/L	96.1	83.0	111
EG020A-F: Manganese	7439-96-5	0.001	mg/L	<0.001	0.1 mg/L	91.4	82.0	110
EG020A-F: Nickel	7440-02-0	0.001	mg/L	<0.001	0.1 mg/L	107	82.0	112
EG020A-F: Selenium	7782-49-2	0.004	mg/L	<0.004	0.1 mg/L	107	85.0	115
EG020A-F: Vanadium	7440-62-2	0.01	mg/L	<0.01	0.1 mg/L	100	83.0	109
EG020A-F: Zinc	7440-66-6	0.005	mg/L	<0.005	0.1 mg/L	111	81.0	117
EG020A-F: Boron	7440-42-8	0.05	mg/L	<0.05	0.5 mg/L	97.7	85.0	115
EG035F: Dissolved Mercury by FIMS (QCLot: 7194359)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	100	83.0	105
EG035F: Dissolved Mercury by FIMS (QCLot: 7194364)								
EG035F: Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.01 mg/L	101	83.0	105
EG050F: Dissolved Hexavalent Chromium (QCLot: 7187776)								
EG050G-F: Hexavalent Chromium	18540-29-9	0.01	mg/L	<0.01	0.05 mg/L	99.4	86.0	112
EK040P: Fluoride by PC Titrator (QCLot: 7184044)								



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EK040P: Fluoride by PC Titrator (QCLot: 7184044) - continued								
EK040P: Fluoride	16984-48-8	0.1	mg/L	<0.1	5 mg/L	97.4	82.0	116
EK055G: Ammonia as N by Discrete Analyser (QCLot: 7191246)								
EK055G: Ammonia as N	7664-41-7	0.01	mg/L	<0.01	1 mg/L	101	90.0	114
EK057G: Nitrite as N by Discrete Analyser (QCLot: 7183653)								
EK057G: Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.5 mg/L	97.9	82.0	114
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 7191247)								
EK059G: Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.5 mg/L	101	91.0	113
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 7191251)								
EK061G: Total Kjeldahl Nitrogen as N	----	0.1	mg/L	<0.1	5 mg/L	95.3	69.0	123
				<0.1	2.5 mg/L	96.0	70.0	123
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 7191250)								
EK067G: Total Phosphorus as P	----	0.01	mg/L	<0.01	2.21 mg/L	98.8	71.3	126
				<0.01	0.5 mg/L	93.5	71.3	126
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 7183652)								
EK071G: Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.5 mg/L	97.8	85.0	117
EP008: Chlorophyll (QCLot: 7183558)								
EP008: Chlorophyll a	----	1	mg/m³	<1	20 mg/m³	98.4	70.0	130
EP030: Biochemical Oxygen Demand (BOD) (QCLot: 7183955)								
EP030: Biochemical Oxygen Demand	----	2	mg/L	<2	200 mg/L	75.0	74.0	112
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 7185021)								
EP075(SIM): Naphthalene	91-20-3	1	µg/L	<1.0	5 µg/L	64.3	50.0	94.0
EP075(SIM): Acenaphthylene	208-96-8	1	µg/L	<1.0	5 µg/L	74.5	63.6	114
EP075(SIM): Acenaphthene	83-32-9	1	µg/L	<1.0	5 µg/L	68.9	62.2	113
EP075(SIM): Fluorene	86-73-7	1	µg/L	<1.0	5 µg/L	66.6	63.9	115
EP075(SIM): Phenanthrene	85-01-8	1	µg/L	<1.0	5 µg/L	71.4	62.6	116
EP075(SIM): Anthracene	120-12-7	1	µg/L	<1.0	5 µg/L	79.1	64.3	116
EP075(SIM): Fluoranthene	206-44-0	1	µg/L	<1.0	5 µg/L	82.0	63.6	118
EP075(SIM): Pyrene	129-00-0	1	µg/L	<1.0	5 µg/L	80.4	63.1	118
EP075(SIM): Benz(a)anthracene	56-55-3	1	µg/L	<1.0	5 µg/L	74.3	64.1	117
EP075(SIM): Chrysene	218-01-9	1	µg/L	<1.0	5 µg/L	79.6	62.5	116
EP075(SIM): Benzo(b+j)fluoranthene	205-99-2	1	µg/L	<1.0	5 µg/L	71.4	61.7	119
	205-82-3							
EP075(SIM): Benzo(k)fluoranthene	207-08-9	1	µg/L	<1.0	5 µg/L	78.7	63.0	115
EP075(SIM): Benzo(a)pyrene	50-32-8	0.5	µg/L	<0.5	5 µg/L	79.5	63.3	117



Sub-Matrix: **WATER**

				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%)	
Method: Compound	CAS Number	LOR	Unit	Result			Low	High
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons (QCLot: 7185021) - continued								
EP075(SIM): Indeno(1.2.3.cd)pyrene	193-39-5	1	µg/L	<1.0	5 µg/L	66.9	59.9	118
EP075(SIM): Dibenz(a,h)anthracene	53-70-3	1	µg/L	<1.0	5 µg/L	67.7	61.2	117
EP075(SIM): Benzo(g,h,i)perylene	191-24-2	1	µg/L	<1.0	5 µg/L	68.8	59.1	118
EP080/071: Total Petroleum Hydrocarbons (QCLot: 7185022)								
EP071: C10 - C14 Fraction	----	50	µg/L	<50	400 µg/L	54.7	53.7	97.0
EP071: C15 - C28 Fraction	----	100	µg/L	<100	600 µg/L	81.0	63.3	107
EP071: C29 - C36 Fraction	----	50	µg/L	<50	400 µg/L	69.6	58.3	120
EP080/071: Total Petroleum Hydrocarbons (QCLot: 7185549)								
EP080: C6 - C9 Fraction	----	20	µg/L	<20	260 µg/L	86.2	75.0	127
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 7185022)								
EP071: >C10 - C16 Fraction	----	100	µg/L	<100	500 µg/L	59.6	53.9	95.5
EP071: >C16 - C34 Fraction	----	100	µg/L	<100	700 µg/L	64.3	57.8	110
EP071: >C34 - C40 Fraction	----	100	µg/L	<100	300 µg/L	66.6	50.5	115
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 7185549)								
EP080: C6 - C10 Fraction	C6_C10	20	µg/L	<20	310 µg/L	86.3	75.0	127
EP080: BTEXN (QCLot: 7185549)								
EP080: Benzene	71-43-2	1	µg/L	<1	10 µg/L	102	68.3	119
EP080: Toluene	108-88-3	2	µg/L	<2	10 µg/L	120	73.5	120
EP080: Ethylbenzene	100-41-4	2	µg/L	<2	10 µg/L	110	73.8	122
EP080: meta- & para-Xylene	108-38-3 106-42-3	2	µg/L	<2	10 µg/L	106	73.0	122
EP080: ortho-Xylene	95-47-6	2	µg/L	<2	10 µg/L	100	76.4	123
EP080: Naphthalene	91-20-3	5	µg/L	<5	10 µg/L	104	75.5	124
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 7187165)								
EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.02	µg/L	<0.02	0.25 µg/L	89.8	70.0	130
EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.02	µg/L	<0.02	0.25 µg/L	74.9	72.0	130
EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.02	µg/L	<0.02	0.25 µg/L	89.4	71.0	127
EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.01	µg/L	<0.01	0.25 µg/L	78.0	68.0	131
EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.02	µg/L	<0.02	0.25 µg/L	82.3	69.0	134
EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.01	µg/L	<0.01	0.25 µg/L	73.8	65.0	140
EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.02	µg/L	<0.02	0.25 µg/L	85.2	70.0	130
EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.02	µg/L	<0.02	0.25 µg/L	84.0	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7187165)								
EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	0.1	µg/L	<0.1	1.25 µg/L	88.7	73.0	129



Sub-Matrix: WATER				Method Blank (MB) Report	Laboratory Control Spike (LCS) Report			
					Spike Concentration	Spike Recovery (%) LCS	Acceptable Limits (%) Low High	
Method: Compound	CAS Number	LOR	Unit	Result				
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7187165) - continued								
EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.02	µg/L	<0.02	0.25 µg/L	99.1	72.0	129
EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.02	µg/L	<0.02	0.25 µg/L	86.4	72.0	129
EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.02	µg/L	<0.02	0.25 µg/L	110	72.0	130
EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.01	µg/L	<0.01	0.25 µg/L	96.8	71.0	133
EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.02	µg/L	<0.02	0.25 µg/L	81.8	69.0	130
EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.02	µg/L	<0.02	0.25 µg/L	110	71.0	129
EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.02	µg/L	<0.02	0.25 µg/L	121	69.0	133
EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.02	µg/L	<0.02	0.25 µg/L	86.6	72.0	134
EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.02	µg/L	<0.02	0.25 µg/L	84.9	65.0	144
EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.05	µg/L	<0.05	0.625 µg/L	100	71.0	132
EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.05	µg/L	<0.05	0.25 µg/L	91.3	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 7187165)								
EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.02	µg/L	<0.02	0.25 µg/L	102	67.0	137
EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.05	µg/L	<0.05	0.625 µg/L	119	68.0	141
EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.05	µg/L	<0.05	0.625 µg/L	95.2	62.6	147
EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.05	µg/L	<0.05	0.625 µg/L	100	66.0	145
EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.05	µg/L	<0.05	0.625 µg/L	114	57.6	145
EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.02	µg/L	<0.02	0.25 µg/L	103	65.0	136
EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.02	µg/L	<0.02	0.25 µg/L	97.5	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 7187165)								
EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.05	µg/L	<0.05	0.25 µg/L	120	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	118	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	118	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	72.9	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 Concentration	SpikeRecovery(%) MS	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number			Low	High

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA (QCLot: 7183651)							
ES2603595-001	MW03_260204	ED041G: Sulfate as SO4 - Turbidimetric	14808-79-8	100 mg/L	102	70.0	130
ED045G: Chloride by Discrete Analyser (QCLot: 7183654)							
ES2603595-001	MW03_260204	ED045G: Chloride	16887-00-6	2500 mg/L	109	70.0	130
EG020F: Dissolved Metals by ICP-MS (QCLot: 7194360)							
EN2601820-004	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	123	70.0	130
		EG020A-F: Beryllium	7440-41-7	1 mg/L	80.3	70.0	130
		EG020A-F: Barium	7440-39-3	1 mg/L	89.8	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	100	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	102	70.0	130
		EG020A-F: Cobalt	7440-48-4	1 mg/L	119	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	116	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	95.9	70.0	130
		EG020A-F: Manganese	7439-96-5	1 mg/L	# Not Determined	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	118	70.0	130
EG020A-F: Vanadium	7440-62-2	1 mg/L	106	70.0	130		
EG020A-F: Zinc	7440-66-6	1 mg/L	116	70.0	130		
EG020F: Dissolved Metals by ICP-MS (QCLot: 7194363)							
ES2603846-002	Anonymous	EG020A-F: Arsenic	7440-38-2	1 mg/L	111	70.0	130
		EG020A-F: Beryllium	7440-41-7	1 mg/L	92.6	70.0	130
		EG020A-F: Barium	7440-39-3	1 mg/L	97.7	70.0	130
		EG020A-F: Cadmium	7440-43-9	0.25 mg/L	101	70.0	130
		EG020A-F: Chromium	7440-47-3	1 mg/L	102	70.0	130
		EG020A-F: Cobalt	7440-48-4	1 mg/L	113	70.0	130
		EG020A-F: Copper	7440-50-8	1 mg/L	108	70.0	130
		EG020A-F: Lead	7439-92-1	1 mg/L	97.9	70.0	130
		EG020A-F: Manganese	7439-96-5	1 mg/L	99.5	70.0	130
		EG020A-F: Nickel	7440-02-0	1 mg/L	112	70.0	130
		EG020A-F: Vanadium	7440-62-2	1 mg/L	101	70.0	130
		EG020A-F: Zinc	7440-66-6	1 mg/L	111	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 7194359)							
EN2601820-003	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	84.9	70.0	130
EG035F: Dissolved Mercury by FIMS (QCLot: 7194364)							
ES2603846-001	Anonymous	EG035F: Mercury	7439-97-6	0.01 mg/L	96.6	70.0	130
EG050F: Dissolved Hexavalent Chromium (QCLot: 7187776)							
ES2603595-001	MW03_260204	EG050G-F: Hexavalent Chromium	18540-29-9	0.5 mg/L	105	70.0	130
EK040P: Fluoride by PC Titrator (QCLot: 7184044)							

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EK040P: Fluoride by PC Titrator (QCLot: 7184044) - continued							
ED2600162-002	Anonymous	EK040P: Fluoride	16984-48-8	5 mg/L	96.4	70.0	130
EK055G: Ammonia as N by Discrete Analyser (QCLot: 7191246)							
ED2600162-001	Anonymous	EK055G: Ammonia as N	7664-41-7	1 mg/L	121	70.0	130
EK057G: Nitrite as N by Discrete Analyser (QCLot: 7183653)							
ES2603595-001	MW03_260204	EK057G: Nitrite as N	14797-65-0	5 mg/L	98.8	70.0	130
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser (QCLot: 7191247)							
ED2600162-001	Anonymous	EK059G: Nitrite + Nitrate as N	----	0.5 mg/L	98.0	70.0	130
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser (QCLot: 7191251)							
ES2603595-002	MW04_260204	EK061G: Total Kjeldahl Nitrogen as N	----	5 mg/L	102	70.0	130
EK067G: Total Phosphorus as P by Discrete Analyser (QCLot: 7191250)							
ES2603595-002	MW04_260204	EK067G: Total Phosphorus as P	----	1 mg/L	89.8	70.0	130
EK071G: Reactive Phosphorus as P by discrete analyser (QCLot: 7183652)							
ES2603595-001	MW03_260204	EK071G: Reactive Phosphorus as P	14265-44-2	5 mg/L	92.8	70.0	130
EP080/071: Total Petroleum Hydrocarbons (QCLot: 7185549)							
ES2603595-001	MW03_260204	EP080: C6 - C9 Fraction	----	325 µg/L	74.4	70.0	130
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions (QCLot: 7185549)							
ES2603595-001	MW03_260204	EP080: C6 - C10 Fraction	C6_C10	375 µg/L	71.8	70.0	130
EP080: BTEXN (QCLot: 7185549)							
ES2603595-001	MW03_260204	EP080: Benzene	71-43-2	25 µg/L	92.0	70.0	130
		EP080: Toluene	108-88-3	25 µg/L	97.6	70.0	130
		EP080: Ethylbenzene	100-41-4	25 µg/L	103	70.0	130
		EP080: meta- & para-Xylene	108-38-3	25 µg/L	98.9	70.0	130
		106-42-3					
		EP080: ortho-Xylene	95-47-6	25 µg/L	97.0	70.0	130
		EP080: Naphthalene	91-20-3	25 µg/L	95.9	70.0	130
EP231A: Perfluoroalkyl Sulfonic Acids (QCLot: 7187165)							
ES2603917-033	Anonymous	EP231X: Perfluoropropane sulfonic acid (PFPrS)	423-41-6	0.25 µg/L	95.3	70.0	130
		EP231X: Perfluorobutane sulfonic acid (PFBS)	375-73-5	0.25 µg/L	78.2	72.0	130
		EP231X: Perfluoropentane sulfonic acid (PFPeS)	2706-91-4	0.25 µg/L	83.8	71.0	127
		EP231X: Perfluorohexane sulfonic acid (PFHxS)	355-46-4	0.25 µg/L	75.7	68.0	131
		EP231X: Perfluoroheptane sulfonic acid (PFHpS)	375-92-8	0.25 µg/L	71.6	69.0	134
		EP231X: Perfluorooctane sulfonic acid (PFOS)	1763-23-1	0.25 µg/L	79.8	65.0	140
		EP231X: Perfluorononane sulfonic acid (PFNS)	68259-12-1	0.25 µg/L	82.2	70.0	130
		EP231X: Perfluorodecane sulfonic acid (PFDS)	335-77-3	0.25 µg/L	75.6	53.0	142
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7187165)							



Sub-Matrix: **WATER**

Sub-Matrix: WATER				Matrix Spike (MS) Report			
				Spike	SpikeRecovery(%)	Acceptable Limits (%)	
Laboratory sample ID	Sample ID	Method: Compound	CAS Number	Concentration	MS	Low	High
EP231B: Perfluoroalkyl Carboxylic Acids (QCLot: 7187165) - continued							
ES2603917-033	Anonymous	EP231X: Perfluorobutanoic acid (PFBA)	375-22-4	1.25 µg/L	96.3	73.0	129
		EP231X: Perfluoropentanoic acid (PFPeA)	2706-90-3	0.25 µg/L	92.6	72.0	129
		EP231X: Perfluorohexanoic acid (PFHxA)	307-24-4	0.25 µg/L	93.5	72.0	129
		EP231X: Perfluoroheptanoic acid (PFHpA)	375-85-9	0.25 µg/L	107	72.0	130
		EP231X: Perfluorooctanoic acid (PFOA)	335-67-1	0.25 µg/L	97.5	71.0	133
		EP231X: Perfluorononanoic acid (PFNA)	375-95-1	0.25 µg/L	94.6	69.0	130
		EP231X: Perfluorodecanoic acid (PFDA)	335-76-2	0.25 µg/L	82.4	71.0	129
		EP231X: Perfluoroundecanoic acid (PFUnDA)	2058-94-8	0.25 µg/L	105	69.0	133
		EP231X: Perfluorododecanoic acid (PFDoDA)	307-55-1	0.25 µg/L	73.7	72.0	134
		EP231X: Perfluorotridecanoic acid (PFTrDA)	72629-94-8	0.25 µg/L	85.2	65.0	144
		EP231X: Perfluorotetradecanoic acid (PFTeDA)	376-06-7	0.625 µg/L	88.4	71.0	132
		EP231X: Perfluorohexadecanoic acid (PFHxDA)	67905-19-5	0.25 µg/L	83.0	62.9	136
EP231C: Perfluoroalkyl Sulfonamides (QCLot: 7187165)							
ES2603917-033	Anonymous	EP231X: Perfluorooctane sulfonamide (FOSA)	754-91-6	0.25 µg/L	87.9	67.0	137
		EP231X: N-Methyl perfluorooctane sulfonamide (MeFOSA)	31506-32-8	0.625 µg/L	80.5	68.0	141
		EP231X: N-Ethyl perfluorooctane sulfonamide (EtFOSA)	4151-50-2	0.625 µg/L	75.0	62.6	147
		EP231X: N-Methyl perfluorooctane sulfonamidoethanol (MeFOSE)	24448-09-7	0.625 µg/L	103	66.0	145
		EP231X: N-Ethyl perfluorooctane sulfonamidoethanol (EtFOSE)	1691-99-2	0.625 µg/L	109	57.6	145
		EP231X: N-Methyl perfluorooctane sulfonamidoacetic acid (MeFOSAA)	2355-31-9	0.25 µg/L	102	65.0	136
		EP231X: N-Ethyl perfluorooctane sulfonamidoacetic acid (EtFOSAA)	2991-50-6	0.25 µg/L	75.1	61.0	135
EP231D: (n:2) Fluorotelomer Sulfonic Acids (QCLot: 7187165)							
ES2603917-033	Anonymous	EP231X: 4:2 Fluorotelomer sulfonic acid (4:2 FTS)	757124-72-4	0.25 µg/L	109	63.0	143
		EP231X: 6:2 Fluorotelomer sulfonic acid (6:2 FTS)	27619-97-2	0.25 µg/L	102	64.0	140
		EP231X: 8:2 Fluorotelomer sulfonic acid (8:2 FTS)	39108-34-4	0.25 µg/L	119	67.0	138
		EP231X: 10:2 Fluorotelomer sulfonic acid (10:2 FTS)	120226-60-0	0.25 µg/L	79.1	71.4	144



QA/QC Compliance Assessment to assist with Quality Review

Work Order	: ES2603595	Page	: 1 of 13
Client	: JACOBS GROUP (AUSTRALIA) PTY LTD	Laboratory	: Environmental Division Sydney
Contact	: DANIEL COFFEY	Telephone	: +61-2-8784 8555
Project	: IW272400	Date Samples Received	: 04-Feb-2026
Site	: ----	Issue Date	: 16-Feb-2026
Sampler	: DANIEL COFFEY	No. of samples received	: 9
Order number	: 540003296	No. of samples analysed	: 6

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, where applicable to the methodology, **NO** surrogate recovery outliers occur.

Outliers : Analysis Holding Time Compliance

- Analysis Holding Time Outliers exist - please see following pages for full details.

Outliers : Frequency of Quality Control Samples

- Quality Control Sample Frequency Outliers exist - please see following pages for full details.



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							
EG020F: Dissolved Metals by ICP-MS	EN2601820--004	Anonymous	Manganese	7439-96-5	Not Determined	----	MS recovery not determined, background level greater than or equal to 4x spike level.

Outliers : Analysis Holding Time Compliance

Matrix: **WATER**

Method		Extraction / Preparation			Analysis		
Container / Client Sample ID(s)		Date extracted	Due for extraction	Days overdue	Date analysed	Due for analysis	Days overdue
EA005P: pH by PC Titrator							
Clear Plastic Bottle - Natural							
MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	----	----	----	07-Feb-2026	04-Feb-2026	3
EK057G: Nitrite as N by Discrete Analyser							
Clear Plastic Bottle - Natural							
MW04_260204, SW04_260204,	SW08_260204, SW06_260204	----	----	----	07-Feb-2026	06-Feb-2026	1
EK071G: Reactive Phosphorus as P by discrete analyser							
Clear Plastic Bottle - Natural							
MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	----	----	----	07-Feb-2026	06-Feb-2026	1
EP025: Oxygen - Dissolved (DO)							
Clear Plastic Bottle - Natural							
MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	----	----	----	07-Feb-2026	04-Feb-2026	3
EP030: Biochemical Oxygen Demand (BOD)							
Clear Plastic Bottle - Natural							
MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	----	----	----	07-Feb-2026	06-Feb-2026	1

Outliers : Frequency of Quality Control Samples

Matrix: **WATER**

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP)						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	7	0.00	10.00	NEPM 2013 B3 & ALS QC Standard

Quality Control Sample Type		Count		Rate (%)		Quality Control Specification
Analytical Methods	Method	QC	Regular	Actual	Expected	
Laboratory Duplicates (DUP) - Continued						
TRH - Semivolatile Fraction	EP071	0	6	0.00	10.00	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)						
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	7	0.00	5.00	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	0.00	5.00	NEPM 2013 B3 & ALS QC Standard

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.

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
EA005P: pH by PC Titrator							
Clear Plastic Bottle - Natural (EA005-P) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	04-Feb-2026	✗
EA006: Sodium Adsorption Ratio (SAR)							
Clear Plastic Bottle - Filtered; Lab-acidified (ED093F) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	12-Feb-2026	04-Mar-2026	✓
EA010P: Conductivity by PC Titrator							
Clear Plastic Bottle - Natural (EA010-P) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	04-Mar-2026	✓
EA045: Turbidity							
Clear Plastic Bottle - Natural (EA045) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	06-Feb-2026	06-Feb-2026	✓
EA065: Total Hardness as CaCO3							
Clear Plastic Bottle - Filtered; Lab-acidified (ED093F) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	12-Feb-2026	04-Mar-2026	✓



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	
ED037P: Alkalinity by PC Titrator								
Clear Plastic Bottle - Natural (ED037-P) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	18-Feb-2026	✔	
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Clear Plastic Bottle - Natural (ED041G) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	04-Mar-2026	✔	
ED045G: Chloride by Discrete Analyser								
Clear Plastic Bottle - Natural (ED045G) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	04-Mar-2026	✔	
ED093F: Dissolved Major Cations								
Clear Plastic Bottle - Filtered; Lab-acidified (ED093F) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	12-Feb-2026	04-Mar-2026	✔	
EG020F: Dissolved Metals by ICP-MS								
Clear Plastic Bottle - Filtered; Lab-acidified (EG020A-F) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	12-Feb-2026	03-Aug-2026	✔	
EG035F: Dissolved Mercury by FIMS								
Clear Plastic Bottle - Filtered; Lab-acidified (EG035F) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	13-Feb-2026	04-Mar-2026	✔	
EG050F: Dissolved Hexavalent Chromium								
Clear Plastic Bottle - NaOH Filtered (EG050G-F) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	10-Feb-2026	04-Mar-2026	✔	
EK040P: Fluoride by PC Titrator								
Clear Plastic Bottle - Natural (EK040P) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	04-Mar-2026	✔	



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	
EK055G: Ammonia as N by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK055G) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	11-Feb-2026	04-Mar-2026	✓	
EK057G: Nitrite as N by Discrete Analyser								
Clear Plastic Bottle - Natural (EK057G) MW03_260204	04-Feb-2026	----	----	----	06-Feb-2026	06-Feb-2026	✓	
Clear Plastic Bottle - Natural (EK057G) MW04_260204	04-Feb-2026	----	----	----	07-Feb-2026	06-Feb-2026	✗	
Clear Plastic Bottle - Natural (EK057G) SW01_260204	04-Feb-2026	----	----	----	06-Feb-2026	06-Feb-2026	✓	
Clear Plastic Bottle - Natural (EK057G) SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	06-Feb-2026	✗	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK059G) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	11-Feb-2026	04-Mar-2026	✓	
EK061G: Total Kjeldahl Nitrogen By Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK061G) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	11-Feb-2026	04-Mar-2026	✓	11-Feb-2026	04-Mar-2026	✓	
EK067G: Total Phosphorus as P by Discrete Analyser								
Clear Plastic Bottle - Sulfuric Acid (EK067G) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	11-Feb-2026	04-Mar-2026	✓	11-Feb-2026	04-Mar-2026	✓	
EK071G: Reactive Phosphorus as P by discrete analyser								
Clear Plastic Bottle - Natural (EK071G) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	06-Feb-2026	✗	
EP008: Chlorophyll a & Pheophytin a								
Opaque Plastic Bottle - Unpreserved (EP008) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	06-Feb-2026	06-Feb-2026	✓	

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
EP025: Oxygen - Dissolved (DO)							
Clear Plastic Bottle - Natural (EP025) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	04-Feb-2026	✖
EP030: Biochemical Oxygen Demand (BOD)							
Clear Plastic Bottle - Natural (EP030) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	----	----	----	07-Feb-2026	06-Feb-2026	✖
EP075(SIM)B: Polynuclear Aromatic Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP075(SIM)) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	09-Feb-2026	11-Feb-2026	✓	10-Feb-2026	21-Mar-2026	✓
EP080/071: Total Petroleum Hydrocarbons							
Amber Glass Bottle - Unpreserved (EP071) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	09-Feb-2026	11-Feb-2026	✓	10-Feb-2026	21-Mar-2026	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	10-Feb-2026	18-Feb-2026	✓	10-Feb-2026	18-Feb-2026	✓
EP080/071: Total Recoverable Hydrocarbons - NEPM 2013 Fractions							
Amber Glass Bottle - Unpreserved (EP071) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	09-Feb-2026	11-Feb-2026	✓	10-Feb-2026	21-Mar-2026	✓
Amber VOC Vial - Sulfuric Acid (EP080) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	10-Feb-2026	18-Feb-2026	✓	10-Feb-2026	18-Feb-2026	✓
EP080: BTEXN							
Amber VOC Vial - Sulfuric Acid (EP080) MW03_260204, MW04_260204, SW01_260204, SW08_260204, SW04_260204, SW06_260204	04-Feb-2026	10-Feb-2026	18-Feb-2026	✓	10-Feb-2026	18-Feb-2026	✓



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) MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	04-Feb-2026	09-Feb-2026	03-Aug-2026	✔	11-Feb-2026	03-Aug-2026	✔
EP231B: Perfluoroalkyl Carboxylic Acids								
HDPE (no PTFE) (EP231X) MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	04-Feb-2026	09-Feb-2026	03-Aug-2026	✔	11-Feb-2026	03-Aug-2026	✔
EP231C: Perfluoroalkyl Sulfonamides								
HDPE (no PTFE) (EP231X) MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	04-Feb-2026	09-Feb-2026	03-Aug-2026	✔	11-Feb-2026	03-Aug-2026	✔
EP231D: (n:2) Fluorotelomer Sulfonic Acids								
HDPE (no PTFE) (EP231X) MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	04-Feb-2026	09-Feb-2026	03-Aug-2026	✔	11-Feb-2026	03-Aug-2026	✔
EP231P: PFAS Sums								
HDPE (no PTFE) (EP231X) MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	04-Feb-2026	09-Feb-2026	03-Aug-2026	✔	11-Feb-2026	03-Aug-2026	✔
MW006: Thermotolerant Coliforms & E.coli by MF								
Sterile Plastic Bottle - Sodium Thiosulfate (MW006) MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	04-Feb-2026	----	----	----	04-Feb-2026	05-Feb-2026	✔
MW023: Enterococci by Membrane Filtration								
Sterile Plastic Bottle - Sodium Thiosulfate (MW023) MW03_260204, SW01_260204, SW04_260204,	MW04_260204, SW08_260204, SW06_260204	04-Feb-2026	----	----	----	04-Feb-2026	05-Feb-2026	✔



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)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Biochemical Oxygen Demand (BOD)	EP030	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	5	43	11.63	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	4	38	10.53	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	4	40	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	7	0.00	10.00	✗	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	2	6	33.33	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	8	12.50	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	0.00	10.00	✗	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Turbidity	EA045	1	6	16.67	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Laboratory Control Samples (LCS)							
Alkalinity by Auto Titrator	ED037-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Biochemical Oxygen Demand (BOD)	EP030	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	2	14	14.29	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Chlorophyll a and Pheophytin a	EP008	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	4	43	9.30	8.33	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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 Control Samples (LCS) - Continued							
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
pH by Auto Titrator	EA005-P	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	2	8	25.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	3	20	15.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	2	20	10.00	10.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Turbidity	EA045	3	6	50.00	15.00	✓	NEPM 2013 B3 & ALS QC Standard
Method Blanks (MB)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Biochemical Oxygen Demand (BOD)	EP030	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chlorophyll a and Pheophytin a	EP008	1	10	10.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Conductivity by Auto Titrator	EA010-P	3	43	6.98	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Major Cations - Dissolved	ED093F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite as N by Discrete Analyser	EK057G	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	1	7	14.29	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Turbidity	EA045	1	6	16.67	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Matrix Spikes (MS)							
Ammonia as N by Discrete analyser	EK055G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Chloride by Discrete Analyser	ED045G	1	14	7.14	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Mercury by FIMS	EG035F	2	38	5.26	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Dissolved Metals by ICP-MS - Suite A	EG020A-F	2	40	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Fluoride by Auto Titrator	EK040P	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	1	8	12.50	5.00	✓	NEPM 2013 B3 & ALS QC Standard
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	1	20	5.00	5.00	✓	NEPM 2013 B3 & ALS QC Standard



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	
Matrix Spikes (MS) - Continued							
Nitrite as N by Discrete Analyser	EK057G	1	14	7.14	5.00	✔	NEPM 2013 B3 & ALS QC Standard
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	0	7	0.00	5.00	✘	NEPM 2013 B3 & ALS QC Standard
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Reactive Phosphorus as P-By Discrete Analyser	EK071G	1	6	16.67	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Sulfate (Turbidimetric) as SO4 2- by Discrete Analyser	ED041G	1	8	12.50	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
Total Phosphorus as P By Discrete Analyser	EK067G	1	20	5.00	5.00	✔	NEPM 2013 B3 & ALS QC Standard
TRH - Semivolatile Fraction	EP071	0	6	0.00	5.00	✘	NEPM 2013 B3 & ALS QC Standard
TRH Volatiles/BTEX	EP080	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
pH by Auto Titrator	EA005-P	WATER	In house: Referenced to APHA 4500 H+ B. This procedure determines pH of water samples by automated ISE. This method is compliant with NEPM Schedule B(3)
Conductivity by Auto Titrator	EA010-P	WATER	In house: Referenced to APHA 2510 B. This procedure determines conductivity by automated ISE. This method is compliant with NEPM Schedule B(3)
Calculated TDS (from Electrical Conductivity)	EA016	WATER	In house: Calculation from Electrical Conductivity (APHA 2510 B) using a conversion factor specified in the analytical report. This method is compliant with NEPM Schedule B(3)
Turbidity	EA045	WATER	In house: Referenced to APHA 2130 B. This method is compliant with NEPM Schedule B(3)
Alkalinity by Auto Titrator	ED037-P	WATER	In house: Referenced to APHA 2320 B This procedure determines alkalinity by automated measurement (e.g. Auto Titrator) on a settled supernatant aliquot of the sample using pH 4.5 for indicating the total alkalinity end-point. This method is compliant with NEPM Schedule B(3)
Sulfate (Turbidimetric) as SO ₄ 2- by Discrete Analyser	ED041G	WATER	In house: Referenced to APHA 4500-SO ₄ . Dissolved sulfate is determined in a 0.45µm filtered sample. Sulfate ions are converted to a barium sulfate suspension in an acetic acid medium with barium chloride. Light absorbance of the BaSO ₄ suspension is measured by a photometer and the SO ₄ -2 concentration is determined by comparison of the reading with a standard curve. This method is compliant with NEPM Schedule B(3)
Chloride by Discrete Analyser	ED045G	WATER	In house: Referenced to APHA 4500 Cl - G. The thiocyanate ion is liberated from mercuric thiocyanate through sequestration of mercury by the chloride ion to form non-ionised mercuric chloride. In the presence of ferric ions the liberated thiocyanate forms highly-coloured ferric thiocyanate which is measured at 480 nm.
Major Cations - Dissolved	ED093F	WATER	In house: Referenced to APHA 3120 and 3125; USEPA SW 846 - 6010 and 6020; Cations are determined by either ICP-AES or ICP-MS techniques. This method is compliant with NEPM Schedule B(3) Sodium Adsorption Ratio is calculated from Ca, Mg and Na which determined by ALS in house method QWI-EN/ED093F. This method is compliant with NEPM Schedule B(3) Hardness parameters are calculated based on APHA 2340 B. This method is compliant with NEPM Schedule B(3)
Dissolved Metals by ICP-MS - Suite A	EG020A-F	WATER	In house: Referenced to APHA 3125; USEPA SW846 - 6020, ALS QWI-EN/EG020. Samples are 0.45µm filtered prior to analysis. The ICPMS technique utilizes a highly efficient argon plasma to ionize selected elements. Ions are then passed into a high vacuum mass spectrometer, which separates the analytes based on their distinct mass to charge ratios prior to their measurement by a discrete dynode ion detector.
Dissolved Mercury by FIMS	EG035F	WATER	In house: Referenced to APHA 3112 Hg - B (Flow-injection (SnCl ₂)(Cold Vapour generation) AAS) Samples are 0.45µm filtered prior to analysis. FIM-AAS is an automated flameless atomic absorption technique. A bromate/bromide reagent is used to oxidise any organic mercury compounds in the filtered sample. The ionic mercury is reduced online to atomic mercury vapour by SnCl ₂ which is then purged into a heated quartz cell. Quantification is by comparing absorbance against a calibration curve. This method is compliant with NEPM Schedule B(3).
Trivalent Chromium - Dissolved	EG049G-F	WATER	In house: Referenced to APHA 3500 Cr-B & 3120/3125. Trivalent Chromium is the difference between total dissolved and dissolved hexavalent chromium.



Analytical Methods	Method	Matrix	Method Descriptions
Hexavalent Chromium by Discrete Analyser - Dissolved	EG050G-F	WATER	In house: Referenced to APHA 3500 Cr-A & B. Samples are 0.45µm filtered prior to analysis. Hexavalent chromium is determined directly on water sample by Discrete Analyser as received by pH adjustment and colour development using dephenylcarbazine. Each run of samples is measured against a five-point calibration curve. This method is compliant with NEPM Schedule B(3).
Fluoride by Auto Titrator	EK040P	WATER	In house: Referenced to APHA 4500-F C: CDTA is added to the sample to provide a uniform ionic strength background, adjust pH, and break up complexes. Fluoride concentration is determined by either manual or automatic ISE measurement. This method is compliant with NEPM Schedule B(3)
Ammonia as N by Discrete analyser	EK055G	WATER	In house: Referenced to APHA 4500-NH3 G Ammonia is determined by direct colorimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrite as N by Discrete Analyser	EK057G	WATER	In house: Referenced to APHA 4500-NO2- B. Nitrite is determined by direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Nitrate as N by Discrete Analyser	EK058G	WATER	In house: Referenced to APHA 4500-NO3- F. Nitrate is reduced to nitrite by way of a chemical reduction followed by quantification by Discrete Analyser. Nitrite is determined separately by direct colourimetry and result for Nitrate calculated as the difference between the two results. This method is compliant with NEPM Schedule B(3)
Nitrite and Nitrate as N (NOx) by Discrete Analyser	EK059G	WATER	In house: Referenced to APHA 4500-NO3- F. Combined oxidised Nitrogen (NO2+NO3) is determined by Chemical Reduction and direct colourimetry by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Total Kjeldahl Nitrogen as N By Discrete Analyser	EK061G	WATER	In house: Referenced to APHA 4500-Norg D (In house). An aliquot of sample is digested using a high temperature Kjeldahl digestion to convert nitrogenous compounds to ammonia. Ammonia is determined colorimetrically by discrete analyser. This method is compliant with NEPM Schedule B(3)
Total Nitrogen as N (TKN + Nox) By Discrete Analyser	EK062G	WATER	In house: Referenced to APHA 4500-Norg / 4500-NO3-. This method is compliant with NEPM Schedule B(3)
Total Phosphorus as P By Discrete Analyser	EK067G	WATER	In house: Referenced to APHA 4500-P H, Jirka et al, Zhang et al. This procedure involves sulphuric acid digestion of a sample aliquot to break phosphorus down to orthophosphate. The orthophosphate reacts with ammonium molybdate and antimony potassium tartrate to form a complex which is then reduced and its concentration measured at 880nm using discrete analyser. This method is compliant with NEPM Schedule B(3)
Reactive Phosphorus as P-By Discrete Analyser	EK071G	WATER	In house: Referenced to APHA 4500-P F Ammonium molybdate and potassium antimonyl tartrate reacts in acid medium with orthophosphate to form a heteropoly acid -phosphomolybdic acid - which is reduced to intensely coloured molybdenum blue by ascorbic acid. Quantification is by Discrete Analyser. This method is compliant with NEPM Schedule B(3)
Ionic Balance by PCT DA and Turbi SO4 DA	* EN055 - PG	WATER	In house: Referenced to APHA 1030E. This method is compliant with NEPM Schedule B(3)
Chlorophyll a and Pheophytin a	EP008	WATER	In house: Referenced to APHA 10200 H. The pigments are extracted into aqueous acetone. The optical density of the extract before and after acidification at both 664 nm and 665 nm is determined spectrometrically.
Oxygen - Dissolved	EP025	WATER	In house: Referenced to APHA 4500-O G. Dissolved Oxygen Probe. This method is compliant with NEPM Schedule B(3)
Biochemical Oxygen Demand (BOD)	EP030	WATER	In house: Referenced to APHA 5210 B. The 5-Day BOD test provides an empirical measure of the oxygen consumption capacity of a given water. A portion of the sample is diluted into oxygenated, nutrient rich water, and a seed added to begin biological decay. The initial dissolved oxygen content is measured, then the bottle is sealed and incubated for five days. The remaining dissolved oxygen is measured, and from the difference, the demand for oxygen, by biological decay, is determined. This method is compliant with NEPM Schedule B(3).



Analytical Methods	Method	Matrix	Method Descriptions
TRH - Semivolatile Fraction	EP071	WATER	In house: Referenced to USEPA SW 846 - 8015 The sample extract is analysed by Capillary GC/FID and quantification is by comparison against an established 5 point calibration curve of n-Alkane standards. This method is compliant with the QC requirements of NEPM Schedule B(3)
PAH/Phenols (GC/MS - SIM)	EP075(SIM)	WATER	In house: Referenced to USEPA SW 846 - 8270 Sample extracts are analysed by Capillary GC/MS in SIM Mode and quantification is by comparison against an established 5 point calibration curve. This method is compliant with NEPM Schedule B(3)
TRH Volatiles/BTEX	EP080	WATER	In house: Referenced to USEPA SW 846 - 8260 Water samples are directly purged prior to analysis by Capillary GC/MS and quantification is by comparison against an established 5 point calibration curve. Alternatively, a sample is equilibrated in a headspace vial and a portion of the headspace determined by GCMS analysis. This method is compliant with the QC requirements of NEPM Schedule B(3)
Per- and Polyfluoroalkyl Substances (PFAS) by LCMSMS	EP231X	WATER	In-house: Analysis of fresh and saline waters by solid phase extraction (SPE) followed by negative mode LC-ESI-MS/MS using MRM and isotope dilution or internal standard quantitation. Isotope dilution standards (where commercially available) and surrogates are added to the sample container. The entire contents are transferred to a weak anion exchange (WAX) 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. Data quality objectives for internal standard recoveries are based on US EPA method 1633.
Thermotolerant Coliforms & E.coli by Membrane Filtration	MW006	WATER	AS 4276.5
Enumeration of Enterococci by Membrane Filtration	MW023	WATER	AS4276.9
Preparation Methods	Method	Matrix	Method Descriptions
TKN/TP Digestion	EK061/EK067	WATER	In house: Referenced to APHA 4500 Norg - D; APHA 4500 P - H. This method is compliant with NEPM Schedule B(3)
Separatory Funnel Extraction of Liquids	ORG14	WATER	In house: Referenced to USEPA SW 846 - 3510 100 mL to 1L of sample is transferred to a separatory funnel and serially extracted three times using DCM for each extract. The resultant extracts are combined, dehydrated and concentrated for analysis. This method is compliant with NEPM Schedule B(3) . ALS default excludes sediment which may be resident in the container.
Volatiles Water Preparation	ORG16-W	WATER	A 5 mL aliquot or 5 mL of a diluted sample is added to a 40 mL VOC vial for purging.
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.

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Sample Receipt Advice

Company name:	Jacobs Group (Australia) P/L NSW
Contact name:	Daniel Coffey
Project name:	Not provided
Project ID:	IW272400
Turnaround time:	5 Day
Date/Time received	Feb 6, 2026 2:31 PM
Eurofins reference	1320528

Sample Information

- ✓ A detailed list of analytes logged into our LIMS, is included in the attached summary table.
- ✓ All samples have been received as described on the above COC.
- ✓ COC has been completed correctly.
- ✓ Attempt to chill was evident.
- ✓ Appropriately preserved sample containers have been used.
- ✓ All samples were received in good condition.
- ✓ Samples have been provided with adequate time to commence analysis in accordance with the relevant holding times.
- ✓ Appropriate sample containers have been used.
- ✓ Sample containers for volatile analysis received with zero headspace.
- ✗ Split sample sent to requested external lab.
- ✗ Some samples have been subcontracted.
- N/A Custody Seals intact (if used).

Notes

Sample Q201_260203 was received labelled as QC201_260203 on the bottles.

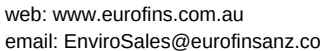
Contact

If you have any questions with respect to these samples, please contact your Analytical Services Manager:

Andrew Black on phone : (+61) 2 9900 8490 or by email: Andrew.Black@eurofinsanz.com

Results will be delivered electronically via email to Daniel Coffey - daniel.coffey@jacobs.com.

Note: A copy of these results will also be delivered to the general Jacobs Group (Australia) P/L NSW email address.



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Address: Level 7, 177 Pacific Highway
North Sydney
NSW 2065

Order No.: 540003296
Report #: 1320528
Phone: 02 9928 2100
Fax: 02 9928 2504

Received: Feb 6, 2026 2:31 PM
Due: Feb 13, 2026
Priority: 5 Day
Contact Name: Daniel Coffey

Project Name:
Project ID: IW272400

Eurofins Analytical Services Manager : Andrew Black

[illegible]

Jacobs Group (Australia) P/L NT
Level 2, 25 Parap Rd
Darwin
NT 0804



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Accreditation Number 1261
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NATA is a signatory to the ILAC Mutual Recognition
Arrangement for the mutual recognition of the
equivalence of testing, medical testing, calibration,
inspection, proficiency testing scheme providers and
reference materials producers reports and certificates.

Attention: Daniel Coffey

Report 1320528-W

Project name

Project ID IW272400

Received Date Feb 06, 2026

Client Sample ID			Q201_260203	QC202_260203
Sample Matrix			Water	Water
Eurofins Sample No.			S26-Fe0018730	S26-Fe0018731
Date Sampled			Feb 03, 2026	Feb 03, 2026
Test/Reference	LOR	Unit		
Total Recoverable Hydrocarbons				
TRH C6-C9	0.02	mg/L	< 0.02	< 0.02
TRH C10-C14	0.05	mg/L	< 0.05	< 0.05
TRH C15-C28	0.1	mg/L	0.5	< 0.1
TRH C29-C36	0.1	mg/L	0.2	< 0.1
TRH C10-C36 (Total)	0.1	mg/L	0.7	< 0.1
TRH C6-C10	0.02	mg/L	< 0.02	< 0.02
TRH C6-C10 less BTEX (F1) ^{N04}	0.02	mg/L	< 0.02	< 0.02
TRH >C10-C16	0.05	mg/L	< 0.05	< 0.05
TRH >C10-C16 less Naphthalene (F2) ^{*N01}	0.05	mg/L	< 0.05	< 0.05
Naphthalene ^{N02}	0.01	mg/L	< 0.01	< 0.01
TRH >C16-C34	0.1	mg/L	0.7	< 0.1
TRH >C34-C40	0.1	mg/L	< 0.1	< 0.1
TRH >C10-C40 (total)*	0.1	mg/L	0.7	< 0.1
BTEX				
Benzene	0.001	mg/L	< 0.001	< 0.001
Toluene	0.001	mg/L	< 0.001	< 0.001
Ethylbenzene	0.001	mg/L	< 0.001	< 0.001
m&p-Xylenes	0.002	mg/L	< 0.002	< 0.002
o-Xylene	0.001	mg/L	< 0.001	< 0.001
Xylenes - Total*	0.003	mg/L	< 0.003	< 0.003
4-Bromofluorobenzene (surr.)	1	%	98	101
Polycyclic Aromatic Hydrocarbons				
Acenaphthene	0.001	mg/L	< 0.001	< 0.001
Acenaphthylene	0.001	mg/L	< 0.001	< 0.001
Anthracene	0.001	mg/L	< 0.001	< 0.001
Benz(a)anthracene	0.001	mg/L	< 0.001	< 0.001
Benzo(a)pyrene	0.001	mg/L	< 0.001	< 0.001
Benzo(b&j)fluoranthene ^{N07}	0.001	mg/L	< 0.001	< 0.001
Benzo(g,h,i)perylene	0.001	mg/L	< 0.001	< 0.001
Benzo(k)fluoranthene	0.001	mg/L	< 0.001	< 0.001
Chrysene	0.001	mg/L	< 0.001	< 0.001
Dibenz(a,h)anthracene	0.001	mg/L	< 0.001	< 0.001
Fluoranthene	0.001	mg/L	< 0.001	< 0.001
Fluorene	0.001	mg/L	< 0.001	< 0.001
Indeno(1,2,3-cd)pyrene	0.001	mg/L	< 0.001	< 0.001

Client Sample ID			Q201_260203	QC202_260203
Sample Matrix			Water	Water
Eurofins Sample No.			S26-Fe0018730	S26-Fe0018731
Date Sampled			Feb 03, 2026	Feb 03, 2026
Test/Reference	LOR	Unit		
Polycyclic Aromatic Hydrocarbons				
Naphthalene	0.001	mg/L	< 0.001	< 0.001
Phenanthrene	0.001	mg/L	< 0.001	< 0.001
Pyrene	0.001	mg/L	< 0.001	< 0.001
Total PAH*	0.001	mg/L	< 0.001	< 0.001
2-Fluorobiphenyl (surr.)	1	%	51	^{Q09} INT
p-Terphenyl-d14 (surr.)	1	%	125	140
Ammonia (as N)	0.01	mg/L	0.88	< 0.01
Dissolved Oxygen	0.1	mg/L	0.2	4.1
Nitrate & Nitrite (as N)	0.05	mg/L	< 0.05	1.5
Nitrate (as N)	0.02	mg/L	0.03	1.5
Nitrite (as N)	0.02	mg/L	< 0.02	< 0.02
Organic Nitrogen (as N)*	0.2	mg/L	0.72	0.3
pH (at 25 °C)	0.1	pH Units	5.7	6.4
Phosphate total (as P)	0.01	mg/L	0.12	< 0.01
Phosphorus reactive (as P)	0.05	mg/L	< 0.05	< 0.01
Total Dissolved Solids Dried at 180 °C ± 2 °C	10	mg/L	5100	300
Total Kjeldahl Nitrogen (as N)	0.2	mg/L	1.6	0.3
Total Nitrogen (as N)*	0.2	mg/L	1.6	1.8
Hardness mg equivalent CaCO3/L	1	mg/L	700	77
Chloride	1	mg/L	-	67
Conductivity (at 25 °C)	10	uS/cm	-	470
Fluoride	0.1	mg/L	-	0.2
Sulphate (as SO4)	2	mg/L	-	65
Turbidity	1	NTU	-	1.4
Hexavalent Chromium Set (filtered)				
Chromium (hexavalent filtered)	0.005	mg/L	0.015	< 0.005
Chromium (trivalent filtered)	0.005	mg/L	0.015	< 0.005
Alkali Metals				
Calcium	0.5	mg/L	90	21
Magnesium	0.5	mg/L	120	6.3
Potassium	0.5	mg/L	35	9.0
Sodium	0.5	mg/L	1400	63
Heavy Metals				
Arsenic (filtered)	0.001	mg/L	0.001	< 0.001
Barium (filtered)	0.02	mg/L	0.23	0.06
Beryllium (filtered)	0.001	mg/L	< 0.001	< 0.001
Boron (filtered)	0.05	mg/L	0.31	< 0.05
Cadmium (filtered)	0.0002	mg/L	< 0.0002	< 0.0002
Chromium (filtered)	0.001	mg/L	< 0.001	< 0.001
Cobalt (filtered)	0.001	mg/L	< 0.001	< 0.001
Copper (filtered)	0.001	mg/L	< 0.001	< 0.001
Lead (filtered)	0.001	mg/L	< 0.001	< 0.001
Manganese (filtered)	0.005	mg/L	3.3	0.27
Mercury (filtered)	0.0001	mg/L	< 0.0001	< 0.0001
Nickel (filtered)	0.001	mg/L	< 0.001	< 0.001
Selenium (filtered)	0.001	mg/L	0.001	< 0.001
Vanadium (filtered)	0.005	mg/L	< 0.005	< 0.005
Zinc (filtered)	0.005	mg/L	0.008	< 0.005

Client Sample ID			Q201_260203	QC202_260203
Sample Matrix			Water	Water
Eurofins Sample No.			S26-Fe0018730	S26-Fe0018731
Date Sampled			Feb 03, 2026	Feb 03, 2026
Test/Reference	LOR	Unit		
Perfluoroalkyl carboxylic acids (PFCAs)				
Perfluorobutanoic acid (PFBA) ^{N11}	0.05	ug/L	0.06	< 0.05
Perfluoropentanoic acid (PFPeA) ^{N11}	0.01	ug/L	0.21	0.02
Perfluorohexanoic acid (PFHxA) ^{N11}	0.01	ug/L	0.14	0.01
Perfluoroheptanoic acid (PFHpA) ^{N11}	0.01	ug/L	^{N09} 0.06	< 0.01
Perfluorooctanoic acid (PFOA) ^{N11}	0.01	ug/L	^{N09} 0.02	< 0.01
Perfluorononanoic acid (PFNA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanoic acid (PFDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroundecanoic acid (PFUnDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorododecanoic acid (PFDoDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorotridecanoic acid (PFTrDA) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorotetradecanoic acid (PFTeDA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C4-PFBA (surr.)	1	%	96	94
13C5-PFPeA (surr.)	1	%	103	112
13C5-PFHxA (surr.)	1	%	118	98
13C4-PFHpA (surr.)	1	%	131	99
13C8-PFOA (surr.)	1	%	104	84
13C5-PFNA (surr.)	1	%	116	100
13C6-PFDA (surr.)	1	%	100	102
13C2-PFUnDA (surr.)	1	%	82	99
13C2-PFDoDA (surr.)	1	%	88	95
13C2-PFTeDA (surr.)	1	%	83	96
Perfluoroalkyl sulfonamido substances				
Perfluorooctane sulfonamide (FOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
13C8-FOSA (surr.)	1	%	83	96
D3-N-MeFOSA (surr.)	1	%	96	103
D5-N-EtFOSA (surr.)	1	%	98	102
D7-N-MeFOSE (surr.)	1	%	87	89
D9-N-EtFOSE (surr.)	1	%	83	89
D5-N-EtFOSAA (surr.)	1	%	81	95
D3-N-MeFOSAA (surr.)	1	%	80	85
Perfluoroalkyl sulfonic acids (PFSAs)				
Perfluorobutanesulfonic acid (PFBS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorononanesulfonic acid (PFNS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluoropropanesulfonic acid (PFPrS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluoropentanesulfonic acid (PFPeS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorohexanesulfonic acid (PFHxS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluoroheptanesulfonic acid (PFHpS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
Perfluorooctanesulfonic acid (PFOS) ^{N11}	0.01	ug/L	< 0.01	< 0.01
Perfluorodecanesulfonic acid (PFDS) ^{N15}	0.01	ug/L	< 0.01	< 0.01
13C3-PFBS (surr.)	1	%	112	101

Client Sample ID			Q201_260203	QC202_260203
Sample Matrix			Water	Water
Eurofins Sample No.			S26-Fe0018730	S26-Fe0018731
Date Sampled			Feb 03, 2026	Feb 03, 2026
Test/Reference	LOR	Unit		
Perfluoroalkyl sulfonic acids (PFSA)				
18O2-PFHxS (surr.)	1	%	111	100
13C8-PFOS (surr.)	1	%	101	102
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA) ^{N11}	0.05	ug/L	< 0.05	< 0.05
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA) ^{N11}	0.01	ug/L	< 0.01	< 0.01
13C2-4:2 FTSA (surr.)	1	%	132	91
13C2-6:2 FTSA (surr.)	1	%	118	97
13C2-8:2 FTSA (surr.)	1	%	114	107
13C2-10:2 FTSA (surr.)	1	%	81	97
PFASs Summations				
Sum (PFHxS + PFOS)*	0.01	ug/L	< 0.01	< 0.01
Sum of WA DWER PFAS (n=10)*	0.05	ug/L	0.49	< 0.05
Sum of PFASs (n=30)*	0.1	ug/L	0.5	< 0.1
Alkalinity (speciated)				
Bicarbonate Alkalinity (as CaCO3)	20	mg/L	-	38
Carbonate Alkalinity (as CaCO3)	20	mg/L	-	< 20

Sample History

Where samples are submitted/analysed over several days, the last date of extraction is reported.

If the date and time of sampling are not provided, the Laboratory will not be responsible for compromised results should testing be performed outside the recommended holding time.

Description	Testing Site	Extracted	Holding Time
Eurofins Suite B4			
Total Recoverable Hydrocarbons - 1999 NEPM Fractions	Sydney	Feb 10, 2026	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 10, 2026	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
Total Recoverable Hydrocarbons - 2013 NEPM Fractions	Sydney	Feb 10, 2026	7 Days
- Method: LTM-ORG-2010 TRH C6-C40			
BTEX	Sydney	Feb 10, 2026	14 Days
- Method: LTM-ORG-2010 BTEX and Volatile TRH			
Polycyclic Aromatic Hydrocarbons	Sydney	Feb 10, 2026	7 Days
- Method: LTM-ORG-2130 PAH and Phenols in Soil and Water			
Eurofins Suite B19E: Total N, TKN, NOx, NO2, NO3, NH3, Total P, Reactive P			
Ammonia (as N)	Melbourne	Feb 09, 2026	28 Days
- Method: LTM-INO-4450 Determination of Nitrogen Species by Discrete Analyser			
Nitrate & Nitrite (as N)	Melbourne	Feb 09, 2026	28 Days
- Method: LTM-INO-4450 Nitrogens by Discrete Analyser			
Nitrate (as N)	Melbourne	Feb 09, 2026	28 Days
- Method: LTM-INO-4450 Nitrogens by Discrete Analyser			
Nitrite (as N)	Melbourne	Feb 09, 2026	2 Days
- Method: LTM-INO-4450 Nitrogens by Discrete Analyser			
Phosphate total (as P)	Sydney	Feb 10, 2026	28 Days
- Method: E052 Total Phosphate (as P)			
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Phosphorus reactive (as P)	Sydney	Feb 10, 2026	28 Days
- Method: E052 Reactive phosphate (as P)			
- Method: APHA 4500-P			
Total Kjeldahl Nitrogen (as N)	Melbourne	Feb 09, 2026	28 Days
- Method: APHA 4500-Norg B,D Total Kjeldahl Nitrogen by FIA			
Dissolved Oxygen	Sydney	Feb 10, 2026	24 Hours
- Method: LTM-INO-4130 Determination of Dissolved Oxygen using a DO meter			
pH (at 25 °C)	Sydney	Feb 10, 2026	6 Hours
- Method: LTM-GEN-7090 pH in water by ISE			
Fluoride	Sydney	Feb 10, 2026	28 Days
- Method: LTM-INO-4270 Anions by Ion Chromatography			
Turbidity	Sydney	Feb 10, 2026	2 Days
- Method: LTM-INO-4140 Turbidity by Nephelometric Method			
Hexavalent Chromium Set (filtered)	Sydney	Feb 10, 2026	28 Days
- Method: LTM-INO-4100 Hexavalent Chromium in water			
NEPM Metals : Metals M15 filtered (ex HexCr)			
Arsenic (filtered)	Sydney	Feb 10, 2026	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Barium (filtered)	Sydney	Feb 10, 2026	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Beryllium (filtered)	Sydney	Feb 10, 2026	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Boron (filtered)	Sydney	Feb 10, 2026	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Cadmium (filtered)	Sydney	Feb 10, 2026	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			
Chromium (filtered)	Sydney	Feb 10, 2026	180 Days
- Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS			

Description	Testing Site	Extracted	Holding Time
Cobalt (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Copper (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Lead (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Manganese (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Mercury (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	28 Days
Nickel (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Selenium (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Vanadium (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Zinc (filtered) - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	6 Months
Eurofins Suite B11B			
Total Dissolved Solids Dried at 180 °C ± 2 °C - Method: LTM-INO-4170 Total Dissolved Solids in Water	Sydney	Feb 10, 2026	7 Days
Chloride - Method: LTM-INO-4270 Anions by Ion Chromatography	Sydney	Feb 10, 2026	28 Days
Conductivity (at 25 °C) - Method: LTM-INO-4030 Conductivity	Sydney	Feb 10, 2026	28 Days
Sulphate (as SO ₄) - Method: In-house method LTM-INO-4270 Sulphate by Ion Chromatograph	Sydney	Feb 10, 2026	28 Days
Alkali Metals - Method: LTM-MET-3040 Metals in Waters, Soils & Sediments by ICP-MS	Sydney	Feb 10, 2026	180 Days
Alkalinity (speciated) - Method: LTM-INO-4250 Alkalinity by Electrometric Titration	Sydney	Feb 10, 2026	14 Days
Hardness Set			
Hardness mg equivalent CaCO ₃ /L - Method: LTM-MET-3040 Hardness by Calculation	Sydney	Feb 10, 2026	28 Days
Per- and Polyfluoroalkyl Substances (PFASs)			
Perfluoroalkyl carboxylic acids (PFCAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Feb 12, 2026	28 Days
Perfluoroalkyl sulfonamido substances - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Feb 12, 2026	28 Days
Perfluoroalkyl sulfonic acids (PFSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Feb 12, 2026	28 Days
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs) - Method: LTM-ORG-2100 Per- and Polyfluoroalkyl Substances (PFAS)	Sydney	Feb 12, 2026	28 Days

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Company Name: Jacobs Group (Australia) P/L NSW
Address: Level 7, 177 Pacific Highway
North Sydney
NSW 2065

Order No.: 540003296
Report #: 1320528
Phone: 02 9928 2100
Fax: 02 9928 2504

Received: Feb 6, 2026 2:31 PM
Due: Feb 13, 2026
Priority: 5 Day
Contact Name: Daniel Coffey

Project Name:
Project ID: IW272400

Eurofins Analytical Services Manager : Andrew Black

Sample Detail						Dissolved Oxygen	Fluoride	pH (at 25 °C)	Turbidity	Hardness Set	NEPM Metals : Metals M15 filtered (ex HexC)	Eurofins Suite B11B	Hexavalent Chromium Set (filtered)	Eurofins Suite B4	Eurofins Suite B19E: Total N, TKN, NO _x , NO ₂ , NO ₃ , NH ₃ , Total P, Reactive P	Per- and Polyfluoroalkyl Substances (PFASs)
Melbourne Laboratory - NATA # 1261 Site # 1254												X			X	
Sydney Laboratory - NATA # 1261 Site # 18217						X	X	X	X	X	X	X	X	X	X	X
External Laboratory																
No	Sample ID	Sample Date	Sampling Time	Matrix	LAB ID											
1	Q201_260203	Feb 03, 2026		Water	S26-Fe0018730	X	X	X	X	X	X	X	X	X	X	X
2	QC202_260203	Feb 03, 2026		Water	S26-Fe0018731	X	X	X	X	X	X	X	X	X	X	X
Test Counts						2	2	2	2	2	2	2	2	2	2	2

Internal Quality Control Review and Glossary

General

1. Laboratory QC results for Method Blanks, Duplicates, Matrix Spikes, and Laboratory Control Samples follow guidelines delineated in the National Environment Protection (Assessment of Site Contamination) Measure 1999, as amended May 2013. They are included in this QC report where applicable. Additional QC data may be available on request.
2. Unless otherwise stated, all soil/sediment/solid results are reported on a dry weight basis.
3. Unless otherwise stated, all biota/food results are reported on a wet weight basis on the edible portion.
4. For CEC results where the sample's origin is unknown or environmentally contaminated, the results should be used advisedly.
5. Actual LORs are matrix dependent. Quoted LORs may be raised where sample extracts are diluted due to interferences.
6. Results are uncorrected for matrix spikes or surrogate recoveries except for PFAS compounds where annotated.
7. SVOC analysis on waters is performed on homogenised, unfiltered samples unless noted otherwise.
8. Samples were analysed on an 'as received' basis.
9. Information identified in this report with **blue** colour indicates data provided by customers that may have an impact on the results.
10. This report replaces any interim results previously issued.

Holding Times

Please refer to the 'Sample Preservation and Container Guide' for holding times (QS3001).

For samples received on the last day of holding time, notification of testing requirements should have been received at least 6 hours before sample receipt deadlines as stated on the SRA.

If the Laboratory did not receive the information in the required timeframe, and despite any other integrity issues, suitably qualified results may still be reported.

Holding times apply from the sampling date; therefore, compliance with these may be outside the laboratory's control.

For VOCs containing vinyl chloride, styrene and 2-chloroethyl vinyl ether, the holding time is seven days; however, for all other VOCs, such as BTEX or C6-10 TRH, the holding time is 14 days.

Units

mg/kg: milligrams per kilogram	mg/L: milligrams per litre	ppm: parts per million
µg/L: micrograms per litre	ppb: parts per billion	%: Percentage
org/100 mL: Organisms per 100 millilitres	NTU: Nephelometric Turbidity Units	MPN/100 mL: Most Probable Number of organisms per 100 millilitres
CFU: Colony Forming Unit	Colour: Pt-Co Units (CU)	

Terms

APHA	American Public Health Association
CEC	Cation Exchange Capacity
COC	Chain of Custody
CP	Client Parent - QC was performed on samples pertaining to this report
CRM	Certified Reference Material (ISO17034) - reported as percent recovery.
Dry	Where moisture has been determined on a solid sample, the result is expressed on a dry weight basis.
Duplicate	A second piece of analysis from the same sample and reported in the same units as the result to show comparison.
LOR	Limit of Reporting.
LCS	Laboratory Control Sample - reported as percent recovery.
Method Blank	In the case of solid samples, these are performed on laboratory-certified clean sands and in the case of water samples, these are performed on de-ionised water.
NCP	Non-Client Parent - QC performed on samples not pertaining to this report, QC represents the sequence or batch that client samples were analysed within.
RPD	Relative Percent Difference between two Duplicate pieces of analysis.
SPIKE	Addition of the analyte to the sample and reported as percentage recovery.
SRA	Sample Receipt Advice
Surr - Surrogate	The addition of a similar compound to the analyte target is reported as percentage recovery. See below for acceptance criteria.
TBTO	Tributyltin oxide (<i>bis</i> -tributyltin oxide) - individual tributyltin compounds cannot be identified separately in the environment; however, free tributyltin was measured, and its values were converted stoichiometrically into tributyltin oxide for comparison with regulatory limits.
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxic Equivalency Quotient or Total Equivalence
QSM	US Department of Defense Quality Systems Manual Version 6.0
US EPA	United States Environmental Protection Agency
WA DWER	Sum of PFBA, PFPeA, PFHxA, PFHpA, PFOA, PFBS, PFHxS, PFOS, 6:2 FTSA, 8:2 FTSA

QC - Acceptance Criteria

The acceptance criteria should only be used as a guide and may be different when site-specific Sampling Analysis and Quality Plan (SAQP) have been implemented.

RPD Duplicates: Global RPD Duplicates Acceptance Criteria is ≤30%; however, the following acceptance guidelines are equally applicable:

Results <10 times the LOR:	No Limit
Results between 10-20 times the LOR:	RPD must lie between 0-50%
Results >20 times the LOR:	RPD must lie between 0-30%

NOTE: pH duplicates are reported as a range, not as RPD

Surrogate Recoveries: Recoveries must lie between 20-130% for Speciated Phenols & 50-150% for PFAS. SVOCs recoveries 20 – 150%, VOC recoveries 50 – 150%

PFAS field samples containing surrogate recoveries above the QC limit designated in QSM 6.0, where no positive PFAS results have been reported or reviewed, and no data was affected.

QC Data General Comments

1. Where a result is reported as less than (<), higher than the nominated LOR, this is due to either matrix interference, extract dilution required due to interferences or contaminant levels within the sample, high moisture content or insufficient sample provided.
2. Duplicate data shown within this report that states the word "BATCH" is a Batch Duplicate from outside of your sample batch but within the laboratory sample batch at a 1:10 ratio. The Parent and Duplicate data shown are not data from your samples.
3. pH and Free Chlorine analysed in the laboratory - Analysis on this test must begin within 30 minutes of sampling. Therefore, laboratory analysis is unlikely to be completed within holding time. Analysis will begin as soon as possible after sample receipt.
4. Recovery Data (Spikes & Surrogates) - where chromatographic interference does not allow the determination of recovery, the term "INT" appears against that analyte.
5. For Matrix Spikes and LCS results, a dash "-" in the report means that the specific analyte was not added to the QC sample.
6. Duplicate RPDs are calculated from raw analytical data; thus, it is possible to have two sets of data.

Quality Control Results

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Nitrate & Nitrite (as N)	mg/L	< 0.05			0.05	Pass	
Nitrate (as N)	mg/L	< 0.02			0.02	Pass	
Nitrite (as N)	mg/L	< 0.02			0.02	Pass	
Phosphorus reactive (as P)	mg/L	< 0.05			0.05	Pass	
Total Dissolved Solids Dried at 180 °C ± 2 °C	mg/L	-1000000			10	Pass	
Total Kjeldahl Nitrogen (as N)	mg/L	< 0.2			0.2	Pass	
Method Blank							
Hexavalent Chromium Set (filtered)							
Chromium (hexavalent filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Alkali Metals							
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Barium (filtered)	mg/L	< 0.02			0.02	Pass	
Beryllium (filtered)	mg/L	< 0.001			0.001	Pass	
Boron (filtered)	mg/L	< 0.05			0.05	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Cobalt (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Manganese (filtered)	mg/L	< 0.005			0.005	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Selenium (filtered)	mg/L	< 0.001			0.001	Pass	
Vanadium (filtered)	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Total Recoverable Hydrocarbons							
TRH C6-C9	mg/L	< 0.02			0.02	Pass	
TRH C10-C14	mg/L	< 0.05			0.05	Pass	
TRH C15-C28	mg/L	< 0.1			0.1	Pass	
TRH C29-C36	mg/L	< 0.1			0.1	Pass	
TRH C6-C10	mg/L	< 0.02			0.02	Pass	
TRH >C10-C16	mg/L	< 0.05			0.05	Pass	
Naphthalene	mg/L	< 0.01			0.01	Pass	
TRH >C16-C34	mg/L	< 0.1			0.1	Pass	
TRH >C34-C40	mg/L	< 0.1			0.1	Pass	
Method Blank							
BTEX							
Benzene	mg/L	< 0.001			0.001	Pass	
Toluene	mg/L	< 0.001			0.001	Pass	
Ethylbenzene	mg/L	< 0.001			0.001	Pass	
m&p-Xylenes	mg/L	< 0.002			0.002	Pass	
o-Xylene	mg/L	< 0.001			0.001	Pass	
Xylenes - Total*	mg/L	< 0.003			0.003	Pass	
Method Blank							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	mg/L	< 0.001			0.001	Pass	
Acenaphthylene	mg/L	< 0.001			0.001	Pass	
Anthracene	mg/L	< 0.001			0.001	Pass	
Benz(a)anthracene	mg/L	< 0.001			0.001	Pass	
Benzo(a)pyrene	mg/L	< 0.001			0.001	Pass	
Benzo(b&j)fluoranthene	mg/L	< 0.001			0.001	Pass	
Benzo(g,h,i)perylene	mg/L	< 0.001			0.001	Pass	
Benzo(k)fluoranthene	mg/L	< 0.001			0.001	Pass	
Chrysene	mg/L	< 0.001			0.001	Pass	
Dibenz(a,h)anthracene	mg/L	< 0.001			0.001	Pass	
Fluoranthene	mg/L	< 0.001			0.001	Pass	
Fluorene	mg/L	< 0.001			0.001	Pass	
Indeno(1,2,3-cd)pyrene	mg/L	< 0.001			0.001	Pass	
Naphthalene	mg/L	< 0.001			0.001	Pass	
Phenanthrene	mg/L	< 0.001			0.001	Pass	
Pyrene	mg/L	< 0.001			0.001	Pass	
Method Blank							
Ammonia (as N)	mg/L	< 0.01			0.01	Pass	
Nitrate & Nitrite (as N)	mg/L	< 0.05			0.05	Pass	
Nitrate (as N)	mg/L	< 0.02			0.02	Pass	
Nitrite (as N)	mg/L	< 0.02			0.02	Pass	
Phosphate total (as P)	mg/L	< 0.01			0.01	Pass	
Total Kjeldahl Nitrogen (as N)	mg/L	< 0.2			0.2	Pass	
Chloride	mg/L	< 1			1	Pass	
Conductivity (at 25 °C)	uS/cm	< 10			10	Pass	
Fluoride	mg/L	< 0.1			0.1	Pass	
Sulphate (as SO4)	mg/L	< 2			2	Pass	
Turbidity	NTU	< 1			1	Pass	
Method Blank							
Alkali Metals							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Calcium	mg/L	< 0.5			0.5	Pass	
Magnesium	mg/L	< 0.5			0.5	Pass	
Potassium	mg/L	< 0.5			0.5	Pass	
Sodium	mg/L	< 0.5			0.5	Pass	
Method Blank							
Heavy Metals							
Arsenic (filtered)	mg/L	< 0.001			0.001	Pass	
Barium (filtered)	mg/L	< 0.02			0.02	Pass	
Beryllium (filtered)	mg/L	< 0.001			0.001	Pass	
Boron (filtered)	mg/L	< 0.05			0.05	Pass	
Cadmium (filtered)	mg/L	< 0.0002			0.0002	Pass	
Chromium (filtered)	mg/L	< 0.001			0.001	Pass	
Cobalt (filtered)	mg/L	< 0.001			0.001	Pass	
Copper (filtered)	mg/L	< 0.001			0.001	Pass	
Lead (filtered)	mg/L	< 0.001			0.001	Pass	
Manganese (filtered)	mg/L	< 0.005			0.005	Pass	
Mercury (filtered)	mg/L	< 0.0001			0.0001	Pass	
Nickel (filtered)	mg/L	< 0.001			0.001	Pass	
Selenium (filtered)	mg/L	< 0.001			0.001	Pass	
Vanadium (filtered)	mg/L	< 0.005			0.005	Pass	
Zinc (filtered)	mg/L	< 0.005			0.005	Pass	
Method Blank							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	ug/L	< 0.05			0.05	Pass	
Perfluoropentanoic acid (PFPeA)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanoic acid (PFHxA)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanoic acid (PFHpA)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanoic acid (PFOA)	ug/L	< 0.01			0.01	Pass	
Perfluorononanoic acid (PFNA)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanoic acid (PFDA)	ug/L	< 0.01			0.01	Pass	
Perfluoroundecanoic acid (PFUnDA)	ug/L	< 0.01			0.01	Pass	
Perfluorododecanoic acid (PFDoDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotridecanoic acid (PFTrDA)	ug/L	< 0.01			0.01	Pass	
Perfluorotetradecanoic acid (PFTeDA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	ug/L	< 0.05			0.05	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	ug/L	< 0.05			0.05	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	ug/L	< 0.05			0.05	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	ug/L	< 0.05			0.05	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	ug/L	< 0.05			0.05	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	ug/L	< 0.05			0.05	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	ug/L	< 0.05			0.05	Pass	
Method Blank							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	ug/L	< 0.01			0.01	Pass	
Perfluorononanesulfonic acid (PFNS)	ug/L	< 0.01			0.01	Pass	
Perfluoropropanesulfonic acid (PFPrS)	ug/L	< 0.01			0.01	Pass	
Perfluoropentanesulfonic acid (PFPeS)	ug/L	< 0.01			0.01	Pass	
Perfluorohexanesulfonic acid (PFHxS)	ug/L	< 0.01			0.01	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	ug/L	< 0.01			0.01	Pass	
Perfluorooctanesulfonic acid (PFOS)	ug/L	< 0.01			0.01	Pass	
Perfluorodecanesulfonic acid (PFDS)	ug/L	< 0.01			0.01	Pass	
Method Blank							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	ug/L	< 0.05			0.05	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	ug/L	< 0.01			0.01	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	ug/L	< 0.01			0.01	Pass	
Method Blank							
Alkalinity (speciated)							
Bicarbonate Alkalinity (as CaCO ₃)	mg/L	< 20			20	Pass	
Carbonate Alkalinity (as CaCO ₃)	mg/L	< 20			20	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	98			70-130	Pass	
TRH C10-C14	%	102			70-130	Pass	
TRH C6-C10	%	97			70-130	Pass	
TRH >C10-C16	%	96			70-130	Pass	
Naphthalene	%	129			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	127			70-130	Pass	
Toluene	%	104			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	106			70-130	Pass	
o-Xylene	%	109			70-130	Pass	
Xylenes - Total*	%	107			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	125			70-130	Pass	
Acenaphthylene	%	116			70-130	Pass	
Anthracene	%	126			70-130	Pass	
Benz(a)anthracene	%	96			70-130	Pass	
Benzo(a)pyrene	%	101			70-130	Pass	
Benzo(b&j)fluoranthene	%	95			70-130	Pass	
Benzo(g,h,i)perylene	%	78			70-130	Pass	
Benzo(k)fluoranthene	%	113			70-130	Pass	
Chrysene	%	109			70-130	Pass	
Dibenz(a,h)anthracene	%	97			70-130	Pass	
Fluoranthene	%	119			70-130	Pass	
Fluorene	%	126			70-130	Pass	
Indeno(1,2,3-cd)pyrene	%	100			70-130	Pass	
Phenanthrene	%	117			70-130	Pass	
Pyrene	%	122			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	82			70-130	Pass	
Nitrate & Nitrite (as N)	%	97			70-130	Pass	
Nitrate (as N)	%	98			70-130	Pass	
Nitrite (as N)	%	80			70-130	Pass	
Total Dissolved Solids Dried at 180 °C ± 2 °C	%	98			70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	88			70-130	Pass	
LCS - % Recovery							
Hexavalent Chromium Set (filtered)							
Chromium (hexavalent filtered)	%	107			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	100			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Magnesium	%	113			80-120	Pass	
Potassium	%	93			80-120	Pass	
Sodium	%	114			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	98			80-120	Pass	
Barium (filtered)	%	91			80-120	Pass	
Beryllium (filtered)	%	98			80-120	Pass	
Boron (filtered)	%	104			80-120	Pass	
Cadmium (filtered)	%	91			80-120	Pass	
Chromium (filtered)	%	97			80-120	Pass	
Cobalt (filtered)	%	96			80-120	Pass	
Copper (filtered)	%	95			80-120	Pass	
Lead (filtered)	%	93			80-120	Pass	
Manganese (filtered)	%	100			80-120	Pass	
Mercury (filtered)	%	98			80-120	Pass	
Nickel (filtered)	%	93			80-120	Pass	
Selenium (filtered)	%	96			80-120	Pass	
Vanadium (filtered)	%	99			80-120	Pass	
Zinc (filtered)	%	98			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	94			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	101			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	87			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	104			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	86			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	84			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	92			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	93			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	89			50-150	Pass	
Perfluorotridecanoic acid (PFTTrDA)	%	92			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	95			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	87			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	95			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	95			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	89			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	92			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	94			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	100			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	90			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	81			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	77			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	81			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	78			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	76			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	78			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	83			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSAs)							

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	86			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	77			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	84			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	96			50-150	Pass	
LCS - % Recovery							
Total Recoverable Hydrocarbons							
TRH C6-C9	%	98			70-130	Pass	
TRH C10-C14	%	96			70-130	Pass	
TRH C6-C10	%	97			70-130	Pass	
TRH >C10-C16	%	91			70-130	Pass	
Naphthalene	%	112			70-130	Pass	
LCS - % Recovery							
BTEX							
Benzene	%	108			70-130	Pass	
Toluene	%	100			70-130	Pass	
Ethylbenzene	%	106			70-130	Pass	
m&p-Xylenes	%	109			70-130	Pass	
o-Xylene	%	110			70-130	Pass	
Xylenes - Total*	%	110			70-130	Pass	
LCS - % Recovery							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	%	122			70-130	Pass	
Acenaphthylene	%	102			70-130	Pass	
Anthracene	%	126			70-130	Pass	
Benzo(g,h,i)perylene	%	93			70-130	Pass	
Fluoranthene	%	111			70-130	Pass	
Fluorene	%	122			70-130	Pass	
Phenanthrene	%	123			70-130	Pass	
Pyrene	%	110			70-130	Pass	
LCS - % Recovery							
Ammonia (as N)	%	97			70-130	Pass	
Nitrate & Nitrite (as N)	%	125			70-130	Pass	
Nitrate (as N)	%	101			70-130	Pass	
Nitrite (as N)	%	76			70-130	Pass	
Phosphate total (as P)	%	116			70-130	Pass	
Total Kjeldahl Nitrogen (as N)	%	102			70-130	Pass	
Chloride	%	107			70-130	Pass	
Conductivity (at 25 °C)	%	100			70-130	Pass	
Fluoride	%	105			70-130	Pass	
Sulphate (as SO4)	%	105			70-130	Pass	
Turbidity	%	90			70-130	Pass	
LCS - % Recovery							
Alkali Metals							
Calcium	%	102			80-120	Pass	
Magnesium	%	116			80-120	Pass	
Potassium	%	110			80-120	Pass	
Sodium	%	116			80-120	Pass	
LCS - % Recovery							
Heavy Metals							
Arsenic (filtered)	%	96			80-120	Pass	
Barium (filtered)	%	89			80-120	Pass	
Beryllium (filtered)	%	99			80-120	Pass	
Boron (filtered)	%	93			80-120	Pass	
Cadmium (filtered)	%	91			80-120	Pass	

Test	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Chromium (filtered)	%	95			80-120	Pass	
Cobalt (filtered)	%	93			80-120	Pass	
Copper (filtered)	%	91			80-120	Pass	
Lead (filtered)	%	90			80-120	Pass	
Manganese (filtered)	%	96			80-120	Pass	
Mercury (filtered)	%	91			80-120	Pass	
Nickel (filtered)	%	89			80-120	Pass	
Selenium (filtered)	%	98			80-120	Pass	
Vanadium (filtered)	%	96			80-120	Pass	
Zinc (filtered)	%	93			80-120	Pass	
LCS - % Recovery							
Perfluoroalkyl carboxylic acids (PFCAs)							
Perfluorobutanoic acid (PFBA)	%	91			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	%	102			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	%	84			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	%	97			50-150	Pass	
Perfluorooctanoic acid (PFOA)	%	96			50-150	Pass	
Perfluorononanoic acid (PFNA)	%	92			50-150	Pass	
Perfluorodecanoic acid (PFDA)	%	100			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	%	93			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	%	98			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	%	111			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	%	97			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonamido substances							
Perfluorooctane sulfonamide (FOSA)	%	89			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	%	86			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	%	94			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	%	93			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	%	92			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	%	87			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	%	98			50-150	Pass	
LCS - % Recovery							
Perfluoroalkyl sulfonic acids (PFSAs)							
Perfluorobutanesulfonic acid (PFBS)	%	113			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	%	81			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	%	90			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	%	94			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	%	92			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	%	84			50-150	Pass	
Perfluorooctanesulfonic acid (PFOS)	%	92			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	%	77			50-150	Pass	
LCS - % Recovery							
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)							
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	%	99			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	%	87			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	%	97			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	%	86			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C10-C14	X26-Fe0018138	NCP	%	101		70-130	Pass	
TRH >C10-C16	X26-Fe0018138	NCP	%	97		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Acenaphthene	S26-Fe0028017	NCP	%	109		70-130	Pass	
Acenaphthylene	S26-Fe0028017	NCP	%	124		70-130	Pass	
Anthracene	S26-Fe0018790	NCP	%	105		70-130	Pass	
Benz(a)anthracene	S26-Fe0028017	NCP	%	108		70-130	Pass	
Benzo(a)pyrene	S26-Fe0028017	NCP	%	120		70-130	Pass	
Benzo(b&j)fluoranthene	S26-Fe0028017	NCP	%	107		70-130	Pass	
Benzo(g,h,i)perylene	S26-Fe0018790	NCP	%	115		70-130	Pass	
Benzo(k)fluoranthene	S26-Fe0028017	NCP	%	123		70-130	Pass	
Chrysene	S26-Fe0028017	NCP	%	125		70-130	Pass	
Dibenz(a,h)anthracene	S26-Fe0018790	NCP	%	123		70-130	Pass	
Fluoranthene	S26-Fe0028017	NCP	%	126		70-130	Pass	
Fluorene	S26-Fe0028017	NCP	%	100		70-130	Pass	
Indeno(1,2,3-cd)pyrene	S26-Fe0018790	NCP	%	94		70-130	Pass	
Naphthalene	S26-Fe0018790	NCP	%	115		70-130	Pass	
Phenanthrene	S26-Fe0028017	NCP	%	109		70-130	Pass	
Pyrene	S26-Fe0028017	NCP	%	120		70-130	Pass	
Spike - % Recovery								
				Result 1				
Ammonia (as N)	M26-Fe0027804	NCP	%	98		70-130	Pass	
Nitrate & Nitrite (as N)	M26-Fe0027804	NCP	%	98		70-130	Pass	
Nitrate (as N)	M26-Fe0027804	NCP	%	99		70-130	Pass	
Nitrite (as N)	M26-Fe0027804	NCP	%	95		70-130	Pass	
Phosphorus reactive (as P)	S26-Fe0024315	NCP	%	126		70-130	Pass	
Total Kjeldahl Nitrogen (as N)	M26-Fe0018734	NCP	%	101		70-130	Pass	
Spike - % Recovery								
Alkali Metals				Result 1				
Calcium	S26-Fe0024669	NCP	%	80		75-125	Pass	
Magnesium	S26-Fe0024669	NCP	%	105		75-125	Pass	
Potassium	S26-Fe0024669	NCP	%	90		75-125	Pass	
Sodium	S26-Fe0024669	NCP	%	107		75-125	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic (filtered)	S26-Fe0015445	NCP	%	105		75-125	Pass	
Barium (filtered)	S26-Fe0015445	NCP	%	89		75-125	Pass	
Beryllium (filtered)	S26-Fe0015445	NCP	%	104		75-125	Pass	
Boron (filtered)	S26-Fe0015445	NCP	%	100		75-125	Pass	
Cadmium (filtered)	S26-Fe0015445	NCP	%	92		75-125	Pass	
Chromium (filtered)	S26-Fe0015445	NCP	%	96		75-125	Pass	
Cobalt (filtered)	S26-Fe0015445	NCP	%	94		75-125	Pass	
Copper (filtered)	S26-Fe0015445	NCP	%	91		75-125	Pass	
Lead (filtered)	S26-Fe0015445	NCP	%	90		75-125	Pass	
Manganese (filtered)	S26-Fe0015445	NCP	%	65		75-125	Fail	Q08
Mercury (filtered)	S26-Fe0015445	NCP	%	91		75-125	Pass	
Nickel (filtered)	S26-Fe0015445	NCP	%	90		75-125	Pass	
Selenium (filtered)	S26-Fe0015445	NCP	%	110		75-125	Pass	
Vanadium (filtered)	S26-Fe0015445	NCP	%	100		75-125	Pass	
Zinc (filtered)	S26-Fe0015445	NCP	%	95		75-125	Pass	
Spike - % Recovery								

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1					
Perfluorobutanoic acid (PFBA)	S26-Fe0031416	NCP	%	92			50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S26-Fe0031416	NCP	%	90			50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S26-Fe0031416	NCP	%	82			50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S26-Fe0031416	NCP	%	97			50-150	Pass	
Perfluorooctanoic acid (PFOA)	S26-Fe0031416	NCP	%	92			50-150	Pass	
Perfluorononanoic acid (PFNA)	S26-Fe0031416	NCP	%	95			50-150	Pass	
Perfluorodecanoic acid (PFDA)	S26-Fe0031416	NCP	%	96			50-150	Pass	
Perfluoroundecanoic acid (PFUnDA)	S26-Fe0031416	NCP	%	100			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S26-Fe0031416	NCP	%	104			50-150	Pass	
Perfluorotridecanoic acid (PFTriDA)	S26-Fe0031416	NCP	%	98			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S26-Fe0031416	NCP	%	95			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S26-Fe0031416	NCP	%	96			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S26-Fe0031416	NCP	%	102			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S26-Fe0031416	NCP	%	99			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S26-Fe0031416	NCP	%	95			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S26-Fe0031416	NCP	%	96			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S26-Fe0031416	NCP	%	92			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S26-Fe0031416	NCP	%	97			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S26-Fe0031416	NCP	%	97			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S26-Fe0031416	NCP	%	83			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S26-Fe0031416	NCP	%	98			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S26-Fe0031416	NCP	%	100			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S26-Fe0031416	NCP	%	91			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S26-Fe0031416	NCP	%	86			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S26-Fe0031416	NCP	%	92			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S26-Fe0031416	NCP	%	115			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S26-Fe0031416	NCP	%	98			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S26-Fe0031416	NCP	%	103			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S26-Fe0031416	NCP	%	86			50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1		Acceptance Limits	Pass Limits	Qualifying Code
Spike - % Recovery								
Total Recoverable Hydrocarbons				Result 1				
TRH C10-C14	S26-Fe0036390	NCP	%	92		70-130	Pass	
TRH >C10-C16	S26-Fe0036390	NCP	%	88		70-130	Pass	
Spike - % Recovery								
Polycyclic Aromatic Hydrocarbons				Result 1				
Anthracene	S26-Fe0028017	NCP	%	113		70-130	Pass	
Benzo(g,h,i)perylene	S26-Fe0028017	NCP	%	87		70-130	Pass	
Dibenz(a,h)anthracene	S26-Fe0028017	NCP	%	121		70-130	Pass	
Indeno(1,2,3-cd)pyrene	S26-Fe0028017	NCP	%	124		70-130	Pass	
Spike - % Recovery								
				Result 1				
Ammonia (as N)	M26-Fe0028399	NCP	%	72		70-130	Pass	
Nitrite (as N)	M26-Fe0028399	NCP	%	70		70-130	Pass	
Phosphate total (as P)	B26-Fe0020692	NCP	%	112		70-130	Pass	
Total Kjeldahl Nitrogen (as N)	B26-Fe0018229	NCP	%	109		70-130	Pass	
Chloride	S26-Fe0018731	CP	%	110		70-130	Pass	
Fluoride	S26-Fe0018731	CP	%	104		70-130	Pass	
Sulphate (as SO4)	S26-Fe0018731	CP	%	114		70-130	Pass	
Spike - % Recovery								
Hexavalent Chromium Set (filtered)				Result 1				
Chromium (hexavalent filtered)	S26-Fe0018731	CP	%	108		70-130	Pass	
Spike - % Recovery								
Alkali Metals				Result 1				
Calcium	S26-Fe0015593	NCP	%	99		75-125	Pass	
Magnesium	S26-Fe0015593	NCP	%	114		75-125	Pass	
Potassium	S26-Fe0015593	NCP	%	81		75-125	Pass	
Sodium	S26-Fe0015593	NCP	%	114		75-125	Pass	
Spike - % Recovery								
Heavy Metals				Result 1				
Arsenic (filtered)	S26-Fe0023888	NCP	%	121		75-125	Pass	
Beryllium (filtered)	S26-Fe0023888	NCP	%	122		75-125	Pass	
Boron (filtered)	S26-Fe0023888	NCP	%	104		75-125	Pass	
Cadmium (filtered)	S26-Fe0023888	NCP	%	95		75-125	Pass	
Chromium (filtered)	S26-Fe0023888	NCP	%	89		75-125	Pass	
Cobalt (filtered)	S26-Fe0023888	NCP	%	82		75-125	Pass	
Copper (filtered)	S26-Fe0023888	NCP	%	76		75-125	Pass	
Lead (filtered)	S26-Fe0023888	NCP	%	78		75-125	Pass	
Manganese (filtered)	S26-Fe0023888	NCP	%	77		75-125	Pass	
Mercury (filtered)	S26-Fe0023888	NCP	%	80		75-125	Pass	
Nickel (filtered)	S26-Fe0023888	NCP	%	78		75-125	Pass	
Selenium (filtered)	S26-Fe0023888	NCP	%	137		75-125	Fail	Q08
Vanadium (filtered)	S26-Fe0023888	NCP	%	96		75-125	Pass	
Zinc (filtered)	S26-Fe0023888	NCP	%	80		75-125	Pass	
Spike - % Recovery								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1				
Perfluorobutanoic acid (PFBA)	S26-Fe0015445	NCP	%	81		50-150	Pass	
Perfluoropentanoic acid (PFPeA)	S26-Fe0015445	NCP	%	85		50-150	Pass	
Perfluorohexanoic acid (PFHxA)	S26-Fe0015445	NCP	%	88		50-150	Pass	
Perfluoroheptanoic acid (PFHpA)	S26-Fe0015445	NCP	%	103		50-150	Pass	
Perfluorooctanoic acid (PFOA)	S26-Fe0015445	NCP	%	89		50-150	Pass	
Perfluorononanoic acid (PFNA)	S26-Fe0015445	NCP	%	82		50-150	Pass	
Perfluorodecanoic acid (PFDA)	S26-Fe0015445	NCP	%	96		50-150	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Perfluoroundecanoic acid (PFUnDA)	S26-Fe0015445	NCP	%	100			50-150	Pass	
Perfluorododecanoic acid (PFDoDA)	S26-Fe0015445	NCP	%	99			50-150	Pass	
Perfluorotridecanoic acid (PFTrDA)	S26-Fe0015445	NCP	%	117			50-150	Pass	
Perfluorotetradecanoic acid (PFTeDA)	S26-Fe0015445	NCP	%	95			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonamido substances				Result 1					
Perfluorooctane sulfonamide (FOSA)	S26-Fe0015445	NCP	%	85			50-150	Pass	
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S26-Fe0015445	NCP	%	93			50-150	Pass	
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S26-Fe0015445	NCP	%	87			50-150	Pass	
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S26-Fe0015445	NCP	%	96			50-150	Pass	
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S26-Fe0015445	NCP	%	90			50-150	Pass	
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S26-Fe0015445	NCP	%	92			50-150	Pass	
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S26-Fe0015445	NCP	%	89			50-150	Pass	
Spike - % Recovery									
Perfluoroalkyl sulfonic acids (PFSA's)				Result 1					
Perfluorobutanesulfonic acid (PFBS)	S26-Fe0015445	NCP	%	86			50-150	Pass	
Perfluorononanesulfonic acid (PFNS)	S26-Fe0015445	NCP	%	83			50-150	Pass	
Perfluoropropanesulfonic acid (PFPrS)	S26-Fe0015445	NCP	%	85			50-150	Pass	
Perfluoropentanesulfonic acid (PFPeS)	S26-Fe0015445	NCP	%	72			50-150	Pass	
Perfluorohexanesulfonic acid (PFHxS)	S26-Fe0015445	NCP	%	81			50-150	Pass	
Perfluoroheptanesulfonic acid (PFHpS)	S26-Fe0015445	NCP	%	89			50-150	Pass	
Perfluorodecanesulfonic acid (PFDS)	S26-Fe0015445	NCP	%	81			50-150	Pass	
Spike - % Recovery									
n:2 Fluorotelomer sulfonic acids (n:2 FTSA's)				Result 1					
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S26-Fe0015445	NCP	%	103			50-150	Pass	
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S26-Fe0015445	NCP	%	78			50-150	Pass	
1H.1H.2H.2H-perfluorodecanesulfonic acid (8:2 FTSA)	S26-Fe0015445	NCP	%	89			50-150	Pass	
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S26-Fe0015445	NCP	%	85			50-150	Pass	
Test	Lab Sample ID	QA Source	Units	Result 1			Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH C6-C9	S26-Fe0020843	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
TRH C10-C14	X26-Fe0018185	NCP	mg/L	0.06	0.19	110	30%	Fail	Q15
TRH C15-C28	X26-Fe0018185	NCP	mg/L	0.4	0.4	13	30%	Pass	
TRH C29-C36	X26-Fe0018185	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
TRH C6-C10	S26-Fe0020843	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	

Test	Lab Sample ID	QA Source	Units	Result 1	Result 2	RPD	Acceptance Limits	Pass Limits	Qualifying Code
Duplicate									
Total Recoverable Hydrocarbons				Result 1	Result 2	RPD			
TRH >C10-C16	X26-Fe0018185	NCP	mg/L	0.08	0.18	76	30%	Fail	Q15
Naphthalene	S26-Fe0020843	NCP	mg/L	< 0.01	< 0.01	<1	30%	Pass	
TRH >C16-C34	X26-Fe0018185	NCP	mg/L	0.4	0.4	8.0	30%	Pass	
TRH >C34-C40	X26-Fe0018185	NCP	mg/L	< 0.1	< 0.1	<1	30%	Pass	
Duplicate									
BTEX				Result 1	Result 2	RPD			
Benzene	S26-Fe0020843	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Toluene	S26-Fe0020843	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Ethylbenzene	S26-Fe0020843	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
m&p-Xylenes	S26-Fe0020843	NCP	mg/L	< 0.002	< 0.002	<1	30%	Pass	
o-Xylene	S26-Fe0020843	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Xylenes - Total*	S26-Fe0020843	NCP	mg/L	< 0.003	< 0.003	<1	30%	Pass	
Duplicate									
Polycyclic Aromatic Hydrocarbons				Result 1	Result 2	RPD			
Acenaphthene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Acenaphthylene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Anthracene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benz(a)anthracene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(a)pyrene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(b&j)fluoranthene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(g,h,i)perylene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Benzo(k)fluoranthene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Chrysene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Dibenz(a,h)anthracene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluoranthene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Fluorene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Indeno(1,2,3-cd)pyrene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Naphthalene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Phenanthrene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Pyrene	S26-Fe0036249	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Duplicate									
				Result 1	Result 2	RPD			
Ammonia (as N)	M26-Fe0028644	NCP	mg/L	0.02	0.03	29	30%	Pass	
Nitrate & Nitrite (as N)	M26-Fe0028644	NCP	mg/L	0.73	0.71	2.0	30%	Pass	
Nitrate (as N)	M26-Fe0028644	NCP	mg/L	0.72	0.70	3.0	30%	Pass	
Nitrite (as N)	M26-Fe0028644	NCP	mg/L	< 0.02	< 0.02	<1	30%	Pass	
Phosphorus reactive (as P)	S26-Fe0020098	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Total Dissolved Solids Dried at 180 °C ± 2 °C	S26-Fe0017701	NCP	mg/L	300	300	1.0	30%	Pass	
Total Kjeldahl Nitrogen (as N)	M26-Fe0018733	NCP	mg/L	160	150	9.0	30%	Pass	
Duplicate									
Hexavalent Chromium Set (filtered)				Result 1	Result 2	RPD			
Chromium (hexavalent filtered)	S26-Fe0015445	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass	
Duplicate									
Heavy Metals				Result 1	Result 2	RPD			
Arsenic (filtered)	S26-Fe0015201	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Barium (filtered)	S26-Fe0015201	NCP	mg/L	0.11	0.11	3.0	30%	Pass	
Beryllium (filtered)	S26-Fe0015201	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Boron (filtered)	S26-Fe0015201	NCP	mg/L	< 0.05	< 0.05	<1	30%	Pass	
Cadmium (filtered)	S26-Fe0015201	NCP	mg/L	< 0.0002	< 0.0002	<1	30%	Pass	
Chromium (filtered)	S26-Fe0015201	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	
Cobalt (filtered)	S26-Fe0015201	NCP	mg/L	0.001	0.001	2.0	30%	Pass	
Copper (filtered)	S26-Fe0015201	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass	

Duplicate								
Heavy Metals				Result 1	Result 2	RPD		
Lead (filtered)	S26-Fe0015201	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Manganese (filtered)	S26-Fe0015201	NCP	mg/L	0.21	0.20	<1	30%	Pass
Mercury (filtered)	S26-Fe0015201	NCP	mg/L	< 0.0001	< 0.0001	<1	30%	Pass
Nickel (filtered)	S26-Fe0015201	NCP	mg/L	0.015	0.014	<1	30%	Pass
Selenium (filtered)	S26-Fe0015201	NCP	mg/L	< 0.001	< 0.001	<1	30%	Pass
Vanadium (filtered)	S26-Fe0015201	NCP	mg/L	< 0.005	< 0.005	<1	30%	Pass
Zinc (filtered)	S26-Fe0015201	NCP	mg/L	0.050	0.049	3.0	30%	Pass
Duplicate								
Perfluoroalkyl carboxylic acids (PFCAs)				Result 1	Result 2	RPD		
Perfluorobutanoic acid (PFBA)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Perfluoropentanoic acid (PFPeA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanoic acid (PFHxA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanoic acid (PFHpA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanoic acid (PFOA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanoic acid (PFNA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanoic acid (PFDA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroundecanoic acid (PFUnDA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorododecanoic acid (PFDoDA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotridecanoic acid (PFTrDA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorotetradecanoic acid (PFTeDA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonamido substances				Result 1	Result 2	RPD		
Perfluorooctane sulfonamide (FOSA)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methylperfluoro-1-octane sulfonamide (N-MeFOSA)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethylperfluoro-1-octane sulfonamide (N-EtFOSA)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-methylperfluoro-1-octane sulfonamido)-ethanol(N-MeFOSE)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
2-(N-ethylperfluoro-1-octane sulfonamido)-ethanol(N-EtFOSE)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-ethyl-perfluorooctanesulfonamidoacetic acid (N-EtFOSAA)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
N-methyl-perfluorooctanesulfonamidoacetic acid (N-MeFOSAA)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
Duplicate								
Perfluoroalkyl sulfonic acids (PFSAs)				Result 1	Result 2	RPD		
Perfluorobutanesulfonic acid (PFBS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorononanesulfonic acid (PFNS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropropanesulfonic acid (PFPrS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoropentanesulfonic acid (PFPeS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorohexanesulfonic acid (PFHxS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluoroheptanesulfonic acid (PFHpS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorooctanesulfonic acid (PFOS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Perfluorodecanesulfonic acid (PFDS)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass

Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorohexanesulfonic acid (4:2 FTSA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorooctanesulfonic acid(6:2 FTSA)	S26-Fe0031415	NCP	ug/L	< 0.05	< 0.05	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (8:2 FTSA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S26-Fe0031415	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
				Result 1	Result 2	RPD		
Phosphate total (as P)	S26-Fe0024481	NCP	mg/L	0.01	0.01	26	30%	Pass
Hardness mg equivalent CaCO ₃ /L	S26-Fe0018731	CP	mg/L	77	76	2.0	30%	Pass
Chloride	S26-Fe0024666	NCP	mg/L	66	66	<1	30%	Pass
Conductivity (at 25 °C)	S26-Fe0018731	CP	uS/cm	470	470	<1	30%	Pass
Fluoride	S26-Fe0024666	NCP	mg/L	0.2	0.2	11	30%	Pass
Sulphate (as SO ₄)	S26-Fe0024666	NCP	mg/L	31	30	1.0	30%	Pass
Turbidity	S26-Fe0018731	CP	NTU	1.4	1.5	3.5	30%	Pass
Duplicate								
Alkali Metals				Result 1	Result 2	RPD		
Calcium	S26-Fe0018731	CP	mg/L	21	20	1.0	30%	Pass
Magnesium	S26-Fe0018731	CP	mg/L	6.3	6.0	4.0	30%	Pass
Potassium	S26-Fe0018731	CP	mg/L	9.0	8.8	2.0	30%	Pass
Sodium	S26-Fe0018731	CP	mg/L	63	60	5.0	30%	Pass
Duplicate								
n:2 Fluorotelomer sulfonic acids (n:2 FTSA)				Result 1	Result 2	RPD		
1H.1H.2H.2H-perfluorododecanesulfonic acid (10:2 FTSA)	S26-Fe0026417	NCP	ug/L	< 0.01	< 0.01	<1	30%	Pass
Duplicate								
Alkalinity (speciated)				Result 1	Result 2	RPD		
Bicarbonate Alkalinity (as CaCO ₃)	S26-Fe0018731	CP	mg/L	38	38	1.0	30%	Pass
Carbonate Alkalinity (as CaCO ₃)	S26-Fe0018731	CP	mg/L	< 20	< 20	<1	30%	Pass

Comments

Sample Integrity

Custody Seals Intact (if used)	N/A
Attempt to Chill was evident	Yes
Sample correctly preserved	Yes
Appropriate sample containers have been used	Yes
Sample containers for volatile analysis received with minimal headspace	Yes
Samples received within HoldingTime	Yes
Some samples have been subcontracted	No

Qualifier Codes/Comments

Code	Description
N01	F2 is determined by arithmetically subtracting the "naphthalene" value from the ">C10-C16" value. The naphthalene value used in this calculation is obtained from volatiles (Purge & Trap analysis).
N02	Where we have reported both volatile (P&T GCMS) and semivolatile (GCMS) naphthalene data, results may not be identical. Provided correct sample handling protocols have been followed, any observed differences in results are likely to be due to procedural differences within each methodology. Results determined by both techniques have passed all QAQC acceptance criteria, and are entirely technically valid.
N04	F1 is determined by arithmetically subtracting the "Total BTEX" value from the "C6-C10" value. The "Total BTEX" value is obtained by summing the concentrations of BTEX analytes. The "C6-C10" value is obtained by quantitating against a standard of mixed aromatic/aliphatic analytes.
N07	Please note:- These two PAH isomers closely co-elute using the most contemporary analytical methods and both the reported concentration (and the TEQ) apply specifically to the total of the two co-eluting PAHs
N09	Quantification of linear and branched isomers has been conducted as a single total response using the relative response factor for the corresponding linear/branched standard.
N11	Isotope dilution is used for calibration of each native compound for which an exact labelled analogue is available (Isotope Dilution Quantitation). The isotopically labelled analogues allow identification and recovery correction of the concentration of the associated native PFAS compounds.
N15	Where the native PFAS compound does not have labelled analogue then the quantification is made using the Extracted Internal Standard Analyte with the closest retention time to the analyte and no recovery correction has been made (Internal Standard Quantitation).
Q08	The matrix spike recovery is outside of the recommended acceptance criteria. An acceptable recovery was obtained for the laboratory control sample indicating a sample matrix interference.
Q09	The Surrogate recovery is outside of the recommended acceptance criteria due to matrix interference. Acceptance criteria were met for all other QC
Q15	The RPD reported passes Eurofins Environment Testing's QC - Acceptance Criteria as defined in the Internal Quality Control Review and Glossary page of this report.

Authorised by:

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Roopesh Rangarajan	Senior Analyst-PFAS
Ryan Phillips	Senior Analyst-Inorganic



Glenn Jackson
Managing Director

Final Report – this report replaces any previously issued Report

- Indicates Not Requested

* Indicates NATA accreditation does not cover the performance of this service

Measurement uncertainty of test data is available on request or please [click here](#).

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Appendix F. Field Data

Appendix F
Field Data

IW272400
Project Caymus

Site	Location	Sampled Date/Time	Matrix Type	Time	DO (Field) (mg/L)	EC (Field) (µS/cm)	pH (Field) (pH Units)	Purge Volume (L)	Redox (Field) (mV)	Standing Water Level (SWL) (m)	Temp (Field) (°C)
IW272400	MW01	3-Feb-26	Water	10:38:15	0.15	4964	6.2	0	193.6	1.301	30.8
			Water	10:43:53	0.03	5367	6.25	1	201.6	1.325	31.2
			Water	10:49:46	0	5317	6.25	2	209.7	1.33	30.6
			Water	10:54:45	0.02	5376	6.24	3	214.5	1.335	30.9
			Water	10:58:46	0.02	5422	6.24	4	216.2	1.335	31
			Water	11:03:33	0.02	5385	6.24	5	218.9	1.335	31
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
IW272400	MW02	3-Feb-26	Water	08:39:55	0.41	7990	6.07	0	176.9	0.1	30.3
			Water	08:47:33	0.23	7795	6.14	2.5	150.3	0.1	30.4
			Water	08:51:47	0.53	7668	6.06	4	181.1	0.1	30.2
			Water	08:57:03	0.82	7638	6.03	5	193.2	0.1	30.3
			Water	09:02:16	0.99	7618	6.02	6.5	199.8	0.1	30.4
			Water	09:06:32	1.09	7588	6.02		203.8	0.1	30.4
			Water	09:11:45	1.13	7661	6.02	9	208	0.1	30.5
			Water	09:14:48	1.19	7735	6.01	10	210	0.1	30.6
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	08:55:11	0.39	741	6.46	0.5	188.2	1.855	30.7
IW272400	MW03	4-Feb-26	Water	09:01:47	0.31	738	6.44	1.5	202.1	1.843	31
			Water	09:06:22	0.26	736	6.44	3	208.6	1.845	31
			Water	09:11:33	0.31	736	6.44	4.5	223.9	1.845	30.9
			Water	09:16:15	0.33	727	6.45	6	215.3	1.845	31
			Water	09:20:51	0.39	712	6.46	7	217.2	1.845	31
			Water	09:25:10	0.44	700	6.47	8	217.6	1.845	31
			Water	09:30:42	0.48	690	6.47	9	219.6	1.845	31
			Water	09:34:25	0.49	676	6.47	10	220.5	1.85	31
			Water	09:38:27	0.52	672	6.48	11	221.3	1.85	31
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
IW272400	MW04	4-Feb-26	Water	07:54:54	1.33	2540	4.72	0	191.6	0.785	31.9
			Water	07:58:45	1.14	2571	4.58	1	215.4	0.8	32.1
			Water	08:03:10	1.1	2565	4.58	2.5	226.8	0.805	32
			Water	08:08:28	1.12	2568	4.57	4	234.9	0.825	32.1
			Water	08:12:40	1.11	2559	4.57	5	238.7	0.825	32.1
			Water	08:17:26	1.13	2557	4.53	6	243.6	0.83	32.1
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
IW272400	MW05	3-Feb-26	Water	13:57:24	0.34	20300	3.16	0.5	225.4	1.54	30.8
			Water	14:02:33	0.54	17889	3.12	1.5	252.6	1.64	30.8
			Water	14:06:59	0.7	17043	3.13	2	259.8	1.73	30.8
			Water	14:11:47	0.81	16592	3.16	3	263.7	1.83	30.8
			Water	14:15:47	0.89	16235	3.17	4	265.5	1.905	30.9
			Water	14:20:20	0.98	15776	3.28	5	230	2	31.1
			Water	14:25:14	1.08	15548	3.24	5.5	250.5	2.09	31
			Water	14:30:18	1.23	15209	3.24	6	261.5	2.175	31.1
			Water	14:35:57	1.39	15001	3.25	7	265.9	2.227	31.1
			Water	14:40:37	1.46	14947	3.25	8	267.9	2.35	31.1
			Water	14:44:10	1.47	15003	3.25	8.5	266.1	2.4	31.1
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	12:18:57	0.23	667	5.95	0	195.8	0.81	30.9
			Water	12:23:21	0.21	650	5.88	1	209.2	0.815	31
IW272400	MW06	3-Feb-26	Water	12:27:09	0.19	633	5.83	2	214.9	0.82	31.4
			Water	12:31:47	0.24	617	5.81	3.5	221	0.81	31.5
			Water	12:36:36	0.36	602	5.78	5	226	0.81	31.5
			Water	12:40:41	0.45	596	5.77	6	230.5	0.81	31.5
			Water	12:47:23	0.54	585	5.75	8	236.7	0.81	31.5
			Water	12:51:12	0.54	568	5.79	9	202.8	0.81	31.6
			Water	12:55:58	0.59	554	5.75	10	225	0.81	31.5
			Water	12:58:15	0.62	550	5.74	11	231.5	0.81	31.4
			Water	13:02:06	0.65	547	5.72	12	238.7	0.81	31.5
			Water	13:05:34	0.67	543	5.72	13	240	0.81	31.6
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	10:18:23	4.4	94.4	6.94		251.9		28.6
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	16:07:33	4.63	97.4	6.44		255.3		31.2
IW272400	SW03	3-Feb-26	Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	11:04:13	3.65	334.7	9.34		236		301
IW272400	SW04	4-Feb-26	Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	15:40:10	3.84	286.7	6.53		241.7		29.3
IW272400	SW05	3-Feb-26	Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	11:49:24	3.18	751	6.41		175		29.1
IW272400	SW06	4-Feb-26	Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	16:28:43	4.17	38.9	6.43		245.4		30.5
IW272400	SW07	3-Feb-26	Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	10:47:18	4.88	90	7.01		237.6		29.3
IW272400	SW08	4-Feb-26	Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		
			Water	Stabilization *	±10% (3)	±3% (3)	±0.5pH units (3)		±10mV (3)		

Appendix G. Historical Analytical Results

Date Sampled / Analyte	pH	EC	TSS	Turbidity	DO	Temp	Ammonia as N	Reactive Phosphorous	Chlorophyll-a	BOD	TRH	Total Nitrogen	Phosphorous Total	E.coli	Enterococci
		µS/cm	mg/L	NTU	DO% saturation	°C	mg/L	µg/L	µg/L	mg/L	µg/L	mg/L	mg/L	MNP/100ml	MNP/100ml
Water Quality Objective	7.0-8.5	NA	30	4	80-100	NA	0.02	0.01	4	NA	10000	0.3	0.03	200	50
LOR	0.01	1					0.01	0.01			100	0.1	0.01		
MW01															
26/11/2024	6.51	19,100					2.76	<0.01			<100	3.3	0.04		
24/03/2025	6.8	9,430	13	32.7			1.21	<0.01	3	<2	<100	1.5			
22/07/2025	6.69	9,640	18	22.4			1.36	<0.01	<1	<2	<100			48	<1
28/10/2025	6.2	9770		62.1			1.15	<0.01	<1	<2	<100	1.3	<0.01	<1	11
3/02/2026	6.89	4,960		13.8			0.6	<0.01	<1	<2	<100	0.7	0.02	1	<1
MW02															
3/12/2024	6.9	15,100					10.9	<0.01			<100	12	0.06		
24/03/2025	6.43	9,240	127	465			0.62	<0.01	<1	16	<100	2.5			
21/07/2025	6.94	16,200	470	325			10.6	<0.01	<2	6	<100			<1	<1
28/10/2025	6.82	16700		590			13	<0.01	<1	3	<100	13	0.08	<1	<1
3/02/2026	6.1	7410		829			0.53	<0.10	<2	<2	<100	1.4	0.31	2	3
MW03															
3/12/2024	6.95	13,600					0.37	0.05			<100	0.6	0.09		
24/03/2025	6.75	531	21	15			0.12	<0.01	<1	2	<100	0.5			
21/07/2025	6.93	2,380	14	46.4			0.45	<0.01	<1	<2	<100			1	<1
28/10/2025	6.69	955		10.3			0.03	0.02	<1	<2	<100	2	0.06	6	54
3/02/2026	7.02	573		6.6			0.21	<0.10	<2	<2	<100	1.4	<0.10	450	11
MW04															
2/12/2024	6.07	1,760					0.14	0.01			<100	2.4	0.11		
24/03/2025	5.89	2,220	106	41.5			<0.01	0.01	<1	<2	<100	2.3			
21/07/2025	6.16	1,740	92	21.9			0.08	0.06	<1	<2	<100			<1	<1
28/10/2025	5.6	1680		48.3			<0.01	0.04	<1	<2	<100	1.7	0.06	<1	<1
3/02/2026	5.35	2300	2300	51.8			0.02	0.02	<1	<2	<100	1.1	0.07	<1	<1
MW05															
2/12/2024	3.65	21,100					0.22	<0.01			<100	0.4	0.1		
24/03/2025	3.62	17,300	34	17			0.56	0.01	<1	<2	<100	5.6			
22/07/2025	3.51	21,100	22	18.8			0.13	0.17	<1	<2	<100			<1	<1
28/10/2025	3.42	22400		9.5			0.16	0.03	<1	<2	<100	0.3	0.05	<1	<1
3/02/2026	3.5	12100		6.7			0.16	0.03	<1	<2	<100	4	0.04	<1	<1
MW06															
2/12/2024	5.49	668					<0.01	<0.01			<100	2	<0.1		
24/03/2025	6.3	698	<5	2.1			<0.01	<0.01	<1	<2	<100	1.7			
22/07/2025	6.44	30,300	805	440			0.59	<0.01	<1	<2	<100			<1	<1
28/10/2025	5.26	767		12.8			0.04	<0.01	<1	<2	<100	1	0.01	1600	640
3/02/2026	6.7	470		1.8			0.01	<0.01	<1	<2	<100	1.3	0.01	8	<1

Exceeds Water Quality Objective

Date Sampled / Analyte	As	Cd	Cr (III)	Cr (IV)	Cu	Fe	Pb	Mn	Hg	Ni	Ag	Zn	Benzene	Ethyl Benzene	Toulene	m-Xylene	o-Xylene
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Water Quality Objective	NA	0.7	27	4.4	1.3	NA	4.4	NA	0.4	70	1.4	8	700	80	18	75	350
LOR		0.1			1		1		0.1			5	1	2	2		2
MW01																	
26/11/2024	15	<0.1	<10		10		<1		<0.1	<1		6	<1	<2	<2		<2
24/03/2025	16	<0.1		<10	<1	12,100	<1	1,990	<0.1	<1	<1	<5	<1	<2	<2		<2
22/07/2025	15	0.1	<1,000	<1,000	<1	7,390	<1	1,150	<0.1	<1	<1	<5	<1	<2	<2		<2
28/10/2025	13	<0.1	<10	<10	<1		<1			<1		<5	<1	<2	<2		<2
3/02/2026	10	<0.1	<10	<10	<1		<1	869	<0.1	<1		<5	<1	<2	<2		<2
MW02																	
3/12/2024	10	<0.1			<1		<1		<0.1	2		<5	<1	<2	<2		<2
24/03/2025	3	<0.1	<10	<10	<1	109,000	<1	5,980	<0.1	<1	<1	5	<1	<2	<2		<2
21/07/2025	4	<0.1	<10	<10	<1	47,900	<1	2,880	<0.1	<1	<1	<5	<1	<2	<2		<2
28/10/2025	4	<0.1	<10	<10	<1		<1			<1		<5	<1	<2	<2		<2
3/02/2026	5	<0.1	<10	<10	<1		<1	3300	<0.1	<1		20	<1	<2	<2		<2
MW03																	
3/12/2024	14	<0.1			<1		<1		<0.1	11		<5	<1	<2	<2		<2
24/03/2025	4	<0.1	<10	<10	<1	4,590	<1	578	<0.1	<1	<1	9	<1	<2	<2		<2
21/07/2025	10	<0.1	<10	<10	25	4,620	1	1,310	<0.1	8	<1	<5	<1	<2	<2		<2
28/10/2025	2	<0.1	<10	<10	27		<1			3		6	<1	<2	<2		<2
3/02/2026	8	<0.1	<100	<100	2		<1	648	<0.1	2		<5	<1	<2	<2		<2
MW04																	
2/12/2024	3	<0.1			<1		<1		<0.1	6		8	<1	<2	<2		<2
24/03/2025	3	0.1	<10	<10	100	<50	<1	676	<0.1	12	<1	15	<1	<2	<2		<2
21/07/2025	4	<0.1	<10	<10	1,050	140	<1	856	<0.1	9	<1	7	<1	<2	<2		<2
28/10/2025	3	<0.1	<10	<10	290		<1			7		7	<1	<2	<2		<2
3/02/2026	4	<0.1	<10	<10	504		<1	658	<0.1	11		14	<1	<2	<2		<2
MW05																	
2/12/2024	128	1.4			50		60		<0.1	140		240	<1	<2	<2		<2
24/03/2025	42	2.1	<10	<10	43	3,360	35	676	<0.1	611	2	659	<1	<2	<2		<2
22/07/2025	190	1.4	10	<10	1,810	28,200	83	856	<0.1	130	5	135	<1	<2	<2		<2
28/10/2025	226	1.4	10	<10	1470		109			99		98	<1	<2	<2		<2
3/02/2026	34	0.7	<10	<10	459		41	2240		184		183	<1	<2	<2		<2
MW06																	
2/12/2024	<1	<1			<1		<1		<0.1	<1		6	<1	<2	<2		<2
24/03/2025	<1	<0.1	<10	<10	<1	<50	<1	621	<0.1	<1	<1	5	<1	<2	<2		<2
22/07/2025	9	<0.1	<10	<10	<1	14,600	<1	2,230	<0.1	3	<1	7	<1	<2	<2		<2
28/10/2025	<1	<0.1	<10	<10	2		<1			2		15	<1	<2	<2		<2
3/02/2026	<1	<0.1	<10	<10	<1		<1	273	<0.1	<5		<5	<1	<2	<2		<2

Date Sampled / Analyte	p-Xylene	Anthracene	Benzo(a) pyrene	Fluoranthene	Naphthalene	Phenanthrene	TPH C10-C14	TPH C15-C28	TPH C29-C3	TPHC6-C9	PFOS	PFOA
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Water Quality Objective	200	0.01	0.1	1	50	0.6	600	600	600	600	0.13	220
LOR		1	1	1	1		50	50	50	50		
MW01												
26/11/2024		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.1	0.52
24/03/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	0.22
22/07/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	0.23
28/10/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	0.29
3/02/2026		<1	<1	<1	<1	<1	<50	<100	<50	<20	<0.01	0.1
MW02												
3/12/2024		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.1	0.02
24/03/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	0.03
21/07/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	0.02
28/10/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	0.02
3/02/2026		<1	<1	<1	<1	<1	<50	<100	<50	<20	<0.01	
MW03												
3/12/2024		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.1	<0.1
24/03/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
21/07/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
28/10/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
3/02/2026		<1	<1	<1	<1	<1	<50	<100	<50	<20	<0.01	<0.01
MW04												
2/12/2024		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.1	<0.1
24/03/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
21/07/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
28/10/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
3/02/2026		<1	<1	<1	<1	<1	<50	<100	<50	<20	<0.01	<0.01
MW05												
2/12/2024		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.1	<0.1
24/03/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
22/07/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
28/10/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
3/02/2026		<1	<1	<1	<1	<1	<50	<100	<50	<20	<0.01	<0.01
MW06												
2/12/2024		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.1	0.01
24/03/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
22/07/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	<0.01
28/10/2025		<1	<1	<1	<1	<1	<50	<50	<50	<50	<0.01	0.02
3/02/2026		<1	<1	<1	<1	<1	<50	<100	<50	<20	<0.01	<0.01

Date Sampled / Analyte	pH	EC	TSS	Turbidity	DO	Temp	Ammonia as N	Reactive Phosphorous	Chlorophyll-a	BOD	TRH	Total Nitrogen	Phosphorous Total	E.coli	Enterococci	As	Cd	Cr (III)	Cr (IV)	Cu	Fe	Pb
		µS/cm	mg/L	NTU	DO% saturation	°C	mg/L	µg/L	µg/L	mg/L	µg/L	mg/L	mg/L	MNP/100ml	MNP/100ml	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Water Quality Objective	7.0-8.5	NA	30	4	80-100	NA	0.02	0.01	4	NA	10000	0.3	0.03	200	50	NA	0.7	27	4.4	1.3	NA	4.4
LOR	0.01	1					0.01	0.01			100	0.1	0.01				0.1			1		1
SW01																						
3/12/2024	6.71	103	5				<0.01	0.02	-	-	<100	0.1	0.02			-	-	-	-	-	-	-
9/01/2025		-	-						-	-	-					<1	<0.1	-	-	<1	-	<1
25/03/2025	7.12	101	7	7.3			0.02	<0.01	<1	3	<100	0.2	<0.01			<1	<0.1	<10	<10	<1	<50	<1
28/10/2025	6.08	279		35.6			<0.01	<0.01	<1	<2	<100	0.6	0.02	570	1500	<1	<0.1	<10	<10	3		<1
3/02/2026	6.51	79		3.8			0.09	<0.01	1	<2	<100	0.1	<0.01	82	340	<1	<0.1	<10	<10	<1		<1
SW02																						
20/11/2024	6.92	681	27				0.02	0.05	-	-	<100	0.9	0.05			-	-	-	-	-	-	-
9/01/2025		-	-						-	-	-					1	<0.1	-	-	3	-	<1
25/03/2025	7.24	617	37	65			0.01	0.04	<1	6	<100	0.6	0.04			1	<0.1	<10	<10	<1	<50	<1
SW03																						
25/03/2025	7.17	166	<5	8.4			0.14	0.06	2	5	<100	1.1	0.06			2	<0.1	<10	<10	<1	660	<1
3/02/2026	6.82	79		1.5			0.01	<0.01	2	2	<100	0.4	0.01	510	110	<1	<0.1	<10	<10	<1		<1
SW04																						
20/11/2024	8.63	164	17				0.04	0.03	-	-	<100	0.2	0.03			-	-	-	-	-	-	-
9/01/2025		-	-						-	-	-					1	<0.1	-	-	1	-	<1
25/03/2025	7.52	121	<5	11.2			0.02	0.02	<1	4	<100	0.1	0.02			<1	<0.1	<10	<10	<1	<50	<1
28/10/2025	6.22	232		22.5			0.02	<0.01	4	2	<100	1	0.03	2	29	<1	<0.1	<10	<10	4		<1
3/02/2026	8.28	79		18.2			0.04	<0.01	<1	<2	<100	0.5		550	320	<1	<0.1	<10	<10	1		<1
SW05																						
20/11/2024	6.93	236	14				0.08	0.22	-	-	<100	0.8	0.22			-	-	-	-	-	-	-
9/01/2025		-	-						-	-	-					1	<0.1	-	-	4	-	<1
25/03/2025	7.22	144	<5	7.6			0.04	0.03	<1	4	<100	0.3	0.03			<1	<0.1	<10	<10	<1	310	<1
3/11/2025	7.04	494		8.2			0.08	<0.01	1	11	210	1.3	0.33	220	1800	2	<0.1	<10	<10	<1		<1
3/02/2026	6.8	297		14.1			0.16	<0.01	<1	3	<100	0.4	0.09	2800	530	<1	<0.1	<10	<10	1		<1
SW06																						
20/11/2024	6.95	739	10				0.22	0.05	-	-	<100	0.6	0.05			-	-	-	-	-	-	-
9/01/2025		-	-						-	-	-					<1	<0.1	-	-	<1	-	<1
25/03/2025	7.23	503	<5	8.4			0.03	0.02	<1	5	<100	0.3	0.02			<1	<0.1	<10	<10	<1	<50	<1
3/02/2026	6.77	896		4.3			0.02	<0.01	3	<2	<100	0.7	0.03	320	12	<1	<0.1	<10	<10	<1		<1
SW07																						
3/12/2024	6.44	219	12	6.44			<0.01	0.06	-	-	<100	0.7	0.06			-	-	-	-	-	-	-
9/01/2025		-	-						-	-	-					5	<0.1	-	-	<1	-	<1
25/03/2025	7.03	158	24	7.03			0.01	0.14	20	12	<100	1.6	0.14			2	<0.1	<10	<10	<1	2,550	<1
3/11/2025	7.31	710		8.8			0.03	<0.01	12		<100	0.6	0.06	150	5	4	<0.1	<10	<10	<1		<1
3/02/2026	6.7	84		10.8			<0.01	<0.01	66	5	<100	0.3	0.06	4000	780	<1	<0.1	<10	<10	<1		<1
SW08																						
28/10/2025	6	338		37.2			0.01	<0.01	<1	2	<100	0.8	0.03	6100	5500	<1	<0.1	<10	<10	3		<1
3/02/2026	6.66	85		2.6			<0.01	<0.01	27	<2	<100	0.1	0.01	97	180	<1	<0.1	<10	<10	<1		<1

Exceeds Water Quality Objective

Date Sampled / Analyte	Mn	Hg	Ni	Ag	Zn	Benzene	Ethyl Benzene	Toulene	m-Xylene	o-Xylene	p-Xylene	Anthracene	Benzo(a) pyrene	Fluoranthene	Naphthalene	Phenanthrene	TPH C10-C14
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Water Quality Objective	NA	0.4	70	1.4	8	700	80	18	75	350	200	0.01	0.1	1	50	0.6	600
LOR		0.1			5	1	2	2		2		1	1	1	1		50
SW01																	
3/12/2024	-	-	-	-		<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
9/01/2025	-	<0.1	<1	-	64	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	2	<0.1	<1	<1	87	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
28/10/2025			<1		57	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/02/2026	7	<0.1	<1		39	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<50
SW02																	
20/11/2024	-	-	-	-		<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
9/01/2025	-	<0.1	<1	-	9	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	8	<0.1	<1	<1	8	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
SW03																	
25/03/2025	53	<0.1		<1	<5	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/02/2026	6	<0.1	<1		<5	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<50
SW04																	
20/11/2024	-	-	-	-		<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
9/01/2025	-	<0.1	<1	-	<5	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	13	<0.1	<1	<1	<5	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
28/10/2025			<1		20	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/02/2026	29	<0.1	<1		6	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<50
SW05																	
20/11/2024	-	-	-	-		<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
9/01/2025	-	<0.1	3	-	64	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	55	<0.1	<1	<1	18	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/11/2025			2		9	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/02/2026	343	<0.1	<1		28	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<50
SW06																	
20/11/2024	-	-	-	-		<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
9/01/2025	-	<0.1	1	-	22	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	300	<0.1	<1	<1	12	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/02/2026	409	<0.1	6		41	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<50
SW07																	
3/12/2024	-	-	-	-		<1	<2	7	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
9/01/2025	-	<0.1	<1	-	5	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	47	<0.1	<1	<1	<5	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/11/2025			2		17	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/02/2026	11	<0.1	<1		<5	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<50
SW08																	
28/10/2025			<1		69	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<20
3/02/2026	11	<0.1	<1		26	<1	<2	<2	<2	<2	<2	<1.0	<0.5	<1.0	<1.0	<1.0	<50



Date Sampled / Analyte	TPH C15-C28	TPH C29-C36	TPHC6-C9	PFOS	PFOA
	µg/L	µg/L	µg/L	µg/L	µg/L
Water Quality Objective	600	600	600	0.13	220
LOR	50	50	50		
SW01					
3/12/2024	<50	<100	<50	<0.01	<0.01
9/01/2025	-	-	-	-	-
25/03/2025	<50	<100	<50	<0.01	<0.01
28/10/2025	<50	<100	<50	<0.01	<0.01
3/02/2026	<100	<50	<20	<0.01	<0.01
SW02					
20/11/2024	<50	<100	<50	<0.01	<0.01
9/01/2025	-	-	-	-	-
25/03/2025	<50	<100	<50	<0.01	0.14
SW03					
25/03/2025	<50	<100	<50	<0.01	<0.01
3/02/2026	<100	<50	<20	<0.01	0.08
SW04					
20/11/2024	<50	<100	<50	<0.01	<0.01
9/01/2025	-	-	-	-	-
25/03/2025	<50	<100	<50	<0.01	<0.01
28/10/2025	<50	<100	<50	<0.01	<0.01
3/02/2026	<100	<50	<20	<0.01	<0.01
SW05					
20/11/2024	<50	<100	<50	<0.01	0.02
9/01/2025	-	-	-	-	-
25/03/2025	<50	<100	<50	<0.01	<0.01
3/11/2025	220	<100	<50	<0.01	0.01
3/02/2026	<100	<50	<20	<0.01	<0.01
SW06					
20/11/2024	<50	<100	<50	<0.01	<0.01
9/01/2025	-	-	-	-	-
25/03/2025	<50	<100	<50	<0.01	<0.01
3/02/2026	<100	<50	<20	<0.01	<0.01
SW07					
3/12/2024	<50	<100	<50	<0.01	<0.01
9/01/2025	-	-	-	-	-
25/03/2025	<50	<100	<50	<0.01	<0.01
3/11/2025	<50	<100	<50	<0.01	0.02
3/02/2026	<100	<50	<20	<0.01	<0.01
SW08					
28/10/2025	<50	<100	<50	<0.01	<0.01
3/02/2026	<100	<50	<20	<0.01	<0.01

DATE SAMPLED / ANALYTE	Perfluorooctanesulfonic acid (PFOS)	Perfluorooctanoic acid (PFOA)	Perfluorooctanesulfonamide (PFOSA)	Perfluoropentane sulfonic acid (PFPeS)	Perfluoro-n-pentanoic acid (PFPeA)	Perfluoropropanesulfonic acid (PFPrS)	Perfluorononanesulfonic acid (PFNS)	Perfluorononanoic acid (PFNA)	Perfluorohexanoic acid (PFHxA)	Perfluorohexanesulfonic acid (PFHxS)	Perfluorohexanoic acid (PFHpA)	Perfluorohexadecanoic acid (PFHxDA)	Perfluorododecanoic acid (PFDoDA)	Perfluorodecanoic acid (PFDA)	Perfluorohexane sulfonic acid (PFHpS)	Perfluorobutanesulfonic acid (PFBS)	Perfluorodecanesulfonic acid (PFDS)	Perfluorotetradecanoic acid (PFTeDA)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Trigger Value	0.13	220																
LOR	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.05	0.02	0.02	0.02	0.02	0.02	0.05
Groundwater																		
MW01																		
26/11/2024	<0.01	0.52	<0.02	<0.02	1.92	<0.02	<0.02	0.06	1.69	<0.01	0.89	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
24/03/2025	<0.01	0.22	-	-	0.85	-		-	0.8	<0.01	0.38	-	-	-		<0.02	-	-
22/07/2025	<0.01	0.23	<0.02	<0.02	0.69	<0.02	<0.02	0.04	0.72	<0.01	0.28	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
28/10/2025	<0.01	0.29	<0.02	<0.02	1.63	<0.02	<0.02	0.04	1.41	<0.01	0.72	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/04/2026	<0.01	0.1	<0.02	<0.02	0.43	<0.02	<0.02	0.02	0.36	<0.01	0.17	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW02																		
3/12/2024	<0.01	0.02	<0.02	<0.02	0.35	<0.02	<0.02	<0.02	0.28	<0.01	0.08	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
24/03/2025	<0.01	0.03	-	-	0.3	-			0.2	<0.01	0.1	-	-	-		<0.02	-	-
21/07/2025	<0.01	0.02	<0.02	<0.02	0.31	<0.02	<0.02	<0.02	0.25	<0.01	0.07	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
28/10/2025	<0.01	0.02	<0.02	<0.02	0.34	<0.02	<0.02	<0.02	0.3	<0.01	0.1	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	0.02	<0.02	<0.02	0.24	<0.02	<0.02	<0.02	0.15	<0.01	0.07	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW03																		
3/12/2024	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
24/03/2025	<0.01	<0.01	-	-	<0.02	-			<0.02	<0.01	<0.02	-	-	-		<0.02	-	-
21/07/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
28/10/2025	<0.01	<0.01	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW04																		
2/12/2024	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
24/03/2025	<0.01	<0.01	-	-	<0.02	-			<0.02	<0.01	<0.02	-	-	-		<0.02	-	-
21/07/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
28/10/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW05																		
2/12/2024	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
24/03/2025	<0.01	<0.01	-	-	0.13	-			0.06	<0.01	<0.02	-	-	-		<0.02	-	-
22/07/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
28/10/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	0.08	<0.02	<0.02	<0.02	0.04	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
MW06																		
2/12/2024	<0.01	0.01	<0.02	<0.02	0.05	<0.02	<0.02	<0.02	0.03	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
24/03/2025	<0.01	<0.01	-	-	0.04	-			<0.02	<0.01	<0.02	-	-	-		<0.02	-	-
22/07/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
28/10/2025	<0.01	0.02	<0.02	<0.02	0.23	<0.02	<0.02	<0.02	0.14	<0.01	0.05	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05

DATE SAMPLED / ANALYTE	Perfluorotridecanoic acid (PFTrDA)	Perfluoroundecanoic acid (PFUnDA)	Perfluorobutanoic acid (PFBA)	N-ethyl perfluorooctane sulfonamido acetic acid (N-EtFOSSA)	N-ethyl perfluorooctane sulfonamide (N-EtFOSA)	N-methyl perfluorooctanesulfonamido ethanol (N-MeFOSE)	N-ethyl perfluorooctanesulfonamido ethanol (N-EtFOSE)	N-Methyl perfluorooctane sulfonamide (N-MeFOSA)	N-methyl perfluorooctane sulfonamido acetic acid (N-MeFOSAA)	Sum (PFHxS + PFOS)	Sum of PFAS	Sum of WA DWER PFAS (n=10)	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)
	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
Trigger Value																
LOR	0.02	0.02	0.1	0.02	0.05	0.05	0.05	0.05	0.02	0.01	0.01	0.01	0.05	0.05	0.05	0.05
Groundwater																
MW01																
26/11/2024	<0.02	<0.02	0.5	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	11.2	11.1	<0.05	5.51	0.07	<0.05
24/03/2025	-	-	0.2	-	-	-	-	-	-	<0.01	-	6.97	<0.05	4.45	0.07	<0.05
22/07/2025	<0.02	<0.02	0.2	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	6.56	6.52	<0.05	4.31	0.09	<0.05
28/10/2025	<0.02	<0.02	0.4	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	8.76	8.72	<0.05	4.18	0.09	<0.05
3/04/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	2.61	2.59	<0.05	1.53	<0.05	<0.05
MW02																
3/12/2024	<0.02	<0.02	0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	1.05	1.05	<0.05	0.22	<0.05	<0.05
24/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	0.63	<0.05	<0.05	<0.05	<0.05
21/07/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.85	0.85	<0.05	0.2	<0.05	<0.05
28/10/2025	<0.02	<0.02	0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	1.07	1.07	<0.05	0.21	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.48	0.48	<0.05	<0.05	<0.05	<0.05
MW03																
3/12/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
24/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	<0.01	<0.05	<0.05	<0.05	<0.05
21/07/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
28/10/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.02	0.02	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
MW04																
2/12/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
24/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	<0.01	<0.05	<0.05	<0.05	<0.05
21/07/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
28/10/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
MW05																
2/12/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
24/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	0.19	<0.05	<0.05	<0.05	<0.05
22/07/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
28/10/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.12	0.12	<0.05	<0.05	<0.05	<0.05
MW06																
2/12/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.09	0.09	<0.05	<0.05	<0.05	<0.05
24/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	0.04	<0.05	<0.05	<0.05	<0.05
22/07/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
28/10/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.6	0.6	<0.05	0.16	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.02	0.02	<0.05	<0.05	<0.05	<0.05

Surface Water																		
SW01																		
3/12/2024	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	<0.01	<0.01	-	-	<0.02	-	-	-	<0.02	<0.01	<0.02	-	-	-	-	<0.02	-	-
28/10/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW02																		
20/11/2024	<0.01	<0.01	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	<0.01	0.14	-	-	0.85	-	-	-	0.74	<0.01	0.37	-	-	-	-	<0.02	-	-
SW03																		
25/03/2025	<0.01	<0.01	-	-	0.03	-	-	-	<0.02	<0.01	<0.02	-	-	-	-	<0.02	-	-
3/02/2026	<0.01	0.08	<0.02	<0.02	0.79	<0.02	<0.02	0.03	0.76	<0.01	0.28	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW04																		
20/11/2024	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	<0.01	<0.01	-	-	<0.02	-	-	-	<0.02	<0.01	<0.02	-	-	-	-	<0.02	-	-
28/10/2025	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW05																		
20/11/2024	<0.01	0.02	<0.02	<0.02	1.39	<0.02	<0.02	<0.02	0.61	<0.01	0.18	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	<0.01	<0.01	-	-	0.22	-	-	-	0.12	<0.01	0.05	-	-	-	-	<0.02	-	-
3/11/2025	<0.01	0.01	<0.02	<0.02	0.52	<0.02	<0.02	<0.02	0.26	<0.01	0.12	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	0.12	<0.02	<0.02	<0.02	0.06	<0.01	0.03	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW06																		
20/11/2024	<0.01	<0.01	<0.02	<0.02	0.49	<0.02	<0.02	<0.02	0.23	<0.01	0.08	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	<0.01	<0.01	-	-	0.16	-	-	-	0.11	<0.01	0.04	-	-	-	-	<0.02	-	-
3/11/2025	<0.01	0.02	<0.02	<0.02	0.57	<0.02	<0.02	<0.02	0.28	<0.01	0.12	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	0.18	<0.02	<0.02	<0.02	0.12	<0.01	0.04	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW07																		
3/12/2024	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	<0.01	<0.01	-	-	<0.02	-	-	-	<0.02	<0.01	<0.02	-	-	-	-	<0.02	-	-
3/02/2026	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
SW08																		
28/10/2025	<0.01	<0.01	<0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05
3/02/2026	<0.01	<0.01	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.01	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.05

Surface Water																
SW01																
3/12/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	<0.01	<0.05	<0.05	<0.05	<0.05
28/10/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
SW02																
20/11/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.03	0.03	<0.05	<0.05	<0.05	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	-	-	0.2	-	-	-	-	-	-	<0.01	-	2.5	<0.05	0.2	<0.05	<0.05
SW03																
25/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	0.03	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	2.62	2.59	<0.05	0.49	0.09	<0.05
SW04																
20/11/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	<0.01	<0.05	<0.05	<0.05	<0.05
28/10/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
SW05																
20/11/2024	<0.02	<0.02	0.2	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	3.59	3.59	<0.05	1.11	0.08	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	0.89	<0.05	0.5	<0.05	<0.05
3/11/2025	<0.02	<0.02	0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	1.28	1.28	<0.05	0.27	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.37	0.37	<0.05	0.16	<0.05	<0.05
SW06																
20/11/2024	<0.02	<0.02	0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	1.2	1.2	<0.05	0.3	<0.05	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	0.84	<0.05	0.53	<0.05	<0.05
3/11/2025	<0.02	<0.02	0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	1.32	1.32	<0.05	0.23	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.9	0.9	<0.05	0.56	<0.05	<0.05
SW07																
3/12/2024	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
9/01/2025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25/03/2025	-	-	<0.1	-	-	-	-	-	-	<0.01	-	<0.01	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05
SW08																
28/10/2025	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	0.03	0.03	<0.05	<0.05	<0.05	<0.05
3/02/2026	<0.02	<0.02	<0.1	<0.02	<0.05	<0.05	<0.05	<0.05	<0.02	<0.01	<0.01	<0.01	<0.05	<0.05	<0.05	<0.05