CONSULTING EARTH SCIENTISTS

MONTHLY GROUNDWATER MONITORING REPORT – DECEMBER 2025

WOODLAWN ECO-PRECINCT

COLLECTOR RD, TARAGO NSW

PREPARED FOR VEOLIA AUSTRALIA AND NEW ZEALAND (VEOLIA)

CES DOCUMENT REFERENCE: CES220507-VWA-EC

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ANZG	Australia and New Zealand Guidelines
EMS	Emergency Management Strategy
EPA	Environment Protection Agency
EPL	Environment Protection Licence
GPS	Global Positioning System
km	Kilometre
L	Litre
L/h	Litres per Hour
m	metre
MGA	Map Grid Australia
NSW	New South Wales
POEO	Protection of the Environment Operations Act
ppm	Parts Per Million
QA/QC	Quality Assurance and Quality Control
s	Second
UTM	Universal Transverse Mercator
VOC	Volatile Organic compounds
v/v	Volume per Volume

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1. INTRODUCTION

Veolia has been issued a Prevention Notice (No. 3503885) by the NSW EPA dated 24 May 2022 related to EPL 11436. On 05 April 2023 the NSW EPA issued Variation of Notice of Prevention Notice (No. 3504748 Referenced VN-689) (herein referred to as the Variation Notice) and on 22 December 2023, the NSW EPA issued Variation of Notice of Prevention Notice (No. 3506995 Referenced VN-893), which presents updated directions from the NSW EPA.

Veolia has been commissioned by CES to undertake the monitoring and management of triggers and actions associated with the TARP [Trigger Action Response Plan – Groundwater – Woodlawn Bioreactor dated 3 April 2023] in accordance with Directions 1 and 2 of the Variation Notice in addition to the current works undertaken by CES at Woodlawn Eco-Precinct, which includes monitoring of surface water, groundwater, leachate and landfill gas (surface gas emissions and subsurface gas) monitoring.

Directions 1 of the updated the Variation Notice (No. 3506995 Referenced VN-893), are reproduced below:

Direction 1:

Immediately from the date of this Notice and until a date agreed upon by the EPA commence monthly monitoring of groundwater monitoring bores MB10, MB10S, MB2, MB28, and MW-FRC1 downgradient of ED1, and MB-3 upgradient of ED1. This monitoring should include the following contaminants of concern (CoC):

v. Alkalinity (as calcium carbonate), electrical conductivity, pH, standing water level

vi. Benzene, chloride, ethyl benzene, fluoride, nitrate, nitrite, nitrogen (ammonia), sulfate, toluene, xylene

vii. Dissolved metals: Aluminium, arsenic, barium, cadmium, calcium, chromium (hexavalent), cobalt, copper, lead, magnesium, manganese, mercury, potassium, sodium, zinc; and

viii. Total dissolved solids, total petroleum hydrocarbons, total organic carbon.

Where there have been no results above the of level of reporting for 3 consecutive months for total petroleum hydrocarbons then it will be removed from the list of CoCs that will be required for the further monthly monitoring.

On 26 September 2025, CES submitted a revised monitoring plan to the NSW EPA, which included additional monitoring locations and amendments to the analytical suite. The revised monitoring plan represents the agreed implementation of Direction 1 of the Variation Notice.

Under the revised monitoring plan, the monitoring programme includes the groundwater monitoring bores specified under the Variation Notice together with additional groundwater monitoring points MB29, MB39S and SP2-MW1, and surface water monitoring at ED1-Coffer Dam 1 and ED1-Coffer Dam 2.

While the contaminants of concern listed above represent the requirements specified under the Variation Notice, monitoring undertaken for the reporting period was conducted in accordance with the revised monitoring plan, which includes the removal of total recoverable hydrocarbons (TRHs), fluoride and total metals, and the inclusion of dissolved iron.

A copy of the TARP was provided to CES. The TARP presents details of a monitoring programme consistent with the requirements of Direction 1, type A and B triggers and associated actions and responses to the triggers.

The scope of work presented in Section 2 of this report includes the works associated with completion of the monitoring required by the TARP, implementation of the Actions and Responses required by the TARP where trigger conditions are reached, and the preparation of a TARP validation report as required under Direction 2 of the Variation Notice.

The monitoring programme consists of Groundwater and Surface Water Sampling of at the monitoring locations shown in Figures 2 and 3.

2. SCOPE OF WORKS

The scope of work for the monitoring and management of triggers and actions associated with compliance with the TARP is as follows:

2.1 TARP MONTHLY COMPLIANCE MONITORING

- Project Management including liaison with Veolia with respect to upcoming monitoring works and submission of a brief Monitoring Event Plan (MEP). The MEP will present a brief summary of the proposed works including sample locations and sample analysis suites and provide an opportunity to formalise any requested ad-hoc or additional monitoring requirements.

- Undertake monthly groundwater monitoring in accordance with Direction 1 and the TARP using low flow groundwater sampling methods at groundwater monitoring wells MB10, MB10S, MB2, MB28, MW-FRC1 and MB-3.

- From December 2025 onwards, three (3) additional groundwater monitoring locations (MB29, SP2-MW1 and MB39S) and two (2) new surface water monitoring points (ED1 Coffer Dam 1 and ED1 Coffer Dam 2) were incorporated into the monthly monitoring program.

- Record field observations including date and time of field sampling, field parameters, site conditions, field sampling procedures, equipment and conditions during purging and sampling undertaken for the monthly monitoring work. This will include standing water level (SWL), presence and thickness of Non-Aqueous Phase Liquids (NAPL) (if present) and standard field parameters, such as dissolved oxygen (DO), redox, turbidity, Electrical conductivity (EC), pH and temperature. Condition of well headworks will also be recorded and photographed.

- Collect representative groundwater samples (including quality assurance and quality control samples) on a monthly basis. A total of eleven (11) groundwater samples (9 primary samples, including 1 duplicate sample and 1 triplicate sample) and two (2) surface water sample to be collected.

- Groundwater samples to be analysed for the following suite of analytes in accordance with Direction 1 of the updated Prevention Notice (No. 3506995) at a National Association of Testing Authorities (NATA) accredited laboratory:

    - Dissolved metals (Aluminium, arsenic, barium, cadmium, calcium, chromium (hexavalent), chromium (Total), cobalt, copper, lead, iron, magnesium, manganese, mercury, potassium, sodium, zinc).
    - Chloride.

- nitrate, nitrite, nitrogen (ammonia).
- Sulfate.
- Alkalinity (as calcium carbonate),
- electrical conductivity (EC) (field).
- pH (field).
- Total dissolved solids (TDS).
- Total Recoverable Hydrocarbon (TRH)
- Total Organic Carbon (TOC)

2.2 REPORTING

Provision of a monthly monitoring report incorporating the fieldwork description, the monitoring results (including reporting of pollutants in the measurement units required by the EPL (i.e. convert µg/L to mg/L where applicable), any anomaly, unexpected results, trends, changes or criteria exceedances and; the report will include a separate section that provides a summary/commentary on the Trigger Action Response Plan (TARP), any triggers, actions required and consistent with CES fee proposal CES220507-VWA-BA dated 14 July 2023; the completed Field Data Sheet including date and time of field sampling; Equipment calibration certificates, the laboratory reports, summary of any issues identified which may have affected data collection during the sampling event and any recommendations considered appropriate.

This report presents the results of the groundwater monitoring carried out at the site on, 15th to 19th of December 2025.

3. QA/QC DATA RESULTS AND EVALUATION (WATER MONITORING)

Laboratory analysis certificates signed Chain of Custody (COC) forms and sample acknowledgement receipts are provided in Appendix 2. The current section of this report is focused on the presentation of results and discussion of deviations from the Data Acceptance Criteria (DAC).

3.1 ADHERENCE TO SAQP

The December 2025 monthly monitoring round was conducted in accordance with the site-specific Sampling and Analysis Quality Plan (CES 2023, CES Document Reference: CES220507-VWA-BB-SAQP Dated 29 August 2023).

3.2 CHAIN OF CUSTODY FORMS, PRESERVATION AND HOLDING TIMES

Water samples were delivered to Envirolab laboratory undersigned COC forms. All samples were appropriately preserved, and all tests were carried out within the recommended holding times.

3.3 FIELD QA/QC ASSESSMENT

Tabulated field QA/QC assessment results are provided in Table 6a. The field QA/QC results are discussed below and compared to the DAC provided in Table 4.

3.3.1 BLIND REPLICATE (FIELD DUPLICATES)

One blind replicate sample, "BR2" (primary sample "MB10SR") was collected from borehole MB10SR during the December 2025 monitoring round.

Analytical results for the primary and blind replicate samples were compared to provide Relative Percentage Differences (RPDs). RPD results are provided in Table 6a. RPD results between the blind replicate and the primary sample were all within the acceptable ranges outlined in the DAC in Table 4, except for Iron-Dissolved (192%) and Manganese-Dissolved (155%). The overall integrity of the data is not considered to have been impacted by this.

3.3.2 SPLIT REPLICATE (FIELD DUPLICATES)

One split replicate sample, "SR2" (primary sample "MB10SR") was collected from borehole MB10SR during the December 2025 monitoring round.

Analytical results for the primary and split replicate samples were compared to provide RPDs. RPD results between the split and primary samples collected were within the acceptable range as outlined in the DAC in Table 4.

3.3.3 RINSATE BLANK

The results of the Rinsate Blank samples (RIN) conformed to the DAC specified in Table 4 with all analytical results recorded below the laboratory PQL, except for Barium-dissolved, with a concentration of 11 µg/L.

3.3.4 FIELD BLANK

The results of the Field Blank sample for the sample day (FB2) conformed to the DAC specified in Table 4 with all analytical results recorded below the laboratory PQL.

3.3.5 TRIP BLANK

The results of the Trip Blank sample (TB) conformed to the DAC specified in Table 4 with all analytical results recorded below the laboratory PQL.

3.4 LABORATORY QA/QC ASSESSMENT

An assessment of the laboratory QA/QC data is provided below.

3.4.1 LABORATORY DUPLICATES

The RPDs for each of the analytes in the Laboratory Duplicate samples were within the acceptance range specified in Table 4.

3.4.2 LABORATORY CONTROL SAMPLES

The recoveries for the Laboratory Control Samples (LCS) were within the acceptable range specified in Table 4.

3.4.3 METHOD BLANKS

The results of the Method Blanks were below the laboratory PQL and conformed to the DAC in Table 4.

3.4.4 FINAL QA/QC ASSESSMENT

In consideration of the above QA/QC results, the data is of acceptable quality for use in satisfying the objectives of the December 2025 monitoring round at the site.

4. TRIGGER ACTION RESPONSE PLAN (TARP) TRIGGER CRITERION

4.1 GROUNDWATER

The December 2025 results were compared to the 80th and 95th percentile historical baseline monitoring results and ANZG (2018) Fresh Water (95% species protection) to develop the December 2025 bore specific criteria of Limit A and Limit B, as indicated in Table 2 of the TARP and assess if the November analytes exceed these criteria and require further action and response as per the Trigger Action Response Plan (TARP).

A summary of the Exceedance criteria presented in Table 2 of the TARP is presented below:

- Five (5) consecutive samples exceeded the bore-specific baseline derived Trigger A criteria and three (3) consecutive samples exceeded the Trigger B criteria.
- A and B trigger levels
    - If 80th %ile <95th %ile <FAE95% - Limit A= 80th %ile & Limit B=FAE95%
    - If 80th %ile <FAE95% <95th %ile, - Limit A is FAE95% & Limit B = 95th %ile
    - If FAE95%<80th %ile<95th %ile - Limit A= 80th %ile & Limit B is 95th %ile.

  For pH the 5th and 20th percentiles are used in addition to 95th and 80th percentiles respectively.

  FAE95% = ANZG (2018) Guideline for moderately disturbed freshwater aquatic ecosystems, for the protection of 95% of species.

5. RESULTS

5.1 GROUNDWATER

The December 2025 monitoring round at the site included the laboratory analysis of monthly analytes for all groundwater and surface water samples except MB39S since it was inaccessible, which were collected on 15th to 19th November 2025. The following analytes were removed from testing as per Prevention Notice No 3503885 since notification in June 2024: polycyclic aromatic hydrocarbons, benzene, toluene, ethylbenzene, xylene, and total phenolics, organochlorine pesticides, organophosphate pesticides, and fluoride.

The results were generally consistent with November's results. Limit A and Limit B exceedances are presented in Table 5, and a summary is presented in Section 6.2.1.

6. DISCUSSION

6.1 GROUNDWATER

Groundwater field parameters and laboratory analytical results for the December 2025 monitoring round are discussed below. Analytical results for the December 2025 monitoring round include the monthly suites of analytes as outlined in Table 2. Comprehensive historical data comparison and analysis is beyond the scope of this report. A more detailed interpretation and analysis of the historical and current monitoring results will be provided in the annual report.

6.2 GROUNDWATER FIELD PARAMETERS

Field measurements recorded for pH ranged from 5.18 (MB10) to 6.8 (MB29).

Standing water levels (SWL) ranged from 0.48 m Below Top of Casing (BTOC) at monitoring well MB3 to 7.03 mBTOC at monitoring well MB28.

Electrical conductivity (EC) measured onsite indicated that values ranged from 1,900 uS/cm (MW-FRC1) to 7,764 uS/cm (MB10).

Dissolved Oxygen (DO) concentrations ranged from 5.7 mg/L (MB2) to 2.63 mg/L (MW-FRC1).

6.2.1 TARP GROUNDWATER CHEMICAL PARAMETERS

Limit A and Limit B were exceeded for various analytes for all wells. A few consecutive exceedances for concurrent A and B limits were reported but not reaching the pre-established five (5) consecutive samples exceeding the bore-specific baseline derived Trigger A criteria and three (3) consecutive samples exceeding the Trigger B criteria.

It is understood that when limit B exceeds, limit A is also an exceedance.

TARP exceedances are further described below.

6.2.2 MB2

Limit A was exceeded in 1 analyte during the December 2025 sampling event:

- Copper-Dissolved
- Iron-Dissolved

Limit B was exceeded in 4 analytes during the December 2025 sampling event:

- pH (field) Lower
- Total Dissolved Solids (grav)
- pH (lower)

Compared to November 2025, when Limit A was exceeded in 5 analytes and Limit B was exceeded in 4 analytes.

6.2.3 MB3

Limit A was exceeded in 6 analytes during the December 2025 sampling event:

- Sulphate, SO4
- Chloride, Cl
- Electrical Conductivity
- Nitrate as N in water
- Ammonia as N in water
- Total Dissolved Solids (grav)
- pH (lower)

Limit B was exceeded in 1 analyte during the December 2025 sampling event:

- pH (field) Lower

Compared to November 2025, when Limits A and B were exceeded in 10 and 3 analytes, respectively.

Notably, the concentration of Nitrate as N in water at MB3 has exceeded Limit B for more than five consecutive monitoring events (April to November 2025, except September and December 2025, which exceeded Limit A). A trigger condition under the Trigger Action Response Plan (TARP) has been met. In accordance with the TARP, the relevant action and response measures must now be implemented. Also, if the concentration of Nitrate as N in water at MB3 does not exceed limit B for next month, trigger condition will no longer be met.

6.2.4 MB10

Limit A was exceeded in 4 analytes during the December 2025 sampling event:

- Redox (field)
- Sulphate, SO4
- Total Dissolved Solids (grav)
- Copper-Dissolved
- pH (lower)

Limit B was exceeded in 1 analyte during the December 2025 sampling event:

- pH (field) Lower

Compared to November 2025, when Limit A was exceeded in 4 analytes and limit B was exceeded in 8 analytes.

6.2.5 MB10SR

Limit A was exceeded in 2 analytes during the December 2025 sampling event:

- Sulphate, SO4
- Total Dissolved Solids (grav)
- pH (lower)

Limit B was exceeded in 2 analytes during the December 2025 sampling event:

- pH (field) Lower
- Chloride, Cl

Compared to November 2025, when Limits A and B were exceeded in 2 and 1 analyte, respectively.

6.2.6 MB28

Limit A was exceeded in 3 analytes during the December 2025 sampling event:

- pH (lower)
- Copper-Dissolved
- Zinc-Dissolved

Limit B was exceeded in 2 analytes during the December 2025 sampling event.

- pH (field) Lower
- Sulphate, SO4

Compared to November 2025, when Limits A and B were exceeded in 2 and 3 analytes, respectively.

6.2.7 MW-FRC1

Limit A was exceeded in 5 analytes during the December 2025 sampling event:

- Calcium – Dissolved
- Ammonia as N in water
- Cobalt-Dissolved
- Copper-Dissolved
- Manganese-Dissolved

Limit B was exceeded in 5 analytes during the December 2025 sampling event:

- pH (field) Lower

- Sulphate, SO4
- Nitrate as N in water
- Cadmium-Dissolved
- Zinc-Dissolved

Compared to November 2025, when Limits A and B were exceeded in 6 and 3 analytes, respectively.

Notably, the concentration of Sulphate, SO4 at MW-FRC1 has exceeded Limit B for seven consecutive monitoring events (June to December 2025), Cadmium-Dissolved and Zinc-Dissolved has exceeded Limit B for 5 consecutive monitoring events (August to December 2025). A trigger condition under the Trigger Action Response Plan (TARP) has been met. In accordance with the TARP, the relevant action and response measures must now be implemented.

6.2.8 MB29

Limit A was exceeded in 4 analytes during the December 2025 sampling event:

- Magnesium-Dissolved
- Total Alkalinity CaCO3
- Chloride, Cl
- Zinc – Dissolved

Note that since historical data is not available, Limit A followed the ANZG 2025 Freshwater toxicant DGVs LOSP 95% threshold.

6.2.9 SP2-MW1

Limit A was exceeded in 5 analytes during the December 2025 sampling event:

- Calcium – Dissolved
- Magnesium – Dissolved
- Total Alkalinity as CaCO3
- Chloride, Cl
- Zinc – Dissolved

Note that since historical data is not available, Limit A followed the ANZG 2025 Freshwater toxicant DGVs LOSP 95% threshold.

6.2.10 MB39S

MB39S was not sampled during December 2025 monitoring event because of inaccessibility.

6.3 SURFACE WATER

Surface water field parameters and laboratory analytical results for the December 2025 monitoring round are discussed below. Analytical results for the December 2025 monitoring round include the monthly suites of analytes as outlined in Table 3. Comprehensive historical data is not available for surface water. A more detailed interpretation and analysis of the historical and current monitoring results will be provided in the annual report.

6.4 SURFACE WATER FIELD PARAMETERS

Field measurements recorded for pH ranged from 8.64 (ED1 Coffer Dam 1) to 8.65 (ED1 Coffer Dam 2).

Electrical conductivity (EC) measured onsite indicated that values ranged from 25,467 uS/cm (ED1 Coffer Dam) to 29,287 uS/cm (ED1 Coffer Dam 2).

Dissolved Oxygen (DO) concentrations ranged from 164 mg/L (ED1 Coffer Dam) to -3.2 mg/L (ED1 Coffer Dam 2).

Due to lack of historical data, TARP is currently not suitable for surface water analysis.

7. SUMMARY/COMMENTARY ON THE TRIGGER ACTION RESPONSE PLAN (TARP)

During the December 2025 monitoring round, Limits A and B were exceeded for various analytes across several monitoring wells. At two locations (MB3 and MW-FRC1) formal TARP trigger conditions have been met. Specifically, Nitrate as N in water exceeded Limits A and B for over five consecutive monitoring rounds, thereby satisfying the trigger criteria outlined in the TARP (five consecutive Limit A exceedances and three consecutive Limit B exceedances). Sulphate, Cadmium-dissolved and Zinc-dissolved exceeded Limit B for five consecutive monitoring rounds at MW-FRC1, also satisfying the trigger criteria.

No other wells met the full trigger criteria during this round or are expected to meet in the next monitoring round.

8. SUMMARY

A total of 8 groundwater monitoring locations and 2 surface water monitoring locations were sampled during the December 2025 monitoring round. Groundwater field and monthly analytical results were generally consistent with those from the November 2025 monthly monitoring round.

Limits A or B were exceeded consecutively for some analytes during the December 2025 monitoring event. TARP condition has been met at MB3 and MW-FRC1, a formal trigger response is required in accordance with the TARP framework.

9. REFERENCES

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Environmental Protection Authority (EPA): *Environment Protection Licence (EPL No. 11436), issued under the Protection of the Environment Operations Act 1997.*

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Environmental Protection Authority (EPA), 2023. *Variation of Prevention Notice No. 3503885,* Pyrmont, NSW: Environmental Protection Authority (EPA).

Environmental Protection Authority (EPA), 2023. *Variation off Prevention Notice No. 3506995* , Pyrmont, NSW: Environmental Protection Authority (EPA).

Veolia, 2023. *Trigger Action Response Plan - Groundwater - Woodlawn Bioreactor,* Woodlawn, NSW: s.n.

LIST OF ANALYTICAL REPORTS

Envirolab Services Pty Limited, 05 January 2026. *Certificate of Analysis*. Prepared for Consulting Earth Scientists Pty Ltd. Report Id/Batch: 398689.

Australian Laboratory Services Pty Ltd, 02 January 2026. *Certificate of Analysis*. Prepared for Consulting Earth Scientists Pty Ltd. Report Id/Batch: ES2540987.

FIGURES

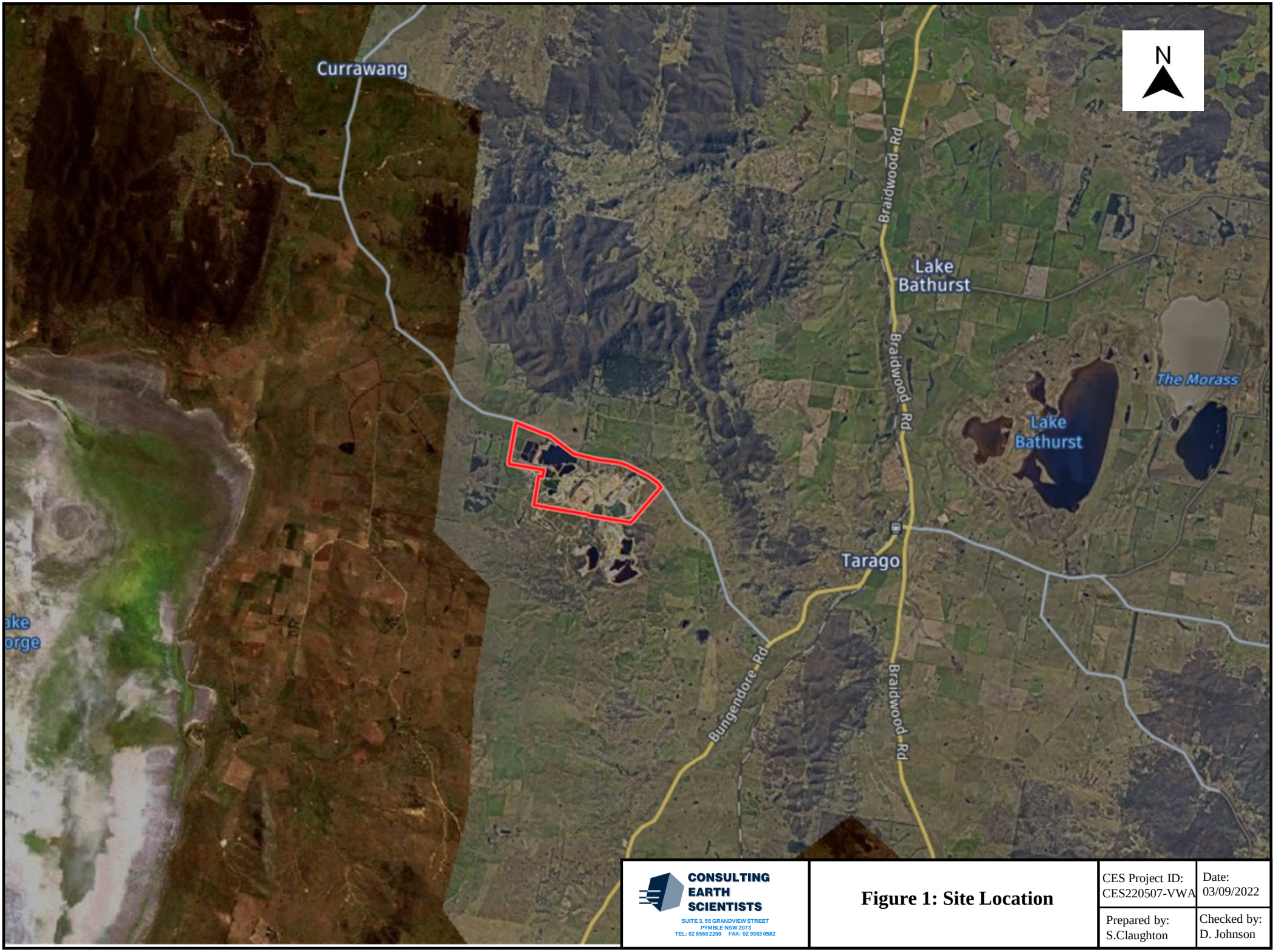

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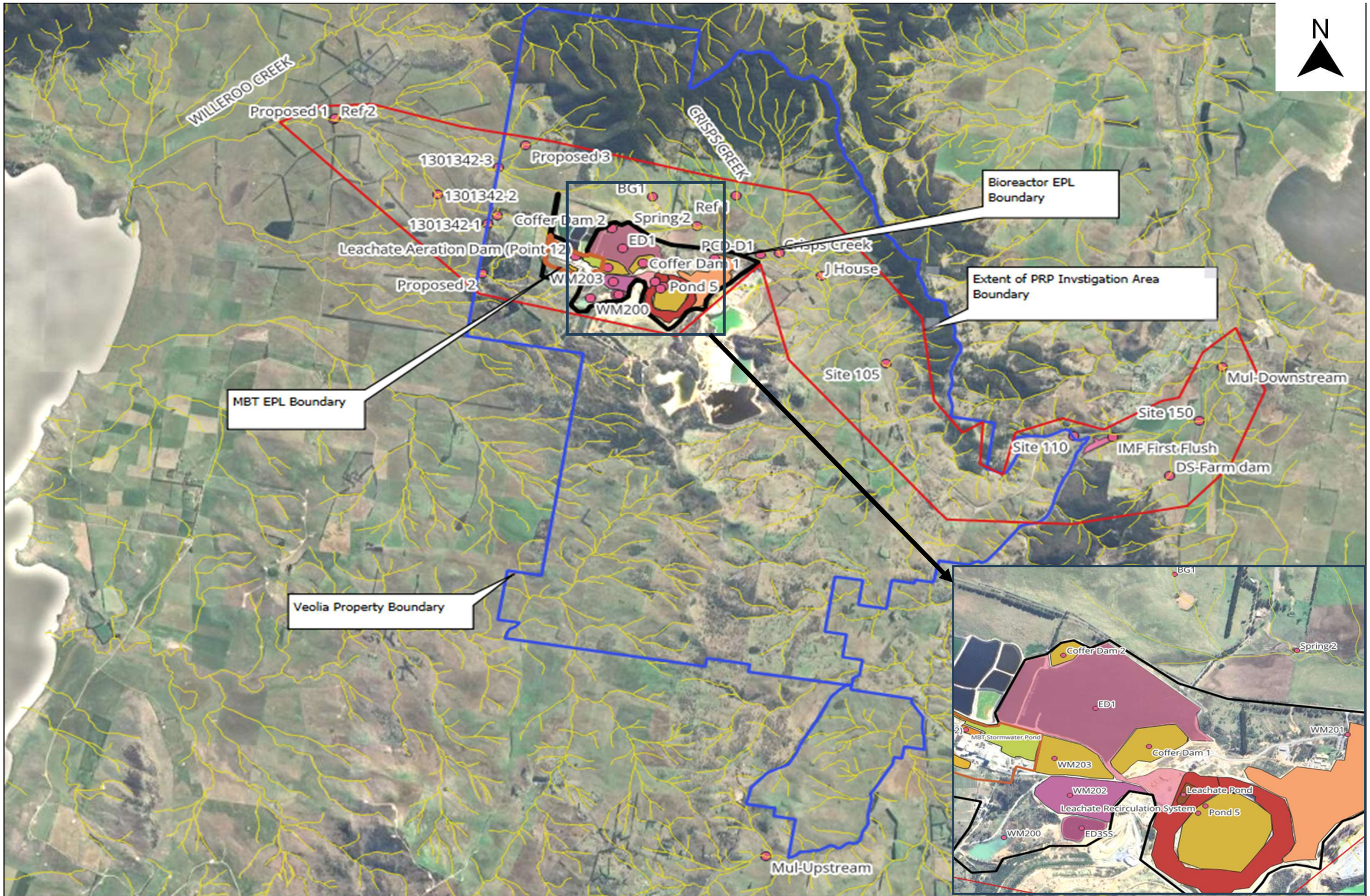
Figure 1: Site Location

CES Project ID: CES220507-VWA	Date: 03/09/2022
Prepared by: S.Claughton	Checked by: D. Johnson



● Surface water and Leachate monitoring points
Not to scale

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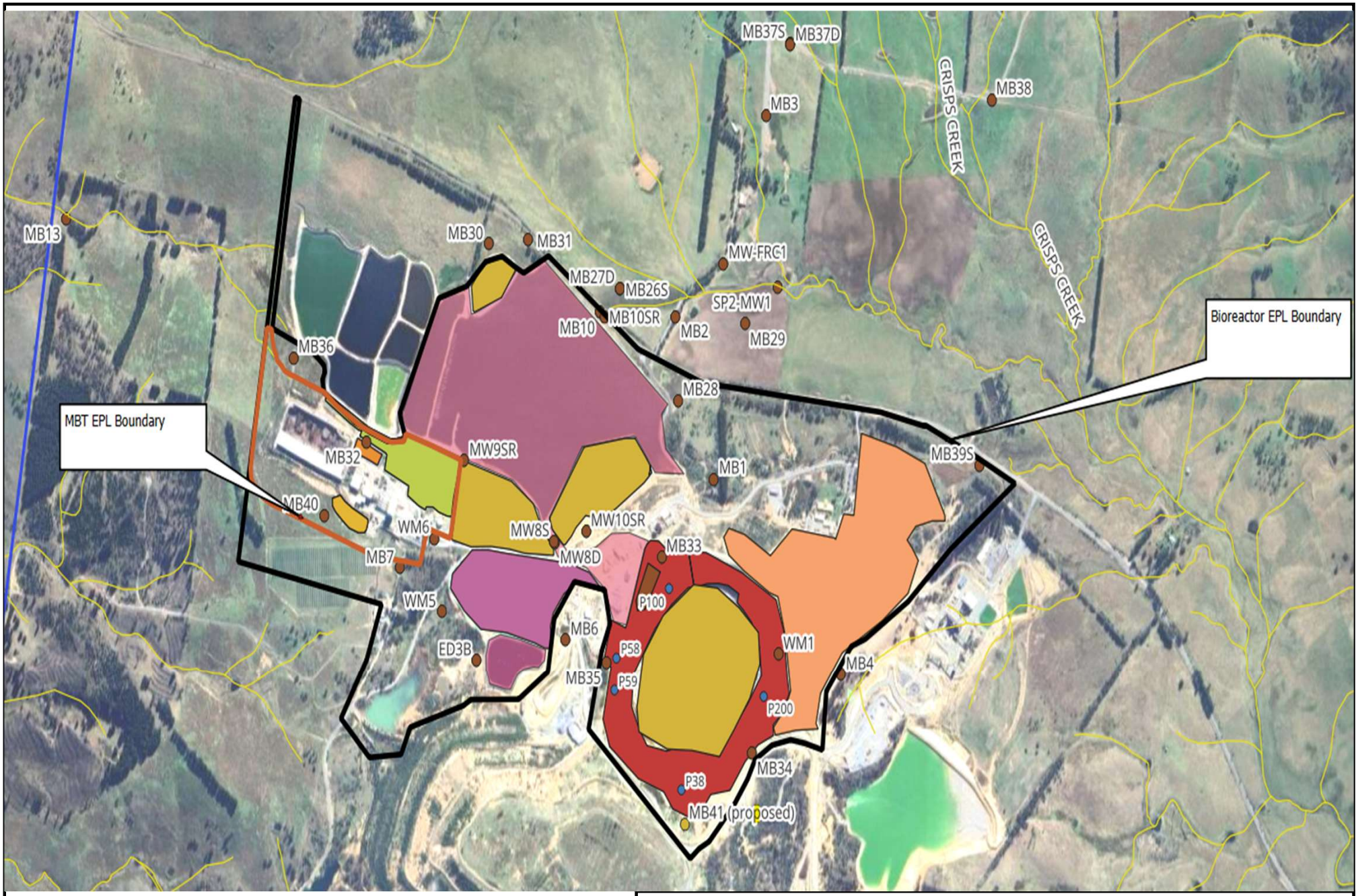
Figure 2: Surface Water and Leachate Monitoring Location

CES Project ID: CES220507-VEO
Date: 21/01/2026
Prepared by: S. Nandy
Checked by: D Lowe



Groundwater Monitoring Well Location

Not to scale

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Figure 3: Groundwater Monitoring Well Location

CES Project ID: CES220507-VEO
Date: 15/01/2026
Prepared by: S. Nandy
Checked by: D Lowe

TABLES

Table 1: Summary of Groundwater Sampling Locations			
Sampling Location ID	**Bore Depth (m)[1]**	**SWL December 2025 (mBTOC)**	**Comments**
MB2	13.46	2.7	EPA ID: 26
MB3	25.32	0.48	EPA ID: 27
MB10	22.35	2.35	EPA ID: 33
MB10S	15.86	1.62	EPA ID: 65
MW-FRC1	5.34	2.63	EPA ID: 64
MB28	9.92	7.03	EPA ID: 60
MB29	6.86	2.63	NI
MB39S			NI
SP2-MW1	4.63	2.3	EPA ID: 63

Table 2: Groundwater Analytical Programme			
Parameter	**Unit**	**Sampling Method**	**GW1 (Monthly)**
Standing Water Level	m	Decontaminated dip meter	✔
pH	Units	Field Meter	✔
Electrical Conductivity	uS/cm	Field Meter	✔
Dissolved Oxygen (field)	mg L^{-1}	Field Meter	✔
Redox	mV	Field Meter	✔
Temperature	ºC	Field Meter	✔
Metals (Al, Ba, As, Ba, Cd, Co, Cr, Cu, Fe, Hg, Pb, Zn)	mg/L	Grab sample (low-flow)	✔
Hexavalent Chromium	mg/L	Grab sample (low-flow)	✔
Alkalinity (as calcium carbonate)	mg/L	Grab sample (low-flow	✔
Conductivity	µS/cm	Grab sample (low-flow)	✔
Calcium	mg/L	Grab sample (low-flow)	✔
Potassium	mg/L	Grab sample (low-flow)	✔
Magnesium	mg/L	Grab sample (low-flow)	✔
Sodium	mg/L	Grab sample (low-flow)	✔
Chloride	mg/L	Grab sample (low-flow)	✔
Sulphate	mg/L	Grab sample (low-flow)	✔
Manganese	mg/L	Grab sample (low-flow)	✔
Nitrate as N	mg/L	Grab sample (low-flow)	✔
Nitrite as N	mg/L	Grab sample (low-flow)	✔
Ammonia as N	mg/L	Grab sample (low-flow)	✔
Total Organic Carbon (TOC)	mg/L	Grab sample (low-flow)	✔
Total Dissolved Solids (TDS)	mg/L	Grab sample (low-flow)	✔
pH	pH units	Grab sample (low-flow)	✔

Table 3: Surface Water Analytical Programme			
Parameter	**Unit**	**Sampling Method**	**SW4 (Monthly)**
pH	Units	Field Meter	✔
Electrical Conductivity	uS/cm	Field Meter	✔
Dissolved Oxygen (field)	mg L^{-1}	Field Meter	✔
Redox	mV	Field Meter	✔
Temperature	°C	Field Meter	✔
Biochemical oxygen demand (BOD)	mg/L	Grab sample	✔
Chemical oxygen demand (COD)	mg/L	Grab sample	✔
Conductivity	µS/cm	Grab sample	✔
Chloride	mg/L	Grab sample	✔
Nitrate as N	mg/L	Grab sample	✔
Ammonia as N	mg/L	Grab sample	✔
Total Phosphorus	mg/L	Grab sample	✔
Total Dissolved Solids (TDS)	mg/L	Grab sample	✔
Total Suspended Solids (TSS)	mg/L	Grab sample	✔
pH	pH units	Grab sample	✔

Table 4: QA/QC Data Acceptance Criteria		
QA/QC Sample Type	**Method of Assessment**	**Acceptable Range**
Field QA/QC		
Blind and Split Replicates	The assessment of split replicate is undertaken by calculating the Relative Percent Difference (RPD) of the replicate concentration compared with the original sample concentration. The RPD is defined as: $RPD = 100 \times \frac{\lvert X_1 - X_2 \rvert}{Average}$ Where: X_1 and X_2 are the concentration of the original and replicate samples.	*The acceptable range depends upon the levels detected:* ▪ *0 – 100% RPD (When the average concentration is < 5 times the PQL)* ▪ *0 – 75% RPD (When the average concentration is 5 to 10 times the PQL)* ▪ *0 – 50% RPD (When the average concentration is > 10 times the PQL)*
Blanks (Rinsate, Trip and Field Blanks)	*Each Blank is analysed as per the original samples.*	*Analytical Result < PQL*
Laboratory QA/QC		
Laboratory Duplicates	Assessment as per Split Replicates.	*The acceptable range depends upon the levels detected:* ▪ *0 – 100% RPD (When the average concentration is < 4 times the PQL)* ▪ *0 – 50% RPD (When the average concentration is 4 to 10 times the PQL)* ▪ *0 – 30% RPD (When the average concentration is > 10 times the PQL)*
Surrogates Matrix Spikes Laboratory Control Samples	Assessment is undertaken by determining the % Recovery of the known spike or addition to the sample. $\%Recovery = 100 \times \frac{C - A}{B}$ Where: A = Concentration of analyte determined in the original sample; B = Added Concentration; C = Calculated Concentration.	Surrogates: 70% – 130% Matrix Spikes: 70% - 130% (Organics) 80% - 120% (Inorganics) LCS: 70% - 130% (Organics) 90% - 110% (Inorganics)
Method Blanks	Each Blank is analysed as per the original samples.	*Analytical Result < PQL*
Note: *PQL = Laboratory Practical Quantification Limits (PQL) or the minimum detection limit for a particular analyte.*		

Table 5: Groundwater and Surfce Water Analytical Results - MB2

Analysis Suite:															
Monitoring Point:			Criteria Situation	Limit A	Limit B	MB2									
Sample ID:						MB2	MB2	MB2	MB2	MB2	MB2	MB2	MB2	MB2	MB2
Laboratory Report Number:						375639	378990	381500	384550	386796	389149	390741	393634	396184	398689
Laboratory:						Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab
Date Inspected/Sampled:						11 Mar 25	23 Apr 25	22 May 25	24 Jun 25	23 Jul 25	22 Aug 25	09 Sep 25	21 Oct 25	20 Nov 25	16 Dec 25
Reporting Period:						Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Parameters	**PQL**	**Units**													
Field Measurements															
Standing Water Level	0.01	mBTOC	Z*	-	**0.001**	2.28	2.52	2.64	2.26	2.21	2.06	1.99	2.07	2.31	2.7
Dissolved Oxygen (field)	0.01	mg/L		**N/A**	**N/A**	4.57	5.02	5.32	3.86	4.2	3.31	5.1	9.83	13.6	5.7
Electrical Conductivity (field)	1	uS/cm	Z*	**7230.6**	**7417.95**	7319	7093	7663	6665	7224	7290	8153	6879	7429	6118
pH (field) Upper	0.1	pH units	X	**6.75**	**8.5**	6.44	6.44	6.78	7.1	6.47	6.53	5.44	6.56	6.31	5.41
pH (field) Lower	0.1	pH units	Z*	**6.39**	**6.13**	6.44	6.44	6.78	7.1	6.47	6.53	5.44	6.56	6.31	5.41
Redox (field)	1	mV	Z*	**138.0**	**178.0**	-86	-345.8	12	-21	-126.6	-119.1	31	165.2	24	66.9
Temperature (field)	1	°C		**N/A**	**N/A**	16.6	17.1	16.1	14.5	13.6	13.9	15	15.1	15.5	15.6
Laboratory Analytes															
Ion Balance															
Calcium - Dissolved	0.5	mg/L	Z*	**590**	**633**	450	590	530	530	530	530	440	460	560	490
Potassium - Dissolved	0.5	mg/L	Z*	**2**	**2**	2	2	2	2	1	3	5	2	3	2
Sodium - Dissolved	0.5	mg/L	Z*	**340**	**347**	280	330	290	360	340	300	350	310	320	300
Magnesium - Dissolved	0.5	mg/L	Z*	**776**	**835.5**	800	730	700	710	750	730	620	730	810	620
Hardness	3	mg/L		**N/A**	**N/A**	4400	4500	4200	4200	4400	4300	3600	4200	4700	3800
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	5	mg/L	Z*	**360**	**360**	350	350	350	370	350	330	320	340	310	310
Carbonate Alkalinity as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Alkalinity as CaCO3	5	mg/L	Z*	**360**	**360**	350	350	350	370	350	330	320	340	310	310
Sulphate, SO4	1	mg/L	Z*	**3600**	**4195**	2800	2800	3100	3100	4500	2800	2900	4000	3500	3500
Chloride, Cl	1	mg/L	Z*	**1100**	**1165**	860	890	850	870	780	840	790	1100	900	990
Ionic Balance		%		**N/A**	**N/A**	6	8	1	2	-8	5	0	-11	2	-9
Miscellaneous															
Electrical Conductivity	1	µS/cm	Z*	**7100**	**7200**	6800	6700	7100	7200	7000	7000	6500	7000	7100	6900
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L	Z	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001
Nitrate as N in water	0.005	mg/L	Z*	**0.25**	**0.28**	0.2	0.31	0.35	0.27	0.19	0.16	0.18	0.6	0.22	0.17
Nitrite as N in water	0.005	mg/L	Z*	**0.005**	**0.009**	0.007	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005
Ammonia as N in water	0.005	mg/L	X	**0.146**	**0.90**	0.15	0.008	<0.005	1.9	0.007	0.02	0.089	<0.005	0.062	0.066
Total Dissolved Solids (grav)	5	mg/L	Z*	**7400**	**7600**	14000	8600	7300	6900	7200	7600	7000	9600	8500	8800
Total Organic Carbon	1	mg/L	Z*	**4**	**5**	1	5	1	1	1	1	1	2	2	<1
pH (upper)	0.1	pH units		**7.5**	**7.5**										6
pH (lower)	0.1	pH units		**6.5**	**6.5**										6
Heavy Metals[a]															
Aluminium-Dissolved	0.01	mg/L	Y	**0.055**	**0.58**	<0.01	0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.008
Arsenic-Dissolved	0.001	mg/L	Z*	**0.001**	**0.001**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium-Dissolved	0.001	mg/L	Z*	**0.0216**	**0.031**	0.019	0.022	0.021	0.018	0.019	0.024	0.02	0.019	0.02	0.02
Cadmium-Dissolved	0.0001	mg/L	Z	**0.045**	**0.056**	0.023	0.051	0.048	0.039	0.035	0.012	0.043	0.036	0.037	0.034
Chromium-Dissolved	0.001	mg/L	Z*	**0.001**	**0.016**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt-Dissolved	0.001	mg/L	Y	**0.0014**	**0.002**	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper-Dissolved	0.001	mg/L	Z	**0.006**	**0.014**	<0.001	0.014	0.039	0.01	<0.001	<0.001	0.008	0.002	0.009	0.009
Iron-Dissolved	0.001	mg/L		**0.280**	**0.280**										0.05
Lead-Dissolved	0.001	mg/L	Y	**0.0034**	**0.013**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Manganese-Dissolved	0.005	mg/L	X	**0.06**	**1.9**	0.036	0.046	0.078	0.044	0.04	0.79	0.072	0.062	0.062	0.029
Mercury-Dissolved	0.00005	mg/L	X	**0.00005**	**0.0006**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Zinc-Dissolved	0.001	mg/L	Z	**0.1**	**0.16**	0.054	0.18	0.29	0.13	0.043	0.051	0.08	0.071	0.27	0.063

Notes

Criteria	Situation	Limit A	Limit B	**Exceeds Limit A and B**
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

N/A= Not Required

Z* = In Lieu of ANZG guidline value situation Z used by defult

0.00^{1} = lieu of a negative value the maximum possible value chosen

Where contaminants concentrations during sampling periods were below detection, percentiles were calculated by direct substitution with PQL values and may be not satisfactory but only option for mathematical calculation of Limits as follows:

If 80th precentile or 90 th percentile is less than ANZG 2018 --> Limit A: Either 95th or 80th percentile value and Limit B: ANZG2018.

If ANZG2018 is lless than 80th precentile or 90 th percentile --> Limit A: ANZG2018 and Limit B: Either 95th or 80th percentile value.

Ammonia ANZG(2018) level was based on the 80th percentile of Ammonia (pH 7.0) as a reasonable conservative and representative value for the bore

Table 5: Groundwater and Surfce Water Analytical Results - MB3

Analysis Suite:															
Monitoring Point:			Criteria Situation	Limit A	Limit B	MB3	MB3	MB3	MB3	MB3	MB3	MB3	MB3	MB3	MB3
Sample ID:						MB3	MB3	MB3	MB3	MB3	MB3	MB3	MB3	MB3	MB3
Laboratory Report Number:						375639	378990	381500	384550	386796	389149	390741	393634	396184	398689
Laboratory:						Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab
Date Inspected/Sampled:						11 Mar 25	23 Apr 25	22 May 25	24 Jun 25	23 Jul 25	22 Aug 25	09 Sep 25	22 Oct 25	20 Nov 25	16 Dec 25
Reporting Period:						Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Parameters	**PQL**	**Units**													
Field Measurements															
Standing Water Level	0.01	mBTOC	Z*	N/A	N/A	0.16	0.3	0.28	0.45	0.37	0.42	0.43	0.34	0.51	0.48
Dissolved Oxygen (field)	0.01	mg/L		N/A	N/A	6.94	4.26	6.65	4.94	5.8	9.55	9.91	8.03	25.09	14.2
Electrical Conductivity (field)	1	uS/cm	Z*	2013	2168	2015	1994	2184	2011	1993	1990	2257	1940	2115	1999
pH (field) Upper	0.1	pH units	X	6.84	8.50	6.71	6.83	7.08	7.15	6.49	6.64	6.75	7.1	6.51	5.47
pH (field) Lower	0.1	pH units	Z*	6.47	5.99	6.71	6.83	7.08	7.15	6.49	6.64	6.75	7.1	6.51	5.47
Redox (field)	1	mV	Z*	129.6	190.8	7	-346.6	7.1	-22	-104.7	-91.6	-1	212.5	-18	76.7
Temperature (field)	1	°C		N/A	N/A	17.4	17.9	14.8	12	13.7	11.6	13.3	17.3	18.7	16.5
Laboratory Analytes															
Ion Balance															
Calcium - Dissolved	0.5	mg/L	Z*	140	150	140	140	150	130	130	130	110	150	150	140
Potassium - Dissolved	0.5	mg/L	Z*	2	2	2	2	2	2	2	2	2	2	2	2
Sodium - Dissolved	0.5	mg/L	Z*	78	84	62	72	74	72	72	64	76	71	84	64
Magnesium - Dissolved	0.5	mg/L	Z*	110	120	110	110	110	110	110	110	94	120	120	93
Hardness	3	mg/L		N/A	N/A	810	810	810	750	760	790	670	850	870	750
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	Z*	5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	5	mg/L	Z*	260	276	240	240	240	250	250	240	250	260	250	230
Carbonate Alkalinity as CaCO3	5	mg/L	Z*	5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Alkalinity as CaCO3	5	mg/L	Z*	260	276	240	240	240	250	250	240	250	260	250	230
Sulphate, SO4	1	mg/L	Z*	47	75	36	46	39	38	36	56	45	42	43	48
Chloride, Cl	1	mg/L	Z*	480	510	400	420	400	430	380	410	410	410	420	510
Ionic Balance		%		N/A	N/A	6	5	7	2	6	3	-2	7	9	-6
Miscellaneous															
Electrical Conductivity	1	µS/cm	Z*	1900	2000	1900	1900	2000	2000	1900	2000	1900	2000	2100	2000
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L	Z	0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001
Nitrate as N in water	0.005	mg/L	Z*	0.92	0.98	0.81	1.10	1.00	1.10	1.00	1.10	0.96	1.00	1.00	0.98
Nitrite as N in water	0.005	mg/L	Z*	0.005	0.006	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.007	<0.005
Ammonia as N in water	0.005	mg/L	X	0.015	0.0972	0.03	<0.005	<0.005	<0.005	<0.005	<0.005	0.06	0.02	0.05	0.04
Total Dissolved Solids (grav)	5	mg/L	Z*	1600	1820	1600	2000	1600	1500	1300	1600	1600	1700	1300	1700
Total Organic Carbon	1	mg/L	Z*	3	7	1	1	<1	<1	<1	<1	1	<1	<1	<1
pH (upper)	0.1	pH units		7.5	7.5										6
pH (lower)	0.1	pH units		6.5	6.5										6
Heavy Metals*															
Aluminium-Dissolved	0.01	mg/L	Y	0.055	0.19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.010	0.01	<0.01	0.008
Arsenic-Dissolved	0.001	mg/L	Z*	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium-Dissolved	0.001	mg/L	Z*	0.0364	0.0416	0.04	0.033	0.038	0.030	0.037	0.042	0.036	0.035	0.040	0.035
Cadmium-Dissolved	0.0001	mg/L	Z	0.00086	0.0035	0.0002	0.0009	0.0011	0.0007	0.0001	0.0006	0.0004	0.0004	0.0009	0.0002
Chromium-Dissolved	0.001	mg/L	Z*	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt-Dissolved	0.001	mg/L	X	0.001	0.0014	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper-Dissolved	0.001	mg/L	Z	0.006	0.017	<0.001	0.007	0.006	0.005	<0.001	0.002	0.002	0.005	0.007	0.005
Iron-Dissolved	0.001	mg/L		0.280	0.28										0.02
Lead-Dissolved	0.001	mg/L	Y	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Manganese-Dissolved	0.005	mg/L	X	0.010	1.9	0.006	0.019	0.01	<0.005	<0.005	0.006	0.007	0.012	0.024	0.003
Mercury-Dissolved	0.00005	mg/L	X	0.00005	0.0006	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Zinc-Dissolved	0.001	mg/L	Z	0.10	0.40	0.017	0.2	0.11	0.12	0.014	0.064	0.074	0.068	0.18	0.049

Notes

Criteria	Situation	Limit A	Limit B	Exceeds Limit A and B
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

N/A= Not Required

Z* = In Lieu of ANZG guidline value situation Z used by defult

0.00[1] = lieu of a negative value the maximum possible value chosen

Where contaminants concentrations during sampling periods were below detection, percentiles were calculated by direct substitution with PQL values and may be not satisfactory but only option for mathematical calculation of Limits as follows:

If 80th %ile <95th %ile <FAE95% - Limit A= 80th %ile & Limit B=FAE95%

If 80th %ile <FAE95% <95th %ile, - Limit A is FAE95% & Limit B = 95th %ile

If FAE95%<80th %ile<95th %ile - Limit A= 80th %ile & Limit B is 95th %ile

Ammonia ANZG(2018) level was based on the 80th percentile of Ammonia (pH 7.0) as a reasonable conservative and representative value for the bore

Table 5: Groundwater and Surfce Water Analytical Results - MB10

Analysis Suite:						MB10									
Monitoring Point:			Criteria Situation	Limit A	Limit B	MB10	MB10	MB10	MB10	MB10	MB10	MB10	MB10	MB10	MB10
Sample ID:						MB10	MB10	MB10	MB10	MB10	MB10	MB10	MB10	MB10	MB10
Laboratory Report Number:						375639	378990	381500	384550	386796	389149	390741	393634	396184	398689
Laboratory:						Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab
Date Inspected/Sampled:						11 Mar 25	23 Apr 25	22 May 25	24 Jun 25	23 Jul 25	22 Aug 25	09 Sep 25	21 Oct 25	20 Nov 25	16 Dec 25
Reporting Period:						Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Parameters	**PQL**	**Units**													
Field Measurements															
Standing Water Level	0.01	mBTOC	Z*	-	**0.001**	1.28	2.48	2.47	2.14	2.06	0.9	2.06	2.05	2.18	2.35
Dissolved Oxygen (field)	0.01	mg/L		**N/A**	**N/A**	6.22	3.37	4.07	2.39	2.68	5.92	4.47	4.92	22.17	12.3
Electrical Conductivity (field)	1	uS/cm	Z*	**8187**	**8678**	7547	7939	8540	6705	7956	8073	9038	7480	7610	7764
pH (field) Upper	0.1	pH units	X	**7.03**	**8.5**	6.84	6.83	6.83	6.85	6.48	6.63	6.36	6.74	6.55	5.18
pH (field) Lower	0.1	pH units	X	**6.64**	**6.55**	6.84	6.83	6.83	6.85	6.48	6.63	6.36	6.74	6.55	5.18
Redox (field)	1	mV	Z*	**145.26**	**195.8**	-146	-351	16.6	-38	-213.8	-153.1	-0.6	187.1	37	161.9
Temperature (field)	1	°C		**N/A**	**N/A**	16.9	14.6	15.2	12.6	12.4	14.5	14.9	18	16.5	15.4
Laboratory Analytes															
Ion Balance															
Calcium - Dissolved	0.5	mg/L	Z*	**560**	**610**	500	560	540	490	530	500	430	500	500	470
Potassium - Dissolved	0.5	mg/L	Z*	**2**	**2**	1	1	1	2	0.8	1	<0.5	2	6	1
Sodium - Dissolved	0.5	mg/L	Z*	**540**	**566**	390	510	460	410	480	530	420	470	500	420
Magnesium - Dissolved	0.5	mg/L	Z*	**820**	**868**	770	820	800	740	820	770	650	810	740	670
Hardness	3	mg/L		**N/A**	**N/A**	4400	4800	4700	4300	4700	4400	3700	4600	4300	4000
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	5	mg/L	Z*	**310**	**350**	300	300	300	290	310	300	280	320	280	290
Carbonate Alkalinity as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Alkalinity as CaCO3	5	mg/L	Z*	**310**	**350**	300	300	300	290	310	300	280	320	280	290
Sulphate, SO4	1	mg/L	Z*	**3900**	**4260**	3000	3900	3300	4000	4000	3200	3100	4200	3400	4000
Chloride, Cl	1	mg/L	Z*	**1200**	**1360**	910	990	890	970	810	880	820	1100	890	1100
Ionic Balance		%		**N/A**	**N/A**	6	1	7	-6	1	7	0	-6	4	-10
Miscellaneous															
Electrical Conductivity	1	µS/cm	Z*	**7900**	**8160**	7400	7500	7900	7700	7600	7800	7300	7500	7400	7600
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L	Z	**0.005**	**0.04775**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001
Nitrate as N in water	0.005	mg/L	Z*	**0.16**	**0.38**	0.01	0.03	<0.005	0.052	<0.005	0.03	<0.005	0.02	2	0.03
Nitrite as N in water	0.005	mg/L	Z*	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.054	<0.005
Ammonia as N in water	0.005	mg/L	X	**0.170**	**0.9**	0.23	0.011	<0.005	0.053	<0.005	<0.005	0.75	0.02	0.091	0.01
Total Dissolved Solids (grav)	5	mg/L	Z*	**8000**	**8840**	13000	8700	8200	7600	8100	8400	7600	9800	8200	8600
Total Organic Carbon	1	mg/L	Z*	**4.4**	**7.6**	4	6	2	3	1	1	2	3	5	2
pH (upper)	0.1	pH units		**7.5**	**7.5**										5.9
pH (lower)	0.1	pH units		**6.5**	**6.5**										5.9
Heavy Metals*															
Aluminium-Dissolved	0.01	mg/L	Z	**0.07**	**0.48**	<0.010	<0.010	<0.01	<0.010	<0.010	<0.01	<0.01	0.01	0.01	0.009
Arsenic-Dissolved	0.001	mg/L	Z*	**0.001**	**0.001**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium-Dissolved	0.001	mg/L	Z*	**0.0204**	**0.026**	0.006	0.012	0.011	0.008	0.009	0.009	0.009	0.017	0.026	0.008
Cadmium-Dissolved	0.0001	mg/L	Z	**0.0011**	**0.00247**	<0.0001	0.0006	0.0005	0.0015	0.0001	0.0001	0.0004	0.0025	0.0092	0.0003
Chromium-Dissolved	0.001	mg/L	Z*	**0.002**	**0.017**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt-Dissolved	0.001	mg/L	Y	**0.0014**	**0.0029**	<0.001	0.002	0.001	0.005	0.001	<0.001	<0.001	0.006	0.009	<0.001
Copper-Dissolved	0.001	mg/L	Z	**0.011**	**0.018**	<0.001	0.013	0.01	0.013	<0.001	0.001	0.001	0.009	0.029	0.013
Iron-Dissolved	0.001	mg/L		**0.280**	**0.28**										0.02
Lead-Dissolved	0.001	mg/L	Y	**0.0034**	**0.006**	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001
Manganese-Dissolved	0.005	mg/L	X	**0.067**	**1.9**	0.017	0.061	0.059	0.15	0.065	0.076	0.052	0.16	0.31	0.043
Mercury-Dissolved	0.00005	mg/L	X	**0.00005**	**0.0006**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Zinc-Dissolved	0.001	mg/L	Z	**0.36**	**0.54**	0.013	0.2	0.15	0.49	0.04	0.025	0.079	0.73	1.9	0.081

Notes

Criteria	Situation	Limit A	Limit B	and B
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

N/A= Not Required

Z* = In Lieu of ANZG guidline value situation Z used by default

0.00^{1} = lieu of a negative value the maximum possible value chosen

Where contaminants concentrations during sampling periods were below detection, percentiles were calculated by direct substitution with PQL values and may be not satisfactory but only option for mathematical calculation of Limits as follows:

If 80th precentile or 90 th percentile is less than ANZG 2018 --> Limit A: Either 95th or 80th percentile value and Limit B: ANZG2018.

If ANZG2018 is lless than 80th precentile or 90 th percentile --> Limit A: ANZG2018 and Limit B: Either 95th or 80th percentile value.

Ammonia ANZG(2018) level was based on the 80th percentile of Ammonia (pH 7.0) as a reasonable conservative and representative value for the bore

Table 5: Groundwater and Surfce Water Analytical Results - MB10SR

Analysis Suite:															
Monitoring Point:			Criteria Situation	Limit A	Limit B	MB10S									
Sample ID:						MB10SR	MB10SR	MB10SR	MB10SR	MB10SR	MB10SR	MB10SR	MB10SR	MB10SR	MB10SR
Laboratory Report Number:						375639	378990	381500	384550	386796	389149	390741	393634	396184	398689
Laboratory:						Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab
Date Inspected/Sampled:						11 Mar 25	24 Apr 25	22 May 25	24 Jun 25	23 Jul 25	22 Aug 25	11 Sep 25	21 Oct 25	20 Nov 25	16 Dec 25
Reporting Period:						Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Parameters	**PQL**	**Units**													
Field Measurements															
Standing Water Level	0.01	mBTOC	Z*	-	**0.001**	2.09	1.1	1.3	1.29	1.2	1.13	1.05	1.28	1.3	1.62
Dissolved Oxygen (field)	0.01	mg/L		N/A	N/A	6.54	1.93	3.63	1.79	1.6	6.25	1.48	0.93	15.8	12.2
Electrical Conductivity (field)	1	uS/cm	Z*	**7879**	**8063**	8145	7701	8229	6339	4943	7713	8719	7389	7875	7570
pH (field) Upper	0.1	pH units	X	**7.1**	**8.5**	6.63	6.21	6.87	7.13	6.8	6.78	6.06	6.8	6.55	5.5
pH (field) Lower	0.1	pH units	X	**6.7**	**6.5**	6.63	6.21	6.87	7.13	6.8	6.78	6.06	6.8	6.55	5.5
Redox (field)	1	mV	Z*	**152**	**191**	-21	-348.8	13.5	-41	-92.4	-71.6	21.2	163.5	64	110.9
Temperature (field)	1	°C		N/A	N/A	20.1	17.3	15.6	12.4	14.1	14.6	14.2	17.8	15.8	15.4
Laboratory Analytes															
Ion Balance															
Calcium - Dissolved	0.5	mg/L	Z*	**650**	**720**	550	660	600	590	580	560	530	560	640	530
Potassium - Dissolved	0.5	mg/L	Z*	**1**	**2**	1	1	1	1	0.6	1	0.6	2	1	1
Sodium - Dissolved	0.5	mg/L	Z*	**464**	**522**	460	410	390	400	410	450	380	370	460	390
Magnesium - Dissolved	0.5	mg/L	Z*	**764**	**874**	850	720	720	700	730	720	660	780	760	630
Hardness	3	mg/L		**NA**	**NA**	4900	4600	4500	4400	4500	4400	4000	4600	4700	3900
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	5	mg/L	Z*	**340**	**356**	300	300	310	300	250	310	310	310	300	300
Carbonate Alkalinity as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Alkalinity as CaCO3	5	mg/L	Z*	**340**	**356**	300	300	310	300	250	310	310	310	300	300
Sulphate, SO4	1	mg/L	Z*	**3780**	**4320**	3300	3800	3700	3300	3800	3000	2800	4100	3400	4200
Chloride, Cl	1	mg/L	Z*	**1140**	**1260**	890	1100	1000	950	900	970	850	1300	1000	1300
Ionic Balance		%		N/A	N/A	9	-3	-2	1	-1	5	5	-8	4	-16
Miscellaneous															
Electrical Conductivity	1	µS/cm	Z*	**7740**	**7800**	7600	7300	7600	7700	7400	7600	7000	7400	7700	7300
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L	Z	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001
Nitrate as N in water	0.005	mg/L	Z*	**0.29**	**0.374**	0.32	0.006	<0.005	0.64	0.01	0.008	0.006	<0.005	0.077	0.006
Nitrite as N in water	0.005	mg/L	Z*	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ammonia as N in water	0.005	mg/L	X	**0.11**	**0.9**	0.028	<0.005	<0.005	0.34	<0.005	<0.005	2.3	<0.005	0.03	0.02
Total Dissolved Solids (grav)	5	mg/L	Z*	**8200**	**8800**	15000	9000	8000	7400	7800	7400	7400	9800	8700	8600
Total Organic Carbon	1	mg/L	Z*	**4**	**13.4**	2	8	4	4	1	1	2	2	<1	2
pH (upper)	0.1	pH units		**7.5**	**7.5**										5.9
pH (lower)	0.1	pH units		**6.5**	**6.5**										5.9
Heavy Metals*															
Aluminium-Dissolved	0.01	mg/L	Z	**0.1160**	**18**	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.013
Arsenic-Dissolved	0.001	mg/L	Z*	**0.001**	**0.00295**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium-Dissolved	0.001	mg/L	Z*	**0.026**	**0.085**	0.008	0.004	0.007	0.004	0.003	0.004	0.004	0.002	0.008	0.002
Cadmium-Dissolved	0.0001	mg/L	Z	**0.0015**	**0.00246**	0.0003	0.0004	0.0003	0.0006	0.0003	0.0004	0.0005	0.0003	0.0006	0.0005
Chromium-Dissolved	0.001	mg/L	Z*	**0.005**	**0.11**	<0.001	<0.001	<0.001	<0.001	0.001	0.001	0.001	0.001	<0.001	0.001
Cobalt-Dissolved	0.001	mg/L	Z	**0.0016**	**0.022**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper-Dissolved	0.001	mg/L	Z	**0.008**	**0.047**	0.003	0.008	0.005	0.004	<0.001	0.002	0.004	0.002	0.003	0.004
Iron-Dissolved	0.001	mg/L		**0.280**	**0.28**										0.02
Lead-Dissolved	0.001	mg/L	Z	**0.001**	**0.038**	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese-Dissolved	0.005	mg/L	X	**0.1**	**1.9**	0.045	0.01	0.02	0.02	<0.005	<0.005	0.01	<0.005	0.04	0.01
Mercury-Dissolved	0.00005	mg/L	X	**0.00005**	**0.0006**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Zinc-Dissolved	0.001	mg/L	Z	**0.364**	**0.854**	0.056	0.097	0.069	0.13	0.058	0.068	0.095	0.073	0.13	0.1

Notes

Criteria	Situation	Limit A	Limit B	and B
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

N/A= Not Required

Z* = In Lieu of ANZG guidline value situation Z used by defult

0.00^{-1} = lieu of a negative value the maximum possible value chosen

Where contaminants concentrations during sampling periods were below detection, percentiles were calculated by direct substitution with PQL values and may be not satisfactory but only option for mathematical calculation of Limits as follows:

If 80th precentile or 90 th percentile is less than ANZG 2018 --> Limit A: Either 95th or 80th percentile value and Limit B: ANZG2018.

If ANZG2018 is lless than 80th precentile or 90 th percentile --> Limit A: ANZG2018 and Limit B: Either 95th or 80th percentile value.

Ammonia ANZG(2018) level was based on the 80th percentile of Ammonia (pH 7.0) as a reasonable conservative and representative value for the bore

Table 5: Groundwater and Surfce Water Analytical Results - MB28

Analysis Suite:			Criteria Situation	Limit A	Limit B										
Monitoring Point:						MB28									
Sample ID:						MB28	MB28	MB28	MB28	MB28	MB28	MB28	MB28	MB28	MB28
Laboratory Report Number:						375639	378990	381500	384550	386796	389149	390741	393634	396184	398689
Laboratory:						Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab
Date Inspected/Sampled:						11 Mar 25	24 Apr 25	22 May 25	24 Jun 25	23 Jul 25	22 Aug 25	11 Sep 25	21 Oct 25	20 Nov 25	16 Dec 25
Reporting Period:						Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Parameters	**PQL**	**Units**													
Field Measurements															
Standing Water Level	0.01	mBTOC	Z*	-	**0.001**	6.98	6.61	7.16	7.05	6.85	6.68	6.54	6.46	6.81	7.03
Dissolved Oxygen (field)	0.01	mg/L		**N/A**	**N/A**	10	3.68	5.33	4.98	8.5	21.02	8.18	8.66	9.94	17
Electrical Conductivity (field)	1	uS/cm	Z*	**6921**	**7975**	3601	7181	8014	5951	2751	5524	5643	4949	4770	6297
pH (field) Upper	0.1	pH units	X	**7.59**	**8.5**	7.61	6.47	6.68	6.59	7.52	7.08	5.4	6.97	6.82	5.42
pH (field) Lower	0.1	pH units	Y	**6.5**	**5.6**	7.61	6.47	6.68	6.59	7.52	7.08	5.4	6.97	6.82	5.42
Redox (field)	1	mV	Z*	**243.72**	**362.7**	135	-351.6	49.9	-43	73.8	-43.1	164.3	255	74	231.3
Temperature (field)	1	°C		**N/A**	**N/A**	15.2	14.7	14.11	14.5	13.8	15.1	14.8	15.9	16.1	14.7
Laboratory Analytes															
Ion Balance															
Calcium - Dissolved	0.5	mg/L	Z*	**190**	**227**	210	200	230	180	190	200	150	130	120	180
Potassium - Dissolved	0.5	mg/L	Z*	**1**	**2**	1	1	1	1	0.6	1	<0.5	0.9	0.8	1
Sodium - Dissolved	0.5	mg/L	Z*	**726**	**812**	680	740	660	630	710	760	630	550	630	580
Magnesium - Dissolved	0.5	mg/L	Z*	**470**	**560**	530	500	520	450	480	490	380	320	320	350
Hardness	3	mg/L		**NA**	**NA**	2700	2500	2700	2300	2400	2500	1900	1600	1600	1900
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	5	mg/L	Z*	**646**	**670**	530	490	480	520	500	480	460	610	620	550
Carbonate Alkalinity as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Alkalinity as CaCO3	5	mg/L	Z*	**646**	**683**	530	490	480	520	500	480	460	610	620	550
Sulphate, SO4	1	mg/L	Z*	**930**	**1000**	820	900	800	920	1200	850	810	730	830	1100
Chloride, Cl	1	mg/L	Z*	**1900**	**2295**	1700	2000	1700	1700	1900	1700	1900	840	930	1800
Ionic Balance		%		**N/A**	**N/A**	5	-1	6	-3	-5	5	-10	5	4	-15
Miscellaneous															
Electrical Conductivity	1	µS/cm	Z*	**7300**	**8300**	6900	7200	7800	7400	7700	7600	7400	5000	5100	6400
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L	Z	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.001
Nitrate as N in water	0.005	mg/L	Z*	**3.16**	**3.4**	2.9	3.1	3.2	2.9	3.4	3.1	3.1	1.6	1.6	2.3
Nitrite as N in water	0.005	mg/L	Z*	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Ammonia as N in water	0.005	mg/L	X	**0.028**	**0.9**	0.006	0.015	0.008	0.04	0.01	0.01	2.1	0.01	<0.005	0.01
Total Dissolved Solids (grav)	5	mg/L	Z*	**5640**	**6865**	9400	6600	5600	4600	5700	5500	5000	4200	3700	5100
Total Organic Carbon	1	mg/L	Z*	**5.6**	**10**	4	13	4	3	3	3	3	3	3	4
pH (upper)	0.1	pH units		**7.5**	**7.5**										6.1
pH (lower)	0.1	pH units		**6.5**	**6.5**										6.1
Heavy Metals*															
Aluminium-Dissolved	0.01	mg/L	Y	**0.055**	**1.19**	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.01	<0.01	<0.01	0.016
Arsenic-Dissolved	0.001	mg/L	Z*	**0.001**	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium-Dissolved	0.001	mg/L	Z*	**0.0276**	**0.037**	0.023	0.021	0.024	0.018	0.022	0.024	0.022	0.015	0.015	0.02
Cadmium-Dissolved	0.0001	mg/L	Z	**0.014**	**0.01895**	0.014	0.0098	0.011	0.014	0.015	0.02	0.015	0.0072	0.0062	0.013
Chromium-Dissolved	0.001	mg/L	Z*	**0.0046**	**0.021**	0.003	0.003	0.004	0.004	0.005	0.005	0.007	0.004	0.004	0.004
Cobalt-Dissolved	0.001	mg/L	Y	**0.0014**	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Copper-Dissolved	0.001	mg/L	Z	**0.01**	**0.022**	0.003	0.003	0.003	0.004	0.01	0.005	0.026	0.007	0.003	0.016
Iron-Dissolved	0.001	mg/L		**0.28**	**0.280**										0.01
Lead-Dissolved	0.001	mg/L	Y	**0.0034**	**0.0070**	<0.001	<0.001	<0.001	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese-Dissolved	0.005	mg/L	X	**0.02**	**1.9**	0.007	<0.005	0.01	<0.005	0.01	0.008	0.064	0.013	<0.005	0.021
Mercury-Dissolved	0.00005	mg/L	X	**0.00005**	**0.0006**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.00006	<0.00005	<0.00005	<0.00005	<0.00005
Zinc-Dissolved	0.001	mg/L	Z	**0.796**	**1.455**	0.74	0.61	0.67	0.71	0.7	0.93	0.89	0.55	0.42	0.93

Notes

Criteria	Situation	Limit A	Limit B	and B
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

N/A= Not Required

*Z** = In Lieu of ANZG guidline value situation Z used by defult

0.00[#] = lieu of a negative value the maximum possible value chosen

Where contaminants concentrations during sampling periods were below detection, percentiles were calculated by direct substitution with PQL values and may be not satisfactory but only option for mathematical calculation of Limits as follows:

If 80th precentile or 90 th percentile is less than ANZG 2018 --> Limit A: Either 95th or 80th percentile value and Limit B: ANZG2018.

If ANZG2018 is lless than 80th precentile or 90 th percentile --> Limit A: ANZG2018 and Limit B: Either 95th or 80th percentile value.

Ammonia ANZG(2018) level was based on the 80th percentile of Ammonia (pH 7.0) as a reasonable conservative and representative value for the bore

Table 5: Groundwater and Surfce Water Analytical Results - MW-FRC1

Analysis Suite:			Criteria Situation	Limit A	Limit B	MW-FRC1									
Monitoring Point:						MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1
Sample ID:						MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1	MW-FRC1
Laboratory Report Number:						375639	378990	381500	384550	386796	389149	390741	393634	396184	398689
Laboratory:						Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab	Envirolab
Date Inspected/Sampled:						11 Mar 25	23 Apr 25	22 May 25	24 Jun 25	23 Jul 25	22 Aug 25	11 Sep 25	21 Oct 25	20 Nov 25	16 Dec 25
Reporting Period:						Mar 25	Apr 25	May 25	Jun 25	Jul 25	Aug 25	Sep 25	Oct 25	Nov 25	Dec 25
Parameters	**PQL**	**Units**													
Field Measurements															
Standing Water Level	0.01	mBTOC	Z*	-	**0.001**	1.7	2.6	1.63	2.38	0.41	1.37	1.53	1.53	1.76	2.63
Dissolved Oxygen (field)	0.01	mg/L		**N/A**	**N/A**	4.86	2.52	3.11	2.15	7.4	12.96	6.8	10.75	5.62	24.5
Electrical Conductivity (field)	1	uS/cm	Z*	**4409**	**4477**	4216	4481	4756	3300	1963	1127	750	809	2009	1900
pH (field) Upper	0.1	pH units	X	**7.30**	**8.5**	6.83	6.89	6.92	6.93	7.1	7.21	4.78	6.8	6.5	6.42
pH (field) Lower	0.1	pH units	X	**6.81**	**6.50**	6.83	6.89	6.92	6.93	7.1	7.21	4.78	6.8	6.5	6.42
Redox (field)	1	mV	Z*	**132.8**	**178.1**	-7.9	-348.1	1.3	-21	-88.1	-110	42	148.8	-6	17.3
Temperature (field)	1	°C		**N/A**	**N/A**	19	17.2	15.2	10.9	11.1	11.4	120	14	15.7	16.8
Laboratory Analytes															
Ion Balance															
Calcium - Dissolved	0.5	mg/L	Z*	**150**	**160**	160	140	160	150	160	150	150	120	160	160
Potassium - Dissolved	0.5	mg/L	Z*	**0.5**	**0.5**	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium - Dissolved	0.5	mg/L	Z*	**464**	**514**	440	490	450	360	110	98	95	83	140	160
Magnesium - Dissolved	0.5	mg/L	Z*	**224**	**236**	230	220	200	180	120	100	89	100	110	100
Hardness	3	mg/L		**NA**	**NA**	1400	1300	1200	1100	860	800	740	840	840	820
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	5	mg/L	Z*	**444**	**460**	420	440	440	210	110	110	110	92	120	150
Carbonate Alkalinity as CaCO3	5	mg/L	Z*	**5**	**5**	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Alkalinity as CaCO3	5	mg/L	Z*	**444**	**460**	420	440	440	210	110	110	110	92	120	150
Sulphate, SO4	1	mg/L	Z*	**210**	**374**	390	260	210	700	570	590	590	600	610	720
Chloride, Cl	1	mg/L	Z*	**1200**	**1300**	870	1000	960	430	130	130	140	95	130	270
Ionic Balance		%		**N/A**	**N/A**	6	3	4	10	11	5	1	9	10	-5
Miscellaneous															
Electrical Conductivity	1	µS/cm	Z*	**4400**	**4620**	4300	4500	4500	3300	1900	1800	1800	1700	1900	2100
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L	Z	**0.005**	**0.005**	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.001
Nitrate as N in water	0.005	mg/L	Z*	**0.954**	**0.988**	0.071	0.22	0.5	0.53	8.5	6.4	4.7	2.9	0.92	1.1
Nitrite as N in water	0.005	mg/L	Z*	**0.0076**	**0.033**	<0.005	0.013	<0.005	<0.005	0.006	0.18	0.35	0.02	0.03	<0.005
Ammonia as N in water	0.005	mg/L	X	**0.023**	**0.900**	0.012	<0.005	<0.005	0.0054	0.008	<0.005	0.61	<0.005	0.01	0.05
Total Dissolved Solids (grav)	5	mg/L	Z*	**3080**	**3360**	2800	3700	2900	2400	1600	1600	1400	1500	1400	2000
Total Organic Carbon	1	mg/L	Z*	**4**	**8.2**	4	7	2	5	5	5	5	4	3	4
pH (upper)	0.1	pH units		**7.5**	**7.5**										6.9
pH (lower)	0.1	pH units		**6.5**	**6.5**										6.9
Heavy Metals*															
Aluminium-Dissolved	0.01	mg/L	Z	**0.31**	**15.75**	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.005
Arsenic-Dissolved	0.001	mg/L	Z*	**0.001**	**0.002**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium-Dissolved	0.001	mg/L	Z*	**0.104**	**0.24**	0.086	0.086	0.083	0.053	0.029	0.03	0.032	0.045	0.045	0.048
Cadmium-Dissolved	0.0001	mg/L	Z	**0.0008**	**0.0011**	0.0004	<0.1	0.0001	0.0005	0.0006	0.0015	0.0022	0.003	0.0037	0.0032
Chromium-Dissolved	0.001	mg/L	Z*	**0.057**	**0.073**	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt-Dissolved	0.001	mg/L	Z	**0.006**	**0.021**	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.012	0.007	0.009
Copper-Dissolved	0.001	mg/L	Z	**0.007**	**0.024**	0.003	0.001	0.001	0.009	0.007	0.009	0.015	0.008	0.012	0.015
Iron-Dissolved	0.001	mg/L		**0.280**	**0.28**										0.01
Lead-Dissolved	0.001	mg/L	Y	**0.003**	**0.0318**	<0.001	<0.001	<0.001	<0.001	0.007	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese-Dissolved	0.005	mg/L	X	**0.42**	**1.9**	0.26	0.007	0.092	0.13	0.068	0.077	0.093	0.68	0.53	0.55
Mercury-Dissolved	0.00005	mg/L	X	**0.00005**	**0.00006**	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Zinc-Dissolved	0.001	mg/L	Z	**0.09**	**0.36**	0.037	0.007	0.012	0.068	0.15	0.46	0.88	1.8	1.3	0.95

Notes

Criteria	Situation	Limit A	Limit B	**and B**
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

N/A= Not Required

Z* = In Lieu of ANZG guidline value situation Z used by defult

0.00* = lieu of a negative value the maximum possible value chosen

Where contaminants concentrations during sampling periods were below detection, percentiles were calculated by direct substitution with PQL values and may be not satisfactory but only option for mathematical calculation of Limits as follows:

If 80th precentile or 90 th percentile is less than ANZG 2018 --> Limit A: Either 95th or 80th percentile value and Limit B: ANZG2018.

If ANZG2018 is lless than 80th precentile or 90 th percentile --> Limit A: ANZG2018 and Limit B: Either 95th or 80th percentile value.

Ammonia ANZG(2018) level was based on the 80th percentile of Ammonia (pH 7.0) as a reasonable conservative and representative value for the bore

Table 5: Groundwater and Surfce Water Analytical Results - MB29

Analysis Suite:						
Monitoring Point:			**Criteria Situation**	**Limit A**	**Limit B**	**MB29**
Sample ID:						MB29
Laboratory Report Number:						398689
Laboratory:						Envirolab
Date Inspected/Sampled:						16 Dec 25
Reporting Period:						Dec 25
Parameters	**PQL**	**Units**				
Field Measurements						
Standing Water Level	0.01	mBTOC		-		2.63
Dissolved Oxygen (field)	0.01	mg/L		N/A		16.7
Electrical Conductivity (field)	1	uS/cm				4511
pH (field) Upper	0.1	pH units		7.50		6.8
pH (field) Lower	0.1	pH units		6.50		6.8
Redox (field)	1	mV				-62.1
Temperature (field)	1	°C		N/A		15.7
Laboratory Analytes						
Ion Balance						
Calcium - Dissolved	0.5	mg/L		116		190
Potassium - Dissolved	0.5	mg/L		53		<0.5
Sodium - Dissolved	0.5	mg/L		680		490
Magnesium - Dissolved	0.5	mg/L		82		190
Hardness	3	mg/L				1200
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L				<5
Bicarbonate Alkalinity as CaCO3	5	mg/L				470
Carbonate Alkalinity as CaCO3	5	mg/L				<5
Total Alkalinity as CaCO3	5	mg/L		20		470
Sulphate, SO4	1	mg/L				230
Chloride, Cl	1	mg/L		240		1200
Ionic Balance		%		N/A		-2
Miscellaneous						
Electrical Conductivity	1	µS/cm				4400
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L		0.001		<0.001
Nitrate as N in water	0.005	mg/L		1.1		<0.005
Nitrite as N in water	0.005	mg/L				<0.005
Ammonia as N in water	0.005	mg/L		0.9		0.02
Total Dissolved Solids (grav)	5	mg/L				3700
Total Organic Carbon	1	mg/L				4
pH (upper)	0.1	pH units		7.5		7.2
pH (lower)	0.1	pH units		6.5		7.2
Heavy Metals*						
Aluminium-Dissolved	0.01	mg/L		0.055		0.016
Arsenic-Dissolved	0.001	mg/L		0.024		<0.001
Barium-Dissolved	0.001	mg/L				0.042
Cadmium-Dissolved	0.0001	mg/L		0.000		<0.0001
Chromium-Dissolved	0.001	mg/L		0.0010		<0.001
Cobalt-Dissolved	0.001	mg/L		0.0014		0.002
Copper-Dissolved	0.001	mg/L		0.0014		<0.001
Iron-Dissolved	0.001	mg/L		0.280		0.03
Lead-Dissolved	0.001	mg/L		0.003		<0.001
Manganese-Dissolved	0.005	mg/L		1.9		0.12
Mercury-Dissolved	0.00005	mg/L		0.0006		<0.00005
Zinc-Dissolved	0.001	mg/L		0.008		0.054

Notes

Criteria	Situation	Limit A	Limit B	**and B**
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

Table 5: Groundwater and Surfce Water Analytical Results - SP2-MW1

Analysis Suite:						
Monitoring Point:			**Criteria Situation**	**Limit A**	**Limit B**	SP2-MW1
Sample ID:						SP2-MW1
Laboratory Report Number:						398689
Laboratory:						Envirolab
Date Inspected/Sampled:						16 Dec 25
Reporting Period:						Dec 25
Parameters	**PQL**	**Units**				
Field Measurements						
Standing Water Level	0.01	mBTOC				2.3
Dissolved Oxygen (field)	0.01	mg/L				10
Electrical Conductivity (field)	1	uS/cm				3361
pH (field) Upper	0.1	pH units		**7.50**		6.75
pH (field) Lower	0.1	pH units		**6.50**		6.75
Redox (field)	1	mV				-9.4
Temperature (field)	1	°C				15.8
Laboratory Analytes						
Ion Balance						
Calcium - Dissolved	0.5	mg/L		**116**		190
Potassium - Dissolved	0.5	mg/L		**53**		<0.5
Sodium - Dissolved	0.5	mg/L		**680**		150
Magnesium - Dissolved	0.5	mg/L		**82**		190
Hardness	3	mg/L				1200
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L				<5
Bicarbonate Alkalinity as CaCO3	5	mg/L				390
Carbonate Alkalinity as CaCO3	5	mg/L				<5
Total Alkalinity as CaCO3	5	mg/L		**20**		390
Sulphate, SO4	1	mg/L				140
Chloride, Cl	1	mg/L		**240**		900
Ionic Balance		%		**N/A**		-7
Miscellaneous						
Electrical Conductivity	1	µS/cm				3300
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L		**0.001**		<0.001
Nitrate as N in water	0.005	mg/L		**1.1**		0.36
Nitrite as N in water	0.005	mg/L				<0.005
Ammonia as N in water	0.005	mg/L		**0.9**		0.01
Total Dissolved Solids (grav)	5	mg/L				3100
Total Organic Carbon	1	mg/L				2
pH (upper)	0.1	pH units		**7.5**		7.2
pH (lower)	0.1	pH units		**6.5**		7.2
Heavy Metals*						
Aluminium-Dissolved	0.01	mg/L		**0.055**		0.013
Arsenic-Dissolved	0.001	mg/L		**0.024**		<0.001
Barium-Dissolved	0.001	mg/L				0.15
Cadmium-Dissolved	0.0001	mg/L		**0.0002**		0.0003
Chromium-Dissolved	0.001	mg/L		**0.0010**		<0.001
Cobalt-Dissolved	0.001	mg/L		**0.0014**		<0.001
Copper-Dissolved	0.001	mg/L		**0.0014**		<0.001
Iron-Dissolved	0.001	mg/L		**0.280**		<0.01
Lead-Dissolved	0.001	mg/L		**0.003**		<0.001
Manganese-Dissolved	0.005	mg/L		**1.9**		0.19
Mercury-Dissolved	0.00005	mg/L		**0.0006**		<0.00005
Zinc-Dissolved	0.001	mg/L		**0.008**		0.026

Notes

Criteria	Situation	Limit A	Limit B	**and B**
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

Table 5: Groundwater and Surfce Water Analytical Results - MB39S

Analysis Suite:						
Monitoring Point:			**Criteria Situation**	**Limit A**	**Limit B**	**MB39S**
Sample ID:						MB39S
Laboratory Report Number:						398689
Laboratory:						Envirolab
Date Inspected/Sampled:						19 Dec 25
Reporting Period:						Dec 25
Parameters	**PQL**	**Units**				
Field Measurements						
Standing Water Level	0.01	mBTOC				No access
Dissolved Oxygen (field)	0.01	mg/L				
Electrical Conductivity (field)	1	uS/cm				
pH (field) Upper	0.1	pH units		**7.50**		
pH (field) Lower	0.1	pH units		**6.50**		
Redox (field)	1	mV				
Temperature (field)	1	°C				
Ion Balance						
Calcium - Dissolved	0.5	mg/L		**116**		
Potassium - Dissolved	0.5	mg/L		**53**		
Sodium - Dissolved	0.5	mg/L		**680**		
Magnesium - Dissolved	0.5	mg/L		**82**		
Hardness	3	mg/L				
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L				
Bicarbonate Alkalinity as CaCO3	5	mg/L				
Carbonate Alkalinity as CaCO3	5	mg/L				
Total Alkalinity as CaCO3	5	mg/L		**20**		
Sulphate, SO4	1	mg/L				
Chloride, Cl	1	mg/L		**240**		
Ionic Balance		%		**N/A**		
Miscellaneous						
Electrical Conductivity	1	µS/cm				
Hexavalent Chromium, Cr6+ Dissolved	0.005	mg/L		**0.001**		
Nitrate as N in water	0.005	mg/L		**1.1**		
Nitrite as N in water	0.005	mg/L				
Ammonia as N in water	0.005	mg/L		**0.9**		
Total Dissolved Solids (grav)	5	mg/L				
Total Organic Carbon	1	mg/L				
pH (upper)	0.1	pH units		**7.5**		
pH (lower)	0.1	pH units		**6.5**		
Heavy Metals*						
Aluminium-Dissolved	0.01	mg/L		**0.055**		
Arsenic-Dissolved	0.001	mg/L		**0.024**		
Barium-Dissolved	0.001	mg/L				
Cadmium-Dissolved	0.0001	mg/L		**0.000**		
Chromium-Dissolved	0.001	mg/L		**0.0010**		
Cobalt-Dissolved	0.001	mg/L		**0.0014**		
Copper-Dissolved	0.001	mg/L		**0.0014**		
Iron-Dissolved	0.001	mg/L		**0.280**		
Lead-Dissolved	0.001	mg/L		**0.003**		
Manganese-Dissolved	0.005	mg/L		**1.9**		
Mercury-Dissolved	0.00005	mg/L		**0.0006**		
Zinc-Dissolved	0.001	mg/L		**0.008**		

Notes

Criteria	Situation	Limit A	Limit B	**and B**
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

Table 5: Groundwater and Surfce Water Analytical Results - ED1-Coffer Dam 1

Analysis Suite:						
Monitoring Point:			**Criteria Situation**	**Limit A**	**Limit B**	**ED1 Coffer Dam 1**
Sample ID:						ED1 Coffer Dam 1
Laboratory Report Number:						398689
Laboratory:						Envirolab
Date Inspected/Sampled:						17 Dec 25
Reporting Period:						Dec 25
Parameters	**PQL**	**Units**				
Field Measurements						
Dissolved Oxygen (field)	0.01	mg/L				164
Electrical Conductivity (field)	1	uS/cm				25467
pH (field) Upper	0.1	pH units				8.46
pH (field) Lower	0.1	pH units				8.46
Redox (field)	1	mV				-310.4
Temperature (field)	1	°C				23.2
Ion Balance						
Chloride, Cl	1	mg/L				5100
Miscellaneous						
BOD	5	mg/L				320
COD	50	mg O2/L				1800
Electrical Conductivity	1	µS/cm				25000
Nitrate as N in water	0.005	mg/L				1100
Ammonia as N in water	0.005	mg/L				0.21
Total Dissolved Solids (grav)	5	mg/L				19000
Total Suspended Solids	5	mg/L				37
pH (upper)	0.1	pH units				8.8
pH (lower)	0.1	pH units				8.8
Heavy Metals*						
Phosphorus - Total	0.02	mg/L				6.2

Notes

Criteria	Situation	Limit A	Limit B	**and B**
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

Table 5: Groundwater and Surfce Water Analytical Results - ED1-Coffer Dam 2

Analysis Suite:						
Monitoring Point:			Criteria Situation	Limit A	Limit B	ED1 Coffer Dam 2
Sample ID:						ED1 Coffer Dam 2
Laboratory Report Number:						398689
Laboratory:						Envirolab
Date Inspected/Sampled:						17 Dec 25
Reporting Period:						Dec 25
Parameters	**PQL**	**Units**				
Field Measurements						
Dissolved Oxygen (field)	0.01	mg/L				-3.2
Electrical Conductivity (field)	1	uS/cm				29287
pH (field) Upper	0.1	pH units				8.65
pH (field) Lower	0.1	pH units				8.65
Redox (field)	1	mV				-374.3
Temperature (field)	1	°C				22.5
Ion Balance						
Chloride, Cl	1	mg/L				5700
Miscellaneous						
BOD	5	mg/L				360
COD	50	mg O2/L				2200
Electrical Conductivity	1	µS/cm				29000
Nitrate as N in water	0.005	mg/L				1500
Ammonia as N in water	0.005	mg/L				0.15
Total Dissolved Solids (grav)	5	mg/L				21000
Total Suspended Solids	5	mg/L				17
pH (upper)	0.1	pH units				8.8
pH (lower)	0.1	pH units				8.8
Heavy Metals*						
Phosphorus - Total	0.02	mg/L				8.2

Notes

Criteria	Situation	Limit A	Limit B	**and B**
If 80th Percentile < 95th Percentile < ANZG(2019) 95% protection	X	80th Percentile	ANZG 2018 95%	
If 80th Percentile < ANZG(2019) 95% protection < 95th Percentile	Y	ANZG 2018 95%	95th Percentile	
If ANZG(2019) 95% protection < 80th Percentile < 95th Percentile	Z	80th Percentile	95th Percentile	

Table 5a: Tabulated Laboratory RPD results - Blind & Split Samples

Sample Location:			**MB10SR**						
Sample Id:			MB10SR	BR1	SR1				
Laboratory Report Number:			398689	398689	ES2540987				
Laboratory:			Envirolab	Envirolab	ALS				
Date Sampled:			16 Dec 25	16 Dec 25	16 Dec 25				
Parameters	**PQL**	**Units**				**Blind Sample**		**Split sample**	
						Average	**RPD**	**Average**	**RPD**
Ion Balance									
Calcium - Dissolved	0.5	mg/L	530	530	648	530	0%	530	22%
Potassium - Dissolved	0.5	mg/L	1	1	1	1	0%	1	0%
Sodium - Dissolved	0.5	mg/L	390	380	503	385	3%	390	29%
Magnesium - Dissolved	0.5	mg/L	630	630	815	630	0%	630	29%
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	<5	<5	<1	N/A	N/A	N/A	N/A
Bicarbonate Alkalinity as CaCO3	5	mg/L	300	290	302	295	3%	300	1%
Carbonate Alkalinity as CaCO3	5	mg/L	<5	<5	<1	N/A	N/A	N/A	N/A
Total Alkalinity as CaCO3	5	mg/L	300	290	302	295	3%	300	1%
Sulphate, SO4	1	mg/L	4200	3900	3540	4050	7%	4200	16%
Chloride, Cl	1	mg/L	1300	1300	1170	1300	0%	1300	10%
Miscellaneous									
Electrical Conductivity	1	µS/cm	7300	7100	7780	7200	3%	7300	7%
Hexavalent Chromium, Cr6+ - Dissolved	0.005	mg/L	<0.001	<0.001	<0.01	N/A	N/A	N/A	N/A
Nitrate as N in water	0.005	mg/L	0.006	<0.005	<0.01	0.006	N/A	0.006	N/A
Nitrite as N in water	0.005	mg/L	<0.005	<0.005	<0.01	N/A	N/A	N/A	N/A
Ammonia as N in water	0.005	mg/L	0.02	0.02	0.04	0.02	0%	0.02	100%
Total Dissolved Solids(grav)	5	mg/L	8600	8200	8460	8400	5%	8600	2%
Total Organic Carbon	1	mg/L	2	<1	2	2	N/A	2	0%
pH	0.1	pH units	5.9	6.3	6.35	6.1	7%	5.9	8%
Heavy Metals - Dissolved									
Aluminium-Dissolved	0.01	mg/L	0.013	0.013	<0.01	0.013	0%	0.013	N/A
Arsenic-Dissolved	0.001	mg/L	<0.001	<0.001	<0.001	N/A	N/A	N/A	N/A
Barium-Dissolved	0.001	mg/L	0.002	0.004	0.003	0.003	67%	0.002	50%
Cadmium-Dissolved	0.0001	mg/L	0.0005	<0.0001	0.0004	0.0005	N/A	0.0005	20%
Chromium-Dissolved	0.001	mg/L	0.001	0.001	0.001	0.001	0%	0.001	0%
Cobalt-Dissolved	0.001	mg/L	<0.001	<0.001	<0.001	N/A	N/A	N/A	N/A
Copper-Dissolved	0.001	mg/L	0.004	<0.001	0.002	0.004	N/A	0.004	50%
Iron-Dissolved	0.001	mg/L	0.02	1	<0.05	0.51	192%	0.02	N/A
Lead-Dissolved	0.001	mg/L	<0.001	<0.001	<0.001	N/A	N/A	N/A	N/A
Manganese-Dissolved	0.005	mg/L	0.006	0.047	0.005	0.0265	155%	0.006	17%
Mercury-Dissolved	0.00005	mg/L	<0.00005	<0.00005	<0.0001	N/A	N/A	N/A	N/A
Zinc-Dissolved	0.001	mg/L	0.1	0.065	0.087	0.0825	42%	0.1	13%

nt = Not Tested

Relative Percentage Difference (RPD) is calculated as the absolute value of the difference between original and replicate samples divided by the average and expressed as a percentage.

nd - Result is below the laboratory Estimated Quantitation Limit.

N/A - not applicable.

* a different PQL may have been used by the second laboratory for some analytes

or where the RPD > 75% where the average concentration is between 5-10 times the EQL.

or where the RPD > 100% where the average concentration is between 2-5 times the EQL.

Table 5b: Tabulated Field QA/QC Results

		Sample Id:	RIN	FB2	TB
		Laboratory Report Number:	398689	398689	398689
		Laboratory:	Envirolab	Envirolab	Envirolab
		Date Sampled:	16 Dec 25	16 Dec 25	16 Dec 25
Parameters	**PQL**	**Units**	**Rinsate**	**Field Blank**	**Trip Blank**
Ion Balance					
Calcium - Dissolved	0.5	mg/L	<0.5	<0.5	<0.5
Potassium - Dissolved	0.5	mg/L	<0.5	<0.5	<0.5
Sodium - Dissolved	0.5	mg/L	<0.5	<0.5	<0.5
Magnesium - Dissolved	0.5	mg/L	<0.5	<0.5	<0.5
Hydroxide Alkalinity (OH-) as CaCO3	5	mg/L	<5	<5	<5
Bicarbonate Alkalinity as CaCO3	5	mg/L	<5	<5	<5
Carbonate Alkalinity as CaCO3	5	mg/L	<5	<5	<5
Total Alkalinity as CaCO3	5	mg/L	<5	<5	<5
Sulphate, SO4	1	mg/L	<1	<1	<1
Chloride, Cl	1	mg/L	<1	<1	<1
Miscellaneous					
Electrical Conductivity	1	µS/cm	<2	<2	<2
Hexavalent Chromium, Cr6+	0.005	mg/L	<0.001	<0.001	<0.001
Nitrate as N in water	0.005	mg/L	<0.005	<0.005	<0.005
Nitrite as N in water	0.005	mg/L	<0.005	<0.005	<0.005
Ammonia as N in water	0.005	mg/L	<0.005	<0.005	<0.005
Total Dissolved Solids(grav)	5	mg/L	<5	<5	<5
Total Organic Carbon	1	mg/L	<1	<1	<1
Heavy Metals - Dissolved					
Aluminium-Dissolved	10	µg/L			
Arsenic-Dissolved	1	µg/L	<1	<1	<1
Barium-Dissolved	1	µg/L	11	<1	<1
Cadmium-Dissolved	0.1	µg/L	<1	<1	<1
Chromium-Dissolved	1	µg/L	<0.1	<0.1	<0.1
Cobalt-Dissolved	1	µg/L	<1	<1	<1
Copper-Dissolved	1	µg/L	<1	<1	<1
Lead-Dissolved	1	µg/L	<1	<1	<1
Iron-Dissolved	10	µg/L	<10	<10	<10
Manganese-Dissolved	5	µg/L	<10	<10	<10
Mercury-Dissolved	0.05	µg/L	<1	<1	<1
Zinc-Dissolved	1	µg/L	<1	<1	<1

APPENDIX 1

QUALITY ASSURANCE AND QUALITY CONTROL

QUALITY ASSURANCE AND QUALITY CONTROL

A summary of the project QA/QC is provided below.

The field QA/QC programme for quarterly monitoring rounds consists of the following:

- Blind Replicates (Field duplicates) - one individual samples are collected concurrently from the same location and placed in two separate sets of laboratory supplied containers. Both samples are sent to the primary laboratory and analysed for the same suite of analytes. Field Blind replicate samples provide an indication of the analytical accuracy of the project laboratory. One Blind replicate samples are collected per quarterly sampling round.
- Split Replicates (Field duplicates) - two individual samples are collected concurrently from the same location and placed in two separate sets of laboratory supplied containers. Samples are sent to the primary and secondary laboratory and analysed for the same suite of analytes. Field split replicate samples provide an indication of the analytical accuracy of the project laboratory. One split replicate sample is collected per quarterly sampling round.
- Rinsate (equipment) Blanks consist of pre-preserved bottles filled with laboratory-prepared water that is passed through decontaminated field equipment and then collected in containers used for the sampling process. Rinsate Blanks are preserved in a similar manner to the original samples. Rinsate Blanks are a check on decontamination procedures. One rinsate sample is collected every quarterly sampling round.

The laboratory QA/QC programme for quarterly monitoring rounds consists of the following:

- Laboratory Duplicates - the analytical laboratory collects duplicate sub-samples from one sample submitted for analytical testing at a rate equivalent to one per process batch and at least 1 in 10 samples. A laboratory duplicate provides data on analytical batch and the analytical precision (repeatability) of the test result.
- Standards – Calibration standards are prepared from individual certified materials, AR grade or better reagents purchased as certified mixtures. Stock solutions are replaced every 6 months. Working standards are prepared at least every month from the stock solutions.
- Laboratory Control Samples (LCS) consist of a clean matrix spiked with a known concentration of the analyte being measured. At least one control sample is included in each batch of samples to confirm calibration validity.
- Surrogates - for target organic analytes, a surrogate is added at the extraction stage for every sample in order to verify method effectiveness. The surrogate is then analysed and reported as a percentage recovery with every sample.
- Matrix Spikes consist of samples of similar matrix spiked with a known concentration of the analyte being measured, in order to identify properties of the matrix that may hinder method effectiveness. One matrix spike is included in each batch of samples.
- Method Blanks - a ‘Blank’ sample is carried through the preparation/ extraction/digestion procedure and analysed at the beginning of every sample batch analysis. The purpose of method Blanks is to detect potential laboratory contamination.

APPENDIX 2

LABORATORY REPORTS

Envirolab Services Pty Ltd
ABN 37 112 535 645
12 Ashley St Chatswood NSW 2067
ph 02 9910 6200 fax 02 9910 6201
customerservice@envirolab.com.au
www.envirolab.com.au

CERTIFICATE OF ANALYSIS 398689

Client Details

Client	Consulting Earth Scientists Pty Ltd
Attention	Thomas Marback
Address	Suite 3, Level 1, 55 Grandview Street, Pymble, NSW, 2073

Sample Details

Your Reference	**CES220507 - VMA Woodlawn Landfill Monitoring**
Number of Samples	46 Water, 6 Dust Gauge
Date samples received	19/12/2025
Date completed instructions received	19/12/2025

Analysis Details

Please refer to the following pages for results, methodology summary and quality control data.

Samples were analysed as received from the client unless as indicated below in the method summaries. Results relate specifically to the samples as received.

Results are reported on a dry weight basis for solids and on an as received basis for other matrices.

Please refer to the last page of this report for any comments relating to the results.

Report Details

Date results requested by	05/01/2026
Date of Issue	05/01/2026

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Results Approved By
Diego Bigolin, Inorganics Supervisor
Dragana Tomas, Senior Chemist
Giovanni Agosti, Group Technical Manager
Jenny He, Inorganic Team Leader
Loren Bardwell, Development Chemist
Sean McAlary, Senior Chemist
Timothy Toll, Senior Chemist

Authorised By
Nancy Zhang, Laboratory Manager

vTRH(C6-C10)/BTEXN in Water				
Our Reference		398689-25	398689-26	398689-35
Your Reference	UNITS	MB32	MBJH	MB13
Date Sampled		17/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water
Date extracted	-	24/12/2025	24/12/2025	24/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025
TRH C_6 - C_9	µg/L	<10	240	<10
TRH C_6 - C_{10}	µg/L	<10	310	<10
TRH C_6 - C_{10} less BTEX (F1)	µg/L	<10	260	<10
Benzene	µg/L	<1	29	<1
Toluene	µg/L	<1	14	<1
Ethylbenzene	µg/L	<1	<10	<1
m+p-xylene	µg/L	<2	<20	<2
o-xylene	µg/L	<1	<10	<1
Naphthalene	µg/L	<1	<10	<1
Surrogate Dibromofluoromethane	%	101	86	101
Surrogate Toluene-d8	%	99	88	99
Surrogate 4-Bromofluorobenzene	%	99	101	98

svTRH (C10-C40) in Water				
Our Reference		398689-25	398689-26	398689-35
Your Reference	UNITS	MB32	MBJH	MB13
Date Sampled		17/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water
Date extracted	-	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	23/12/2025	23/12/2025	23/12/2025
TRH C_{10} - C_{14}	µg/L	<50	1,400	<50
TRH C_{15} - C_{28}	µg/L	<100	2,400	<100
TRH C_{29} - C_{36}	µg/L	<100	1,100	<100
Total +ve TRH (C10-C36)	µg/L	<50	4,900	<50
TRH >C_{10} - C_{16}	µg/L	<50	1,500	<50
TRH >C_{10} - C_{16} less Naphthalene (F2)	µg/L	<50	1,500	<50
TRH >C_{16} - C_{34}	µg/L	<100	3,200	<100
TRH >C_{34} - C_{40}	µg/L	<100	250	<100
Total +ve TRH (>C10-C40)	µg/L	<50	4,900	<50
Surrogate o-Terphenyl	%	96	#	88

PAHs in Water - Trace Level				
Our Reference	UNITS	398689-25	398689-26	398689-35
Your Reference		MB32	MBJH	MB13
Date Sampled		17/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water
Date extracted	-	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	23/12/2025	31/12/2025	23/12/2025
Naphthalene	µg/L	<0.02	0.08	<0.02
Acenaphthylene	µg/L	<0.01	0.02	<0.01
Acenaphthene	µg/L	<0.01	<0.05	<0.01
Fluorene	µg/L	<0.01	0.09	<0.01
Phenanthrene	µg/L	<0.01	0.11	<0.01
Anthracene	µg/L	<0.01	0.05	<0.01
Fluoranthene	µg/L	<0.01	<0.01	<0.01
Pyrene	µg/L	<0.01	0.06	<0.01
Benzo(a)anthracene	µg/L	<0.01	<0.01	<0.01
Chrysene	µg/L	<0.01	<0.01	<0.01
Benzo(b,j+k)fluoranthene	µg/L	<0.02	<0.02	<0.02
Benzo(a)pyrene	µg/L	<0.01	<0.01	<0.01
Dibenzo(a,h)anthracene	µg/L	<0.01	<0.01	<0.01
Indeno(1,2,3-c,d)pyrene	µg/L	<0.01	<0.01	<0.01
Benzo(g,h,i)perylene	µg/L	<0.01	<0.01	<0.01
Benzo(a)pyrene TEQ	µg/L	<0.05	<0.05	<0.05
Total +ve PAH's	µg/L	NIL (+)VE	0.40	NIL (+)VE
Surrogate p-Terphenyl-d14	%	98	97	87

OCPs in Water - Trace Level				
Our Reference	UNITS	398689-25	398689-26	398689-35
Your Reference		MB32	MBJH	MB13
Date Sampled		17/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water
Date extracted	-	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	23/12/2025	31/12/2025	23/12/2025
alpha-BHC	µg/L	<0.001	<0.001	<0.001
HCB	µg/L	<0.001	<0.001	<0.001
beta-BHC	µg/L	<0.001	<0.001	<0.001
gamma-BHC	µg/L	<0.001	<0.001	<0.001
Heptachlor	µg/L	<0.001	<0.001	<0.001
delta-BHC	µg/L	<0.001	<0.001	<0.001
Aldrin	µg/L	<0.001	<0.001	<0.001
Heptachlor Epoxide	µg/L	<0.001	<0.001	<0.001
gamma-Chlordane	µg/L	<0.001	<0.001	<0.001
alpha-Chlordane	µg/L	<0.001	<0.001	<0.001
Endosulfan I	µg/L	<0.002	<0.002	<0.002
pp-DDE	µg/L	<0.001	<0.001	<0.001
Dieldrin	µg/L	<0.001	<0.001	<0.001
Endrin	µg/L	<0.001	<0.001	<0.001
Endosulfan II	µg/L	<0.002	<0.002	<0.002
pp-DDD	µg/L	<0.001	<0.001	<0.001
pp-DDT	µg/L	<0.001	<0.001	<0.001
Endosulfan Sulphate	µg/L	<0.001	<0.001	<0.001
Methoxychlor	µg/L	<0.001	<0.001	<0.001
Surrogate 4-Chloro-3-NBTF	%	97	99	86

OP in water LL ANZECCF/ADWG				
Our Reference	UNITS	398689-25	398689-26	398689-35
Your Reference		MB32	MBJH	MB13
Date Sampled		17/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water
Date extracted	-	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	23/12/2025	31/12/2025	23/12/2025
Dichlorvos	µg/L	<0.05	<0.05	<0.05
Mevinphos	µg/L	<0.05	<0.05	<0.05
Phorate	µg/L	<0.05	<0.05	<0.05
Dimethoate	µg/L	<0.1	<0.1	<0.1
Diazinon	µg/L	<0.01	<0.01	<0.01
Disulfoton	µg/L	<0.05	<0.05	<0.05
Chlorpyriphos-methyl	µg/L	<0.05	<0.05	<0.05
Parathion-Methyl	µg/L	<0.05	<0.05	<0.05
Ronnel	µg/L	<0.05	<0.05	<0.05
Fenitrothion	µg/L	<0.05	<0.05	<0.05
Malathion	µg/L	<0.05	<0.05	<0.05
Chlorpyriphos	µg/L	<0.009	<0.009	<0.009
Fenthion	µg/L	<0.05	<0.05	<0.05
Parathion	µg/L	<0.004	<0.004	<0.004
Bromophos ethyl	µg/L	<0.05	<0.05	<0.05
Methidathion	µg/L	<0.05	<0.05	<0.05
Fenamiphos	µg/L	<0.05	<0.05	<0.05
Ethion	µg/L	<0.05	<0.05	<0.05
Phosalone	µg/L	<0.05	<0.05	<0.05
Azinphos-methyl (Guthion)	µg/L	<0.02	<0.02	<0.02
Coumaphos	µg/L	<0.05	<0.05	<0.05
Surrogate 4-Chloro-3-NBTF	%	97	99	86

Total Phenolics in Water				
Our Reference		398689-25	398689-26	398689-35
Your Reference	UNITS	MB32	MBJH	MB13
Date Sampled		17/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water
Date extracted	-	23/12/2025	23/12/2025	23/12/2025
Date analysed	-	23/12/2025	23/12/2025	23/12/2025
Total Phenolics (as Phenol)	mg/L	<0.05	<0.05	<0.05

All metals in water - total						
Our Reference		398689-1	398689-2	398689-3	398689-4	398689-12
Your Reference	UNITS	Spring 2	Site 105	Crisps Creek	ED1	110
Date Sampled		16/12/2025	17/12/2025	16/12/2025	18/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Aluminium-Total	µg/L	490	15	81	650,000	20
Arsenic-Total	µg/L	2	<1	<1	180	<1
Barium-Total	µg/L	29	58	29	5	71
Cadmium-Total	µg/L	5.1	0.2	0.5	8,600	<0.1
Chromium-Total	µg/L	1	<1	<1	76	<1
Copper-Total	µg/L	70	4	4	100,000	1
Cobalt-Total	µg/L	2	<1	1	4,800	<1
Mercury-Total	µg/L	<0.05	<0.05	<0.05	0.09	<0.05
Lead-Total	µg/L	42	<1	2	120	<1
Zinc-Total	µg/L	980	57	390	2,600,000	62
Manganese-Total	µg/L	1,200	110	520	130,000	[NA]

All metals in water - total			
Our Reference		398689-13	398689-14
Your Reference	UNITS	150	IMF-FF
Date Sampled		17/12/2025	16/12/2025
Type of sample		Water	Water
Date prepared	-	24/12/2025	24/12/2025
Date analysed	-	24/12/2025	24/12/2025
Aluminium-Total	µg/L	41	260
Arsenic-Total	µg/L	<1	2
Barium-Total	µg/L	100	25
Cadmium-Total	µg/L	<0.1	<0.1
Chromium-Total	µg/L	<1	<1
Copper-Total	µg/L	1	3
Cobalt-Total	µg/L	<1	<1
Mercury-Total	µg/L	<0.05	<0.05
Lead-Total	µg/L	<1	5
Zinc-Total	µg/L	7	20

All metals in water-dissolved						
Our Reference		398689-15	398689-16	398689-17	398689-18	398689-19
Your Reference	UNITS	RIN	TB	FB1	FB2	FB3
Date Sampled		18/12/2025	18/12/2025	15/12/2025	16/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Aluminium-Dissolved	µg/L	<1	<1	<1	<1	<1
Barium-Dissolved	µg/L	11	<1	<1	<1	<1
Arsenic-Dissolved	µg/L	<1	<1	<1	<1	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt-Dissolved	µg/L	<1	<1	<1	<1	<1
Chromium-Dissolved	µg/L	<1	<1	<1	<1	<1
Copper-Dissolved	µg/L	<1	<1	<1	<1	<1
Iron-Dissolved	µg/L	<10	<10	<10	<10	<10
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Lead-Dissolved	µg/L	<1	<1	<1	<1	<1
Zinc-Dissolved	µg/L	<1	<1	<1	<1	<1
Manganese-Dissolved	µg/L	<1	<1	<1	<1	<1

All metals in water-dissolved						
Our Reference		398689-20	398689-22	398689-25	398689-26	398689-28
Your Reference	UNITS	FB4	BR2	MB32	MBJH	MB28
Date Sampled		18/12/2025	16/12/2025	17/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Aluminium-Dissolved	µg/L	<1	13	10	3,400	16
Barium-Dissolved	µg/L	<1	4	41	390	20
Arsenic-Dissolved	µg/L	<1	<1	<1	24	<1
Cadmium-Dissolved	µg/L	<0.1	<0.1	0.5	<0.1	13
Cobalt-Dissolved	µg/L	<1	<1	2	50	<1
Chromium-Dissolved	µg/L	<1	1	<1	2	4
Copper-Dissolved	µg/L	<1	<1	2	6	16
Iron-Dissolved	µg/L	<10	1,000	30	9,300	10
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Lead-Dissolved	µg/L	<1	<1	<1	4	<1
Zinc-Dissolved	µg/L	<1	65	110	13	930
Manganese-Dissolved	µg/L	<1	47	160	1,900	21

All metals in water-dissolved						
Our Reference		398689-30	398689-31	398689-33	398689-34	398689-35
Your Reference	UNITS	MB10SR	MB10	MW-FRC1	MB3	MB13
Date Sampled		16/12/2025	16/12/2025	16/12/2025	16/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Aluminium-Dissolved	µg/L	13	9	5	8	3
Barium-Dissolved	µg/L	2	8	48	35	26
Arsenic-Dissolved	µg/L	<1	<1	<1	<1	<1
Cadmium-Dissolved	µg/L	0.5	0.3	3.2	0.2	0.2
Cobalt-Dissolved	µg/L	<1	<1	9	<1	<1
Chromium-Dissolved	µg/L	1	<1	<1	<1	<1
Copper-Dissolved	µg/L	4	13	15	5	2
Iron-Dissolved	µg/L	20	20	10	20	<10
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
Lead-Dissolved	µg/L	<1	<1	<1	1	<1
Zinc-Dissolved	µg/L	100	81	950	49	24
Manganese-Dissolved	µg/L	6	43	550	3	6

All metals in water-dissolved				
Our Reference		398689-36	398689-37	398689-39
Your Reference	UNITS	MB29	SP2-MW1	MB2
Date Sampled		16/12/2025	16/12/2025	16/12/2025
Type of sample		Water	Water	Water
Date prepared	-	24/12/2025	24/12/2025	24/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025
Aluminium-Dissolved	µg/L	16	13	8
Barium-Dissolved	µg/L	42	150	20
Arsenic-Dissolved	µg/L	<1	<1	<1
Cadmium-Dissolved	µg/L	<0.1	0.3	34
Cobalt-Dissolved	µg/L	2	<1	<1
Chromium-Dissolved	µg/L	<1	<1	<1
Copper-Dissolved	µg/L	<1	<1	9
Iron-Dissolved	µg/L	30	<10	50
Mercury-Dissolved	µg/L	<0.05	<0.05	<0.05
Lead-Dissolved	µg/L	<1	<1	1
Zinc-Dissolved	µg/L	54	26	63
Manganese-Dissolved	µg/L	120	190	29

Metals in Waters - Acid extractable						
Our Reference		398689-1	398689-2	398689-3	398689-4	398689-10
Your Reference	UNITS	Spring 2	Site 105	Crisps Creek	ED1	ED1 Coffer 1
Date Sampled		16/12/2025	17/12/2025	16/12/2025	18/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	23/12/2025	23/12/2025	23/12/2025	23/12/2025	23/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Phosphorus - Total	mg/L	0.28	0.05	0.06	1.2	6.2

Metals in Waters - Acid extractable					
Our Reference		398689-11	398689-12	398689-13	398689-14
Your Reference	UNITS	ED1 Coffer 2	110	150	IMF-FF
Date Sampled		17/12/2025	16/12/2025	17/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water
Date prepared	-	23/12/2025	23/12/2025	23/12/2025	23/12/2025
Date analysed	-	24/12/2025	24/12/2025	24/12/2025	24/12/2025
Phosphorus - Total	mg/L	8.2	<0.02	<0.02	0.1

Miscellaneous Inorganics						
Our Reference		398689-1	398689-2	398689-3	398689-4	398689-5
Your Reference	UNITS	Spring 2	Site 105	Crisps Creek	ED1	WM200
Date Sampled		16/12/2025	17/12/2025	16/12/2025	18/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
BOD	mg/L	33	21	43	43	17
COD	mg O_2 /L	90	50	<50	50	[NA]
Electrical Conductivity	µS/cm	4,500	4,000	7,200	18,000	1,600
Fluoride, F	mg/L	0.5	0.3	0.4	0.3	[NA]
Nitrate as N in water	mg/L	<0.005	0.057	0.01	0.39	[NA]
Nitrite as N in water	mg/L	<0.005	<0.005	<0.005	<0.005	[NA]
Ammonia as N in water	mg/L	0.02	<0.005	0.050	25	0.12
Total Organic Carbon	mg/L	26	29	13	38	3
Total Dissolved Solids (grav)	mg/L	4,200	2,900	6,700	29,000	1,200
Total Suspended Solids	mg/L	29	8	190	66	[NA]
pH	pH Units	7.2	8.2	7.7	3.7	8.5
TKN in water	mg/L	1.6	<0.1	0.7	150	[NA]
Hex Chromium, Cr^{6+} (total/unfiltered)	mg/L	<0.005	<0.005	<0.005	<0.005	[NA]

Miscellaneous Inorganics						
Our Reference		398689-6	398689-7	398689-8	398689-9	398689-10
Your Reference	UNITS	MB35	ED3SS	WM203	WM202	ED1 Coffer 1
Date Sampled		16/12/2025	17/12/2025	17/12/2025	17/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
BOD	mg/L	[NA]	1,620	1,660	21	320
COD	mg O_2 /L	[NA]	[NA]	[NA]	[NA]	1,800
Electrical Conductivity	µS/cm	6,900	22,000	32,000	4,600	25,000
Nitrate as N in water	mg/L	0.16	[NA]	[NA]	[NA]	1,100
Nitrite as N in water	mg/L	0.12	[NA]	[NA]	[NA]	[NA]
Ammonia as N in water	mg/L	3.3	73	99	56	0.21
Total Organic Carbon	mg/L	[NA]	1,700	2,100	12	[NA]
Total Dissolved Solids (grav)	mg/L	11,000	19,000	28,000	6,500	19,000
Total Suspended Solids	mg/L	[NA]	[NA]	[NA]	[NA]	37
pH	pH Units	5.3	8.6	8.5	4.1	8.8

Miscellaneous Inorganics						
Our Reference		398689-11	398689-12	398689-13	398689-14	398689-15
Your Reference	UNITS	ED1 Coffer 2	110	150	IMF-FF	RIN
Date Sampled		17/12/2025	16/12/2025	17/12/2025	16/12/2025	18/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
BOD	mg/L	360	24	<5	31	[NA]
COD	mg O_2 /L	2,200	[NA]	[NA]	[NA]	[NA]
Electrical Conductivity	µS/cm	29,000	1,300	1,300	89	<2
Nitrate as N in water	mg/L	1,500	[NA]	[NA]	[NA]	<0.005
Nitrite as N in water	mg/L	[NA]	[NA]	[NA]	[NA]	<0.005
Ammonia as N in water	mg/L	0.15	0.070	0.05	0.11	<0.005
Total Organic Carbon	mg/L	[NA]	6	6	10	<1
Total Dissolved Solids (grav)	mg/L	21,000	1,100	920	53	<5
Total Suspended Solids	mg/L	17	26	44	46	[NA]
pH	pH Units	8.8	7.8	8.1	6.7	5.7
Oil & Grease (LLE)	mg/L	[NA]	<5	<5	<5	[NA]
TKN in water	mg/L	[NA]	0.5	0.4	0.5	[NA]
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	[NA]	[NA]	[NA]	[NA]	<0.001

Miscellaneous Inorganics						
Our Reference		398689-16	398689-17	398689-18	398689-19	398689-20
Your Reference	UNITS	TB	FB1	FB2	FB3	FB4
Date Sampled		18/12/2025	15/12/2025	16/12/2025	17/12/2025	18/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Electrical Conductivity	µS/cm	<2	<2	<2	<2	<2
Nitrate as N in water	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Nitrite as N in water	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Ammonia as N in water	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Total Organic Carbon	mg/L	<1	<1	<1	<1	<1
Total Dissolved Solids (grav)	mg/L	<5	<5	<5	<5	<5
pH	pH Units	5.6	5.5	5.5	5.5	5.5
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001

Miscellaneous Inorganics						
Our Reference		398689-21	398689-22	398689-23	398689-24	398689-25
Your Reference	UNITS	BR1	BR2	BR3	WM6	MB32
Date Sampled		16/12/2025	16/12/2025	17/12/2025	17/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
BOD	mg/L	[NA]	[NA]	740	[NA]	[NA]
Electrical Conductivity	µS/cm	2,000	7,100	33,000	13,000	10,000
Nitrate as N in water	mg/L	<0.005	<0.005	[NA]	12	0.15
Nitrite as N in water	mg/L	<0.005	<0.005	[NA]	<0.005	<0.005
Ammonia as N in water	mg/L	0.05	0.02	93	0.18	0.02
Total Organic Carbon	mg/L	[NA]	<1	1,900	[NA]	3
Total Dissolved Solids (grav)	mg/L	1,700	8,200	27,000	8,900	7,400
pH	pH Units	6.1	6.3	8.5	6.8	7.9
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	[NA]	<0.001	[NA]	[NA]	<0.001

Miscellaneous Inorganics						
Our Reference		398689-26	398689-27	398689-28	398689-29	398689-30
Your Reference	UNITS	MBJH	MB7	MB28	MB1	MB10SR
Date Sampled		17/12/2025	17/12/2025	16/12/2025	16/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Electrical Conductivity	µS/cm	2,300	7,400	6,400	2,000	7,300
Nitrate as N in water	mg/L	0.01	1.0	2.3	0.69	0.006
Nitrite as N in water	mg/L	<0.005	0.009	<0.005	<0.005	<0.005
Ammonia as N in water	mg/L	<0.005	0.04	0.01	0.04	0.02
Total Organic Carbon	mg/L	770	[NA]	4	[NA]	2
Total Dissolved Solids (grav)	mg/L	4,400	7,200	5,100	1,800	8,600
pH	pH Units	6.9	6.3	6.1	7.3	5.9
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	<0.001	[NA]	0.001	[NA]	<0.001

Miscellaneous Inorganics						
Our Reference		398689-31	398689-32	398689-33	398689-34	398689-35
Your Reference	UNITS	MB10	MB34	MW-FRC1	MB3	MB13
Date Sampled		16/12/2025	16/12/2025	16/12/2025	16/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Electrical Conductivity	µS/cm	7,600	1,700	2,100	2,000	3,300
Nitrate as N in water	mg/L	0.03	0.04	1.1	0.98	1.8
Nitrite as N in water	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Ammonia as N in water	mg/L	0.01	0.03	0.05	0.04	0.02
Total Organic Carbon	mg/L	2	[NA]	4	<1	<1
Total Dissolved Solids (grav)	mg/L	8,600	1,500	2,000	1,700	2,700
pH	pH Units	5.9	7.1	6.9	6.0	7.3
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	<0.001	[NA]	<0.001	<0.001	<0.001

Miscellaneous Inorganics						
Our Reference		398689-36	398689-37	398689-38	398689-39	398689-40
Your Reference	UNITS	MB29	SP2-MW1	GWJH	MB2	MB33
Date Sampled		16/12/2025	16/12/2025	17/12/2025	16/12/2025	15/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Electrical Conductivity	µS/cm	4,400	3,300	1,300	6,900	1,800
Nitrate as N in water	mg/L	<0.005	0.36	<0.005	0.17	0.78
Nitrite as N in water	mg/L	<0.005	<0.005	<0.005	<0.005	0.03
Ammonia as N in water	mg/L	0.02	0.01	48	0.066	0.11
Total Organic Carbon	mg/L	4	2	[NA]	<1	[NA]
Total Dissolved Solids (grav)	mg/L	3,700	3,100	910	8,800	1,100
pH	pH Units	7.2	7.2	6.9	6.0	8.2
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	<0.001	<0.001	[NA]	<0.001	[NA]

Miscellaneous Inorganics						
Our Reference		398689-41	398689-42	398689-43	398689-44	398689-45
Your Reference	UNITS	MW9SR	MW8S	MW8D	WM10SR	MB4
Date Sampled		15/12/2025	18/12/2025	18/12/2025	18/12/2025	18/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Electrical Conductivity	µS/cm	15,000	9,400	11,000	6,700	2,500
Nitrate as N in water	mg/L	0.25	67	20	4.3	0.50
Nitrite as N in water	mg/L	0.03	0.009	0.074	0.006	<0.005
Ammonia as N in water	mg/L	0.72	0.30	0.56	0.03	0.12
Total Dissolved Solids (grav)	mg/L	19,000	8,700	12,000	4,000	2,000
pH	pH Units	7.3	6.5	5.8	7.0	5.0

Ion Balance						
Our Reference		398689-1	398689-2	398689-3	398689-4	398689-5
Your Reference	UNITS	Spring 2	Site 105	Crisps Creek	ED1	WM200
Date Sampled		16/12/2025	17/12/2025	16/12/2025	18/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	240	160	540	390	48
Potassium - Dissolved	mg/L	2	1	0.7	240	1
Sodium - Dissolved	mg/L	290	300	400	920	150
Magnesium - Dissolved	mg/L	370	240	610	1,800	67
Hardness (calc) equivalent $CaCO_3$	mg/L	2,100	1,400	3,900	8,300	[NA]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	<5	<5	[NA]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	120	110	410	<5	[NA]
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	[NA]
Total Alkalinity as $CaCO_3$	mg/L	120	110	410	<5	[NA]
Sulphate, SO4	mg/L	2,000	630	3,200	23,000	[NA]
Chloride, Cl	mg/L	670	1,000	1,500	1,400	[NA]
Ionic Balance	%	-6.0	-3.0	-11	-41	[NA]

Ion Balance						
Our Reference		398689-6	398689-7	398689-8	398689-9	398689-10
Your Reference	UNITS	MB35	ED3SS	WM203	WM202	ED1 Coffer 1
Date Sampled		16/12/2025	17/12/2025	17/12/2025	17/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	420	76	81	270	[NA]
Potassium - Dissolved	mg/L	22	1,500	3,100	30	[NA]
Sodium - Dissolved	mg/L	150	3,500	6,100	140	[NA]
Magnesium - Dissolved	mg/L	460	220	630	290	[NA]
Hardness (calc) equivalent $CaCO_3$	mg/L	3,000	[NA]	[NA]	[NA]	[NA]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	[NA]	[NA]	[NA]	[NA]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	99	[NA]	[NA]	[NA]	[NA]
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	[NA]	[NA]	[NA]	[NA]
Total Alkalinity as $CaCO_3$	mg/L	99	[NA]	[NA]	[NA]	[NA]
Sulphate, SO4	mg/L	7,100	[NA]	[NA]	[NA]	[NA]
Chloride, Cl	mg/L	220	[NA]	[NA]	[NA]	5,100
Ionic Balance	%	-40	[NA]	[NA]	[NA]	[NA]

Ion Balance						
Our Reference		398689-11	398689-12	398689-13	398689-14	398689-15
Your Reference	UNITS	ED1 Coffer 2	110	150	IMF-FF	RIN
Date Sampled		17/12/2025	16/12/2025	17/12/2025	16/12/2025	18/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	[NA]	73	71	8.1	<0.5
Potassium - Dissolved	mg/L	[NA]	1	2	5.4	<0.5
Sodium - Dissolved	mg/L	[NA]	73	84	5.1	<0.5
Magnesium - Dissolved	mg/L	[NA]	65	50	0.9	<0.5
Hardness (calc) equivalent $CaCO_3$	mg/L	[NA]	450	380	24	<3
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	[NA]	<5	<5	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	[NA]	210	200	32	<5
Carbonate Alkalinity as $CaCO_3$	mg/L	[NA]	<5	<5	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	[NA]	210	200	32	<5
Sulphate, SO4	mg/L	[NA]	180	88	8	<1
Chloride, Cl	mg/L	5,700	220	250	5	<1
Ionic Balance	%	[NA]	-7.0	-7.0	-6.0	N/A

Ion Balance						
Our Reference		398689-16	398689-17	398689-18	398689-19	398689-20
Your Reference	UNITS	TB	FB1	FB2	FB3	FB4
Date Sampled		18/12/2025	15/12/2025	16/12/2025	17/12/2025	18/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	22/12/2025	22/12/2025	22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Potassium - Dissolved	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Sodium - Dissolved	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Magnesium - Dissolved	mg/L	<0.5	<0.5	<0.5	<0.5	<0.5
Hardness (calc) equivalent $CaCO_3$	mg/L	<3	<3	<3	<3	<3
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Sulphate, SO4	mg/L	<1	<1	<1	<1	<1
Chloride, Cl	mg/L	<1	<1	<1	<1	<1
Ionic Balance	%	N/A	N/A	N/A	N/A	N/A

Ion Balance						
Our Reference		398689-21	398689-22	398689-23	398689-24	398689-25
Your Reference	UNITS	BR1	BR2	BR3	WM6	MB32
Date Sampled		16/12/2025	16/12/2025	17/12/2025	17/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	22/12/2025	24/12/2025	22/12/2025	22/12/2025	22/12/2025
Date analysed	-	22/12/2025	24/12/2025	22/12/2025	22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	200	530	80	110	110
Potassium - Dissolved	mg/L	9.2	1	3,200	3	3
Sodium - Dissolved	mg/L	67	380	6,000	1,800	1,500
Magnesium - Dissolved	mg/L	95	630	630	410	230
Hardness (calc) equivalent $CaCO_3$	mg/L	900	3,900	[NA]	2,000	1,200
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	[NA]	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	400	290	[NA]	65	380
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	[NA]	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	400	290	[NA]	65	380
Sulphate, SO4	mg/L	260	3,900	[NA]	380	540
Chloride, Cl	mg/L	310	1,300	[NA]	5,300	3,600
Ionic Balance	%	-3.0	-13	[NA]	-16	-16

Ion Balance						
Our Reference		398689-26	398689-27	398689-28	398689-29	398689-30
Your Reference	UNITS	MBJH	MB7	MB28	MB1	MB10SR
Date Sampled		17/12/2025	17/12/2025	16/12/2025	16/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	24/12/2025	22/12/2025	22/12/2025	22/12/2025	23/12/2025
Date analysed	-	24/12/2025	22/12/2025	22/12/2025	22/12/2025	23/12/2025
Calcium - Dissolved	mg/L	35	280	180	220	530
Potassium - Dissolved	mg/L	23	9.9	1	9.1	1
Sodium - Dissolved	mg/L	370	610	580	66	390
Magnesium - Dissolved	mg/L	58	410	350	89	630
Hardness (calc) equivalent $CaCO_3$	mg/L	320	2,400	1,900	900	3,900
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	480	660	550	410	300
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	480	660	550	410	300
Sulphate, SO4	mg/L	14	260	1,100	260	4,200
Chloride, Cl	mg/L	630	2,600	1,800	310	1,300
Ionic Balance	%	-9.0	-10	-15	-3.0	-16

Ion Balance						
Our Reference		398689-31	398689-32	398689-33	398689-34	398689-35
Your Reference	UNITS	MB10	MB34	MW-FRC1	MB3	MB13
Date Sampled		16/12/2025	16/12/2025	16/12/2025	16/12/2025	16/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	23/12/2025	23/12/2025	23/12/2025	23/12/2025	23/12/2025
Date analysed	-	23/12/2025	23/12/2025	23/12/2025	23/12/2025	23/12/2025
Calcium - Dissolved	mg/L	470	89	160	140	160
Potassium - Dissolved	mg/L	1	4	<0.5	2	3
Sodium - Dissolved	mg/L	420	73	160	64	280
Magnesium - Dissolved	mg/L	670	110	100	93	170
Hardness (calc) equivalent $CaCO_3$	mg/L	4,000	670	820	750	1,100
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	290	290	150	230	690
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	290	290	150	230	690
Sulphate, SO4	mg/L	4,000	260	720	48	54
Chloride, Cl	mg/L	1,100	300	270	510	780
Ionic Balance	%	-10	-9.0	-5.0	-6.0	-4.0

Ion Balance						
Our Reference		398689-36	398689-37	398689-38	398689-39	398689-40
Your Reference	UNITS	MB29	SP2-MW1	GWJH	MB2	MB33
Date Sampled		16/12/2025	16/12/2025	17/12/2025	16/12/2025	15/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	23/12/2025	23/12/2025	23/12/2025	23/12/2025	23/12/2025
Date analysed	-	23/12/2025	23/12/2025	23/12/2025	23/12/2025	23/12/2025
Calcium - Dissolved	mg/L	190	190	41	490	7.2
Potassium - Dissolved	mg/L	<0.5	<0.5	12	2	120
Sodium - Dissolved	mg/L	490	150	48	300	240
Magnesium - Dissolved	mg/L	190	190	35	620	28
Hardness (calc) equivalent $CaCO_3$	mg/L	1,200	1,200	250	3,800	130
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	470	390	340	310	200
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	470	390	340	310	200
Sulphate, SO4	mg/L	230	140	27	3,500	460
Chloride, Cl	mg/L	1,200	900	210	990	160
Ionic Balance	%	-2.0	-7.0	-29	-9.0	-6.0

Ion Balance						
Our Reference		398689-41	398689-42	398689-43	398689-44	398689-45
Your Reference	UNITS	MW9SR	MW8S	MW8D	WM10SR	MB4
Date Sampled		15/12/2025	18/12/2025	18/12/2025	18/12/2025	18/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	23/12/2025	23/12/2025	23/12/2025	24/12/2025	23/12/2025
Date analysed	-	23/12/2025	23/12/2025	23/12/2025	24/12/2025	23/12/2025
Calcium - Dissolved	mg/L	400	170	400	56	12
Potassium - Dissolved	mg/L	4	8.6	5.8	16	3
Sodium - Dissolved	mg/L	2,000	920	600	1,100	270
Magnesium - Dissolved	mg/L	1,200	480	780	240	130
Hardness (calc) equivalent $CaCO_3$	mg/L	6,100	2,400	4,200	1,100	560
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Bicarbonate Alkalinity as $CaCO_3$	mg/L	500	130	36	1,500	22
Carbonate Alkalinity as $CaCO_3$	mg/L	<5	<5	<5	<5	<5
Total Alkalinity as $CaCO_3$	mg/L	500	130	36	1,500	22
Sulphate, SO4	mg/L	11,000	2,100	1,700	430	260
Chloride, Cl	mg/L	1,600	2,900	4,200	1,600	730
Ionic Balance	%	-17	-18	-16	-9.0	-6.0

PFAS in Waters Trace Comprehensive						
Our Reference		398689-1	398689-2	398689-3	398689-4	398689-38
Your Reference	UNITS	Spring 2	Site 105	Crisps Creek	ED1	GWJH
Date Sampled		16/12/2025	17/12/2025	16/12/2025	18/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Date prepared	-	29/12/2025	29/12/2025	29/12/2025	29/12/2025	29/12/2025
Date analysed	-	29/12/2025	29/12/2025	29/12/2025	29/12/2025	29/12/2025
Perfluoropropanesulfonic acid	µg/L	0.019	0.011	0.043	0.028	<0.001
Perfluorobutanesulfonic acid	µg/L	0.099	0.021	0.067	2.9	0.002
Perfluoropentanesulfonic acid	µg/L	0.012	0.008	0.050	0.021	<0.001
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.041	0.052	0.15	0.097	0.0031
Perfluoroheptanesulfonic acid	µg/L	<0.001	0.002	0.007	<0.001	<0.001
Perfluorooctanesulfonic acid PFOS	µg/L	0.0036	0.012	0.086	0.0050	0.0049
Perfluorononanesulfonic acid	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorodecanesulfonic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorobutanoic acid	µg/L	<0.02	<0.02	0.044	0.51	<0.01
Perfluoropentanoic acid	µg/L	0.022	0.025	0.038	0.32	<0.01
Perfluorohexanoic acid	µg/L	0.028	0.013	0.052	0.43	0.0005
Perfluoroheptanoic acid	µg/L	0.0073	0.0074	0.016	0.076	0.001
Perfluorooctanoic acid PFOA	µg/L	0.002	0.0027	0.0089	0.0062	0.001
Perfluorononanoic acid	µg/L	<0.001	<0.001	0.004	<0.001	<0.001
Perfluorodecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluoroundecanoic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
Perfluorododecanoic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluorotridecanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluorotetradecanoic acid	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
4:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
6:2 FTS	µg/L	<0.0004	<0.0004	<0.0004	0.012	<0.0004
8:2 FTS	µg/L	<0.0004	<0.0004	<0.0004	<0.0004	<0.0004
10:2 FTS	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
3:3-Fluorotelomer carboxylic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
5:3-Fluorotelomer carboxylic acid	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
7:3-Fluorotelomer carboxylic acid	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Perfluorooctane sulfonamide	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
N-Methyl perfluorooctane sulfonamide	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Ethyl perfluorooctanesulfon amide	µg/L	<0.1	<0.1	<0.1	<0.1	<0.1
N-Me perfluorooctanesulfonamid oethanol	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05
N-Et perfluorooctanesulfonamid oethanol	µg/L	<0.5	<0.5	<0.5	<0.5	<0.5
MePerfluorooctanesulf-amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
EtPerfluorooctanesulf- amid oacetic acid	µg/L	<0.002	<0.002	<0.002	<0.002	<0.002
6:2 FTAB	µg/L	<0.05	<0.05	<0.05	<0.05	<0.05

PFAS in Waters Trace Comprehensive						
Our Reference		398689-1	398689-2	398689-3	398689-4	398689-38
Your Reference	UNITS	Spring 2	Site 105	Crisps Creek	ED1	GWJH
Date Sampled		16/12/2025	17/12/2025	16/12/2025	18/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Perfluoro(2-ethoxyethane)sulfonic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Nonafluoro-3,6-dioxaheptanoic acid	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoro-4-methoxybutanoic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
Perfluoro-3-methoxypropanoic acid	µg/L	<0.005	<0.005	<0.005	<0.005	<0.005
ADONA	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
9Cl-PF3ONS	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
11Cl-PF3OUdS	µg/L	<0.001	<0.001	<0.001	<0.001	<0.001
HFPO DA (GenX)	µg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Perfluoroethylcyclohexanesulfonic acid	µg/L	<0.0002	<0.0002	<0.0002	0.0005	<0.0002
Surrogate $^{13}C_8$ *PFOS*	%	98	96	103	100	103
Surrogate $^{13}C_2$ *PFOA*	%	75	71	72	80	72
Extracted ISTD $^{13}C_3$ *PFBS*	%	39	37	42	22	44
Extracted ISTD $^{18}O_2$ *PFHxS*	%	63	60	66	73	59
Extracted ISTD $^{13}C_4$ *PFOS*	%	105	106	104	97	87
Extracted ISTD $^{13}C_4$ *PFBA*	%	#	#	#	26	#
Extracted ISTD $^{13}C_3$ *PFPeA*	%	#	#	#	27	#
Extracted ISTD $^{13}C_2$ *PFHxA*	%	48	45	62	60	49
Extracted ISTD $^{13}C_4$ *PFHpA*	%	36	34	43	45	33
Extracted ISTD $^{13}C_4$ *PFOA*	%	86	86	91	94	76
Extracted ISTD $^{13}C_5$ *PFNA*	%	69	67	71	75	57
Extracted ISTD $^{13}C_2$ *PFDA*	%	64	61	69	67	56
Extracted ISTD $^{13}C_2$ *PFUnDA*	%	76	73	79	78	71
Extracted ISTD $^{13}C_2$ *PFDoDA*	%	93	101	103	95	91
Extracted ISTD $^{13}C_2$ *PFTeDA*	%	64	71	103	80	101
Extracted ISTD $^{13}C_2$ *4:2FTS*	%	36	29	31	46	33
Extracted ISTD $^{13}C_2$ *6:2FTS*	%	121	131	116	105	116
Extracted ISTD $^{13}C_2$ *8:2FTS*	%	102	113	105	108	122
Extracted ISTD $^{13}C_8$ *FOSA*	%	93	87	104	90	71
Extracted ISTD d_3 *N MeFOSA*	%	102	103	101	99	101
Extracted ISTD d_5 *N EtFOSA*	%	99	101	103	96	103
Extracted ISTD d_7 *N MeFOSE*	%	96	97	96	96	99
Extracted ISTD d_9 *N EtFOSE*	%	99	99	99	97	101
Extracted ISTD d_3 *N MeFOSAA*	%	84	88	86	73	95
Extracted ISTD d_5 *N EtFOSAA*	%	81	80	79	81	83
Extracted ISTD $^{13}C_3$ GENX	%	119	127	122	104	132
Total Positive PFHxS & PFOS	µg/L	0.044	0.064	0.24	0.10	0.0080
Total Positive PFOS & PFOA	µg/L	0.0056	0.015	0.095	0.011	0.0059

PFAS in Waters Trace Comprehensive						
Our Reference		398689-1	398689-2	398689-3	398689-4	398689-38
Your Reference	UNITS	Spring 2	Site 105	Crisps Creek	ED1	GWJH
Date Sampled		16/12/2025	17/12/2025	16/12/2025	18/12/2025	17/12/2025
Type of sample		Water	Water	Water	Water	Water
Total Positive PFAS	µg/L	0.23	0.15	0.57	4.4	0.012

Method ID	Methodology Summary
Inorg-001	pH - Measured using pH meter and electrode. Please note that the results for water analyses are indicative only, as analysis outside of the APHA storage times.
Inorg-002	Conductivity and Salinity - measured using a conductivity cell.
Inorg-003	Oil & Grease - determine gravimetrically following extraction with Hexane, in accordance with APHA latest edition, 5520-B.
Inorg-006	Alkalinity - determined titrimetrically in accordance with APHA latest edition, 2320-B.
Inorg-018	Total Dissolved Solids - determined gravimetrically. The solids are dried at 180+/-10°C. NOTE: Where the EC of the sample is <100µS/cm, the TDS will typically be below 70mg/L (as the sample is very likely to be at least drinking water quality). Therefore to ensure data quality for TDS, the TDS is typically calculated as per the equation below:- TDS = EC * 0.6
Inorg-019	Suspended Solids - determined gravimetricially by filtration of the sample. The samples are dried at 104+/-5°C.
Inorg-026	Fluoride determined by ion selective electrode (ISE) in accordance with APHA latest edition, 4500-F-C.
Inorg-031	Total Phenolics by segmented flow analyser (in line distillation with colourimetric finish). Solids are extracted in a caustic media prior to analysis.
Inorg-040	The concentrations of the major ions (mg/L) are converted to milliequivalents and summed. The ionic balance should be within +/- 15% ie total anions = total cations +/-15%.
Inorg-055	Nitrate - determined colourimetrically. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-055	Nitrite - determined colourimetrically based on APHA latest edition NO2- B. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a water extraction.
Inorg-057	Ammonia - determined colourimetrically, based on APHA latest edition 4500-NH3 F. Waters samples are filtered on receipt prior to analysis. Soils are analysed following a KCl extraction.
Inorg-062	TKN - determined colourimetrically based on APHA latest edition 4500 Norg. Alternatively, TKN can be derived from calculation (Total N - NOx).
Inorg-067	Samples are digested in acid with a known excess of potassium dichromate then titrated against ammonium ferrous sulphate in accordance with APHA latest edition 5220 C.
Inorg-079	TOC determined using a TOC analyser using the combustion method. Dissolved requires filtering prior to determination. Analysis using APHA latest edition 5310B.
Inorg-081	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA latest edition, 4110-B. Waters samples are filtered on receipt prior to analysis. Alternatively determined by colourimetry/turbidity using Discrete Analyser.
Inorg-091	BOD - Analysed in accordance with APHA latest edition 5210 D and in house INORG-091.

Method ID	Methodology Summary
Inorg-118	Hexavalent Chromium (Cr6+) - determined firstly by separation using ion chromatography followed by the colourimetric analytical finish. Water samples are ideally field filtered into alkali preserved containers prior to receipt for dissolved Cr6+ analysis. Unfiltered water samples into alkali preserved containers (or pH adjusted to pH 8-9 on receipt) can be classified as Total (unfiltered) Cr6+. Please note, for 'Total/Unfiltered' Trivalent Chromium in waters [calculated], these results may be exaggerated due to the digestive limitation of 'Total/Unfiltered' Hexavalent Chromium in NaOH at pH 8-9 compared to more comprehensive digestion for Total Chromium using the mineral acids HNO3 and HCl. Solid (includes soils, filters, paints, swabs for example) samples are extracted in a buffered catalysed solution prior to the analytical finish above. Water extractable options are available (e.g. as an option for filters) on request. Impingers may need pH adjusting to pH 8-9 prior to IC-colourimetric analytical finish.
Metals-020	Determination of various metals/elements by ICP-AES. Total Phosphate determined stochiometrically from Phosphorus (assumed to be present as Phosphate). Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation. Submission of low masses of sample e.g. for dust samples, may result in raised PQLs. Where molecular anion forms are calculated from an element (e.g. SO4 from S or PO4 from P stoichiometrically), the assumption is that the element is only present in that molecular anion form.
Metals-021	Determination of Mercury by Cold Vapour AAS.
Metals-022	Determination of various metals by ICP-MS. Please note for Bromine and Iodine, any forms of these elements that are present are included together in the one result reported for each of these two elements. Where salts (oxides, chlorides etc.) are calculated from the element concentration stoichiometrically there is no guarantee that the salt form is completely soluble in the acids used in the preparation.
Org-020	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-FID. F2 = (>C10-C16)-Naphthalene as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater (HSLs Tables 1A (3, 4)). Note Naphthalene is determined from the VOC analysis.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS.
Org-022/025	Soil samples are extracted with dichloromethane/acetone and waters with dichloromethane and analysed by GC-MS/GC-MSMS. Note, the Total +ve reported DDD+DDE+DDT PQL is reflective of the lowest individual PQL and is therefore simply a sum of the positive individually report DDD+DDE+DDT.
Org-022/025	Soil samples are extracted with Dichloromethane/Acetone and waters with Dichloromethane and analysed by GC-MS/GC-MSMS. Benzo(a)pyrene TEQ as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater - 2013.
Org-023	Water samples are analysed directly by purge and trap GC-MS.
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater.

Method ID	Methodology Summary
Org-023	Soil samples are extracted with methanol and spiked into water prior to analysing by purge and trap GC-MS. Water samples are analysed directly by purge and trap GC-MS. F1 = (C6-C10)-BTEX as per NEPM B1 Guideline on Investigation Levels for Soil and Groundwater. Note, the Total +ve Xylene PQL is reflective of the lowest individual PQL and is therefore "Total +ve Xylenes" is simply a sum of the positive individual Xylenes.
Org-029	Soil samples are extracted with basified Methanol. Waters and soil extracts are directly injected and/or concentrated/extracted using SPE. TCLPs/ASLP leachates are centrifuged, the supernatant is then analysed (including amendment with solvent) - as per the option in AS4439.3. Analysis is undertaken with LC-MS/MS. PFAS results include the sum of branched and linear isomers where applicable. Please note that PFAS results are corrected for Extracted Internal Standards (QSM terminology), which are mass labelled analytes added prior to sample preparation to assess matrix effects and verify processing of the sample. PFAS analytes without a commercially available mass labelled analogue are corrected vs a closely eluting mass labelled PFAS compound. Surrogates are also reported, in this context they are mass labelled PFAS compounds added prior to extraction but are used as monitoring compounds only (not used for result correction). Envicarb (or similar) is used discretionally to remove interfering matrix components. Please contact the laboratory if estimates of Measurement Uncertainty are required as per WA DER.

QUALITY CONTROL: vTRH(C6-C10)/BTEXN in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W5	[NT]
Date extracted	-			24/12/2025	[NT]	[NT]	[NT]	[NT]	24/12/2025	[NT]
Date analysed	-			24/12/2025	[NT]	[NT]	[NT]	[NT]	24/12/2025	[NT]
TRH C_6 - C_9	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	117	[NT]
TRH C_6 - C_{10}	µg/L	10	Org-023	<10	[NT]	[NT]	[NT]	[NT]	117	[NT]
Benzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	116	[NT]
Toluene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Ethylbenzene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	117	[NT]
m+p-xylene	µg/L	2	Org-023	<2	[NT]	[NT]	[NT]	[NT]	118	[NT]
o-xylene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	118	[NT]
Naphthalene	µg/L	1	Org-023	<1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate Dibromofluoromethane	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	103	[NT]
Surrogate Toluene-d8	%		Org-023	100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate 4-Bromofluorobenzene	%		Org-023	98	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: svTRH (C10-C40) in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W4	[NT]
Date extracted	-			22/12/2025	[NT]	[NT]	[NT]	[NT]	22/12/2025	[NT]
Date analysed	-			23/12/2025	[NT]	[NT]	[NT]	[NT]	23/12/2025	[NT]
TRH C_{10} - C_{14}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH C_{15} - C_{28}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH C_{29} - C_{36}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
TRH >C_{10} - C_{16}	µg/L	50	Org-020	<50	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH >C_{16} - C_{34}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	96	[NT]
TRH >C_{34} - C_{40}	µg/L	100	Org-020	<100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Surrogate o-Terphenyl	%		Org-020	91	[NT]	[NT]	[NT]	[NT]	92	[NT]

QUALITY CONTROL: PAHs in Water - Trace Level						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			22/12/2025	[NT]	[NT]	[NT]	[NT]	22/12/2025	[NT]
Date analysed	-			23/12/2025	[NT]	[NT]	[NT]	[NT]	23/12/2025	[NT]
Naphthalene	µg/L	0.02	Org-022/025	<0.02	[NT]	[NT]	[NT]	[NT]	78	[NT]
Acenaphthylene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Acenaphthene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	96	[NT]
Fluorene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	74	[NT]
Phenanthrene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	103	[NT]
Anthracene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fluoranthene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	93	[NT]
Pyrene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	99	[NT]
Benzo(a)anthracene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chrysene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	63	[NT]
Benzo(b,j+k)fluoranthene	µg/L	0.02	Org-022/025	<0.02	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(a)pyrene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	63	[NT]
Dibenzo(a,h)anthracene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Indeno(1,2,3-c,d)pyrene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Benzo(g,h,i)perylene	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate p-Terphenyl-d14	%		Org-022/025	93	[NT]	[NT]	[NT]	[NT]	94	[NT]

QUALITY CONTROL: OCPs in Water - Trace Level					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			22/12/2025	[NT]	[NT]	[NT]	[NT]	22/12/2025	[NT]
Date analysed	-			23/12/2025	[NT]	[NT]	[NT]	[NT]	23/12/2025	[NT]
alpha-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	87	[NT]
HCB	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
beta-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	95	[NT]
gamma-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Heptachlor	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	82	[NT]
delta-BHC	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Aldrin	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	82	[NT]
Heptachlor Epoxide	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	86	[NT]
gamma-Chlordane	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
alpha-Chlordane	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan I	µg/L	0.002	Org-022/025	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDE	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	77	[NT]
Dieldrin	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	96	[NT]
Endrin	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	78	[NT]
Endosulfan II	µg/L	0.002	Org-022/025	<0.002	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
pp-DDD	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	95	[NT]
pp-DDT	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Endosulfan Sulphate	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	85	[NT]
Methoxychlor	µg/L	0.001	Org-022/025	<0.001	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	92	[NT]	[NT]	[NT]	[NT]	90	[NT]

QUALITY CONTROL: OP in water LL ANZECCF/ADWG					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date extracted	-			22/12/2025	[NT]	[NT]	[NT]	[NT]	22/12/2025	[NT]
Date analysed	-			23/12/2025	[NT]	[NT]	[NT]	[NT]	23/12/2025	[NT]
Dichlorvos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	97	[NT]
Mevinphos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Phorate	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Dimethoate	µg/L	0.1	Org-022/025	<0.1	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Diazinon	µg/L	0.01	Org-022/025	<0.01	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Disulfoton	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Chlorpyriphos-methyl	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion-Methyl	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ronnel	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	76	[NT]
Fenitrothion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	111	[NT]
Malathion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	95	[NT]
Chlorpyriphos	µg/L	0.009	Org-022/025	<0.009	[NT]	[NT]	[NT]	[NT]	97	[NT]
Fenthion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Parathion	µg/L	0.004	Org-022/025	<0.004	[NT]	[NT]	[NT]	[NT]	119	[NT]
Bromophos ethyl	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Methidathion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Fenamiphos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Ethion	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	101	[NT]
Phosalone	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Azinphos-methyl (Guthion)	µg/L	0.02	Org-022/025	<0.02	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Coumaphos	µg/L	0.05	Org-022/025	<0.05	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]
Surrogate 4-Chloro-3-NBTF	%		Org-022/025	92	[NT]	[NT]	[NT]	[NT]	90	[NT]

QUALITY CONTROL: Total Phenolics in Water					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	398689-26
Date extracted	-			23/12/2025	25	23/12/2025	23/12/2025		23/12/2025	23/12/2025
Date analysed	-			23/12/2025	25	23/12/2025	23/12/2025		23/12/2025	23/12/2025
Total Phenolics (as Phenol)	mg/L	0.05	Inorg-031	<0.05	25	<0.05	<0.05	0	98	89

QUALITY CONTROL: All metals in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W9	398689-2
Date prepared	-			24/12/2025	1	24/12/2025	24/12/2025		24/12/2025	24/12/2025
Date analysed	-			24/12/2025	1	24/12/2025	24/12/2025		24/12/2025	24/12/2025
Aluminium-Total	µg/L	1	Metals-022	<1	1	490	510	4	92	96
Arsenic-Total	µg/L	1	Metals-022	<1	1	2	2	0	91	95
Barium-Total	µg/L	1	Metals-022	<1	1	29	29	0	89	97
Cadmium-Total	µg/L	0.1	Metals-022	<0.1	1	5.1	5.3	4	89	94
Chromium-Total	µg/L	1	Metals-022	<1	1	1	1	0	84	95
Copper-Total	µg/L	1	Metals-022	<1	1	70	76	8	85	91
Cobalt-Total	µg/L	1	Metals-022	<1	1	2	2	0	85	94
Mercury-Total	µg/L	0.05	Metals-021	<0.05	1	<0.05	<0.05	0	87	[NT]
Lead-Total	µg/L	1	Metals-022	<1	1	42	43	2	88	95
Zinc-Total	µg/L	1	Metals-022	<1	1	980	1000	2	87	87
Manganese-Total	µg/L	1	Metals-022	<1	1	1200	1200	0	83	87
Nickel-Total	µg/L	1	Metals-022	<1	[NT]	[NT]	[NT]	[NT]	84	[NT]
Iron-Total	µg/L	10	Metals-022	<10	[NT]	[NT]	[NT]	[NT]	86	[NT]

QUALITY CONTROL: All metals in water - total						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	398689-4
Date prepared	-			[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	24/12/2025
Date analysed	-			[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	24/12/2025
Mercury-Total	µg/L	0.05	Metals-021	[NT]	[NT]	[NT]	[NT]	[NT]	[NT]	97

QUALITY CONTROL: All metals in water-dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W8	398689-28
Date prepared	-			24/12/2025	25	24/12/2025	24/12/2025		24/12/2025	24/12/2025
Date analysed	-			24/12/2025	25	24/12/2025	24/12/2025		24/12/2025	24/12/2025
Aluminium-Dissolved	µg/L	1	Metals-022	<1	25	10	10	0	93	91
Barium-Dissolved	µg/L	1	Metals-022	<1	25	41	40	2	92	94
Arsenic-Dissolved	µg/L	1	Metals-022	<1	25	<1	<1	0	93	104
Cadmium-Dissolved	µg/L	0.1	Metals-022	<0.1	25	0.5	0.5	0	91	93
Cobalt-Dissolved	µg/L	1	Metals-022	<1	25	2	2	0	88	93
Chromium-Dissolved	µg/L	1	Metals-022	<1	25	<1	<1	0	88	95
Copper-Dissolved	µg/L	1	Metals-022	<1	25	2	2	0	89	89
Iron-Dissolved	µg/L	10	Metals-022	<10	25	30	30	0	87	88
Mercury-Dissolved	µg/L	0.05	Metals-021	<0.05	25	<0.05	<0.05	0	95	91
Lead-Dissolved	µg/L	1	Metals-022	<1	25	<1	<1	0	93	92
Zinc-Dissolved	µg/L	1	Metals-022	<1	25	110	110	0	90	#
Manganese-Dissolved	µg/L	1	Metals-022	<1	25	160	160	0	87	94

QUALITY CONTROL: All metals in water-dissolved						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	30	24/12/2025	24/12/2025		[NT]	[NT]
Date analysed	-			[NT]	30	24/12/2025	24/12/2025		[NT]	[NT]
Aluminium-Dissolved	µg/L	1	Metals-022	[NT]	30	13	[NT]		[NT]	[NT]
Barium-Dissolved	µg/L	1	Metals-022	[NT]	30	2	[NT]		[NT]	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	[NT]	30	<1	[NT]		[NT]	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	[NT]	30	0.5	[NT]		[NT]	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	[NT]	30	<1	[NT]		[NT]	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	[NT]	30	1	[NT]		[NT]	[NT]
Copper-Dissolved	µg/L	1	Metals-022	[NT]	30	4	[NT]		[NT]	[NT]
Iron-Dissolved	µg/L	10	Metals-022	[NT]	30	20	[NT]		[NT]	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	[NT]	30	<0.05	<0.05	0	[NT]	[NT]
Lead-Dissolved	µg/L	1	Metals-022	[NT]	30	<1	[NT]		[NT]	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	[NT]	30	100	[NT]		[NT]	[NT]
Manganese-Dissolved	µg/L	1	Metals-022	[NT]	30	6	[NT]		[NT]	[NT]

QUALITY CONTROL: All metals in water-dissolved					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	24/12/2025	24/12/2025		[NT]	[NT]
Date analysed	-			[NT]	31	24/12/2025	24/12/2025		[NT]	[NT]
Aluminium-Dissolved	µg/L	1	Metals-022	[NT]	31	9	9	0	[NT]	[NT]
Barium-Dissolved	µg/L	1	Metals-022	[NT]	31	8	8	0	[NT]	[NT]
Arsenic-Dissolved	µg/L	1	Metals-022	[NT]	31	<1	<1	0	[NT]	[NT]
Cadmium-Dissolved	µg/L	0.1	Metals-022	[NT]	31	0.3	0.3	0	[NT]	[NT]
Cobalt-Dissolved	µg/L	1	Metals-022	[NT]	31	<1	<1	0	[NT]	[NT]
Chromium-Dissolved	µg/L	1	Metals-022	[NT]	31	<1	<1	0	[NT]	[NT]
Copper-Dissolved	µg/L	1	Metals-022	[NT]	31	13	13	0	[NT]	[NT]
Iron-Dissolved	µg/L	10	Metals-022	[NT]	31	20	20	0	[NT]	[NT]
Mercury-Dissolved	µg/L	0.05	Metals-021	[NT]	31	<0.05	[NT]		[NT]	[NT]
Lead-Dissolved	µg/L	1	Metals-022	[NT]	31	<1	<1	0	[NT]	[NT]
Zinc-Dissolved	µg/L	1	Metals-022	[NT]	31	81	82	1	[NT]	[NT]
Manganese-Dissolved	µg/L	1	Metals-022	[NT]	31	43	43	0	[NT]	[NT]

QUALITY CONTROL: Metals in Waters - Acid extractable						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	398689-4
Date prepared	-			23/12/2025	1	23/12/2025	23/12/2025		23/12/2025	23/12/2025
Date analysed	-			24/12/2025	1	24/12/2025	24/12/2025		24/12/2025	24/12/2025
Phosphorus - Total	mg/L	0.02	Metals-020	<0.02	1	0.28	0.29	4	106	102

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	398689-1
Date prepared	-			22/12/2025	1	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Date analysed	-			22/12/2025	1	22/12/2025	22/12/2025		22/12/2025	22/12/2025
BOD	mg/L	5	Inorg-091	<5	1	33	[NT]		84	[NT]
COD	mg O_2/L	50	Inorg-067	<50	1	90	90	0	94	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	<2	1	4500	4500	0	98	[NT]
Fluoride, F	mg/L	0.1	Inorg-026	<0.1	1	0.5	0.5	0	98	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	96	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	<0.005	1	<0.005	<0.005	0	91	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	<0.005	1	0.02	0.03	40	92	[NT]
Total Organic Carbon	mg/L	1	Inorg-079	<1	1	26	[NT]		93	118
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	<5	1	4200	4100	2	101	[NT]
Total Suspended Solids	mg/L	5	Inorg-019	<5	1	29	[NT]		88	[NT]
pH	pH Units		Inorg-001	[NT]	1	7.2	7.2	0	99	[NT]
Oil & Grease (LLE)	mg/L	5	Inorg-003	<5	12	<5	[NT]		82	[NT]
TKN in water	mg/L	0.1	Inorg-062	<0.1	1	1.6	[NT]		111	[NT]
Hex Chromium, Cr^{6+} (total/unfiltered)	mg/L	0.005	Inorg-118	<0.005	1	<0.005	[NT]		105	[NT]
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	0.001	Inorg-118	<0.001	15	<0.001	<0.001	0	99	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	398689-2
Date prepared	-			[NT]	2	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Date analysed	-			[NT]	2	22/12/2025	22/12/2025		22/12/2025	22/12/2025
BOD	mg/L	5	Inorg-091	[NT]	2	21	[NT]		[NT]	[NT]
COD	mg O_2/L	50	Inorg-067	[NT]	2	50	[NT]		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	2	4000	[NT]		97	[NT]
Fluoride, F	mg/L	0.1	Inorg-026	[NT]	2	0.3	[NT]		[NT]	98
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	2	0.057	[NT]		96	109
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	2	<0.005	[NT]		91	108
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	2	<0.005	[NT]		91	97
Total Organic Carbon	mg/L	1	Inorg-079	[NT]	2	29	31	7	99	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	2	2900	[NT]		89	[NT]
Total Suspended Solids	mg/L	5	Inorg-019	[NT]	2	8	[NT]		86	[NT]
pH	pH Units		Inorg-001	[NT]	2	8.2	[NT]		98	[NT]
TKN in water	mg/L	0.1	Inorg-062	[NT]	2	<0.1	[NT]		[NT]	[NT]
Hex Chromium, Cr^{6+} (total/unfiltered)	mg/L	0.005	Inorg-118	[NT]	2	<0.005	[NT]		[NT]	[NT]
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	0.001	Inorg-118	[NT]	20	<0.001	[NT]		[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	398689-16
Date prepared	-			[NT]	11	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Date analysed	-			[NT]	11	22/12/2025	22/12/2025		22/12/2025	22/12/2025
BOD	mg/L	5	Inorg-091	[NT]	11	360	[NT]		[NT]	[NT]
COD	mg O_2 /L	50	Inorg-067	[NT]	11	2200	[NT]		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	11	29000	29000	0	101	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	11	1500	1400	7	106	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	15	<0.005	[NT]		91	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	11	0.15	0.15	0	91	[NT]
Total Organic Carbon	mg/L	1	Inorg-079	[NT]	12	6	[NT]		[NT]	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	11	21000	21000	0	87	[NT]
Total Suspended Solids	mg/L	5	Inorg-019	[NT]	11	17	[NT]		[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	11	8.8	8.8	0	99	[NT]
TKN in water	mg/L	0.1	Inorg-062	[NT]	12	0.5	[NT]		[NT]	[NT]
Hexavalent Chromium, Cr^{6+} Low Level	mg/L	0.001	Inorg-118	[NT]	31	<0.001	<0.001	0	[NT]	91

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	398689-28
Date prepared	-			[NT]	12	22/12/2025	22/12/2025		[NT]	22/12/2025
Date analysed	-			[NT]	12	22/12/2025	22/12/2025		[NT]	22/12/2025
BOD	mg/L	5	Inorg-091	[NT]	12	24	[NT]		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	12	1300	[NT]		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	12	0.070	[NT]		[NT]	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	12	1100	[NT]		[NT]	[NT]
Total Suspended Solids	mg/L	5	Inorg-019	[NT]	12	26	[NT]		[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	12	7.8	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	15	<0.005	[NT]		[NT]	[NT]
Total Organic Carbon	mg/L	1	Inorg-079	[NT]	15	<1	<1	0	[NT]	78
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	20	<0.005	[NT]		[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	398689-29
Date prepared	-			[NT]	15	22/12/2025	22/12/2025		[NT]	22/12/2025
Date analysed	-			[NT]	15	22/12/2025	22/12/2025		[NT]	22/12/2025
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	15	<2	[NT]		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	15	<0.005	[NT]		[NT]	96
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	15	<5	[NT]		[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	15	5.7	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	20	<0.005	[NT]		[NT]	75
Total Organic Carbon	mg/L	1	Inorg-079	[NT]	20	<1	[NT]		[NT]	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	21	<0.005	<0.005	0	[NT]	104

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	398689-43
Date prepared	-			[NT]	20	22/12/2025	22/12/2025		[NT]	22/12/2025
Date analysed	-			[NT]	20	22/12/2025	22/12/2025		[NT]	22/12/2025
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	20	<2	[NT]		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	20	<0.005	[NT]		[NT]	97
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	20	<5	[NT]		[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	20	5.5	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	21	<0.005	<0.005	0	[NT]	#
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	31	<0.005	[NT]		[NT]	96
Total Organic Carbon	mg/L	1	Inorg-079	[NT]	31	2	2	0	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	21	22/12/2025	22/12/2025		[NT]	[NT]
Date analysed	-			[NT]	21	22/12/2025	22/12/2025		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	21	2000	[NT]		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	21	0.05	0.051	2	[NT]	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	21	1700	1700	0	[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	21	6.1	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	31	0.03	[NT]		[NT]	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	32	<0.005	<0.005	0	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	22/12/2025	22/12/2025		[NT]	[NT]
Date analysed	-			[NT]	31	22/12/2025	22/12/2025		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	31	7600	7600	0	[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	31	0.01	[NT]		[NT]	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	31	8600	9000	5	[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	31	5.9	5.9	0	[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	32	0.04	0.04	0	[NT]	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	41	0.03	[NT]		[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	32	22/12/2025	22/12/2025		[NT]	[NT]
Date analysed	-			[NT]	32	22/12/2025	22/12/2025		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	32	1700	[NT]		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	32	0.03	0.03	0	[NT]	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	32	1500	[NT]		[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	32	7.1	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	41	0.25	[NT]		[NT]	[NT]
Nitrite as N in water	mg/L	0.005	Inorg-055	[NT]	42	0.009	0.009	0	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	22/12/2025	22/12/2025		[NT]	[NT]
Date analysed	-			[NT]	41	22/12/2025	22/12/2025		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	41	15000	[NT]		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	41	0.72	[NT]		[NT]	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	41	19000	19000	0	[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	41	7.3	[NT]		[NT]	[NT]
Nitrate as N in water	mg/L	0.005	Inorg-055	[NT]	42	67	67	0	[NT]	[NT]

QUALITY CONTROL: Miscellaneous Inorganics						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	42	22/12/2025	22/12/2025		[NT]	[NT]
Date analysed	-			[NT]	42	22/12/2025	22/12/2025		[NT]	[NT]
Electrical Conductivity	µS/cm	2	Inorg-002	[NT]	42	9400	[NT]		[NT]	[NT]
Ammonia as N in water	mg/L	0.005	Inorg-057	[NT]	42	0.30	0.30	0	[NT]	[NT]
Total Dissolved Solids (grav)	mg/L	5	Inorg-018	[NT]	42	8700	[NT]		[NT]	[NT]
pH	pH Units		Inorg-001	[NT]	42	6.5	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	398689-2
Date prepared	-			22/12/2025	1	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Date analysed	-			22/12/2025	1	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	240	250	4	92	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	2	2	0	93	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	290	310	7	92	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	<0.5	1	370	420	13	88	[NT]
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	1	2100	2400	13	[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	<5	1	<5	<5	0	[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	1	120	120	0	[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	1	<5	<5	0	[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	<5	1	120	120	0	108	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	<1	1	2000	1800	11	104	#
Chloride, Cl	mg/L	1	Inorg-081	<1	1	670	680	1	101	#
Ionic Balance	%		Inorg-040	[NT]	1	-6.0	2.0	-400	[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W2	398689-5
Date prepared	-			[NT]	11	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Date analysed	-			[NT]	11	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	12	73	75	3	86	116
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	12	1	1	0	91	99
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	12	73	73	0	89	#
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	12	65	67	3	83	#
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	12	450	460	2	[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	12	<5	[NT]		[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	12	210	[NT]		[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	12	<5	[NT]		[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	12	210	[NT]		115	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	12	180	[NT]		101	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	11	5700	[NT]		97	[NT]
Ionic Balance	%		Inorg-040	[NT]	12	-7.0	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W3	398689-25
Date prepared	-			[NT]	12	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Date analysed	-			[NT]	12	22/12/2025	22/12/2025		22/12/2025	22/12/2025
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	16	<0.5	[NT]		89	#
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	16	<0.5	[NT]		92	110
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	16	<0.5	[NT]		91	#
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	16	<0.5	[NT]		86	#
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	16	<3	[NT]		[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	16	<5	[NT]		[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	16	<5	[NT]		[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	16	<5	[NT]		[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	16	<5	[NT]		[NT]	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	16	<1	<1	0	[NT]	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	12	220	[NT]		[NT]	[NT]
Ionic Balance	%		Inorg-040	[NT]	16	N/A	N/A		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	398689-30
Date prepared	-			[NT]	16	22/12/2025	23/12/2025		[NT]	22/12/2025
Date analysed	-			[NT]	16	22/12/2025	23/12/2025		[NT]	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	16	<1	<1	0	[NT]	#
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	20	<0.5	[NT]		[NT]	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	20	<0.5	[NT]		[NT]	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	20	<0.5	[NT]		[NT]	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	20	<0.5	[NT]		[NT]	[NT]
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	20	<3	[NT]		[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	20	<5	[NT]		[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	20	<5	[NT]		[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	20	<5	[NT]		[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	20	<5	[NT]		[NT]	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	20	<1	[NT]		[NT]	#
Ionic Balance	%		Inorg-040	[NT]	20	N/A	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	398689-44
Date prepared	-			[NT]	20	22/12/2025	22/12/2025		[NT]	22/12/2025
Date analysed	-			[NT]	20	22/12/2025	22/12/2025		[NT]	22/12/2025
Chloride, Cl	mg/L	1	Inorg-081	[NT]	20	<1	[NT]		[NT]	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	24	110	110	0	[NT]	#
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	24	3	2	40	[NT]	103
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	24	1800	1700	6	[NT]	#
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	24	410	410	0	[NT]	#
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	24	2000	2000	0	[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	24	<5	[NT]		[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	24	65	[NT]		[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	24	<5	[NT]		[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	24	65	[NT]		[NT]	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	24	380	[NT]		[NT]	[NT]
Ionic Balance	%		Inorg-040	[NT]	24	-16	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	24	22/12/2025	22/12/2025		[NT]	[NT]
Date analysed	-			[NT]	24	22/12/2025	22/12/2025		[NT]	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	24	5300	[NT]		[NT]	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	29	220	[NT]		[NT]	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	29	9.1	[NT]		[NT]	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	29	66	[NT]		[NT]	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	29	89	[NT]		[NT]	[NT]
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	29	900	[NT]		[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	29	<5	[NT]		[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	29	410	[NT]		[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	29	<5	[NT]		[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	29	410	[NT]		[NT]	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	29	260	260	0	[NT]	[NT]
Ionic Balance	%		Inorg-040	[NT]	29	-3.0	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	29	22/12/2025	23/12/2025		[NT]	[NT]
Date analysed	-			[NT]	29	22/12/2025	23/12/2025		[NT]	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	29	310	310	0	[NT]	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	31	470	460	2	[NT]	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	31	1	1	0	[NT]	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	31	420	440	5	[NT]	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	31	670	640	5	[NT]	[NT]
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	31	4000	3800	5	[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	31	<5	<5	0	[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	31	290	290	0	[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	31	<5	<5	0	[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	31	290	290	0	[NT]	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	31	4000	[NT]		[NT]	[NT]
Ionic Balance	%		Inorg-040	[NT]	31	-10	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance						Duplicate			Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	31	23/12/2025	23/12/2025		[NT]	[NT]
Date analysed	-			[NT]	31	23/12/2025	23/12/2025		[NT]	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	31	1100	[NT]		[NT]	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	41	400	[NT]		[NT]	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	41	4	[NT]		[NT]	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	41	2000	[NT]		[NT]	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	41	1200	[NT]		[NT]	[NT]
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	41	6100	[NT]		[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	41	<5	[NT]		[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	41	500	[NT]		[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	41	<5	[NT]		[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	41	500	[NT]		[NT]	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	41	11000	11000	0	[NT]	[NT]
Ionic Balance	%		Inorg-040	[NT]	41	-17	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	41	23/12/2025	23/12/2025		[NT]	[NT]
Date analysed	-			[NT]	41	23/12/2025	23/12/2025		[NT]	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	41	1600	1700	6	[NT]	[NT]
Calcium - Dissolved	mg/L	0.5	Metals-020	[NT]	43	400	380	5	[NT]	[NT]
Potassium - Dissolved	mg/L	0.5	Metals-020	[NT]	43	5.8	6.1	5	[NT]	[NT]
Sodium - Dissolved	mg/L	0.5	Metals-020	[NT]	43	600	580	3	[NT]	[NT]
Magnesium - Dissolved	mg/L	0.5	Metals-020	[NT]	43	780	780	0	[NT]	[NT]
Hardness (calc) equivalent $CaCO_3$	mg/L	3	Metals-020	[NT]	43	4200	4200	0	[NT]	[NT]
Hydroxide Alkalinity (OH^-) as $CaCO_3$	mg/L	5	Inorg-006	[NT]	43	<5	[NT]		[NT]	[NT]
Bicarbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	43	36	[NT]		[NT]	[NT]
Carbonate Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	43	<5	[NT]		[NT]	[NT]
Total Alkalinity as $CaCO_3$	mg/L	5	Inorg-006	[NT]	43	36	[NT]		[NT]	[NT]
Sulphate, SO4	mg/L	1	Inorg-081	[NT]	43	1700	[NT]		[NT]	[NT]
Ionic Balance	%		Inorg-040	[NT]	43	-16	[NT]		[NT]	[NT]

QUALITY CONTROL: Ion Balance					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	[NT]	[NT]
Date prepared	-			[NT]	43	23/12/2025	22/12/2025		[NT]	[NT]
Date analysed	-			[NT]	43	23/12/2025	22/12/2025		[NT]	[NT]
Chloride, Cl	mg/L	1	Inorg-081	[NT]	43	4200	[NT]		[NT]	[NT]

QUALITY CONTROL: PFAS in Waters Trace Comprehensive					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Date prepared	-			29/12/2025	[NT]	[NT]	[NT]	[NT]	29/12/2025	[NT]
Date analysed	-			29/12/2025	[NT]	[NT]	[NT]	[NT]	29/12/2025	[NT]
Perfluoropropanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	113	[NT]
Perfluorobutanesulfonic acid	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	109	[NT]
Perfluoropentanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	109	[NT]
Perfluorohexanesulfonic acid - PFHxS	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluoroheptanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorooctanesulfonic acid PFOS	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluorononanesulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	100	[NT]
Perfluorodecanesulfonic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	92	[NT]
Perfluorobutanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	96	[NT]
Perfluoropentanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluorohexanoic acid	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluoroheptanoic acid	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	106	[NT]
Perfluorooctanoic acid PFOA	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	95	[NT]
Perfluorononanoic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	109	[NT]
Perfluorodecanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	104	[NT]
Perfluoroundecanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	103	[NT]
Perfluorododecanoic acid	µg/L	0.005	Org-029	<0.005	[NT]	[NT]	[NT]	[NT]	99	[NT]
Perfluorotridecanoic acid	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	125	[NT]
Perfluorotetradecanoic acid	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	108	[NT]
4:2 FTS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	116	[NT]
6:2 FTS	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	110	[NT]
8:2 FTS	µg/L	0.0004	Org-029	<0.0004	[NT]	[NT]	[NT]	[NT]	100	[NT]
10:2 FTS	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	91	[NT]
3:3-Fluorotelomer carboxylic acid	µg/L	0.005	Org-029	<0.005	[NT]	[NT]	[NT]	[NT]	104	[NT]
5:3-Fluorotelomer carboxylic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	96	[NT]
7:3-Fluorotelomer carboxylic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	79	[NT]
Perfluorooctane sulfonamide	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	95	[NT]
N-Methyl perfluorooctane sulfonamide	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	83	[NT]
N-Ethyl perfluorooctanesulfon amide	µg/L	0.1	Org-029	<0.1	[NT]	[NT]	[NT]	[NT]	79	[NT]
N-Me perfluorooctanesulfonamid oethanol	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	99	[NT]

QUALITY CONTROL: PFAS in Waters Trace Comprehensive					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
N-Et perfluorooctanesulfonamid oethanol	µg/L	0.5	Org-029	<0.5	[NT]	[NT]	[NT]	[NT]	101	[NT]
MePerfluorooctanesulf-amid oacetic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	101	[NT]
EtPerfluorooctanesulf- amid oacetic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	97	[NT]
6:2 FTAB	µg/L	0.05	Org-029	<0.05	[NT]	[NT]	[NT]	[NT]	98	[NT]
Perfluoro(2-ethoxyethane)sulfonic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	115	[NT]
Nonafluoro-3,6-dioxaheptanoic acid	µg/L	0.002	Org-029	<0.002	[NT]	[NT]	[NT]	[NT]	109	[NT]
Perfluoro-4-methoxybutanoic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	107	[NT]
Perfluoro-3-methoxypropanoic acid	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	103	[NT]
ADONA	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	115	[NT]
9Cl-PF3ONS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	97	[NT]
11Cl-PF3OUdS	µg/L	0.001	Org-029	<0.001	[NT]	[NT]	[NT]	[NT]	82	[NT]
HFPO DA (GenX)	µg/L	0.01	Org-029	<0.01	[NT]	[NT]	[NT]	[NT]	97	[NT]
Perfluoroethylcyclohexanesulfonic acid	µg/L	0.0002	Org-029	<0.0002	[NT]	[NT]	[NT]	[NT]	105	[NT]
Surrogate $^{13}C_8$ *PFOS*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	99	[NT]
Surrogate $^{13}C_2$ *PFOA*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{13}C_3$ *PFBS*	%		Org-029	91	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD $^{18}O_2$ *PFHxS*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	90	[NT]
Extracted ISTD $^{13}C_4$ *PFOS*	%		Org-029	96	[NT]	[NT]	[NT]	[NT]	91	[NT]
Extracted ISTD $^{13}C_4$ *PFBA*	%		Org-029	104	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD $^{13}C_3$ *PFPeA*	%		Org-029	93	[NT]	[NT]	[NT]	[NT]	84	[NT]
Extracted ISTD $^{13}C_2$ *PFHxA*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	92	[NT]
Extracted ISTD $^{13}C_4$ *PFHpA*	%		Org-029	89	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_4$ *PFOA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD $^{13}C_5$ *PFNA*	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	93	[NT]

QUALITY CONTROL: PFAS in Waters Trace Comprehensive					Duplicate				Spike Recovery %	
Test Description	Units	PQL	Method	Blank	#	Base	Dup.	RPD	LCS-W1	[NT]
Extracted ISTD $^{13}C_2$ *PFDA*	%		Org-029	99	[NT]	[NT]	[NT]	[NT]	89	[NT]
Extracted ISTD $^{13}C_2$ *PFUnDA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	84	[NT]
Extracted ISTD $^{13}C_2$ *PFDoDA*	%		Org-029	92	[NT]	[NT]	[NT]	[NT]	82	[NT]
Extracted ISTD $^{13}C_2$ *PFTeDA*	%		Org-029	55	[NT]	[NT]	[NT]	[NT]	56	[NT]
Extracted ISTD $^{13}C_2$ *4:2FTS*	%		Org-029	97	[NT]	[NT]	[NT]	[NT]	85	[NT]
Extracted ISTD$^{13}C_2$ *6:2FTS*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD $^{13}C_2$ *8:2FTS*	%		Org-029	129	[NT]	[NT]	[NT]	[NT]	122	[NT]
Extracted ISTD $^{13}C_8$ *FOSA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	89	[NT]
Extracted ISTD d_3 *N MeFOSA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD d_5 *N EtFOSA*	%		Org-029	102	[NT]	[NT]	[NT]	[NT]	99	[NT]
Extracted ISTD d_7 *N MeFOSE*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	100	[NT]
Extracted ISTD d_9 *N EtFOSE*	%		Org-029	100	[NT]	[NT]	[NT]	[NT]	98	[NT]
Extracted ISTD d_3 *N MeFOSAA*	%		Org-029	107	[NT]	[NT]	[NT]	[NT]	102	[NT]
Extracted ISTD d_5 *N EtFOSAA*	%		Org-029	106	[NT]	[NT]	[NT]	[NT]	95	[NT]
Extracted ISTD $^{13}C_3$ GENX	%		Org-029	101	[NT]	[NT]	[NT]	[NT]	97	[NT]

Result Definitions

NT	Not tested
NA	Test not required
INS	Insufficient sample for this test
PQL	Practical Quantitation Limit
<	Less than
>	Greater than
RPD	Relative Percent Difference
LCS	Laboratory Control Sample
NS	Not specified
NEPM	National Environmental Protection Measure
NR	Not Reported

Quality Control Definitions

Blank	This is the component of the analytical signal which is not derived from the sample but from reagents, glassware etc, can be determined by processing solvents and reagents in exactly the same manner as for samples.
Duplicate	This is the complete duplicate analysis of a sample from the process batch. If possible, the sample selected should be one where the analyte concentration is easily measurable.
Matrix Spike	A portion of the sample is spiked with a known concentration of target analyte. The purpose of the matrix spike is to monitor the performance of the analytical method used and to determine whether matrix interferences exist.
LCS (Laboratory Control Sample)	This comprises either a standard reference material or a control matrix (such as a blank sand or water) fortified with analytes representative of the analyte class. It is simply a check sample.
Surrogate Spike	Surrogates are known additions to each sample, blank, matrix spike and LCS in a batch, of compounds which are similar to the analyte of interest, however are not expected to be found in real samples.

Laboratory Acceptance Criteria

Duplicate sample and matrix spike recoveries may not be reported on smaller jobs, however, were analysed at a frequency to meet or exceed NEPM requirements. All samples are tested in batches of 20. The duplicate sample RPD and matrix spike recoveries for the batch were within the laboratory acceptance criteria.

Filters, swabs, wipes, tubes and badges will not have duplicate data as the whole sample is generally extracted during sample extraction.

Spikes for Physical and Aggregate Tests are not applicable.

For VOCs in water samples, three vials are required for duplicate or spike analysis.

Duplicates: >10xPQL - RPD acceptance criteria will vary depending on the analytes and the analytical techniques but is typically in the range 20%-50% – see ELN-P05 QA/QC tables for details; <10xPQL - RPD are higher as the results approach PQL and the estimated measurement uncertainty will statistically increase.

Air volumes are typically provided by customers (often as flow rate(s) and sampling time(s) and/or simply volumes) sampled or exposure times (determines 'volume' passive badges are exposed to)). Hence in such circumstances the volume measurement is inevitably not covered by Envirolab's NATA accreditation. An exception may occur where Envirolab Newcastle does the sampling where accreditation exists for certain types of sampling and hence volume determination(s). Note air volumes are often used to determine concentrations for dust and/or analyses on filters, sorbents and in impingers. For canister sampling, the air volume is covered by Envirolab's NATA accreditation.

Matrix Spikes, LCS and Surrogate recoveries: Generally 70-130% for inorganics/metals (not SPOCAS); 60-140% for organics/SPOCAS (+/-50% surrogates) and 10-140% for labile SVOCs (including labile surrogates), ultra trace organics and speciated phenols is acceptable.

In circumstances where no duplicate and/or sample spike has been reported at 1 in 10 and/or 1 in 20 samples respectively, the sample volume submitted was insufficient in order to satisfy laboratory QA/QC protocols.

When samples are received where certain analytes are outside of recommended technical holding times (THTs), the analysis has proceeded. Where analytes are on the verge of breaching THTs, every effort will be made to analyse within the THT or as soon as practicable.

Where sampling dates are not provided, Envirolab are not in a position to comment on the validity of the analysis where recommended technical holding times may have been breached.

Measurement Uncertainty estimates can be downloaded from the Envirolab Resources website or obtained directly by contacting the laboratory.

Analysis of aqueous samples typically involves the extraction/digestion and/or analysis of the liquid phase only (i.e. NOT any settled sediment phase but inclusive of suspended particles if present), unless stipulated on the Envirolab COC and/or by correspondence. Notable exceptions include certain Physical Tests (pH/EC/BOD/COD/Apparent Colour etc.), Solids testing, total recoverable metals and PFAS where solids are included by default.

For Dust Deposit Gauge (DDG) analysis the sampling, sampling period and funnel exposure area do not fall under Envirolab's NATA accreditation (unless the Newcastle laboratory where responsible for the sampling), hence the annotation on the DDG units of reporting.

Urine Analysis - The BEI values listed are taken from the 2022 edition of "TLVs and BEIs Threshold Limits" by ACGIH.

Report Comments

MISC_INORG: # Percent recovery not reported due to the high concentration of the analyte/s in the sample/s. However, an acceptable recovery was obtained for the LCS.

TRH Water(C10-C40) NEPM - # Percent recovery for the surrogate is not possible to report as the high concentration of analytes in sample/s 398689-26 have caused interference.

Dissolved Metals: no filtered, preserved sample was received for #26, therefore the unpreserved sample was filtered through 0.45µm filter at the lab.
Note: there is a possibility some elements may be underestimated.

All metals in water-dissolved - # Percent recovery is not applicable due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.

Total metals: no unfiltered, preserved sample was received for samples #1,3,12 & 14, therefore analysis was conducted from the unpreserved sample bottle.
Note: there is a possibility some elements may be underestimated.

Ion Balance - # Percent recovery is not applicable due to the high concentration of the element/s in the sample/s. However an acceptable recovery was obtained for the LCS.
Some high ion balances results have been obtained, this is due to the presence of other analytes which have not been taken in consideration in the final calculation. Samples with high ion balances have been retested for cations and anions and the results have been confirmed.

vTRH & BTEXN in Water NEPM - The PQL for 398689-26 has been raised due to the sample matrix (turbid) thereby requiring a dilution.

PFAS in water TRACE Comp - For PFAS Extracted Internal Standards denoted with # or outside the 50-150% acceptance range, the respective target analyte results may be unaffected, in other circumstances the PQL has been raised to accommodate the outlier(s).

PAHs in Water - Trace Level - The PQL has been raised due to interferences from analytes (other than those being tested) in sample 398689-26.

CERTIFICATE OF ANALYSIS

Work Order	: **ES2540987**	Page	: 1 of 4
Client	: **CONSULTING EARTH SCIENTISTS**	Laboratory	: Environmental Division Sydney
Contact	: THOMAS MARBACK	Contact	: Customer Services ES
Address	: Suite 3, Level 1 55-65 Grandview Street PYMBLE NSW, AUSTRALIA 2073	Address	: 277-289 Woodpark Road Smithfield NSW Australia 2164
Telephone	: ----	Telephone	: +61-2-8784 8555
Project	: CES220507-VMA Woodlawn Landfill Monitoring	Date Samples Received	: 22-Dec-2025 15:15
Order number	: ----	Date Analysis Commenced	: 23-Dec-2025
C-O-C number	: ----	Issue Date	: 02-Jan-2026 16:27
Sampler	: AL		
Site	: ----		
Quote number	: ES24CONEAR0001		
No. of samples received	: 3		
No. of samples analysed	: 3		

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

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*
Dian Dao	Senior Chemist - Inorganics	Sydney Inorganics, 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.

- 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.
- EP030 : The DO depletion is less than 2mg/L, this indicates that the sample has been over diluted. The result reported is estimated from the lowest dilution.
- Poor spike recovery for Hexavalent Chromium analysis due to matrix interferences. (confirmed by re-analysis).
- TDS by method EA-015 may bias high due to the presence of fine particulate matter, which may pass through the prescribed GF/C paper.
- 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	SR1	SR2	SR3	----	----
			Sampling date / time	16-Dec-2025 00:00	16-Dec-2025 00:00	16-Dec-2025 00:00	----	----
Compound	CAS Number	LOR	Unit	ES2540987-001	ES2540987-002	ES2540987-003	--------	--------
				Result	Result	Result	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	**5.95**	**6.35**	**8.57**	**----**	**----**
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	**2050**	**7780**	**32300**	**----**	**----**
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	**1480**	**8460**	**29400**	**----**	**----**
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	DMO-210-001	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	**418**	**302**	**----**	**----**	**----**
Total Alkalinity as CaCO3	----	1	mg/L	**418**	**302**	**----**	**----**	**----**
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	**----**	**3540**	**----**	**----**	**----**
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	**332**	**1170**	**----**	**----**	**----**
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	**188**	**648**	**----**	**----**	**----**
Magnesium	7439-95-4	1	mg/L	**100**	**815**	**----**	**----**	**----**
Sodium	7440-23-5	1	mg/L	**74**	**503**	**----**	**----**	**----**
Potassium	7440-09-7	1	mg/L	**8**	**1**	**2900**	**----**	**----**
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	**----**	<0.01	**----**	**----**	**----**
Arsenic	7440-38-2	0.001	mg/L	**----**	<0.001	**----**	**----**	**----**
Barium	7440-39-3	0.001	mg/L	**----**	**0.003**	**----**	**----**	**----**
Cadmium	7440-43-9	0.0001	mg/L	**----**	**0.0004**	**----**	**----**	**----**
Chromium	7440-47-3	0.001	mg/L	**----**	**0.001**	**----**	**----**	**----**
Cobalt	7440-48-4	0.001	mg/L	**----**	<0.001	**----**	**----**	**----**
Copper	7440-50-8	0.001	mg/L	**----**	**0.002**	**----**	**----**	**----**

Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SR1	SR2	SR3	----	----
				Sampling date / time	16-Dec-2025 00:00	16-Dec-2025 00:00	16-Dec-2025 00:00	----	----
Compound	CAS Number	LOR	Unit		ES2540987-001	ES2540987-002	ES2540987-003	--------	--------
					Result	Result	Result	----	----
EG020F: Dissolved Metals by ICP-MS - Continued									
Lead	7439-92-1	0.001	mg/L		----	<0.001	----	----	----
Manganese	7439-96-5	0.001	mg/L		----	**0.005**	----	----	----
Zinc	7440-66-6	0.005	mg/L		----	**0.087**	----	----	----
Iron	7439-89-6	0.05	mg/L		----	<0.05	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		----	<0.0001	----	----	----
EG050F: Dissolved Hexavalent Chromium									
Hexavalent Chromium	18540-29-9	0.01	mg/L		----	<0.01	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		**0.03**	**0.04**	**154**	----	----
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		----	<0.01	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		----	<0.01	----	----	----
EN055: Ionic Balance									
ø Total Anions	----	0.01	meq/L		----	**113**	----	----	----
ø Total Cations	----	0.01	meq/L		----	**121**	----	----	----
ø Ionic Balance	----	0.01	%		----	**3.66**	----	----	----
EP005: Total Organic Carbon (TOC)									
Total Organic Carbon	----	1	mg/L		----	**2**	**2550**	----	----
EP030: Biochemical Oxygen Demand (BOD)									
Biochemical Oxygen Demand	----	2	mg/L		----	----	**121**	----	----

APPENDIX 3

FIELD DATA SHEETS

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	Veolia Environmental Services (Australia) Pty Ltd	**CES Project Code:**	CES220507-VWA
Project:	Woodlawn Landfill	**Location:**	
Sampler (s):	AL	**Signature(s):**	
BH ID:	MB2	**Project Manager:**	Thomas Marback
Purging Date:	16/12/25	**Sample ID:**	MB2
		Sampling Date:	16/12/25

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO

Well purged to dry?	YES/NO	Weather Conditions	
Standing Water Level (SWL):	2.70 (mBTOC)	Temperature:	°C
Total Well Depth:	(mBTOC)		
Well volume:	(L)		
Water level after purging:	(mBTOC)	Clear / Partly Cloudy / Overcast	
Water level at time of sampling:	(mBTOC)		
Volume of water purged:	13.46 (L)	Calm / Slight breeze / Moderate Breeze	
Purging equipment:	Pump / micro-Purging / Bailer / Foot Valve	Windy	
Sampling equipment:	Pump / Bailer Bailer / Foot Valve	Fine / Showers / Rain	

Purging Details

TDS

Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO (mg.L^{-1})	EC (uS.cm^{-1})	pH -	Eh mV	Temp. (°C)	Comments
		3503	5.6	~~3566~~ 6146	5.59	54.7	15.7	clear
		3477	5.7	6188	5.41	61.9	15.5	low flow
		3510	5.7	6095	5.41	65.0	15.5	no odour
		3450	5.7	6118	5.41	66.9	15.6	
						P		
Stabilised 3 Consecutive readings of the following			±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement		

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	Veolia Environmental Services (Australia) Pty Ltd			**CES Project Code:**	CES220507-VWA
Project:	Woodlawn Landfill			**Location:**	
Sampler (s):	AL	**Signature(s):**		**Project Manager:**	Thomas Marback
BH ID:	MB3			**Sample ID:**	MB3
Purging Date:	16/12/25			**Sampling Date:**	16/12/25

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO

Well purged to dry?	YES/NO	Weather Conditions			
Standing Water Level (SWL):	0.48 (mBTOC)		Temperature:		°C
Total Well Depth:	(mBTOC)				
Well volume:	(L)				
Water level after purging:	(mBTOC)		Clear	Partly Cloudy	Overcast
Water level at time of sampling:	25.52 (mBTOC)				
Volume of water purged:	(L)		Calm	Slight breeze	Moderate Breeze
Purging equipment:	Pump / micro-Purging / Bailer / Foot Valve		Windy		
Sampling equipment:	Pump / Bailer Bailer / Foot Valve		Fine	Showers	Rain

Purging Details

Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO (mg.L^{-1})	EC (uS.cm^{-1})	pH -	Eh mV	Temp. (°C)	Comments
		1319.50	14.0	2029	5.59	66.4	16.7	clear
		~~1295~~ 1289.50	13/16.0	2015	5.60	70.0	16.7	turbid
		1280.50	14.4	2005	5.46	74.0	16.6	no odour
		1215.50	14.2	1999	5.47	76.7	16.5	
						P		

Stabilised 3 Consecutive readings of the following	±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	Veolia Environmental Services (Australia) Pty Ltd	**CES Project Code:**	CES220507-VWA
Project:	Woodlawn Landfill	**Location:**	
Sampler (s):	AL **Signature(s):**	**Project Manager:**	Thomas Marback
BH ID:	MB10	**Sample ID:**	MB10
Purging Date:	16/12/25	**Sampling Date:**	16/12/25

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO

Well purged to dry?	YES/NO	Weather Conditions	
Standing Water Level (SWL): 2.45	(mBTOC)	Temperature:	°C
Total Well Depth:	(mBTOC)		
Well volume:	(L)		
Water level after purging:	(mBTOC)	Clear / Partly Cloudy / Overcast	
Water level at time of sampling:	(mBTOC)		
Volume of water purged: 22.35	(L)	Calm / Slight breeze / Moderate Breeze	
Purging equipment:	Pump / micro-Purging / Bailer / Foot Valve	Windy	
Sampling equipment:	Pump / Bailer Bailer / Foot Valve	Fine / Showers / Rain	

Purging Details

Elapsed time (min)	Water level mBTOC	Cumulative volume (L) TDS	DO (mg.L^{-1})	EC (uS.cm^{-1})	pH -	Eh mV	Temp. (°C)	Comments
		2704	22.8	7701	5.49	80.5	15.1	clear
		2151.9	8.4	3986	5.21	115.1	15.1	low turb
		~~877~~	~~13.7~~	~~7986~~			~~15.2~~	no odour
		5063.0	10.2	7758	5.23	150.1	15.2	
		5050.50	12.2	7792	5.21	153.8	15.4	
		5044.0	12.3	7766	5.18	161.9	15.4	
						P		

Stabilised 3 Consecutive readings of the following	±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	**Veolia Environmental Services (Australia) Pty Ltd**	**CES Project Code:**	**CES220507-VWA**
Project:	**Woodlawn Landfill**	**Location:**	
Sampler (s):	**Signature(s):**	**Project Manager:**	**Thomas Marback**
BH ID:	MB10S12	**Sample ID:**	MB10GR
Purging Date:	16/12/25	**Sampling Date:**	16/12/25

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO

Well purged to dry?	YES/NO	Weather Conditions			
Standing Water Level (SWL):	1.62 (mBTOC)		Temperature:		°C
Total Well Depth:	(mBTOC)				
Well volume:	(L)				
Water level after purging:	15.86 (mBTOC)		Clear	Partly Cloudy	Overcast
Water level at time of sampling:	(mBTOC)				
Volume of water purged:	(L)		Calm	Slight breeze	Moderate Breeze
Purging equipment:	Pump / micro-Purging / Bailer / Foot Valve		Windy		
Sampling equipment:	Pump / Bailer Bailer / Foot Valve		Fine	Showers	Rain

Purging Details

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Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO (mg.L^{-1})	EC (uS.cm^{-1})	pH -	Eh mV	Temp. (°C)	Comments
		4862	5.7	7487	5.34	96.6	15.2	clear
		4901	7.0	7588	5.50	99.3	15.2	low turb
		4927	8.7	7580	5.49	106.0	15.4	no odour
		4881	11.7	7586	5.48	106.3	15.4	
		4892	12.2	7570	5.50	110.9	15.4	
						P		

Stabilised 3 Consecutive readings of the following	±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement

BR2

GR2

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	Veolia Environmental Services (Australia) Pty Ltd	**CES Project Code:**	CES220507-VWA
Project:	Woodlawn Landfill	**Location:**	
Sampler (s):	MB28	**Project Manager:**	Thomas Marback
BH ID:		**Sample ID:**	MB28
Purging Date:	16/12/25	**Sampling Date:**	16/12/25

Signature(s):

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO

Well purged to dry?	YES/NO	Weather Conditions	
Standing Water Level (SWL):	7.05 (mBTOC)	Temperature:	°C
Total Well Depth:	(mBTOC)		
Well volume:	(L)		
Water level after purging:	(mBTOC)	Clear / Partly Cloudy / Overcast	
Water level at time of sampling:	9.92 (mBTOC)		
Volume of water purged:	(L)	Calm / Slight breeze / Moderate Breeze	
Purging equipment:	Pump / micro-Purging / Bailer / Foot Valve	Windy	
Sampling equipment:	Pump / Bailer / Bailer / Foot Valve	Fine / Showers / Rain	

Purging Details

Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO ($mg.L^{-1}$)	EC ($uS.cm^{-1}$)	pH -	Eh mV	Temp. (°C)	Comments
		4105	14.0	6303	5.45	197.0	14.8	Light Yellow
		4030	15.2	6221	5.41	219.3	14.7	low turb
		4095	16.2	6294	5.42	221.0	14.7	no odour
		4082	17.0	6297	5.42	231.5	14.7	
						P		
Stabilised 3 Consecutive readings of the following			±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement		

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	Veolia Environmental Services (Australia) Pty Ltd	**CES Project Code:**	CES220507-VWA
Project:	Woodlawn Landfill	**Location:**	
Sampler (s): AL	**Signature(s):**	**Project Manager:**	Thomas Marback
BH ID: MB29		**Sample ID:** MB29	
Purging Date: 16/12/25		**Sampling Date:** 16/12/25	

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO
Well purged to dry?	YES/NO	Weather Conditions	
Standing Water Level (SWL):	(mBTOC)	Temperature:	°C
Total Well Depth:	(mBTOC) 2.63		
Well volume:	(L)		
Water level after purging:	(mBTOC)	Clear / Partly Cloudy / Overcast	
Water level at time of sampling:	(mBTOC)		
Volume of water purged:	(L) 6.86	Calm / Slight breeze / Moderate Breeze	
Purging equipment:	Pump / micro-Purging / Bailer / Foot Valve	Windy	
Sampling equipment:	Pump / Bailer / Bailer / Foot Valve	Fine / Showers / Rain	

TDS

Purging Details

Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO (mg.L^{-1})	EC (uS.cm^{-1})	pH -	Eh mV	Temp. (°C)	Comments
		2918	19.8	4499	7.10	-20.2	15.9	clear
		2899	16.8	4462	6.81	-38	15.7	low turb
		2905	16.8	4484	6.82	-60.4	15.7	no odour
		2931	16.7	4511	6.80	-62.1	15.7	
						P		
Stabilised 3 Consecutive readings of the following			±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement		

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	**Veolia Environmental Services (Australia) Pty Ltd**	**CES Project Code:**	**CES220507-VWA**
Project:	**Woodlawn Landfill**	**Location:**	
Sampler (s):	**Signature(s):**	**Project Manager:**	**Thomas Marback**
BH ID:	MB595	**Sample ID:**	DUP
Purging Date:	19/12/25	**Sampling Date:**	

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO
	Unable to find.		
Well purged to dry?	YES/NO	Weather Conditions	
Standing Water Level (SWL):	(mBTOC)	Temperature:	°C
Total Well Depth:	(mBTOC)		
Well volume:	(L)		
Water level after purging:	(mBTOC)	Clear / Partly Cloudy / Overcast	
Water level at time of sampling:	(mBTOC)		
Volume of water purged:	(L)	Calm / Slight breeze / Moderate Breeze	
Purging equipment:	Pump / micro-Purging / Bailer / Foot Valve	Windy	
Sampling equipment:	Pump / Bailer Bailer / Foot Valve	Fine / Showers / Rain	

Purging Details

Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO ($mg.L^{-1}$)	EC ($uS.cm^{-1}$)	pH -	Eh mV	Temp. (°C)	Comments
						P		
Stabilised 3 Consecutive readings of the following			±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement		

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	Veolia Environmental Services (Australia) Pty Ltd	**CES Project Code:**	CES220507-VWA
Project:	Woodlawn Landfill	**Location:**	
Sampler (s):	AL Signature(s):	**Project Manager:**	Thomas Marback
BH ID:	MW-T-RC1	**Sample ID:**	MW-T-RC1
Purging Date:	16/12/25	**Sampling Date:**	16/12/25

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO

Well purged to dry?		YES/NO	Weather Conditions		
Standing Water Level (SWL):	2.64	(mBTOC)	Temperature:		°C
Total Well Depth:		(mBTOC)			
Well volume:		(L)			
Water level after purging:	5.34	(mBTOC)	Clear	Partly Cloudy	Overcast
Water level at time of sampling:		(mBTOC)			
Volume of water purged:		(L)	Calm	Slight breeze	Moderate Breeze
Purging equipment:		Pump / micro-Purging / Bailer / Foot Valve	Windy		
Sampling equipment:		Pump / Bailer Bailer / Foot Valve	Fine	Showers	Rain

Purging Details

TDS

Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO (mg.L^{-1})	EC (uS.cm^{-1})	pH -	Eh mV	Temp. (°C)	Comments
		1128.50	-3.1	1892	6.42	37.0	18.2	White
		1150.50	-2.0	1852	6.38	19.5	17.9	low turb
		1228.5	24.3	1888	6.41	17.2	17.0	no odour
			~~24.8~~				~~17.8~~	
		1280	24.5	1900	6.42	17.3	16.8	
						P		

Stabilised 3 Consecutive readings of the following | ±10% | ±3% | ±0.05 | Groundwater field parameters at the end of purging to be marked "Field Measurement

CONSULTING EARTH SCIENTISTS

GROUNDWATER FIELD DATA SHEET

Client:	Veolia Environmental Services (Australia) Pty Ltd	**CES Project Code:**	CES220507-VWA
Project:	Woodlawn Landfill	**Location:**	
Sampler (s):	SP2-MW1 AL **Signature(s):**	**Project Manager:**	Thomas Marback
BH ID:		**Sample ID:**	SP2-MW1
Purging Date:	16/12/25	**Sampling Date:**	16/12/25

Well Status

Well damaged:	YES/NO	Well locked:	YES/NO
Cement footing damaged:	YES/NO	Cap on PVC casing:	YES/NO
Internal obstructions in casing:	YES/NO	Well ID visible:	YES/NO
Standing water, vegetation around monument:	YES/NO	Monument damaged:	YES/NO
Water between PVC and protective casing:	YES/NO	Odours from groundwater:	YES/NO

Well purged to dry?		YES/NO	Weather Conditions		
Standing Water Level (SWL):	2.40	(mBTOC)	Temperature:		°C
Total Well Depth:		(mBTOC)			
Well volume:		(L)			
Water level after purging:		(mBTOC)	Clear	Partly Cloudy	Overcast
Water level at time of sampling:		(mBTOC)			
Volume of water purged:	4.63	(L)	Calm	Slight breeze	Moderate Breeze
Purging equipment:		Pump / micro-Purging / Bailer / Foot Valve	Windy		
Sampling equipment:		Pump / Bailer Bailer / Foot Valve	Fine	Showers	Rain

Purging Details

Elapsed time (min)	Water level mBTOC	Cumulative volume (L)	DO (mg.L^{-1})	EC (uS.cm^{-1})	pH -	Eh mV	Temp. (°C)	Comments
		2210.50	9.4	3406	6.74	-8.1	15.5	~~Volume~~ orange
		2197.00	9.5	3377	6.72	-9.6	15.7	low turb
		2190.00	10.0	3385	6.74	-9.5	15.7	no odour
		2184	10.0	3361	6.75	-9.4	15.8	
						P		
Stabilised 3 Consecutive readings of the following			±10%	±3%	±0.05	Groundwater field parameters at the end of purging to be marked "Field Measurement		

CONSULTING EARTH SCIENTISTS

FIELD DATA SHEET : Surface-Water Monitoring

Client: Veolia Environmental Services (Australia) Pty Ltd		**CES Project Code:**	CES220507-VWA
Project: Woodlawn Landfill		**Date:**	15/12/25 - 19/12/25
Sampler (s): AL	**Signature(s):** [signature]	**Project Manager:**	TM

Sample ID	Site	Date	Time	DO mg.l^-1	EC uS.cm^-1	pH -	Eh mV	Temp. °C	Turbidity NTU	Comments (flow conditions, water odour, algal growth, debris, etc.)
proposed3		15/12/25	17:30							DRY
Proposed1		15/12/25	18:00							DRY
SW3Q Spring2		16/12/25	16:00	214.1	4385	7.14	-56.6	23.5	2866.5	~~[illegible]~~ low flow clear low turb ~~moderate turb~~ organic odour
SW3Q site105		17/12/25	17:45	284	3968	8.14	-221.3	25.3	~~[illegible]~~ 2580.50	no flow low turb clear no odour
SW3Q Cripscreek		16/12/25	18:40	28.4	7287	7.26	-20.9	21.5	4764.0	low flow clear low turb no odour
SW3Q ED1		18/12/25	14:25	-3.2	17925	3.91	-354.9	22.2	168.50	light yellow green moderate flow low turb no odour
SW3Q BG1		16/12/25	14:00							DRY
SW1Q WM200		?/12/25	14:00	117.0	1629	8.26	-40.3	32.2	1059.5	moderate flow no odour clear low turb
SW1Q WM201		16/12/25	8:20						3175.50	DRY
SW1Q ED3SS		17/12/25	19:00	~~4.5~~ 21.5	2495	8.29	-331.0	21.3	~~[illegible]~~ 1736	Black low flow ~~[illegible]~~ low turb organic odour
SW1Q WM203		17/12/25	12:55	4.4	33649	8.34	-251.0	24.3	~~33649~~	no flow black low turb organic odour BR3 SR3
SW1Q Pond5		18/12/25	12:25							DRY
SW1Q WM202		17/12/25	12:30	110.2	4653	4.29	~~[illegible]~~ 323.5	23.5	30355	clear low turb low flow no odour
W4M ED1coffer1		17/12/25	12:35	106.0	5467	8.46	310.4	23.2	6549	low flow low turb Brown no odour
SW4M ED1coffer2		~~17/12/25~~	~~14:19~~	~~106.0~~	~~5467~~	~~8.46~~	~~310.4~~	~~23.1~~	~~6549~~	DRY
SW3Q Site115		16/12/25	18:40							DRY
SW3Q proposed2		16/12/25	~~[illegible]~~	~~3.2~~ [illegible]	29287	8.65	-374.3	22.5	908.50	moderate flow low turb brown no odour
SW2Q 110		16/12/25	19:20	61.7	1423	7.84	-18.4	16.0	923	low flow low turb clear no odour
SW2Q 150		16/12/25	19:45	89.9	125.5	8.32	-38.9	22.0	819.6	
SW2Q LMF-F1		17/12/25	[illegible]	95.2	127+	7.98	-260.4	26.4	822	low flow low turb clear no odour

[signature]

Proposed2 → Dry
ED1CD2 → reading located proposed2 row

APPENDIX 4

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

CertificateNumber : 22G103273-R-4-20251119
Calibration Date: 19/11/2025
Next Calibration Due: 19/12/2025

Customer: Air-Met Scientific (National Rental)
Address: 65 Moray Street , , SOUTH MELBOURNE , 3205
Equipment No: EP021398
Unit Under Test: YSI ProPlus Water Quality Meter
Serial No: 22G103273
Service Order No: CAL10511

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)	Cleaned	Pass	

Reference Equipment:

Equipment ID	Description	Expiry Date	Reference Certificate Number
MECOND			
MEPH7			
MEPH4			
MEORP			
MEDO			

Results:

Sensor	Units	Applied Value	Results		Pass/ Fail	Comments
			As Found	As Left		
TEMPERATURE	°C	19.6	19.6	19.6	Pass	
CONDUCTIVITY	µS/cm	2760	2760	2760	Pass	
PH4	pH	4	4	4	Pass	
PH7	pH	7	7	7	Pass	

Certified System
Quality
ISO 9001
SAI GLOBAL

ORP	mV	234.88	234.88	234.88	Pass	
DISSOLVED OXYGEN	%	0	0	0	Pass	

Note:

Calibrated By: RENTAL.CALIBRATION **Signed:** *RENTAL.CALIBRATION*

Simon

Certified System
Quality
ISO 9001
SAI GLOBAL