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Report on

Vickery Extension Project Groundwater Monitoring Report – Quarterly Review May-July 2026

Prepared for
Whitehaven Coal Pty Ltd



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Vickery Extension Project Groundwater Monitoring Report – Quarterly Review May-July 2026

1 Introduction

The Vickery Coal Mine is located approximately 15 kilometres south-east of Boggabri and 25 kilometres north of Gunnedah, New South Wales, and is operated by Whitehaven Coal Pty Ltd (Whitehaven). Vickery Coal Pty Ltd holds Development Consent SSD-7480, granted by the NSW Independent Planning Commission on 12 August 2020 under the Environmental Planning and Assessment Act 1979, and Commonwealth approval EPBC 2016/7649, granted on 15 September 2021 under the Environment Protection and Biodiversity Conservation Act 1999.

Condition 8 of EPBC 2016/7649 is relevant to groundwater monitoring and reporting and states:

8. *In Addition to the Groundwater Management Plan monitoring requirements specified in condition B53 of the State Development Consent, the approval holder must:*
 - a. *Establish and maintain a network of groundwater monitoring bores designed to detect changes in groundwater levels and include bores that are co-located or paired with surface water monitoring sites to allow monitoring and analysis of groundwater – surface water interactions. These monitoring bores must be installed prior to the commencement of mining operations.*
 - b. *Monitor groundwater levels in each bore (required under condition 8.a) at least once every 3 months, starting within one week of the commencement of mining operations for the life of this approval.*
 - c. *Publish on the website all groundwater monitoring data from the bore network, updated at least once every three months to include the most recent readings available and to maintain the data on the website for the life of this approval. The monitoring data must include hydrographs for the bore network and explain what the data means in relation to the groundwater performance measures specified in the State Development Consent.*

Australasian Groundwater and Environmental Consultants Pty Ltd (AGE) was engaged by Whitehaven to review groundwater level and groundwater quality data collected for the Vickery Extension Project between 1 May 2026 and 31 July 2026, referred to in this report as May-July 2026.

1.1 Background

This report presents the quarterly groundwater review required under the approved Water Management Plan, including the Groundwater Management Plan (GWMP), and Condition 8 of EPBC 2016/7649. Quarterly groundwater monitoring commenced in October 2023. Reporting completed to date comprises:

1. Initial Quarterly Report (August 2023 through October 2023), published January 2024;
2. 2023 Annual Review (1st January 2023 through 31st December 2023), to be published on the website following approval from NSW Department of Planning, Housing and Infrastructure (DPHI);
3. Second Quarterly Report (November 2023 through January 2024), published April 2024;
4. Third Quarterly Report (February 2024 through April 2024), published July 2024;
5. Forth Quarterly Report (May 2024 through July 2024), published October 2024;
6. Fifth Quarterly Report (August 2024 through October 2024), published January 2025;
7. Sixth Quarterly Report (November 2024 through January 2025), published March 2025;
8. Seventh Quarterly Report (February 2025 through April 2025), published June 2025;
9. Eighth Quarterly Report (May 2025 through July 2025), published September 2025;
10. Ninth Quarterly Report (August 2025 through October 2025), published December 2025;

11. Tenth Quarterly Report (November 2025 through January 2026), published March 2026; and
12. Eleventh Quarterly Report (February 2026 through April 2026) published June 2026.

During the preceding reporting period, mining continued in the main box-cut area. In-pit water comprised groundwater seepage, direct rainfall, operational runoff and surface runoff and was managed using sump pumps that transferred water to Mine Water Dam 2. Water from Mine Water Dam 2 was used for dust suppression, including delivery by water carts, and a water fill point operated at the mine infrastructure area. These operational conditions provide context for interpretation of groundwater responses during the current reporting period.

1.2 Trigger Action Response Plan

Groundwater monitoring results are assessed against the groundwater level and groundwater quality trigger criteria and response actions specified in the approved Groundwater Management Plan (GWMP). The Trigger Action Response Plans (TARP) provide a staged framework for confirming an exceedance, assessing potential causes and implementing the prescribed monitoring, investigation, reporting and mitigation actions. Potential influences considered during an investigation may include climatic conditions, agricultural abstraction, bore condition, local land use and mining activities.

The trigger values, trigger levels and mitigation or management actions reproduced in this report are taken from the approved GWMP and remain unchanged for the purpose of quarterly reporting (Appendix B). Where a trigger is reached, the corresponding response is reported and implemented in accordance with the applicable TARP. Investigation outcomes are reported through the quarterly review and, where required, the Annual Review.

The GWMP states the procedure for the review, as follows:

- The confirmed exceedances will prompt an investigation, carried out by suitably qualified personnel, to assess the reasons for trigger exceedance, which could include but not be limited to climatic conditions, agriculture abstraction, and or mining activities.
- In the case exceedances are attributed to mining activities, the changes in groundwater conditions, such as a decrease in water level or changes in groundwater quality, will be compared to performance measures (discussed in Section 8.1 of GWMP) to evaluate the significance of any impacts manifested on the groundwater systems.
- The results of the trigger investigations will be reported in each annual review.

Vickery Coal Mine (VCM) will use reports data to analyse and revise the trigger thresholds and update parameters as the GWMP is reassessed for updates.

1.3 Report Objective

This report assesses the ongoing site's groundwater monitoring data (water level and quality assessments) compared to the trigger levels for all required parameters during the period of 1 May 2026 through 31 July 2026.

This report includes:

- a summary of TARP exceedances, if any, during the reporting period;
- a summary of trigger exceedances, if any, over time including the identification of breaches of triggers that remain within normal condition in this reporting period;
- a high-level outline of potential influence factors for exceedances (a detailed analysis of exceedances is not discussed in this report) during the reporting period; and
- recommendation of relevant actions and responses to be undertaken, in alignment with the TARPs.

The information in this monitoring report will be included in the ongoing quarterly monitoring reports for Vickery Extension Project and summarised in the 2026 Annual Review.

2 Monitoring Results

The following sections are structured to present climate context, network status, data completeness, groundwater-level behaviour, trigger assessment and groundwater-quality outcomes for the current quarter. Previous-quarter findings are carried forward only where they remain relevant to interpretation or outstanding actions.

2.1 Climate Data

The climate at Vickery experiences significant temperature variation throughout the year and is characterised by very warm summers and mild winters. Daily rainfall data was obtained from the onsite Vickery Coal Mine MET 2 station and is summarised in Table 2.1 and Figure 2.1 as well as SILO (Scientific Information for Land Owners) historical site (latitude: -30.75, longitude: 150.15) data, to contribute understanding about long-term rainfall trends. Comparison of the data sets show analogous trends, indicating the SILO data is a suitable representation of long-term trends.

Rainfall data from May through July in comparison with the long-term average shows that the first two months of this quarter were above long-term average, with significant cumulative rainfall for May (102 mm) and moderate records for June 2026. Rainfall was then below long-term average in July 2026, but following expected trend being dryer than previous records.

Table 2.1 Monthly rainfall vs long-term average rainfall

Year	2025						2026						
Month	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
SILO Long-term average rainfall (mm)	30.8	39.5	39.9	43.4	74.2	56.6	56.8	53.6	77.6	35.7	42.9	40.4	30.8
SILO monthly rainfall (mm)	55.3	67.8	28.1	40	35.2	31.9	26.8	15.2	17.5	0.0	115.9	36.4	11.5
On-site Rainfall (mm)	43.8	82.4	25.6	42.2	57.8	31.0	27.8	18.0	5.0	0.2	102.2	70.4	9.2

Note: ND = no data / data not available.

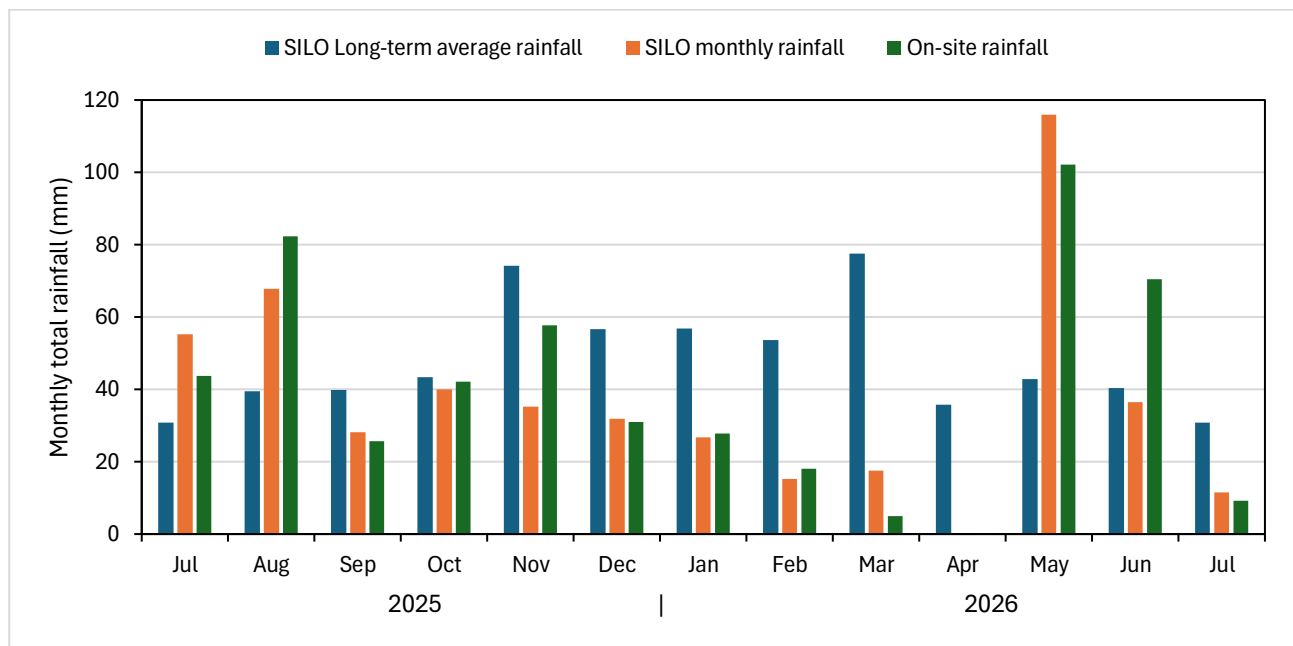


Figure 2.1 On-site monthly rainfall vs. long-term average monthly rainfall

2.2 Groundwater Monitoring Network

As per the GWMP, the existing groundwater monitoring network consists of 60 monitoring sites, including

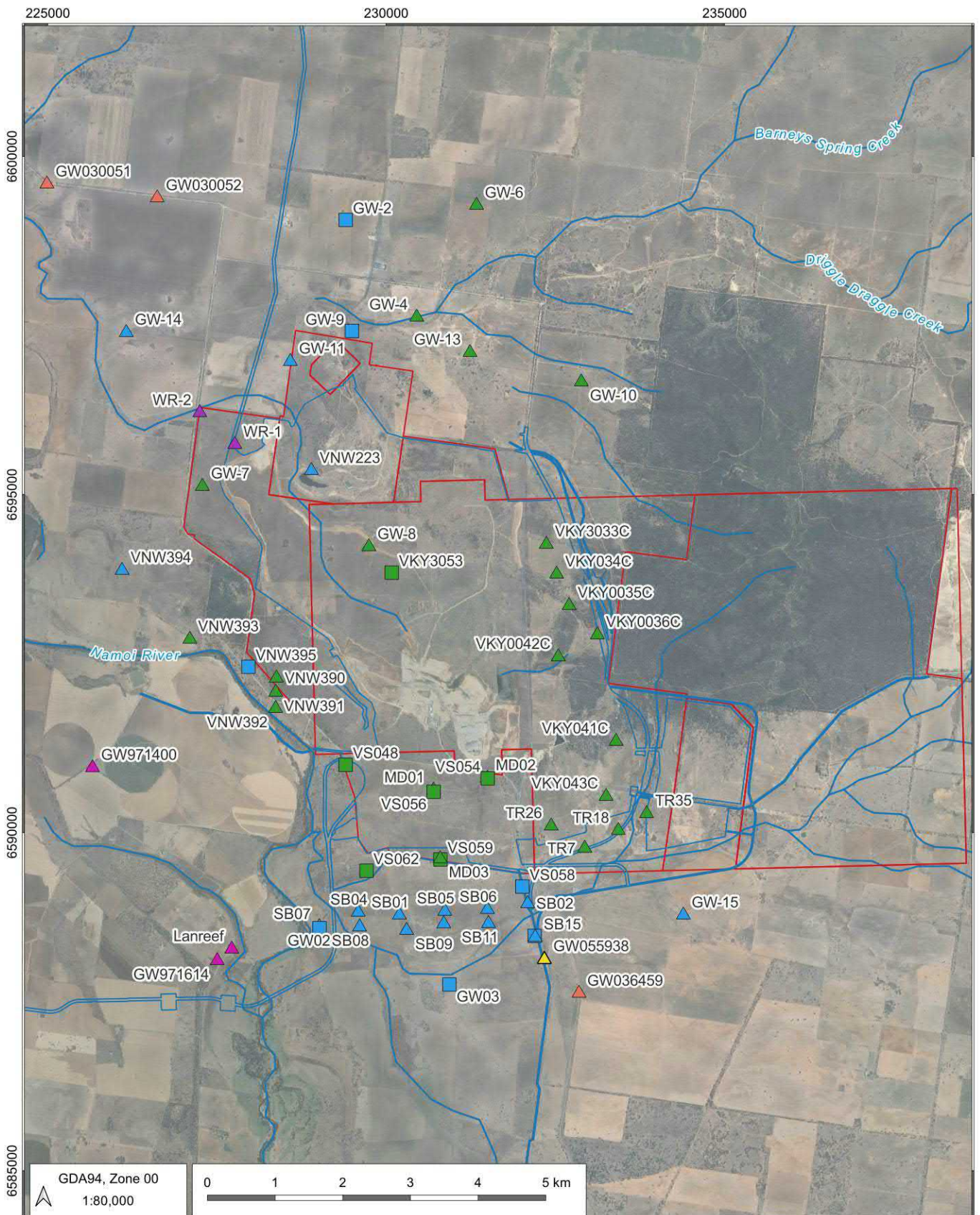
- 28 monitoring locations in Alluvial aquifer;
- 28 monitoring locations in Permian aquifer;
- Two sites (WR1 and WR2) positioned to monitor the potential for seepage from the spoil dump (installed January 2024); and
- Two water supply bores (GW971400 and GW971614).

The groundwater network location is presented on Figure 2.2 and full details are provided in the GWMP (Whitehaven 2025).

2.2.1 AGE Vickery Bore Development and Downhole Camera Survey 2025

AGE completed targeted bore development and downhole camera surveys from 11 to 13 November 2025 following the May 2025 condition survey (AGE, 2026). Fifteen bores were inspected and 14 were developed and surveyed, with GW-8 excluded because it had been decommissioned. The work refined construction details for seven bores and identified visibility limitations, difficulty airlifting 150 mm diameter bores, blockages in SB04 and VNW395, and a bailer lodged in the screened interval of TR7.

The prior review recommended reconciling drilling and geophysical records with the survey, updating GWMP construction details, removing obstructions from SB04 and TR7 or replacing those bores if required, and decommissioning and replacing VNW395 because of apparent vandalism and uncertain sample representativeness.



LEGEND

Monitoring Network

- ▲ Alluvial
- Alluvial (data logger)
- ▲ Permian
- Permian (data logger)
- ▲ Government Monitoring Well
- ▲ Kurrumbidge Bore
- ▲ Private Bore
- ▲ Seepage Monitoring Bore

- Drainage
- Mining Lease

Vickery May-July 2026 Quarterly Groundwater Review - VIC.20260140

Groundwater Monitoring Locations



AGE

DATE
18/09/2026

FIGURE No:
2.2

2.3 Data Availability

In line with the Vickery GWMP, the full suite of bores available was monitored during the reporting period, with the following exception:

- Bore GW-8 was decommissioned due to pit progression prior to the January 2026 monitoring event.

2.4 Groundwater levels

Groundwater levels are measured via both manual dip and continuous loggers. The data available from May 2022 to July 2026 is presented in this section and shown at the hydrographs in Appendix C.

2.4.1 Groundwater Level Data Summary

A summary of the field groundwater level data available to date is presented below.

2.4.1.1 Alluvial Groundwater Bores

The groundwater levels in the alluvial monitoring bores are presented in Figure 2.3 and summarised in Table 2.1. The groundwater contour map, based on the results from July 2026 monitoring round, is presented in Figure 2.5.

2.4.1.2 Permian Groundwater Bores

The groundwater levels in the Permian monitoring bores are summarised in Table 2.1, and presented in Figure 2.4. The groundwater contour map, based on the results of July 2026 monitoring round, is presented in Figure 2.6.

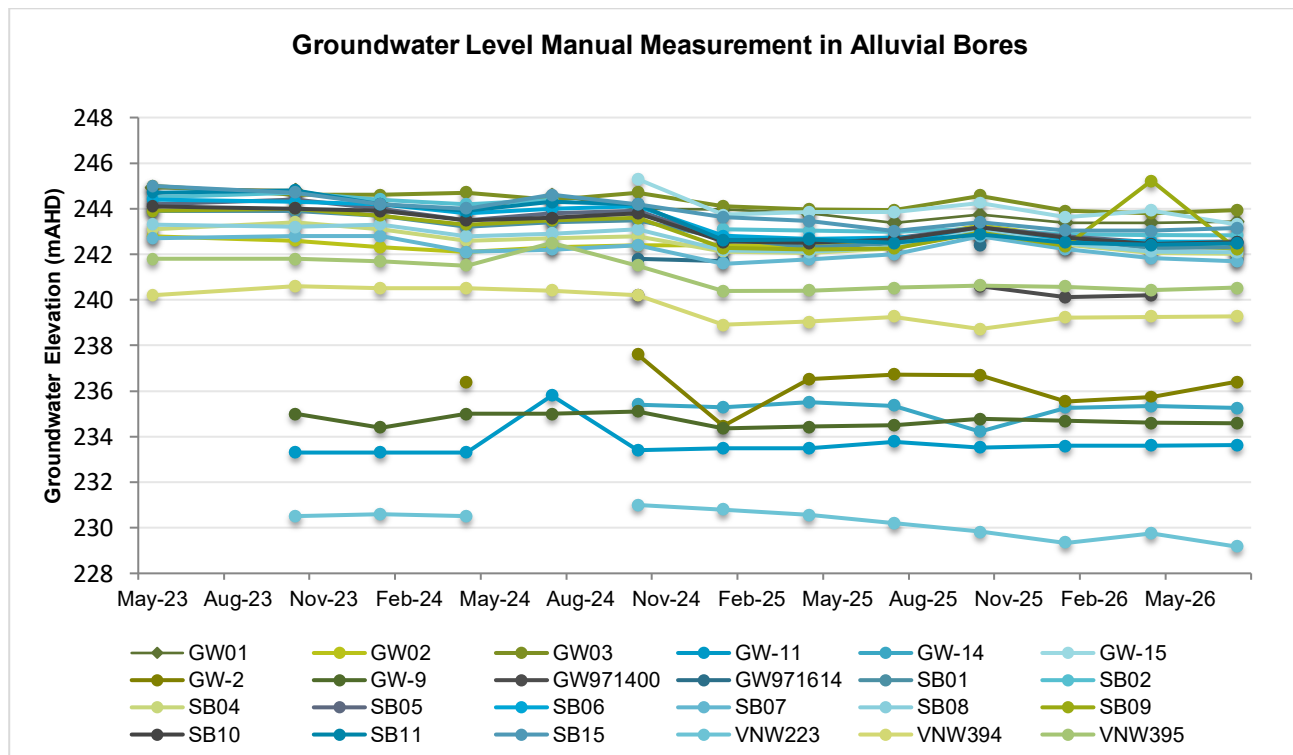


Figure 2.3 Alluvium bores hydrograph

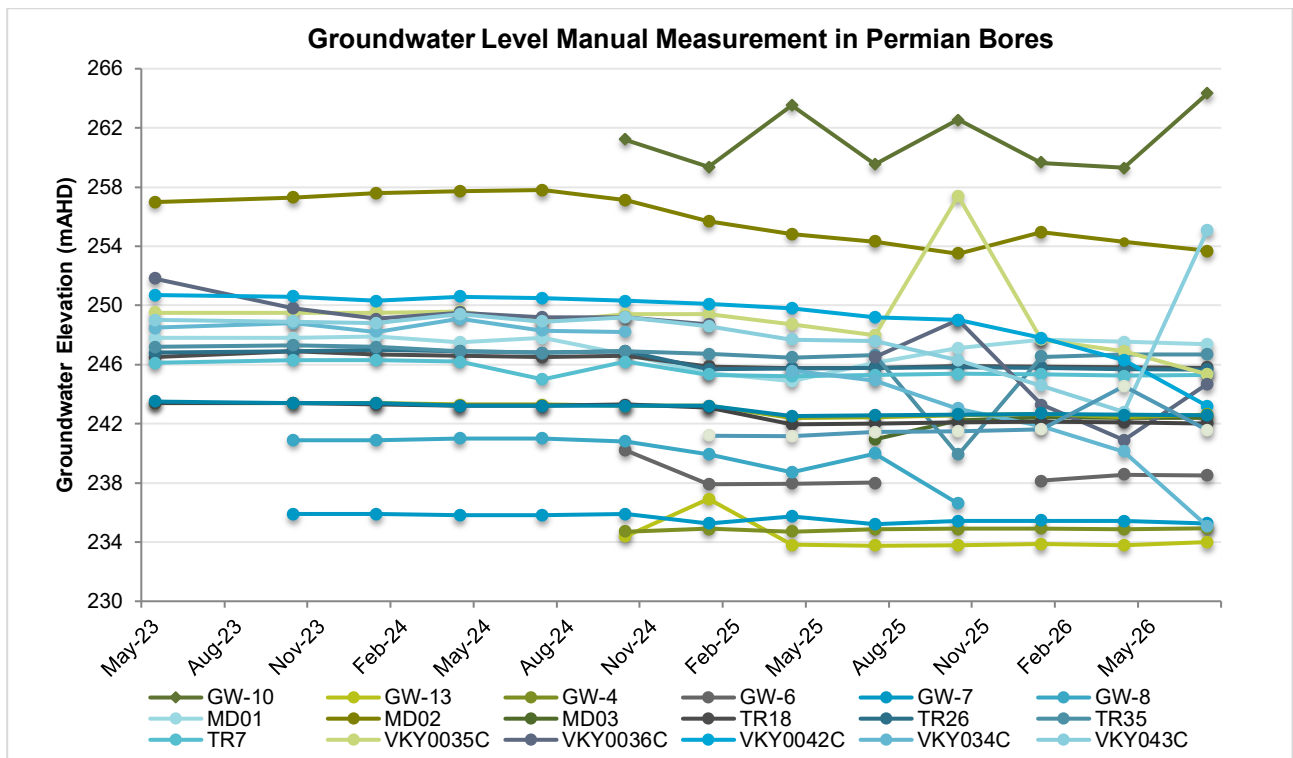


Figure 2.4 Permian bores hydrograph

Table 2.2 Groundwater elevation Summary

Sample Location	Groundwater Elevation (mAHD*)													
	Bore RL [†]	May-23	Oct-23	Jan-24	Apr-24	Jul-24	Oct-24	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
Alluvium Bores														
GW01	253	244.90	244.80	244.20	243.90	244.60	244.00	243.96	243.79	243.39	243.74	243.38	243.39	243.42
GW02	251	242.80	242.60	242.30	242.10	242.30	242.40	242.40	242.35	242.55	243.27	242.77	242.39	242.25
GW03	251	245.00	244.60	244.60	244.70	244.40	244.70	244.12	243.98	243.93	244.56	243.90	243.80	243.93
GW036459	255	-	-	-	-	-	-	243.34	-	243.35	-	243.21	-	-
GW-11	250	-	233.30	233.30	233.30	235.80	233.40	233.50	233.50	233.78	233.52	233.60	233.61	233.62
GW-14	246	-	-	-	-	-	235.40	235.28	235.51	235.35	234.22	235.26	235.33	235.25
GW-15	257	-	-	-	-	-	245.30	243.73	243.85	243.85	244.26	243.63	243.92	243.31
GW-2	255	-	-	-	236.40	-	237.60	234.47	236.51	236.72	236.68	235.55	235.74	236.41
GW-9	252	-	235.00	234.40	235.00	235.00	235.10	234.36	234.44	234.51	234.78	234.69	234.61	234.59
GW971400	250	-	-	-	-	-	240.20	-	-	-	240.60	240.12	240.21	-
GW971614	252	-	-	-	-	-	241.80	241.70	-	-	242.40	-	-	241.80
SB01	250	243.90	243.90	243.70	243.20	243.40	243.50	242.70	242.30	242.47	243.09	242.66	242.27	242.32
SB02	253	244.50	244.70	244.40	244.20	244.40	252.80	243.10	243.04	242.97	243.12	242.86	242.84	242.83
SB04	250	243.10	243.40	243.10	242.60	242.70	242.80	242.12	242.06	242.25	243.00	242.41	242.06	242.02
SB05	251	244.20	244.40	244.00	243.50	243.80	243.90	242.65	242.56	242.71	243.17	242.80	242.53	242.55
SB06	252	244.40	244.30	244.20	243.80	244.00	244.10	242.81	242.68	242.74	242.88	242.63	242.55	242.53
SB07	251	242.70	242.80	242.80	242.10	242.20	242.40	241.58	241.78	241.99	242.79	242.22	241.84	241.68
SB08	250	243.30	243.20	243.30	242.80	242.90	243.10	242.17	242.11	242.31	243.03	242.47	242.12	242.09

Sample Location	Groundwater Elevation (mAHD*)													
	Bore RL†	May-23	Oct-23	Jan-24	Apr-24	Jul-24	Oct-24	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
SB09	250	243.90	244.00	243.70	243.30	243.50	243.60	242.28	242.21	242.26	242.96	242.36	245.23	242.23
SB10	251	244.10	244.00	243.90	243.50	243.60	243.80	242.56	242.50	242.65	243.19	242.72	242.45	242.53
SB11	252	244.70	244.80	244.20	243.90	244.30	244.20	242.63	242.65	242.50	242.88	242.52	242.42	242.47
SB15	253	245.00	244.70	244.20	244.00	244.60	244.20	243.62	243.45	243.02	243.40	243.05	243.04	243.15
VNW223	252	-	230.50	230.60	230.50	-	231.00	230.80	230.56	230.19	229.83	229.34	229.76	229.17
VNW394	246	240.20	240.60	240.50	240.50	240.40	240.20	238.90	239.05	239.26	238.72	239.23	239.25	239.28
VNW395	248	241.80	241.80	241.70	241.50	242.50	241.50	240.39	240.41	240.53	240.63	240.57	240.44	240.53
WR-1	248	-	-	-	235.10	235.10	235.30	237.70	235.20	235.30	235.20	235.30	233.68	233.60
WR-2	246	-	-	-	235.00	234.80	234.80	235.20	234.60	235.00	235.20	235.10	233.62	234.02
Permian Bores														
GW-10	278	-	-	-	-	-	261.20	259.36	263.53	259.56	262.55	259.63	259.31	264.31
GW-13	257	-	-	-	-	-	234.40	236.92	233.82	233.75	233.78	233.86	233.78	233.99
GW-4	254	-	-	-	-	-	234.70	234.89	234.70	234.85	234.89	234.92	234.88	234.93
GW-6	261	-	-	-	-	-	240.20	237.91	237.96	238.01	-	238.15	238.55	238.52
GW-7	263	-	235.90	235.90	235.80	235.80	235.90	235.26	235.75	235.21	235.42	235.45	235.42	235.26
GW-8	262	-	240.90	240.90	241.00	241.00	240.80	239.91	238.71	239.99	236.60	-	-	-
MD01	275	247.80	247.80	247.90	247.50	247.80	246.70	245.44	244.88	246.10	247.10	247.69	247.53	247.37
MD02	297	257.00	257.30	257.60	257.70	257.80	257.10	255.70	254.84	254.32	253.49	254.94	254.30	253.69
MD03	257	-	-	-	-	-	-	-	-	240.95	242.22	242.44	242.41	242.42
TR18	259	246.50	246.90	246.70	246.60	246.50	246.60	245.88	245.76	245.79	245.90	245.86	245.81	245.78

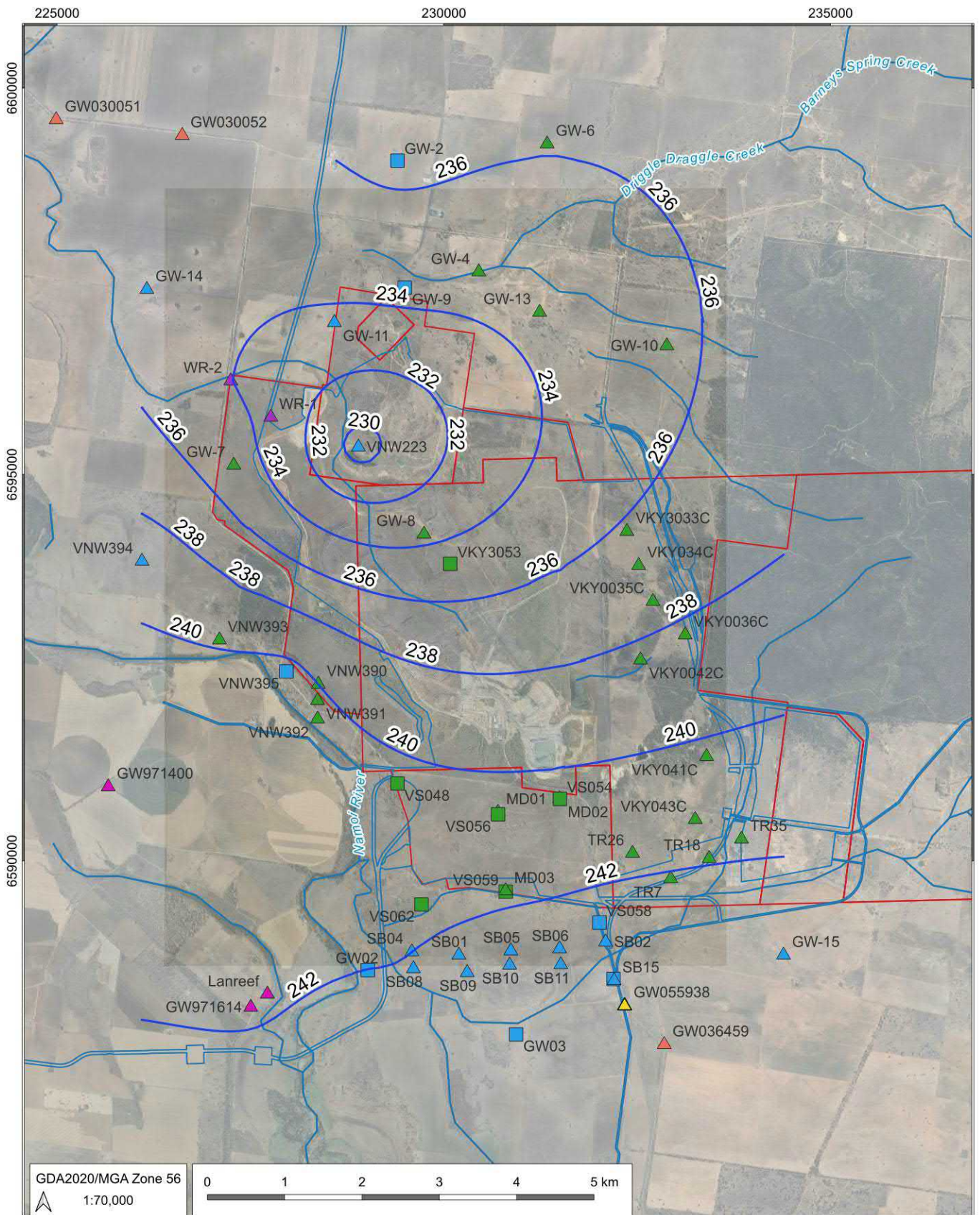
Sample Location	Groundwater Elevation (mAHD*)													
	Bore RL [†]	May-23	Oct-23	Jan-24	Apr-24	Jul-24	Oct-24	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
TR26	258	246.80	246.90	247.00	246.90	246.80	246.90	245.70	245.74	245.77	245.80	245.78	245.68	245.66
TR35	265	247.20	247.30	247.20	246.90	246.80	246.90	246.72	246.47	246.65	239.90	246.52	246.69	246.69
TR7	255	246.10	246.30	246.30	246.20	245.00	246.20	245.30	245.22	245.28	245.37	245.33	245.25	245.30
VKY0035C	291	249.50	249.50	249.50	249.60	248.90	249.40	249.40	248.70	248.00	257.4 [^]	247.70	246.90	245.35
VKY0036C	298	251.80	249.80	249.10	249.50	249.20	249.20	248.70	-	246.50	249.00	243.30	240.90	244.69
VKY0042C	292	250.70	250.60	250.30	250.60	250.50	250.30	250.10	249.80	249.20	249.00	247.80	246.30	243.20
VKY034C	288	248.50	248.80	248.20	249.10	248.30	248.20	-	245.59	244.93	243.02	241.82	240.12	235.08
VKY043C	264	249.00	248.90	248.80	249.40	248.90	249.20	248.60	247.70	247.58	246.31	244.57	242.80	255.06
VNW390	252	243.40	243.40	243.40	243.30	243.30	243.20	243.20	242.39	242.44	242.58	242.65	242.43	242.62
VNW391	250	243.40	243.40	243.30	243.20	243.20	243.30	243.10	241.96	242.03	242.10	242.12	242.09	242.01
VNW392	249	243.50	243.40	243.40	243.20	243.20	243.20	243.20	242.52	242.58	242.62	242.67	242.61	242.57
VNW393	252	-	-	-	-	-	-	241.20	241.16	241.43	241.48	241.64	244.54	241.57

Notes: * mAHD: metres Australian Height Datum.

[†] value from LIDAR surface elevation

[^] Reading considered outlier/error.

GW-8 was not monitored in July 2026 monitoring round.



LEGEND

Monitoring Network

- ▲ Alluvial
- Alluvial (data logger)
- ▲ Permian
- Permian (data logger)
- ▲ Government Monitoring Well
- ▲ Kurrumbidge Bore
- ▲ Private Bore
- ▲ Seepage Monitoring Bore

- Mining Lease
- Surface Water Drainage
- July 2026 groundwater contour

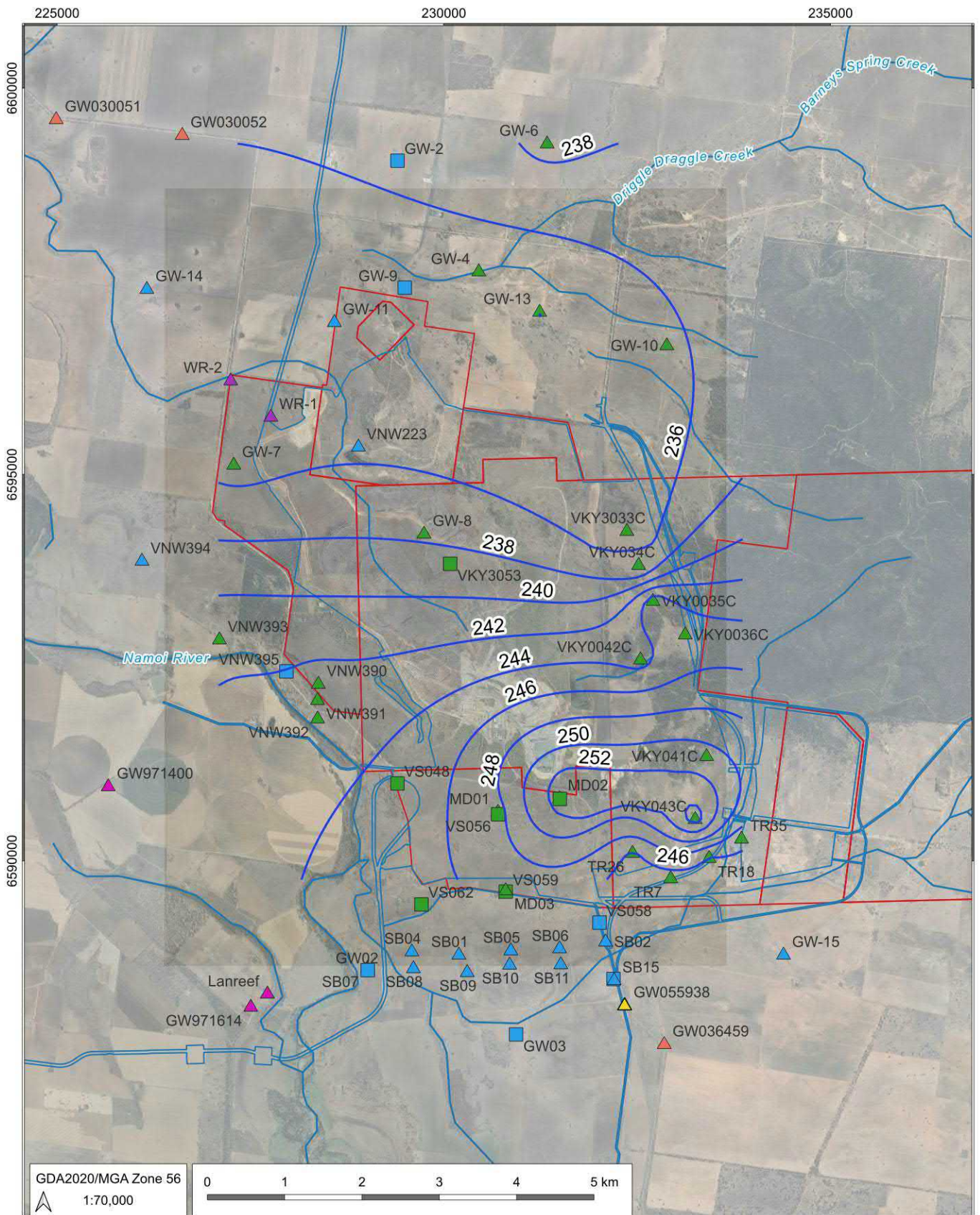
Vickery May-July 2026 Quarterly
Groundwater Review - VIC.20260140

**Alluvium groundwater contours (July
2026)**



DATE
20/09/2026

FIGURE No:
2.5



LEGEND

Monitoring Network

- ▲ Alluvial
- Alluvial (data logger)
- ▲ Permian
- Permian (data logger)
- ▲ Government Monitoring Well
- ▲ Kurumbede Bore
- ▲ Private Bore
- ▲ Seepage Monitoring Bore

- Mining Lease
- Surface Water Drainage
- July 2026 groundwater contours

Vickery May-July 2026 Quarterly
Groundwater Review - VIC.20260140

**Permian groundwater contours (July
2026)**



AGE

DATE
20/09/2026

FIGURE No:
2.6

2.4.1.3 Data Loggers

A summary of the available logger data is presented in Table 2.3 along with comments on sensor performance. Related recommendations are provided in Section 4. Hydrographs of logger data and manual groundwater levels are provided in Appendix B.

Table 2.3 Summary of logger data availability

Bore ID	Sensor Type (PT/VWP)	Recording Period	Number of Data Points	Comments
GW01	VWP	04/03/2020 – 06/07/2026	-	Data were not adopted due to significant drifting in logger readings.
GW02	VWP	15/11/2023 – 06/07/2026	935	-
GW03 (30m)	VWP (01-10-6743)	17/03/2026 – 06/07/2026	446	Data were not adopted due to significant drifting in logger readings.
GW-9	Logger (Rugged TROLL 100)	17/01/2024 – 03/07/2026	3591	-
VNW395	Logger (Rugged TROLL 100)	22/12/2025 – 02/07/2026	768	Data were not adopted due to significant drifting in logger readings.
TR7	Logger (Rugged TROLL 100)	17/03/2012 – 31/03/2026	2327	Logger stopped reading in March 2026.
TR18	Logger (Rugged TROLL 100)	16/04/2020 – 04/07/2024	1542	Logger stopped reading in July 2024.
VKY034C	Logger (Rugged TROLL 100)	07/01/2025 – 18/05/2026	92294	Logger stopped reading in May 2026.
VKY035C	Logger (Rugged TROLL 100)	04/11/2020 – 03/07/2026	8267	-
VKY036C	Logger (Rugged TROLL 100)	07/01/2020 – 03/07/2026	9475	Logger is likely positioned above the water table. Manual dips indicated ongoing drawdown.
VKY041C (38, 51, 70, 95, 115m)	VWP (DT2055-02027)	11/03/2015 – 02/07/2026	4060	-
VKY041C (140, 170, 199m)	VWP (DT2055-02023)	11/03/2015 – 02/07/2026	4011	-
VKY042C	Logger (Rugged TROLL 100)	04/11/2020 – 03/07/2026	8268	-
VKY043C	Logger (Rugged TROLL 100)	15/04/2020 – 13/07/2023	4739	Logger stopped reading in July 2023.
VKY33C (38, 51, 70, 95, 115m)	VWP (DT2055-02087)	11/03/2015 – 02/07/2026	4132	-
VKY33C (140, 170, 190m)	VWP (DT2055-02029)	11/03/2015 – 02/07/2026	4132	-
VS048 (30m)	VWP	04/03/2020 – 07/07/2026	2002	-
WR1	Logger (Rugged TROLL 100)	30/04/2024 – 08/07/2026	3197	Hydrographs shown potential data inversion between WR1 and WR2 data records.

Bore ID	Sensor Type (PT/VWP)	Recording Period	Number of Data Points	Comments
WR2	Logger (Rugged TROLL 100)	30/04/2024 – 08/07/2026	3196	Hydrographs shown potential data inversion between WR1 and WR2 data records.
SB07	Logger (Rugged TROLL 100)	03/06/2020 – 05/07/2026	2224	-
VS056	VWP (SN11-1771)	04/03/2020 – 07/07/2026	2078	-
VS056	VWP (SN11-1765)	04/03/2020 – 07/07/2026	2077	-
VS54	VWP (SN11-1769)	16/11/2023 – 08/07/2026	965	-
VS58	VWP (SN11-1768)	16/04/2020 – 06/07/2026	8998	-
VS59	VWP	16/04/2020 – 06/07/2026	9087	-
VS62	VWP	14/11/2023 – 06/07/2026	974	-

2.4.2 TARP Trigger Level Summary

2.4.2.1 Alluvial aquifer

No groundwater level trigger exceedances were recorded in the alluvial aquifer bores during the reporting period. Figure 2.7 presents the hydrographs for the alluvial bores with established groundwater triggers. These are presented as depth below ground level, as per the current GWMP.

Groundwater levels in the alluvial aquifer (see Figure 2.3) generally remained within historical ranges during the reporting period, with most bores showing a slight overall downward trend with sub-annual variability. Both of these behaviours are likely related to climate.

2.4.2.2 Permian aquifer

No groundwater level trigger exceedances were recorded in the Permian aquifer bores during the reporting period. Figure 2.8 presents the hydrographs for the Permian bores with established groundwater triggers. These are presented as depth below ground level, as per the current GWMP.

Groundwater levels in the Permian aquifer bores (Figure 2.4) generally remained within historical ranges during the reporting period, with the following exceptions:

- VKY series bores: Ongoing drawdown persists at VKY034C, VKY035C, VKY036C and VKY042, located east of the open cut. These bores lie within the mining footprint and are predicted to experience drawdown that exceeds bore depth.
- The July 2026 measurement for VKY043C is most likely erroneous based on the previous trend and considering it is a 12m water level increase. We recommend this bore be resampled prior to the next sampling round (see Section 4).

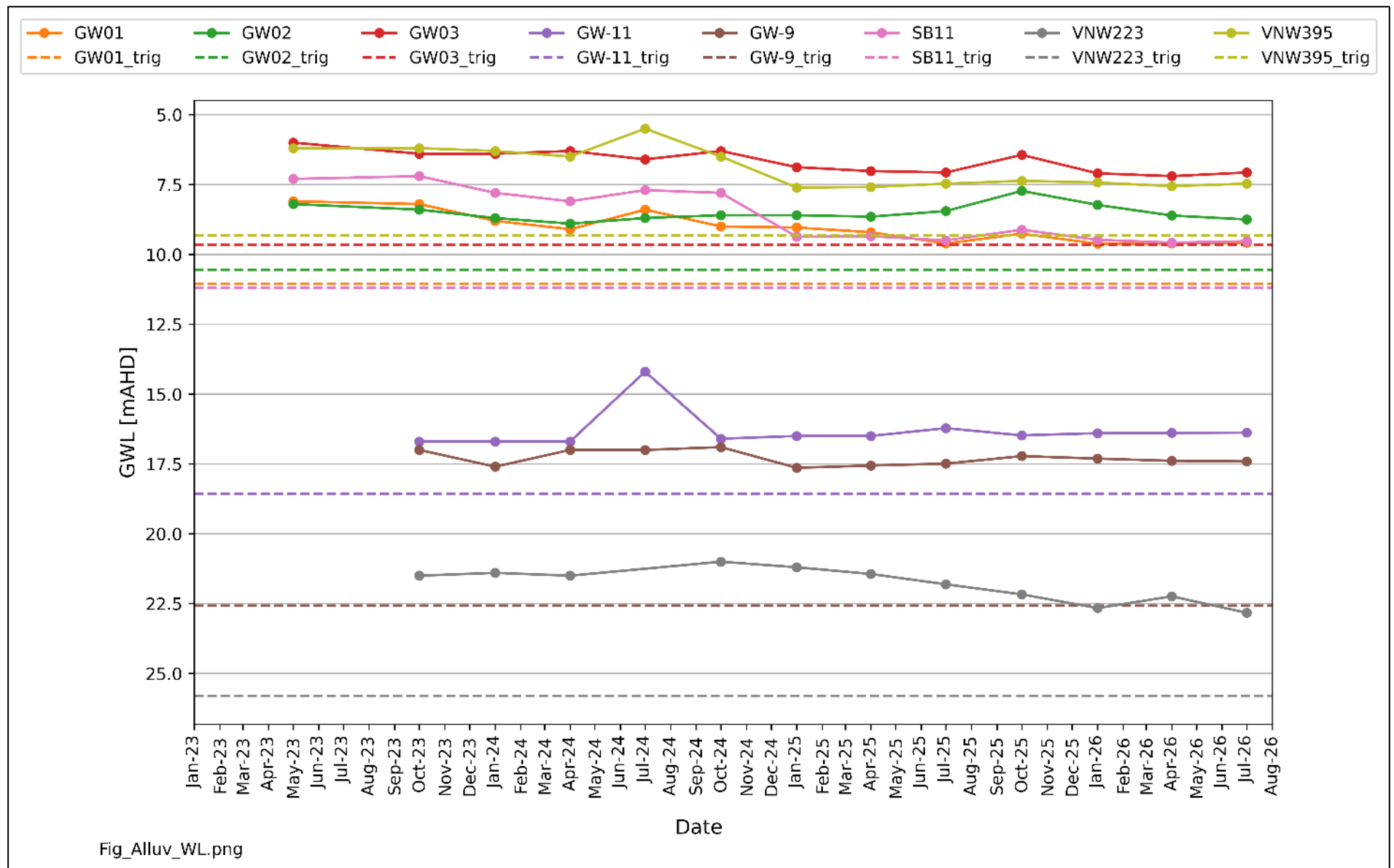


Figure 2.7 Alluvial hydrographs and triggers

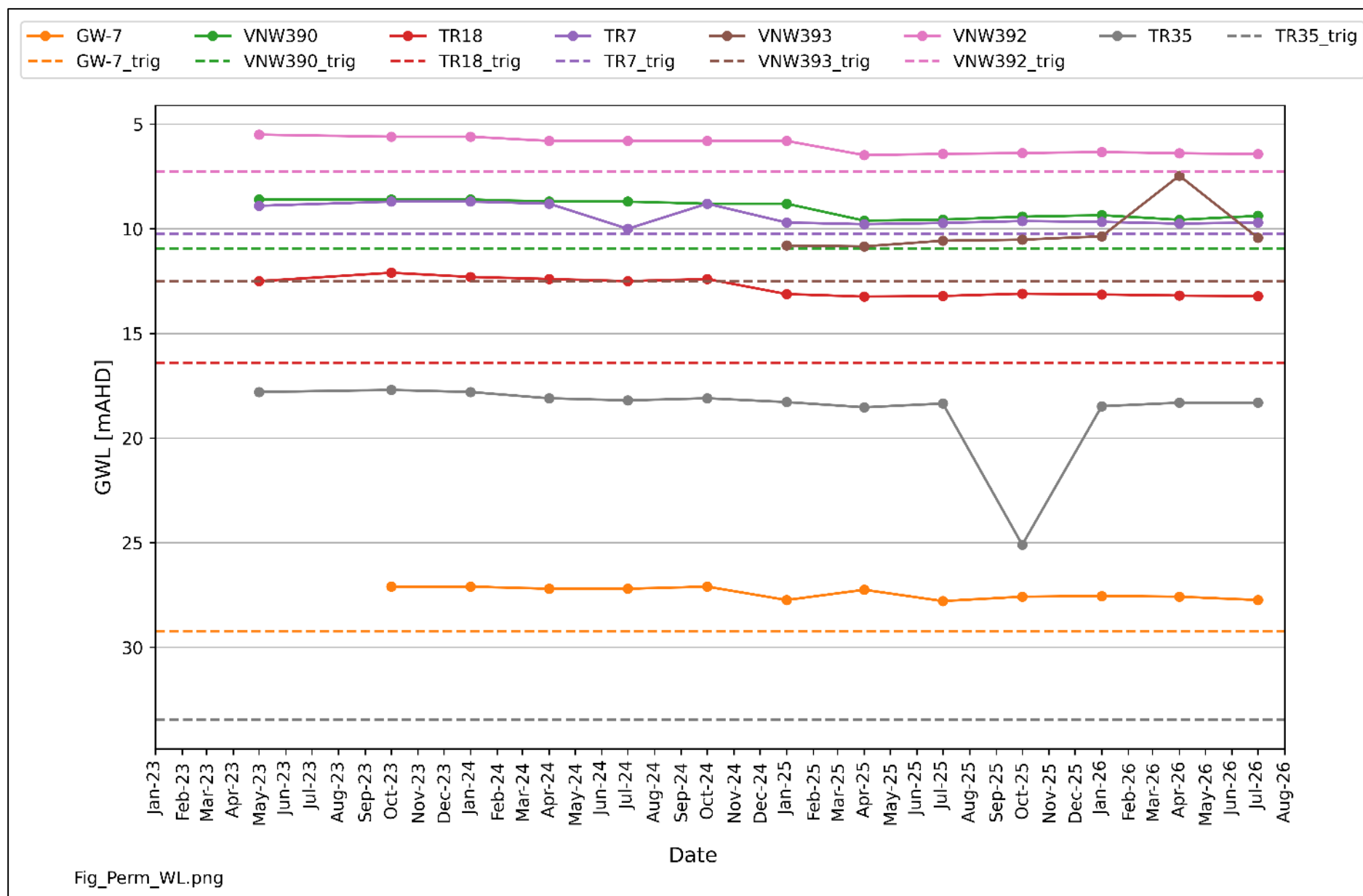


Figure 2.8 Permian hydrographs and triggers

2.4.2.3 Discussion

Coal extraction activities continue to intersect groundwater, and monitoring of groundwater inflows to the pit remains ongoing. The current reporting period (May through July 2026) was characterised by significant rainfall events during May and June 2026, which provided substantial groundwater recharge and contributed to the maintenance of groundwater levels within the range anticipated under existing hydrogeological conditions and approved mining impacts. Groundwater levels, particularly within the alluvial monitoring network, have historically exhibited a strong response to rainfall variability. Accordingly, interpretation of groundwater level trends requires consideration of both mining-induced influences and prevailing climatic conditions.

Within the area of approved drawdown (i.e. monitoring bores subject to approved levels of drawdown and therefore not assigned groundwater level trigger values), groundwater level data indicate the onset of drawdown, evidenced by declining groundwater level trends. This response is considered consistent with the progression of mining activities during the reporting period. Therefore, the observed drawdown response is likely to have been moderated by recharge associated with the above-average rainfall recorded during May and June 2026. The groundwater level behaviour observed during the reporting period remains consistent with the predicted and approved groundwater impact assessment.

Assessment of groundwater level monitoring results against the trigger values specified in the GWMP identified no exceedances during the reporting period. Accordingly, no groundwater level triggers were activated, and implementation of Trigger Action Response Plans (TARPs) was not required.

2.5 Groundwater Quality and Exceedance Summary

Routine groundwater monitoring commenced in October 2023 and continues quarterly with the latest results from July 2026. As set out in Table 8-3 of the GWMP, several bores recorded values that activated the TARP in July 2026 but only a few bores require additional discussion. Bores that exceed trigger values in July 2026 are summarised in Table 2.4 below and Appendix D provides the complete record of the last several months of monitoring data. Trigger values in the GWMP are based on either interim values or ANZECC default guideline values for slightly to moderately disturbed ecosystems. Trigger investigations are only required where the trigger value is specific to the bore.

Except for the pH values in TR7 and EC values in GW02, GW03, and TR7, all measurements made in July 2026 were either below the trigger level or the trigger levels are based on interim values or default ANZECC guidelines. These interim and ANZECC trigger levels were defined using standard guideline values and, consequently, may not reflect local natural conditions. A review of the trigger values specific to local conditions and bores has been undertaken and new values will be adopted once the GWMP and TARPs take effect.

The following bores exceeded bore-specific triggers and are discussed in the following subsections:

- GW02
 - Recorded EC readings of 991 $\mu\text{S}/\text{cm}$ (field) and 924 $\mu\text{S}/\text{cm}$ (lab) with the field measurement above the trigger value of 969 $\mu\text{S}/\text{cm}$.
- GW03
 - Recorded EC readings of 903 $\mu\text{S}/\text{cm}$ (field) and 897 $\mu\text{S}/\text{cm}$ (lab) with both measurements above the trigger value of 811 $\mu\text{S}/\text{cm}$.
- TR7: pH and EC
 - Recorded pH readings of 6.9 (field) and 7.2 (lab) which are both below the trigger range of 7.4-7.8.
 - Also recorded EC readings of 13500 $\mu\text{S}/\text{cm}$ (field) and 14800 $\mu\text{S}/\text{cm}$ (lab) with both measurements above the trigger value of 12970 $\mu\text{S}/\text{cm}$.

2.5.1 GW02

During the July 2026 monitoring round, EC at GW02 exceeded the trigger value of 969 $\mu\text{S}/\text{cm}$ with a measured value of 991 $\mu\text{S}/\text{cm}$. The concurrent lab sample was 924 $\mu\text{S}/\text{cm}$, which is below the trigger value. Under the TARP, exceedance assessments are based on validated laboratory results. As the July 2026 laboratory EC result was below the trigger value, no TARP action is required as this reflects “Normal Conditions”.

For due diligence, Figure 2.9 presents field and lab EC data for GW02 along with groundwater level data. This plot shows that EC in this bore is often and historically recorded near the trigger value but also that readings are generally stable between 850 and 1050 $\mu\text{S}/\text{cm}$ (i.e. no rising trend). Groundwater level data in the same plot shows variability that is in-line with other alluvium bores (see Figure 2.3), showing a trend with climate (e.g. 2022-2023 and late-2025) but no clear declining trend that would indicate mining impacts.

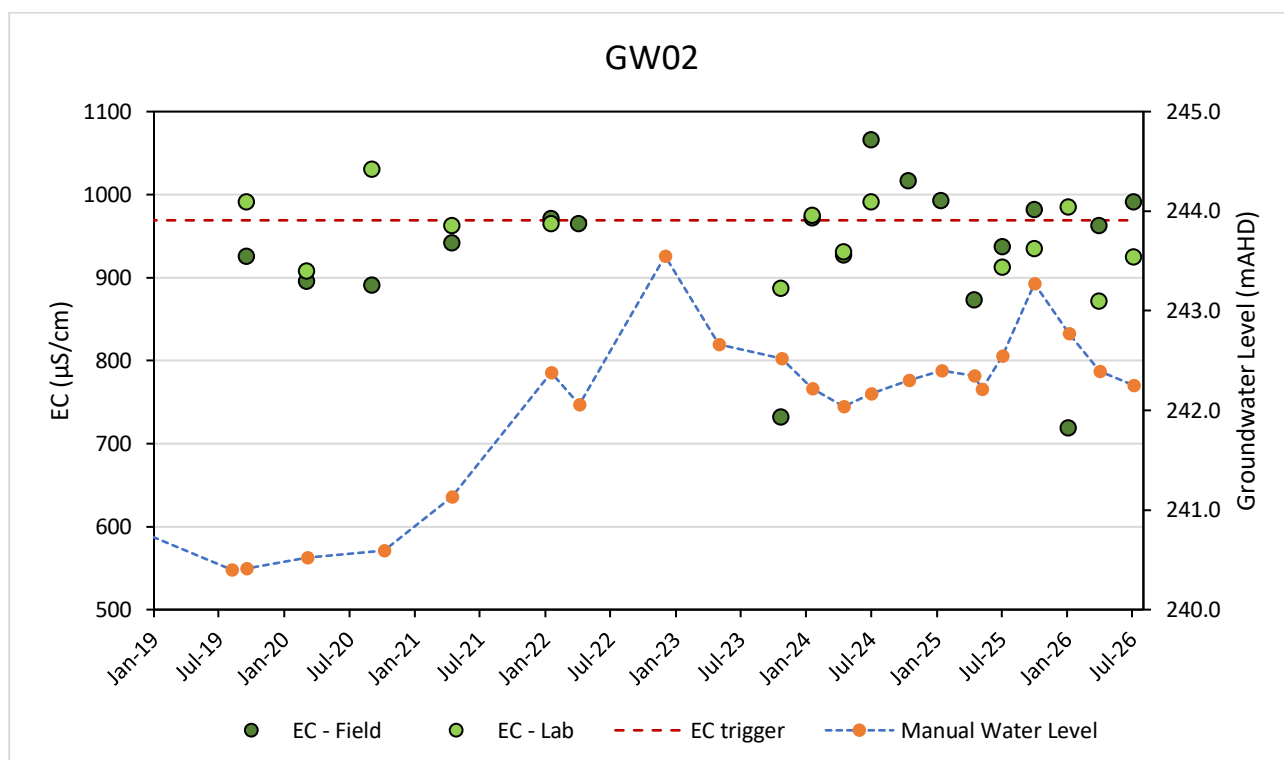


Figure 2.9 GW02 EC and manual groundwater level data

2.5.2 GW03

During the July 2026 monitoring round, EC at GW03 exceeded the trigger value of 811 $\mu\text{S}/\text{cm}$ with a measured value of 903 $\mu\text{S}/\text{cm}$. The concurrent lab sample was 897 $\mu\text{S}/\text{cm}$, which is also above the trigger value. Under the TARP, exceedance assessments are based on validated laboratory results. As the July 2026 laboratory EC result also exceeded the trigger value and this is greater than the third consecutive exceedance, a Level 2 trigger response was implemented per the TARP, which would include re-sampling of groundwater quality within seven days, a preliminary hydrogeologic investigation, and reporting of the exceedance in the Annual Review. However, as discussed in the following paragraphs, the exceedance is related to Normal Conditions rather than impacts from mining.

Figure 2.10 presents the historic field and laboratory EC results for GW03, together with concurrent groundwater level data. Overall, this plot shows that the groundwater level for GW03 is fairly consistent since 2023 between 243.5 and 244.5 mAHD and shows impact from climate variability (e.g. 2022-2023) but with no clear declining trend to indicate mining impacts. Furthermore, the plot shows that EC data, both field and lab samples, are routinely above the trigger level of 811 $\mu\text{S}/\text{cm}$ and do not show any increasing trend that would suggest rising salinity or mining impacts.

The 2025 bore condition survey recorded an observed bore depth of 43.38 mBTC and a standing water level of 6.72 mBTC (compared to 7.07 in July 2026). A downhole camera survey identified a screened interval from 37.95 to 42.9 mBTC, broadly consistent with the screened interval listed in the GWMP of 35.15 to 41.15 mBTC. The survey also identified sediment accumulation obscuring the base of the bore. GW03 was not airlift developed during the survey due to the larger bore diameter of 150 mm.

In accordance with the Level 2 TARP requirements, a preliminary hydrogeological investigation is required to assess the cause of the EC exceedance and determine whether it is mining-related (although this is not likely the case). Review of historic EC and groundwater level data (Figure 2.10) shows that neither EC nor groundwater level show trends that would be expected if the bore were influenced by mining (increasing EC

and declining GWLs, respectively) but instead both are effectively stable. This implies that the latest EC measurement is within historic levels and thus reflect natural conditions and not mining. This assessment constitutes a preliminary investigation per the TARP and as it is determined the behaviour is not mining relates. Therefore no further action is required or recommended at this time

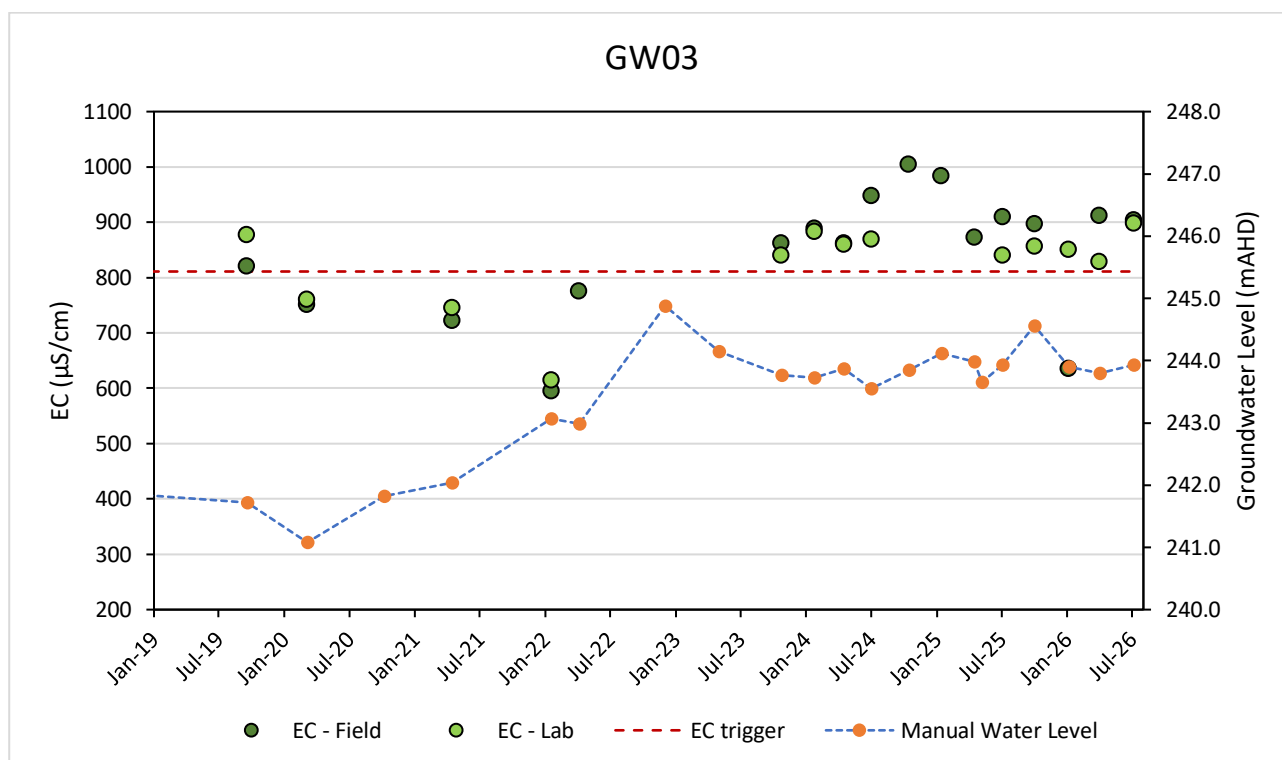


Figure 2.10 GW03 EC and manual groundwater level data

2.5.3 TR7

EC readings for TR7 in July 2026 were recorded at 13500 µS/cm for field sample and 14800 µS/cm for lab data. These values both exceed the trigger level of 12970 µS/cm and as these latest measurements are more than the third consecutive exceedance a Level 2 trigger response was implemented per the TARP, which would include re-sampling of groundwater quality within seven days, a preliminary hydrogeologic investigation, and reporting of the exceedance in the Annual Review. However, as discussed in the following paragraphs, the exceedance is related to Normal Conditions rather than impacts from mining.

EC data from 2019 (consistent since 2023) to present are provided in Figure 2.11 and this plot shows that EC is nearly always above the prescribed trigger level and also consistent over the last several years – in fact there may even be a slight declining trend developing (not statistical analysis has been done to confirm this). Overall, this pattern of consistent (possibly declining) trend in EC indicates there is no increasing salinity in the groundwater at this bore. This implies that the latest EC measurement is within historic levels and thus reflect natural conditions and not mining impacts. This assessment constitutes a preliminary investigation per the TARP and as it is determined the behaviour is not mining relates. Therefore, no further action is required or recommended at this time

During the July 2026 monitoring round, field and lab pH readings were 6.9 and 7.2 (respectively) which are both also outside (below) the trigger criteria range of 7.4 and 7.8. These datasets are presented in Figure 2.12 and, similar to EC, show that the data is regularly below the trigger level and also does not show a clear trend that could indicate impacts to the groundwater quality from mining. Furthermore, the previous lab pH sample in April 2025 was within the pH trigger range and so the July reading is not “two consecutive exceedances” per the TARP Level 1 assessment so no action is required.

Groundwater level data is shown on both Figure 2.11 and Figure 2.12 and shows a similar generally-stable trend with variability due to climate (e.g. 2022-2023). The groundwater level data, along with stable trends in

EC and pH indicate that the exceedances in this bore is 1) not related to mining but rather reflects natural conditions and 2) may indicate that the trigger values need to be updated to reflect natural conditions in these bores. Overall the EC and pH readings in July 2026 are part of “normal conditions” and so no further action is recommended and higher level TARP requirements are not enacted.

The 2025 bore condition survey recorded a total depth of 18.56 mBTC and a standing water level of 9.75 mBTC at TR7. Following airlift development, the downhole camera survey identified a screened section from approximately 15.99 mBTC to at least the top of a bailer lodged in the bore at 18.56 mBTC. The observed screened interval and bore depth differ from the GWMP construction details, which list the screened section as 11.27 to 17.27 mBTC. Evidence of PVC glue was also observed in the bore.

Consistent with previous assessments, the TARP is not enacted for TR7 on the basis that the July 2026 results are consistent with previously observed conditions and do not indicate a material change in groundwater quality. However, the bore condition survey findings indicate that TR7 requires review as part of the groundwater monitoring network, including confirmation of construction details, consideration of the lodged bailer, and assessment of whether the bore remains suitable for ongoing monitoring. The existing trigger values for TR7 are proposed to be reviewed and updated as part of the upcoming GWMP and TARP revision.

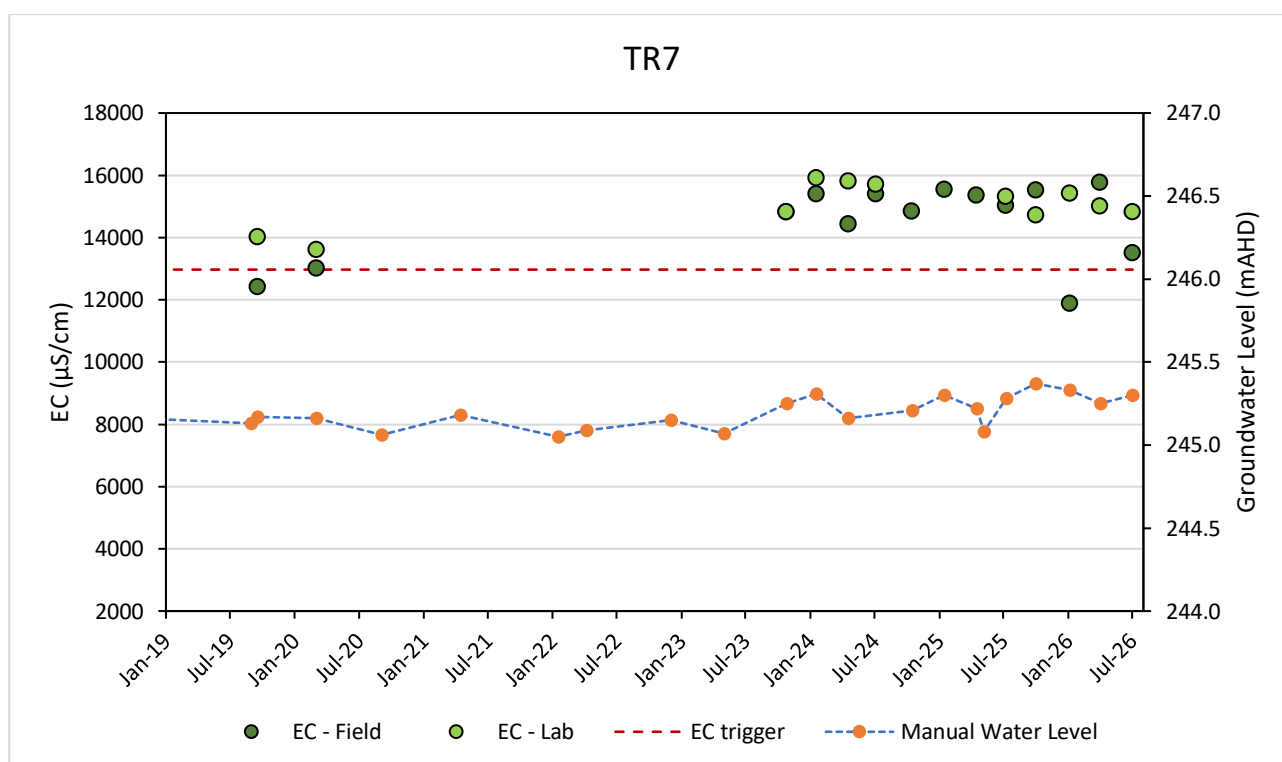


Figure 2.11 TR7 EC and manual groundwater level data

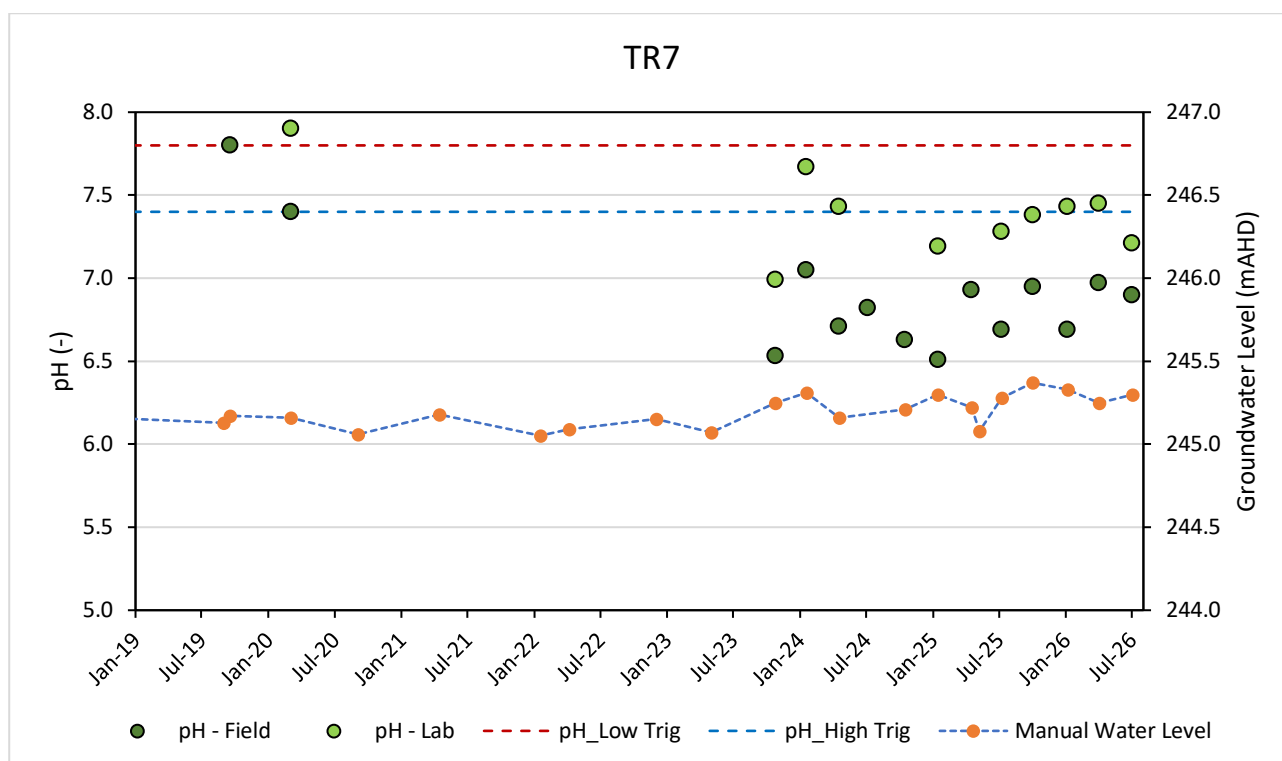


Figure 2.12 TR7 pH and manual groundwater level data

2.5.4 Piper Diagrams

In addition to reviewing tabulated water chemistry data, piper diagrams were developed as part of this quarterly review to present the geochemical signature of groundwater at each bore. Piper plots will continue to be prepared for both the alluvial and Permian aquifers to compare the geochemical signature over time.

Figure 2.13 and Figure 2.14 show the piper diagrams for the alluvium and Permian groundwater regimes respectively. Where data was available, the July 2026 and average over the 2025 data is presented for analysis of significant changes in geochemistry across the suite of bores. While the signature for any specific bore may change between the two periods, the plots show no trending variation between historical and current geochemical signature that would suggest considerable changes to groundwater chemistry across the two groundwater regimes.

Although some exceedances were identified in the July 2026 data, many trigger values are based on ANZECC general guidelines and not bore- or sight-specific conditions. Thus trigger 'exceedances' are often reflective of trigger levels that are broad guidelines and do not consider local groundwater conditions and do not necessarily impacts from mining or changes in water quality. This is supported by review of the individual temporal data which do not indicate consistent increasing or decreasing trends over time, or across multiple locations. Additionally, there is no correlation with groundwater level trends (as groundwater is typically stable).

Table 2.4 Summary of July 2026 pH trigger exceedances

Site ID	pH-Low Trigger	pH-High Trigger	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
TR7	7.4	7.8	6.51	6.93	6.69	6.95	6.69	6.97	6.86
VNW390	6.9	8.3	-	6.84	6.84	-	6.87	-	6.89
VNW392	6.9	8.3	6.47	6.67	6.71	6.77	6.66	6.83	6.67
VNW393	6.9	8.3	-	-	-	-	-	-	6.8
VNW394	6.9	8.3	6.87	6.84	6.76	6.62	-	-	6.16
WR1	6.5	8.5	-	-	-	-	-	-	6.43
WR2	6.5	8.5	6.41	-	6.39	-	-	-	6.35

Notes: 999 indicates a high-trigger exceedance.

999 indicates a low trigger exceedance.

Table 2.5 Summary of July 2026 EC trigger exceedances

Site ID	EC Trigger	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
GW01	1000	1244	-	1388	-	-	1446	1163
GW02	969	992	-	-	981	-	-	990.5
GW03	811	983	872	909	896	-	911	903.1
GW-10	1000	1423	1808	1806	1950	1191	1625	1599
GW-13	1000	1570	-	1009	-	-	-	1012
GW-14	1000	4260	3360	3710	4230	3210	-	2990
GW-15	1000	-	-	-	-	-	-	2970
GW-2	1000	1339	1191	1254	1386	-	1271	1026
GW-6	1000	1256	1388	1453	-	1167	1792	1439
MD01	1000	1519	1438	1969	1737	1303	1740	1548
MD02	1000	1381	1232	1250	1347	-	1308	1118

Site ID	EC Trigger	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
MD03	1000	-	-	4880	4880	3380	4660	4930
SB01	1000	1851	1788	1729	1702	1194	1760	1721
SB02	1000	6990	6870	7120	7020	4590	8310	7160
SB04	1000	3420	2184	2790	2067	1613	2231	2271
SB05	1000	3660	3300	3500	3540	2540	3680	3370
SB06	1000	3160	2930	3240	2550	2120	3290	3100
SB09	1000	1045	1054	1027	1045	-	1008	1030
SB10	1000	2086	1839	2066	1681	1319	1806	1571
SB11	1000	1209	1144	1172	1159	-	1163	1095
SB15	1000	1163	1052	-	1087	-	1085	1052
TR18	1000	13810	13620	14060	13520	9310	-	12000
TR26	1000	6170	7290	7010	7040	4440	7840	6350
TR35	1000	18320	16180	17160	16950	12090	-	14500
TR7	12970	15520	15350	15020	15510	-	15760	13500
VNW390	2330	2629	-	2460	-	-	2424	2370
WR1	1000	25400	27300	25580	23500	20500	-	25800
WR2	1000	27900	26100	26800	22900	19790	-	26200

Note: 999 indicates a high-trigger exceedance.

Table 2.6 Summary of July 2026 SO₄²⁻ trigger exceedances

Site ID	Trigger value	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
GW-14	365	462	483	383	394	458	393	414
GW-7	86	414	354	362	331	340	355	335
MD03	86	-	-	151	139	122	135	117
SB02	365	1280	1110	1080	928	1050	1250	1160
SB05	365	447	380	400	463	513	452	428
SB06	365	366	-	414	-	391	399	398
TR18	86	630	552	644	602	678	616	561
TR26	86	229	217	211	180	196	277	220
TR35	86	526	562	631	611	650	613	558
TR7	365	458	507	702	517	559	639	488
VKY034C	86	115	117	138	94	106	104	107
VKY043C	86	-	-	-	-	-	432	430
VNW223/P-3	86	-	-	-	-	-	-	124
WR1	365	1490	1120	1250	1100	1050	1130	1220
WR2	365	1790	1250	1480	1340	1240	1350	1440

Note: 999 indicates a high-trigger exceedance.

Table 2.7 Summary of July 2026 Metals trigger exceedances

Metal Site ID	Trigger Value ¹	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
Chromium								
GW-2	0.001	0.002	0.004	0.003	0.003	0.004	0.004	0.002
Cobalt								
MD03	0.0014	-	-	-	0.002	0.004	0.004	0.004
SB01		-	-	0.003	0.004	0.002	-	0.008
SB02		0.002	-	0.002	0.002	0.002	0.002	0.002
SB06		-	-	0.002	-	-	-	0.002
TR35		0.008	0.006	0.002	0.007	0.005	0.004	0.004
TR7		0.005	0.003	0.003	0.004	0.006	0.002	0.002
VKY043C		-	-	-	-	-	0.003	0.006
VNW392		0.002	0.003	0.003	0.003	0.003	0.002	0.003
VNW394		0.002	0.002	0.002	0.002	0.007	0.007	0.004
WR1		-	0.004	0.005	0.002	0.002	0.004	0.003
WR2		0.014	0.01	0.015	0.01	0.005	0.017	0.015
Copper								
GW01	0.0014	-	0.002	0.002	-	0.004	-	0.005
GW02		-	-	0.009	0.02	-	0.003	0.004
GW03		-	-	-	0.004	-	0.002	0.006
GW-10		-	0.141	0.106	0.118	0.094	0.059	0.04
GW-13		-	0.035	0.005	-	0.004	0.003	0.004
GW-14		-	-	-	-	-	-	4.53

Metal Site ID	Trigger Value ¹	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
GW-4	0.011	-	-	-	-	-	-	0.002
SB06		-	0.006	-	0.024	0.002	-	0.003
SB07		-	0.002	-	0.004	-	0.01	0.004
SB08		-	-	-	0.002	-	0.012	0.006
SB09		-	-	-	-	-	-	0.005
SB11		-	0.005	0.003	0.002	-	0.002	0.002
SB15	0.011	-	0.002	-	0.008	0.003	0.003	0.002
TR35		-	0.844	1.17	4.67	0.546	2.6	5.48
TR7		-	0.387	1.44	1.25	0.194	-	0.005
VKY042C		-	0.003	0.002	0.01	0.005	0.003	0.004
VKY043C		-	-	0.002	-	0.005	0.011	0.002
VNW394		-	-	-	-	-	-	0.016
VNW395		-	-	-	-	0.002	0.014	0.018
WR1		-	2.35	0.619	0.564	0.208	2.41	0.933
WR2	-	0.002	0.002	0.002	0.003	0.102	0.005	
Nickel								
MD02	0.011	-	0.012	0.012	0.013	0.016	0.013	0.012
TR18		-	0.013	-	-	0.015	0.027	0.013
TR35		0.111	0.067	-	0.075	0.032	-	0.037
VNW390		0.024	0.026	0.017	-	0.012	0.019	0.037
VNW392		0.026	-	-	-	-	0.012	0.013
WR1		0.024	-	0.03	0.026	0.021	0.019	0.019

Metal Site ID	Trigger Value ¹	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
WR2		0.158	0.22	0.025	0.039	0.076	0.052	0.046
Zinc								
GW-10	0.008	0.116	0.13	0.115	0.07	0.102	0.116	0.106
GW-13		0.02	-	0.049	0.019	0.031	0.026	0.018
GW-14		0.031	0.077	0.087	0.035	0.073	0.017	0.09
MD01		0.014	0.034	0.012	0.01	-	-	0.01
TR18		-	0.01	0.011	-	0.017	0.015	0.013
TR26		-	0.013	-	0.009	-	0.019	0.01
TR35		0.009	0.011	0.01	0.033	0.015	0.022	0.022
TR7		-	-	-	0.018	0.025	0.01	0.013
VKY042C		0.015	0.013	-	0.037	-	0.013	0.014
VNW391		0.019	-	-	-	0.042	0.035	0.015
VNW395		-	-	-	-	-	-	0.013

Notes: ¹ ANZECC Guidelines.

999 indicates a high-trigger exceedance.

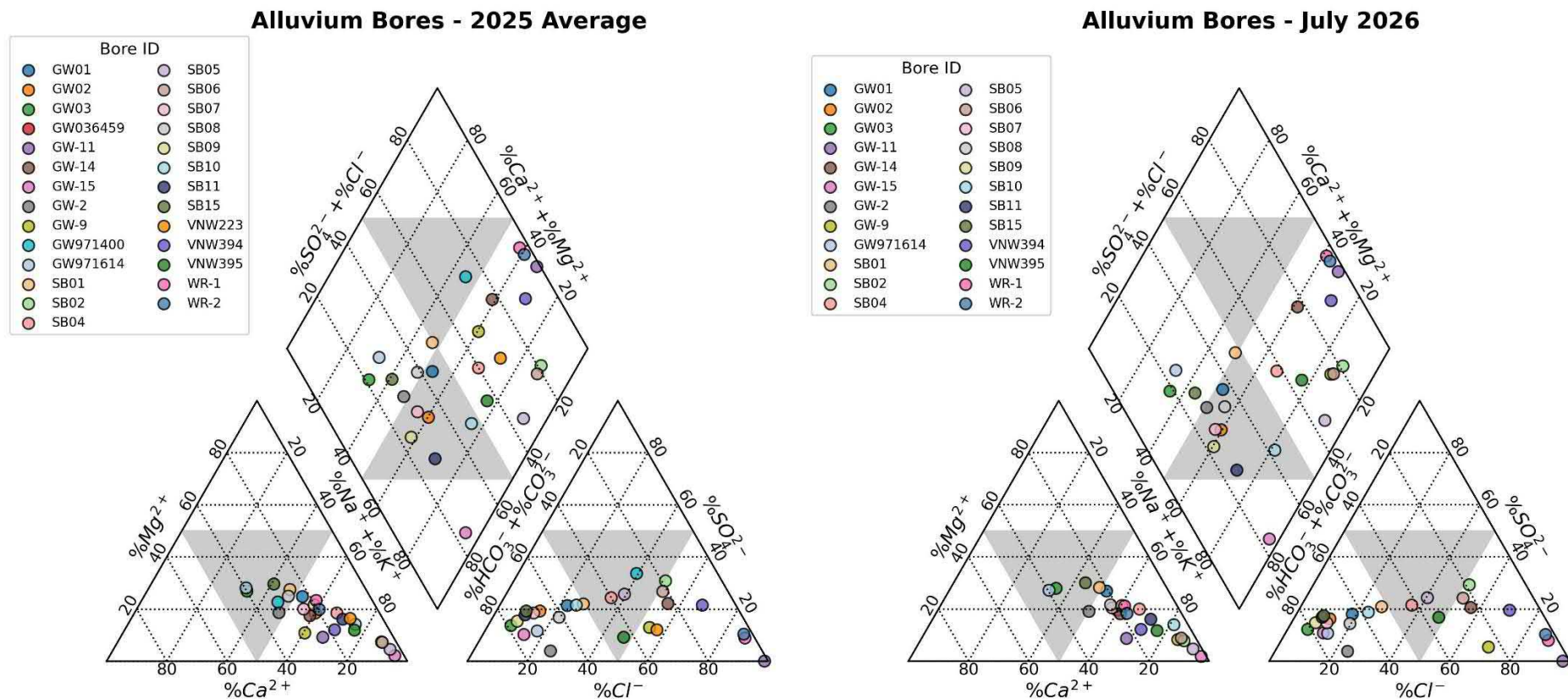
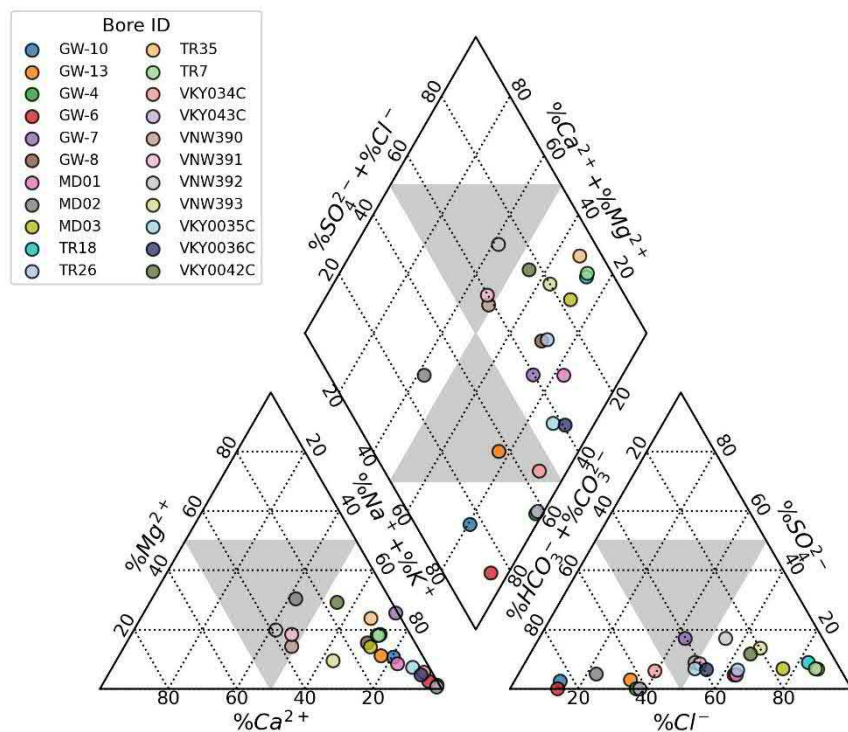


Figure 2.13 Alluvium groundwater piper plots

Permian Bores - 2025 Average



Permian Bores - July 2026

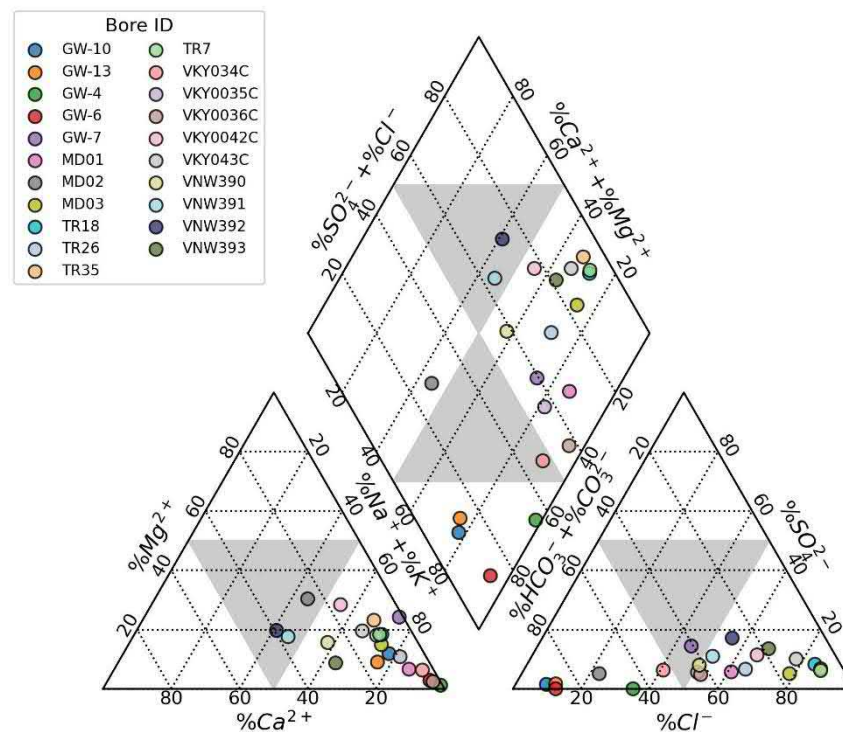


Figure 2.14 Permian groundwater piper plots

3 Action and Response

Based on the results summary presented in Section 2.5, groundwater level and groundwater quality are considered “Normal Conditions” for all monitoring bores and parameters, including the trigger exceedances recorded in GW03 and TR7. . The appropriate level actions and responses are summarised in Table 3.1.

Table 3.1 Summary of trigger actions and responses

Action / Response from Groundwater Quality TARP	Whitehaven Response
Trigger	
Normal Condition Groundwater pH remains within the baseline 5th and 95th percentile range, as specified in the GWMP. Other groundwater quality parameters remain below the baseline 95th percentile, as specified in the GWMP. Applies to GW02 EC and TR7 pH groundwater quality exceedances	Monthly monitoring and review of data is ongoing according to the monitoring program. No further action required.
Level 1 and Level 2 Two (three for Level 2) consecutive exceedances outside of the specified baseline range (pH) or above 95th percentile baseline (other quality parameters). Considered for GW03 EC and TR7 EC groundwater quality exceedances but after investigation it was determined that readings are consistent with historic data, show no trends that would indicate impact from mining, and are thus part of normal conditions	See Normal Conditions
Action	
Normal Condition Continue monitoring and review data as per the monitoring program	Monitoring and review of data is ongoing according to the monitoring program. No further action required.
Level 1 and Level 2 Undertake a preliminary hydrogeological investigation as efficiently as practicable to assess cause of quality exceedances and determine if mining related as per the requirements set out in Section 8.3 of the GWMP. Provided in Section 2.5 for GW02, GW03, and TR7	See Normal Conditions
Responses	
Normal Condition No Response Required	No response required.
Level 1 and Level 2 Report exceedances in Annual Review Include outcomes from the preliminary investigation report in Annual Review Assessment of EC and pH in GW03 and TR7 will be provided in the Annual Review	Report findings in Annual Review

4 Recommendations

Table 4.1 provides a summary of the historical recommendations, from Annual Review and prior quarterly reporting, with comments on their current status. Additional recommendations from this report are appended to the end of Table 4.1 and are as follows:

- Conduct follow-up sampling at GW03 following EC exceedance and in-line with TARP.

Table 4.1 Summary and status of recommendations to-date

Recommendation	Cited	Status
Continue the monitoring program and the quarterly reporting on groundwater levels and quality as outlined in the GWMP.	2023 Annual Review	ONGOING: ongoing monitoring and reporting established.
Review logger data from TR7, GW01, and GW02 as appears erroneous, and replace as necessary.	April 2024 Quarterly	ONGOING: Loggers review underway.
Verify sensor depths for all VWP's in the network to assist with groundwater level calculation (calibration certificates in hand for review and update of database). Revise trigger levels based on updated sensor depth and calibration data. If this calibration data is unavailable, the overall usefulness of these bores to the network will be reviewed as part of the 2024 annual review.	April 2024 Quarterly	ONGOING: Verify sensor depths for VKY033C (or VKY3033C) and VKY041C to assist with groundwater level calculation. COMPLETED: Sensor depths have been verified for all standpipe loggers and VWPs, except for abovementioned VKY033C and VKY041C.
When adequate baseline data becomes available, review and update the quality trigger values.	October 2024	ONGOING: Trigger level review underway.
Notable disparity between manual dips and logger readings for bore GW03. It is recommended that the logger be reviewed and calibrated as necessary to ensure data accuracy.	July 2025	COMPLETED: New logger installed in April 2026.
Continuous water level data are missing for bores VS056 (since April 2025) and VNW395 (since April 2024). It is recommended that logger data for both sites be reviewed to restore a complete water level record, in line with GWMP requirements.	July 2025	ONGOING: Loggers review and installation in progress.
Resample EC at GW03 as per the TARP Level 1 TARP Action.	October 2025	COMPLETED: The laboratory EC results in January 2026 round continued to exceed the trigger level at GW03. Re-sample of groundwater quality within seven days and report the EC exceedances in Annual Review.
Field notes indicate VNW223 was "blocked at approximately 2 m". The downhole camera survey conducted in May 2025 suggested this bore in suitable condition. It is recommended that the condition of VNW223 be reviewed during the next monitoring round. If the bore remains blocked, bore development should be undertaken to restore full functionality.	October 2025	COMPLETED: Bore VNW223 was dipped and sampled during the January 2026 monitoring round with no issues noted during field inspection. The bore is therefore considered to be in suitable condition.
GW-6 sheared and should be removed from the ongoing monitoring regime.	October 2025	COMPLETED: GW-6 was dipped and sampled in the January 2026 monitoring round. It is therefore assumed that access to the bore has been restored and routine monitoring has resumed.
VKY3053 has been decommissioned, as consumed by the mining progression.	October 2025	COMPLETED: VKY3053 has been consumed by mining progression and is no longer present in the field. It is therefore recommended that the bore be removed from the GWMP.

Recommendation	Cited	Status
Bore GW-8 was neither sampled nor dipped during the January 2026 monitoring round, and the corresponding field note comment was not visible. It is recommended that the bore condition be inspected during the next monitoring round.	January 2026	COMPLETED: GW-8 decommissioned due to pit progression.
The logger at VKY036C is likely positioned above the water table within the well. Manual dips indicated [text partially obscured in source extraction]. Section 4-1 of the GWMP requires continuous water level monitoring at this bore. It is recommended that the logger be repositioned below the water table, taking into account the ongoing decline in groundwater level.	January 2026	ONGOING: As of April 2026 raw pressure readings are approximately equal to barometric pressure readings which likely indicates that the logger is not submerged.
Resample groundwater level in VKY043C	July 2026	NEW RECOMMENDATION
Investigate sensor / datalogger issues in: GW01, GW03, VNW395, TR7, TR18, VKY036C, VKY043C	July 2026	NEW RECOMMENDATION
Review logger data from WR1 and WR2 to investigation possible data inversion	July 2026	NEW RECOMMENDATION

5 References

Australasian Groundwater and Environmental Consultants Pty Ltd (AGE). 2026. *Memorandum: Vickery Bore Development and Downhole Camera Survey 2025*. Brisbane: Australian Groundwater and Environmental Consultants Pty Ltd.

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Appendix A

Vickery Coal Mine Monitoring Network

Table A 1 Vickery Monitoring Network

Bore ID	Easting MGA94 z56	Northing MGA94 z56	Ground level (mAHD)	Top of casing (mAHD)	Stick-up (m)*	Total depth (mBGL)	Bore base elevation (mAHD)	Geology/ Target Seam
VKY0035C	232704	6593357	291	-	-	-	-	Permian
VKY0036C	233122	6592923	298	-	-	-	-	Permian
VKY0042C	232543	6592599	292	-	-	-	-	Permian
VKY3033C	232367	6594263	286	-	-	-	-	Permian
VKY034C	232519	6593822	288	-	-	-	-	Permian
VKY041C	233398	6591349	292	-	-	-	-	Permian
VKY043C	233251	6590535	264	-	-	-	-	Permian
TR26	232439	6590097	258	258.00	-	20.26	237.74	Permian
TR7	232934	6589768	255	255.72	0.72	18.66	236.34	Permian
TR18	233431	6590031	259	259.87	0.87	21.70	237.30	Permian
TR35	233849	6590280	265	265.45	0.45	21.50	243.50	Permian
VS058	232013	6589200	253	-	-	-	-	Alluvial
SB02	232091	6588948	253	253.40	0.40	20.96	232.04	Alluvial
GW01	232194	6588470	253	253.55	0.55	48.84	204.16	Alluvial
SB15	232202	6588450	253	253.90	0.9	-	253.00	Alluvial
SB06	231496	6588862	252	252.30	0.30	20.61	231.39	Alluvial
SB11	231512	6588655	252	252.25	0.25	29.64	222.36	Alluvial
SB05	230866	6588834	251	251.78	0.78	15.31	235.69	Alluvial
SB10	230851	6588649	251	251.46	0.46	18.17	232.83	Alluvial
SB01	230195	6588780	250	250.90	0.90	25.02	224.98	Alluvial
SB09	230302	6588553	250	250.85	0.85	20.44	229.56	Alluvial
SB04	229587	6588821	250	250.40	0.4	9.23	240.77	Alluvial
SB08	229607	6588604	250	251.10	1.10	18.08	231.92	Alluvial
SB07	229012	6588609	251	251.73	0.73	18.16	232.84	Alluvial
GW02	229015	6588585	251	251.45	0.45	17.8	233.2	Alluvial
GW03	230934	6587753	251	251.77	0.77	44.00	207.00	Alluvial
VS062	229710	6589435	253	-	-	-	-	Permian
VS059	230800	6589601	257	-	-	-	-	Permian
MD01	230699	6590628	275	276.15	1.15	55.57	219.43	Permian

Bore ID	Easting MGA94 z56	Northing MGA94 z56	Ground level (mAHD)	Top of casing (mAHD)	Stick-up (m)*	Total depth (mBGL)	Bore base elevation (mAHD)	Geology/ Target Seam
VS056	230701	6590602	276	-	-	-	-	Permian
MD02	231497	6590805	297	297.66	0.66	62.40	234.60	Permian
VS054	231501	6590801	296	-	-	-	-	Permian
VS048	229400	6591001	253	-	-	-	-	Permian
VNW392	228366	6591835	249	249.56	0.56	62.58	186.42	Permian
VNW391	228367	6592075	250	250.56	0.56	52.00	198.00	Permian
VNW390	228378	6592285	252	252.81	0.81	54.40	197.60	Permian
VNW395	227964	6592451	248	248.85	0.85	15.35	232.65	Alluvial
VNW393	227098	6592858	252	252.74	0.74	59.94	192.06	Permian
GW-8	229744	6594228	262	-	-	-	-	Permian
VNW394	226096	6593878	246	246.00	-	26.4	219.60	Alluvial
GW-7	227283	6595119	263	263.34	0.34	-	263.00	Permian
VNW223	228895	6595354	252	252.74	0.74	28.20	223.80	Alluvial
GW-11	228584	6596967	250	250.30	0.30	45.50	204.50	Alluvial
GW-9	229494	6597418	252	252.64	0.64	24.50	227.50	Alluvial
GW036459	232850	6587623	255	-	-	-	-	Alluvial
GW-2	229401	6599060	255	255.00	-	-	255.00	Alluvial
GW030052	226617	6599387	248	-	-	-	-	Alluvial
GW030051	224987	6599591	244	-	-	-	-	Alluvial
VKY3053	230082	6593843	265	-	-	-	-	Permian
WR-1	227763	6595740	248	249.05	1.05	-	248.00	Alluvial
WR-2	227245	6596210	246	246.73	0.73	-	246.00	Alluvial
GW055938	232337	6588123	-	-	-	-	-	Alluvial
GW-14	226159	6597395	246	246.00	-	49.37	196.63	Alluvial
GW-6	231335	6599277	261	261.00	-	-	261.00	Permian
GW-13	231239	6597099	257	257.30	0.30	47.50	209.50	Permian
GW971614	227503	6588105	252	252.00	-	-	252.00	Alluvial
GW-10	232884	6596665	278	278.5	0.50	24.82	253.18	Permian
GW-4	230451	6597622	254	254.00	-	-	254.00	Permian
GW-15	234392	6588780	257	257.52	0.52	24.56	232.44	Alluvial

Bore ID	Easting MGA94 z56	Northing MGA94 z56	Ground level (mAHD)	Top of casing (mAHD)	Stick-up (m)*	Total depth (mBGL)	Bore base elevation (mAHD)	Geology/ Target Seam
GW971400	225659	6590958	250	-	-	-	-	Alluvial
Lanreef	227718	6588276	-	-	-	-	-	Alluvial
MD03	232704	6593357	257	257.64	0.64	53.50	203.50	Permian

Appendix B

Trigger Action Response Plan

	VICKERY	Documen	VCM
		Revision	As required
		Issue:	1.5
		Last	June 2025
		Date	27 June 2025
WHC_PLN_VCM_WATER MANAGEMENT P LAN_APPENDIX A_GROUNDWATER_ MANAGEMENT_PLAN			

Performance Measure and Indicator, TARP Objective and Assessment Criteria	Monitoring Program	Management		
		Trigger	Action	Response
Performance Measure Feature Negligible groundwater level impact on the Namoi Alluvium aquifer and associated surface watercourses, groundwater dependent ecosystems, and private landowner bores. Negligible groundwater level impact on the Permian bedrock and associated private landowner bores, outside that predicted by the approved groundwater impacts (Hydrosimulations, 2018). TARP Objective This TARP defines levels of deviation in groundwater level from 'normal' conditions and the actions to be implemented in response to each level deviation as a result of open cut mining. Assessment Criteria Bore specific trigger values are based on the water levels across the entire history of monitoring in each individual bore and the predicted impacts from the Hydrosimulations (2018) numerical groundwater model.	Locations Open standpipes and VWPs All monitoring locations as set out in Table 4-1 of the Groundwater Management Plan (GWMP). All monitoring locations are shown in Figure 4-1 of the GWMP. Monitoring Frequency During mining Quarterly manual measurements of water level. Continuous monitoring in bores installed with Vibrating Wire Piezometers (VWPs) and data loggers. Post-mining TBC	Normal Condition		
		Groundwater level remains above the respective trigger limits (defined as the 95th percentile over the baseline period and detailed in Table 8-2 of the GWMP) for each individual groundwater bore.	Continue monitoring and review of data as per monitoring program.	No response required.
		Level 1		
		One quarterly monitoring result shows an exceedance of the trigger limit as detailed in Table 8-2 of the GWMP.	<i>Actions as required for Normal Condition.</i> - Re-sample of groundwater level within seven days.	Report declines and climate investigation outcomes in Annual Review.
		Level 2		
		- Groundwater level in a groundwater bore exceeds the respective trigger limit during three consecutive quarterly monitoring rounds. OR - Complaint received by landowners of private bores regarding groundwater level declines.	<i>Actions as stated in Level 1.</i> For Open Standpipe Monitoring Bores, VWPs, and Private Bores: - Undertake a preliminary hydrogeological investigation as efficiently as practicable to check and validate the data and assess cause of trigger exceedances to determine if mining related as per the requirements set out in Section 8.3 of the GWMP. Review of groundwater levels to be carried out by qualified personnel. - Increase monitoring and review of data frequency for sites where Level 2 has been reached, subject to land access. For Private Bores: - Undertake investigation to demonstrate if the decline will impact the long-term viability of the affected water supply works. - Commence level monitoring of said private bore in monthly monitoring rounds, subject to negotiation and land access restrictions. The investigation will be commenced/ completed as efficiently as practicable.	<i>Responses as stated in Level 1.</i> - Include outcomes from the preliminary investigation report in Annual Review.
		Level 3		
		- The reduction in water level is determined in the Level 2 preliminary investigation not to be controlled by climatic or external anthropogenic factors. OR - Groundwater level in a groundwater bore continues to exceed the respective trigger limit during six consecutive monitoring rounds.	<i>Actions as stated in Level 2.</i> For Open Standpipe Monitoring Bores, VWPs, and Private Bores: - Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g., catchment changes, another effect unrelated to mining). - Review groundwater model. For Private Bores: - Review corrective management actions (CMAs) as specified in Section 8.3 of the GWMP considering findings from further investigations and consider additional reasonable and feasible options.	<i>Responses as stated in Level 2.</i> - Report trigger exceedance to DPE and key stakeholders. Provide the detailed investigation report to relevant agencies within a reasonable timeframe of identifying the non-compliance. - Report trigger exceedance and investigation outcomes in Annual Review. - Develop/design contingency and remedial measures based on the results of the above investigations. Contingency and remedial measures considered practical for implementation may include: - Undertake landholder and government consultation; - Offset groundwater leakage from the Namoi Alluvium aquifer; - Review and refine the GWMP including undertaking additional specific monitoring of private landholder bores; - Review Site Water Balance and predictive groundwater model; and - Review mine plan impacts on alluvial groundwater source. For Private Bores: - Provide DPE and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g., extending the depth of the bore, establishment of additional bores, compensation to affected landowners as per Section 8.3 of the GWMP). - Implement CMAs, subject to land access (finalise negotiations and implement the agreed "make-good" arrangements). - Monitor and report on success of CMAs in Annual Review.

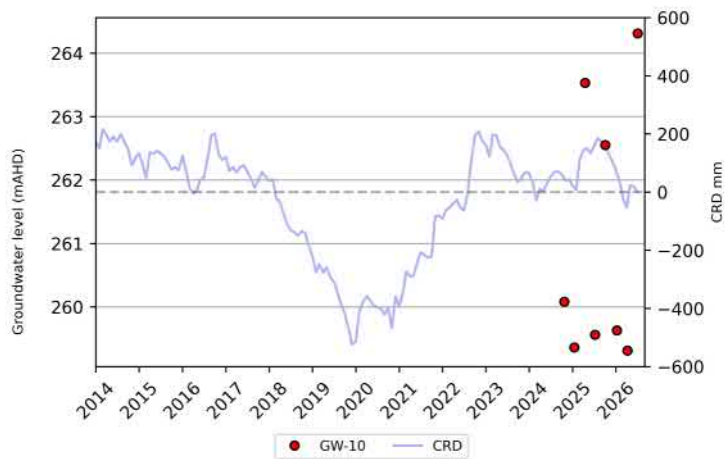
	VICKERY	Documen	VCM
		Revision	As required
		Issue:	1.5
		Last	June 2025
		Date	27 June 2025
WHC_PLN_VCM_WATER MANAGEMENT P LAN_APPENDIX A_GROUNDWATER_ MANAGEMENT_PLAN			

Performance Measure and Indicator, TARP Objective and Assessment Criteria	Monitoring Program	Management		
		Trigger	Action	Response
Performance Measure Feature Negligible quality impact on the Namoi Alluvium aquifer and associated surface watercourses and private landholder bores. Negligible quality impact on the Permian bedrock and associated private landowner bores, outside that predicted by the approved groundwater impacts (Hydrosimulations, 2018). TARP Objective This TARP defines levels of deviation in groundwater quality from baseline conditions and the actions to be implemented in response to each level deviation. Assessment Criteria Quality in each monitoring bore remains within the 5th and 95th percentile of the baseline conditions set out in Table 8-4 of the GWMP for the following parameters: - Electrical Conductivity; - pH; and - Sulfate. Other major and metal ions will be assessed against the relevant ANZECC guidelines.	Locations Open standpipes All open standpipe monitoring locations as set out in Table 4-2 of the GWMP. Monitoring Frequency During mining All monitoring sites on a quarterly basis as per Table 4-2 of the GWMP. Post-mining All monitoring sites on a quarterly basis as per Table 4-2 of the GWMP	Normal Condition		
		- Groundwater pH remains within the baseline 5th and 95th percentile range, as specified in the GWMP. - Other groundwater quality parameters remain below the baseline 95th percentile, as specified in the GWMP.	Continue monitoring and review of data as per monitoring program.	No response required.
		Level 1		
		Two consecutive exceedances outside of the specified baseline range (pH) or above 95th percentile baseline (other quality parameters).	- Actions as required for Normal Condition. - Re-sample of groundwater quality within seven days.	Report exceedances in Annual Review.
		Level 2		
		- Three consecutive exceedances (including re-samples from Level 1) outside of the specified baseline range (pH) or above 95th percentile baseline (other quality parameters). OR - Complaint received by landowners of private bores regarding groundwater quality declines.	- Actions as stated in Level 1. For Open Standpipe Monitoring Bores: - Undertake a preliminary hydrogeological investigation as efficiently as practicable to assess cause of quality exceedances and determine if mining related as per the requirements set out in Section 8.3 of the GWMP. Review of groundwater quality to be carried out by qualified personnel. - Increase monitoring frequency to monthly until exceedance ceases For Private Bores: - Collect quality sample from said private bore for comparison with wider aquifer data, subject to negotiation and land access restrictions. - Undertake investigation to demonstrate if quality will impact the long-term viability of the affected water supply works. The investigation will be commenced/ completed as efficiently as practicable.	- Responses as stated in Level 1. - Include outcomes from the preliminary investigation report in Annual Review.
		Level 3		
		- The water quality changes are determined from Level 2 preliminary investigation to not be controlled by climatic, local land uses, or other external anthropogenic factors. OR - Groundwater quality continues to decline with six consecutive exceedances outside of the specified baseline range (pH) or above 95th percentile baseline (other quality parameters).	- Actions as stated in Level 2. For Private Bores and Open Standpipe Monitoring Bores - Increase monitoring to at least monthly measurements for sites where Level 3 has been reached, subject to land access. - Undertake a detailed investigation to assess if the change in behaviour is related to mining effects (e.g., catchment changes, another effect unrelated to mining). - Review corrective management actions (CMAs) as specified in Section 8.3 of the WMP considering findings from further investigations and consider additional reasonable and feasible options.	- Responses as stated in Level 2. For Private Bores and Open Standpipe Monitoring Bores: - Report trigger exceedance to DPE and key stakeholders. - Report trigger exceedance and investigation outcomes in Annual Review. For Private Bores, if the changes have been confirmed to be related to mining effects: - Initiate negotiations with impacts landowners as soon as practicable. Consider all reasonable and feasible options for remediation as relevant (e.g., isolation, remediation, etc.). - Provide DPE and key stakeholders with proposed corrective management actions (CMAs) for consultation (e.g., extending the depth of the bore, establishment of additional bores, compensation to affected landowners as per Section 10.2.2 of the WMP). - Implement CMAs, subject to land access (finalise negotiations and implement the agreed "make-good" arrangements). - Monitor and report on success of CMAs in Annual Review.

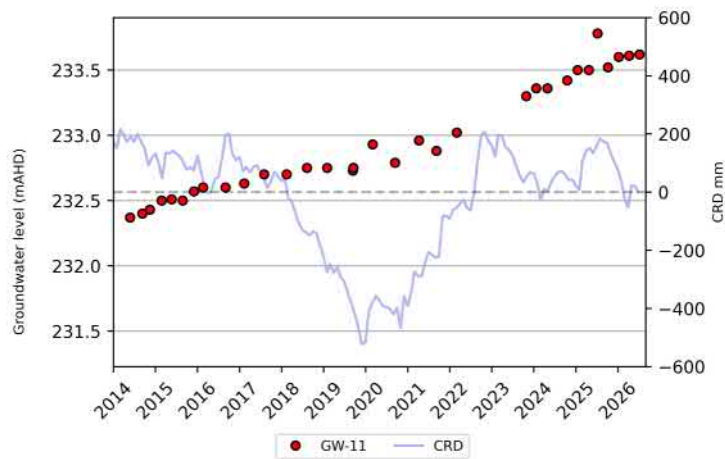
Appendix C

Groundwater Level Hydrographs

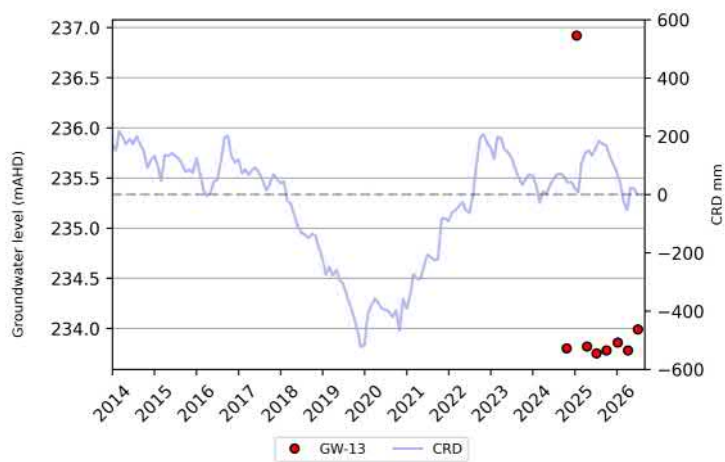
Hydrograph - GW-10



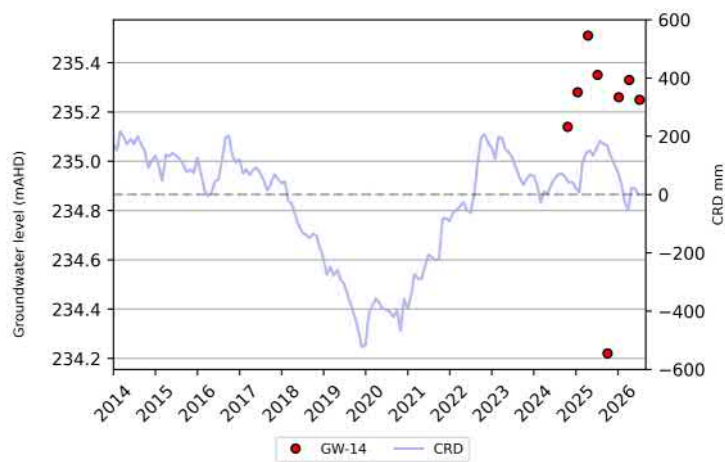
Hydrograph - GW-11



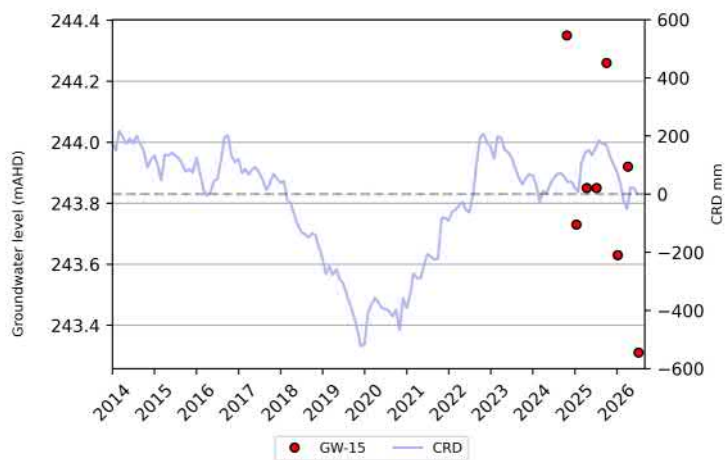
Hydrograph - GW-13



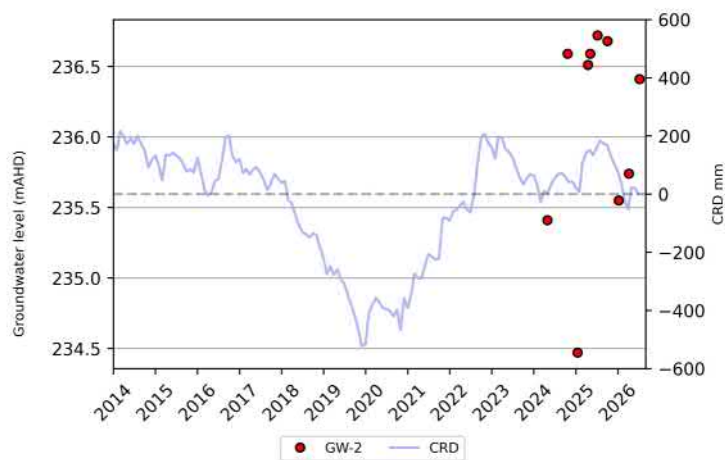
Hydrograph - GW-14



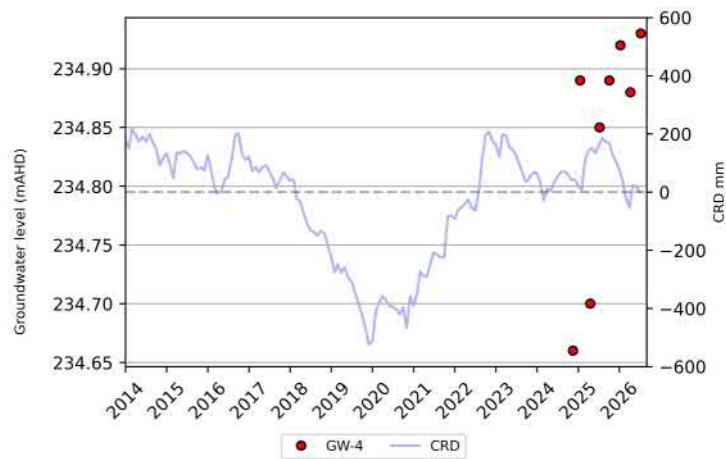
Hydrograph - GW-15



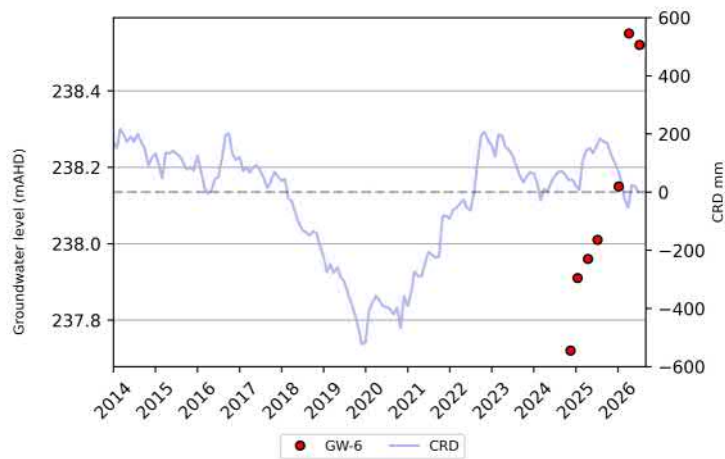
Hydrograph - GW-2



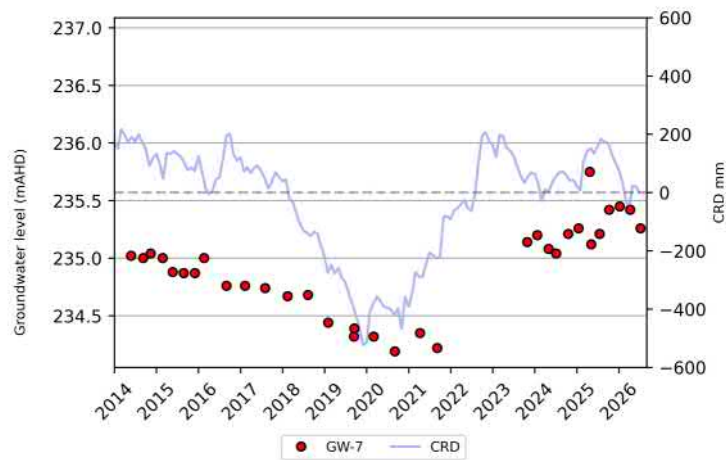
Hydrograph - GW-4



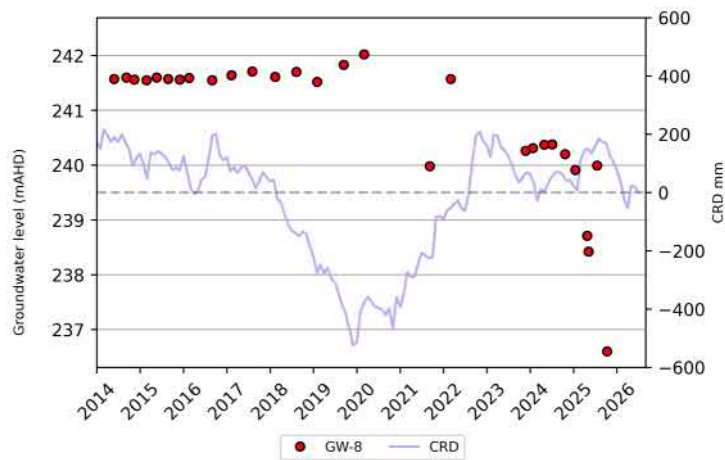
Hydrograph - GW-6



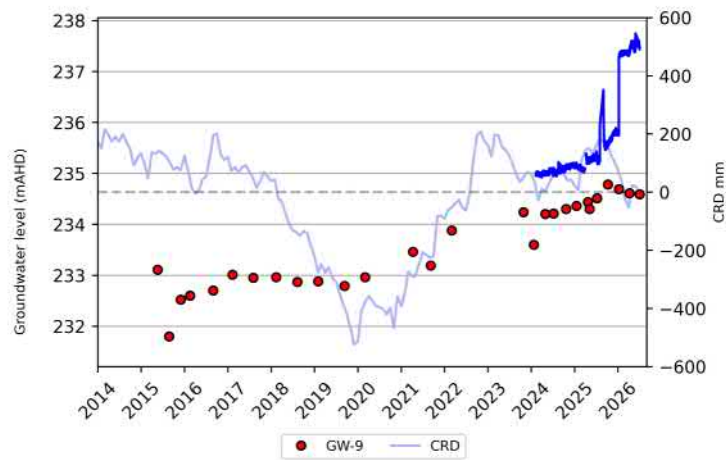
Hydrograph - GW-7



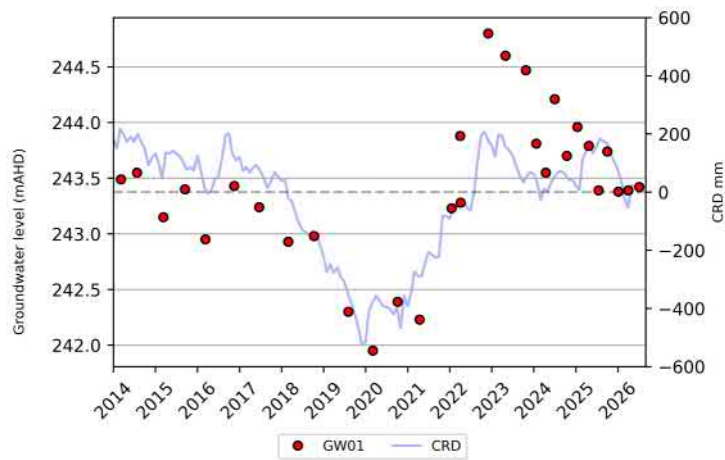
Hydrograph - GW-8



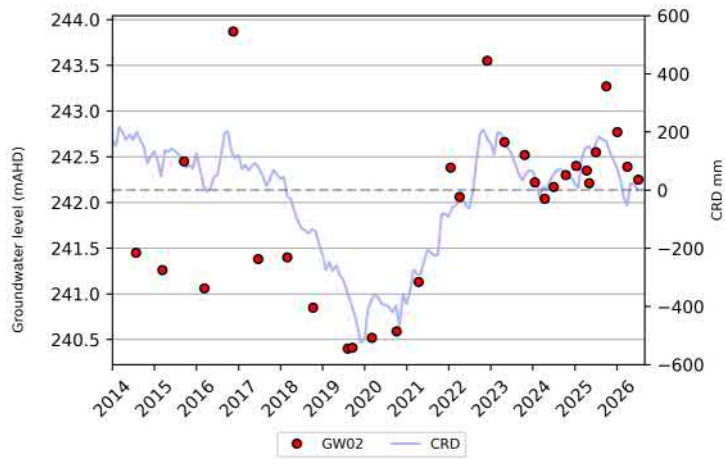
Hydrograph - GW-9



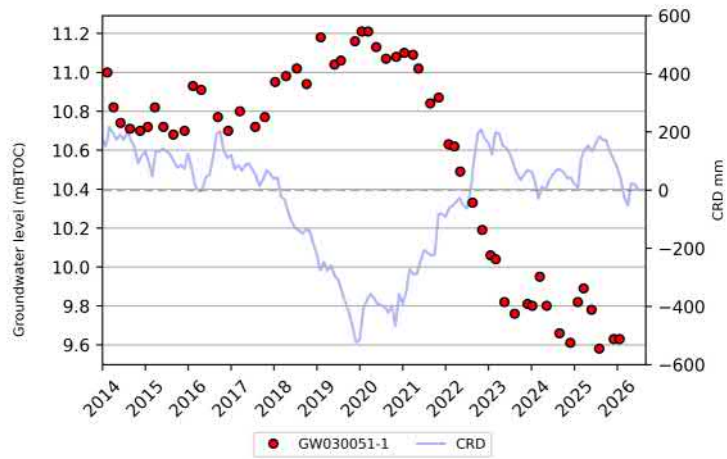
Hydrograph - GW01



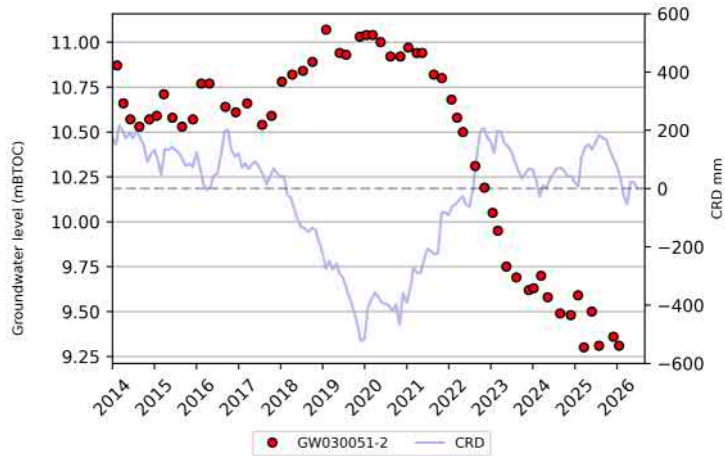
Hydrograph - GW02



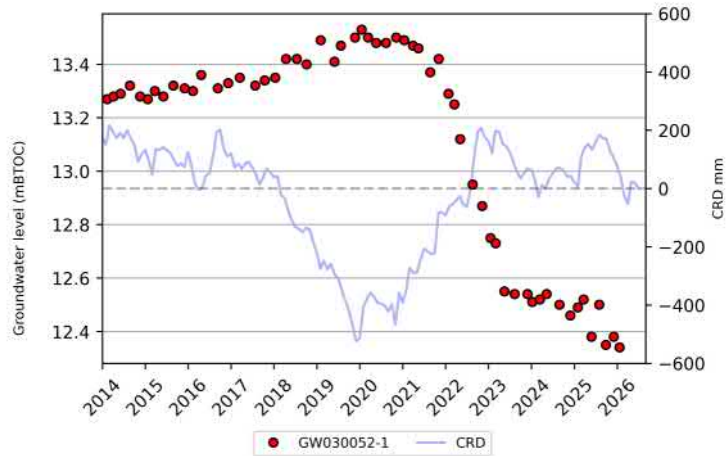
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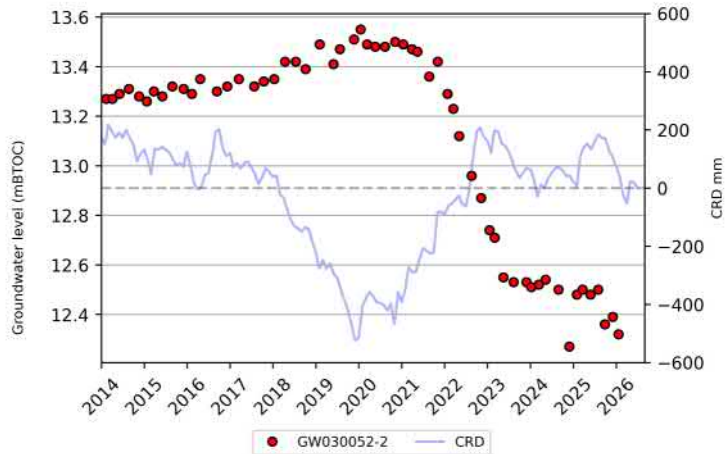
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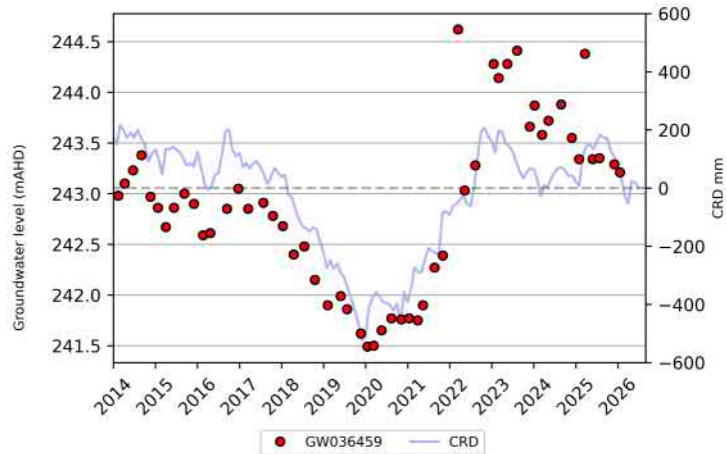
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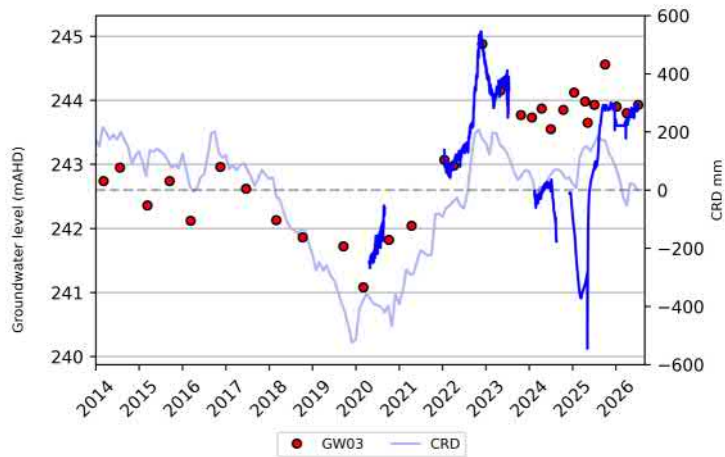
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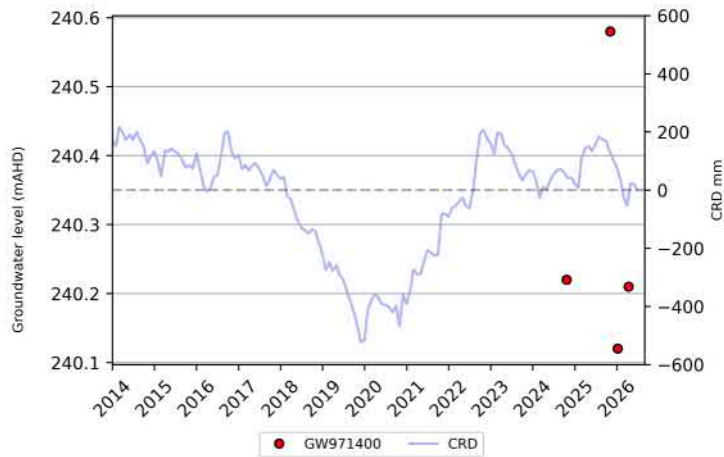
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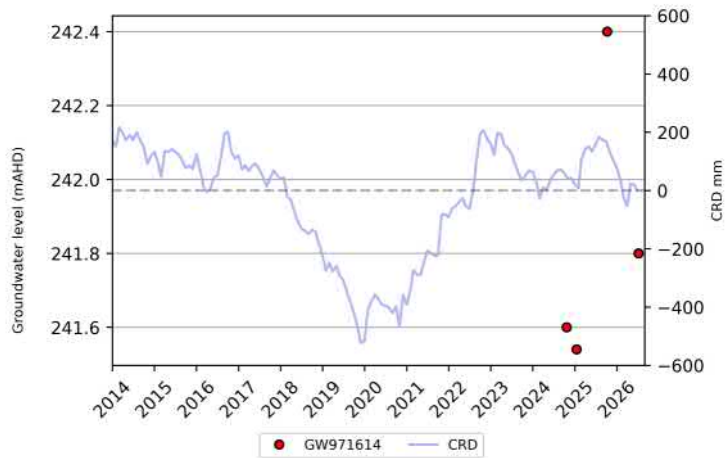
Hydrograph - GW03



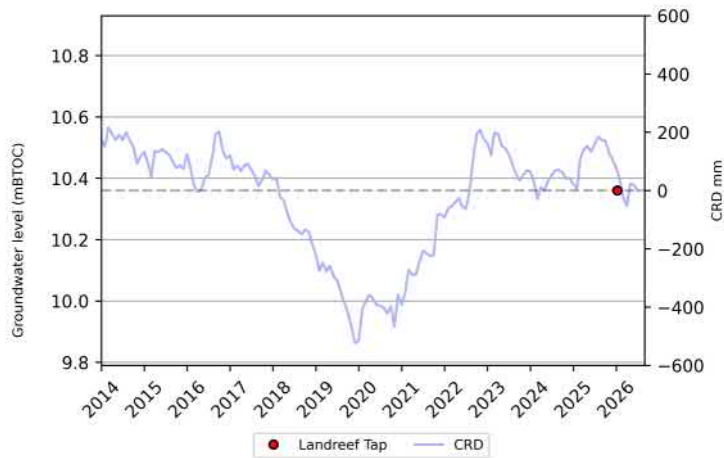
Hydrograph - GW971400



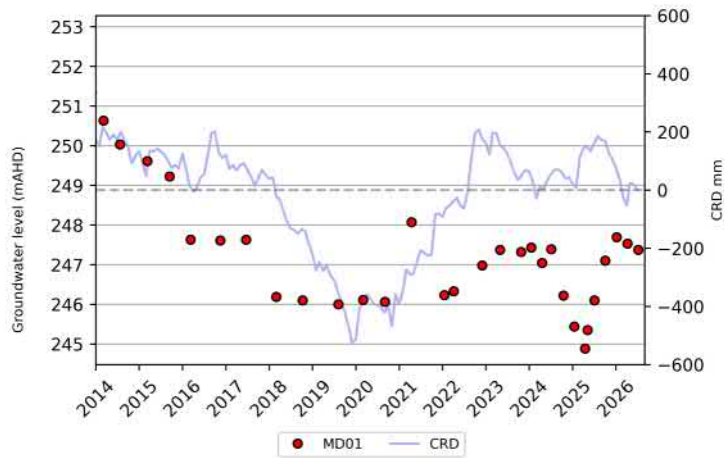
Hydrograph - GW971614



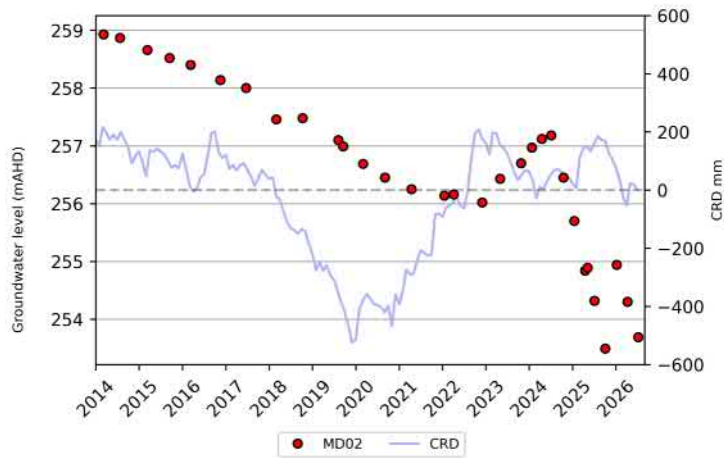
Hydrograph - Landreef Tap



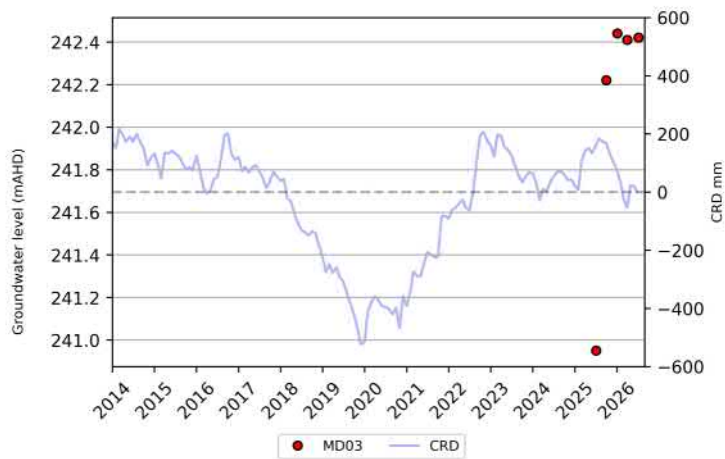
Hydrograph - MD01



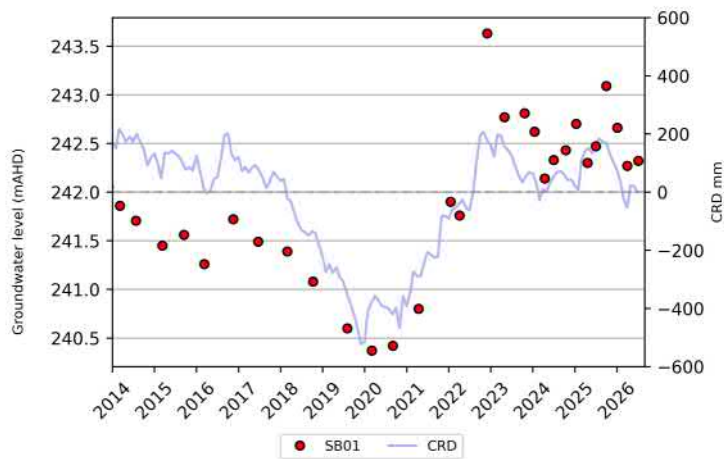
Hydrograph - MD02



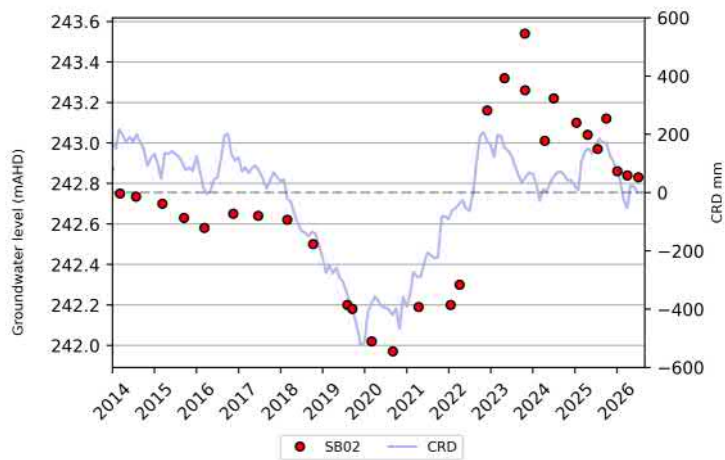
Hydrograph - MD03



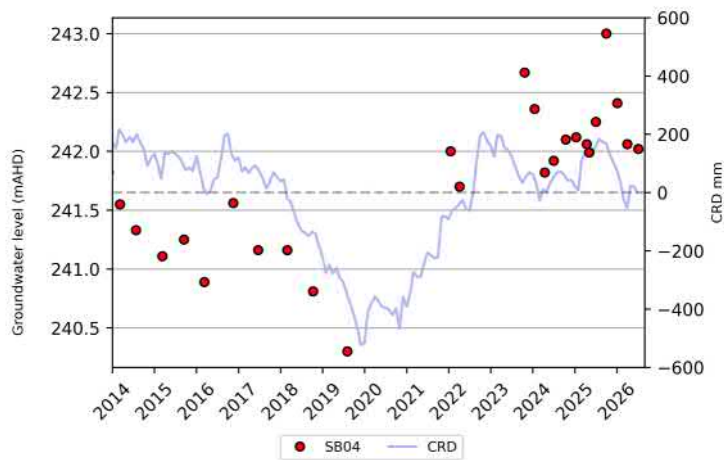
Hydrograph - SB01



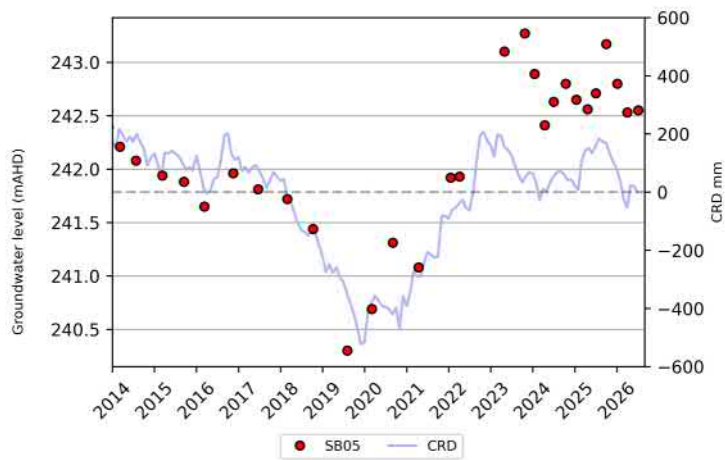
Hydrograph - SB02



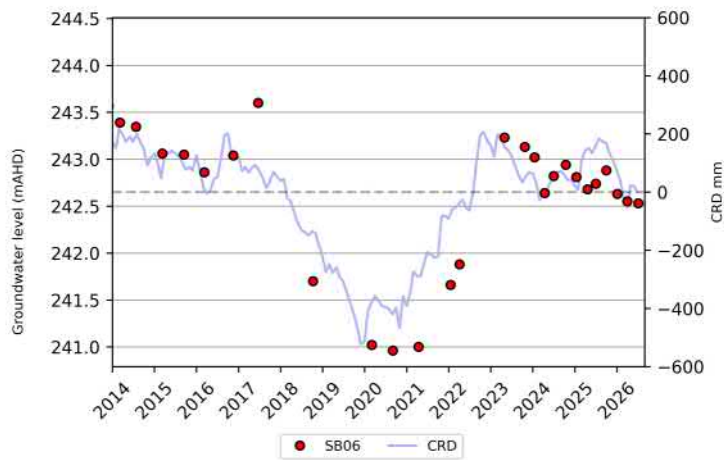
Hydrograph - SB04



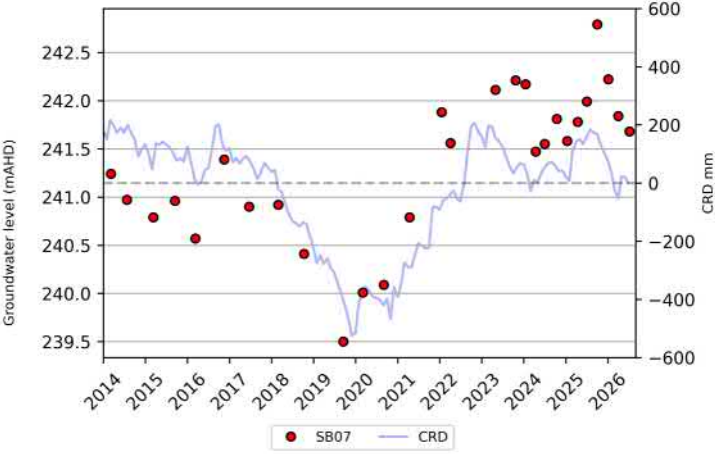
Hydrograph - SB05



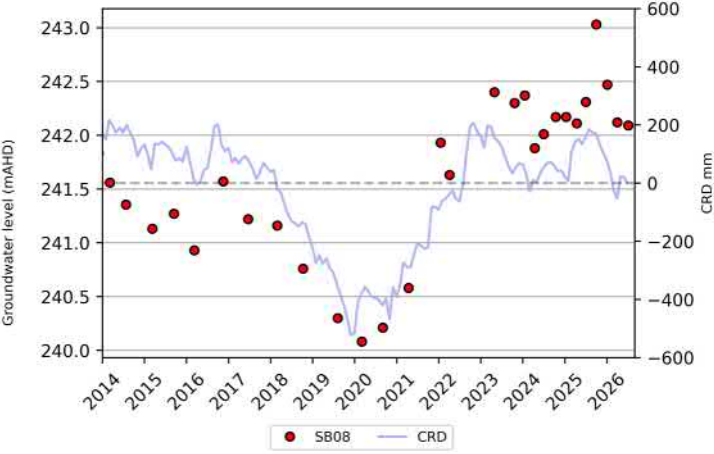
Hydrograph - SB06



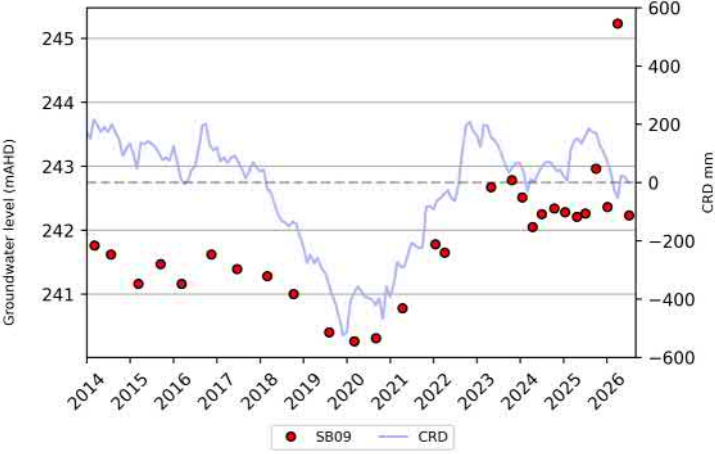
Hydrograph - SB07



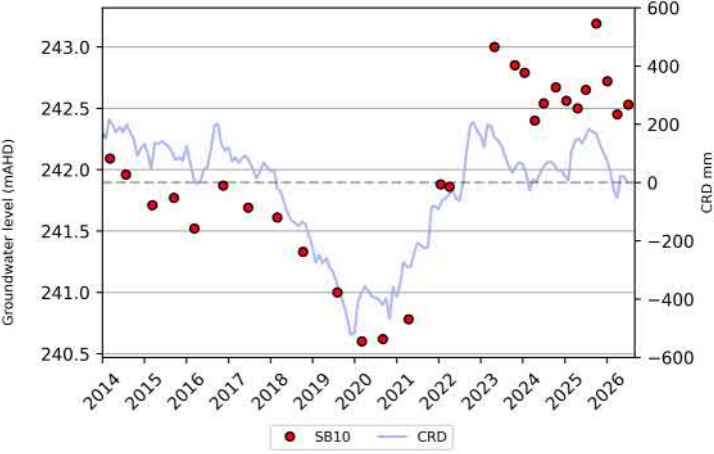
Hydrograph - SB08



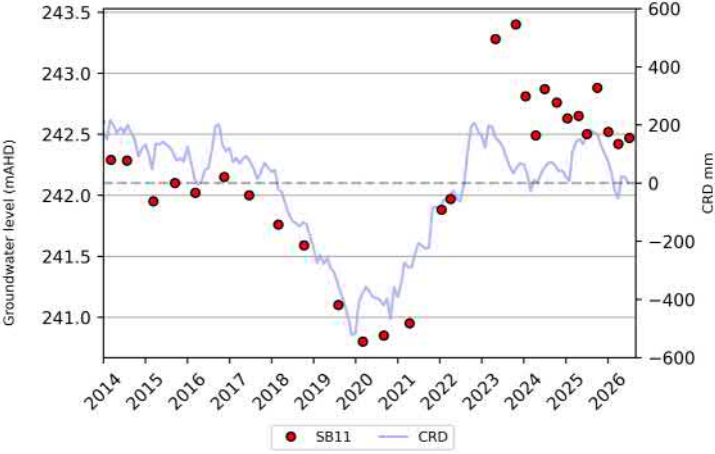
Hydrograph - SB09



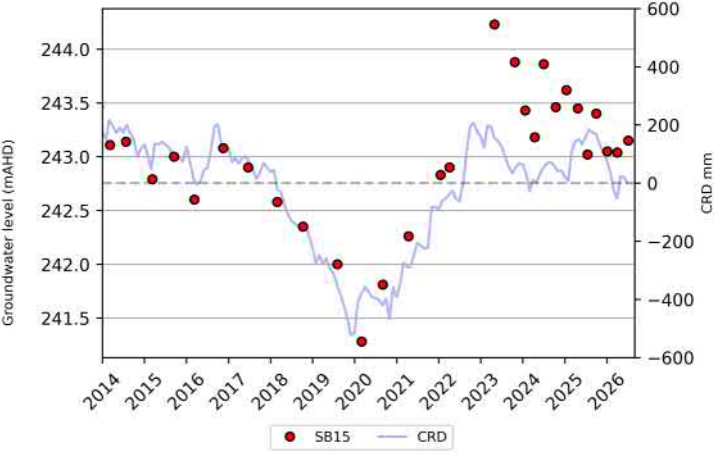
Hydrograph - SB10



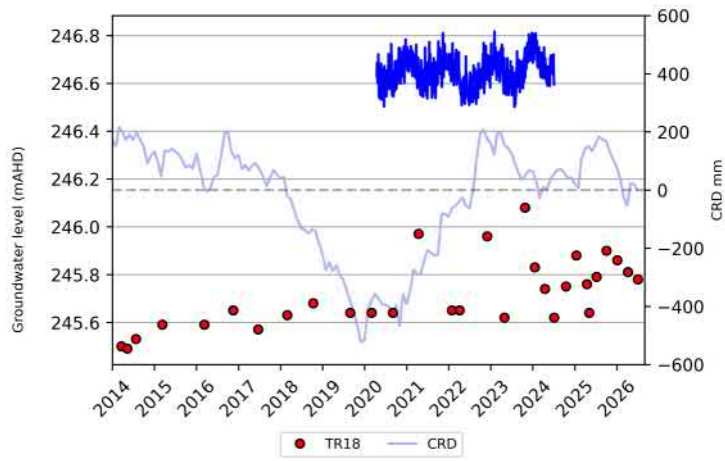
Hydrograph - SB11



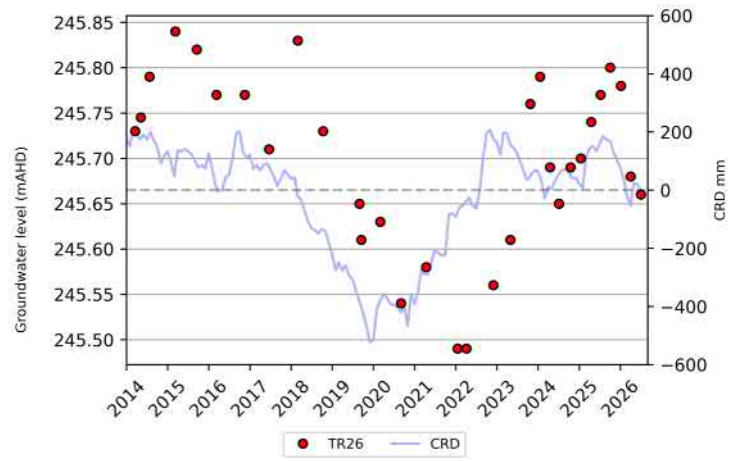
Hydrograph - SB15



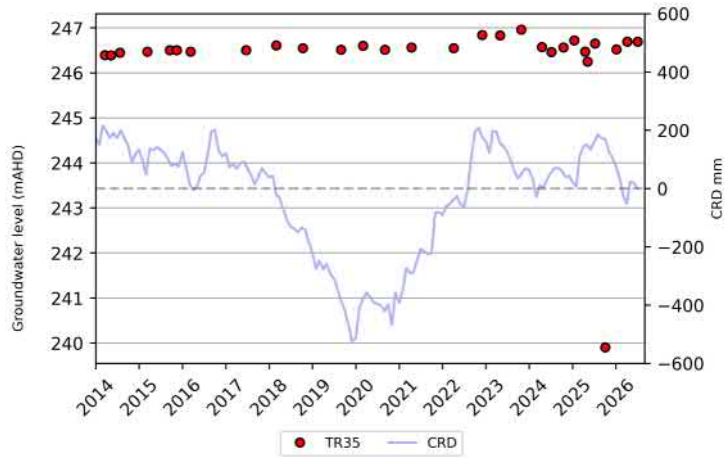
Hydrograph - TR18



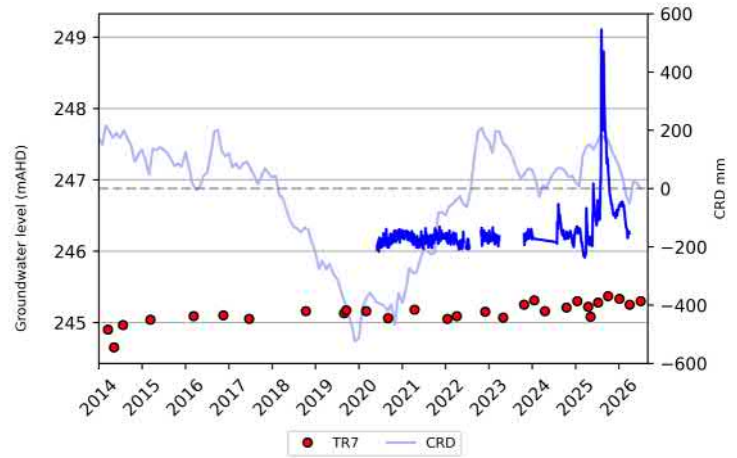
Hydrograph - TR26



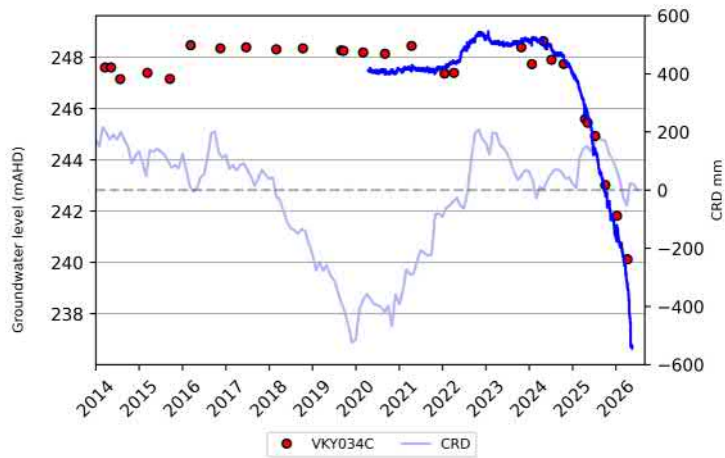
Hydrograph - TR35



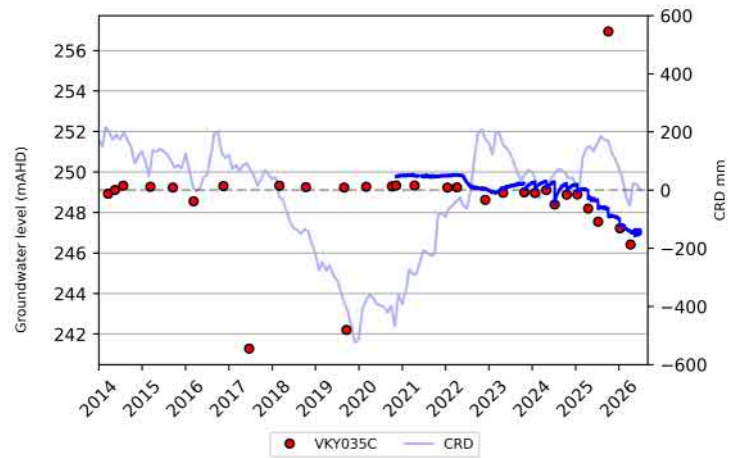
Hydrograph - TR7



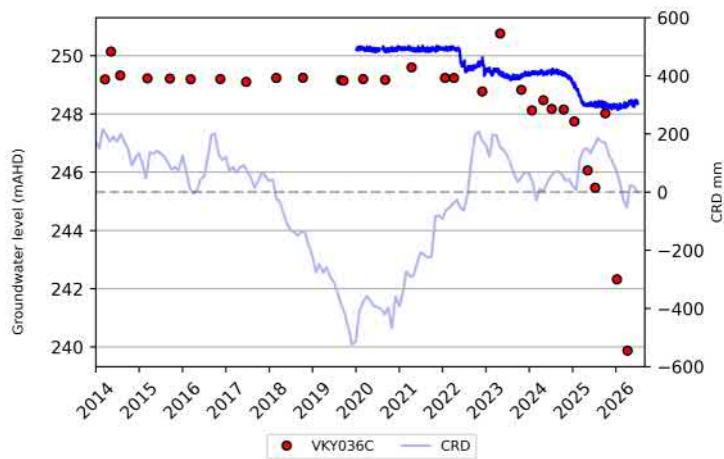
Hydrograph - VKY034C



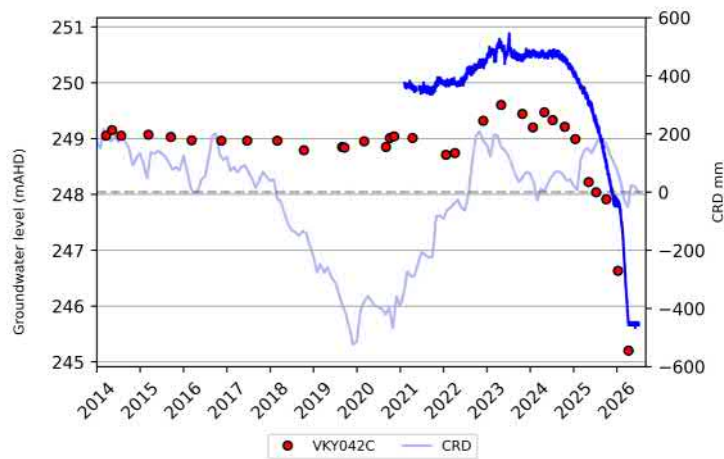
Hydrograph - VKY035C



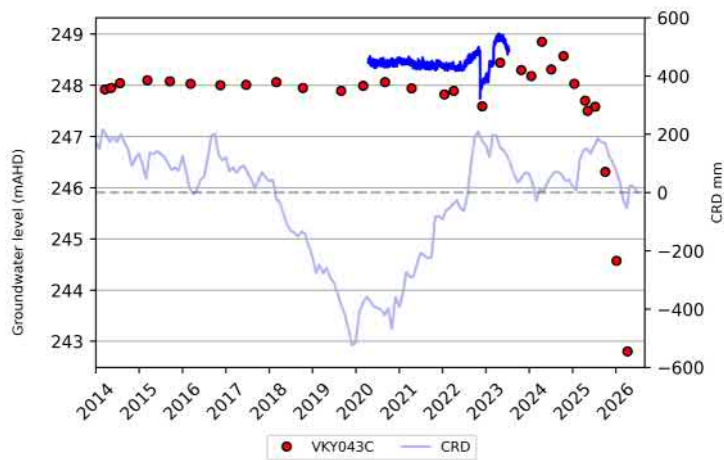
Hydrograph - VKY036C



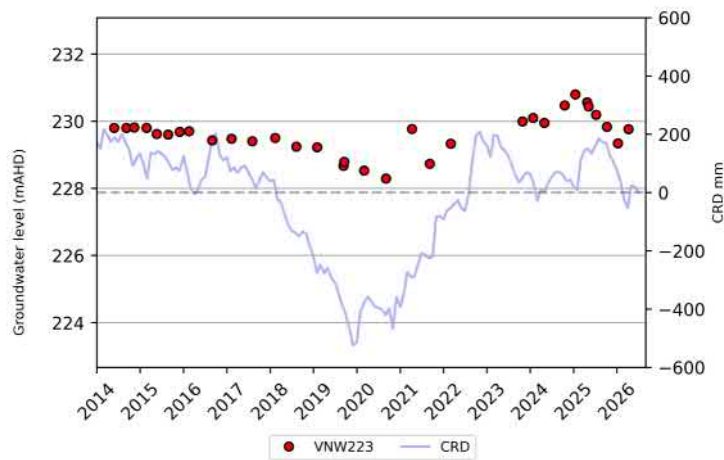
Hydrograph - VKY042C



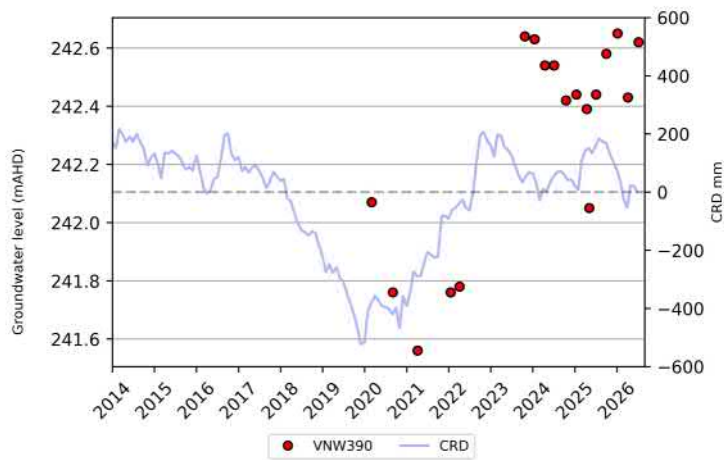
Hydrograph - VKY043C



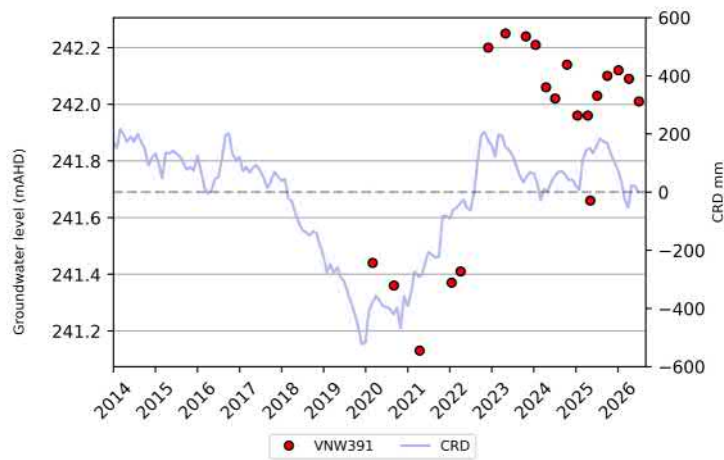
Hydrograph - VNW223



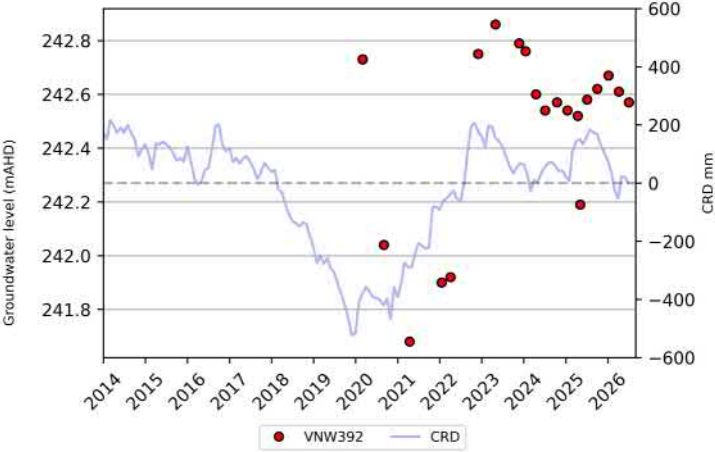
Hydrograph - VNW390



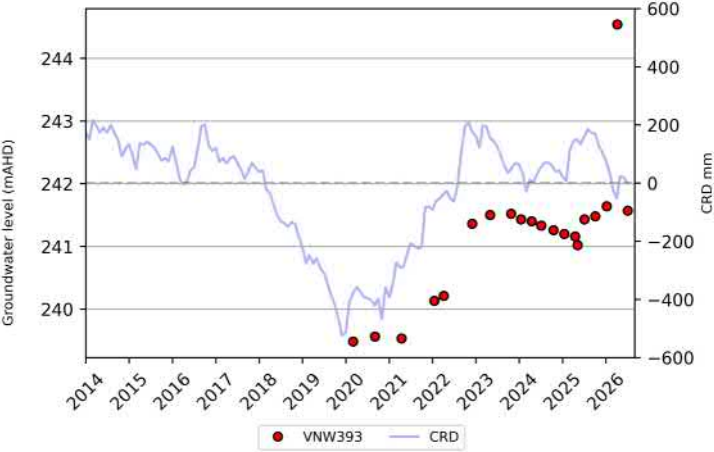
Hydrograph - VNW391



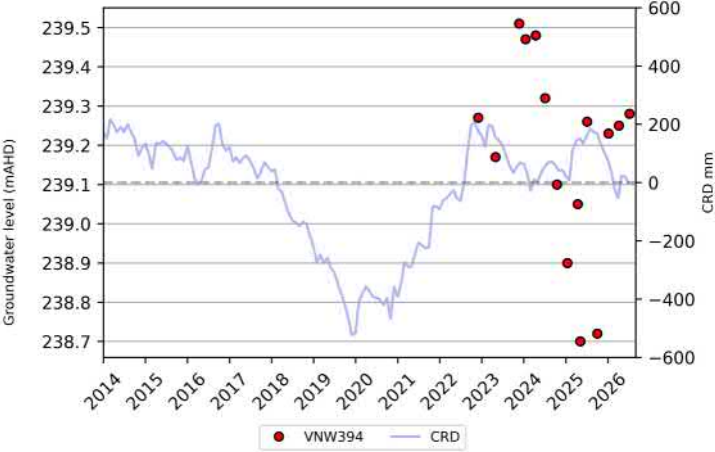
Hydrograph - VNW392



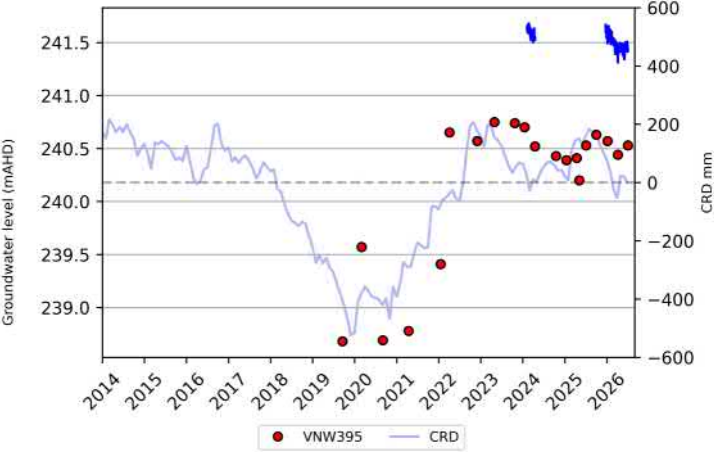
Hydrograph - VNW393



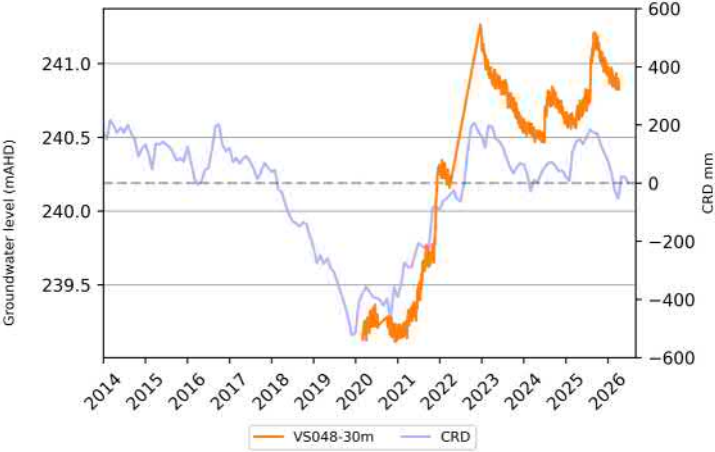
Hydrograph - VNW394



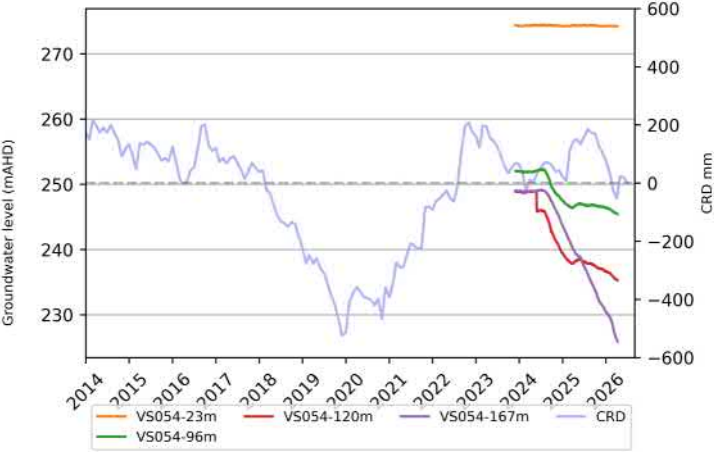
Hydrograph - VNW395



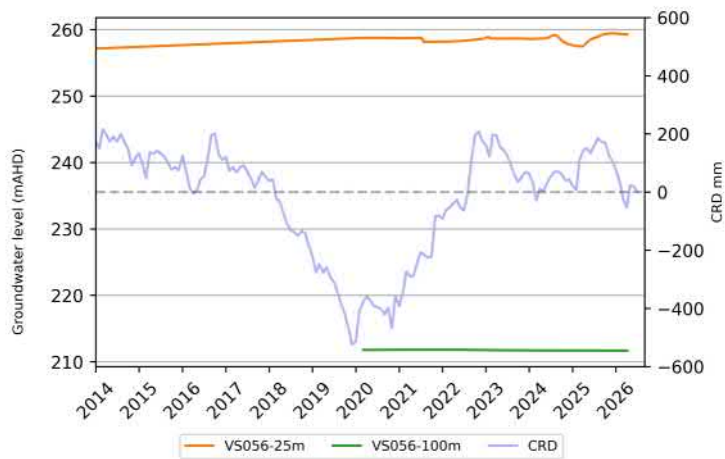
Hydrograph - VS048



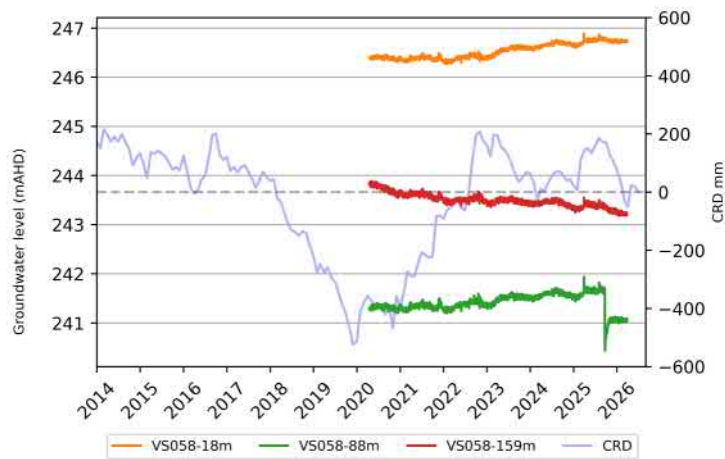
Hydrograph - VS054



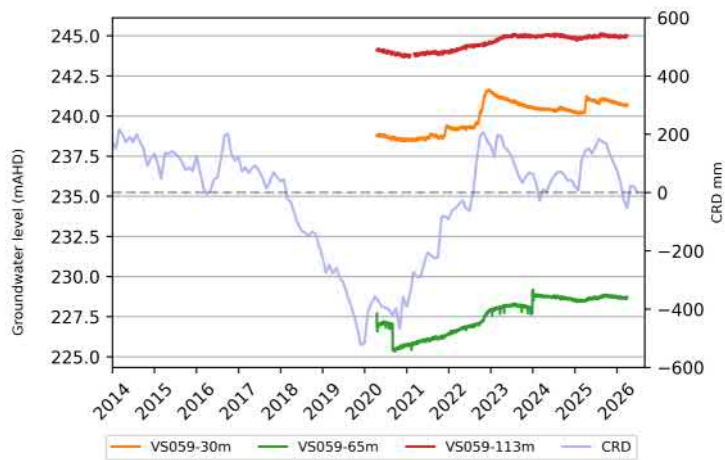
Hydrograph - VS056



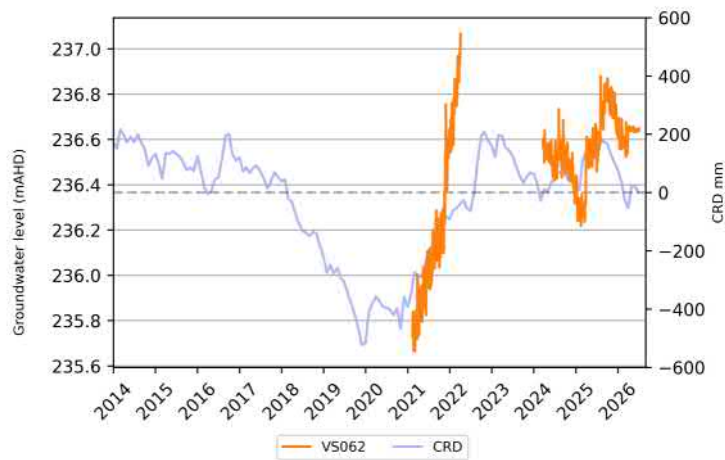
Hydrograph - VS058



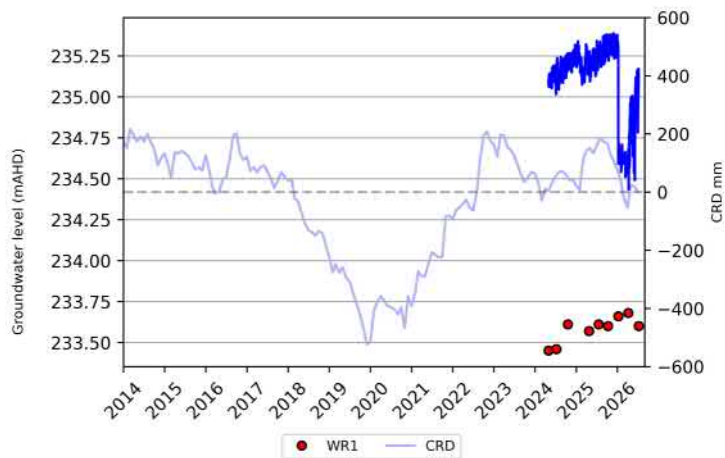
Hydrograph - VS059



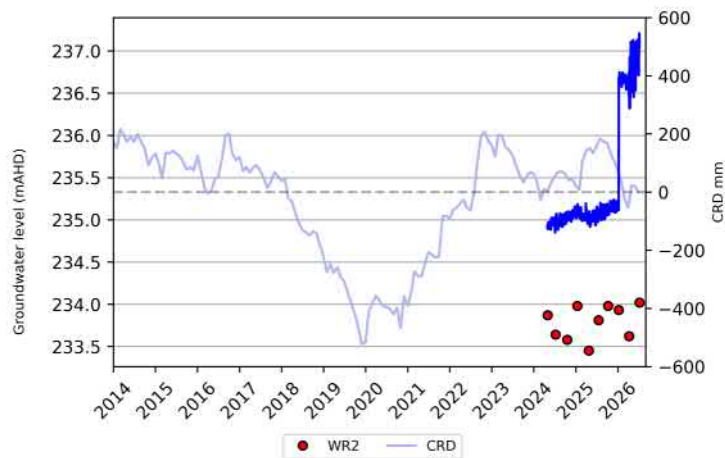
Hydrograph - VS062



Hydrograph - WR1



Hydrograph - WR2



Appendix D

Groundwater Quality Trigger Analysis

Table D 1 pH trigger level review

Bore ID	pH-Low Trigger	pH-High Trigger	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
GW01	6.5	8.5	7.1	7.3	7.0	7.3	7.1	7.5	7.1
GW02	7.2	8.6	6.6	7.7	7.2	7.4	7.4	7.6	7.5
GW03	6.1	8.1	7.1	7.2	7.2	7.3	7.1	7.3	7.2
GW-10	6.5	8.5	7.4	7.9	7.7	8.4	8.0	7.8	8.1
GW-11	7	9.3	7.0	7.2	6.6	7.0	7.2	7.1	7.2
GW-13	6.5	8.5	7.3	7.2	7.3	7.3	7.3	7.3	7.5
GW-14	6.5	8.5	6.5	6.9	7.0	6.8	7.0	7.1	6.9
GW-15	6.5	8.5	8.9	9.0	8.9	9.2	9.2	9.1	8.1
GW-2	6.5	8.5	6.5	6.9	6.9	7.0	6.9	6.9	6.9
GW-4	6.5	8.5	7.8	8.1	7.8	8.0	7.9	7.9	8.1
GW-6	6.5	8.5	7.5	7.6	7.6	-	7.7	7.6	7.6
GW-7	7.7	8.5	7.8	8.9	8.3	8.3	8.5	8.3	8.2
GW-8	6.5	8.5	6.6	-	7.1	7.2	-	-	-
GW-9	6.6	8.2	5.4	7.5	7.1	7.3	8.7	8.3	8.0
GW971400	6.5	8.5	-	-	-	-	7.1	6.8	-
GW971614	6.5	8.5	7.1	-	7.0	6.9	7.0	6.8	7.7
MD01	6.5	8.5	8.8	8.7	8.2	8.5	8.2	8.2	7.5
MD02	6.5	8.5	6.8	6.8	6.7	6.8	6.8	6.7	6.7
MD03	6.5	8.5	-	-	7.2	7.3	7.2	7.3	7.3
SB01	6.5	8.5	7.1	7.3	7.2	7.3	7.1	7.3	7.3
SB02	6.5	8.5	7.2	7.5	7.1	7.3	7.1	7.3	7.2
SB04	6.5	8.5	7.0	7.2	7.1	7.5	7.2	7.6	7.4
SB05	6.5	8.5	7.5	7.7	7.6	7.8	8.1	7.7	7.7
SB06	6.5	8.5	7.4	8.1	7.6	7.9	7.6	7.7	7.6
SB07	6.5	8.5	7.3	7.3	7.2	7.5	7.3	7.8	7.4
SB08	6.5	8.5	7.3	7.2	7.4	7.5	7.2	7.6	7.5
SB09	6.5	8.5	7.4	7.6	7.5	7.6	7.4	7.5	7.6
SB10	6.5	8.5	7.3	7.5	7.4	7.4	7.4	7.6	8.4
SB11	6.5	8.5	7.4	7.6	7.5	7.7	7.4	7.7	7.5
SB15	6.5	8.5	7.4	6.8	7.0	7.4	7.1	7.4	7.2
TR18	6.5	8.5	6.7	6.9	6.7	6.8	6.7	6.9	6.7
TR26	6.5	8.5	6.9	7.1	7.0	6.9	6.9	7.1	7.1
TR35	6.5	8.5	6.5	7.0	6.7	6.9	6.6	6.8	6.8
TR7	7.4	7.8	6.5	6.9	6.7	7.0	6.7	7.0	6.9
VKY034C	6.5	8.5	7.2	7.2	7.1	7.1	7.2	7.3	7.2
VKY035C	6.5	8.5	6.9	7.0	7.0	7.0	7.1	7.1	7.1
VKY036C	6.5	8.5	7.1	7.3	7.1	7.1	7.1	7.3	7.4
VKY042C	6.5	8.5	6.6	6.7	6.7	6.6	6.8	6.9	6.8

Bore ID	pH-Low Trigger	pH-High Trigger	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
VKY043C	6.5	8.5	7.5	7.8	7.8	7.7	7.1	7.0	6.9
VNW223	6.9	7.4	7.1	7.1	7.0	7.3	7.5	7.1	-
VNW390	6.9	8.3	7.0	6.8	6.8	6.9	6.9	7.1	6.9
VNW391	6.9	8.3	7.0	7.0	7.0	7.3	7.1	7.2	6.9
VNW392	6.9	8.3	6.5	6.7	6.7	6.8	6.7	6.8	6.7
VNW393	6.9	8.3	6.9	7.1	7.2	7.2	7.2	7.4	6.8
VNW394	6.9	8.3	6.9	6.8	6.8	6.6	7.0	7.1	6.2
VNW395	6.9	8.3	7.6	7.3	7.3	7.5	7.4	7.6	7.6
WR1	6.5	8.5	7.0	7.0	6.6	6.5	6.7	6.7	6.4
WR2	6.5	8.5	6.4	7.0	6.4	6.5	6.9	6.6	6.4

Notes: 999 indicates a high-trigger exceedance.

999 indicates a low trigger exceedance.

Table D 2 EC trigger level review

Bore ID	EC Trigger	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
GW01	1000	1244	-	1388	914	612	1446	1163
GW02	969	992	872	936	981	718	9620	990.5
GW03	811	983	872	909	896	635	911	903.1
GW-10	1000	1423	1808	1806	1950	1191	1625	1599
GW-11	4912	4310	4750	4570	4790	3610	4880	4810
GW-13	1000	1570	822	1009	858	628	858	1012
GW-14	1000	4260	3360	3710	4230	3210	3850	2990
GW-15	1000	644	680	740	754	591	812	2970
GW-2	1000	1339	1191	1254	1386	939	1271	1026
GW-4	1000	2970	2990	2920	2960	2050	3020	793
GW-6	1000	1256	1388	1453	-	1167	1792	1439
GW-7	5378	4690	4470	4410	3960	3510	4490	4900
GW-8	1000	4350	4200	4690	3370	-	-	-
GW-9	12740	1544	487	714	403	1246	1986	2073
GW971400	1000	-	-	-	-	2100	-	-
GW971614	1000	608	-	769	562	2080	-	653
MD01	1000	1519	1438	1969	1737	1303	1740	1548
MD02	1000	1381	1232	1250	1347	952	1308	1118
MD03	1000	-	-	4880	4880	3380	4660	4930
SB01	1000	1851	1788	1729	1702	1194	1760	1721
SB02	1000	6990	6870	7120	7020	4590	8310	7160
SB04	1000	3420	2184	2790	2067	1613	2231	2271
SB05	1000	3660	3300	3500	3540	2540	3680	3370
SB06	1000	3160	2930	3240	2550	2120	3290	3100
SB07	1000	1009	908	925	951	665	968	956.4
SB08	1000	1154	1035	1153	1041	747	1088	970
SB09	1000	1045	1054	1027	1045	676	1008	1030
SB10	1000	2086	1839	2066	1681	1319	1806	1571
SB11	1000	1209	1144	1172	1159	762	1163	1095
SB15	1000	1163	1052	962	1087	741	1085	1052
TR18	1000	13810	13620	14060	13520	9310	13270	12000
TR26	1000	6170	7290	7010	7040	4440	7840	6350
TR35	1000	18320	16180	17160	16950	12090	16990	14500
TR7	12970	15520	15350	15020	15510	11860	15760	13500
VKY034C	1000	3910	3840	3950	3870	2940	3720	3770
VKY035C	1000	3220	3170	3300	3340	2560	3280	3230
VKY036C	1000	-	5720	5810	5920	4410	5680	5380
VKY042C	1000	5590	5510	5550	5780	4340	5440	4980
VKY043C	1000	3240	3510	3050	3060	626	7960	7590

Bore ID	EC Trigger	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
VNW223	10120	4390	4570	4060	4550	3850	5700	-
VNW390	2330	2629	2330	2460	2276	1793	2424	2370
VNW391	2550	2550	2308	2420	2490	2062	2650	2290
VNW392	3490	3480	3340	3480	3580	2680	3590	3020
VNW393	2840	3210	3100	3190	3210	2450	3240	2130
VNW394	5720	5480	5520	5440	5190	4620	5890	4770
VNW395	2380	2153	2280	2440	2580	1675	2458	2072
WR1	1000	25400	27300	25580	23500	20500	27100	25800
WR2	1000	27900	26100	26800	22900	19790	26120	26200

Note: 999 indicates a high-trigger exceedance.

Table D 3 Sulphate trigger level review

Bore ID	Trigger (mg/L)	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
GW01	365	132	28	210	85	106	171	105
GW02	365	91	89	80	78	68	82	70
GW03	365	53	62	55	54	54	46	51
GW-10	86	21	10	41	<1	5	10	10
GW-11	365	3	<1	<1	<1	<1	<1	<1
GW-13	86	26	10	15	30	4	<1	7
GW-14	365	462	483	383	394	458	393	414
GW-15	365	28	34	34	34	35	35	39
GW-2	365	23	22	22	24	90	22	23
GW-4	86	<1	<1	<1	<1	3	<1	<1
GW-6	86	<1	<1	<1	-	<1	<1	<1
GW-7	86	414	354	362	331	340	355	335
GW-8	86	109	77	112	53	-	-	-
GW-9	86	<1	40	59	23	59	51	50
GW971400	365	-	-	-	-	464	350	-
GW971614	365	30	-	31	34	472	32	30
MD01	86	33	32	37	54	53	42	45
MD02	86	28	33	27	28	35	27	32
MD03	86	-	-	151	139	122	135	117
SB01	365	216	180	182	165	172	186	181
SB02	365	1280	1110	1080	928	1050	1250	1160
SB04	365	413	269	263	226	230	214	246
SB05	365	447	380	400	463	513	452	428
SB06	365	366	359	414	304	391	399	398
SB07	365	89	85	72	71	69	77	62
SB08	365	97	77	80	75	72	64	68
SB09	365	78	59	74	66	67	68	68
SB10	365	238	172	197	162	169	172	157
SB11	365	106	76	89	84	84	76	86
SB15	365	119	84	95	91	87	75	87
TR18	86	630	552	644	602	678	616	561
TR26	86	229	217	211	180	196	277	220
TR35	86	526	562	631	611	650	613	558
TR7	365	458	507	702	517	559	639	488
VKY034C	86	115	117	138	94	106	104	107
VKY035C	86	83	77	80	278	66	77	83

Bore ID	Trigger (mg/L)	Jan-25	Apr-25	Jul-25	Oct-25	Jan-26	Apr-26	Jul-26
VKY036C	86	190	174	149	168	218	144	123
VKY042C	86	307	316	314	304	298	308	283
VKY043C	86	<1	<1	<1	<1	47	432	430
VNW223	365	91	266	308	322	180	135	-
VNW223/P-3	365	-	-	-	-	-	-	124
VNW390	104	107	106	102	87	91	74	94
VNW391	134	101	97	101	97	126	124	128
VNW392	311	300	266	313	285	289	288	280
VNW393	197	205	212	197	178	170	178	185
VNW394	593	498	535	573	582	591	602	547
VNW395	204	147	151	128	18	167	177	185
WR1	365	1490	1120	1250	1100	1050	1130	1220
WR2	365	1790	1250	1480	1340	1240	1350	1440

Note: 999 indicates a high-trigger exceedance.

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
GW01	Jan-2025	<0.01		<0.001	0.07		<0.001	<0.001		<0.001	0.24	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW01	Apr-2025	0.01		<0.001		<0.0001	<0.001	<0.001	0.002	<0.001	0.206	<0.0001	<0.001	0.006	<0.01	<0.001	<0.005
GW01	Jul-2025	<0.01	<0.001	0.001	0.06	<0.0001	<0.001	<0.001	0.002	<0.001	0.282	<0.0001	<0.001	0.001	<0.01	<0.001	<0.005
GW01	Oct-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.153	<0.0001	<0.001	0.001	<0.01	<0.001	<0.005
GW01	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.004	<0.001	0.249	<0.0001	<0.001	0.001	<0.010	<0.001	<0.005
GW01	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.001	<0.001	0.243	<0.0001	<0.001	0.001	<0.01	<0.001	0.006
GW01	Jul-2026	0.01	0.001	0.001	0.06	0.0001	0.001	0.001	0.005	0.001	0.635	0.0001	0.001	0.001	0.01	0.001	0.005
GW02	Jan-2025	<0.01		<0.001	0.06		<0.001	<0.001		<0.001	0.006	<0.0001	<0.001	<0.001	<0.01	<0.001	0.005
GW02	Apr-2025	<0.01		<0.001	0.06	<0.0001	<0.001	<0.001	0.001	<0.001	0.005	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW02	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.009	<0.001	0.008	<0.0001	<0.001	<0.001	<0.01	<0.001	0.009
GW02	Oct-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	0.02	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	0.013
GW02	Jan-2026	<0.01	<0.001	0.001	<0.05	<0.0001	<0.001	0.003	<0.001	<0.001	0.352	<0.0001	<0.001	0.004	<0.010	<0.001	<0.005
GW02	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.003	<0.001	0.021	<0.0001	<0.001	<0.001	<0.01	<0.001	0.013
GW02	Jul-2026	0.01	0.001	0.001	0.08	0.0001	0.001	0.001	0.004	0.001	0.043	0.0001	0.001	0.001	0.01	0.001	0.005
GW03	Jan-2025	<0.01		<0.001	<0.05		<0.001	<0.001		<0.001	0.089	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW03	Apr-2025	<0.01		<0.001	<0.05	<0.0001	<0.001		<0.001	<0.001	0.119	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW03	Jul-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.001	<0.001	0.01	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW03	Oct-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.004	<0.001	0.004	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW03	Jan-2026	<0.01	<0.001	<0.001	<0.05	0.0001	<0.001	<0.001	<0.001	<0.001	0.078	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
GW03	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.002	<0.001	0.003	<0.0001	<0.001	<0.001	<0.01	<0.001	0.005
GW03	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.006	0.001	0.005	0.0001	0.001	0.001	0.01	0.001	0.007
GW03A???	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.01	<0.001	0.019	<0.0001	<0.001	0.001	<0.01	<0.001	0.039
GW-10	Jan-2025	<0.01		<0.001	0.14		<0.001	<0.001		<0.001	0.023	<0.0001	0.001	0.003	<0.01	<0.001	0.116
GW-10	Apr-2025	<0.01		0.006	0.17	<0.0001	<0.001	<0.001	0.141	<0.001	0.057	<0.0001	0.004	0.006	<0.01	<0.001	0.13
GW-10	Jul-2025	<0.01	<0.001	0.004	0.16	<0.0001	<0.001	<0.001	0.106	<0.001	0.036	<0.0001	0.004	0.006	<0.01	<0.001	0.115
GW-10	Oct-2025	<0.01	<0.001	0.003	0.12	<0.0001	<0.001	<0.001	0.118	<0.001	0.066	<0.0001	0.002	0.004	<0.01	<0.001	0.07
GW-10	Jan-2026	<0.01	<0.001	0.002	0.14	<0.0001	<0.001	<0.001	0.094	<0.001	0.052	<0.0001	0.002	0.004	<0.010	<0.001	0.102
GW-10	Apr-2026	<0.01	<0.001	0.001	0.12	<0.0001	<0.001	<0.001	0.059	<0.001	0.062	<0.0001	0.001	0.004	<0.01	<0.001	0.116
GW-10	Jul-2026	0.01	0.001	0.001	0.13	0.0001	0.001	0.001	0.04	0.001	0.054	0.0001	0.002	0.004	0.01	0.001	0.106
GW-11	Jan-2025	<0.01		<0.001	0.13		<0.001	<0.001		<0.001	1.04	<0.0001	<0.001	<0.001	<0.01	<0.001	0.034

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
GW-11	Apr-2025	0.01		<0.001	0.14	<0.0001	<0.001	<0.001	0.002	<0.001	1.06	<0.0001	<0.001	<0.001	<0.01	<0.001	0.059
GW-11	Jul-2025	<0.01	<0.001	<0.001	0.12	<0.0001	<0.001	<0.001	<0.001	<0.001	0.807	<0.0001	<0.001	<0.001	<0.01	<0.001	0.041
GW-11	Oct-2025	<0.01	<0.001	<0.001	0.13	<0.0001	<0.001	<0.001	0.002	<0.001	0.713	<0.0001	0.001	<0.001	<0.01	<0.001	0.024
GW-11	Jan-2026	<0.01	<0.001	<0.001	0.11	<0.0001	<0.001	<0.001	<0.001	<0.001	0.769	<0.0001	0.001	<0.001	<0.010	<0.001	0.037
GW-11	Apr-2026	<0.01	<0.001	<0.001	0.11	<0.0001	<0.001	<0.001	<0.001	<0.001	0.786	<0.0001	<0.001	<0.001	<0.01	<0.001	0.033
GW-11	Jul-2026	0.01	0.001	0.001	0.11	0.0002	0.001	0.001	0.001	0.001	0.774	0.0001	0.001	0.001	0.004	0.001	
GW-13	Jan-2025	<0.01		<0.001	0.08		<0.001	<0.001		<0.001	0.136	<0.0001	<0.001	0.005	<0.01	<0.001	0.02
GW-13	Apr-2025	0.02		<0.001	0.09	<0.0001	<0.001	0.002	0.035	<0.001	0.224	<0.0001	0.001	0.009	<0.01	<0.001	
GW-13	Jul-2025	0.05	<0.001	0.001	0.08	<0.0001	<0.001	0.002	0.005	<0.001	0.266	<0.0001	<0.001	0.006	<0.01	<0.001	0.049
GW-13	Oct-2025	<0.01	<0.001	0.001	0.08	<0.0001	<0.001	0.001	<0.001	<0.001	0.264	<0.0001	<0.001	0.003	<0.01	<0.001	0.019
GW-13	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	0.002	0.004	<0.001	0.381	<0.0001	<0.001	0.005	<0.010	<0.001	0.031
GW-13	Apr-2026	0.01	<0.001	0.001	0.05	<0.0001	<0.001	0.002	0.003	<0.001	0.321	<0.0001	<0.001	0.004	<0.01	<0.001	0.026
GW-13	Jul-2026	0.01	0.001	0.001	0.06	0.0001	0.001	0.001	0.004	0.001	0.196	0.0001	0.001	0.004	0.01	0.001	0.018
GW-14	Jan-2025	<0.01		<0.001	<0.05		<0.001	<0.001		<0.001	0.008	<0.0001	<0.001	0.001	<0.01	<0.001	0.031
GW-14	Apr-2025	<0.01		<0.001	0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.004	<0.0001	<0.001	<0.001	<0.01	<0.001	0.077
GW-14	Jul-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.006	<0.0001	<0.001	<0.001	<0.01	<0.001	0.087
GW-14	Oct-2025	<0.01	<0.001	0.002	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.005	<0.0001	<0.001	<0.001	<0.01	<0.001	0.035
GW-14	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.018	<0.0001	<0.001	<0.001	<0.010	<0.001	0.073
GW-14	Apr-2026	<0.01	<0.001	0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.008	<0.0001	<0.001	<0.001	<0.01	<0.001	0.017
GW-14	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	4.53	0.001	0.003	0.0001	0.001	0.001	0.01	0.001	0.09
GW-15	Jan-2025	<0.01		0.002	<0.05		<0.001	<0.001		<0.001	0.01	<0.0001	0.003	<0.001	<0.01	<0.001	<0.005
GW-15	Apr-2025	<0.01		<0.001	<0.05	<0.0001	<0.001	<0.001	0.002	<0.001	0.012	<0.0001	0.002	<0.001	<0.01	<0.001	<0.005
GW-15	Jul-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.008	<0.0001	0.002	<0.001	<0.01	<0.001	0.006
GW-15	Oct-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.007	<0.0001	0.003	<0.001	<0.01	<0.001	<0.005
GW-15	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.008	<0.0001	0.003	<0.001	<0.010	<0.001	<0.005
GW-15	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.001	<0.001	0.008	<0.0001	0.002	<0.001	<0.01	<0.001	0.007
GW-15	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.006	0.0001	0.004	0.001	0.01	0.001	0.005
GW-2	Jan-2025	<0.01		0.001	<0.05		0.002	<0.001		<0.001	0.009	<0.0001	<0.001	<0.001	<0.01	<0.001	0.016
GW-2	Apr-2025	<0.01		0.002	0.05	<0.0001	0.004	<0.001	<0.001	<0.001	0.006	<0.0001	0.001	<0.001	<0.01	<0.001	0.008
GW-2	Jul-2025	<0.01	<0.001	0.002	<0.05	<0.0001	0.003	<0.001	0.002	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	0.018
GW-2	Oct-2025	<0.01	<0.001	0.002	<0.05	<0.0001	0.003	<0.001	<0.001	<0.001	0.001	<0.0001	<0.001	<0.001	<0.01	<0.001	0.009

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
GW-2	Jan-2026	<0.01	<0.001	0.002	<0.05	<0.0001	0.004	<0.001	<0.001	<0.001	0.004	<0.0001	<0.001	<0.001	<0.010	<0.001	0.009
GW-2	Apr-2026	<0.01	<0.001	0.002	<0.05	<0.0001	0.004	<0.001	<0.001	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	0.006
GW-2	Jul-2026	0.01	0.001	0.002	0.06	0.0001	0.002	0.001	0.001	0.001	0.001	0.0001	0.001	0.001	0.01	0.001	0.005
GW-4	Jan-2025	<0.01		0.002	0.14		<0.001	<0.001		<0.001	0.008	<0.0001	<0.001	<0.001	<0.01	<0.001	0.029
GW-4	Apr-2025	<0.01		0.004	0.14	<0.0001	<0.001	<0.001	<0.001	<0.001	0.007	<0.0001	<0.001	<0.001	<0.01	<0.001	0.012
GW-4	Jul-2025	<0.01	<0.001	0.002	0.12	<0.0001	<0.001	<0.001	<0.001	<0.001	0.011	<0.0001	<0.001	<0.001	<0.01	<0.001	0.011
GW-4	Oct-2025	<0.01	<0.001	0.002	0.14	<0.0001	<0.001	<0.001	<0.001	<0.001	0.008	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW-4	Jan-2026	<0.01	<0.001	0.002	0.14	<0.0001	<0.001	<0.001	<0.001	<0.001	0.011	<0.0001	<0.001	0.001	<0.010	<0.001	0.006
GW-4	Apr-2026	<0.01	<0.001	0.002	0.12	<0.0001	<0.001	<0.001	<0.001	<0.001	0.009	<0.0001	<0.001	0.001	<0.01	<0.001	<0.005
GW-4	Jul-2026	0.01	0.001	0.002	0.15	0.0001	0.001	0.001	0.002	0.001	0.01	0.0001	0.001	0.001	0.01	0.001	0.006
GW-6	Jan-2025	<0.01		<0.001	0.08		<0.001	<0.001		<0.001	0.029	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW-6	Apr-2025	<0.01		<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.034	<0.0001	<0.001	<0.001	<0.01	<0.001	0.018
GW-6	Jul-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	<0.001	<0.001	0.019	<0.0001	<0.001	<0.001	<0.01	<0.001	0.006
GW-6	Jan-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.017	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
GW-6	Apr-2026	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	<0.001	<0.001	0.014	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW-6	Jul-2026	0.01	0.001	0.001	0.11	0.0001	0.001	0.001	0.001	0.001	0.009	0.0001	0.001	0.001	0.01	0.001	0.005
GW-7	Jan-2025	<0.01		<0.001	0.17		<0.001	<0.001		<0.001	0.04	<0.0001	<0.001	0.001	<0.01	<0.001	<0.005
GW-7	Apr-2025	<0.01		<0.001	0.2	<0.0001	<0.001	<0.001	0.029	<0.001	0.021	<0.0001	<0.001	0.002	<0.01	<0.001	<0.005
GW-7	Jul-2025	<0.01	<0.001	<0.001	0.19	<0.0001	<0.001	<0.001	0.001	<0.001	0.031	<0.0001	0.001	0.002	<0.01	<0.001	<0.005
GW-7	Oct-2025	<0.01	<0.001	<0.001	0.19	<0.0001	<0.001	<0.001	<0.001	<0.001	0.038	<0.0001	<0.001	<0.001	<0.01	<0.001	0.008
GW-7	Jan-2026	<0.01	<0.001	<0.001	0.15	<0.0001	<0.001	<0.001	0.003	<0.001	0.044	<0.0001	<0.001	0.001	<0.010	<0.001	0.021
GW-7	Apr-2026	<0.01	<0.001	<0.001	0.14	<0.0001	<0.001	<0.001	0.001	<0.001	0.052	<0.0001	0.002	<0.001	<0.01	<0.001	<0.005
GW-7	Jul-2026	0.01	0.001	0.001	0.2	0.0001	0.001	0.001	0.001	0.001	0.051	0.0001	0.001	0.001	0.004	0.001	
GW-8	Jan-2025	<0.01		<0.001	0.07		<0.001	<0.001		<0.001	0.132	<0.0001	<0.001	0.002	<0.01	<0.001	<0.005
GW-8	Apr-2025	<0.01		0.002	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.104	<0.0001	<0.001	0.003	<0.01	<0.001	<0.005
GW-8	Jul-2025	<0.01	<0.001	0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.113	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW-8	Oct-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	<0.001	<0.001	0.107	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW-9	Jan-2025	<0.01		<0.001	<0.05		<0.001	<0.001		<0.001	2.6	<0.0001	<0.001	<0.001	<0.01	<0.001	0.008
GW-9	Apr-2025	0.01		<0.001	0.11	<0.0001	<0.001	<0.001	0.002	<0.001	0.866	<0.0001	<0.001	0.002	<0.01	<0.001	<0.005
GW-9	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	1.53	<0.0001	<0.001	<0.001	<0.01	<0.001	0.007
GW-9	Oct-2025	0.16	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.002	<0.001	0.559	<0.0001	<0.001	0.002	<0.01	<0.001	0.016

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
GW-9	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.183	<0.0001	0.001	<0.001	<0.010	<0.001	<0.005
GW-9	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.001	<0.001	0.174	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW-9	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.301	0.0001	0.001	0.001	0.01	0.001	0.005
GW971400	Jan-2025	<0.01		<0.001	0.05		<0.001	<0.001		<0.001	0.024	<0.0001	<0.001	0.018	<0.01	<0.001	<0.005
GW971400	Nov-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	0.001	<0.001	0.002	<0.001	0.009	<0.0001	0.001	0.019	<0.01	<0.001	<0.005
GW971400	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.003	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
GW971400	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.004	<0.0001	<0.001	0.011	<0.01	<0.001	<0.005
GW971614	Apr-2025	<0.01		<0.001	<0.05	<0.0001	<0.001	<0.001	0.013	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW971614	Jul-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.009	<0.0001	<0.001	<0.001	<0.01	<0.001	0.008
GW971614	Oct-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
GW971614	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.005	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
GW971614	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	0.033
GW971614	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.002	0.0001	0.001	0.001	0.004	0.001	
MD01	Jan-2025	0.04		<0.001	<0.05		<0.001	<0.001		<0.001	0.017	<0.0001	0.002	0.002	<0.01	<0.001	0.014
MD01	Apr-2025	0.02		<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.007	<0.0001	0.011	0.004	<0.01	<0.001	0.034
MD01	Jul-2025	0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.009	<0.0001	0.005	0.003	<0.01	<0.001	0.012
MD01	Oct-2025	0.02	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.009	<0.0001	0.007	0.003	<0.01	<0.001	0.01
MD01	Jan-2026	0.02	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.02	<0.0001	0.007	0.003	<0.010	<0.001	0.007
MD01	Apr-2026	0.02	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.02	<0.0001	0.009	0.003	<0.01	<0.001	0.006
MD01	Jul-2026	0.02	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.024	0.0001	0.01	0.004	0.01	0.001	0.01
MD02	Jan-2025	<0.01		<0.001	<0.05		<0.001	<0.001		<0.001	0.05	<0.0001	0.001	0.01	<0.01	<0.001	0.006
MD02	Apr-2025	<0.01		0.001	<0.5	<0.0001	<0.001	<0.001	<0.001	<0.001	0.074	<0.0001	0.002	0.012	<0.01	<0.001	<0.005
MD02	Jul-2025	<0.01	<0.001	0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.052	<0.0001	0.001	0.012	<0.01	<0.001	<0.005
MD02	Oct-2025	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.052	<0.0001	0.002	0.013	<0.01	<0.001	<0.005
MD02	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.045	<0.0001	0.004	0.016	<0.010	<0.001	<0.005
MD02	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.055	<0.0001	0.003	0.013	<0.01	<0.001	0.008
MD02	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.068	0.0001	0.003	0.012	0.01	0.001	0.005
MD03	Jul-2025	<0.01	<0.001	0.002	0.1	<0.0001	<0.001	<0.001	<0.001	<0.001	0.079	<0.0001	0.002	0.004	<0.01	<0.001	0.009
MD03	Oct-2025	<0.01	<0.001	0.002	0.13	<0.0001	<0.001	0.002	<0.001	<0.001	0.441	<0.0001	0.004	0.004	<0.01	<0.001	<0.005
MD03	Jan-2026	<0.01	<0.001	0.003	0.1	<0.0001	<0.001	0.004	<0.001	<0.001	1.1	<0.0001	0.006	0.004	<0.010	<0.001	<0.005
MD03	Apr-2026	<0.01	<0.001	0.003	0.1	<0.0001	<0.001	0.004	<0.001	<0.001	1.18	<0.0001	0.005	0.004	<0.01	<0.001	0.023

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
MD03	Jul-2026	0.01	0.001	0.003	0.11	0.0001	0.001	0.004	0.001	0.001	1.35	0.0001	0.005	0.004	0.01	0.001	0.005
SB01	Jan-2025	<0.01		<0.001	0.08		<0.001	<0.001		<0.001	0.153	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB01	Apr-2025	<0.01		0.002	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.519	<0.0001	<0.001	0.002	<0.01	<0.001	<0.005
SB01	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	0.003	<0.001	<0.001	0.483	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB01	Oct-2025	<0.01	<0.001	0.001	0.09	<0.0001	<0.001	0.004	<0.001	<0.001	0.449	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB01	Jan-2026	<0.01	<0.001	0.001	0.07	<0.0001	<0.001	0.002	<0.001	<0.001	0.253	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
SB01	Apr-2026	<0.01	<0.001	0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.214	<0.0001	0.001	0.002	<0.01	<0.001	0.013
SB01	Jul-2026	0.01	0.001	0.002	0.08	0.0001	0.001	0.008	0.001	0.001	0.476	0.0001	0.001	0.001	0.01	0.001	0.005
SB02	Jan-2025	<0.01		<0.001	0.14		<0.001	0.002		<0.001	0.692	<0.0001	0.002	0.001	<0.01	<0.001	<0.005
SB02	Apr-2025	0.01		0.01	0.15	<0.0001	<0.001	<0.001	<0.001	<0.001	0.489	<0.0001	0.003	0.002	<0.01	<0.001	<0.005
SB02	Jul-2025	<0.01	<0.001	0.004	0.14	<0.0001	<0.001	0.002	0.002	<0.001	0.698	<0.0001	0.004	0.002	<0.01	<0.001	0.009
SB02	Oct-2025	<0.01	<0.001	0.005	0.16	<0.0001	<0.001	0.002	<0.001	<0.001	0.788	<0.0001	0.004	0.002	<0.01	<0.001	<0.005
SB02	Jan-2026	<0.01	<0.001	0.007	0.12	<0.0001	<0.001	0.002	<0.001	<0.001	0.702	<0.0001	0.005	0.003	<0.010	<0.001	<0.005
SB02	Apr-2026	<0.01	<0.001	0.003	0.14	<0.0001	<0.001	0.002	<0.001	<0.001	0.838	<0.0001	0.004	0.001	<0.01	<0.001	0.009
SB02	Jul-2026	0.01	0.001	0.006	0.15	0.0001	0.001	0.002	0.001	0.001	0.894	0.0001	0.004	0.001	0.01	0.001	0.005
SB04	Jan-2025	0.56		<0.001	0.11		0.001	<0.001		0.001	0.307	<0.0001	<0.001	0.002	<0.01	<0.001	0.056
SB04	Apr-2025	<0.01		<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.136	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB04	Jul-2025	<0.01	<0.001	<0.001	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	0.139	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB04	Oct-2025	<0.01	<0.001	<0.001	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	0.106	<0.0001	<0.001	<0.001	<0.01	<0.001	0.017
SB04	Jan-2026	<0.01	<0.001	<0.001	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.102	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
SB04	Apr-2026	<0.01	<0.001	<0.001	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.092	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB04	Jul-2026	0.01	0.001	0.001	0.1	0.0001	0.001	0.001	0.001	0.001	0.101	0.0001	0.001	0.001	0.01	0.001	0.005
SB05	Jan-2025	<0.01		0.004	0.15		<0.001	<0.001		<0.001	0.703	<0.0001	0.002	<0.001	<0.01	<0.001	<0.005
SB05	Apr-2025	<0.01		0.003	0.17	<0.0001	<0.001	<0.001	<0.001	<0.001	0.224	<0.0001	0.003	<0.001	<0.01	<0.001	<0.005
SB05	Jul-2025	<0.01	<0.001	0.004	0.14	<0.0001	<0.001	<0.001	0.001	<0.001	0.228	<0.0001	0.003	<0.001	<0.01	<0.001	0.007
SB05	Oct-2025	<0.01	<0.001	0.004	0.16	<0.0001	<0.001	<0.001	<0.001	<0.001	0.441	<0.0001	0.003	<0.001	<0.01	<0.001	<0.005
SB05	Jan-2026	<0.01	<0.001	0.006	0.14	<0.0001	<0.001	<0.001	<0.001	<0.001	0.105	<0.0001	0.004	<0.001	<0.010	<0.001	<0.005
SB05	Apr-2026	<0.01	<0.001	0.004	0.13	<0.0001	<0.001	<0.001	<0.001	<0.001	0.199	<0.0001	0.003	<0.001	<0.01	<0.001	0.007
SB05	Jul-2026	0.01	0.001	0.005	0.19	0.0001	0.001	0.001	0.001	0.001	0.374	0.0001	0.003	0.001	0.01	0.001	0.005
SB06	Jan-2025	<0.01		0.002	0.13		<0.001	<0.001		<0.001	0.285	<0.0001	0.002	<0.001	<0.01	<0.001	<0.005
SB06	Apr-2025	<0.01		0.004	0.14	<0.0001	<0.001	<0.001	0.006	<0.001	0.302	<0.0001	0.005	<0.001	<0.01	<0.001	<0.005

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
SB06	Jul-2025	<0.01	<0.001	0.004	0.12	<0.0001	<0.001	0.002	<0.001	<0.001	0.886	<0.0001	0.002	0.002	<0.01	<0.001	0.006
SB06	Oct-2025	<0.01	<0.001	0.003	0.1	<0.0001	<0.001	0.001	0.024	<0.001	0.51	<0.0001	0.006	0.003	<0.01	<0.001	<0.005
SB06	Jan-2026	<0.01	<0.001	0.002	0.1	<0.0001	<0.001	<0.001	0.002	<0.001	0.452	<0.0001	0.003	0.002	<0.010	<0.001	0.006
SB06	Apr-2026	<0.01	<0.001	0.003	0.12	<0.0001	<0.001	0.001	0.001	<0.001	0.615	<0.0001	0.003	0.001	<0.01	<0.001	0.005
SB06	Jul-2026	0.01	0.001	0.003	0.17	0.0001	0.001	0.002	0.003	0.001	0.849	0.0001	0.003	0.002	0.01	0.001	0.005
SB07	Jan-2025	<0.01		<0.001	0.06		0.001	<0.001		<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB07	Apr-2025	<0.01		<0.001	0.06	<0.0001	<0.001	<0.001	0.002	<0.001	0.001	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB07	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001		<0.001	0.001	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB07	Oct-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	0.004	<0.001	0.006	<0.0001	<0.001	<0.001	<0.01	<0.001	0.014
SB07	Jan-2026	<0.01	<0.001	<0.001	0.05	<0.0001	<0.001	<0.001	0.001	<0.001	0.006	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
SB07	Apr-2026	0.06	<0.001	<0.001	0.06	<0.0001	0.004	<0.001	0.01	<0.001	0.002	<0.0001	0.001	<0.001	<0.01	<0.001	0.021
SB07	Jul-2026	0.01	0.001	0.001	0.08	0.0001	0.001	0.001	0.004	0.001	0.002	0.0001	0.001	0.001	0.01	0.001	0.005
SB08	Jan-2025	<0.01		<0.001	0.06		<0.001	<0.001		<0.001	0.007	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB08	Apr-2025	<0.01		<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.046	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB08	Jul-2025	<0.01	<0.001	<0.001	0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB08	Oct-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	0.002	<0.001	0.001	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB08	Jan-2026	<0.01	<0.001	<0.001	0.05	<0.0001	<0.001	<0.001	0.001	<0.001	0.005	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
SB08	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.012	<0.001	<0.001	<0.0001	<0.001	<0.001	<0.01	<0.001	0.013
SB08	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.006	0.001	0.003	0.0001	0.001	0.001	0.01	0.001	0.005
SB09	Jan-2025	<0.01		<0.001	0.07		<0.001	<0.001		<0.001	0.615	<0.0001	<0.001	<0.001	<0.01	<0.001	0.013
SB09	Apr-2025	<0.1		<0.001	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.394	<0.0001	<0.001	0.001	<0.01	<0.001	<0.005
SB09	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.672	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB09	Oct-2025	<0.01	<0.001	<0.001	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.722	<0.0001	0.001	<0.001	<0.01	<0.001	0.005
SB09	Jan-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.286	<0.0001	0.001	<0.001	<0.010	<0.001	<0.005
SB09	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.319	<0.0001	0.001	<0.001	<0.01	<0.001	<0.005
SB09	Jul-2026	0.01	0.001	0.001	0.06	0.0001	0.001	0.001	0.005	0.001	0.255	0.0001	0.001	0.001	0.01	0.001	0.005
SB10	Jan-2025	<0.01		<0.001	0.1		<0.001	<0.001		<0.001	0.011	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB10	Apr-2025	<0.01		0.001	0.11	<0.0001	<0.001	<0.001	<0.001	<0.001	0.136	<0.0001	0.001	<0.001	<0.01	<0.001	<0.005
SB10	Jul-2025	<0.01	<0.001	0.001	0.1	<0.0001	<0.001	<0.001	<0.001	<0.001	0.096	<0.0001	0.002	<0.001	<0.01	<0.001	<0.005
SB10	Oct-2025	<0.01	<0.001	<0.001	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	0.446	<0.0001	0.001	<0.001	<0.01	<0.001	0.006
SB10	Jan-2026	<0.01	<0.001	0.001	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	0.016	<0.0001	0.002	<0.001	<0.010	<0.001	<0.005

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
SB10	Apr-2026	<0.01	<0.001	0.003	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0001	0.003	<0.001	<0.01	<0.001	<0.005
SB10	Jul-2026	0.01	0.001	0.001	0.12	0.0001	0.001	0.001	0.001	0.001	0.014	0.0001	0.002	0.001	0.01	0.001	0.005
SB11	Jan-2025	<0.01		<0.001	0.08		<0.001	<0.001		<0.001	0.142	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB11	Apr-2025	<0.01		<0.001	0.08	<0.0001	<0.001	<0.001	0.005	<0.001	0.047	<0.0001	<0.001	0.001	<0.01	<0.001	0.005
SB11	Jul-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	0.003	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	0.005
SB11	Oct-2025	<0.01	<0.001	<0.001	0.08	<0.0001	<0.001	<0.001	0.002	<0.001	0.014	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB11	Jan-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.006	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
SB11	Apr-2026	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	0.002	<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	0.007
SB11	Jul-2026	0.01	0.001	0.001	0.09	0.0001	0.001	0.001	0.002	0.001	0.002	0.0001	0.001	0.001	0.01	0.001	0.005
SB15	Jan-2025	<0.01		<0.001	0.06		<0.001	<0.001		<0.001	0.002	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB15	Apr-2025	<0.01		<0.001	0.07	<0.0001	<0.001	<0.001	0.002	<0.001	0.006	<0.0001	<0.001	<0.001	<0.01	<0.001	0.011
SB15	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.006	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB15	Oct-2025	<0.01	<0.001	0.001	0.06	<0.0001	<0.001	<0.001	0.008	<0.001	0.02	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
SB15	Jan-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.003	<0.001	0.002	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
SB15	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.003	<0.001	0.008	<0.0001	<0.001	<0.001	<0.01	<0.001	0.01
SB15	Jul-2026	0.01	0.001	0.001	0.08	0.0001	0.001	0.001	0.002	0.001	0.011	0.0001	0.001	0.001	0.01	0.001	0.005
TR18	Jan-2025	0.03		<0.001	0.07		<0.001	<0.001		<0.001	0.032	<0.0001	<0.001	0.011	<0.01	<0.001	<0.005
TR18	Apr-2025	<0.01		<0.001	0.06	<0.0001	<0.001	<0.001		<0.001	0.021	<0.0001	<0.001	0.013	<0.01	<0.001	0.01
TR18	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.069	<0.001	0.017	<0.0001	<0.001	0.009	<0.01	<0.001	0.011
TR18	Oct-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	<0.001	<0.001	0.098	<0.0001	<0.001	0.01	<0.01	<0.001	0.008
TR18	Jan-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	0.003	0.01	<0.001	0.458	<0.0001	0.001	0.015	<0.010	<0.001	0.017
TR18	Apr-2026	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	0.003	<0.001	<0.001	0.3	<0.0001	0.003	0.027	<0.01	<0.001	0.015
TR18	Jul-2026	0.01	0.001	0.001	0.08	0.0001	0.001	0.001	0.001	0.001	0.174	0.0001	0.001	0.013	0.01	0.001	0.013
TR26	Jan-2025	<0.01		<0.001	0.09		<0.001	<0.001		<0.001	0.105	<0.0001	<0.001	0.006	<0.01	<0.001	<0.005
TR26	Apr-2025	<0.01		<0.001	0.1	<0.0001	<0.001	<0.001	0.002	<0.001	0.042	<0.0001	0.002	0.004	<0.01	<0.001	0.013
TR26	Jul-2025	<0.01	<0.001	<0.001	0.1	<0.0001	<0.001	<0.001	0.002	<0.001	<0.001	<0.0001	0.004	<0.001	<0.01	<0.001	<0.005
TR26	Oct-2025	<0.01	<0.001	<0.001	0.1	<0.0001	<0.001	<0.001	<0.001	<0.001	0.073	<0.0001	<0.001	0.002	<0.01	<0.001	0.009
TR26	Jan-2026	<0.01	<0.001	<0.001	0.09	<0.0001	<0.001	0.001	<0.001	<0.001	0.146	<0.0001	0.002	0.003	<0.010	<0.001	0.006
TR26	Apr-2026	<0.01	<0.001	<0.001	0.09	<0.0001	<0.001	<0.001	0.002	<0.001	0.041	<0.0001	0.002	0.003	<0.01	<0.001	0.019
TR26	Jul-2026	0.01	0.001	0.001	0.1	0.0001	0.001	0.001	0.001	0.001	0.05	0.0001	0.001	0.002	0.01	0.001	0.01
TR35	Jan-2025	<0.01		<0.001	0.07		<0.001	0.008		<0.001	0.907	<0.0001	0.002	0.111	<0.01	<0.001	0.009

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
TR35	Apr-2025	<0.01		<0.001	0.08	0.0002	<0.001	0.006	0.844	<0.001	0.789	<0.0001	0.004	0.067	<0.01	<0.001	0.011
TR35	Jul-2025	<0.01	<0.001	<0.001	0.07	0.0001	<0.001	0.002	1.17	<0.001	0.568	<0.0001	<0.001	0.011	<0.01	<0.001	0.01
TR35	Oct-2025	<0.01	<0.001	<0.001	0.09	0.0006	<0.001	0.007	4.67	<0.001	0.769	<0.0001	0.006	0.075	<0.01	<0.001	0.033
TR35	Jan-2026	<0.01	<0.001	<0.001	0.06	0.0003	<0.001	0.005	0.546	<0.001	0.489	<0.0001	0.005	0.032	<0.010	<0.001	0.015
TR35	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	0.004	2.6	<0.001	0.276	<0.0001	<0.001	0.003	<0.01	<0.001	0.022
TR35	Jul-2026	0.01	0.001	0.001	0.08	0.0002	0.001	0.004	5.48	0.001	0.301	0.0001	0.001	0.037	0.01	0.001	0.022
TR7	Jan-2025	<0.01		<0.001	0.07		<0.001	0.005		<0.001	0.381	<0.0001	<0.001	0.024	<0.01	<0.001	0.006
TR7	Apr-2025	<0.01		<0.001	0.06	0.0002	<0.001	0.003	0.387	<0.001	0.193	<0.0001	0.001	0.053	<0.01	<0.001	
TR7	Jul-2025	<0.01	<0.001	<0.001	0.06	0.0003	<0.001	0.003	1.44	<0.001	0.146	<0.0001	<0.001	0.025	<0.01	<0.001	
TR7	Oct-2025	<0.01	<0.001	<0.001	0.07	0.0002	<0.001	0.004	1.25	<0.001	0.228	<0.0001	0.001	0.02	<0.01	<0.001	0.018
TR7	Jan-2026	<0.01	<0.001	<0.001	<0.05	0.0001	<0.001	0.006	0.194	<0.001	0.304	<0.0001	0.002	0.011	<0.010	<0.001	0.025
TR7	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	0.002	<0.001	<0.001	0.088	<0.0001	0.001	0.006	<0.01	<0.001	0.01
TR7	Jul-2026	0.01	0.001	0.001	0.06	0.0001	0.001	0.002	0.005	0.001	0.098	0.0001	0.001	0.009	0.01	0.001	0.013
VKY GW Duplicate 1	Jul-2026	0.01	0.001	0.001	0.16	0.0001	0.001	0.001	0.003	0.001	0.846	0.0001	0.001	0.001	0.004	0.001	0.022
VKY GW Duplicate 2	Jul-2026	0.01	0.001	0.001	0.1	0.0001	0.001	0.001	0.001	0.001	0.009	0.0001	0.001	0.001	0.01	0.001	0.005
VKY GW Lab Split Dup 1	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.002	0.0001	0.001	0.001	0.004	0.001	
VKY GW Lab Split Dup 2	Jul-2026	0.01	0.001	0.003	0.19	0.0001	0.001	0.001	0.001	0.001	0.01	0.0001	0.001	0.002	0.004	0.001	0.005
VKY034C	Jan-2025	<0.01		0.001	0.19		<0.001	<0.001		<0.001	0.008	<0.0001	0.003	0.003	<0.01	<0.001	0.014
VKY034C	Apr-2025	<0.01		<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.002	<0.0001	0.003	0.004	<0.01	<0.001	0.013
VKY034C	Jul-2025	<0.01	<0.001	0.001	0.23	<0.0001	<0.001	<0.001	<0.001	<0.001	0.005	<0.0001	0.002	0.002	<0.01	<0.001	0.092
VKY034C	Oct-2025	<0.01	<0.001	<0.001	0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.004	<0.0001	0.001	0.002	<0.01	<0.001	0.02
VKY034C	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.029	<0.0001	<0.001	<0.001	<0.010	<0.001	<0.005
VKY034C	Apr-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.026	<0.0001	<0.001	<0.001	<0.01	<0.001	0.009
VKY034C	Jul-2026	0.01	0.001	0.001	0.06	0.0001	0.001	0.001	0.001	0.001	0.024	0.0001	0.001	0.001	0.01	0.001	0.007
VKY035C	Jan-2025	<0.01		0.001	<0.05		0.001	<0.001		<0.001	0.308	<0.0001	0.006	0.006	<0.01	<0.001	<0.005
VKY035C	Apr-2025	<0.01		0.003	<0.05	<0.0001	0.002	<0.001	0.001	<0.001	0.321	<0.0001	0.007	0.012	<0.01	<0.001	0.023
VKY035C	Jul-2025	<0.01	<0.001	0.002	<0.05	<0.0001	0.002	<0.001	<0.001	<0.001	0.299	<0.0001	0.004	0.008	<0.01	<0.001	0.005
VKY035C	Oct-2025	<0.01	<0.001	0.003	<0.05	<0.0001	0.001	<0.001	<0.001	<0.001	0.315	<0.0001	0.008	0.008	<0.01	<0.001	0.006
VKY035C	Jan-2026	<0.01	<0.001	0.003	<0.05	<0.0001	0.001	<0.001	0.001	<0.001	0.295	<0.0001	0.008	0.004	<0.010	<0.001	<0.005

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
VKY035C	Apr-2026	<0.01	<0.001	0.003	<0.05	<0.0001	0.001	<0.001	0.001	<0.001	0.285	<0.0001	0.007	0.005	<0.01	<0.001	0.014
VKY035C	Jul-2026	0.01	0.001	0.003	0.05	0.0001	0.001	0.001	0.001	0.001	0.303	0.0001	0.006	0.005	0.01	0.001	0.007
VKY036C	Jan-2025	<0.01		0.006	0.09		<0.001	<0.001		<0.001	0.151	<0.0001	0.002	0.004	<0.01	<0.001	<0.005
VKY036C	Apr-2025	<0.01		0.01	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	0.185	<0.0001	0.004	0.002	<0.01	<0.001	<0.005
VKY036C	Jul-2025	<0.01	<0.001	0.008	0.09	<0.0001	0.005	<0.001	0.002	<0.001	0.042	<0.0001	0.006	0.001	<0.01	<0.001	<0.005
VKY036C	Oct-2025	<0.01	<0.001	0.008	0.1	<0.0001	<0.001	<0.001	<0.001	<0.001	0.154	<0.0001	0.003	0.005	<0.01	<0.001	<0.005
VKY036C	Jan-2026	<0.01	<0.001	0.003	0.06	<0.0001	0.001	<0.001	<0.001	<0.001	0.068	<0.0001	0.003	0.004	<0.010	<0.001	<0.005
VKY036C	Apr-2026	<0.01	<0.001	0.009	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.145	<0.0001	0.004	0.001	<0.01	<0.001	<0.005
VKY036C	Jul-2026	0.01	0.001	0.009	0.1	0.0001	0.001	0.001	0.001	0.001	0.156	0.0001	0.003	0.002	0.01	0.001	0.006
VKY042C	Jan-2025	<0.01		<0.001	0.06		<0.001	<0.001		<0.001	0.22	<0.0001	<0.001	0.003	<0.01	<0.001	0.015
VKY042C	Apr-2025	<0.01		<0.001	0.05	<0.0001	<0.001	<0.001	0.003	<0.001	0.216	<0.0001	<0.001	0.002	<0.01	<0.001	0.013
VKY042C	Jul-2025	<0.01	<0.001	<0.001	0.05	<0.0001	<0.001	<0.001	0.002	<0.001	0.202	<0.0001	<0.001	0.001	<0.01	<0.001	0.006
VKY042C	Oct-2025	<0.01	<0.001	<0.001	0.06	0.0001	<0.001	<0.001	0.01	<0.001	0.212	<0.0001	<0.001	0.003	<0.01	<0.001	0.037
VKY042C	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.005	<0.001	0.197	<0.0001	<0.001	0.001	<0.010	<0.001	<0.005
VKY042C	Apr-2026	<0.01	<0.001	<0.001	0.05	<0.0001	<0.001	<0.001	0.003	<0.001	0.19	<0.0001	<0.001	0.001	<0.01	<0.001	0.013
VKY042C	Jul-2026	0.01	0.001	0.001	0.05	0.0002	0.001	0.001	0.004	0.001	0.199	0.0001	0.001	0.002	0.01	0.001	0.014
VKY043C	Jan-2025	<0.01		<0.001	0.06		<0.001	<0.001		<0.001	0.005	<0.0001	<0.001	0.001	<0.01	<0.001	<0.005
VKY043C	Apr-2025	<0.01		<0.001	0.07	<0.0001	<0.001	<0.001	0.001	<0.001	0.004	<0.0001	<0.001	<0.001	<0.01	<0.001	0.005
VKY043C	Jul-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	0.002	<0.001	<0.001	<0.0001	<0.001	<0.001	<0.01	<0.001	0.007
VKY043C	Oct-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	<0.001	<0.001	0.016	<0.0001	<0.001	<0.001	<0.01	<0.001	<0.005
VKY043C	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.005	<0.001	0.147	<0.0001	0.002	<0.001	<0.010	<0.001	0.015
VKY043C	Apr-2026	<0.01	<0.001	0.009	0.07	0.0002	<0.001	0.003	0.011	<0.001	0.683	<0.0001	0.001	0.002	<0.01	<0.001	0.041
VKY043C	Jul-2026	0.01	0.001	0.011	0.07	0.0002	0.001	0.006	0.002	0.001	0.778	0.0001	0.001	0.002	0.01	0.001	0.007
VKY-GW-Blank	Jul-2026	0.01	0.001	0.001	0.05	0.0001	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	0.001	0.01	0.001	0.005
VNW223	Jan-2025	<0.01		<0.001	0.08		<0.001	<0.001		<0.001	0.007	<0.0001	<0.001	0.002	<0.01	<0.001	0.027
VNW223	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	0.001	0.013	<0.001	0.126	<0.0001	<0.001	0.008	<0.01	<0.001	0.062
VNW223	Oct-2025	<0.01	<0.001	<0.001	0.07	<0.0001	<0.001	<0.001	0.01	<0.001	0.032	<0.0001	<0.001	0.004	<0.01	<0.001	0.034
VNW223	Jan-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.005	<0.001	0.012	<0.0001	0.002	0.002	<0.010	<0.001	0.006
VNW223	Apr-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	0.005	<0.001	0.008	<0.0001	0.001	0.002	<0.01	<0.001	0.013
VNW223/P-3	Jul-2026	0.01	0.001	0.001	0.07	0.0001	0.001	0.001	0.001	0.001	0.001	0.0001	0.001	0.003	0.004	0.001	

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
VNW390	Jan-2025	<0.01		0.001	0.11		<0.001	0.002		<0.001	0.227	<0.0001	0.003	0.024	<0.01	<0.001	0.005
VNW390	Apr-2025	<0.01		0.002	0.11	<0.0001	<0.001	0.002	<0.001	<0.001	0.362	<0.0001	0.004	0.026	<0.01	<0.001	<0.005
VNW390	Jul-2025	<0.01	<0.001	<0.001	0.1	<0.0001	0.001	0.001	<0.001	<0.001	0.23	<0.0001	0.003	0.017	<0.01	<0.001	<0.005
VNW390	Oct-2025	<0.01	<0.001	0.001	0.12	<0.0001	0.002	<0.001	<0.001	<0.001	0.224	<0.0001	0.006	0.011	<0.01	<0.001	<0.005
VNW390	Jan-2026	<0.01	<0.001	0.001	0.09	<0.0001	0.001	<0.001	<0.001	<0.001	0.205	<0.0001	0.006	0.012	<0.010	<0.001	<0.005
VNW390	Apr-2026	<0.01	<0.001	0.001	0.12	<0.0001	<0.001	<0.001	<0.001	<0.001	0.192	<0.0001	0.007	0.019	<0.01	<0.001	0.026
VNW390	Jul-2026	0.01	0.001	0.001	0.11	0.0001	0.001	0.001	0.001	0.001	0.006	0.0001	0.007	0.037	0.004	0.001	
VNW391	Jan-2025	<0.01		<0.001	0.1		<0.001	<0.001		<0.001	0.233	<0.0001	<0.001	0.004	<0.01	<0.001	0.019
VNW391	Apr-2025	<0.01		0.001	0.1	<0.0001	<0.001	<0.001	<0.001	<0.001	0.264	<0.0001	<0.001	0.002	<0.01	<0.001	0.005
VNW391	Jul-2025	<0.01	<0.001	<0.001	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	0.25	<0.0001	<0.001	0.002	<0.01	<0.001	<0.005
VNW391	Oct-2025	<0.01	<0.001	<0.001	0.11	<0.0001	<0.001	<0.001	<0.001	<0.001	0.275	<0.0001	<0.001	0.002	<0.01	<0.001	<0.005
VNW391	Jan-2026	<0.01	0.037	0.002	0.09	0.0001	<0.001	<0.001	0.013	<0.001	0.072	<0.0001	<0.001	0.001	<0.010	<0.001	0.042
VNW391	Apr-2026	<0.01	0.026	0.001	0.09	0.0001	<0.001	<0.001	0.008	<0.001	0.075	<0.0001	<0.001	<0.001	<0.01	<0.001	0.035
VNW391	Jul-2026	0.01	0.009	0.001	0.12	0.0001	0.001	0.001	0.001	0.001	0.108	0.0001	0.001	0.002	0.01	0.001	0.015
VNW392	Jan-2025	<0.01		<0.001	0.09		<0.001	0.002		<0.001	0.22	<0.0001	0.004	0.026	<0.01	<0.001	0.009
VNW392	Apr-2025	<0.01		0.003	0.08	<0.0001	<0.001	0.003	<0.001	<0.001	0.51	<0.0001	0.001	0.005	<0.01	<0.001	<0.005
VNW392	Jul-2025	<0.01	<0.001	<0.001	0.08	<0.0001	<0.001	0.003	<0.001	<0.001	0.269	<0.0001	0.001	0.008	<0.01	<0.001	<0.005
VNW392	Oct-2025	<0.01	<0.001	0.001	0.09	<0.0001	<0.001	0.003	<0.001	<0.001	0.27	<0.0001	0.001	0.004	<0.01	<0.001	<0.005
VNW392	Jan-2026	<0.01	<0.001	0.001	0.08	<0.0001	<0.001	0.003	<0.001	<0.001	0.24	<0.0001	0.002	0.008	<0.010	<0.001	<0.005
VNW392	Apr-2026	<0.01	<0.001	0.002	0.09	<0.0001	<0.001	0.002	<0.001	<0.001	0.561	<0.0001	0.002	0.012	<0.01	<0.001	0.012
VNW392	Jul-2026	0.01	0.001	0.001	0.1	0.0001	0.001	0.003	0.001	0.001	0.235	0.0001	0.002	0.013	0.01	0.001	0.008
VNW393	Jan-2025	0.01		<0.001	0.08		<0.001	<0.001		<0.001	0.176	<0.0001	0.005	0.013	<0.01	<0.001	<0.005
VNW393	Apr-2025	0.01		<0.001	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.195	<0.0001	0.004	0.006	<0.01	<0.001	<0.005
VNW393	Jul-2025	<0.01	<0.001	0.001	0.08	<0.0001	0.002	<0.001	<0.001	<0.001	0.179	<0.0001	0.003	0.003	<0.01	<0.001	<0.005
VNW393	Oct-2025	<0.01	<0.001	<0.001	0.09	<0.0001	<0.001	<0.001	<0.001	<0.001	0.192	<0.0001	0.002	0.003	<0.01	<0.001	<0.005
VNW393	Jan-2026	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.168	<0.0001	0.004	0.004	<0.010	<0.001	<0.005
VNW393	Apr-2026	<0.01	<0.001	<0.001	0.08	<0.0001	<0.001	<0.001	<0.001	<0.001	0.165	<0.0001	0.004	0.004	<0.01	<0.001	0.011
VNW393	Jul-2026	0.01	0.001	0.002	0.09	0.0001	0.001	0.001	0.001	0.001	0.181	0.0001	0.002	0.007	0.01	0.001	0.007
VNW394	Jan-2025	<0.01		0.004	0.06		<0.001	0.002		<0.001	0.283	<0.0001	0.001	0.006	<0.01	<0.001	0.005
VNW394	Apr-2025	<0.01		0.004	0.06	<0.0001	<0.001	0.002	<0.001	<0.001	0.353	<0.0001	0.002	0.008	0.01	<0.001	<0.005
VNW394	Jul-2025	<0.01	<0.001	0.004	0.07	<0.0001	<0.001	0.002	<0.001	<0.001	0.337	<0.0001	0.004	0.005	<0.01	<0.001	<0.005

Bore ID	Date	Aluminium (Dissolved) 0.055	Tin (Dissolved) 0.009	Arsenic (Dissolved) 0.013	Boron (Dissolved) 0.094	Cadmium (Dissolved) 0.0002	Chromium (Dissolved) 0.001	Cobalt (Dissolved) 0.0014	Copper (Dissolved) 0.0014	Lead (Dissolved) 0.0034	Manganese (Dissolved) 1.9	Mercury (Dissolved) 0.0006	Molybdenum (Dissolved) 0.034	Nickel (Dissolved) 0.011	Selenium (Dissolved) 0.011	Silver (Dissolved) 0.00005	Zinc (Dissolved) 0.008
VNW394	Oct-2025	<0.01	<0.001	0.004	0.08	<0.0001	<0.001	0.002	<0.001	<0.001	0.287	<0.0001	0.002	0.004	<0.01	<0.001	<0.005
VNW394	Jan-2026	<0.01	<0.001	0.004	<0.05	<0.0001	<0.001	0.007	<0.001	<0.001	0.294	<0.0001	0.001	0.01	<0.010	<0.001	0.012
VNW394	Apr-2026	<0.01	<0.001	0.004	0.06	<0.0001	<0.001	0.007	<0.001	<0.001	0.347	<0.0001	0.002	0.003	<0.01	<0.001	0.009
VNW394	Jul-2026	0.01	0.001	0.004	0.05	0.0001	0.001	0.004	0.016	0.001	0.279	0.0001	0.003	0.008	0.01	0.001	0.005
VNW395	Jan-2025	<0.01		<0.001	0.05		<0.001	<0.001		<0.001	0.056	<0.0001	0.001	0.14	<0.01	<0.001	<0.005
VNW395	Apr-2025	0.1		<0.001	0.05	<0.0001	<0.001	<0.001	<0.001	<0.001	0.122	<0.0001	<0.001	0.004	<0.01	<0.001	<0.005
VNW395	Jul-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.082	<0.0001	0.003	0.002	<0.01	<0.001	<0.005
VNW395	Oct-2025	<0.01	<0.001	<0.001	0.06	<0.0001	<0.001	<0.001	<0.001	<0.001	0.086	<0.0001	<0.001	0.002	<0.01	<0.001	<0.005
VNW395	Jan-2026	<0.01	<0.001	<0.001	<0.05	<0.0001	<0.001	<0.001	0.002	<0.001	0.036	<0.0001	0.002	0.007	<0.010	<0.001	<0.005
VNW395	Apr-2026	<0.01	<0.001	0.001	<0.05	<0.0001	<0.001	<0.001	0.014	<0.001	<0.001	<0.0001	0.004	0.008	<0.01	<0.001	<0.005
VNW395	Jul-2026	0.01	0.001	0.001	0.06	0.0001	0.001	0.001	0.018	0.001	0.049	0.0001	0.002	0.009	0.01	0.001	0.013
WR1	Jan-2025	<0.01		<0.001	0.17		<0.001	<0.001		<0.001	0.08	0.0003	<0.001	0.024	<0.01	<0.001	0.007
WR1	Apr-2025	<0.01		<0.001	0.18	0.0002	<0.001	0.004	2.35	<0.001	0.248	0.0037	0.002		<0.01	0.002	0.018
WR1	Jul-2025	<0.01	<0.001	0.001	0.16	0.0003	<0.001	0.005	0.619	0.001	0.285	0.0057	0.002	0.03	<0.01	0.001	0.013
WR1	Oct-2025	<0.01	<0.001	<0.001	0.16	0.0003	<0.001	0.002	0.564	<0.001	0.176	0.0051	0.001	0.026	<0.01	<0.001	0.01
WR1	Jan-2026	<0.01	<0.001	<0.001	0.19	0.0002	<0.001	0.002	0.208	<0.001	0.104	0.0087	0.001	0.021	<0.010	<0.001	0.015
WR1	Apr-2026	<0.01	<0.001	<0.001	0.15	0.0003	<0.001	0.004	2.41	<0.001	0.131	0.0072	0.001	0.019	<0.01	<0.001	0.019
WR1	Jul-2026	0.01	0.001	0.001	0.16	0.0002	0.001	0.003	0.933	0.001	0.105	0.0079	0.001	0.019	0.004	0.001	
WR2	Jan-2025	<0.01		<0.001	0.12		0.001	0.014		<0.001	1.12	<0.0001	0.02	0.158	<0.01	<0.001	0.011
WR2	Apr-2025	<0.01		<0.001	0.13	<0.0001	0.001	0.01	0.002	<0.001	0.478	<0.0001	0.045	0.22	<0.01	<0.001	0.015
WR2	Jul-2025	<0.01	<0.001	<0.001	0.12	<0.0001	<0.001	0.015	0.002	<0.001	1.65	<0.0001	0.001	0.025	<0.01	<0.001	0.014
WR2	Oct-2025	<0.01	<0.001	<0.001	0.12	<0.0001	0.001	0.01	0.002	<0.001	1.06	<0.0001	0.004	0.039	<0.01	<0.001	<0.005
WR2	Jan-2026	<0.01	<0.001	<0.001	0.14	<0.0001	0.002	0.005	0.003	<0.001	0.696	<0.0001	0.009	0.076	<0.010	<0.001	0.022
WR2	Apr-2026	<0.01	<0.001	<0.001	0.11	0.0002	0.001	0.017	0.102	<0.001	1.03	<0.0001	0.007	0.052	<0.01	<0.001	0.019
WR2	Jul-2026	0.01	0.001	0.001	0.11	0.0001	0.001	0.015	0.005	0.001	0.564	0.0001	0.004	0.046	0.004	0.001	

Appendix E

Groundwater Sample Results



CERTIFICATE OF ANALYSIS

Work Order : **EN2610476**
Client : **CBASED ENVIRONMENTAL PTY LTD**
Contact : All Deliverables
Address : Unit 3 2 Enterprise Cres
Singleton NSW 2330
Telephone : +61 02 6571 3334
Project : Vickery Quarterly Groundwaters
Order number : ----
C-O-C number : ----
Sampler : CBased Environmental
Site : Vickery
Quote number : SYBQ/403/21v5 and PLANNED EVENTS
No. of samples received : 17
No. of samples analysed : 17

Page : 1 of 14
Laboratory : Environmental Division Newcastle
Contact :
Address : 5/585 Maitland Road Mayfield West NSW Australia 2304
Telephone : +61 2 4014 2500
Date Samples Received : 09-Jul-2026 13:35
Date Analysis Commenced : 10-Jul-2026
Issue Date : 17-Jul-2026 13:18



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

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

This Certificate of Analysis contains the following information:

- General Comments
- Analytical Results

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.

<i>Signatories</i>	<i>Position</i>	<i>Accreditation Category</i>
Ankit Joshi	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.
- As per QWI-EN/55-3 Ionic Balance % is only reported when the anion sum exceeds or is equal to 3.0 meq/L. When the anion sum is less than 3.0 meq/L the acceptable difference is 0.2 meq/l and ionic balance % is not reported.
- ED041G: LOR raised for Sulfate on sample 16 due to sample matrix.
- EK057/EK059G: Nitrite and NO_x results confirmed by re analysis.
- It has been noted that Dissolved Total P is greater than Total P, however this difference is within the limits of experimental variation.
- 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

				VNW391 XHGHKESD-1	VNW392 XHGHKESD-2	VNW393 XHGHKESD-3	VNW395 XHGHKESD-4	TR18 XHGHKESD-5
Sampling date / time				02-Jul-2026 10:07	02-Jul-2026 10:45	02-Jul-2026 09:12	02-Jul-2026 09:48	02-Jul-2026 12:12
Compound	CAS Number	LOR	Unit	EN2610476-001	EN2610476-002	EN2610476-003	EN2610476-004	EN2610476-005
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.28	7.10	7.51	7.91	7.16
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	2330	3210	2810	2200	13000
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	1490	2170	1770	1460	8580
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	528	564	316	490	643
Total Alkalinity as CaCO ₃	----	1	mg/L	528	564	316	490	643
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	128	280	185	185	561
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	448	667	680	386	4190
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	200	293	164	56	252
Magnesium	7439-95-4	1	mg/L	58	89	32	35	305
Sodium	7440-23-5	1	mg/L	272	338	430	427	2250
Potassium	7440-09-7	1	mg/L	14	19	7	4	12
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	0.001	0.001	0.002	0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.124	0.118	0.056	0.050	0.071
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.003	<0.001	<0.001	0.001

Sub-Matrix: WATER
(Matrix: WATER)

VNW391 XHGHKESD-1	VNW392 XHGHKESD-2	VNW393 XHGHKESD-3	VNW395 XHGHKESD-4	TR18 XHGHKESD-5
02-Jul-2026 10:07	02-Jul-2026 10:45	02-Jul-2026 09:12	02-Jul-2026 09:48	02-Jul-2026 12:12
EN2610476-001	EN2610476-002	EN2610476-003	EN2610476-004	EN2610476-005
Result	Result	Result	Result	Result

Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.018	0.001
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.108	0.235	0.181	0.049	0.174
Molybdenum	7439-98-7	0.001	mg/L	<0.001	0.002	0.002	0.002	0.001
Nickel	7440-02-0	0.001	mg/L	0.002	0.013	0.007	0.009	0.013
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Strontium	7440-24-6	0.001	mg/L	1.99	2.86	2.21	0.763	6.78
Tin	7440-31-5	0.001	mg/L	0.009	<0.001	<0.001	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L	0.015	0.008	0.007	0.013	0.013
Boron	7440-42-8	0.05	mg/L	0.12	0.10	0.09	0.06	0.08
Iron	7439-89-6	0.05	mg/L	2.00	2.11	0.48	<0.05	0.15

Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
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Ammonia as N	7664-41-7	0.01	mg/L	0.33	0.44	0.47	0.17	0.88
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Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
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Nitrate as N	14797-55-8	0.01	mg/L	0.20	0.01	0.02	0.17	0.04
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Nitrite + Nitrate as N	-----	0.01	mg/L	0.20	0.01	0.02	0.17	0.04
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Filtered Total Phosphorus as P	-----	0.01	mg/L	0.07	0.10	0.07	0.15	0.15
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Total Phosphorus as P	----	0.01	mg/L	0.09	0.13	0.07	0.14	0.25
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Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				VNW391 XHGHKESD-1	VNW392 XHGHKESD-2	VNW393 XHGHKESD-3	VNW395 XHGHKESD-4	TR18 XHGHKESD-5
Sampling date / time				02-Jul-2026 10:07	02-Jul-2026 10:45	02-Jul-2026 09:12	02-Jul-2026 09:48	02-Jul-2026 12:12
Compound	CAS Number	LOR	Unit	EN2610476-001	EN2610476-002	EN2610476-003	EN2610476-004	EN2610476-005
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
∅ Total Anions	----	0.01	meq/L	25.9	35.9	29.3	24.5	143
∅ Total Cations	----	0.01	meq/L	26.9	37.1	29.7	24.4	136
∅ Ionic Balance	----	0.01	%	2.07	1.67	0.60	0.37	2.47
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
Dissolved Oxygen	----	0.1	mg/L	8.2	7.6	8.0	8.6	7.5



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				TR26 XHGHKESD-6	TR35 XHGHKESD-7	TR7 XHGHKESD-8	VKY0043C XHGHKESD-9	VKY0035C XHGHKESD-10
Sampling date / time				02-Jul-2026 11:32	02-Jul-2026 12:50	02-Jul-2026 11:50	02-Jul-2026 12:35	03-Jul-2026 10:10
Compound	CAS Number	LOR	Unit	EN2610476-006	EN2610476-007	EN2610476-008	EN2610476-009	EN2610476-010
Result				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.44	7.23	7.21	7.22	7.58
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	7070	15700	14800	8090	3020
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	4300	10100	9650	5080	1960
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	1210	685	685	653	799
Total Alkalinity as CaCO ₃	----	1	mg/L	1210	685	685	653	799
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	220	558	488	430	83
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1580	5220	4990	2440	549
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	163	313	307	243	51
Magnesium	7439-95-4	1	mg/L	165	478	346	202	44
Sodium	7440-23-5	1	mg/L	1210	2620	2550	1280	621
Potassium	7440-09-7	1	mg/L	12	20	16	11	8
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	0.011	0.003
Barium	7440-39-3	0.001	mg/L	0.134	0.087	0.098	0.222	0.078
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.0002	<0.0001	0.0002	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.004	0.002	0.006	<0.001

Sub-Matrix: **WATER**
(Matrix: **WATER**)

date / time

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	TR26 XHGHKESD-6	TR35 XHGHKESD-7	TR7 XHGHKESD-8	VKY0043C XHGHKESD-9	VKY0035C XHGHKESD-10
Sampling date / time				02-Jul-2026 11:32	02-Jul-2026 12:50	02-Jul-2026 11:50	02-Jul-2026 12:35	03-Jul-2026 10:10	
Compound	CAS Number	LOR	Unit	EN2610476-006	EN2610476-007	EN2610476-008	EN2610476-009	EN2610476-010	
				Result	Result	Result	Result	Result	
EG020F: Dissolved Metals by ICP-MS - Continued									
Copper	7440-50-8	0.001	mg/L	<0.001	5.48	0.005	0.002	<0.001	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	0.050	0.301	0.098	0.778	0.303	
Molybdenum	7439-98-7	0.001	mg/L	0.001	<0.001	0.001	<0.001	0.006	
Nickel	7440-02-0	0.001	mg/L	0.002	0.037	0.009	0.002	0.005	
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Strontium	7440-24-6	0.001	mg/L	4.18	7.86	9.71	4.53	0.933	
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Zinc	7440-66-6	0.005	mg/L	0.010	0.022	0.013	0.007	0.007	
Boron	7440-42-8	0.05	mg/L	0.10	0.08	0.06	0.07	<0.05	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	0.49	7.21	0.61	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.04	0.06	0.04	0.52	1.00	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	0.01	0.03	<0.01	<0.01	<0.01	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.16	<0.01	<0.01	0.06	<0.01	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	0.17	<0.01	<0.01	0.06	<0.01	
EK067FG: Filtered Total Phosphorus as P by Discrete Analyser									
Filtered Total Phosphorus as P	----	0.01	mg/L	0.09	0.07	<0.01	2.05	0.14	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L	0.10	0.05	0.11	2.28	0.14	
EN055: Ionic Balance									



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				TR26 XHGHKESD-6	TR35 XHGHKESD-7	TR7 XHGHKESD-8	VKY0043C XHGHKESD-9	VKY0035C XHGHKESD-10
Sampling date / time				02-Jul-2026 11:32	02-Jul-2026 12:50	02-Jul-2026 11:50	02-Jul-2026 12:35	03-Jul-2026 10:10
Compound	CAS Number	LOR	Unit	EN2610476-006	EN2610476-007	EN2610476-008	EN2610476-009	EN2610476-010
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø Total Anions	----	0.01	meq/L	73.3	173	165	90.8	33.2
ø Total Cations	----	0.01	meq/L	74.7	169	155	84.7	33.4
ø Ionic Balance	----	0.01	%	0.90	0.91	2.97	3.49	0.31
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
Dissolved Oxygen	----	0.1	mg/L	7.6	7.5	7.7	7.3	8.1



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				VKY0036C XHGHKESD-11	VKY0042C XHGHKESD-12	VKY0034C XHGHKESD-13	GW-13 XHGHKESD-14	GW-9 XHGHKESD-15
Sampling date / time				03-Jul-2026 10:37	03-Jul-2026 11:18	03-Jul-2026 11:47	03-Jul-2026 08:48	03-Jul-2026 08:20
Compound	CAS Number	LOR	Unit	EN2610476-011	EN2610476-012	EN2610476-013	EN2610476-014	EN2610476-015
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.82	7.33	7.77	7.80	8.16
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	5570	5460	3490	904	1970
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	3480	3230	2350	612	1180
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	1340	713	1130	427	279
Total Alkalinity as CaCO ₃	----	1	mg/L	1340	713	1130	427	279
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	123	283	107	7	50
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	958	1190	507	33	464
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	25	188	28	33	25
Magnesium	7439-95-4	1	mg/L	18	199	32	12	20
Sodium	7440-23-5	1	mg/L	1270	717	843	184	380
Potassium	7440-09-7	1	mg/L	6	23	8	8	12
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	0.009	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.275	0.130	0.151	0.051	0.037
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.0002	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	0.001	<0.001

Sub-Matrix: **WATER**
(Matrix: **WATER**)

VKY0036C XHGHKESD-11	VKY0042C XHGHKESD-12	VKY0034C XHGHKESD-13	GW-13 XHGHKESD-14	GW-9 XHGHKESD-15
03-Jul-2026 10:37	03-Jul-2026 11:18	03-Jul-2026 11:47	03-Jul-2026 08:48	03-Jul-2026 08:20
EN2610476-011	EN2610476-012	EN2610476-013	EN2610476-014	EN2610476-015
Result	Result	Result	Result	Result

Copper	7440-50-8	0.001	mg/L	<0.001	0.004	<0.001	0.004	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.156	0.199	0.024	0.196	0.301
Molybdenum	7439-98-7	0.001	mg/L	0.003	<0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L	0.002	0.002	<0.001	0.004	<0.001
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Strontium	7440-24-6	0.001	mg/L	0.557	3.30	0.638	1.07	0.623
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	7440-66-6	0.005	mg/L	0.006	0.014	0.007	0.018	<0.005
Boron	7440-42-8	0.05	mg/L	0.10	0.05	0.06	0.06	<0.05
Iron	7439-89-6	0.05	mg/L	0.70	0.24	0.23	1.79	0.05

Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
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Ammonia as N	7664-41-7	0.01	mg/L	0.94	0.96	0.80	0.66	0.54
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Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.10	0.02	0.06	<0.01
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Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	<0.01	0.17	<0.01
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Nitrite + Nitrate as N	-----	0.01	mg/L	<0.01	0.09	<0.01	0.23	<0.01
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Filtered Total Phosphorus as P	0.01	mg/L	0.63	0.16	0.09	1.30	0.02
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Total Phosphorus as P	----	0.01	mg/L	0.64	0.16	0.09	1.32	0.02
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EN055: Ionic Balance



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				VKY0036C XHGHKESD-11	VKY0042C XHGHKESD-12	VKY0034C XHGHKESD-13	GW-13 XHGHKESD-14	GW-9 XHGHKESD-15
Sampling date / time				03-Jul-2026 10:37	03-Jul-2026 11:18	03-Jul-2026 11:47	03-Jul-2026 08:48	03-Jul-2026 08:20
Compound	CAS Number	LOR	Unit	EN2610476-011	EN2610476-012	EN2610476-013	EN2610476-014	EN2610476-015
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
∅ Total Anions	----	0.01	meq/L	56.4	53.7	39.1	9.61	19.7
∅ Total Cations	----	0.01	meq/L	58.1	57.5	40.9	10.8	19.7
∅ Ionic Balance	----	0.01	%	1.54	3.44	2.25	6.04	0.06
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
Dissolved Oxygen	----	0.1	mg/L	7.3	7.4	7.5	7.9	8.8



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				GW-10 XHGHKESD-16	VKY-GW-Blank XHGHKESD-17	----	----	----
Sampling date / time				03-Jul-2026 08:16	03-Jul-2026 06:44	----	----	----
Compound	CAS Number	LOR	Unit	EN2610476-016	EN2610476-017	-----	-----	-----
Result				Result	Result	----	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	8.30	5.84	----	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	1480	<1	----	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	1040	<10	----	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	740	<1	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	740	<1	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<10	<1	----	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	43	<1	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	37	<1	----	----	----
Magnesium	7439-95-4	1	mg/L	26	<1	----	----	----
Sodium	7440-23-5	1	mg/L	304	<1	----	----	----
Potassium	7440-09-7	1	mg/L	23	<1	----	----	----
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	----	----	----
Antimony	7440-36-0	0.001	mg/L	0.002	<0.001	----	----	----
Arsenic	7440-38-2	0.001	mg/L	0.001	<0.001	----	----	----
Barium	7440-39-3	0.001	mg/L	0.069	<0.001	----	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	----	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	----	----	----
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	----	----	----

Sub-Matrix: WATER
(Matrix: WATER)

GW-10 XHGHKESD-16	VKY-GW-Blank XHGHKESD-17	----	----	----
03-Jul-2026 08:16	03-Jul-2026 06:44	----	----	----
EN2610476-016	EN2610476-017	-----	-----	-----
Result	Result	----	----	----

Copper	7440-50-8	0.001	mg/L	0.040	<0.001	----	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	----	----	----
Manganese	7439-96-5	0.001	mg/L	0.054	<0.001	----	----	----
Molybdenum	7439-98-7	0.001	mg/L	0.002	<0.001	----	----	----
Nickel	7440-02-0	0.001	mg/L	0.004	<0.001	----	----	----
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	----	----	----
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	----	----	----
Strontium	7440-24-6	0.001	mg/L	0.898	<0.001	----	----	----
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	----	----	----
Zinc	7440-66-6	0.005	mg/L	0.106	<0.005	----	----	----
Boron	7440-42-8	0.05	mg/L	0.13	<0.05	----	----	----
Iron	7439-89-6	0.05	mg/L	0.15	<0.05	----	----	----

Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	----	----	----
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Ammonia as N	7664-41-7	0.01	mg/L	0.06	0.01	----	----	----
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Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	----	----	----
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Nitrate as N	14797-55-8	0.01	mg/L	<0.01	<0.01	----	----	----
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Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	<0.01	----	----	----
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Filtered Total Phosphorus as P	----	0.01	mg/L	0.32	<0.01	----	----	----
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Total Phosphorus as P	----	0.01	mg/L	0.33	<0.01	----	----	----
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Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	GW-10 XHGHKESD-16	VKY-GW-Blank XHGHKESD-17	----	----	----
Sampling date / time					03-Jul-2026 08:16	03-Jul-2026 06:44	----	----	----
Compound	CAS Number	LOR	Unit		EN2610476-016	EN2610476-017	-----	-----	-----
				Result	Result		----	----	----
EN055: Ionic Balance - Continued									
∅ Total Anions	----	0.01	meq/L		16.0	<0.01	----	----	----
∅ Total Cations	----	0.01	meq/L		17.8	<0.01	----	----	----
∅ Ionic Balance	----	0.01	%		5.32	----	----	----	----
EP020: Oil and Grease (O&G)									
Oil & Grease	----	5	mg/L		<5	<5	----	----	----
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		8.6	9.9	----	----	----

Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry / Biology).

(WATER) ED093F: Dissolved Major Cations
 (WATER) EN055: Ionic Balance
 (WATER) ED045G: Chloride by Discrete Analyser
 (WATER) ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA
 (WATER) ED037P: Alkalinity by PC Titrator
 (WATER) EK055G: Ammonia as N by Discrete Analyser
 (WATER) EA010P: Conductivity by PC Titrator
 (WATER) EA015: Total Dissolved Solids dried at 180 ± 5 °C
 (WATER) EP020: Oil and Grease (O&G)
 (WATER) EK057G: Nitrite as N by Discrete Analyser
 (WATER) EK058G: Nitrate as N by Discrete Analyser
 (WATER) EK059G: Nitrite plus Nitrate as N (NO_x) by Discrete Analyser
 (WATER) EK067G: Total Phosphorus as P by Discrete Analyser
 (WATER) EG020F: Dissolved Metals by ICP-MS
 (WATER) EP025: Oxygen - Dissolved (DO)
 (WATER) EG035F: Dissolved Mercury by FIMS
 (WATER) EK067FG: Filtered Total Phosphorus as P by Discrete Analyser
 (WATER) EA005P: pH by PC Titrator



CERTIFICATE OF ANALYSIS

Work Order : **EN2610819**
Client : **CBASED ENVIRONMENTAL PTY LTD**
Contact : All Deliverables
Address : Unit 3 2 Enterprise Cres
Singleton NSW 2330
Telephone : +61 02 6571 3334
Project : Vickery Quarterly Groundwaters
Order number : ----
C-O-C number : ----
Sampler : Cbased
Site : Vickery
Quote number : SYBQ/403/21v5 and PLANNED EVENTS
No. of samples received : 24
No. of samples analysed : 24

Page : 1 of 17
Laboratory : Environmental Division Newcastle
Contact :
Address : 5/585 Maitland Road Mayfield West NSW Australia 2304
Telephone : +61 2 4014 2500
Date Samples Received : 15-Jul-2026 15:30
Date Analysis Commenced : 15-Jul-2026
Issue Date : 22-Jul-2026 19:27



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
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Gregory Towers	Laboratory Technician	Newcastle - Inorganics, Mayfield West, NSW
Ruby Buller	Laboratory Technician	Newcastle - Inorganics, Mayfield West, 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.
- As per QWI-EN/55-3 Ionic Balance % is only reported when the anion sum exceeds or is equal to 3.0 meq/L. When the anion sum is less than 3.0 meq/L the acceptable difference is 0.2 meq/l and ionic balance % is not reported.
- It has been noted that Dissolved Total P is greater than Total P, however this difference is within the limits of experimental variation on various samples
- 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

				GW-14 SW3AM637-1	GW-2 SW3AM637-2	GW-6 SW3AM637-3	GW01 SW3AM637-4	GW02 SW3AM637-5
Sampling date / time				08-Jul-2026 10:17	08-Jul-2026 10:36	08-Jul-2026 11:08	06-Jul-2026 13:02	06-Jul-2026 08:18
Compound	CAS Number	LOR	Unit	EN2610819-001	EN2610819-002	EN2610819-003	EN2610819-004	EN2610819-005
				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.77	7.70	8.35	8.01	8.08
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	3750	1240	1670	1220	924
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	2560	764	1000	745	575
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	9	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	578	538	871	465	390
Total Alkalinity as CaCO ₃	----	1	mg/L	578	538	880	465	390
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	414	23	<1	105	70
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	840	104	72	79	38
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	167	84	11	58	44
Magnesium	7439-95-4	1	mg/L	90	32	7	46	25
Sodium	7440-23-5	1	mg/L	572	159	417	168	143
Potassium	7440-09-7	1	mg/L	2	1	2	1	<1
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.042	0.202	0.437	0.079	0.049
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	0.002	<0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	0.001	<0.001

Sub-Matrix: WATER
(Matrix: WATER)

Sampling date / time

EG020F: Dissolved Metals by ICP-MS - ContinuedEG035F: Dissolved Mercury by FIMS

EK055G: Ammonia as N by Discrete Analyser

EK057G: Nitrite as N by Discrete AnalyserEK058G: Nitrate as N by Discrete AnalyserEKO59G: Nitrite plus Nitrate as N (NOx) by Discrete AnalyserE067EG: Filtered Total Phosphorus as P by Discrete AnalyserEK067G: Total Phosphorus as P by Discrete AnalyserEN055: Ionic Balance

EN055: Ionic Balance



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				GW-14 SW3AM637-1	GW-2 SW3AM637-2	GW-6 SW3AM637-3	GW01 SW3AM637-4	GW02 SW3AM637-5
Sampling date / time				08-Jul-2026 10:17	08-Jul-2026 10:36	08-Jul-2026 11:08	06-Jul-2026 13:02	06-Jul-2026 08:18
Compound	CAS Number	LOR	Unit	EN2610819-001	EN2610819-002	EN2610819-003	EN2610819-004	EN2610819-005
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø Total Anions	----	0.01	meq/L	43.9	14.2	19.6	13.7	10.3
ø Total Cations	----	0.01	meq/L	40.7	13.8	19.3	14.0	10.5
ø Ionic Balance	----	0.01	%	3.77	1.41	0.77	1.11	0.73
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
ø Dissolved Oxygen	----	0.1	mg/L	5.8	6.0	8.6	5.8	6.9



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				GW03 SW3AM637-6	MD01 SW3AM637-7	MD02 SW3AM637-8	MD03 SW3AM637-9	SB01 SW3AM637-10
Sampling date / time				06-Jul-2026 10:22	08-Jul-2026 08:09	08-Jul-2026 08:37	08-Jul-2026 07:34	06-Jul-2026 11:12
Compound	CAS Number	LOR	Unit	EN2610819-006	EN2610819-007	EN2610819-008	EN2610819-009	EN2610819-010
Result				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.88	8.27	7.48	7.95	7.99
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	897	1700	1290	4430	1690
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	544	910	688	2930	964
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	426	327	558	465	571
Total Alkalinity as CaCO ₃	----	1	mg/L	426	327	558	465	571
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	51	45	32	117	181
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	20	348	101	1280	171
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	74	23	73	109	86
Magnesium	7439-95-4	1	mg/L	34	13	54	90	66
Sodium	7440-23-5	1	mg/L	80	308	145	832	217
Potassium	7440-09-7	1	mg/L	1	19	8	8	1
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	0.02	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	0.003	0.002
Barium	7440-39-3	0.001	mg/L	0.090	0.088	0.268	0.622	0.123
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	0.004	0.008

Sub-Matrix: WATER
(Matrix: WATER)

Sampling date / time

EG020F: Dissolved Metals by ICP-MS - Continued

EG035F: Dissolved Mercury by FIMS

EK055G: Ammonia as N by Discrete Analyser

EK057G: Nitrite as N by Discrete Analyser

EK058G: Nitrate as N by Discrete Analyser

EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser

EK067FG: Filtered Total Phosphorus as P by Discrete Analyser

EK067G: Total Phosphorus as P by Discrete Analyser

EN055: Ionic Balance



Analytical Results

Sub-Matrix: **WATER**
 (Matrix: **WATER**)

Sample ID

				GW03 SW3AM637-6	MD01 SW3AM637-7	MD02 SW3AM637-8	MD03 SW3AM637-9	SB01 SW3AM637-10
Sampling date / time				06-Jul-2026 10:22	08-Jul-2026 08:09	08-Jul-2026 08:37	08-Jul-2026 07:34	06-Jul-2026 11:12
Compound	CAS Number	LOR	Unit	EN2610819-006	EN2610819-007	EN2610819-008	EN2610819-009	EN2610819-010
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø Total Anions	----	0.01	meq/L	10.1	17.3	14.7	47.8	20.0
ø Total Cations	----	0.01	meq/L	10.0	16.1	14.6	49.2	19.2
ø Ionic Balance	----	0.01	%	0.70	3.55	0.22	1.45	2.07
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
ø Dissolved Oxygen	----	0.1	mg/L	7.4	7.2	4.7	5.8	6.7



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SB02 SW3AM637-11	SB04 SW3AM637-12	SB05 SW3AM637-13	SDB06 SW3AM637-14	SB07 SW3AM637-15
Sampling date / time				06-Jul-2026 13:23	06-Jul-2026 09:33	06-Jul-2026 11:37	06-Jul-2026 12:29	08-Jul-2026 08:45
Compound	CAS Number	LOR	Unit	EN2610819-011	EN2610819-012	EN2610819-013	EN2610819-014	EN2610819-015
Result				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.92	8.12	8.32	8.24	8.12
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	8710	2220	3530	3170	922
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	6320	1620	2580	2230	587
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	3	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	950	605	782	488	391
Total Alkalinity as CaCO ₃	----	1	mg/L	950	605	786	488	391
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	1160	246	428	398	62
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1510	306	521	631	36
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	75	66	23	34	46
Magnesium	7439-95-4	1	mg/L	79	61	21	38	26
Sodium	7440-23-5	1	mg/L	1670	382	780	691	137
Potassium	7440-09-7	1	mg/L	2	<1	<1	<1	<1
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	0.006	<0.001	0.005	0.003	<0.001
Barium	7440-39-3	0.001	mg/L	0.035	0.080	0.074	0.121	0.046
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	0.002	<0.001	<0.001	0.002	<0.001

Sub-Matrix: WATER
(Matrix: WATER)

Sample ID

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SB02 SW3AM637-11	SB04 SW3AM637-12	SB05 SW3AM637-13	SDB06 SW3AM637-14	SB07 SW3AM637-15
Sampling date / time				06-Jul-2026 13:23	06-Jul-2026 09:33	06-Jul-2026 11:37	06-Jul-2026 12:29	08-Jul-2026 08:45	
Compound	CAS Number	LOR	Unit	EN2610819-011	EN2610819-012	EN2610819-013	EN2610819-014	EN2610819-015	
				Result	Result	Result	Result	Result	
EG020F: Dissolved Metals by ICP-MS - Continued									
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	0.003	0.004	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	0.894	0.101	0.374	0.849	0.002	
Molybdenum	7439-98-7	0.001	mg/L	0.004	<0.001	0.003	0.003	<0.001	
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	0.002	<0.001	
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Strontium	7440-24-6	0.001	mg/L	2.53	1.74	0.709	1.32	0.684	
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.15	0.10	0.19	0.17	0.08	
Iron	7439-89-6	0.05	mg/L	1.36	<0.05	0.17	0.10	<0.05	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	0.10	0.20	0.17	0.09	0.12	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.01	<0.01	<0.01	<0.01	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	<0.01	0.03	<0.01	<0.01	0.20	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.04	<0.01	<0.01	0.20	
EK067FG: Filtered Total Phosphorus as P by Discrete Analyser									
Filtered Total Phosphorus as P	----	0.01	mg/L	0.22	0.08	0.30	0.45	0.05	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L	0.33	0.11	0.46	0.56	0.11	
EN055: Ionic Balance									



Analytical Results

Sub-Matrix: **WATER**
 (Matrix: **WATER**)

Sample ID

				SB02 SW3AM637-11	SB04 SW3AM637-12	SB05 SW3AM637-13	SDB06 SW3AM637-14	SB07 SW3AM637-15
Sampling date / time				06-Jul-2026 13:23	06-Jul-2026 09:33	06-Jul-2026 11:37	06-Jul-2026 12:29	08-Jul-2026 08:45
Compound	CAS Number	LOR	Unit	EN2610819-011	EN2610819-012	EN2610819-013	EN2610819-014	EN2610819-015
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø Total Anions	----	0.01	meq/L	85.7	25.8	39.3	35.8	10.1
ø Total Cations	----	0.01	meq/L	82.9	24.9	36.8	34.9	10.4
ø Ionic Balance	----	0.01	%	1.66	1.80	3.30	1.35	1.34
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
ø Dissolved Oxygen	----	0.1	mg/L	6.5	6.9	6.5	6.2	7.2



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				SB08 SW3AM637-16	SB09 SW3AM637-17	SB10 SW3AM637-18	SB11 SW3AM637-19	SB15 SW3AM637-20
Sampling date / time				06-Jul-2026 09:52	06-Jul-2026 10:54	06-Jul-2026 11:52	06-Jul-2026 12:13	06-Jul-2026 12:48
Compound	CAS Number	LOR	Unit	EN2610819-016	EN2610819-017	EN2610819-018	EN2610819-019	EN2610819-020
Result				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	8.15	8.26	8.66	8.32	8.12
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	1010	983	1630	1080	1050
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	610	560	1080	684	662
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	<1	47	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	394	453	559	479	461
Total Alkalinity as CaCO ₃	----	1	mg/L	394	453	607	479	461
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	68	68	157	86	87
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	68	27	143	34	34
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	50	41	18	29	66
Magnesium	7439-95-4	1	mg/L	30	29	32	25	46
Sodium	7440-23-5	1	mg/L	146	154	350	212	126
Potassium	7440-09-7	1	mg/L	<1	1	<1	<1	<1
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.045	0.056	0.028	0.060	0.077
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001

Sub-Matrix: WATER
(Matrix: WATER)

Sample ID

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	SB08 SW3AM637-16	SB09 SW3AM637-17	SB10 SW3AM637-18	SB11 SW3AM637-19	SB15 SW3AM637-20
Sampling date / time				06-Jul-2026 09:52	06-Jul-2026 10:54	06-Jul-2026 11:52	06-Jul-2026 12:13	06-Jul-2026 12:48	
Compound	CAS Number	LOR	Unit	EN2610819-016	EN2610819-017	EN2610819-018	EN2610819-019	EN2610819-020	
				Result	Result	Result	Result	Result	
EG020F: Dissolved Metals by ICP-MS - Continued									
Copper	7440-50-8	0.001	mg/L	0.006	0.005	<0.001	0.002	0.002	
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Manganese	7439-96-5	0.001	mg/L	0.003	0.255	0.014	0.002	0.011	
Molybdenum	7439-98-7	0.001	mg/L	<0.001	0.001	0.002	<0.001	<0.001	
Nickel	7440-02-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	<0.010	
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Strontium	7440-24-6	0.001	mg/L	0.846	0.911	0.735	0.833	1.46	
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	
Zinc	7440-66-6	0.005	mg/L	<0.005	<0.005	<0.005	<0.005	<0.005	
Boron	7440-42-8	0.05	mg/L	0.05	0.06	0.12	0.09	0.08	
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05	
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L	<0.01	0.02	<0.01	<0.01	<0.01	
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	0.01	<0.01	<0.01	
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L	0.17	0.02	0.41	0.18	0.16	
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L	0.17	0.02	0.42	0.18	0.16	
EK067FG: Filtered Total Phosphorus as P by Discrete Analyser									
Filtered Total Phosphorus as P	----	0.01	mg/L	0.08	0.10	0.10	0.03	0.18	
EK067G: Total Phosphorus as P by Discrete Analyser									
Total Phosphorus as P	----	0.01	mg/L	0.10	0.16	0.14	0.05	0.19	
EN055: Ionic Balance									



Analytical Results

Sub-Matrix: **WATER**
 (Matrix: **WATER**)

Sample ID

				SB08 SW3AM637-16	SB09 SW3AM637-17	SB10 SW3AM637-18	SB11 SW3AM637-19	SB15 SW3AM637-20
Sampling date / time				06-Jul-2026 09:52	06-Jul-2026 10:54	06-Jul-2026 11:52	06-Jul-2026 12:13	06-Jul-2026 12:48
Compound	CAS Number	LOR	Unit	EN2610819-016	EN2610819-017	EN2610819-018	EN2610819-019	EN2610819-020
				Result	Result	Result	Result	Result
EN055: Ionic Balance - Continued								
ø Total Anions	----	0.01	meq/L	11.2	11.2	19.4	12.3	12.0
ø Total Cations	----	0.01	meq/L	11.3	11.2	18.8	12.7	12.6
ø Ionic Balance	----	0.01	%	0.48	0.32	1.77	1.62	2.36
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
ø Dissolved Oxygen	----	0.1	mg/L	7.8	7.0	6.7	7.1	7.2



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				VNW394 SW3AM637-21	GW-4 SW3AM637-22	GW-15 SW3AM637-23	VKY GW Duplicate 2 SW3AM637-24	----
Sampling date / time				08-Jul-2026 09:27	08-Jul-2026 11:40	08-Jul-2026 12:22	08-Jul-2026 11:08	----
Compound	CAS Number	LOR	Unit	EN2610819-021	EN2610819-022	EN2610819-023	EN2610819-024	-----
				Result	Result	Result	Result	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.71	8.46	9.11	8.39	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	6260	2970	793	1690	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	3630	2060	534	990	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	----
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	42	47	14	----
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	364	1130	301	860	----
Total Alkalinity as CaCO ₃	----	1	mg/L	364	1180	348	874	----
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	547	<1	39	<1	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1440	370	33	70	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	191	4	3	10	----
Magnesium	7439-95-4	1	mg/L	86	5	2	6	----
Sodium	7440-23-5	1	mg/L	941	734	192	403	----
Potassium	7440-09-7	1	mg/L	6	4	3	2	----
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	----
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----
Arsenic	7440-38-2	0.001	mg/L	0.004	0.002	<0.001	<0.001	----
Barium	7440-39-3	0.001	mg/L	0.048	0.407	0.023	0.431	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	----
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----
Cobalt	7440-48-4	0.001	mg/L	0.004	<0.001	<0.001	<0.001	----

Sub-Matrix: **WATER**
(Matrix: **WATER**)

VNW394 SW3AM637-21	GW-4 SW3AM637-22	GW-15 SW3AM637-23	VKY GW Duplicate 2 SW3AM637-24	----
08-Jul-2026 09:27	08-Jul-2026 11:40	08-Jul-2026 12:22	08-Jul-2026 11:08	----
EN2610819-021	EN2610819-022	EN2610819-023	EN2610819-024	-----
Result	Result	Result	Result	----

Copper	7440-50-8	0.001	mg/L	0.016	0.002	<0.001	<0.001	----
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----
Manganese	7439-96-5	0.001	mg/L	0.279	0.010	0.006	0.009	----
Molybdenum	7439-98-7	0.001	mg/L	0.003	<0.001	0.004	<0.001	----
Nickel	7440-02-0	0.001	mg/L	0.008	0.001	<0.001	<0.001	----
Selenium	7782-49-2	0.010	mg/L	<0.010	<0.010	<0.010	<0.010	----
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----
Strontium	7440-24-6	0.001	mg/L	3.00	0.179	0.191	0.184	----
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	----
Zinc	7440-66-6	0.005	mg/L	<0.005	0.006	<0.005	<0.005	----
Boron	7440-42-8	0.05	mg/L	0.05	0.15	<0.05	0.10	----
Iron	7439-89-6	0.05	mg/L	0.68	0.76	<0.05	0.57	----

Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	----
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Ammonia as N	7664-41-7	0.01	mg/L	0.14	1.30	0.07	0.57	----
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Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	----
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Nitrate as N	14797-55-8	0.01	mg/L	<0.01	0.01	<0.01	<0.01	----
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Nitrite + Nitrate as N	----	0.01	mg/L	<0.01	0.01	<0.01	<0.01	----
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Filtered Total Phosphorus as P	-----	0.01	mg/L	0.16	0.16	0.13	0.06	-----
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Total Phosphorus as P	0.01	mg/L	0.28	0.14	0.11	0.08	---
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EN055: Ionic Balance



CERTIFICATE OF ANALYSIS

Work Order	: EN2611013	Page	: 1 of 8
Amendment	: 1		
Client	: CBASED ENVIRONMENTAL PTY LTD	Laboratory	: Environmental Division Newcastle
Contact	: All Deliverables	Contact	:
Address	: Unit 3 2 Enterprise Cres Singleton NSW 2330	Address	: 5/585 Maitland Road Mayfield West NSW Australia 2304
Telephone	: +61 02 6571 3334	Telephone	: +61 2 4014 2500
Project	: Vickery Quarterly Groundwaters	Date Samples Received	: 20-Jul-2026 12:45
Order number	: ----	Date Analysis Commenced	: 20-Jul-2026
C-O-C number	: ----	Issue Date	: 26-Aug-2026 11:50
Sampler	: ----		
Site	: Vickery		
Quote number	: SYBQ/403/21v5 and PLANNED EVENTS		
No. of samples received	: 8		
No. of samples analysed	: 8		



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
Ankit Joshi	Senior Chemist - Inorganics	Sydney Inorganics, Smithfield, NSW
Christopher Cameron	Laboratory Technician	Newcastle - Inorganics, Mayfield West, NSW
Ivan Taylor	Analyst	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.
- As per QWI-EN/55-3 Ionic Balance % is only reported when the anion sum exceeds or is equal to 3.0 meq/L. When the anion sum is less than 3.0 meq/L the acceptable difference is 0.2 meq/l and ionic balance % is not reported.
- EG035F: Positive Mercury result EN2611013 #7 has been confirmed by reanalysis.
- It has been noted that Nitrite is greater than Nitrate, however this difference is within the limits of experimental variation.
- Amendment (26/08/2026): This report has been amended as a result of a request to change sample time received from Angela Whitehall on 26/08/2026, for samples EN2611013-003. All analysis results are as per the previous report.
- 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

				GW-11 7TDBZTXF-1	GW-7 7TDBZTXF-2	GW971614 7TDBZTXF-3	VKY GW Lab Split Dup 1 7TDBZTXF-4	VNW223/P-3 7TDBZTXF-5
Sampling date / time				08-Jul-2026 11:08	08-Jul-2026 12:34	08-Jul-2026 07:30	08-Jul-2026 07:30	08-Jul-2026 10:35
Compound	CAS Number	LOR	Unit	EN2611013-001	EN2611013-002	EN2611013-003	EN2611013-004	EN2611013-005
Result				Result	Result	Result	Result	Result
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.19	8.42	7.13	7.13	7.55
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	5320	5100	653	650	6640
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	3040	2850	378	371	3570
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO ₃	----	1	mg/L	<1	<1	<1	<1	<1
Carbonate Alkalinity as CaCO ₃	3812-32-6	1	mg/L	<1	44	<1	<1	<1
Bicarbonate Alkalinity as CaCO ₃	71-52-3	1	mg/L	67	1150	268	269	977
Total Alkalinity as CaCO ₃	----	1	mg/L	67	1190	268	269	977
ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA								
Sulfate as SO ₄ - Turbidimetric	14808-79-8	1	mg/L	<1	335	30	30	124
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1560	764	29	29	1540
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	211	13	55	56	61
Magnesium	7439-95-4	1	mg/L	49	148	23	23	131
Sodium	7440-23-5	1	mg/L	706	684	52	52	1120
Potassium	7440-09-7	1	mg/L	11	300	<1	<1	8
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Arsenic	7440-38-2	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	7440-39-3	0.001	mg/L	0.107	0.017	0.021	0.022	0.076
Cadmium	7440-43-9	0.0001	mg/L	0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				GW-11 7TDBZTXF-1	GW-7 7TDBZTXF-2	GW971614 7TDBZTXF-3	VKY GW Lab Split Dup 1 7TDBZTXF-4	VNW223/P-3 7TDBZTXF-5
Sampling date / time				08-Jul-2026 11:08	08-Jul-2026 12:34	08-Jul-2026 07:30	08-Jul-2026 07:30	08-Jul-2026 10:35
Compound	CAS Number	LOR	Unit	EN2611013-001	EN2611013-002	EN2611013-003	EN2611013-004	EN2611013-005
				Result	Result	Result	Result	Result
EG020F: Dissolved Metals by ICP-MS - Continued								
Cobalt	7440-48-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Copper	7440-50-8	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Manganese	7439-96-5	0.001	mg/L	0.774	0.051	0.002	0.002	<0.001
Molybdenum	7439-98-7	0.001	mg/L	<0.001	0.001	<0.001	<0.001	<0.001
Nickel	7440-02-0	0.001	mg/L	<0.001	0.001	<0.001	<0.001	0.003
Selenium	7782-49-2	0.004	mg/L	<0.004	<0.004	<0.004	<0.004	<0.004
Silver	7440-22-4	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Strontium	7440-24-6	0.001	mg/L	3.10	0.262	0.589	0.599	2.11
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001
Boron	7440-42-8	0.05	mg/L	0.11	0.20	<0.05	<0.05	0.07
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	<0.05	<0.05
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	1.94	0.20	<0.01	0.06	0.02
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	0.03	<0.01	<0.01	<0.01
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	0.02	<0.01	0.24	0.23	2.16
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	0.02	0.01	0.24	0.23	2.16
EK067FG: Filtered Total Phosphorus as P by Discrete Analyser								
Filtered Total Phosphorus as P	----	0.01	mg/L	0.03	0.03	0.05	0.05	0.26
EK071G: Reactive Phosphorus as P by discrete analyser								
Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	<0.01	0.05	0.05	0.08



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				GW-11 7TDBZTXF-1	GW-7 7TDBZTXF-2	GW971614 7TDBZTXF-3	VKY GW Lab Split Dup 1 7TDBZTXF-4	VNW223/P-3 7TDBZTXF-5
Sampling date / time				08-Jul-2026 11:08	08-Jul-2026 12:34	08-Jul-2026 07:30	08-Jul-2026 07:30	08-Jul-2026 10:35
Compound	CAS Number	LOR	Unit	EN2611013-001	EN2611013-002	EN2611013-003	EN2611013-004	EN2611013-005
				Result	Result	Result	Result	Result
EN055: Ionic Balance								
∅ Total Anions	----	0.01	meq/L	45.3	52.3	6.80	6.82	65.5
∅ Total Cations	----	0.01	meq/L	45.6	50.3	6.90	6.95	62.7
∅ Ionic Balance	----	0.01	%	0.23	2.00	0.75	0.96	2.18
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	<5	<5	<5
EP025: Oxygen - Dissolved (DO)								
Dissolved Oxygen	----	0.1	mg/L	9.2	9.3	9.5	9.4	9.3



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				VNW390 7TDBZTXF-6	WR1 7TDBZTXF-7	WR2 7TDBZTXF-8	----	----
Sampling date / time				08-Jul-2026 13:11	08-Jul-2026 12:11	08-Jul-2026 11:42	----	----
Compound	CAS Number	LOR	Unit	EN2611013-006	EN2611013-007	EN2611013-008	-----	-----
Result				Result	Result	Result	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	7.29	6.89	6.81	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	2490	27900	27200	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	1380	18500	18700	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	<1	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	<1	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	613	623	542	----	----
Total Alkalinity as CaCO3	----	1	mg/L	613	623	542	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	94	1220	1440	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	433	9910	8960	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	116	998	1020	----	----
Magnesium	7439-95-4	1	mg/L	42	737	622	----	----
Sodium	7440-23-5	1	mg/L	283	4000	4050	----	----
Potassium	7440-09-7	1	mg/L	13	11	17	----	----
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	<0.01	----	----
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Arsenic	7440-38-2	0.001	mg/L	0.001	<0.001	<0.001	----	----
Barium	7440-39-3	0.001	mg/L	0.097	0.101	0.100	----	----
Cadmium	7440-43-9	0.0001	mg/L	<0.0001	0.0002	<0.0001	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Cobalt	7440-48-4	0.001	mg/L	<0.001	0.003	0.015	----	----



Analytical Results

Sub-Matrix: WATER
 (Matrix: WATER)

Sample ID

				VNW390 7TDBZTXF-6	WR1 7TDBZTXF-7	WR2 7TDBZTXF-8	----	----
Sampling date / time				08-Jul-2026 13:11	08-Jul-2026 12:11	08-Jul-2026 11:42	----	----
Compound	CAS Number	LOR	Unit	EN2611013-006	EN2611013-007	EN2611013-008	-----	-----
				Result	Result	Result	----	----
EG020F: Dissolved Metals by ICP-MS - Continued								
Copper	7440-50-8	0.001	mg/L	<0.001	0.933	0.005	----	----
Lead	7439-92-1	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Manganese	7439-96-5	0.001	mg/L	0.006	0.105	0.564	----	----
Molybdenum	7439-98-7	0.001	mg/L	0.007	<0.001	0.004	----	----
Nickel	7440-02-0	0.001	mg/L	0.037	0.019	0.046	----	----
Selenium	7782-49-2	0.004	mg/L	<0.004	<0.004	<0.004	----	----
Silver	7440-22-4	0.001	mg/L	<0.001	0.001	<0.001	----	----
Strontium	7440-24-6	0.001	mg/L	1.70	27.9	29.0	----	----
Tin	7440-31-5	0.001	mg/L	<0.001	<0.001	<0.001	----	----
Boron	7440-42-8	0.05	mg/L	0.11	0.16	0.11	----	----
Iron	7439-89-6	0.05	mg/L	<0.05	<0.05	<0.05	----	----
EG035F: Dissolved Mercury by FIMS								
Mercury	7439-97-6	0.0001	mg/L	<0.0001	0.0079	<0.0001	----	----
EK055G: Ammonia as N by Discrete Analyser								
Ammonia as N	7664-41-7	0.01	mg/L	0.53	0.17	0.36	----	----
EK057G: Nitrite as N by Discrete Analyser								
Nitrite as N	14797-65-0	0.01	mg/L	<0.01	<0.01	<0.01	----	----
EK058G: Nitrate as N by Discrete Analyser								
Nitrate as N	14797-55-8	0.01	mg/L	0.03	<0.01	<0.01	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser								
Nitrite + Nitrate as N	----	0.01	mg/L	0.03	<0.01	<0.01	----	----
EK067FG: Filtered Total Phosphorus as P by Discrete Analyser								
Filtered Total Phosphorus as P	----	0.01	mg/L	0.09	0.32	0.39	----	----
EK071G: Reactive Phosphorus as P by discrete analyser								
Reactive Phosphorus as P	14265-44-2	0.01	mg/L	<0.01	0.11	0.02	----	----
EN055: Ionic Balance								
∅ Total Anions	----	0.01	meq/L	26.4	317	294	----	----



Analytical Results

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	VNW390 7TDBZTXF-6	WR1 7TDBZTXF-7	WR2 7TDBZTXF-8	----	----
Sampling date / time					08-Jul-2026 13:11	08-Jul-2026 12:11	08-Jul-2026 11:42	----	----
Compound	CAS Number	LOR	Unit		EN2611013-006	EN2611013-007	EN2611013-008	-----	-----
Result					Result	Result	Result	----	----
EN055: Ionic Balance - Continued									
ø Total Cations	----	0.01	meq/L		21.9	285	279	----	----
ø Ionic Balance	----	0.01	%		9.38	5.43	2.60	----	----
EP020: Oil and Grease (O&G)									
Oil & Grease	----	5	mg/L		<5	<5	<5	----	----
EP025: Oxygen - Dissolved (DO)									
Dissolved Oxygen	----	0.1	mg/L		9.0	9.1	9.2	----	----

Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry / Biology).

(WATER) EK057G: Nitrite as N by Discrete Analyser

(WATER) EK058G: Nitrate as N by Discrete Analyser

(WATER) EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser

(WATER) ED093F: Dissolved Major Cations

(WATER) EN055: Ionic Balance

(WATER) ED045G: Chloride by Discrete Analyser

(WATER) ED041G: Sulfate (Turbidimetric) as SO4 2- by DA

(WATER) EK055G: Ammonia as N by Discrete Analyser

(WATER) EG035F: Dissolved Mercury by FIMS

(WATER) EP025: Oxygen - Dissolved (DO)

(WATER) EP020: Oil and Grease (O&G)

(WATER) EK071G: Reactive Phosphorus as P by discrete analyser

(WATER) EK067FG: Filtered Total Phosphorus as P by Discrete Analyser

(WATER) EA015: Total Dissolved Solids dried at 180 ± 5 °C

(WATER) EG020F: Dissolved Metals by ICP-MS



CERTIFICATE OF ANALYSIS

Work Order : **EN2611452**
Client : **CBASED ENVIRONMENTAL PTY LTD**
Contact : All Deliverables
Address : Unit 3 2 Enterprise Cres
Singleton NSW 2330
Telephone : +61 02 6571 3334
Project : Vickery Quarterly Groundwaters
Order number : ----
C-O-C number : ----
Sampler : CBased Environmental
Site : Vickery
Quote number : SYBQ/403/21v5 and PLANNED EVENTS
No. of samples received : 2
No. of samples analysed : 2

Page : 1 of 5
Laboratory : Environmental Division Newcastle
Contact :
Address : 5/585 Maitland Road Mayfield West NSW Australia 2304
Telephone : +61 2 4014 2500
Date Samples Received : 28-Jul-2026 13:45
Date Analysis Commenced : 29-Jul-2026
Issue Date : 04-Aug-2026 16:12



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
Ankit Joshi	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.
- As per QWI-EN/55-3 Ionic Balance % is only reported when the anion sum exceeds or is equal to 3.0 meq/L. When the anion sum is less than 3.0 meq/L the acceptable difference is 0.2 meq/l and ionic balance % is not reported.
- 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

				VKY GW Duplicate 1 82UJZWUJ-1	VKY GW Lab Split Dup 2 82UJZWUJ-2	----	----	----
Sampling date / time				08-Jul-2026 11:08	08-Jul-2026 11:40	----	----	----
Compound	CAS Number	LOR	Unit	EN2611452-001	EN2611452-002	-----	-----	-----
Result				Result	Result	----	----	----
EA005P: pH by PC Titrator								
pH Value	----	0.01	pH Unit	6.42	8.14	----	----	----
EA010P: Conductivity by PC Titrator								
Electrical Conductivity @ 25°C	----	1	µS/cm	4470	2750	----	----	----
EA015: Total Dissolved Solids dried at 180 ± 5 °C								
Total Dissolved Solids @180°C	----	10	mg/L	3030	1830	----	----	----
ED037P: Alkalinity by PC Titrator								
Hydroxide Alkalinity as CaCO3	----	1	mg/L	<1	<1	----	----	----
Carbonate Alkalinity as CaCO3	3812-32-6	1	mg/L	<1	<1	----	----	----
Bicarbonate Alkalinity as CaCO3	71-52-3	1	mg/L	62	1120	----	----	----
Total Alkalinity as CaCO3	----	1	mg/L	62	1120	----	----	----
ED041G: Sulfate (Turbidimetric) as SO4 2- by DA								
Sulfate as SO4 - Turbidimetric	14808-79-8	1	mg/L	<1	<1	----	----	----
ED045G: Chloride by Discrete Analyser								
Chloride	16887-00-6	1	mg/L	1560	363	----	----	----
ED093F: Dissolved Major Cations								
Calcium	7440-70-2	1	mg/L	195	4	----	----	----
Magnesium	7439-95-4	1	mg/L	47	5	----	----	----
Sodium	7440-23-5	1	mg/L	665	750	----	----	----
Potassium	7440-09-7	1	mg/L	11	4	----	----	----
EG020F: Dissolved Metals by ICP-MS								
Aluminium	7429-90-5	0.01	mg/L	<0.01	<0.01	----	----	----
Antimony	7440-36-0	0.001	mg/L	<0.001	<0.001	----	----	----
Arsenic	7440-38-2	0.001	mg/L	<0.001	0.003	----	----	----
Barium	7440-39-3	0.001	mg/L	0.104	0.395	----	----	----
Cadmium	7440-43-9	0.0001	mg/L	0.0001	<0.0001	----	----	----
Chromium	7440-47-3	0.001	mg/L	<0.001	<0.001	----	----	----

Sub-Matrix: WATER
(Matrix: WATER)

Sample ID

Sub-Matrix: WATER (Matrix: WATER)				Sample ID	VKY GW Duplicate 1 82UJZWUJ-1	VKY GW Lab Split Dup 2 82UJZWUJ-2	----	----	----
Sampling date / time					08-Jul-2026 11:08	08-Jul-2026 11:40	----	----	----
Compound	CAS Number	LOR	Unit		EN2611452-001	EN2611452-002	-----	-----	-----
					Result	Result	----	----	----
EG020F: Dissolved Metals by ICP-MS - Continued									
Cobalt	7440-48-4	0.001	mg/L		<0.001	<0.001	----	----	----
Copper	7440-50-8	0.001	mg/L		0.003	<0.001	----	----	----
Lead	7439-92-1	0.001	mg/L		<0.001	<0.001	----	----	----
Manganese	7439-96-5	0.001	mg/L		0.846	0.010	----	----	----
Molybdenum	7439-98-7	0.001	mg/L		<0.001	<0.001	----	----	----
Nickel	7440-02-0	0.001	mg/L		<0.001	0.002	----	----	----
Selenium	7782-49-2	0.004	mg/L		<0.004	<0.004	----	----	----
Silver	7440-22-4	0.001	mg/L		<0.001	<0.001	----	----	----
Strontium	7440-24-6	0.001	mg/L		3.00	0.180	----	----	----
Tin	7440-31-5	0.001	mg/L		<0.001	<0.001	----	----	----
Zinc	7440-66-6	0.005	mg/L		0.022	<0.005	----	----	----
Boron	7440-42-8	0.05	mg/L		0.16	0.19	----	----	----
Iron	7439-89-6	0.05	mg/L		4.09	0.51	----	----	----
EG035F: Dissolved Mercury by FIMS									
Mercury	7439-97-6	0.0001	mg/L		<0.0001	<0.0001	----	----	----
EK055G: Ammonia as N by Discrete Analyser									
Ammonia as N	7664-41-7	0.01	mg/L		1.78	1.22	----	----	----
EK057G: Nitrite as N by Discrete Analyser									
Nitrite as N	14797-65-0	0.01	mg/L		<0.01	<0.01	----	----	----
EK058G: Nitrate as N by Discrete Analyser									
Nitrate as N	14797-55-8	0.01	mg/L		<0.01	0.02	----	----	----
EK059G: Nitrite plus Nitrate as N (NOx) by Discrete Analyser									
Nitrite + Nitrate as N	----	0.01	mg/L		<0.01	0.02	----	----	----
EK067FG: Filtered Total Phosphorus as P by Discrete Analyser									
Filtered Total Phosphorus as P	----	0.01	mg/L		0.02	0.14	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser									



Analytical Results

Sub-Matrix: **WATER**
 (Matrix: **WATER**)

Sample ID

				VKY GW Duplicate 1 82UJZWUJ-1	VKY GW Lab Split Dup 2 82UJZWUJ-2	----	----	----
Sampling date / time				08-Jul-2026 11:08	08-Jul-2026 11:40	----	----	----
Compound	CAS Number	LOR	Unit	EN2611452-001	EN2611452-002	-----	-----	-----
Result				Result	Result	----	----	----
EK067G: Total Phosphorus as P by Discrete Analyser - Continued								
Total Phosphorus as P	----	0.01	mg/L	0.03	0.16	----	----	----
EN055: Ionic Balance								
ø Total Anions	----	0.01	meq/L	45.2	32.6	----	----	----
ø Total Cations	----	0.01	meq/L	42.8	33.3	----	----	----
ø Ionic Balance	----	0.01	%	2.77	1.09	----	----	----
EP020: Oil and Grease (O&G)								
Oil & Grease	----	5	mg/L	<5	<5	----	----	----
EP025: Oxygen - Dissolved (DO)								
Dissolved Oxygen	----	0.1	mg/L	8.8	9.6	----	----	----

Inter-Laboratory Testing

Analysis conducted by ALS Sydney, NATA accreditation no. 825, site no. 10911 (Chemistry / Biology).

(WATER) EA015: Total Dissolved Solids dried at 180 ± 5 °C

(WATER) EG020F: Dissolved Metals by ICP-MS

(WATER) EK067G: Total Phosphorus as P by Discrete Analyser

(WATER) EK057G: Nitrite as N by Discrete Analyser

(WATER) EK058G: Nitrate as N by Discrete Analyser

(WATER) EK059G: Nitrite plus Nitrate as N (NO_x) by Discrete Analyser

(WATER) ED093F: Dissolved Major Cations

(WATER) EN055: Ionic Balance

(WATER) ED045G: Chloride by Discrete Analyser

(WATER) ED041G: Sulfate (Turbidimetric) as SO₄ 2- by DA

(WATER) ED037P: Alkalinity by PC Titrator

(WATER) EK055G: Ammonia as N by Discrete Analyser

(WATER) EG035F: Dissolved Mercury by FIMS

(WATER) EP025: Oxygen - Dissolved (DO)

(WATER) EA005P: pH by PC Titrator

(WATER) EA010P: Conductivity by PC Titrator

(WATER) EP020: Oil and Grease (O&G)

(WATER) EK067FG: Filtered Total Phosphorus as P by Discrete Analyser