Mt Cattlin Operations

2025 Annual Environmental Report

L8469/2010/2

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1 INTRODUCTION

This 2025 Annual Environmental Report (AER) has been prepared by Galaxy Lithium Australia Pty Ltd (Galaxy) to report on the environmental performance of its Mt Cattlin Operations, in accordance with Prescribed Premises Licence (PPL) 8469/2010/2. This AER presents information for the reporting period, 1 January to 31 December 2025.

1.1 Operator Details

Galaxy is the owner and operator of the Mt Cattlin mine site and processing plant (Mt Cattlin Operations), located 2 km north of Ravensthorpe, Western Australia (**Figure 1)**, within tenements M74/244, L74/46 and G74/13.

Following the merger of Allkem Limited and Livent Corporation in December 2023, Galaxy became a wholly owned subsidiary of the newly formed parent company Arcadium Lithium PLC. However, the acquisition of Arcadium Lithium by Rio Tinto was announced in October 2024 and was formally concluded on 6 March 2025.

1.2 History of Operational Development

On 22 June 2009, Galaxy was granted Works Approval W4533/2009/1 by the Department of Environment and Conservation (DEC) to commence construction of the prescribed premises associated with the Ravensthorpe Spodumene Project (as it was first known). Mining approval was granted by the Department of Mines and Petroleum (DMP) on 4 November 2009 (MP ID 22377).

Construction of the Processing Plant commenced in 2009, and mining commenced in June 2010. The first pegmatite ore was milled in October 2010, but the mine entered a period of care and maintenance in July 2012, before operations recommenced in March 2016.

Until recently, the life of mine (LOM) based on approvals, resource definition and rates of production was estimated to be until 2028. However, due to the sharp decline in spodumene concentrate prices in 2024, Mt Cattlin entered a second phase of care and maintenance from July 1st 2025. Mining will only recommence when spodumene prices recover; and, subject to future approvals, is likely to involve underground mining, rather than the currently approved open pit methods.

1.3 Description of Operations

The main site entrance is via (the newly constructed) Floater Road, off the Newdegate-Ravensthorpe Highway. Construction of the realigned Floater Road was completed in January 2023.

1.3.1 Mining

Mining to date has utilised conventional open-pit mining methods, involving drill, blast, excavator and truck operations.

The Stage 4 Expansion of the NW Pit was approved by DMIRS on 30 September 2023 (Reg ID 116546) and included the formation of an extended waste rock landform on tenement G74/13, as well as site access road alterations on tenement L74/46 and G74/13, within Galaxy owned land (Lot 30 DP224145).

As shown in **Figure 2**, mining operations are otherwise situated on tenement M74/244 and include several open-cut pits that have been variably backfilled, as well as the NW Pit.

1.3.2 Processing

The ROM, primary crushing circuit, Processing Plant, maintenance workshops and administration buildings are located to the west of the NW Pit.

The Processing Plant has an approved maximum throughput of 2 million tonnes per annum (Mtpa) and produced a primary spodumene concentrate and a tantalum by-product. At this theoretical maximum throughput, ore processing would generate up to 400,000 tonnes per annum (tpa) of tailings.

1.3.3 Tailings Management

Since May 2022 tailings have been discharged to the Tailings Storage Facility (TSF) established within the previously mined southeast pit. Approximately 200,000 m^3 of tailings disposal capacity remains available in the SE Pit TSF when mining re-commences.

Mining Proposal Reg ID 122598 was approved by DEMIRS on 3 October 2024 and authorises the future development of the NE Pit TSF, within the residual void of the north-east pit.

1.3.4 Water Management

Process water demand was primarily sustained from the return of TSF decant water (recovered from the NE Pit void) and from NW Pit dewatering activities. Several perimeter catchment dams are maintained to capture and manage surface water runoff.

Groundwater was abstracted in accordance with GWL 167439(7) from a borefield in the Cattlin Creek gully to the southeast of the mine. Two of the four production bores are installed into abandoned underground mine workings. The abstracted groundwater supplies a (reverse osmosis) water treatment plant that was utilised to produce potable water for on-site uses.

Since entering Care and Maintenance, no bores are in operation, with all pumps removed and stored. The Reverse Osmosis plant has also been powered down, with limited quantities of potable water brought in for use by Care and Maintenance staff.

1.3.5 Crushing and Screening Operations

Mobile crushing and screening infrastructure was initially mobilised to the premises in 2022 for the purpose of converting basalt mine waste rock into road construction materials for onsite and minor offsite civil works. The plant has since been used intermittently to process basalt waste rock into stemming aggregate for blasting, and aggregates for on-site projects i.e. hardstands and accommodation camp areas. The scale of the crushing and screening operations subsequently increased in scale requiring an application for the addition of Category 12 operations to the existing Prescribed Premises Licence.

The Category 12 crushing and screening operations is capable of producing up to 100,000 tpa with the product used for civil construction projects, road aggregates and concrete aggregate for internal and external use. The predicted maximum throughput if the plant operated 24 hours a day, 7 days a week, is 500,000 tpa with an actual estimated throughput limited up to 80,000 tpa. Crushing and screening operations relating to Category 12 will occur during the daytime only and through sporadic (campaign) operations to meet specific project demand.

The crushing and screening plant is currently operated on a hardstand approximately 4 hectares in size. Mobile equipment (a loader and an excavator) is used to sort and transfer waste rock between local stockpiles into static and mechanical screens, into crushing circuit hoppers and for loading finished products to road haulage trucks.

Our comprehensive inventory of plant and machinery includes a diverse selection of equipment for excavation, loading, crushing, screening and transportation suitable for various construction and industrial purposes. The crushing and screening plant consists of the following infrastructure:

- 1x Jaw Crusher with a maximum throughput of 240 tonnes per hour (tph);
- 1x Cone Crusher with a maximum throughput of 150 tph;
- 2x Double deck screen with a maximum throughput of 240 tph;
- 1x Triple deck screen; and
- 2x Stackers.

In April 2025, an amendment to the Prescribed Premises Licence L8469/2010/2 was approved to authorise the operations of Category 12 screening etc. of materials, with a maximum capacity of 80,000 tonnes per annum.

The only licensed activity continuing at the premises during the care and maintenance phase is the intermittent operation of a mobile crushing and screening plant (Category 12). This plant processes basalt mine waste rock to produce up to 80,000 tonnes per annum of construction aggregate. Detail on throughput for Crushing and Screening activities is available in Section 3.

1.3.6 Operational Curtailment

In response to declining spodumene prices in 2024, rates of mining and production have slowed as follows:

- From mid-February 2024, drilling operations were reduced from 6 drill rigs to 3 drill rigs (24-hour operations) and the mining dig and haul fleet was reduced from 24-hr operations to day-shift only.
- From March to October 2024, Processing Plant operations switched to a 55% utilisation strategy (4-days-on / 3-days-off).

The decision to suspend Mt Cattlin Operations was made in September 2024. At that time, mine sequencing was adjusted to complete ore mining in the Stage 3 Open Pit only; to abandon the wider Stage 4 Pit (waste rock) cutback; and to transition the site to Care and Maintenance by mid-2025. Further operational curtailment was implemented as follows:

- From October 2024 mining operations continued on day-shift only
- In October 2024, the Processing Plant returned to 24-hr / 7-day operations with periodic (3-weekly) maintenance shutdowns.
- Drill and blast operations were completed on 9 December 2024
- Stage 3 ore mining was completed on 4 January 2025
- Processing Plant operations ceased in mid-March 2025

The only licensed activity continuing at the premises during the care and maintenance phase is the intermittent operation of a mobile crushing and screening plant (Category 12).

1.3.7 Care and Maintenance

The site entered Care and Maintenance on July 1st, 2025 with the following changes made to site:

- Transportable buildings near Go-Line utilized by Mining Contractors have been removed from site. Administration Office, Maintenance Office, Stores and Workshop to the North and North-East of the Processing Plan remain in situ.
- Access roads remain unchanged, however access to mining areas is now restricted.
- Production bores are no longer in operation, with all pumps removed and stored.
- The Reverse Osmosis plant has also been powered down, with potable water brought in for use by Care and Maintenance staff.

1.4 Status of Prescribed Premises Licence

During the 2025 reporting year, 2 amendments were made to the Prescribed Premises License:

In **April 2025** a PPL Amendment Application was approved by DWER. This amendment was sought to appropriately license Category 12 operations involving:

- Mechanical crushing, screening and sorting of waste basalt rock to produce construction aggregates
- Maintenance workshop activities for mobile plant and machinery
- Loading for road haulage

In **September 2025** an additional amendment was approved to authorize a change to monitoring requirements due to a change in operational status of the premises to “Care and Maintenance”.

The current approved Prescribed Premises Licence (PPL) L8469/2010/2 allows for:

- Category 5 - Processing and beneficiation of metallic or nonmetallic ore (2,000,000 tonnes annually)
- Category 12 - Screening etc. of material (80,000 tonnes annually)

Reduced monitoring requirements are in effect as a result of the mine entering Care and Maintenance on July 1st, 2025. Category 12 operations are permitted and continue on a campaign basis during Care and Maintenance.

Should operations recommence, notification to DWER is required no less than 60 days prior to transition to production, in accordance with condition 4.3.1.

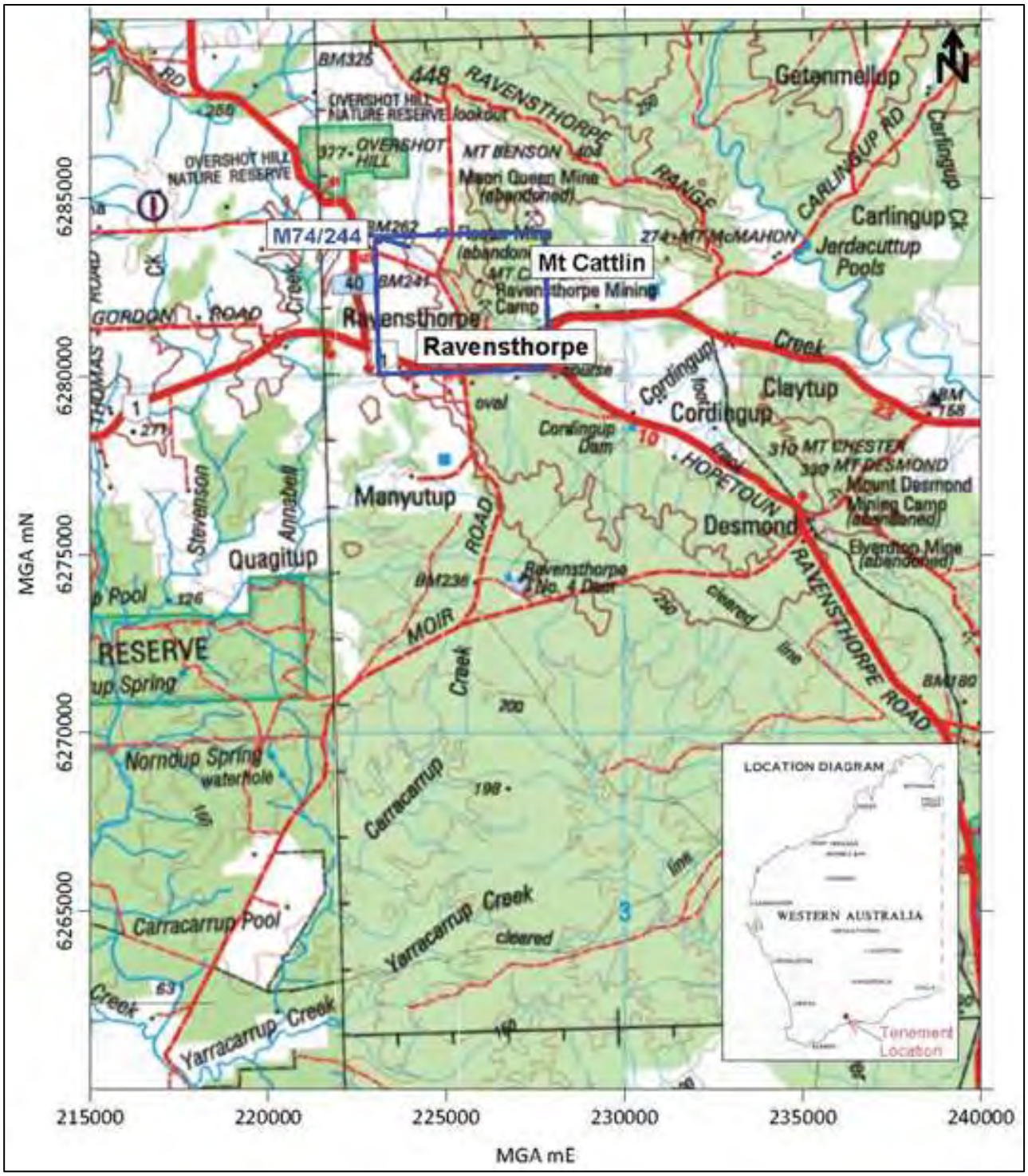


Figure 1: Site location

Figure 2: General site layout and water monitoring locations

2 REPORT STRUCTURE

Table 1 maps how reporting requirements of Condition 4.2.1 of L8469/2010/2 are provided in this AER.

Table 1: Content of Annual Environmental Report (L8469/2010/2 – Condition/Table 4.2.1)

Condition	Parameter	Report Section
4.2.1	The Licence Holder must submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period.	This Report
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken.	Section 6 and Appendix A (AACR)
3.1.2	**Production or throughput data** The Licence Holder must record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.	Section 3.1 and Appendix A (AACR)
3.2.1	**Monitoring of inputs and outputs** The Licence Holder must undertake the monitoring in Table 3.2.1 according to the specifications in that table.	Section 3.2
3.4.1	**Monitoring of ambient groundwater quality** The Licence Holder must undertake the monitoring in Table 3.4.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.	Section 4 and Appendix B
3.5.1	**Ambient environmental monitoring – air:** The Licence Holder must undertake the monitoring in Table 3.5.1 according to the specifications in that table and record and investigate results that do not meet any target specified	Section 5 and Appendix C
4.1.2	**Compliance** The Licence Holder must submit to the CEO within 90 calendar days after the end of the annual period an Annual Audit Compliance Report (AACR) indicating the extent to which the Licence Holder has complied with the conditions in this Licence for the annual period.	Section 6 and Appendices A B, C
4.1.3	**Complaint's summary:** The Licence Holder must implement a complaints management system that as a minimum record the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.	Section 7

3 THROUGHPUT AND PRODUCTION DATA

3.1 Production and Throughput Data

During the 2025 reporting period:

- 272,278 wet metric tonnes (wmt) of ore was processed, and resulted in the production of:
    - 33,988 dry metric tonnes (dmt) of Spodumene Concentrate and
    - 49 dmt of Tantalite by-product
- 42,281 dmt of Spodumene Concentrate was exported through the Port of Esperance
- 123 dmt of Tantalite was trucked to Greenbushes WA (for on-processing by others)

3.2 Inputs and Outputs

Inputs and outputs reported in accordance with Condition 3.2.1 of L8469/2010/2 are summarised in **Table 2**.

A total of 53 tyres (approximately 31 HV and 22 LV tyres) were buried within active waste rock dumps at recorded locations, more than 5m below final WD surface elevations.

Industrial waste data is separated by type for reporting clarity. Waste hydrocarbon products (waste oil, oil filters and hydrocarbon contaminated waste) are removed from site for recycling or disposal by a licenced Controlled Waste Contractor.

Daily tailings volumes discharged to the TSF vary with plant operational hours and throughput, and although monitored operationally, annual data is provided for ease of reporting. Similarly, tailings decant water recovery (from the NE Pit void) is reported in an annual format. Decant water is pumped from the NE Pit void and is recycled to the Raw Water Dam for Process Water Supply (refer **Appendix B** for further details).

Table 2: Monitoring of inputs and outputs at the Mt Cattlin Mine Site (CY 2025)

Input/ Output	Parameter	Units	Quantity
Tyres	Waste tyres buried [1]	no.	53
Industrial Waste	Scrap metal (to recycler) [2]	tonnes	219
	Waste Oil (to waste oil recycling facility) [3]	L	51100
	Hydrocarbon waste (containers, rags) [3, 4]	m^3	13
	Hydrocarbon waste (filters) [3, 4]	m^3	2.6
Domestic Waste	Volume of Off-Site Disposal (landfill) [4, 5]	m^3	837.22
	Volume of Off-Site Disposal (recycling) [4, 5]	m^3	7.44
Tailings	Volume discharged to SE Pit TSF (total slurry volume)	m^3	146,765
Tailings Decant	Water recovered (pumped) from NE Pit void and recycled to Raw Water Dam (for process water)	m^3	240,033
Waste Rock	Weight of material crushed and/or screened[6]	tonnes	6465

Notes:
1. Survey records of tyre burial pits (February)
2. J&P Report
3. Wren Oil Report
4. Over-estimate based on 2.6 m^3 skip bin size. Does not account for partially filled bins
5. Cleanaway (WA Enviro Reports)
6. RCS

4 AMBIENT GROUNDWATER QUALITY

In 2025, groundwater and surface water monitoring was undertaken in accordance with the *Groundwater Licence Operating Strategy* (GLOS). The GLOS harmonizes the monitoring requirements of:

- PPL 8469/2010/2 (Environmental Protection Act, 1986),
- GWL 167439(7) (S5C, Rights in Water and Irrigation Act, 1914),
- PMC 201842(2) Permit to Obstruct or Interfere (S21A, Rights in Water and Irrigation Act, 1914), and
- Successive mining proposals and tenement conditions (Mining Act, 1978).

The *Triennial Aquifer Review* (Rockwater, 2026) is attached (**Appendix B**) and incorporates all ambient groundwater quality monitoring data required under PPL 8469/2010/2. The locations of groundwater abstraction bores and monitoring bores are shown in **Figure 2**. Pumped water volumes, water level data and water quality plots for all monitoring bores and active production bores are included in Figures 5 to 32 and Major Components analysis is shown in Tables 9 to 13 of **Appendix B**.

4.1 Groundwater Use

Total extraction under GWL 167439 (7) for the 2023-5 water years was 263,090 KL, 289,378 KL, and 24,245 KL. This represents 24%, 26% and 2.2% of the licence allocation of 1,095,000 KL/annum.

Although not included under the licence allocation, groundwater inflows to site voids would have been extracted via recovery of TSF decant water from the NE Pit. While obscured by decant water abstraction, actual groundwater abstraction would have remained considerably under the licence allocation.

Monthly extraction data for these water sources, as well as the borefield data, are provided in Table 7 of Appendix B, with total monthly borefield extraction since commissioning shown in Figure 5 of Appendix B. Monthly pumping volumes for individual bores are given in Figure 12 of Appendix B, where applicable.

Total groundwater extraction from the mine's borefield remained relatively low during the period of review compared to historical data (Figure 5 of Appendix B). The total borefield annual volumes extracted over the review period were 145,072 kL (2023); 94,817 kL (2024) and 16,123 kL (2025) (Table 7 of Appendix B), corresponding to 12, 9 and 6% of the total water usage.

4.1.1 Tailings Water Reclamation

Galaxy uses reclaimed tailings water as a substitute for borefield extraction whenever possible to reduce the impact on the local aquifers. The SE Pit TSF was used for tailings storage during the period of review (and since May 2022). Seepage from this TSF drains through broken waste rock into the remnant (inactive) NE pit void, where it is combined with the NW pit water. Water is then recovered via in-pit pumps to the processing plant (Raw Water Pond) for re-use. Extraction amounts for the NE pit void are included in Table 7 of Appendix B, but should not be considered part of the licence allocation as they represent reclaimed water.

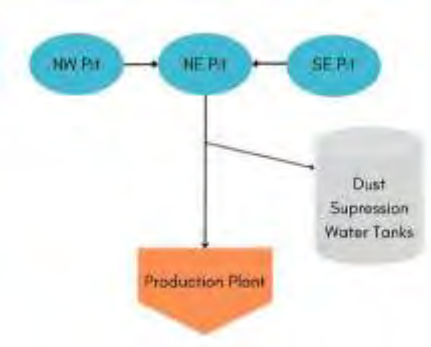


Figure 3: Tailings water reclamation schematic

4.1.2 Pit Extraction

To maintain dry mining conditions, Galaxy dewaters its active pits via in-pit sump pumps. During the period of review, dewatering operations have occurred only in the NW Pit.

Historically extraction directly from the NW pit was not included in the licence allocation as it was located directly opposite the SW in-pit TSF that was probably a key contribution to pit water (i.e. process/tailings water flowed through the leaky coffer-dam wall). Since the SE in-pit TSF was approved for use May 2022, and the SW pit was decommissioned, water extracted from the main Stage 3 NW Pit would now be more appropriately considered to be from aquifers.

During the period of review, a total of 118,018 KL (2023), 194,561 KL (2024) and 8,122 (2025) was extracted from the NW pit (or 10%, 18% and 3% of the annual allocation).

4.2 Groundwater Levels and Hydrogeological Trends

The December 2025 water level contours (Fig. 6 of Appendix B) indicate that since active operations ceased, three areas are anomalous compared to pre-mining levels. A water level sink persists around bore WTD21A, located in the south-western aquifer along Cattlin Creek; there is a pronounced groundwater depression to the SE of the NE Pit; and a mound remains at the eastern boundary south-east Pit TSF. These areas are discussed in further detail in the following sections and in Appendix B.

4.2.1 South-Eastern Aquifer (water supply aquifer)

The south-eastern aquifer was the primary aquifer utilised by equipped production bores in active operations, and is located south-east of the mine, close to the original course of the Cattlin Creek. The bores intersecting this aquifer are WTD11, 21/21A, 22 and 23; as well as bores WTD29, 31 and 34, which also intersect underground workings that are hydraulically connected to the aquifer. Water level data for the bores are included in Figures 12 and 13 of Appendix B. Production bores WTD22, WTD23, WTD29 and WTD34 have provided the vast majority of groundwater extracted for the mine.

Bores in the South Eastern Aquifer have shown significant recovery since operations ceased in mid-2025, however remain 10 – 13 m below pre-mining levels. It is likely that these bores will take some time to fully recover. Monitoring bore WTD21A however has not shown the same rate of recovery and is an outlier at 52 m below pre-mining levels. This may be a delay in response or indicate that the screens of the bore are blocked.

Further detail is provided in Section 8.2 of Appendix B.

4.2.2 North-Eastern Aquifer

Water levels within the north-eastern aquifer indicate that the aquifer is recovering after the cessation of active mining and related dewatering from the NE and SE Pits (during mining of these most eastern pits), with the effects of the SE in-pit TSF now the primary influence on this aquifer.

Monitoring data suggests a slight rise in groundwater levels in the North-East Pit area (by an average of 0.27 m), consistent with the reduction in extraction from the NE pit and rising peripheral water levels.

Historical water trends observed in WTD07, which straddles the NE and SE Pits, have been impacted by the water use regime in the area. Initially the SE Pit was dewatered (2010 to mid-2012) before being converted to an in-pit TSF. The variations are likely due to the reduced pumping from the NE Pit in early 2023, followed by relatively more extraction in December 2023 and January 2024, causing a sharp decline in levels at the start of 2024. Since pumping ceasing in the NE Pit, the bore appears to have now stabilised at approximately 207-210 m AHD, with some seasonal variation. Similar seasonal trends are observed in neighbouring monitoring site MB13 albeit at a smaller magnitude.

Similarly, the water level in the bores around the periphery of the SE Pit TSF shows that the local aquifer is still affected by the cone of depression associated with ongoing dewatering of the active TSF system (via the NE Pit).

Groundwater monitoring and in-pit water levels show that, although the commissioning of the SE Pit TSF has resulted in groundwater mounding, the comparative hydraulic conductivities between competent bedrock of the eastern and southern walls versus broken rock embankments to the north and west, results in preferential drainage to the adjacent NE pit void. Once water levels rose to a threshold (overflow) elevation in the SE Pit TSF, water has preferentially flowed into the NE pit as evidence by water level stabilisation in SE Pit TSF monitoring bores.

4.2.3 Other Bores

Monitoring bore WTD10 is located south of the mine site in an agricultural area. The water level in the bore has not shown any influence from pumping of the borefield. During the review period the water level in the bore followed a slight declining trend, falling from 225.4 to 224.1 m AHD, most likely due to low rainfall in 2023 and 2024. Long-term groundwater levels in this bore are still elevated, with December 2025 levels 2.7 m above baseline levels.

TSF monitoring bores, MB17 to 20 and MB01 and 08 continue monitoring potential seepage from the broader and combined TSF and WD2 footprint. The data from MB01 suggests the mound was at its highest in 2021 (254 m AHD or 11.3 m rise) and has been slowly dissipating since. The level in this bore fell 1.9 m over the 23–25 review period to 252.5 m AHD. Water level data collected from MB17 has been erratic (perhaps including a datum change), and now is fairly constant at 245 m AHD. Bores MB17, 18, 19 and 20 were stable during the review period with only minor seasonal fluctuations, with data showing depth to water decreases towards Cattlin Creek, with the water level in bores MB08 & 20 being close to the ground surface

MB11 & 12, were commissioned to monitor water level and water chemistry changes associated with the use of the SW pit for tailings discharge, which occurred between June 2019 and May 2022. Although baseline data before tailings discharge began are limited, bores MB09 (now mined out) and MB10, showed rising water level trends until late 2021, before stabilizing. Monitoring data from bores showed stable water levels until mid-2023. In active operations, a groundwater mound formed in this area likely due to due to overflow from dust suppression tanks mounted on WD1 immediately above the MB10-11-12 cluster. Since operations ceased, this mound has completely dissipated.

MB31 to 36 were installed in 2023 to monitor any potential impacts from the construction of WD3 show a stable water level in this area with minor season fluctuations.

Monitoring bore WTD20 is located north of the NE Pit. Water levels in the bore have varied over a small range when compared to the other bores, showing very minor seasonal influences. Water levels have risen by 1 m during the period of review

4.3 Groundwater Quality

4.3.1 Major components Analysis

As part of the GLOS commitments, Galaxy is required to perform annual major component analyses on water samples from all production bores.

The major components of water chemistry for the non-TSF seepage affected bores show the groundwater to be saline to hypersaline, circum-neutral and of sodium-chloride type. Relatively high total hardness, as well as high concentrations of magnesium and nitrate are also common. Relatively low to moderate concentrations of iron and manganese are also typical, however higher concentrations of iron are evident in production bores.

The major components water chemistry analyses for the TSF seepage-affected bores (most TSF bores and WTD28) show the groundwater to be acidic, with comparatively low levels of alkalinity and calcium; while aluminium, iron and manganese concentrations are typically elevated.

A fuller presentation of groundwater (and surface water) results and copies of all analytical certificates for the review period are included in **Appendix B**.

4.3.1.1 South-Eastern Aquifer (water supply aquifer)

Bores screened in the south-eastern aquifer have shown high levels of variability in salinity, generally between 10,000 and 40,000 mg/L TDS. During the period of review, the salinity levels for all bores were within their historical ranges, with most tending to be lower.

In active operations, pumped bores typically show an increase in salinity with pumping rates. Only limited data are available for the monitoring period; these data suggest the extraction rates did not have an appreciable impact on the aquifer. Salinities ranged from 17,900 to 24,600 mg/L TDS; similar to those recorded while the mine was previously under care and maintenance (2013-2016), and data collected since operations ceased in mid-2025.

Groundwater pH in pumped bores ranged from slightly acidic (5.62, WTD29) to neutral (7.79, WTC34). In the 2019/2020 period of review an acidifying trend was observed in WTD29 and WTD34. The onset of the decline in pH correlates with the reduction in pumping from the south-eastern borefield, and the subsequent recovery of water levels within the aquifer and the hydraulically linked underground workings. It is postulated that the cause of the acidification is the re-submergence of the underground workings and the mobilisation of hydrogen ions that have been produced through the oxidisation of sulphides. The bores were pumped sparingly prior to

decommissioning, and the water level has returned to about natural levels and the water chemistry results are consistent with the above theory, with iron and manganese concentrations lowering progressively as an inverse relationship with water level.

Bores WTD10, 11 and 21A are located in the western portion of the South-Eastern Aquifer. No samples were taken from WTD11 during 2023-25; samples from WTD 10 and 21A were within historical limits.

4.3.1.2 North-Eastern Aquifer

Monitoring bores MB22, 23 and 24 were installed in October 2023 to monitor this area. The groundwater is hypersaline, ranging from 32,000 to 43,000 mg/L TDS, with circumneutral pH. Given the limited data available, no EC/pH trends can be assessed. Preliminary laboratory results (Table 9 of Appendix B) indicate that the groundwater is similar to the decommissioned bores WTD01 and 02 with common high iron concentrations.

WTD13, located to the south of the SE Pit, provides the only long-term water quality data for the LOM in the area, as other bores have been decommissioned and/or constructed to allow for mining expansion. WTD13 has recorded lower average salinities (24,000 mg/L TDS) since November 2021, perhaps due to (or a combination of) the low extraction from the southern production bores, seepage from the operational SE Pit TSF, or possibly a sampling artefact (i.e. not purged long enough). It is unlikely to be related to rainfall, as rainfall was very low over that period. Groundwater pH is generally slightly alkaline, and values between 7.7 to 8.45 were recorded over the period of review.

Total dissolved solid concentrations in samples from the new SE Pit TSF monitoring bores (MB13 to MB16) are generally within the 20,000 to 50,000 mg/L TDS range previously observed in the aquifer. Initial data from the new monitoring bores were highly variable, owing to the slow development of the bores and residual drilling fluids. The bores have stabilised over the period of review and follow seasonal variation, whereby they are slightly fresher in autumn (May) and more saline in spring/summer (November and February). SE Pit TSF bores are generally of neutral pH, with values ranging from 6 to 8.

Water quality does not appear to have been impacted by the commissioning of the SE in-pit tailings

4.3.1.3 Other monitoring bores

TSF1

The now-decommissioned TSF1 is monitored by bores MB01, MB08, MB17-20. Salinity levels in the bores have been highly variable, ranging from 10,000 to 40,000 mg/L TDS.

Although water levels have risen in MB01 the salinity has remained relatively stable. This bore recorded low water yields during construction, indicating that the local bedrock is of low hydraulic conductivity, and that there are no significant pathways for leakage from the TSF1. Groundwater pH is tending slightly more acidic, likely due to minor localised ferrolysis type reactions that have been seen in other TSF monitoring bores.

Since its construction in February 2017, monitoring/recovery bore MB08 has had relatively stable salinity levels, ranging from 27,000 to 37,000 mg/L TDS. All measurements were within this range in the period of review.

Monitoring bores MB17 to MB20 were constructed in February 2022, and supersede the observation points MB02, MB03, MB03A, MB04, MB05 and MB06. Salinity data for the bores are similar to the historical range observed in MB01 to MB08, between 15,000 to 42,000 mg/L TDS. Groundwater from bores MB17, 18 and 20 was circum-neutral (6.5 to 7.5 pH), whereas pH values of samples from MB19 are similar to those (< 6.0) in other TSF bores that have been influenced by ferrolysis (see Rockwater, 2023).

SW Pit

SW Pit monitoring bores MB10 to 12 data shows relatively consistent salinity records, 19,300 to 29,300 mg/L TDS during the period of review, with relatively stable long-term trends. The pH measurements are also quite stable in bores MB10 &11, ranging from pH 4.8 to 6.7. MB12 is more acidic ranging from pH 3.8 to 5.1. The low pH measurements observed in this bore is not likely to be mining related – rather indicative of the ferrolysis type reaction that has been seen in other TSF monitoring bores.

WD3

Seven monitoring bores installed around WD3 in 2023 (MB30-36) were used for water quality monitoring in 2024 onwards. The groundwater in this area is saline, ranging from 18,800 to 32,000 mg/L TDS and acidic, with field pH ranging from 3.6 to 6.8. A value of 9.3 recorded in December 2024 from MB30 is likely to be a recording or instrument calibration error.

Other

Production bore WTD19 (located in bushland, 1 km east of the Mt Cattlin site) has an artesian head and has been capped since its construction in 2010. A small drill hole that can be re-plugged has been made to allow water sampling. No water quality data are available for the review period.

Unequipped production bore WTD20 (Fig. 29) showed high variability in salinity levels from 2017 to 2019, but has been stable at around 28,000 to 35,000 mg/L TDS since 2020. The reason for this trend is unclear, but because the bore is located near an ephemeral drainage line, the salinity may reflect changes within the catchment.

4.3.2 Prescribed Premises Licence

Galaxy is required to test for a wide suite of analytes quarterly in TSF monitoring bores under the conditions of DWER Prescribed Premises Licence L8469/2010/2. Galaxy has also regularly sampled water from most of the other bores on the tenement, as well as the some of the pits, several dams, the TSF, and sites in Cattlin Creek. Laboratory certificates for the analyses conducted in 2023-5 are provided in Appendix B.

Water chemistry analyses performed on non seepage-affected bores show that groundwater in the project area commonly has minor concentrations of arsenic, barium, caesium, cadmium, cobalt, copper, lithium, molybdenum, nickel, selenium, rubidium, uranium, vanadium and zinc. Most notably though, background and regional boron concentrations are relatively high, at around 5 to 10 mg/L.

As discussed in Section 9.5 of Appendix B, several bores down-gradient of the TSFs have undergone acidifying trends caused by ferrolysis. These bores typically have higher concentrations of arsenic, boron, cadmium, chromium, cobalt, copper and nickel, when compared to historical baseline levels.

The GLOS (1.6) also stipulates the monitoring of key water storages, and potential receptors, to satisfy the PPL obligations and to demonstrate responsible environmental stewardship. Five water reservoirs were selected for sampling (see Section 6.2 of Appendix B); NE Pit, Dam 4, Dam 5, Dam 6, Dam 7 and Farm Dam 2. The monitoring frequency is not specified in the GLOS however is generally limited to seasonal inflows. Most dams were dry at least part of the year and Dam 7 was dry all sampling events except May and October 2025.

Water quality within on-site water storage reservoirs shows large variability due to differences in water sources and evaporation. Dams 4, 5 and 7 receive intermittent surface water and seepage from waste dumps, while the NE Pit receives water both from the NW Pit, SE Pit TSF. Water in these reservoirs is typically saline and varies between neutral and alkaline. All onsite reservoirs showed elevated nutrients, particularly nitrate.

Potential offsite receptors are monitored via Dam 6 and Farm Dam 2. Dam 6 is hypersaline and shows similar constituents to onsite Dams 4 and 5. Farm Dam 2, located to the west of the mine is much fresher than the onsite dams indicating recharge is primarily from rainfall runoff. No notable potential contaminants were observed from any samples.

4.4 Groundwater Monitoring Infrastructure Updates

No changes to the groundwater monitoring infrastructure were made during 2024.

4.5 Cattlin Creek Diversion Monitoring

Cattlin Creek and its tributaries are ephemeral water courses. Historical monitoring has shown water quality in Cattlin Creek to be of variable salinity, depending largely on the amount of preceding rainfall and runoff. Surface water quality is also highly modified by previous catchment-scale vegetation clearance, increasing catchment salinity and impacts from farming and previous mining activities.

Current rates of tailings discharge and groundwater abstraction are not expected to cause worsening impacts to Cattlin Creek, however Galaxy has continued to implement opportunistic surface water sampling during quarterly water monitoring events, as well as a photo-monitoring to aid detection and interpretation of any changes to the Cattlin Creek environment.

Regular flow monitoring and water quality sampling are required as part of the permit to divert Cattlin Creek to the east of the NE and SE pits (PMC201842(2)). Water quality monitoring from some sites on the Creek has been conducted since 2011. There are presently six Cattlin Creek water sampling sites and two flow monitoring sites: FMP01, downstream of the diversion channel and FMP02 upstream of the diversion.

The salinity of Creek water is highly variable, ranging from fresh to hypersaline due to the ephemeral nature of the Creek. The higher salinity measurements were often generated from samples of stagnant water, where

dissolved ions have been concentrated as evaporation occurs from the stagnant pools. During the period of review (2023-2025), water salinity was measured at between 14,600 and 47,670 mg/L TDS

Historical sampling has shown the creek water to be circum-neutral to alkaline, generally between pH 7 and 9. Some field records in the period of review were more alkaline than this range, however there were some variabilities between field and laboratory records.

For the review period, no flows were recorded at either FMP01 or FMP02. This was due to the very low rainfall in both the review period (57%, 66 and 91% of the annual average, respectively.

4.6 Compliance

Over the period of review, Galaxy has been fully compliant with metering flows and water level measurements, and mostly compliant with water quality measurements. Some non-compliances for water quality were due to depth to water (>50 m), particularly in previously equipped production bores. As the aquifers recover, this issue should resolve itself. The results of the water quality monitoring and testing for the project aquifers indicate no water level or water quality trigger breaches.

Extraction Volumes

Galaxy has been fully compliant with the GLOS in monitoring borefield extraction volumes throughout the 2023-25 water years. When operating, all bores had properly maintained flow meters. These have now been removed. Total groundwater extraction volumes were well under the annual entitlement for GWL167439(7).

4.6.1 Water Level Monitoring

As part of the GLOS commitments, Galaxy is required to monitor water levels monthly in all monitoring and production bores. During the period of review, levels were recorded diligently by Galaxy staff each month, with only minor non-compliances in 2025 with two monthly rounds missed in April and May.

4.6.2 Water Quality Monitoring

The commitment for quarterly field EC/pH/temperature readings was not completely achieved in the reporting period. Although quarterly sampling rounds were undertaken, not all bores were sampled. Occasional field measurements were outside historical limits and vastly different to laboratory records indicating poor equipment calibration. Because groundwater at the site is hypersaline, frequent calibration of instruments is required.

As the site is in a remote location, it is logistically difficult to get the samples to the laboratory within the pH holding time (six hours) and therefore the pH data presented may not be accurate. It is imperative that field readings are taken to ensure all reported values are reflective of aquifer conditions.

Annual major components analyses are also required from all production bores under the GLOS commitments. Galaxy is currently sampling most of the borefield at a quarterly frequency, much higher than is required under the GLOS conditions. All production bores in the schedule were sampled. Three monitoring bores were not sampled: WTD11, 19, and 21A. Field water quality readings were not taken from any bores in Q3 2025.

4.6.3 Recommendations

- Field EC/pH/Temperature data should be recorded on a quarterly basis, using a calibrated meter. This is particularly important for pH as chemical reactions in transit of water samples can lead to inaccurate results.
- Bores MB22 and WTD22A should be re-developed to ensure accurate monitoring data can be collected.

5 AMBIENT AIR QUALITY

In 2025, ambient dust monitoring was undertaken in general accordance with the Airborne Material Management Plan, including:

- PM_{10} (particulate matter with an aerodynamic diameter of 10 µm or less) monitoring is conducted via a High-Volume Air Sampler (HVAS), located in Ravensthorpe. HVAS samples are collected over a 24-hr sampling period, every 6 days, in accordance with AS/NZS 3580.9.6:2015.
    - The HVAS was decommissioned in July 2025 when the site entered Care and Maintenance.
- Dust deposition monitoring via a network of dust deposition gauges (DDG). DDG samples are collected in accordance with AS/NZS 3580.10.1:2016.
    - Until July 2025, the DDG network included 11 operational monitors (located around the site boundary), 3 community monitors (within Ravensthorpe) and at two control sites (located approximately 17-km northeast and 30-km southeast of the mine).
    - From July 2025 when the site entered Care and Maintenance, the network was reduced to 2 operational monitors and 2 community monitors.

The *Annual Dust Monitoring Review* (Environmental Technologies and Analytics (ETA), 2026) is appended (**Appendix C**) and provides fuller interpretation of 2025 dust monitoring results and comparison to datasets of previous years, in accordance with PPL Condition 3.5.1.

The proximity and sensitivity of Ravensthorpe townsite to fugitive operational emissions of dust (and noise) requires that wind forecasts and onsite weather monitoring are used in daily work planning and to interpret effects, particularly in winter. Windrose data for 2025 is presented in **Figure 4** below.

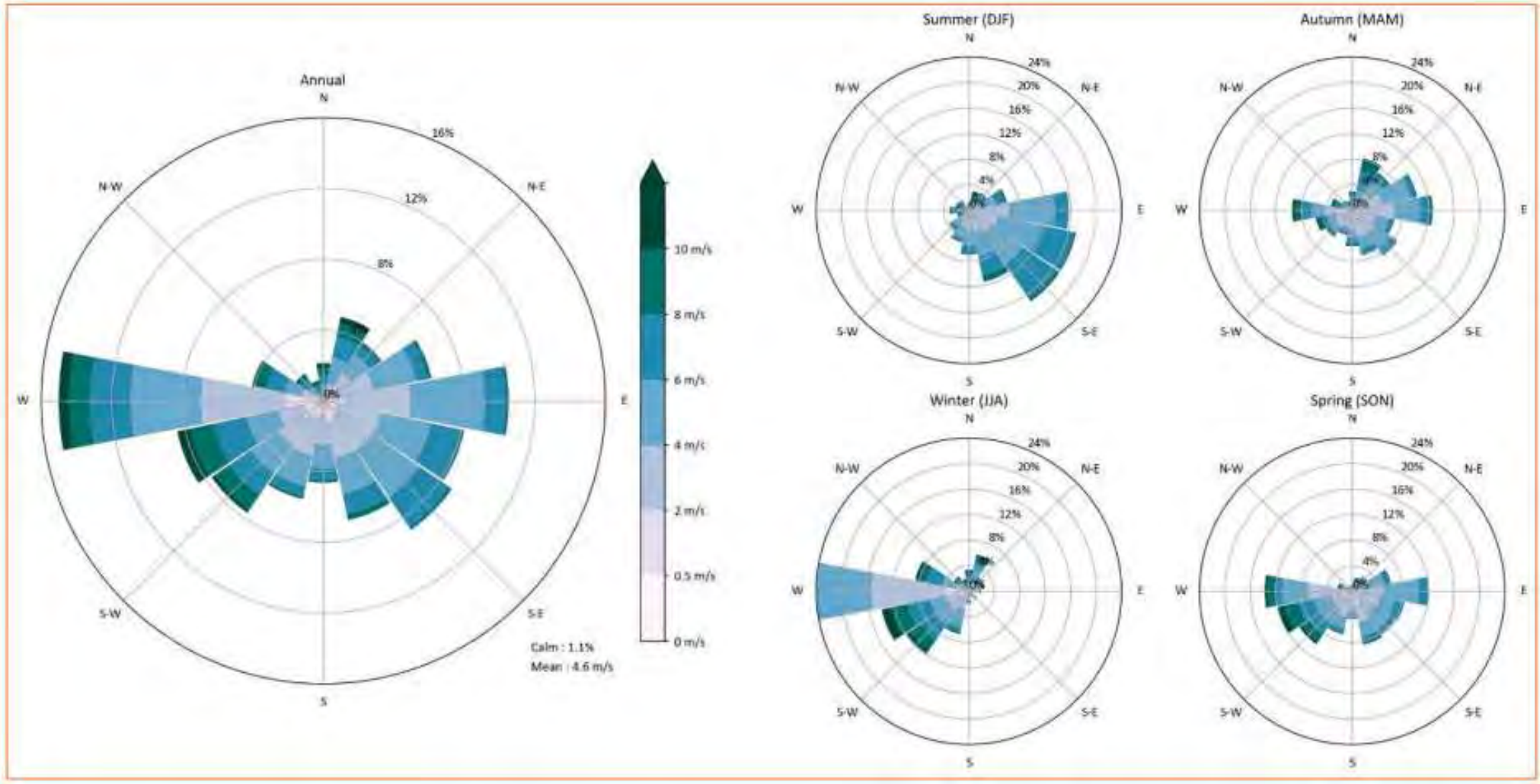


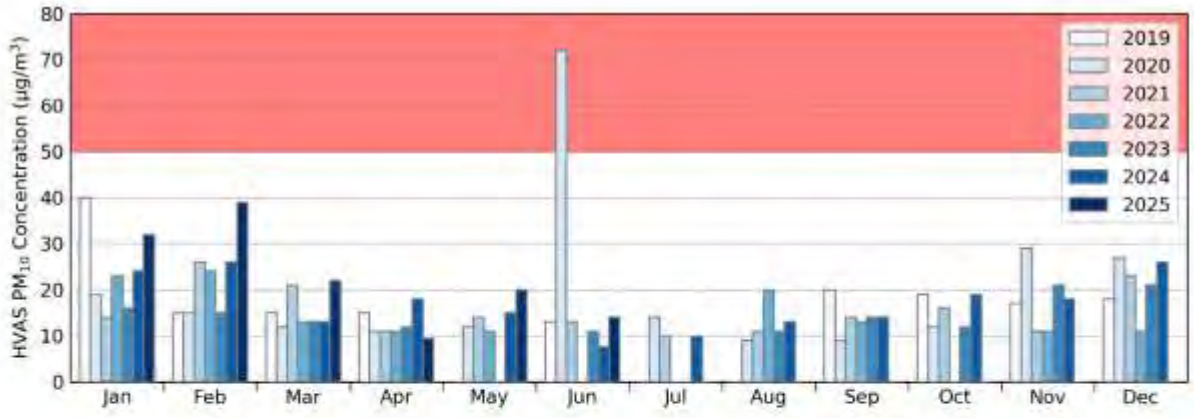
Figure 4: 2025 Annual seasonal windrose data (onsite automated weather station) (ETA, 2026)

5.1 Particulate Matter (as PM_{10})

The maximum daily (24-hour) average PM_{10} concentration measured at the Ravensthorpe townsite was 39 µg/m^3, which is below the performance target (threshold) of 50 µg/m^3.

The average daily (24-hour) PM_{10} concentration of 16.3 µg/m^3 remained below the annual average performance target (threshold) of 25 µg/m^3.

PM_{10} concentrations remain similar to those measured in previous years, as shown in Figure 5 below.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	40.0	15.0	15.0	15.0	<5	13.0	<5	<5	20.0	19.0	17.0	18.0
2020	19.0	15.0	12.0	11.0	12.0	72.0	14.0	9.0	9.0	12.0	29.0	27.0
2021	14.0	26.0	21.0	11.0	14.0	13.0	10.0	11.0	14.0	16.0	11.0	23.0
2022	23.0	24.0	13.0	11.0	11.0	<10	<10	20.0	13.0	<10	11.0	11.0
2023	16.0	15.0	13.0	12.0	<10	11.0	<10	11.0	14.0	12.0	21.0	21.0
2024	24.0	26.0	13.0	18.0	15.0	7.6	9.9	13.0	14.0	19.0	18.0	26.0
2025	32.0	39.0	22.0	9.4	20.0	14.0	-	-	-	-	-	-

Figure 5: Highest monthly PM_{10} concentration (24-hr average) by month, 2019 – 2025 (ETA, 2026)

5.2 PM_{10} Composition

The HVAS PM_{10} samples are routinely analysed for selected (indicator) trace metal species. Manganese was the only trace metal to be detected (above the analytical limit of reporting, LoR):

- Manganese was detected in 3 of the 29 sampling days.
- The maximum concentration measured was 0.004 µg/m^3, which is below the relevant guideline value of 0.14 µg/m^3 (24-hour average) (DWER, 2019).

Manganese is relatively ubiquitous, and not necessarily a suitable indicator analyte for differentiating the contribution of the Mt Cattlin Project to measured ambient concentrations in the Ravensthorpe townsite. Lithium is considered a more suitable analyte than manganese to use as a potential indicator of the contribution of the Mt Cattlin Project to measured ambient concentrations in the Ravensthorpe townsite. Lithium was not detected in any of the HVAS samples during 2025.

5.3 Deposited Dust

Compared to monitoring results of previous years and with reference to Figure 6 below:

Community Monitoring Sites

Deposited dust measured at all community monitor sites (DDG 8, DDG 10, DDG 21 and DDG 22), met the 4 g/m^2/month (annual average) performance target. The deposited dust level measured was below 4.0 g/m^2/month at all community monitor sites for all months measured.

- In 2024, there was a decrease (improvement) in dust deposition compared to the previous 2023 AER period across all community monitoring sites (DDG 8, DDG 9 and DDG 10).
- In 2025, there was a decrease (improvement) in the level of dust deposition compared to the previous 2024 AER period across most sites (DDG 8 - annual, DDG 10 - annual, and DDG 21 - 6), except for DDG 22 (6 months) which showed a slight increase.
- There is no discernible longer-term trend (increase or decrease) at community monitoring sites.

Operational Monitoring Sites

Generally, deposition rates are generally lower compared to previous years across most operational sites. One abnormally high deposited dust level (17 g/m2/month) was recorded at DDG 16 in November. This was associated with farming activity related to harvest season.

- Deposition rates are generally lower compared to previous years across most sites
- Only DDG 16 (annual) showed an increase in annual average deposition rates compared to previous years, however the deposited dust rate remains relatively low (2.5 g/m2/month).
- There was a noticeable decrease in deposition rates compared to previous years at several sites (6 months: DDG 3, DDG 4, DDG 5, DDG 11, DDG 14, DDG 15, DDG 18, DDG 19, and 12 months for DDG 13),

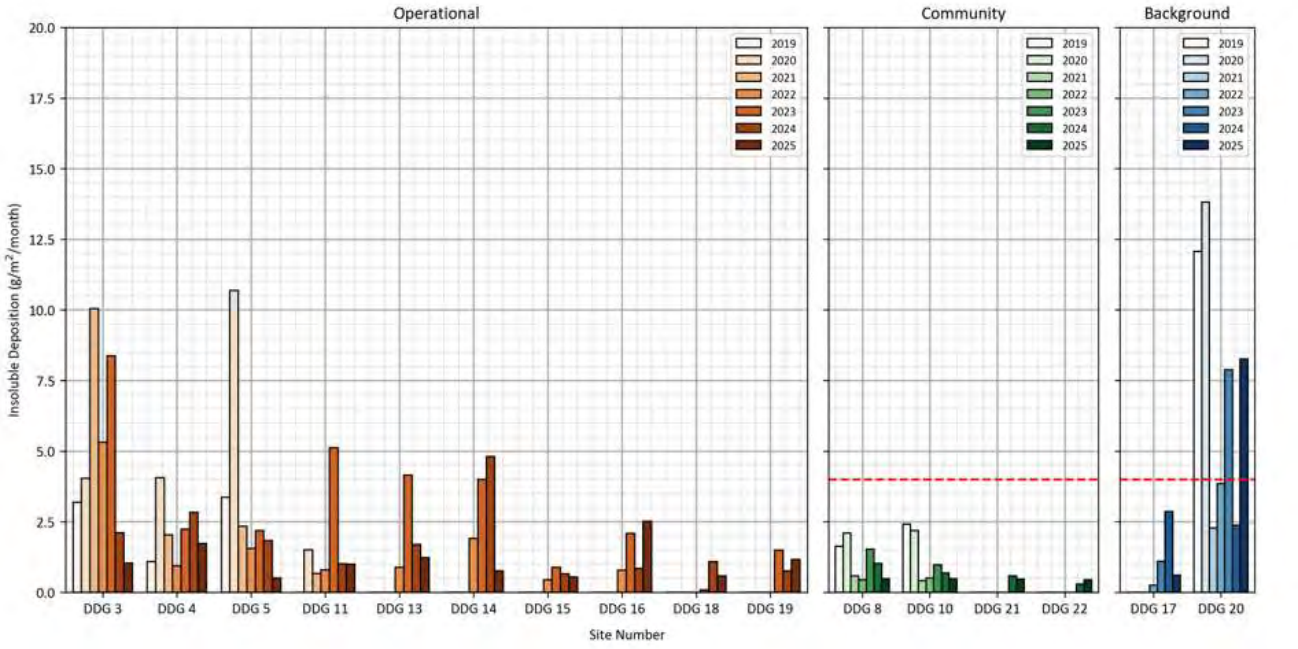


Figure 6: Annual average dust deposition results by DDG, 2018 – 2025 (ETA, 2026)

5.4 Compliance & Recommendations

5.4.1 HVAS Monitoring

The HVAS PM10 concentration data return for the 15th and 21st of June 2025 were impacted where the filter paper was not replaced at the end of the 24-hour sample period.

With the exception of the above, Galaxy was generally compliant with monitoring requirements as outlined in Table 3.5.1 of the Prescribed Premises Licence. The target of 50 µg/m3 over a 24 hour averaging period was not exceeded during the 2025 reporting year.

5.4.2 DDG Monitoring

Dust deposition data return was adequate for most sites, however several measurements were invalid in April and May due to overflowing bottles from rainfall and the calendar month sample collection period was not consistently attained.

5.4.3 HVAS Improvement Recommendations

The quality of the HVAS data improved from last year, with 2 samples impacted in 2025, compared with 8 in 2024. This occurred where the filter paper was not replaced at the end of the 24-hour sample period and was left in the machine to re-sample a second 24-hour sampling run as well. As the HVAS is currently not operational, further improvements in this area are currently not applicable.

5.4.4 DDG Improvement Recommendations

The calendar month sample collection period for DDG sampling was not consistently attained in 2025, ranging from a sampling duration of 22 days in July to 37 days in March to April. Though not materially significant to the findings of this annual review, this does highlight the need for improved procedures to ensure that the dust deposition samples are collected over a uniform calendar month period across the monitoring network to ensure compliance with the relevant Australian Standard and to facilitate interpretation of results.

6 COMPLIANCE

6.1 Annual Audit Compliance Report

The Annual Audit Compliance Report (AACR) for the period 1 January 2025 – 31 December 2025 is attached as **Appendix A**.

6.2 Crushing and Screening Plant – Compliance Audit Report

Due to significant changes in staff as a result of the mine entering Care and Maintenance, the Compliance Audit Report for Crushing and Screening Plant has not been completed by the deadline of May 30, 2025. Galaxy are currently liaising with DWER representatives to clarify requirements and rectify this as soon as practical.

6.3 Spill or Loss of Containment Incidents

No reportable spills were recorded in the 2025 reporting period.

6.4 Water Monitoring and Compliance

Over the period of review, Galaxy has been fully compliant with metering flows and water level measurements, and mostly compliant with water quality measurements. Some non-compliances for water quality were due to depth to water (>50 m), particularly in previously equipped production bores. As the aquifers recover, this issue should resolve itself. The results of the water quality monitoring and testing for the project aquifers indicate no water level or water quality trigger breaches.

6.5 Dust Monitoring and Compliance

6.5.1 HVAS

The HVAS PM10 concentration data return for the 15th and 21st of June 2025 were impacted where the filter paper was not replaced at the end of the 24-hour sample period. With the exception of the above, Galaxy was generally compliant with monitoring requirements as outlined in Table 3.5.1 of the Prescribed Premises Licence. The target of 50 µg/m3 over a 24 hour averaging period was not exceeded during the 2025 reporting year.

The PM10 maximum daily average performance target (threshold) of 50 µg/m3 was **not** exceeded at the Ravensthorpe townsite, with the maximum daily average (24-hour average) measured at the was 39 µg/m3.

The PM10 annual average performance target (threshold) of 25 µg/m3 was **not** exceeded at the Ravensthorpe townsite, with an annual average calculated from 6-months of available data as16.3 µg/m3. Further detail is provided in Section 5.2.

6.5.2 DDG

Dust deposition data return was adequate for most sites, however several measurements were invalid in April and May due to overflowing bottles from rainfall and the calendar month sample collection period was not consistently attained.

The Dust Deposition performance target of 4 g/m^2/month (annual average) was **not** exceeded at any of the Community DDG monitor sites (DDG 8, DDG 10, DDG 21 and DDG 22) during the 2025 reporting year. Further detail is provided in Section 5.3.

6.6 Prescribed Premises Licence – General Compliance

No other non-compliances with the Prescribed Premises Licence are noted.

6.7 Regulatory Inspections

No DWER site inspections took place during the 2025 reporting period.

7 SUMMARY OF (ENVIRONMENTAL IMPACT) COMPLAINTS OR NOTICES RECEIVED

7.1 Community Complaints

In November 2025, Galaxy received one enquiry from DWER investigating reports from a local resident that crushing activities at the mine were occurring at night and impacting on the resident's health.

Galaxy responded to this enquiry, advising DWER that no activities other than security monitoring and office-based work were occurring at night since the premises entered care and maintenance. At the request of DWER, ambient air monitoring results were provided for review.

Galaxy was subsequently advised by DWER they were satisfied that Galaxy Lithium Australia Limited is currently operating in accordance with the conditions of L8469/2010/2 in relation to the reports received.

No other complaints were received through DWER, DEMIRS or direct from the community during the 2025 reporting period.

8 REFERENCES

Environmental Technologies and Analytics (ETA), 2026. Annual Dust Monitoring Review – Galaxy Lithium Australia: Mt Cattlin Project.

Rockwater, 2026. Annual Monitoring Summary: GWL167439(7) – January 2025 to December 2025.

Attachment A: 2025 Annual Audit Compliance Report

Government of **Western Australia**
Department of **Water and Environmental Regulation**

Annual Audit Compliance Report Form

Environmental Protection Act 1986, Part V Division 3

Once completed, please submit this form either via email to info@dwer.wa.gov.au, or to the below postal address:

Department of Water and Environmental Regulation
Locked Bag 10
Joondalup DC WA 6919

Section A – Licence details			
Licence number:	L8469/2010/2	Licence file number:	DER2014/001110-1
Licence holder name:	Galaxy Lithium Australia Pty Limited		
Trading as:	Galaxy Lithium Australia Limited		
ACN:	130 182 099		
Registered business address:	CENTRAL PARK, LEVEL 18, 152-158 ST GEORGES TERRACE, PERTH WA 6000		
Reporting period:	01 / 01 / 2025 **to** 31 / 12 / 2025		

Section B – Statement of compliance with licence conditions
Did you comply with all of your licence conditions during the reporting period? (please tick the appropriate box)
☐ Yes – please complete: • section C; • section D (if required); and • sign the declaration in Section F.
☒ No – please complete: • section C; • section D (if required); • section E; and • sign the declaration in Section F.

Section C – Statement of actual production	
Provide the actual production quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	**Actual production quantity**
5	272,278 wet metric tonnes (ore processed)
12	6465 tonnes (waste rock crushed/screened)

Section D – Statement of actual Part 2 waste discharge quantity	
Provide the actual Part 2 waste discharge quantity for this reporting period. Supporting documentation is to be attached.	
Prescribed premises category	**Actual Part 2 waste discharge quantity**
5	146,765m^3 (tailings total slurry volume)
12	0

Section E – Details of non-compliance with licence condition

Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.

Condition no:	3.4.1 – ambient water quality monitoring 3.5.1 – ambient dust and weather monitoring	Date(s) of non-compliance:	Various

Details of non-compliance:

The following minor non-conformances against environmental monitoring programs occurred in 2025:

Ambient Water Quality Monitoring

Groundwater Levels

Galaxy is required to monitor water levels monthly in all monitoring and production bores. Minor non-compliances occurred in 2025 with two monthly rounds missed in April and May

Field Parameters (EC, Temp and pH)

The commitment for quarterly field EC/pH/temperature readings was not completely achieved in the reporting period. Although quarterly sampling rounds were undertaken, not all bores were sampled. Field water quality readings were not taken from any bores in Q3 2025.

Occasional field measurements were outside historical limits and vastly different to laboratory records indicating poor equipment calibration. Because groundwater at the site is hypersaline, frequent calibration of instruments is required.

Water characterisation

Some non-compliances for water quality were due to depth to water (>50 m), particularly in previously equipped production bores. As the aquifers recover, this issue should resolve itself

Three monitoring bores were not sampled: WTD11, 19, and 21A.

High Volume Air Sampler HV01 (PM10)
The filter paper was not replaced at the end of the 24-hour sample period on one occasion, impacting data return for the 15th and 21st of June 2025.

Dust Deposition Gauge Sampling
The calendar month sample collection period for DDG sampling was not consistently attained in 2025. The sample duration ranged from 22 days in July to 37 days in March to April, versus the standard requirement of 30-days +/-2 days.

What was the actual (or suspected) environmental impact of the non-compliance?

NOTE – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.

No environmental impact. Minor impact to the continuity of environmental monitoring datasets only.

Cause (or suspected cause) of non-compliance:

Mt Cattlin Operations have experienced considerable and rapid operational transitions over the past 12 months, including a transition to Care and Maintenance and associated significant reduction in staff. This has significantly impacted on the ability to maintain 100% compliance with environmental monitoring regimes.

Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:

A revised Prescribed Premises Licence was approved in September 2025, which included a reduction in monitoring requirements while the site is in Care and Maintenance.

Section E – Details of non-compliance with licence condition	
Was this non-compliance previously reported to DWER?	
☐ Yes, and	
☐ Reported to DWER verbally	Date:
☐ Reported to DWER in writing	Date:

Section E – Details of non-compliance with licence condition			
Please use a separate page for each condition with which the licence holder was non-compliant at a time during the reporting period.			
Condition no:	1.2.11 Audit report of compliance with requirements listed in condition 1.2.10 for Mobile Crushing & Screening Plant	Date(s) of non-compliance:	30/05/2025
Details of non-compliance:			
Compliance Audit Report for Crushing and Screening Plant was not completed by the deadline of May 30,2025.			
What was the actual (or suspected) environmental impact of the non-compliance? **NOTE** – please attach maps or diagrams to provide insight into the precise location of where the non-compliance took place.			
No environmental impact.			
Cause (or suspected cause) of non-compliance:			
Occurred as a result of significant changes in staff due to the mine entering Care and Maintenance. Care and Maintenance staff were unaware the report had not been submitted. Galaxy staff were notified by DWER of non-compliance with condition prior to an inspection in March 2026.			
Action taken to mitigate any adverse effects of non-compliance and prevent recurrence of the non-compliance:			
Galaxy are currently liaising with DWER representatives to clarify requirements and rectify this as soon as practical.			
Was this non-compliance previously reported to DWER?			
☐ Yes, and			
☐ Reported to DWER verbally		Date:	
☐ Reported to DWER in writing		Date:	

Section F – Declaration

I / We declare that the information in this Annual Audit Compliance Report is true and correct and is not false or misleading in a material particular[1].

I / We consent to the Annual Audit Compliance Report being published on the Department of Water and Environmental Regulation's (DWER) website.

[redacted]

Date:	31 / 03 / 2025	Date:	
Seal (if signing under seal):			

[1] It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular.

[2] AACRs can only be signed by the licence holder or an authorised person with the legal authority to sign on behalf of the licence holder.

Attachment B: 2025 Triennial Aquifer Review GWL 167439(7) (Rockwater, 2026)

MT CATTLIN
SPODUMENE PROJECT

TRIENNIAL AQUIFER REVIEW: GWL167439(8)

JANUARY 2023 TO DECEMBER 2025

REPORT FOR
GALAXY LITHIUM AUSTRALIA LTD

MARCH 2026

Report No. 352.0/26/01

Rockwater
HYDROGEOLOGICAL AND ENVIRONMENTAL CONSULTANTS

76 Jersey Street Jolimont 6014 Western Australia Postal: PO Box 201 Wembley 6913 Western Australia
Ph: 61 8 9284 0222 Fax: 61 8 9284 1785 Email: consult@rockwater.com.au www.rockwater.com.au ABN: 43 008 804 653

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REVISION	AUTHOR	REVIEW	AUTHORISED	ISSUED
Draft	DS	PHW	DS	23/03/2026
Final	DS	JB (Galaxy)		

1 INTRODUCTION

Galaxy Lithium Australia Ltd (Galaxy) owns and operates the Mt Cattlin mine site and processing plant (Mt Cattlin Operations), located 2 km north of Ravensthorpe, Western Australia (Figure 1). Mt Cattlin Operations are sited on Galaxy freehold land parcels, within the tenements M74/244, L74/46 and G74/13.

Following the merger of Allkem Limited and Livent Corporation in December 2023, Galaxy became a wholly owned subsidiary of the newly formed parent company Arcadium Lithium PLC. Arcadium Lithium was acquired by Rio Tinto in March 2025.

In active operations, process water demand is primarily sustained from the return of TSF decant water (recovered from the NE Pit void) and NW Pit dewatering activities. Several perimeter catchment dams are maintained to capture and manage surface water runoff. A site layout plan is included in Figure 2.

Supplementary water supply is sourced from a borefield located to the south-east of the project (Fig.2). Groundwater is extracted in accordance with GWL 167439(7) from a borefield in the Cattlin Creek gully. Two of the four production bores are installed into abandoned underground mine workings. The groundwater supplies a (reverse osmosis) water treatment plant to produce potable water for on-site use.

This triennial aquifer review has been prepared to fulfil the reporting requirements of the Mt Cattlin Operations groundwater licence and covers the period 1 January 2023 to 31 December 2025.

Mt Cattlin Operations - Background

On 22 June 2009, Galaxy was granted Works Approval W4533/2009/1 by the Department of Environment and Conservation (DEC) to commence construction of the prescribed premises associated with the Ravensthorpe Spodumene Project (as it was first known). Mining approval was granted by the Department of Mines and Petroleum (DMP) on 4 November 2009 (MP ID 22377).

Construction of the Processing Plant commenced in 2009, and mining commenced in June 2010. The first pegmatite ore was milled in October 2010. The mine entered its first care and maintenance phase in July 2012, before operations recommenced in March 2016.

Until recently, the life of mine (LOM) based on approvals, resource definition and rates of production was estimated to be until 2028. However, due to the sharp decline in spodumene concentrate prices in 2024, a decision was made to commence a staged ramp-down of operations from March 2024. Mt Cattlin entered a second phase of care and maintenance from mid-2025. Thereafter, mining will only recommence when spodumene prices recover; and, subject to future approvals, is likely to involve underground mining (rather than currently approved open pit methods).

Description of Operations

The main site entrance is via (the new) Floater Road, off the Newdegate-Ravensthorpe Highway. Construction of the realigned Floater Road was completed in January 2023.

Mining to date has utilised conventional open-pit mining methods, involving drill, blast, excavator and truck operations. The processing plant has an approved maximum throughput of 2 million tonnes per annum (Mtpa) and produces a primary spodumene concentrate and a tantalum by-product. At this theoretical maximum throughput, ore processing would generate up to 400,000 tonnes per annum (tpa) of tailings.

Mt Cattlin Operations by tenement include:

- M74/244
  - open pits (NW Pit and NE Pit)
  - backfilled pits
  - waste dumps (WD1 & WD2)
  - tailings storage facilities (Paddock TSF1, SW Pit TSF, SE Pit TSF)
  - run-of-mine (ROM) pad
  - crushing circuits, optical sorters and dense media separation processing plant
  - maintenance workshops and administration buildings
  - groundwater extraction borefield
- G74/13
  - waste dump (WD3)
- L74/46
  - site access roads

Status of Mining

In response to declining spodumene prices in 2024, rates of mining and production were slowed as follows:

- Feb 2025 – Mining activities ceased and Contractor began demobilisation
- March 2025 – Processing completed and facility flushed for preservation
- March 2025 – Care & Maintenance preparations started
- April 2025 – Production Water Bores (WTD22, 23, 29 & 34) shut down and pumping infrastructure removed
- April 2025 – Majority of fulltime workforce finished
- June 2025 - NE Pit pumping facility installation completed and commissioned for main site water supply (dust suppression and emergency fire water)
- July 1st 2025 – Mt Cattlin officially in Care & Maintenance
- July 14th 2025 – Completion of fulltime workforce, seven care & maintenance personnel remain on site
- September 2025 – Amended PPL approved by DWER
- January 2026 - GLOS and GWL approved by DWER

Since May 2022 tailings have been discharged to the previously mined southeast pit. Approximately 200,000 m^3 of tailings disposal capacity remained available in the SE Pit TSF when operations were suspended.

Status of Mining Approvals

The Stage 4 Expansion of the NW Pit was approved by DMIRS on 30 September 2023 (Reg ID 116546) and included the formation of the extended WD2 waste rock landform (WD3) on tenement G74/13, as well as site access road alterations on tenement L74/46, within Galaxy owned land (Lot 30 DP224145).

Mining Proposal Reg ID 122598 was approved by DEMIRS on 3 October 2024 for the development of the NE Pit TSF, within the residual void of the north-east pit.

2 LICENSING

2.1 GROUNDWATER LICENCE

A Section 5C Groundwater Licence GWL167439(7) has been issued by Department of Water and Environmental Regulation (DWER) under the *Rights in Water and Irrigation Act 1914* for the Mount Cattlin Mine. The licence regulates an annual extraction limit of 1,095,000 KL. As the licence was due to expire in February 2026, a new licence was applied for and granted.

Particulars of licences are contained in Table 1 and a copy is included as Appendix I, however revision 7 is only relevant to the review period.

Table 1: Groundwater Licence

GWL	Commencement Date	Expiry Date	Annual Water Entitlement (kL)	Status
GWL167439(7)	16 December 2022	18 February 2026	1,095,000	Active/Current/Expired
GWL167439(8)	12 January 2026	11 January 2036	1,095,000	Granted

2.2 ADDITIONAL LICENCES

Galaxy holds the following regulatory approval instruments that prompt various groundwater and/or surface water monitoring requirements:

- Prescribed Premise Licence L8469/2010/2 (Appendix II)
- Permit to Obstruct or Interfere (S21A) PMC201842(2)
- Mining Approval and Tenement Conditions for M74/244, L74/46 and G74/13

Two amendments of the Prescribed Premises Licence (PPL) L8469/2010/2 are relevant for the review period. The first, for Category 5 (ore processing) operations, was granted by DWER on 9 August 2024. That amendment was required to incorporate details for:

- The future development of the next in-pit tailings storage facility (tsf), within the remaining void of the previously mined northeast pit (ne pit tsf)
- The westward extension of the ppl boundary, to incorporate the increased operational footprint of waste dump 2 (colloquially ‘wd3’), which receives primary reject materials from the processing circuit.

A further PPL Amendment Application was lodged with DWER on 29 October 2024 Following consultation with DWER, this amendment was sought to appropriately license Category 12 operations involving the crushing and screening of waste (basalt) rock, to produce hard-rock construction aggregate products.

The monitoring schedule referred to herein is an amalgamation of the conditions set in both the Section 5C Groundwater Licence and more recent amendments of the PPL.

3 WATER MONITORING PROGRAMME

A Groundwater Licence Operating Strategy (GLOS) is in place for the Mt Cattlin operations as part of the conditions set by GWL167439(7). The last accepted revision (1.5) came into effect on 16 December 2022. An updated revision (1.6) – submitted to DWER in January 2024, includes several new monitoring bores and an updated mining layout, however, GLOS Revision 1.6 was only formally accepted/approved by DWER in January 2026. The latest GLOS best matches the increased operational footprint and the gradually changing site conditions and activities - therefore, the adjusted (1.6) version of the GLOS has been adopted for the review period.

Applicable water monitoring requirements are outlined below in Table 2. This groundwater review includes the monitoring requirements of all the site permits/licences for completeness.

All monitoring data were provided by Galaxy staff/contractors. Water samples were collected in accordance with AS/NZS 5667:1998 and were submitted to a laboratory with current NATA accreditation (ALS Laboratory Services) for the specified analyses.

Table 2: Monitoring Schedule

Parameter	Locations	Frequency	Method [1]	Rationale
Cattlin Creek Flow Monitoring	FMP01 and FMP02	Fortnightly (when flowing)	Cross sectional method	Ensure water flow is not impacted from Creek diversion
Groundwater levels	Production bores Monitoring bores	Monthly	Gauging of water levels and status of production bores	Monitor aquifer response to operations and potential for risks to environmental values
Meter Readings	Production bores Dewatering pump (NW Pit) Decant water pump (NE Pit) Dam return pumps (Dam 04 & Dam 05) RO Plant intake Dust suppression intake	Monthly	Meter readings in accordance with DWER Policy (Measuring the taking of water) and GWL conditions	Ensure total groundwater abstraction is within licensed water entitlement Monitor overall site water balance
Field Parameters (EC, Temp and pH)	Production bores Monitoring bores (TSF monitoring bores and selected boundary bores as required) Cattlin Creek water Water storages (selected process and potable water circuit locations)	Quarterly	Calibrated EC/pH meter	GWL/PPL compliance and environmental risk management
Water characterisation		Annually	Sampling and laboratory analysis	GWL compliance and environmental risk management
PPL analytical suite [2]		Quarterly	TSF bores: sampling and laboratory analysis	PPL/PMC compliance and environmental risk management

[1] All methods and equipment used in water quality sampling will be undertaken in accordance with the Australian Standards AS/NZS 5667 (1998).
[2] Prescribed Premises Licence Suite outlined in L8469/2010/2

4 CLIMATE

Rainfall is measured at the Ravensthorpe Bureau of Meteorology (BOM) station (No. 010633), however data coverage has been very intermittent. Data supplied by SILO (Queensland Government) provides more continuous data and data gaps are filled by interpolated readings. Long-term averages show that rainfall is relatively consistent seasonally when compared to other locations in Western Australia with a similar Mediterranean type climate. The wettest months are from May to October, however significant rainfall still occurs over the summer period, largely associated with storm events. A graph showing monthly rainfalls is provided in Figure 3 and monthly rainfalls for the period of review as well as long-term averages are provided in Table 3.

Table 3: Rainfall at Ravensthorpe (SILO, Ravensthorpe 10633) January 2023 to December 2025

		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Annual	% of Average
Rainfall (mm)	2023	5.5	5.7	28	17.2	9.1	58.7	12.6	45.1	23	7	26.6	13.5	252.0	57.1
	2024	21.8	7.2	31.7	12.2	17.4	35.5	24.6	60.8	24.2	14.6	19.5	22.3	291.8	66.2
	2025	11.3	20.9	41.9	108.2	5.1	27.7	76.2	31.9	39.3	17.6	18.5	2.0	400.6	91.0
	Long-term Average	17.5	34.8	42.3	34.3	37.9	38.8	46.6	50.3	38.5	37.1	35.2	27.7	440.9	-
Avg. Temperature (°C)		29.0	28.7	26.5	24.1	20.3	17.6	16.8	18.1	20.5	23.4	25.1	27.3	23.1	-
2025 Evaporation (mm)		338	254	240	139	115	60	70	87	127	143	211	327	2,110	117
Avg. Evaporation (mm)		266	213	182	122	82	57	61	78	115	162	205	257	1,801	-

Shaded cells denote higher than average value

Average annual evaporation is 1,801 mm, which is four times greater than average annual rainfall. Potential evaporation exceeds average rainfall for all months.

The annual rainfall was below average for the past three years; 2023 (43%), 2024 (34%) and 2025 (9%) lower. 2023 was particularly dry, with 11 of 12 months in the review period receiving below average rainfall. The 2023 rainfall total was the lowest recorded since 1994 and the fifth lowest on record. Following this, 2024 also received very low rainfall; with 10 of 12 months receiving below average rainfall, followed by closer to average records in 2025.

Previous water level responses indicate that infiltration of water from Cattlin Creek is the primary source of recharge in the main water-supply aquifers to the south-east of the mine. As water flows in the creek are ephemeral, and only occur after significant rainfall, recharge rates to the aquifers directly correlate to seasonal conditions. This suggests that aquifer recharge was likely well below average in the 2023 and 2024 water years.

5 HYDROGEOLOGICAL SETTING

The geology of the area is characterised by clay-rich alluvium and colluvium (up to 10 m thick) overlying basalt/metabasalt bedrock of Archaean age. The basalt/metabasalt is intruded by dolerite dykes and pegmatite veins.

Exploration has identified that the weathered zone and fractures in the basalt/metabasalt and dolerite yield the largest volumes of water. The degree and intensity of fracturing and its spatial extent are the controlling factors for aquifer permeability and bore yields.

Recharge of the fractured-rock aquifers is by rainfall infiltration and seepage from flows in Cattlin Creek. The groundwater is saline to hypersaline. No fresh or stock-quality water has been identified in groundwater exploration drilling, although the presence of perched aquifers that may contain less saline water is possible.

The distribution of drawdowns in the borefield as well as test-pumping results show that there are probably at least two poorly-connected fractured-rock aquifers that were intersected by the borefield around NE and SE Pits.

A contour plot of the pre-mining water levels, provided in Figure 4, indicates that natural groundwater flow across the site was towards the south-east, approximately parallel to the original course of the Cattlin Creek.

6 WATER SOURCE DETAILS

6.1 GROUNDWATER BOREFIELD

Details of all production and monitoring bores listed in GLOS Rev 1.6 are summarised in Table 4. The locations of bores are shown in Figure 2.

The production bores WTD22, WTD23, WTD29 and WTD34 are installed within the Cattlin Creek gully to the south-east of the mine site. Bores WTD29 and WTD34 are installed into the former underground workings of an abandoned gold mine, which increases the reliability of supply from these bores. The production bores range in depth from 92 m to 132 m and are equipped with submersible pumps.

Water production and monitoring bores have been constructed in several stages between October 2008 and October 2023. No new bores were constructed in the review period.

Several bores have also been decommissioned or mined-out as the mine has been developed, although no bores were decommissioned during the review period. Tabulated details of previously decommissioned bores are included in Table 5.

Table 4: Schedule of Active Bores (GLOS Rev 1.6)

Hole/ Bore	Eastings (mE)	Northings (mN)	Top of Casing (m AHD)	Depth (m)	Casing ID (mm)	Slotted Interval
Groundwater Production Bores						
WTD22	225660	6281491	202.45	92	195	6 – 84
WTD23	225560	6281322	207.61	132	154	11 – 119
WTD29	225939	6281747	198.1	100	154	–
WTD34	225987	6281796	200.34	132	150	130 – 142
Cattlin Creek Recharge Hole						
BH01	226002	6281725	194.7	111	154	105 – 111
Northern Boundary Monitoring Bores						
MB01	223162	6283321	266.76	44	104	20 – 44
MB17	223444	6283378	264.18	45	104	24.0 – 45.0
MB18	223740	6283367	259.16	55	104	29.0 – 55.0
MB19	223949	6283285	248.19	40	104	10.0 – 40.0
MB20	224117	6283249	242.73	40	104	10.0 – 40.0
MB08	224259	6283203	239.4	24	108	0.44 – 22.5
Monitoring Bores East of Cattlin Creek						
WTD07	225613	6282502	230.54	100	154	20 – 62
WTD19	226727	6283207	209.41	100	149	29 – 71
WTD20	225558	6283134	246.69	100	55	18 – 36
Southern Boundary Monitoring Bores						
WTD13	225349	6281850	218.74	88	154	36 – 78
WTD21A	225308	6281464	209.09	100	104	12 – 100
WTD10	224735	6281434	235.3	100	55	49 – 67
WTD11	224480	6280852	241	111	154	30 – 42, 96 – 103
MB28[1]	224095	6281430	258.843	12.96	104	6.96 -12.96
MB29[1]	223404	6282006	269.687	22.63	104	10.63 - 22.63
SW Pit TSF Monitoring Bores						
MB10	224162	6281950	256.73	60	50	48 – 60
MB11	224174	6281945	256.29	25	50	13 – 25
MB12	224267	6281932	254.82	60	50	48 – 60
SE Pit TSF Monitoring Bores						
MB13	225560	6282437	236.17	55	104	42.0 – 55.0
MB14	225736	6282285	246.35	67	104	25.0 – 67.0
MB15	225736	6282162	242.29	62	104	14.0 – 62.0
MB16	225352	6281980	228.66	50	104	8.0 – 50.0
SW Pit TSF Monitoring Bores						
MB22	225133	6282714	240.884	64.07	104	16.07 - 64.07
MB23	225302	6282670	244.726	68.61	104	14.61 - 68.61
MB24	225426	6282581	238.97	62.33	104	14.33 - 64.33
Western Boundary Monitoring Bores						
MB30	223016	6281981	266.521	31.76	104	19.76 - 31.63
MB31	222657	6281974	253.036	25.09	104	13.09 - 25.09
MB32	222514	6282071	248.049	20.28	104	8.28 - 20.28
MB33	222415	6282389	245.83	8.69	104	2.69 - 8.69
MB34	222403	6282669	250.646	16.54	104	4.54 - 16.54
MB35	222403	6282920	248.943	12.57	104	6.57 - 12.57
MB36	222517	6283071	251.88	18.82	104	12.82 - 18.82

[1]Have been dry since construction

Table 5: Schedule of Decommissioned Bores

Bore	Eastings (mE)	Northings (mN)	Hole Depth (m)	Reason	Date
Groundwater Exploration / Production Bores					
WTD02	225392	6282518	72	Mined Out – NE Pit	2018
WTD06	225286	6282169	103.5	Buried – WD1 expansion	2018
WTD08	224888	6282419	100	Mined Out – NE Pit	2018
WTD21	225315	6281473	99	Decommissioned (blocked)	2021
WTD28	224267	6282959	118	Buried - WD2 expansion	May-2023
Northern Boundary Monitoring Bores					
MB02	223555	6283226	44	Buried - WD2 expansion	2022
MB03	223811	6283114	45	Buried - WD2 expansion	2022
MB03A	223793	6283119	55	Buried - WD2 expansion	2022
MB04	223967	6283088	40	Buried - WD2 expansion	2022
MB05	224122	6283025	40	Buried - WD2 expansion	2022
MB06	224265	6282945	24	Buried - WD2 expansion	2022
SW Pit TSF Monitoring Bores					
MB09	224055	6282209		Mined Out – NW Pit Stage 4	Dec-2023

6.2 WATER STORAGES

A part of the site water management, several surface water storages are utilised to control and collect runoff. The GLOS (1.6) stipulates the monitoring of key water storages, and potential receptors. For the 2023-5 reporting period, the storages selected for sampling are presented in Table 6 and plotted on Figure 2.

Table 6: Surface Water Monitoring Schedule

Sampling Point	Easting (mE)	Northing (mN)	Area / Rationale
NE Pit	225168	6282621	SE Pit TSF decant water – pumped from NE Pit to Raw Water Dam to complete process water circuit.
Dam 4	225214	6281638	Southeast boundary catchment dam – original farm dam (preceded mine development), now receives 'spring' flow / seepage from WD1, preventing its direct discharge to Cattlin Creek. Dam 4 water pumped to SE Pit TSF.
Dam 5	224277	6283010	North boundary catchment dam – installed as part of WD2 expansion to collect underdrain seepage flow. Originally filled and pumped down (to NE Pit) but has gradually (in 2024) dried as WD2 water balance has stabilised.
Dam 7 (dry)	222467	6282407	West boundary catchment cam – installed as part of WD3 to capture seepage and runoff from WD3 toe-drain (originally designed to collect new site entry runoff). Dam 7 has remained dry, since its installation early 2024.
Dam 6 (dry)	225219	6281446	Off-site (receptor) catchment dam – original farm catchment dam (precedes mine), receives runoff from surrounding farm catchment.
Farm Dam 2	222311	6282810	Off-site (receptor) catchment dam – receives runoff from surrounding farm catchments, including runoff from western end of New Floater Road.

The rationale for the selection of these sites for monitoring is summarised below:

Process Water

- NE Pit – the NE Pit is a key 'catch-all' point in the site water recycling circuit. It receives the following inflows (in order of magnitude / significance):
    - 'Decant' seepage flows from the SE Pit TSF (i.e. process water discharged with tailings to SE Pit TSF infiltrates the highly permeable rock embankment between SE and NE pits).
    - Dewatering inflow from the main / active NW Pit.
    - Pumped discharge from:
        - Dam 4 – via SE Pit TSF – i.e. Dam 4 is pumped to SE Pit TSF, which infiltrates to NE Pit.
        - Dam 5 – noting Dam 5 remained dry or below capacity in 2024 and did not require pumping to reduce water levels.

Water is/was pumped from the NE Pit for Process Plant water supply, with offtake from the return-water pipeline to feed storage tanks used to fill water carts for dust suppression.

Perimeter / Boundary Dams:

- Dam 4 – receives surface water and seepage/spring flows from a phreatic mound within WD1.
- Dam 5 – received seepage/spring flows from a phreatic mound beneath WD2, and a toe drain cut beneath the northern section of expanded WD2 footprint, which was installed to alleviate northward discharge of groundwater from WD2 (i.e. to alleviate the semi-artesian boundary condition in that northern boundary area).
- Dam 7 – installed to capture surface runoff and toe-drain from the WD3 landform (and proposed - but not constructed new site entrance road around the perimeter of WD3).

Offsite / "Receptor" Dams

- Dam 6 – receives surface runoff from surrounding farmland – located immediately south of Dam 4 and in neighbouring farm paddock (but within Galaxy owned land). This Dam has gradually dried out in 2024 and was dry in all sampling rounds except May and August in 2025 (a function of the extended dry/drought conditions of Southern WA).
- Farm Dam 2 – located west of Newdegate-Ravensthorpe Highway, on neighbouring farmland. This dam receives runoff from farm paddocks and from a culvert beneath the highway that directs runoff from new Floater Road into Edwards 'Farm Dam 2'. This sampling location was initiated to monitor for effects caused by construction of WD3.

7 GROUNDWATER EXTRACTION

Total extraction under GWL 167439 (7) for the 2023-5 water years was 263,090 KL, 289,378 KL, and 24,245 KL. This represents 24%, 26% and 2.2% of the licence allocation of 1,095,000 KL/annum. Although not included under the licence allocation, groundwater inflows to site voids would have been extracted via via recovery of TSF decant water from the NE Pit. While obscured by decant water abstraction, actual groundwater abstraction would have remained considerably under the licence allocation. Monthly extraction data for these water sources, as well as the borefield data, are provided below in Table 7, with total monthly borefield extraction since commissioning shown in Figure 5. Monthly pumping volumes for individual bores are given in Figure 12, where applicable.

7.1 PRODUCTION BORES

Total groundwater extraction from the mine's borefield remained relatively low during the period of review compared to historical data (Fig. 5). The total borefield annual volumes extracted over the review period were 145,072 kL (2023); 94,817 kL (2024) and 16,123 kL (2025) (Table 7), corresponding to 12, 9 and 6% of the total water usage.

Of the production bores used in the period of review, WTD23 provided 39% of the bore extraction. Historically, bore WTD28 provided large volumes of water, however this bore was decommissioned in May 2023 to allow for the WD2 expansion. Subsequently, production bores WTD22 and WTD29 provided additional water, 37% and 16% of the annual bore-water supply, respectively.

7.2 PIT EXTRACTION

To maintain dry mining conditions, Galaxy dewaters its active pits via in-pit sump pumps. During the period of review, dewatering operations have occurred only in the NW Pit, with a total of 118,018 KL (2023), 194,561 KL (2024) and 8,122 (2025) extracted (or 10%, 18% and 3% of the annual allocation).

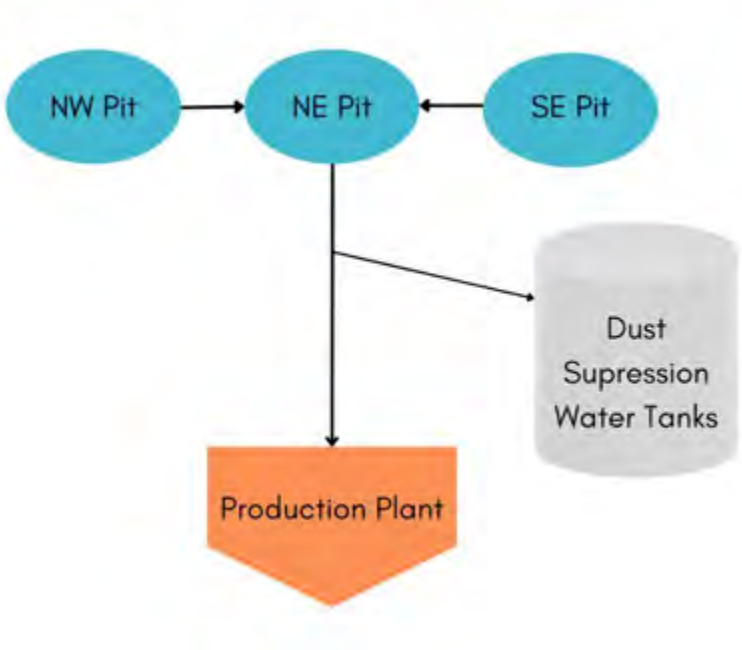
Historically extraction from the NW pit was not included in the licence allocation as it was located directly opposite the SW in-pit TSF that was probably a key contribution to pit water (i.e. process/tailings water flowed through the leaky coffer-dam wall). Since the SE in-pit TSF was completed in May 2022, water extracted from the main Stage 3 NW Pit would now be more appropriately considered to be from aquifers. Water from the NW pit is pumped directly into the NE pit void

Table 7: Groundwater Extraction (KL) for 2023-25

Date	Bore ID				Borefield Total	Pit Total	Borefield and Pit Total	% Licence allocation	In-Pit TSF Recovery	Total Extraction
	WTD22	WTD23	WTD29	WTD34		NW			NE	
Jan-23	0	0	5,682	0	5,682	7,628	**13,310**		48,067	**61,377**
Feb-23	8,889	2,712	833	0	12,434	10,789	**23,223**		42,843	**66,066**
Mar-23	7,662	7,343	0	0	15,005	5,153	**20,158**		149,591	**169,749**
Apr-23	6,465	6,248	0	0	12,713	7,648	**20,361**		80,742	**101,103**
May-23	7,114	9,139	0	0	16,253	11,529	**27,782**		47,968	**75,750**
Jun-23	698	11,429	0	0	12,127	14,734	**26,861**		93,895	**120,756**
Jul-23	0	7,092	1,165	0	8,257	6,723	**14,980**		34,611	**49,591**
Aug-23	12,194	0	3,016	0	15,210	17,296	**32,506**		79,888	**112,394**
Sep-23	4,051	4,902	1,943	0	10,896	10,972	**21,868**		58,456	**80,324**
Oct-23	4,717	7,363	2,422	0	14,502	7,153	**21,655**		109,929	**131,584**
Nov-23	2,515	4,859	1,277	0	8,651	13,550	**22,201**		40,289	**62,490**
Dec-23	0	10,658	2,684	0	13,342	4,843	**18,185**		154,552	**172,737**
2023 Total	**54,305**	**71,745**	**19,022**	**0**	**145,072**	**118,018**	**263,090**	**24%**	**940,831**	**1,203,921**
Jan-24	465	7,059	3,596	1,553	12,673	10,007	**22,680**		105,547	**128,227**
Feb-24	1,091	5,070	1,123	1,756	9,040	7,447	**16,487**		37,340	**53,827**
Mar-24	218	2,664	1,943	2,103	6,928	9,170	**16,098**		62,773	**78,871**
Apr-24	238	1,367	213	4,015	5,833	9,776	**15,609**		62,925	**78,534**
May-24	4,144	6,704	1,121	872	12,841	9,010	**21,851**		48,240	**70,091**
Jun-24	2,485	1,366	2,597	1,772	8,220	12,350	**20,570**		50,892	**71,462**
Jul-24	3,155	0	1,453	1,405	6,013	15,000	**21,013**		42,867	**63,880**
Aug-24	2,178	0	1,552	1,820	5,550	33,498	**39,048**		41,830	**80,878**
Sep-24	2,556	2,282	1,619	2,245	8,702	6,000	**14,702**		61,422	**76,124**
Oct-24	1,731	3,177	986	991	6,885	45,288	**52,173**		77,006	**129,179**
Nov-24	879	3,455	637	1,040	6,011	23,364	**29,375**		87,689	**117,064**
Dec-24	844	2,473	1,959	845	6,121	13,651	**19,772**		84,568	**104,340**
2024 Total	**35,617**	**18,799**	**19,984**	**20,417**	**94,817**	**194,561**	**289,378**	**26%**	**763,099**	**1,052,477**
Jan-25	1,159	2,384	721	917	5,181	6,097	**11,278**		85,709	**96,987**
Feb-25	1,368	2,115	1,039	631	5,153	2,025	**7,178**		77,106	**84,284**
Mar-25	926	3,100	268	0	4,294	0	**4,294**		63,716	**68,010**
Apr-25	473	1,022	0	0	1,495	0	**1,495**		13,502	**14,997**
May-25	0	0	0	0	0	0	**0**		0	**0**
Jun-25	0	0	0	0	0	0	**0**		0	**0**
Jul-25	0	0	0	0	0	0	**0**		0	**0**
Aug-25	0	0	0	0	0	0	**0**		0	**0**
Sep-25	0	0	0	0	0	0	**0**		0	**0**
Oct-25	0	0	0	0	0	0	**0**		0	**0**
Nov-25	0	0	0	0	0	0	**0**		0	**0**
Dec-25	0	0	0	0	0	0	**0**		0	**0**
2025 Total	**3,926**	**8,621**	**2,028**	**1,548**	**16,123**	**8,122**	**24,245**	**2%**	**240,033**	**264,278**

7.3 TSF RECLAMATION

Galaxy uses reclaimed tailings water as a substitute for borefield extraction whenever possible to reduce the impact on the local aquifers. The SE Pit TSF was used for tailings storage during the period of review (and since May 2022). Seepage from this TSF drains through broken waste rock into the remnant NE pit void, where it is combined with the NW pit water. Water is then recovered via in-pit pumps to the processing plant (Raw Water Pond) for re-use. A schematic for the water circuit is presented in Text-Figure 1 below. Volumes for this recycled process water circuit are included in Table 7.



Text-Figure 1: TSF reclamation Schematic

Pit water is pumped to storage tanks on WD1 and then used by water carts for dust suppression, which has also allowed a reduction in the need to draw water from the external borefield.

Pumping volumes from the NE Pit represents reclaimed water, and should not be considered part of the licence allocation.

7.4 WATER BALANCE

The GLOS lists several monitoring points that require meter records, which are used for detailed water balance calculations. The nominated monitoring points are: dewatering pumps, decant water pumps, dam return pumps, RO plant intake, and dust suppression intake.

7.5 COMPLIANCE

- Galaxy has been fully compliant with the GLOS in monitoring borefield extraction volumes throughout the 2023-25 water years.
- When operating, all bores had properly maintained flow meters. These have now been removed.
- Total groundwater extraction volumes were well under the annual entitlement for GWL167439(7).

8 GROUNDWATER LEVELS

Baseline bore standing water levels measured prior to the commencement of mining operations (2008 to 2010) are presented in Table 8, together with levels taken in December 2023 to 2025.

Pumping volumes, water level and water quality plots for all the production and monitoring bores that were active for at least part of the period of review are included in Figures 9 to 19. The water level measurements are included in Appendix III.

A contour map of the bore standing water levels in December 2025 (Fig. 6) shows that regional groundwater flow is to the south-east, similar to the pre-mining conditions in 2008 to 2010 (Fig. 4). Analysing regional trends in bore water level changes during the period of review are impeded by the limited number and location of active observation points (Table 8, Fig. 7).

Comparison of the pre-mining (2008 - 2010) and December 2025 water levels are likewise limited to a few bores (Table 8, Fig. 8). However, where available, the data show water levels have fallen by up to 52 m (in WTD21A) in the bores located to the south and south-east of the mine. These bores intersected the main groundwater supply aquifers, and are the most impacted by changes in borefield extraction. The water level rises in MB01 (9.8 m) and WTD10 (3.5 m) are attributed to seepage mounding and natural phenomena, respectively, and are discussed in greater detail below. Apparent rises in WTD31 & 34 may be indicative of erroneous baseline data, or the bores were operational (pumping) when monitoring records started. It may also be postulated that creek flow may have entered the recharge bore and filled up the old workings.

The December 2025 water level contours (Fig. 6) indicate that since active operations ceased, three areas are anomalous compared to pre-mining levels. A water level sink persists around bore WTD21A, located in the south-western aquifer along Cattlin Creek; there is a pronounced groundwater depression to the SE of the NE Pit; and a mound remains at the eastern boundary south-east Pit TSF. These areas are discussed in further detail in the following sections.

Table 8: Water Level Measurements in Production and Monitoring Bores

Bore	Coordinates (GDA 94)		Pre Mining SWL	SWL Dec 2023		SWL Dec 2024		SWL Dec 2025		Water Level Change Pre-mining to December 2025	Water Level Change Dec 2023 to Dec 2025
	mE	mN	(m AHD)	(m btc[2])	(m AHD)	(m btc[2])	(m AHD)	(m btc[2])	(m AHD)	(m)	(m)
WTD07	225,633	6,282,500	223.82[1]	17.9[3]	212.64[3]	23.0	207.54	19.9	210.64	-13.181	-1.97
WTD10	224,735	6,281,437	220.58	9.9	225.40	12.0	223.30	11.2	224.1	3.52	-1.3
WTD11	224,444	6,280,863	213.31	48.5	192.51	45.0	196.01	48.2	192.81	-20.5	0.3
WTD13	225,350	6,281,850	211.22	9.2	209.56	9.0	209.76	6.2	212.56	1.34	3
WTD20	225,560	6,283,133	234.64	10.5	236.19	13.5	233.19	11.5	235.19	0.55	-1
WTD21A	225,308	6,281,464	201.38	59.2	150.98	62.0	148.18	60.5	149.68	-51.7	-1.3
WTD22	225,660	6,281,433	200.56	45.9	156.55	38.0	164.45	15.4	187.05	-13.51	30.5
WTD23	225,563	6,281,322	192.09	49.5	158.11	58.0	149.61	25.2	182.41	-9.68	24.3
WTD29	225,938	6,281,745	189.40	32.9	165.20	30.5	167.60	14.2	183.9	-5.5	18.7
WTD31	225,942	6,281,749	180.13	37.9	160.20	31.0	167.10	13.5	184.6	4.47	24.4
WTD34	225,987	6,281,796	164.62	45.9	152.59	50.0	148.49	16.8	181.69	17.07	29.1
MB01	223,163	6,283,321	242.66	16.2	250.56	16.2	250.56	14.3	252.46	9.8	1.9
MB08	224,259	6,283,204	N/A	0.1	239.33	0.79	238.64	0.1	239.33	-	0
MB10	224,162	6,281,950	N/A	12.9	243.56	17.40	239.06	22.5	233.96	-	-9.6
MB11	224,174	6,281,945	N/A	45.6[5]	210.69	17.40	238.89	23.6	232.69	-	22
MB12	224,267	6,281,932	N/A	31.1	240.10	18.0	253.20	Dry	-	-	-
MB13	225,560	6,282,437	N/A	29.5	206.67	27.4	208.77	28.5	207.67	-	1
MB14	225,736	6,282,285	N/A	23.2	223.15	23.5	222.85	21.5	224.85	-	1.7
MB15	225,736	6,282,162	N/A	28.8	221.39[4]	27.4	214.89	16.4	225.89	-	12.4
MB16	225,352	6,281,980	N/A	19.7	208.96	20.5	208.16	18.4	210.26	-	1.3
MB17	223,444	6,283,378	N/A	17.5	246.68	18.0	246.18	18.3	245.88	-	-0.8
MB18	223,740	6,283,367	N/A	13.6	245.56	14.5	244.66	14.6	244.56	-	-1
MB19	223,950	6,283,285	N/A	4.7	243.49	5.5	242.69	4.8	243.39	-	-0.1

Bore	Coordinates (GDA 94)		Pre Mining SWL	SWL Dec 2023		SWL Dec 2024		SWL Dec 2025		Water Level Change Pre-mining to December 2025	Water Level Change Dec 2023 to Dec 2025
	mE	mN	(m AHD)	(m btc[2])	(m AHD)	(m btc[2])	(m AHD)	(m btc[2])	(m AHD)	(m)	(m)
MB20	224,117	6,283,249	N/A	0	242.73	0.42	242.31	0.31	242.42	-	-0.31
MB22	225,133	6,282,714	N/A	39.8	201.08	38.5	202.38	Dry	Dry	-	-
MB23	225,302	6,282,670	N/A	22.9	221.83	23.8	220.93	22.4	222.33	-	0.5
MB24	225,426	6,282,581	N/A	24.6	214.37	24.2	214.77	22.3	216.67	-	2.3
MB28	224,095	6,281,430	N/A	Dry	-	Dry	-	-	-	-	-
MB29	223,404	6,282,006	N/A	Dry	-	Dry	-	-	-	-	-
MB30	223,016	6,281,981	N/A	22.2	244.32	22.4	244.12	23.4	243.12	-	-1.2
MB31	222,657	6,281,974	N/A	14.8	238.24	14.2	238.84	13.6	239.44	-	1.2
MB32	222,514	6,282,071	N/A	9.8	238.25	10.42	237.63	9.4	238.65	-	0.4
MB33	222,415	6,282,389	N/A	7.0	238.83	7.1	238.73	3.5	242.33	-	3.5
MB34	222,403	6,282,669	N/A	8.9	241.75	9.4	241.25	8.4	242.25	-	0.5
MB35	222,403	6,282,920	N/A	7.0	241.94	7.0	241.94	5.3	243.64	-	1.7
MB36	222,517	6,283,071	N/A	8.0	243.88	8.2	243.68	14.4	237.48	-	-6.4

[1]Water level from Sep 2019
[2]Metres below top of collar
[3]Water Level from Nov 2023
[4]Water level from Nov 2023
[5]Possible erroneous records

Note: a negative water level denotes a fall in level

8.1 NORTH-EASTERN AQUIFER

8.1.1 NORTH-EAST PIT – FIGURE 9

With the removal of bores WTD01, 02 and 06, monitoring bores MB22, 23 and 24 were installed in October 2023 to monitor this area, and to provide monitoring infrastructure for the intended development of the NE Pit TSF. Monthly measurements of these sites have been taken since construction. Monitoring data suggest a slight rise in groundwater levels in this area (by an average of 0.27 m), consistent with the reduction in extraction (and rising peripheral levels) from in pit sumps from the NE pit. Measurements taken in MB22 have been erratic and the bore is now dry, which may indicate some form of blockage/collapse.

8.1.2 SOUTH-EAST PIT – FIGURES 10 & 11

Historical water trends observed in WTD07, which straddles the NE and SE Pits, have been impacted by the water use regime in the area. Initially the SE Pit was dewatered (2010 to mid-2012) before being converted to an in-pit TSF. The variations are likely due to the reduced pumping from the NE Pit in early 2023, followed by relatively more extraction in December 2023 and January 2024, causing a sharp decline in levels at the start of 2024. Since pumping ceasing in the NE Pit, the bore appears to have now stabilised at approximately 207-210 m AHD, with some seasonal variation. Similar seasonal trends are observed in neighbouring monitoring site MB13 albeit at a smaller magnitude.

Similarly, the water level in the bores around the periphery of the SE Pit TSF shows that the local aquifer is still affected by the cone of depression associated with ongoing dewatering of the active TSF system (via the NE Pit). The December 2025 water levels in MB13 (207.7 m AHD), MB16 (210.3 m AHD) and WTD13 (212.7 m AHD), were considerably lower than in MB14 (225.0 m AHD) and MB15 (226.0 m AHD), which are located further east. This difference is interpreted to reflect the varying permeability of the local strata, with the lower water levels in MB13, MB16 and WTD13 corresponding to the higher hydraulic conductivity zones along the previous alignment of Cattlin Creek.

Groundwater monitoring and in pit water levels show that, although the commissioning of the SE Pit TSF has resulted in groundwater mounding, the comparative hydraulic conductivities between competent bedrock of the eastern and southern walls versus broken rock embankments to the north and west, results in preferential drainage to the adjacent NE pit void. Once water levels rose to a threshold (overflow) elevation in the SE Pit TSF, water has preferentially flowed into the NE pit as evidence by water level stabilisation in SE Pit TSF monitoring bores. Water levels at this area of the eastern site boundary have risen 13.2 m on average.

The water level in WTD13 was fairly stable over the period of review owing to the low extraction from the area and moderate rainfall events.

8.2 SOUTH-EASTERN AQUIFER – FIGURES 12 & 13

The main water-supply aquifer for the borefield is located south-east of the mine, close to the original course of the Cattlin Creek. The bores intersecting this aquifer are WTD11, 21/21A, 22 and 23; as well as bores WTD29, 31 and 34, which also intersect underground workings that are hydraulically connected to the aquifer. Water level data for the bores are included in Figures 12 and 13.

Production bores WTD22, WDT23, WTD29 and WTD34 (Fig. 12) have provided the vast majority of groundwater extracted for the mine.

The unequipped production bore WTD11 (Fig. 9), located in agricultural land 1.2 km to the west of WTD23, has shown a delayed response to pumping from the other production bores. During the period of review, slightly rising water levels were observed in the bore due to the limited extraction from WTD22, WTD23 and WTD29.

While equipped, the water levels in WTD22 and WTD23 (Fig. 12) varied in response to changes in the rate of extraction, with rapid rises during periods of low extraction, and rapid falls during periods of higher usage. It is unclear if the recorded measurements are resting or pumping water levels. Since pumping ceased, both bores showed sharp increase (+30.5 m and 24.3 m respectively) and now rest 13 m and 9.7 m below baseline levels. It is likely that these bores will take some time to fully recover.

Monitoring bore WTD21 has been unavailable as a viable water level observation point since October 2019 when its casing was structurally compromised (Fig. 13). In March 2022 a replacement monitoring bore, WTD21A, was installed nearby. The limited water level data collected from this bore since July 2022 show the water level has a strong response to pumping from WTD22 and follows similar trends to WTD22. However, since the cessation of pumping, the levels in this bore has not recovered as the production bores, and the levels remain at 149 m AHD. This may be a delay in response or indicate an issue with the integrity of the bore.

Production bore WTD29 (Fig. 12) was pumped fairly consistently at low rates in 2024 and water levels reacted in response to these pumping periods, with the difference between resting and pumping levels of approximately 7.4 m (163 to 170.4 m AHD). The bore has recovered 18.7 m since the pump was removed and is stable at 184 m AHD (5.5 m below pre-mining levels).

Production bore WTD34 (Fig. 12) intersects the same disused mine workings as WTD29, though 30 m deeper. The flooded workings provide a storage capacity for both bores, but pumping from either bore has a strong influence on the other. WTD34 was pumped fairly consistently up until February 2025; with observed water levels ranging from 141.6 to 149 m AHD. The bore has recovered 29.1 m since the pump was removed and is stable at 181.6 m AHD (17 m above pre-mining levels, however it is likely that the pre-mining readings commenced after the bore was commissioned).

8.3 OTHER BORES

8.3.1 WTD10 – FIGURE 13

Monitoring bore WTD10 is located south of the mine site in an agricultural area. The water level in the bore has not shown any influence from pumping of the borefield, despite it being closer to WTD22 and WTD23 than WTD11 (Fig. 2). During the period of review, the water level in the bore followed a slight declining trend, falling from 225.4 to 224.1 m AHD. This is most likely due to the very low rainfall received in 2023 and 2024. Long-term groundwater levels in this bore are still elevated, with December 2025 levels 2.7 m above baseline levels.

8.3.2 TSF1 MONITORING BORES – FIGURES 14 & 15

Bores MB02, 03, 03A, 04, 05 and 06 were decommissioned between July to October 2022, as they were within the Waste Dump 2 design footprint. These bores were removed from the monitoring schedule in February 2022. Four new TSF monitoring bores, MB17 to 20 (Fig. 2) were installed further to the north, and together with MB01 and 08, continue monitoring potential seepage from the broader and combined TSF and WD2 footprint.

Historically, most of the bores have shown strong water level responses due to seepage and associated groundwater mounding around the TSF and northwards expansion of WD2. While TSF1 was operational, recovery bore MB03 and its replacement MB03A were pumped almost continuously to recover water for re-use and to keep the local groundwater level below the PPL 3 m bgl trigger limit. Pumping from WTD28 was also previously used to control water levels in nearby bores MB05 and MB06.

The water levels on the western margin of the TSF is monitored by bores MB01 and MB17. MB1 has been monitored since 2009 and the levels cover the entire life of the TSF and associated groundwater mounding. The data from this site suggests the mound was at its highest in 2021 (254 m AHD or 11.3 m rise) and has been slowly dissipating since. The level in this bore fell 1.9 m over the 23–25 review period to 252.5 m AHD. Water level data collected from MB17 has been erratic (perhaps including a datum change), and now is fairly constant at 245 m AHD.

Water level data for the four replacement TSF monitoring bores, MB17, MB18, MB19 and MB20 are presented in Figures 14 and 15. The data show the depth to water decreases towards Cattlin Creek, with the water level in bores MB08 & 20 being close to the ground surface (Fig. 15). Bores MB17, 18, 19 and 20 were stable during the review period with only minor seasonal fluctuations.

8.3.3 SW PIT TSF MONITORING BORES – FIGURE 16

The TSF monitoring bores MB09 to MB12, installed around the SW Pit periphery, were commissioned in May 2019 to monitor water level and water chemistry changes associated with the use of the SW pit for tailings discharge, which occurred between June 2019 and May 2022. Although baseline data before tailings discharge began are limited, bores MB09 (now mined out) and MB10, showed rising water level trends until late 2021, before stabilising.

Monitoring data from bores MB11 & 12 (Fig. 16), showed stable water levels until mid-2023. In active operations, a groundwater mound formed in this area and was likely due to due to overflow from dust suppression tanks mounted on WD1 immediately above the MB10-11-12 cluster. The tanks periodically overflowed when cart drivers forgot to close the offtake valve (from supply pipeline from NE Pit to RW Dam) and the storage tanks were left to overflow. Since operations ceased, this mound has completely dissipated.

8.3.4 NORTH WEST WD3 – FIGURES 17 & 18

Six monitoring bores (MB31 to 36) were installed in 2023 to monitor any potential impacts from the construction of WD3. Baseline data have been collected since November 2023 and are plotted in Figures 17 & 18. The bores show a stable water level in this area with minor season fluctuations.

8.3.5 WTD20 – FIGURE 19

Monitoring bore WTD20 is located north of the NE Pit (Fig. 2). Water levels in the bore have varied over a small range when compared to the other bores, showing very minor seasonal influences. Water levels have risen by 1 m during the period of review (Fig. 7, Table 8).

8.4 AQUIFER CONDITION

Water levels within the north-eastern aquifer indicate that the aquifer is recovering after the cessation of active mining and related dewatering from the NE and SE Pits (during mining of these most eastern pits), with the effects of the SE in-pit TSF now the primary influence on this aquifer.

The south-eastern aquifer was the primary aquifer utilised by equipped production bores in active operations. They have shown significant recovery since operations ceased in mid-2025, however remain 10 – 13 m below pre-mining levels. It is likely that these bores will take some time to fully recover. Monitoring bore WTD21A however has not shown the same rate of recovery and is an outlier at 52 m below pre-mining levels. This may be a delay in response or indicate that the screens of the bore are blocked.

8.5 COMPLIANCE

As part of the GLOS commitments, Galaxy is required to monitor water levels monthly in all monitoring and production bores. During the period of review, levels were recorded diligently by Galaxy staff each month, with only minor non-compliances in 2025 with two monthly rounds missed in April and May.

9 WATER QUALITY

9.1 EC & PH DATA

Field measurements of pH and EC are required quarterly for all monitoring and production bores under the GLOS Rev. 1.6 conditions. Several field records were missed during the review period; field staff were not always available to undertake the sampling. Field records, together with corresponding laboratory values are presented with historical data in Figures 20 to 29.

The TDS records show that the groundwater is naturally saline to hypersaline, but varies considerably in most bores. pH measurements are variable, indicating slightly alkaline to acidic water.

9.2 MAJOR COMPONENTS ANALYSIS

As part of the GLOS commitments, Galaxy is required to perform annual major component analyses on water samples from all production bores (Table 6). However, during the period of review, most bores, including monitoring bores, were sampled at a quarterly frequency. This is required of the TSF bores under the Prescribed Premise Licence, although the analyte suite is generally more extensive, but does exclude some analytes nominated by DWER (Operational policy no. 5.12, 2009) as part of a typical major components suite, such as ammonia, nitrate and phosphate.

Bores are sampled (either after purging, or by pumping for production bores) on a quarterly basis and submitted for laboratory analysis. Results are discussed by area in the following sections, certificates of chemical analyses for the sampling conducted from February, May, August and November of each year are provided in Appendix IV. Water chemistry data are summarised in Tables 9 to 11.

The major components of water chemistry for the non-TSF seepage affected bores show the groundwater to be saline to hypersaline, circum-neutral and of sodium-chloride type. Relatively high total hardness, as well as high concentrations of magnesium and nitrate are also common. Relatively low to moderate concentrations of iron and manganese are also typical, however higher concentrations of iron are evident in production bores.

The major components water chemistry analyses for the TSF seepage-affected bores (most TSF bores and WTD28) show the groundwater to be acidic, with comparatively low levels of alkalinity and calcium; while aluminium, iron and manganese concentrations are typically elevated.

9.3 NORTH EASTERN AQUIFER

9.3.1 NORTH-EAST PIT – FIGURE 20

Monitoring bores MB22, 23 and 24 were installed in October 2023 to monitor this area. The groundwater is hypersaline, ranging from 32,000 to 43,000 mg/L TDS, with circumneutral pH. Given the limited data available, no EC/pH trends can be assessed. Preliminary laboratory results (Table 9) indicate that the groundwater is similar to the decommissioned bores WTD01 and 02 with common high iron concentrations.

9.3.2 SOUTH-EAST PIT – FIGURE 21

WTD13, located to the south of the SE Pit, provides the only long-term water quality data for the LOM in the area, as other bores have been decommissioned and/or constructed to allow for mining expansion. WTD13 has recorded lower average salinities (24,000 mg/L TDS) since November 2021, perhaps due to (or a combination of) the low extraction from the southern production bores, seepage from the operational SE Pit TSF, or possibly a sampling artefact (i.e. not purged long enough). It is unlikely to be related to rainfall, as rainfall was very low over that period. Groundwater pH is generally slightly alkaline, and values between 7.7 to 8.45 were recorded over the period of review.

Total dissolved solid concentrations in samples from the new SE Pit TSF monitoring bores (MB13 to MB16, Fig 21) are generally within the 20,000 to 50,000 mg/L TDS range previously observed in the aquifer. Initial data from the new monitoring bores were highly variable, owing to the slow development of the bores and residual drilling fluids. The bores have stabilised over the period of review and follow seasonal variation, whereby they are slightly fresher in autumn (May) and more saline in spring/summer (November and February). SE Pit TSF bores are generally of neutral pH, with values ranging from 6 to 8.

Water quality does not appear to have been impacted by the commissioning of the SE in-pit tailings.

Table 9: Groundwater Major Components Analysis Results – North Eastern Aquifer - North East and South East Pits

Bore	Sample Date	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
North-East Pit																								
MB22	Feb-24	-	7.29	-	51,700	39,200	<1	<1	348	348	-	3,190	435	1,670	11,100	115	17,900	11.4	<0.05	2.38	2.11	NR	NR	0.14
	Jun-24	6.64	7.56	-	51,500	33,500	<1	<1	335	335	6,380	2,910	344	1,340	9,840	102	19,000	11.9	<0.05	<0.25	0.387	0.08	0.14	0.12
	2025	NOT SAMPLED																						
MB23	Feb-24	-	7.3	-	50,500	38,300	<1	<1	448	448	-	2,940	378	1,610	10,400	80	17,000	14.2	0.54	9.1	2.2	NR	NR	1.27
	Jun-24	6.73	7.53	-	54,000	35,100	<1	<1	411	411	7,080	2,920	344	1,510	9,840	67	19,900	14.1	<0.05	8.04	2.32	<0.05	0.03	0.76
	Feb-25	-	7.02	56,700	58,000	37,700	<1	<1	351	351	8,350	3,460	391	1,790	11,200	78	20,500	12.1	<0.1	7.83	1.9	0.06	<0.01	0.64
MB24	Feb-24		7.23	-	55,400	43,200	<1	<1	487	487	-	3,150	396	1,890	11,100	117	19,700	15.3	0.43	4.08	0.798	NR	NR	0.37
	Jun-24	6.74	7.64	-	49,200	32,000	<1	<1	516	516	6,540	2,580	263	1,430	9,020	109	18,200	14.3	<0.05	2.89	1.25	0.05	<0.01	0.11
	Feb-25	-	7.12	55,800	55,300	35,900	<1	<1	520	520	8,740	3,440	382	1,890	11,200	135	20,600	14.5	<0.1	4.03	1.09	0.15	<0.01	<0.02
	Oct-25	-	7.03	52,400	53,600	34,800	<1	<1	473	473	7,940	2,810	376	1,700	10,600	121	21,000	16	<0.05	2.83	0.614	0.09	<0.01	<0.02
South-East Pit																								
MB13	Feb-23		7.6		37,216	21,350	<5	<5	346	346	6,360	2,500	321	1,349	9,288	127	22,241	13	<20	450	1,200	0.05	0.88	0.07
	May-23		6.8		32,281	21,730	<5	<5	344	344	5,686	2,300	33	1,360	9,630	127	21,550	14	<20	220	1,700	<0.02	0.1	0.01
	Aug-23		6.9		45,420	30,750	<5	<5	352	352	6,400	2,600	350	1,300	8,300	98	16,700	13	33	18	1,300	<0.02	0.17	0.19
	Nov-23		6.2		44,098	27,390	<5	<5	380	380	6,206	2,500	340	1,300	7,600	140	11,310	12	16	12	1,100	<0.02	<2.0	0.06
	Feb-24	-	7.36	-	40,800	30,800	<1	<1	390	390	-	2,400	405	1,370	7,630	129	14,100	16.7	<0.05	<0.25	1.17	3	NR	0.11
	Jun-24	7.42	7.55	42,000	40,600	26,400	<1	<1	382	382	5,970	2,280	346	1,240	7,250	119	14,400	12.1	0.05	<0.25	1.4	0.09	0.01	0.05
	Sep-24	-	7.29	48,000	45,400	29,500	<1	<1	373	373	6,750	2,620	396	1,400	9,240	97	15,100	19.7	<0.05	3.71	0.427	<0.05	<0.01	<0.02
	Dec-24	6.27	7.53	45,200	45,100	29,300	<1	<1	459	459	7,140	2,730	453	1,460	8,850	93	13,300	21	<0.05	4.01	0.667	0.13	<0.01	0.06
	Feb-25	7	7.24	43,100	41,200	26,800	<1	<1	444	444	6,990	2,410	391	1,460	7,960	138	14,000	12.1	<0.05	<0.25	2.29	0.2	<0.01	0.03
	May-25	6.51	7.23	41,900	42,800	27,800	<1	<1	391	391	7,110	2,570	424	1,470	8,040	139	15,700	11.8	<0.05	<0.05	2.06	0.12	<0.01	0.04
MB14	Feb-23		7.3		42,009	29,600	<5	<5	435	435	6,780	2,800	268	1,483	10,070	123	23,085	10	<20	69	2,400	0.36	0.02	0.06
	May-23		6.8		35,420	23,000	<5	<5	422	422	7,671	2,600	440	1,595	10,930	129	23,505	11	<20	66	2,300	0.08	0.1	0.07
	Aug-23		7		45,980	29,700	<5	<5	415	415	6,100	2,500	360	1,300	8,400	70	10,005	11	12	<10	1,500	<0.02	0.12	0.05
	Nov-23		5.9		51,762	32,150	<5	<5	440	440	6,718	2,900	380	1,400	9,300	93	17,030	11	<20	36	3,200	<0.02	<2.0	0.05
	Feb-24	-	7.4	-	45,800	35,000	<1	<1	445	445	-	2,650	455	1,460	9,510	86	16,500	11.6	<0.05	<0.25	2.56	1.1	NR	0.03
	Jun-24	7.98	7.9	42,600	41,100	26,700	<1	<1	389	389	5,180	2,280	359	1,040	7,580	66	15,100	14.2	<0.05	<0.25	0.89	0.06	0.63	0.07
	Sep-24	-	7.47	49,400	48,600	31,600	<1	<1	460	460	7,030	2,720	439	1,440	10,000	84	16,400	10.6	<0.05	<0.25	2.59	0.86	<0.01	0.03
	Dec-24	6.3	7.54	53,600	53,500	34,800	<1	<1	474	474	8,490	3,290	562	1,720	10,800	86	16,100	11	<0.05	<0.25	5.57	1.31	<0.01	0.08

Bore	Sample Date	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
	Feb-25	6.98	7.21	49,600	49,700	32,300	<1	<1	482	482	7,670	2,870	449	1,590	10,300	86	16,700	10	<0.05	<0.25	5.03	0.68	<0.01	0.03
MB15	Feb-23		7.2		40,527	29,450	<5	<5	259	259	7,815	2,700	397	1,656	9,650	111	12,287	9.5	<20	35	180	0.04	2.96	0.06
	May-23		6.6		41,684	28,360	<5	<5	241	241	8,864	3,300	439	1,885	16,070	127	12,605	9.3	46	<20	80	<0.02	0.12	<0.01
	Aug-23		6.8		47,520	30,920	<5	<5	261	261	6,100	2,700	310	1,300	8,200	58	12,880	8.1	23	29	24	<0.02	1.21	0.04
	Nov-23		6.3		48,924	30,200	<5	<5	242	242	6,568	2,800	320	1,400	8,900	81	15,110	9.4	<20	21	41	<0.02	<2.0	0.02
	May-25	6.6	7.32	54,400	51,000	33,200	<1	<1	413	413	7,820	2,950	495	1,600	10,200	94	18,800	12.4	<0.05	<0.05	2.84	0.14	0.51	0.04
	Feb-24	-	7.15	-	54,500	43,800	<1	<1	347	347	-	3,210	555	2,000	11,200	86	18,600	11.2	<0.05	<0.25	0.052	NR	NR	0.08
	Sept-24	-	7.49	33,900	32,700	21,200	<1	<1	234	234	3,880	1,810	196	824	6,880	50	11,100	7.97	<0.05	<0.25	0.014	<0.05	0.75	<0.02
	Dec-24	6.30	7.47	39,000	40,600	26,400	<1	<1	246	246	5,650	2,530	318	1,180	8,090	57	12,000	9	<0.05	<0.25	<0.005	0.08	<0.01	0.04
	Feb-25	6.85	7.05	40,900	39,000	25,400	<1	<1	254	254	5,440	2,570	284	1,150	7,960	59	13,600	9.01	<0.05	<0.25	0.019	<0.05	<0.01	0.02
	May-25	6.51	7.21	26,430	18,100	18,100	<1	<1	185	185	3,540	1,620	211	732	5,990	45	10,100	9.12	<0.02	<0.1	0.028	<0.05	1.28	0.01
MB16	Feb-23		7.2		34,184	21,060	<5	<5	320	320	5,684	2,400	286	1,206	7,630	102	11,390	12	<20	36	400	<0.02	0.54	0.06
	May-23		6.9		29,532	18,690	<5	<5	315	315	5,935	2,200	380	1,210	10,450	107	12,485	12	<20	36	790	<0.02	0.1	<0.01
	Aug-23		6.9		36,100	23,190	<5	<5	330	330	4,200	2,000	220	890	6,800	60	411	13	15	28	290	<0.02	1.69	0.12
	Nov-23		6.1		37,963	23,290	<5	<5	304	304	4,596	2,200	240	970	6,600	77	1,090	13	18	14	1,100	0.17	<2.0	0.04
	Feb-24	-	7.47	-	34,100	25,900	<1	<1	330	330	-	2,020	291	1,040	7,070	73	11,300	13.7	<0.05	<0.25	1.07	NR	NR	0.15
	Jun-24	7.73	7.69	36,100	35,400	23,000	<1	<1	322	322	4,430	2,040	265	916	6,720	64	11,800	13.9	<0.05	<0.25	1.01	0.1	0.18	0.06
	Sept-24	-	7.46	-	33,900	22,000	<1	<1	304	304	4,540	1,930	256	948	6,960	67	12,100	13.9	<0.05	<0.25	1.03	<0.05	<0.01	0.06
	Dec-24	6.50	7.59	34,400	34,300	22,300	<1	<1	344	344	4,740	2,050	292	975	6,990	66	10,400	14	<0.05	<0.25	1.34	0.09	<0.01	0.09
	Feb-25	7.09	7.28	34,100	32,200	20,900	<1	<1	329	329	4,390	2,190	239	921	6,560	66	9,940	13.7	<0.05	<0.25	1.35	0.07	<0.01	0.02
	May-25	6.63	7.35	25,020	26,500	17,200	<1	<1	292	292	3,070	1,630	171	642	5,510	55	9,250	14.6	<0.02	<0.1	0.407	<0.05	0.27	0.02
WTD13	Feb-23		7.9		34,245	25,130	<5	<5	400	400	5,357	2,400	287	1,126	8,516	102	10,095	14	<20	56	990	0.03	0.2	<0.01
	May-23		7.7		29,436	20,010	<5	<5	349	349	5,277	2,100	265	1,120	11,230	105	9,830	15	<20	29	7.2	<0.02	0.11	0.04
	Aug-23		7.7		39,320	24,560	<5	<5	352	352	4,300	2,200	230	890	7,100	55	11,840	14	17	33	18	<0.02	0.09	0.02
	Nov-23		7.6		41,796	25,960	<5	<5	371	371	4,308	2,200	240	900	7,100	70	10,330	15	41	15	7.6	<0.02	<2.0	0.03
	Feb-24	8.08	7.44	NR	38,400	27,700	NR	NR	NR	NR	NR	2,340	208	1,110	7,890	NR	13,000	8.51	<0.05	<0.25	0.064	NR	NR	NR
	Jun-24	8.45	8.14	37,800	36,000	23,400	<1	<1	361	361	4,050	2,070	248	834	6,640	55	12,100	15.6	<0.05	<0.25	0.02	<0.05	0.17	0.04
	Sept-24	-	8.04	36,500	34,700	22,600	<1	<1	383	383	4,450	1,990	256	926	7,480	63	11,300	14.9	<0.05	<0.25	0.017	<0.05	0.19	<0.02
	Dec-24	6.55	7.69	35,100	35,800	23,300	<1	<1	438	438	4,710	2,330	313	953	7,120	58	10,600	14	<0.05	<0.25	2.07	0.03	<0.01	0.08
	Feb-25	-	7.37	37,300	35,600	23,100	<1	<1	439	439	4,760	2,480	281	985	7,520	64	12,300	14	<0.05	<0.25	4.01	0.08	0.01	<0.01
	May-25	-	7.38	36,400	37,500	24,400	<1	<1	381	381	4,860	2,320	296	1,000	7,520	66	13,600	15.2	<0.05	<0.25	2.49	<0.05	0.11	<0.01

9.4 SOUTH-EASTERN AQUIFER – FIGURES 22 & 23

As for the north-eastern aquifer, bores screened in the south-eastern aquifer have shown high levels of variability in salinity, generally between 10,000 and 40,000 mg/L TDS. During the period of review, the salinity levels for all bores were within their historical ranges, with most tending to be lower.

In active operations, pumped bores typically show an increase in salinity with pumping rates. Only limited data are available for the monitoring period; these data suggest the extraction rates did not have an appreciable impact on the aquifer. Salinities ranged from 17,900 to 24,600 mg/L TDS; similar to those recorded while the mine was previously under care and maintenance (2013-2016), and data collected since operations ceased in mid-2025.

Groundwater pH in pumped bores ranged from slightly acidic (5.62, WTD29) to neutral (7.79, WTC34). In the 2019/2020 period of review an acidifying trend was observed in WTD29 and WTD34. The onset of the decline in pH correlates with the reduction in pumping from the south-eastern borefield, and the subsequent recovery of water levels within the aquifer and the hydraulically linked underground workings. It is postulated that the cause of the acidification is the re-submergence of the underground workings and the mobilisation of hydrogen ions that have been produced through the oxidisation of sulphides. The major components analyses (Table 10) for these bores are similar to those of bores affected by TSF leakage, being acidic, with low levels of alkalinity, and comparatively high concentrations of aluminium, iron and manganese. The bores were pumped sparingly prior to decommissioning, and the water level has returned to about natural levels and the water chemistry results are consistent with the above theory, with iron and manganese concentrations lowering progressively as an inverse relationship with water level.

Bores WTD10, 11 and 21A are located in the western portion of the South-Eastern Aquifer. No samples were taken from WTD11 during 2023-25; samples from WTD 10 and 21A were within historical limits. There was some discrepancy between field and laboratory readings in bore WTD10, perhaps owing to the holding times or equipment calibration.

9.5 TSF1 MONITORING/RECOVERY BORES – FIGURES 24 & 25

The now-decommissioned TSF1 is monitored by bores MB01, MB08, MB17-20. Salinity levels in the bores have been highly variable, ranging from 10,000 to 40,000 mg/L TDS.

Although water levels have risen in MB01 (Fig. 14) the salinity has remained relatively stable (Fig. 24). This bore recorded low water yields during construction, indicating that the local bedrock is of low hydraulic conductivity, and that there are no significant pathways for leakage from the TSF1. Groundwater pH is tending slightly more acidic, likely due to minor localised ferrolysis type reactions that have been seen in other TSF monitoring bores.

Since its construction in February 2017, monitoring/recovery bore MB08 (Fig. 25) has had relatively stable salinity levels, ranging from 27,000 to 37,000 mg/L TDS. All measurements were within this range in the period of review.

Monitoring bores MB17 to MB20 (Figs. 24 and 25) were constructed in February 2022, and supersede the observation points MB02, MB03, MB03A, MB04, MB05 and MB06. Salinity data for the bores are similar to the historical range observed in MB01 to MB08, between 15,000 to 42,000 mg/L TDS. Groundwater from bores MB17, 18 and 20 (Figs. 24 & 25) was circum-neutral (6.5 to 7.5 pH), whereas pH values of samples from MB19 (Fig. 24) are similar to those (< 6.0) in other TSF bores that have been influenced by ferrolysis (see Rockwater, 2023).

Table 10: Groundwater Major Components Analysis Results – South Eastern Aquifer & TSF1

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
South-Eastern Aquifer																								
WTD22	Feb-23	Not Sampled																						
	May-23		6.8		29,283	19,890	<5	<5	468	468	5,919	3,000	324	1,240	10,670	98	TBA	13	<20	90	490	<0.02	0.14	<0.01
	Aug-23		6.8		38,700	26,200	<5	<5	483	483	5,100	2,700	310	1,100	7,200	60	12,750	14	13	16	430	<0.02	2.03	0.13
	Nov-23		6.3		39,829	25,050	<5	<5	508	508	4,870	2,800	300	1,000	6,900	72	12,850	15	150	300	4,900	<0.02	<2.0	<0.01
	Feb-24	-	7.44	-	34,600	24,600	<1	<1	466	466		2,690	346	1,060	6,900	66	11,200	12.3	<0.05	<0.25	0.477	NR	NR	0.03
	Dec-24	6.49	7.65	34,200	36,400	23,700	<1	528	528	528	5,550	2,770	393	1,110	7,240	63	10,500	13	<0.05	<0.25	0.472	NR	<0.01	0.03
	Feb-25	7.23	7.43	35,100	35,400	23,000	<1	<1	516	516	5,140	3,130	328	1,050	6,830	64	11,800	10.9	0.07	<0.25	0.509	<0.05	0.03	<0.01
	Oct-25	4.99	5.22	22,880	23,900	15,500	<1	<1	9	9	2,890	2,130	227	563	4,260	32	8,210	21	2.52	11.8	0.824	0.09	0.04	0.01
WTD23	Feb-23		7.4		27,212	19,530	<5	<5	711	711	4,340	2,100	304	869	5,940	96	8,733	20	<20	82	460	0.1	0.2	<0.01
	May-23		7		22,892	12,320	<5	<5	729	729	4,240	1,700	295	850	14,190	92	9,535	23	<20	920	220	<0.02	0.12	<0.01
	Aug-23	Not Sampled																						
	Nov-23		6.4		28,819	17,900	<5	<5	744	744	3,427	1,700	250	680	5,000	67	11,820	22	130	1,600	2,300	<0.02	<2.0	<0.01
	Feb-24	-	7.41	-	27,900	19,000	<1	<1	773	773		1,500	310	734	5,610	66	9400	23.8	<0.05	2.78	0.204	NR	NR	<0.01
	Dec-24	6.70	7.75	26,700	27,600	17,900	<1	800	800	800	3,720	1,760	305	718	5,280	62	8,010	22	<0.05	2.5	0.217	NR	<0.01	0.02
	Feb-25	7.25	7.61	22,470	26,700	17,400	<1	<1	828	828	3,570	1,890	246	717	5,280	64	9,250	19.9	0.07	2.73	0.224	0.11	<0.01	<0.01
	Oct-25	6.85	6.85	27,100	27,600	17,900	<1	<1	644	644	3,820	2,810	301	745	4,910	57	8,820	15	0.03	0.524	1.62	0.16	0.01	<0.01
WTD29	Feb-23		6.3		20,759	14,840	<5	<5	6	6	3,787	2,000	302	736	4,419	89	5,968	18	440	5,100	1,300	0.15	2.95	0.02
	May-23		5.1		17,970	11,950	<5	<5	21	21	3,835	1,900	298	750	5,085	84	6,675	18	400	4,000	1,200	<0.02	0.14	<0.01
	Aug-23		5.9		29,820	19,300	<5	<5	117	117	3,800	2,400	290	750	4,900	58	7,080	7.8	<10	27	790	0.4	8.4	0.02
	Nov-23		5.2		23,232	14,430	<5	<5	<5.0	<5.0	3,543	2,100	280	690	3,900	75	5,245	17	74	98,000	2,000	0.11	<2.0	0.01
	Feb-24	-	6.06	-	23,700	16,200	<1	<1	73	73		1,820	336	716	4,330	75	7980	19.7	0.35	18.2	1.24	NR	NR	<0.01
	Dec-24	5.62	6.87	28,300	28,300	18,400	<1	243	243	243	4,580	2,050	418	860	5,370	79	8,270	15	<0.05	4.92	1.02	NR	<0.01	0.02
	Feb-25	6.34	6.69	30,400	28,000	18,200	<1	<1	357	357	4,580	2,360	363	892	5,580	80	10,200	13.6	<0.05	4.54	0.896	0.19	<0.01	<0.01
	Oct-25	6.02	6.02	18,370	20,400	13,300	<1	<1	93	93	2,960	1,770	262	561	3,530	55	7,110	13	0.37	<0.1	1.03	0.15	<0.05	0.01
WTD34	Feb-23		6.0		21,161	17,950	<5	<5	68	68	4,485	2,000	352	875	8,692	106	172	14	70	71	820	0.13	0.7	0.05

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
	May-23		5.8		18,119	11,610	<5	<5	70	70	3,201	1,900	28	760	6,930	80	166	13	<20	27	1,100	<0.02	0.09	<0.01
	Aug-23		5.8		21,740	14,950	<5	<5	72	72	3,100	1,800	250	610	3,900	55	6,200	13	14	460	940	<0.02	0.01	0.03
	Nov-23		6.5		33,915	21,330	<5	<5	576	576	4,764	2,300	340	950	5,700	81	12,230	15	<10	23	1,200	<0.02	<2.0	0.02
	Feb-24	-	7.37	-	32,500	22,500	<1	<1	532	532		1,980	398	1,020	6,400	77	10,800	14.9	<0.05	3.22	1.08	NR	NR	0.02
	Dec-24	6.89	7.79	33,400	33,200	21,600	<1	634	634	634	5,110	2,150	443	973	6,280	69	9,740	16	<0.05	8.35	0.695	NR	<0.01	0.02
	Feb-25	7.45	7.69	33,000	31,300	20,300	<1	<1	669	669	5,010	2,320	384	983	6,380	72	11,300	16.1	<0.05	6.61	0.688	0.08	0.01	<0.01
	Oct-25	6.70	7.12	24,360	26,000	16,900	<1	<1	462	462	3,940	2,000	295	777	4,560	64	8,980	16.2	0.02	0.29	0.962	0.16	<0.01	<0.01
WTD10	Feb-23		6.6		39,055	25,130	<5	<5	383	383	5,980	2,800	197	1,332	10,300	98	16,474	8.1	83	46	22	<0.02	1.8	0.04
	May-23		6.5		33,470	23,420	<5	<5	362	362	707	2,700	19	160	1,180	14	16,130	8.6	<20	<20	16	<0.02	0.15	0.01
	Aug-23		6.7		44,180	28,950	<5	<5	374	374	5,100	2,700	180	1,100	8,300	53	16,115	8.1	34	33	8	<0.02	4.55	0.03
	Nov-23		6.2		46,762	29,410	<5	<5	364	364	5,032	2,700	200	1,100	8,100	71	119,050	8.3	53	53	37	<0.02	4.9	0.03
	Feb-24	6.49	7.44	NR	38,400	27,700	NR	NR	NR	NR	NR	2,340	208	1,110	7,890	NR	13,000	8.51	<0.05	<0.25	0.064	NR	NR	NR
	Sept-24	6.49	7.44	43,200	40,700	26,400	<1	<1	378	378	5,600	2,330	197	1,240	8,250	65	13,000	NR	<0.05	<0.25	0.023	0.02	5.78	0.02
	Dec-24	6.15	7.48	39,500	40,900	26,600	<1	416	416	416	5,500	2,790	226	1,200	8,360	58	12,200	9	<0.05	<0.25	0.01	NR	6.41	0.06
	Feb-25	6.41	7.16	41,600	39,500	25,700	<1	<1	418	418	5,300	2,940	194	1,170	8,290	61	15,000	7.91	<0.05	<0.25	<0.005	<0.05	5.7	<0.02
	May-25	6.26	7.06	39,800	41,600	27,000	<1	<1	355	355	5,420	2,620	223	1,180	8,140	64	14,800	8.96	<0.05	<0.25	0.026	<0.05	5.3	<0.01
	Oct-25	6.68	7.04	39,500	40,400	26,300	<1	<1	389	389	5,080	2,400	221	1,100	7,960	59	15,300	9.06	<0.05	<0.25	0.102	0.06	5.79	<0.01
WTD11	Feb-23		6.7		30,262	21,950	<5	<5	721	721	5,467	2,000	267	1,165	6,610	108	5,097	12	22	46	32	<0.02	14.6	0.11
	May-23		6.9		26,189	14,430	<5	<5	708	708	6,114	2,000	295	1,305	6,820	119	4,995	13	34	48	24	<0.02	0.28	0.07
	Aug-23		6.8		34,720	22,450	<5	<5	714	714	4,800	1,900	250	1,000	5,900	70	11,780	12	15	18	19	<0.02	2.98	0.13
	Nov-23		6.6		35,871	22,280	<5	<5	681	681	4,745	1,900	250	1,000	5,600	83	14,470	13	38	35	33	<0.02	26	0.17
	2024-25	NOT SAMPLED																						
WTD21A	Feb-23		7.2		30,477	22,400	<5	<5	555	555	6,372	2,600	385	1,313	13,270	122	236	12	<20	130	2,100	<0.02	0.27	0.07
	May-23		7.1		26,291	18,300	<5	<5	555	555	5,655	2,600	342	1,165	9,375	95	245	13	<20	47	1,900	<0.02	0.1	<0.01
	Aug-23		6.9		35,280	22,410	<5	<5	587	587	4,600	2,500	290	940	6,300	58	45	13	<10	37	1,000	<0.02	0.1	<0.01
	Nov-23		6.8		34,454	21,400	<5	<5	602	602	4,433	2,400	290	900	6,100	71	527	16	19	110	1,700	<0.02	<2.0	0.06
	2024-5	NOT SAMPLED																						

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
TSF1 Monitoring bores																								
MB01	Feb-23	-	6.7	-	34,870	25,980	<5	<5	156	156	3,593	2,600	127	795	8,659	78	16,752	18	<20	120	180	0.02	3.58	0.08
	May-23	-	6	-	31,062	22,490	<5	<5	137	137	3,938	2,500	125	880	8,885	85	11,650	20	120	380	150	<0.02	0.08	0.06
	Aug-23	-	5.8	-	41,920	26,090	<5	<5	145	145	3,200	2,700	110	720	7,500	28	11,650	19	27	49	170	<0.02	3.37	<0.01
	Nov-23	-	5.3	-	38,896	24,310	<5	<5	160	160	3,497	2,600	130	770	8,000	41	15,810	20	<10	13	150	<0.02	2.7	17.1
	Feb-24	NOT SAMPLED																						
	Jun-24	7.06	6.93	38,700	37,400	24,300	<1	<1	128	128	3,250	2,320	113	721	7,690	29	13,200	22.3	<0.05	<0.25	0.196	<0.05	2.41	0.02
	Sep-24	6.53	6.7	38,800	36,500	23,700	<1	<1	150	150	3,460	2,250	113	772	8,460	32	12,100	21.1	<0.05	<0.25	0.165	<0.05	2.87	<0.02
	Dec-24	5.54	7.04	36,200	37,500	24,400	<1	<1	150	150	3,550	2,520	136	779	8,030	30	10,900	21.4	<0.05	<0.25	0.184	0.03	<0.01	0.04
	Feb-25	6.22	6.28	37,300	37,800	24,600	<1	<1	140	140	3,450	2,440	112	771	7,840	30	11,000	20.5	<0.05	<0.25	0.209	<0.05	2.67	0.03
	May-25	5.63	6.49	36,200	38,100	24,800	<1	<1	123	123	3,560	2,480	130	787	7,960	33	13,400	20.9	<0.05	<0.25	0.194	0.02	2.76	0.04
MB08	Feb-23	-	7.2	-	42,039	31,620	<5	<5	402	402	6,414	2,900	423	1,300	5,539	113	22,182	20	<20	380	3,000	0.05	0.27	0.05
	May-23	-	6.6	-	36,118	29,850	<5	<5	404	404	6,886	2,500	505	1,365	9,360	128	26,420	21	21	30	3,000	0.02	0.05	0.02
	Aug-23	-	6.7	-	47,000	31,920	<5	<5	409	409	5,800	2,600	470	1,100	8,000	63	26,425	20	11	23	2,400	<0.02	<0.01	0.07
	Nov-23	-	6.1	-	50,732	32,730	<5	<5	422	422	6,144	2,500	480	1,200	8,600	79	18,175	21	<10	14	2,600	<0.02	<2.0	5.73
	Feb-24	-	7.09	-	43,200	32,300	<1	<1	378	378	-	2,300	517	1,230	8,790	74	14,300	23.1	0.24	0.41	3.34	-	-	0.04
	Jun-24	-	7.49	43,000	42,800	27,800	<1	<1	400	400	5,100	2,330	455	964	7,340	57	15,800	22.6	<0.05	<0.25	2.09	0.08	0.17	0.05
	Sep-24	4.43	7.07	43,300	42,100	27,400	<1	<1	307	307	6,470	2,350	399	1,330	9,530	68	14,900	23.2	0.51	<0.25	5.54	0.12	0.45	<0.02
	Dec-24	6.99	7.42	42,500	42,900	27,900	<1	<1	407	407	6,360	2,360	517	1,230	8,480	66	12,900	22.7	0.17	0.83	3.99	0.18	<0.01	0.03
	Feb-25	6.98	6.81	42,000	42,600	27,700	<1	<1	357	357	6,170	2,350	460	1,220	8,520	69	14,100	22.2	0.12	1.81	3.86	0.15	0.14	<0.02
	May-25	6.09	6.76	42,000	43,700	28,400	<1	<1	240	240	6,230	2,570	434	1,250	8,500	72	15,800	24.9	0.3	0.61	4.49	0.16	1.39	0.01
MB17	Feb-23	-	7.1	-	28,597	19,550	<5	<5	528	528	4,603	2,700	340	911	8,600	82	7,661	10	<20	370	4,200	0.04	0.15	0.1
	May-23	-	7.2	-	25,903	12,240	<5	<5	536	536	4,185	2,800	306	830	8,930	74	8,065	11	<20	530	4,300	<0.02	0.11	<0.01
	Aug-23	-	6.7	-	29,660	18,480	<5	<5	476	476	3,200	2,300	270	610	5,500	38	9,330	10	13	28	1,800	<0.02	<0.01	0.2
	Nov-23	-	6.5	-	35,212	21,870	<5	<5	539	539	3,840	2,800	300	750	6,500	59	1,090	12	21	13	4,700	0.1	<2.0	0.02
	Feb-24	-	7.66	-	32,500	23,000	<1	<1	567	567	-	2,510	345	793	6,790	51	11,000	11.3	<0.05	2.85	5.03	-	-	0.07
	Jun-24	8.1	7.68	44,100	41,000	26,600	<1	<1	520	520	4,920	2,480	419	941	8,870	65	14,100	17.6	<0.05	2.98	1.6	0.08	<0.01	0.06

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
	Sep-24	7.61	7.65	34,100	32,500	21,100	<1	<1	574	574	4,040	2,740	326	784	7,090	50	10,100	11.7	<0.05	<0.25	4.89	0.85	<0.01	0.04
	Dec-24	7.03	7.96	25,470	25,400	16,500	<1	<1	457	457	3,070	2,100	266	585	5,120	39	7,800	10.9	0.01	0.1	0.838	0.24	0.01	0.06
	Feb-25	7.46	7.65	27,660	27,000	17,600	<1	<1	508	508	3,260	2,230	227	623	5,300	40	8,050	10.6	<0.01	0.12	2.12	0.28	0.1	0.04
	May-25	6.9	7.49	33,200	33,600	21,800	<1	<1	539	539	4,230	2,820	340	822	6,930	52	11,500	10.1	<0.05	0.73	4.93	0.73	0.03	0.04
MB18	Feb-23	-	7.2	-	38,139	24,990	<5	<5	465	465	6,271	2,700	465	1,240	12,910	125	6,764	9.6	<20	41	2,100	0.07	0.17	0.07
	May-23	-	7.1	-	33,191	22,810	<5	<5	448	448	5,369	2,600	376	1,075	12,360	105	7,425	9.1	<20	<20	2,700	<0.02	0.11	<0.01
	Aug-23	-	7	-	43,900	28,570	<5	<5	458	458	4,600	2,600	350	900	8,200	61	4,465	11	27	50	880	<0.02	0.18	<0.01
	Nov-23	-	5.9	-	42,697	26,520	<5	<5	441	441	5,004	2,700	370	990	8,500	84	14,790	9.6	22	<10	3,000	0.17	<2.0	0.06
	Feb-24	-	7.77	-	41,200	28,700	<1	<1	470	470		2,380	411	992	8,470	76	13,800	8.95	0.1	<0.25	2.23	NR	NR	0.08
	Jun-24	-	7.76	43,300	40,700	26,400	<1	<1	464	464	4,720	2,420	374	920	8,150	65	14,000	10.5	<0.05	<0.25	2.6	0.42	0.05	0.08
	Sept-24	7.58	7.58	42,400	40,400	26,300	<1	<1	547	547	5,430	2,510	425	1,060	9,750	80	15,800	11.3	<0.05	0.42	3.93	0.47	0.01	0.06
	Dec-24	6.65	7.66	38,600	40,600	26,400	<1	<1	529	529	5,140	2,560	460	970	8,370	69	12,300	10	<0.05	0.43	3.45	0.66	0.01	0.1
	Feb-25	7.24	7.24	40,600	39,200	25,500	<1	<1	583	583	5,000	2,530	411	964	8,540	72	12,200	11.7	<0.05	0.68	4.36	0.34	<0.01	<0.02
	May-25	6.59	7.3	41,200	41,400	26,900	<1	<1	517	517	5,080	2,620	431	973	8,530	76	15,100	11.9	<0.05	0.63	4.3	0.38	0.02	0.03
MB19	Feb-23	-	4.6	-	41,114	30,030	<5	<5	<5	<5	6,814	2,800	115	1,584	20,000	82	150	35	45,000	1,400	2,300	0.3	3.16	0.04
	May-23	-	4	-	34,697	23,450	<5	<5	<5	<5	5,908	2,700	89	1,380	12,280	68	214	34	39,000	950	2,400	0.12	0.11	<0.01
	Aug-23	-	3.7	-	46,100	31,480	<5	<5	<5	<5	5,100	2,700	98	1,200	8,500	34	242	30	24,000	300	2,100	<0.02	2.84	<0.01
	Nov-23	-	4.8	-	46,015	28,940	<5	<5	<5.0	<5.0	5,269	2,700	130	1,200	10,000	53	590	34	32,000	490	2,700	0.11	2.2	0.03
	Feb-24	-	4.13	-	41,400	30,700	<1	<1	<1	<1	-	2,400	96	1,180	8,370	35	14,500	37.3	37.2	1.57	2.13	-	-	0.03
	Jun-24	-	4.07	45,000	41,800	27,200	<1	<1	<1	<1	4,450	2,380	82	1,030	7,840	31	14,800	39.5	32.2	1.69	2.13	0.36	1.49	0.04
	Sep-24	4.73	4.07	42,800	40,600	26,400	<1	<1	<1	<1	4,970	2,470	94	1,150	8,790	34	14,500	36.6	32.6	1.57	2.24	0.43	1.48	<0.02
	Dec-24	4.31	4.11	41,200	41,800	27,200	<1	<1	<1	<1	5,080	2,550	106	1,170	8,460	31	12,100	35.6	31.9	1.61	2.35	0.61	0.02	0.03
	Feb-25	4.42	4.07	41,100	39,500	25,700	<1	<1	<1	<1	4,910	2,470	88	1,140	8,300	33.0	12,600	34.9	32.4	1.63	2.39	0.5	1.32	0.07
	May-25	3.63	4.17	41,300	42,200	27,400	<1	<1	<1	<1	5,090	2,950	92	1,180	8,540	37	15,400	35.9	31	1.73	2.37	0.42	1.38	<0.01
MB20	Feb-23	-	6	-	41,431	30,810	<5	<5	414	414	8,044	2,800	337	1,748	20,020	117	171	21	<20	4,000	2,500	0.02	0.2	0.03
	May-23	-	6.6	-	35,753	26,200	<5	<5	388	388	7,380	2,800	315	1,600	11,110	108	164	21	51	3,200	2,500	<0.02	0.1	<0.01
	Aug-23	-	6.6	-	47,300	30,690	<5	<5	388	388	6,100	2,800	290	1,300	8,700	57	239	20	26	140	2,200	<0.02	<0.01	<0.01

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
	Nov-23	-	5.9	-	46,714	29,380	<5	<5	348	348	6,056	2,700	280	1,300	8,500	75	575	21	54	40	2,600	<0.02	<2.0	0.01
	Feb-24	-	7.22	-	42,100	31,100	<1	<1	370	370	-	2,440	312	1,300	8,700	66	14,600	21.1	<0.05	6.09	2.5	-	-	0.01
	Jun-24	-	7.33	43,400	42,300	27,500	<1	<1	312	312	5,340	2,450	274	1,130	8,050	54	14,800	21.5	0.08	1.83	2.76	0.1	<0.01	0.04
	Sep-24	6.68	7.04	42,800	41,200	26,800	<1	<1	275	275	6,240	2,450	289	1,340	9,620	65	14,200	19.9	<0.05	7.02	3.5	<0.05	<0.01	<0.02
	Dec-24	6.43	7.21	42,000	41,900	27,200	<1	<1	265	265	5,780	2,440	305	1,220	8,400	56	15,200	19.5	<0.05	7.24	3.4	0.16	<0.02	0.13
	Feb-25	6.54	6.66	41,800	41,900	27,200	<1	<1	268	268	6,040	2,500	273	1,300	9,050	61	13,700	18.8	<0.05	8.22	3.68	0.11	<0.01	0.02
	May-25	5.99	6.82	41,400	43,100	28,000	<1	<1	228	228	5,680	2,640	278	1,210	8,400	59	15,600	19.4	<0.05	0.43	3.28	0.13	<0.01	<0.01

9.6 SW PIT TSF MONITORING BORES – FIGURE 26

Data are available for MB10 to MB12 (Fig. 26) since their construction in May 2019. MB09 was mined out at the end of 2023. Laboratory salinity records (Table 11) are very consistent in this area; ranging from 19,300 to 29,300 mg/L TDS during the period of review, with relatively stable long-term trends. The pH measurements are also quite stable in bores MB10 &11, ranging from pH 4.8 to 6.7. MB12 is more acidic ranging from pH 3.8 to 5.1. The low pH measurements observed in this bore is not likely to be mining-related – rather indicative of the ferrolysis type reaction that has been seen in other TSF monitoring bores.

9.7 NORTH-WEST WD3 – FIGURE 27 & 28

Seven monitoring bores installed around WD3 in 2023 (MB30-36) were used for water quality monitoring in 2024 onwards. The groundwater in this area is saline, ranging from 18,800 to 32,000 mg/L TDS and acidic, with field pH ranging from 3.6 to 6.8. A value of 9.3 recoded in December 2024 from MB30 is likely to be a recording or instrument calibration error.

9.8 OTHER BORES

Production bore WTD19 (located in bushland, 1 km east of the Mt Cattlin site) has an artesian head and has been capped since its construction in 2010. A small drill hole that can be re-plugged has been made to allow water sampling. No water quality data are available for the review period.

Unequipped production bore WTD20 (Fig. 29) showed high variability in salinity levels from 2017 to 2019, but has been stable at around 28,000 to 35,000 mg/L TDS since 2020. The reason for this trend is unclear, but because the bore is located near an ephemeral drainage line, the salinity may reflect changes within the catchment.

Table 11: Groundwater Major Components Analysis Results – South-West Pit TSF, WD3 & Other Bores

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
South-West Pit TSF																								
MB10	Feb-23	-	5.7	-	38,340	28,060	<5	<5	124	124	5,325	3,100	192	1,176	9,448	85	121	18	510	45	2,400	0.23	5.29	0.07
	May-23	-	5.7	-	33,168	19,340	<5	<5	120	120	5,630	3,100	192	1,250	11,900	94	12,565	18	450	27	2,200	0.14	0.24	0.02
	Aug-23	-	5.4	-	45,760	28,251	<5	<5	68	68	4,500	3,100	140	1,000	8,400	39	14,910	17	1,200	78	1,200	0.3	3.98	<0.01
	Nov-23	-	5.4	-	43,232	27,020	<5	<5	160	160	4,363	3,000	130	980	8,200	51	18,220	17	3,000	44	890	<0.02	12	0.1
	Feb-24	-	5.83	-	40,100	28,100	<1	<1	60	60	-	2,700	134	1,030	8,570	39	13,500	17.3	2.76	<0.25	0.756	-	-	0.04
	Jun-24	5.7	6.24	42,000	40,100	26,100	<1	<1	50	50	3,900	2,710	115	877	7,780	34	13,700	16.4	2.33	0.51	0.726	0.18	13.9	0.03
	Sep-24	6.68	5.92	42,900	40,200	26,100	<1	<1	44	44	4,540	3,000	118	1,030	8,510	36	12,200	17.3	3.15	<0.25	0.741	0.16	13.6	0.03
	Dec-24	5	6.47	38,900	41,500	27,000	<1	<1	110	110	4,710	3,120	171	1,040	8,830	36	12,200	13.3	1.46	<0.25	0.533	0.11	0.01	0.06
	Feb-25	6.1	6.34	42,200	40,000	26,000	<1	<1	222	222	4,480	3,120	188	975	8,600	36	14,100	11.2	0.26	<0.25	0.197	0.09	16.8	<0.02
	May-25	5.61	6.46	40,000	41,300	26,800	<1	<1	222	222	4,480	3,120	188	975	8,600	36	14,100	11.2	0.33	<0.25	0.22	<0.05	15.2	<0.02
MB11	Feb-23	-	5.6	-	39,048	29,130	<5	<5	101	101	5,293	3,000	156	1,190	10,440	81	9,857	17	3,100	<20	770	0.08	7.76	0.04
	May-23	-	5.4	-	33,787	21,570	<5	<5	115	115	5,715	3,100	160	1,290	11,560	94	13,780	17	1,700	<20	600	0.02	0.21	0.03
	Aug-23	-	4.8	-	47,500	29,290	<5	<5	<5	<5	4,500	3,000	120	1,000	8,500	34	13,790	17	11,000	74	870	0.19	4.9	0.03
	Nov-23	-	4.9	-	44,569	28,570	<5	<5	58	58	4,495	2,900	150	1,000	8,400	52	15,740	17	3,700	58	730	<0.02	10	0.29
	Feb-24	-	4.78	-	40,600	29,200	<1	<1	2	2	-	2,530	121	1,100	8,720	35	14,000	19.4	18.6	0.56	1.73	-	-	0.21
	Jun-24	6.35	6.55	43,700	40,800	26,500	<1	<1	120	120	4,270	2,700	150	947	8,310	36	14,000	15.4	1.45	<0.25	0.574	0.07	11.6	0.09
	Sep-24	5.65	6.68	44,900	41,500	27,000	<1	<1	144	144	4,770	3,130	161	1,060	8,730	37	12,700	15.8	0.25	<0.25	0.373	0.04	11.1	0.06
	Dec-24	5.39	6.71	38,000	39,200	25,500	<1	<1	200	200	4,400	2,830	188	954	8,420	36	11,400	14.2	0.07	<0.25	0.344	0.1	<0.01	0.08
	Feb-25	6.03	6.31	39,500	37,400	24,300	<1	<1	213	213	4,070	2,900	159	891	8,050	36	13,100	13	0.08	<0.25	0.31	<0.05	17.7	0.03
	May-25	5.73	6.55	30,900	31,600	20,500	<1	<1	486	486	3,230	2,190	114	715	7,280	35	10,600	13.9	0.04	<0.1	0.251	0.1	20.7	0.08
MB12	Feb-23	-	4.6	-	31,550	24,690	<5	<5	<5	<5	4,248	2,300	127	954	7,460	66	15,316	23	14,000	98	720	0.18	21.2	0.03
	May-23	-	4	-	30,501	19,510	<5	<5	<5	<5	5,107	2,500	131	1,160	10,270	83	8,410	24	18,000	130	900	0.28	0.47	0.02
	Aug-23	-	3.8	-	41,620	26,070	<5	<5	<5	<5	4,600	2,700	96	1,000	7,000	32	8,410	38	59,000	470	450	0.14	5.18	0.05
	Nov-23	-	5.1	-	39,359	24,910	<5	<5	<5.0	<5.0	4,770	2,600	95	1,100	7,800	36	12,915	35	47,000	290	530	0.1	44	0.36

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
	Jun-24	4.92	4.51	36,300	34,700	22,600	<1	<1	<1	<1	4,030	2,320	104	915	6,350	43	11,400	22.4	14.5	<0.25	0.842	0.07	38.8	0.06
	Sep-24	7.82	4.66	37,200	34,400	22,400	<1	<1	<1	<1	4,760	2,120	107	1,090	6,530	54	10,900	19.4	8.17	<0.25	0.568	0.26	29	<0.05
	Dec-24	4.13	4.7	33,800	34,600	22,500	<1	<1	<1	<1	4,570	2,600	116	1,040	6,790	48	10,400	17.6	7.54	<0.25	0.549	0.21	<0.01	0.14
	Feb-25	4.31	4.75	35,300	33,200	21,600	<1	<1	<1	<1	4,540	2,690	102	1,040	6,730	52	11,800	15.3	5.85	0.49	0.478	0.14	37	0.01
Waste Dump 3																								
MB30	Sep-24	3.8	4.06	48,500	45,500	29,600	<1	<1	<1	<1	4,190	2,230	178	909	9,510	28	14,500	NR	79.8	13.8	2.71	<0.01	<0.01	0.68
	Dec-24	9.3	4.03	44,100	45,900	29,800	<1	<1	<1	<1	4,370	2,440	227	924	10,000	29	14,200	38.7	65.5	10.4	4.71	NR	<0.01	0.48
	Feb-25	4.6	4.51	48,500	43,300	28,100	<1	<1	<1	<1	4,860	3,010	297	1,000	10,000	47	15,500	18.9	14.5	5.16	5.79	<0.05	<0.05	0.46
	Oct-25	6.77	7	47,300	49,300	32,000	<1	<1	338	338	5,310	2,410	394	1,050	10,300	53	18,800	10.6	<0.05	9.47	15.5	1.17	0.04	0.09
MB31	Sep-24	6.33	7.28	31,000	29,700	19,300	<1	<1	167	167	2,680	1,750	139	567	6,260	16	9,280	NR	0.14	<0.25	0.018	0.01	3.67	0.06
	Dec-24	5.99	7.43	30,000	29,800	19,400	<1	<1	187	187	2,710	2,020	168	557	6,630	17	8,970	13.8	<0.05	<0.25	0.009	NR	4.72	0.08
	Feb-25	6.61	7.03	30,600	28,900	18,800	<1	<1	190	190	2,540	2,220	138	533	6,460	15	10,100	13	<0.05	<0.25	0.011	<0.05	<0.01	0.05
	Oct-25	6.40	6.96	29,200	31,500	20,500	<1	<1	172	172	2,450	2,000	144	507	6,120	15	10,500	14.6	0.04	<0.1	0.011	0.07	<0.01	<0.01
MB32	Sep-24	-	6.84	32,900	30,900	20,100	<1	<1	116	116	2,880	1,830	123	624	6,460	27	9,720	NR	0.07	<0.25	0.456	0.03	0.2	0.52
	Dec-24	5.51	7.01	30,700	31,400	20,400	<1	<1	126	126	2,840	2,100	147	600	6,690	23	9,640	16.6	0.08	<0.25	0.482	NR	0.28	0.08
	Feb-25	6.18	6.55	32,500	30,300	19,700	<1	<1	128	128	2,740	2,300	129	587	6,570	25	10,800	16	0.06	<0.25	0.487	0.15	<0.01	0.12
	Oct-25	5.95	6.44	31,300	32,400	21,100	<1	<1	124	124	2,740	2,090	137	582	6,570	24	11,500	16.2	0.13	<0.1	0.409	0.05	<0.01	0.04
MB33	Sep-24	4.46	4.7	37,800	36,600	23,800	<1	<1	<1	<1	3,930	2,540	110	888	7,290	25	11,400	NR	11.4	<0.25	0.529	0.14	40.2	0.12
	Dec-24	3.87	4.43	35,000	34,800	22,600	<1	<1	<1	<1	3,850	2,910	125	860	7,320	19	10,500	36.3	17.7	<0.25	0.496	NR	61.1	0.03
	Feb-25	4.42	4.27	37,100	35,300	22,900	<1	<1	<1	<1	4,320	3,610	134	968	7,410	19	11,800	35.3	19.9	<0.25	0.536	0.08	66.6	0.01
	Oct-25	5.06	5.31	-	9,250	6,010	<1	<1	4	4	391	919	8	90	1,860	5	2,980	29.1	1.4	<0.05	0.029	0.05	19.4	<0.02
MB34	Sep-24	4.18	6.59	45,400	42,400	27,600	<1	<1	83	83	4,970	2,460	194	1,090	8,560	50	13,400	NR	5.58	0.51	0.867	0.03	4.42	0.07
	Dec-24	5.32	6.82	43,100	42,900	27,900	<1	<1	108	108	4,890	2,680	244	1,040	8,940	53	13,100	18.1	<0.05	<0.25	0.473	NR	4.15	0.09
	Feb-25	6	6.43	43,400	42,600	27,700	<1	<1	108	108	4,680	2,940	209	1,010	8,240	54	15,300	17.2	0.09	<0.25	0.455	0.11	4.15	0.06
	Oct-25	4.98	5	40,700	42,600	27,700	<1	<1	1	1	4,620	2,480	185	1,010	8,420	49	16,300	19.6	6.66	2.34	0.409	0.17	4.38	0.04
MB35	Sep-24	3.81	4.13	46,600	43,600	28,300	<1	<1	<1	<1	5,740	2,460	172	1,290	8,330	53	14,000	NR	37.7	<0.25	1.6	0.44	3.08	0.08

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
	Dec-24	3.6	4.04	43,700	44,400	28,900	<1	<1	<1	<1	6,090	2,710	198	1,360	9,190	51	13,800	32.1	37.1	<0.25	1.79	NR	2.98	0.04
	Feb-25	3.94	4.06	44,600	40,800	26,500	<1	<1	<1	<1	5,360	2,790	153	1,210	8,240	49	15,100	30.1	36.4	<0.25	1.69	0.41	2.88	<0.02
	Oct-25	4.35	4.42	44,000	44,500	28,900	<1	<1	<1	<1	5,680	2,460	147	1,290	8,560	54	17,200	31.9	21.7	<0.25	1.8	0.35	3.87	0.01
MB36	Sep-24	-	6.95	45,800	43,200	28,100	<1	<1	133	133	5,460	2,430	224	1,190	8,800	49	13,300	NR	0.06	<0.25	0.201	0.04	4.43	0.09
	Dec-24	5.6	7.1	42,400	43,400	28,200	<1	<1	148	148	5,820	2,620	270	1,250	9,170	51	13,000	16.3	<0.05	<0.25	0.228	NR	4.17	0.14
	Feb-25	6.13	6.56	44,200	43,500	28,300	<1	<1	139	139	5,540	2,790	238	1,200	9,150	53	16,200	15.6	0.09	0.29	0.253	0.07	4.06	<0.02
	Oct-25	6.05	6.6	39,200	42,700	27,800	<1	<1	150	150	5,020	2,330	247	1,290	8,560	147	17,100	15.6	0.12	<0.25	0.138	0.06	4.45	0.02
Other Bores																								
WTD19	Feb-23	-	7.2	-	39,934	38,000	<5	<5	400	400	8,800	3,700	529	1,815	12,540	166	16,866	24	<20	6,700	1,400	0.11	0.97	0.04
	May-23	-	6.7	-	43,121	32,620	<5	<5	395	395	9,059	3,900	550	1,865	14,600	174	16,575	24	<20	4,200	1,300	0.03	0.1	<0.01
	Aug-23	-	6.4	-	25,880	15,360	<5	<5	407	407	8,200	4,100	530	1,700	11,000	99	15,980	23	<10	310	1,200	<0.02	0.04	0.02
	Nov-23	-	5.1	-	66,971	42,120	<5	<5	404	404	8,404	4,000	560	1,700	11,000	120	22,380	23	<20	650	1,300	<0.02	<2.0	0.02
	Dec-24	6.22	7.54	43,700	43,300	28,100	<1	663	663	663	6,210	2,880	492	1,210	9,090	81	13,200	19	<0.05	2.44	1.04	NR	<0.01	0.08
	May-25	-	7.04	54,000	56,000	36,400	<1	<1	398	398	9,040	4,000	650	1,800	11,200	113	20,400	21.3	<0.05	9.69	1.12	0.14	<0.01	<0.02
WTD20	Feb-23	-	7.5	-	41,699	31,360	<5	<5	628	628	6,671	3,000	404	1,374	10,240	130	21,949	19	<20	1,600	1,200	0.02	0.07	0.05
	May-23	-	6.6	-	36,019	29,020	<5	<5	615	615	6,942	2,900	420	1,430	13,050	140	20,130	19	<20	74	1,100	<0.02	0.1	<0.01
	Aug-23	-	6.8	-	49,620	30,810	<5	<5	576	576	5,400	2,800	360	1,100	8,200	69	16,630	17	13	24	1,100	<0.02	0.17	0.04
	Nov-23	-	6.1	-	47,242	29,900	<5	<5	597	597	5,482	2,900	380	1,100	8,600	90	17,720	19	<20	<20	1200	<0.02	<2.0	0.02
	Dec-24	6.22	7.54	43,700	43,300	28,100	<1	<1	663	663	6,210	2,880	492	1,210	9,090	81	13,200	18.9	<0.05	2.44	1.04	NR	<0.01	0.08
	Feb-25	-	7.29	44,200	40,400	26,300	<1	<1	681	681	5,780	3,110	404	1,160	8,620	82	14,700	18	<0.05	2.28	1.02	0.06	<0.01	0.12
	May-25	6.35	7.27	42,200	44,500	28,900	<1	<1	588	588	6,060	2,850	430	1,210	8,850	86	15,800	19.1	<0.05	2.13	0.964	0.06	0.03	0.01

9.9 COMPLIANCE

The commitment for quarterly field EC/pH/temperature readings was not completely achieved in the reporting period. Although quarterly sampling rounds were undertaken, not all bores were sampled. Occasional field measurements were outside historical limits and vastly different to laboratory records indicating poor equipment calibration. Because groundwater at the site is hypersaline, frequent calibration of instruments is required.

As the site is in a remote location, it is logistically difficult to get the samples to the laboratory within the pH holding time (six hours) and therefore the pH data presented may not be accurate. It is imperative that field readings are taken to ensure all reported values are reflective of aquifer conditions.

Annual major components analyses are also required from all production bores under the GLOS commitments. Galaxy is currently sampling most of the borefield at a quarterly frequency, much higher than is required under the GLOS conditions. All production bores in the schedule were sampled. Three monitoring bores were not sampled: WTD11, 19, and 21A. Field water quality readings were not taken from any bores in Q3 2025.

9.10 PRESCRIBED PREMISES LICENCE

Galaxy is required to test for a wide suite of analytes quarterly in TSF monitoring bores under the conditions of DWER Prescribed Premises Licence L8469/2010/2. Galaxy has also regularly sampled water from most of the other bores on the tenement, as well as the some of the pits, several dams, the TSF, and sites in Cattlin Creek. Laboratory certificates for the analyses conducted in 2023-5 are provided in Appendix IV.

Water chemistry analyses performed on non seepage-affected bores show that groundwater in the project area commonly has minor concentrations of arsenic, barium, caesium, cadmium, cobalt, copper, lithium, molybdenum, nickel, selenium, rubidium, uranium, vanadium and zinc. Most notably though, background and regional boron concentrations are relatively high, at around 5 to 10 mg/L.

As discussed in Section 9.5, several bores down-gradient of the TSFs have undergone acidifying trends caused by ferrolysis. These bores typically have higher concentrations of arsenic, boron, cadmium, chromium, cobalt, copper and nickel, when compared to historical baseline levels.

The GLOS (1.6) also stipulates the monitoring of key water storages, and potential receptors, to satisfy the PPL obligations and to demonstrate responsible environmental stewardship. Five water reservoirs were selected for sampling (see Section 6.2); NE Pit, Dam 4, Dam 5, Dam 6, Dam 7 and Farm Dam 2 (Fig. 2, Table 12). The monitoring frequency is not specified in the GLOS however is generally limited to seasonal inflows. Most dams were dry at least part of the year and Dam 7 was dry all sampling events except May and October 2025.

Water quality within on-site water storage reservoirs shows large variability due to differences in water sources and evaporation. Dams 4, 5 and 7 receive intermittent surface water and seepage from waste dumps, while the NE Pit receives water both from the NW Pit, SE Pit TSF. Water in these reservoirs is typically saline and varies between neutral and alkaline. All onsite reservoirs showed elevated nutrients, particularly nitrate.

Table 12: Surface Water Laboratory Analysis Results

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Boron	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																			
NE Pit	Feb-23	-	7.5	-	33,233	18,600	<5	<5	90	90	6,244	3,600	464	1,234	13,240	123	199	8.1	6.3	<20	0.49	4.6	0.37	35.4	0.05
	May-23	-	7	-	30,190	20,740	<5	<5	92	92	6,229	4,100	448	1,240	11,150	133	16	7.4	5.7	39	0.204	4.8	<0.02	1.45	<0.01
	Aug-23	-	6.9	-	37,820	25,880	<5	<5	98	98	5,000	3,500	370	990	7,100	75	16	7.6	4.4	30	<0.10	2.9	<0.02	1.83	0.01
	Nov-23	-	6.8	-	40,338	24,900	<5	<5	<5.0	<5.0	5,170	3,800	420	1,000	7,200	100	567	6.6	5.7	<10	<0.10	3.2	<0.02	55	<0.01
	May-24	-	7.75	-	38,800	25,200	<1	<1	166	166	5,680	4,240	445	1,110	7,180	132	11,900	NR	-	<0.02	<0.10	2.57	0.28	55.7	0.03
	Aug-24	8.91	7.68	40,400	39,700	25,800	<1	<1	174	174	4,000	5,800	474	1,120	6,520	137	10,500	NR	-	0.12	<0.26	1.94	0.07	47.3	0.04
	Nov-24	8.63	7.86	37,900	39,100	25,400	<1	<1	171	171	5,610	3,450	431	1,100	7,540	142	12,600	NR	6.01	0.06	<0.26	1.98	16.3	73.1	<0.02
	Feb-25	7.83	7.9	42,300	40,700	26,400	<1	<1	185	185	5,680	3,770	526	1,060	7,780	141	12,600	NR	8.79	0.08	<0.26	0.001	1.18	54.2	0.02
	May-25	-	8.03	18,850	33,600	21,800	<1	<1	126	126	4,060	2,750	323	789	5,730	68	9,770	NR	5.46	0.31	0.22	1.35	0.11	35.5	<0.05
Dam 4	Feb-23	-	8.8	-	29,090	21,630	<5	<5	156	156	4,925	2,900	388	960	6,795	99	5355	3.9	6.8	<20	<0.20	6.5	0.03	4.72	0.04
	May-23	-	8.9	-	24,202	14,680	<5	<5	137	137	5,314	3,400	420	1,035	15,620	105	4785	5.2	5.0	<20	<0.20	2.1	0.11	2.67	0.02
	Aug-23	-	8.6	-	20,530	13,790	<5	<5	112	112	2,700	2,200	240	520	3,800	42	4410	6.2	3.3	570	0.14	0.19	<0.02	4.6	0.09
	Nov-23	-	6.8	-	40,338	24,900	<5	<5	<5.0	<5.0	5,170	3,800	420	1,000	7,200	100	567	6.6	5.7	<10	<0.10	3.2	<0.02	55	<0.01
	May-24	-	8.56	-	35,800	23,300	<1	39	151	190	5,800	3,070	478	1,120	6,490	109	11,800	NR	-	0.15	0.15	0.027	0.14	47.6	0.06
	Aug-24	10.1	8.62	33,300	32,600	21,200	<1	44	131	175	3,280	4,960	412	954	5,160	90	8,720	NR	6.09	0.3	0.33	0.01	0.1	60.6	<0.05
	Nov-24	9.25	8.72	34,500	34,500	22,400	<1	61	120	181	5,790	3,810	471	1,120	6,600	110	10,900	NR	6.50	0.1	<0.26	0.011	0.13	48.6	<0.05
	Feb-25	8.64	8.69	45,600	45,500	29,600	<1	60	113	173	7,520	5,080	572	1,480	8,900	141	13,900	NR	9.7	<0.05	<0.26	<0.005	0.23	49.1	<0.02
	May-25	-	8.85	15,030	15,800	10,300	<1	46	127	172	2,010	1,720	118	374	2,880	27	4,300	NR	3.4	0.39	0.35	0.013	0.08	46.8	0.05
	Oct-25	7.9	9.39	44,100	20,200	13,100	<1	92	33	125	2,900	2,860	246	556	4,000	37	6,370	NR	8.25	0.02	<0.1	0.003	0.1	58.7	0.04
Dam 5	May-23	-	8.9	-	24,202	14,680	<5	<5	137	137	5,314	3,400	420	1,035	15620	105	4784.899	5.2	5.0	<20	<0.20	0.21	0.11	2.67	0.02

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Boron	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																			
	Aug-23	-	8.3	-	24,790	17,740	<5	<5	153	153	3,400	2,600	320	630	4,700	50	8050	8.4	3.4	<10	<0.10	0.16	<0.02	5.94	0.04
	Nov-23	-	6.8	-	40,338	24,900	<5	<5	<5.0	<5.0	5,170	3,800	420	1,000	7,200	100	567	6.6	5.7	<10	<0.10	3.2	<0.02	55	<0.01
	Feb-24	-	8.02	-	43,300	32,800	-	-	-	-	-	4,480	600	1,310	8,550	-	12,200	9.11	-	0.12	<0.26	0.311	-	-	-
	May-24	-	8.19	-	45,300	29,400	<1	<1	273	273	6,170	3,140	426	1,240	9,000	108	14,500	NR	-	0.32	0.29	0.427	0.15	34.1	0.04
	Aug-24	10.27	8.27	40,500	39,700	25,800	<1	<1	347	347	3,040	4,590	293	938	6,590	71	11,300	NR	8.98	0.33	0.36	0.611	0.11	17	<0.05
	May-25	-	8.42	15,280	16,300	10,600	<1	11	137	148	1,870	2,220	178	347	3,010	32	4,090	NR	3.42	0.87	0.76	0.628	0.06	48.1	<0.02
	Oct-25	8.58	9.06	20,900	22,800	14,800	<1	74	71	145	3,050	3,120	237	597	4,820	37	7,140	NR	4.99	0.49	0.61	0.124	0.06	46.6	0.06
Dam 6	Feb-23	-	8.5	-	14,153	9,700	<5	<5	132	132	2,354	1,400	218	439	2,979	48	7280	2.4	2.8	<20	0.36	0.030	0.02	0.32	0.02
	May-23	-	9.3	-	17,763	10,390	<5	<5	118	118	3,370	2,100	285	645	5,175	51	5540	1.4	3.1	<20	<0.20	0.04	<0.02	0.11	<0.01
	Aug-23	-	9	-	11,550	7,670	<5	<5	74	74	1,500	1,000	150	270	1,800	17	1010	0.32	1.3	<10	<0.10	0.011	<0.02	<0.01	0.09
	Nov-23	-	9.4	-	26,646	16,550	<5	<5	87	87	3,569	2,400	340	660	4,100	44	4470	0.73	3.4	<10	0.42	0.010	<0.02	<2.0	0.05
	Feb-24	-	8.8	-	41,000	31,600	-	-	-	-	-	3,890	644	1,270	7,760	-	13,600	3.01	-	0.14	<0.26	0.167	-	-	-
	May-24	-	8.85	-	53,900	35,000	<1	82	78	160	9,150	6,020	828	1,720	10,400	126	18,500	NR	-	0.23	0.34	0.313	0.14	<0.01	0.11
	Aug-24	10.32	8.74	54,000	52,400	34,100	<1	51	77	128	4,750	8,620	795	1,610	8,840	112	15,000	NR	8.98	0.32	0.42	0.119	0.16	0.04	0.1
	Nov-24	8.72	8.16	61,600	61,900	40,200	<1	<1	166	166	12,100	5,890	1,110	2,260	13,000	158	21,300	NR	9.08	0.16	0.47	0.291	0.14	<0.01	0.14
	May-25	-	8.89	31,294	4,490	3,050	<1	46	127	172	670	307	110	96	717	6	1,170	NR	0.88	0.12	0.13	0.008	0.02	0.07	0.02
	Oct-25	7.7	8.95	28,471	3,120	2,030	<1	22	67	90	392	170	53	63	519	3	880	NR	0.59	0.1	0.13	0.01	0.03	<0.01	0.21
Dam 7	May-25	-	8.56	-	6,560	4,260	<1	11	100	111	1,870	633	85	102	1,130	15	1470	NR	1.57	0.12	0.13	0.005	0.03	22.9	<0.05
	Oct-25	8.7	8.4	35,050	5,140	3,340	<1	5	121	126	513	476	62	87	923	12	1240	NR	-	0.56	0.69	0.005	0.05	16.6	0.04
Farm Dam 2	Nov-23	-	8.4	-	3172	1970	<5	<5	267	267	247	160	28	43	430	9.4	653	1.0	0.83	120	0.93	0.073	<0.02	<0.50	0.02
	May-24	-	8.71	-	3,660	2,380	<1	52	366	418	327	184	27	63	651	18	843	NR	-	0.44	0.43	0.024	0.19	<0.01	0.03

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Boron	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus as P
		Field	Lab	µS/cm		mg/L																			
	Aug-24	-	8.97	-	3,490	2,270	<1	102	304	406	213	305	25	59	596	16	817	NR	1.74	0.5	0.52	0.013	0.05	<0.01	0.04
	Nov-24	9.94	9.47	2,870	2,500	1,620	<1	158	159	318	190	148	12	39	456	11	590	NR	1.39	2.4	1.77	0.037	0.04	<0.01	0.02
	Feb-25	10.11	9.72	3,660	3,670	2,380	<1	249	158	407	181	206	10	38	666	13	917	NR	2.2	0.18	0.11	0.006	0.03	0.03	0.07
	May-25	-	8.84	1,188	1,230	800	<1	21	172	192	105	80	19	14	232	6	210	NR	0.9	2.25	1.86	0.027	0.03	0.24	0.06
	Oct-25	7.2	8.84	4,900	955	621	<1	21	203	224	98	57	16	14	180	6	160	NR	0.68	7.32	0.694	0.13	0.04	<0.01	0.21

Potential offsite receptors are monitored via Dam 6 and Farm Dam 2. Dam 6 is hypersaline and shows similar constituents to onsite Dams 4 and 5. Farm Dam 2, located to the west of the mine (Fig. 2), is much fresher than the onsite dams indicating recharge is primarily from rainfall runoff. No notable potential contaminants were observed from any samples.

10 CATTLIN CREEK DIVERSION MONITORING

Regular flow monitoring and water quality sampling are required as part of the permit (Appendix I) to divert Cattlin Creek to the east of the NE and SE pits. Water quality monitoring from some sites on the creek has been conducted since 2011 to establish a baseline, and in recognition of local community interest. Galaxy currently has six Cattlin Creek water sampling sites, and flow monitoring is undertaken at an additional two sites: FMP01, located downstream of the diversion and FMP02 located upstream (Fig. 2). Due to the creek being an ephemeral system, monitoring is limited to periods when there is water in the creek, which is often stagnant, and the creek only flows after significant rainfall events.

TDS and pH results for sites CC01 to CC08 are presented in Figures 30 and 31, and historical flow rate data from FMP01 and FMP02 are presented Figure 32. Water chemistry certificates of analysis are provided in Appendix IV.

The water quality data show that the creek's salinity is highly variable, ranging from fresh to hypersaline (Table 13). During the period of review, water salinity was measured at between 14,600 and 47,670 mg/L TDS. The large magnitude in the variability of salinity is due to the ephemeral nature of the creek. The salinity is dependent on the amount and timing of rainfall in the catchment, and the time since flow commenced or ceased. The higher salinity measurements were often taken from stagnant water pools. These are unrepresentative as the dissolved ions have been concentrated via evaporation.

Water quality sampling also shows the creek water is circum-neutral to alkaline, generally between pH 7 and 9. Some field records in the period of review were more alkaline than this range, however there were some variability between field and laboratory records.

Flow monitoring at sites FMP01 and FMP02 has been conducted since September 2017. Historical flow data (Fig. 32) show that there is generally a low consistent baseline flow at FMP02 ranging from 3 to 50 L/s. In contrast, the flow rates at FMP01 are irregular, and typically only occur in the winter months. The difference in the magnitude of the flow rates and their consistency can be attributed to the monitoring site locations (Fig. 2), with FMP02 located upstream of the diversion, in an area where seepage from salinity-affected agricultural land has been observed. Site FMP01 is located downstream of the diversion where water flows have only been observed after significant rainfalls. The lack of flows at FMP01 are also likely due to infiltration of surface water into the more fractured strata that occurs along the course of the Cattlin Creek to the south-east of the mine.

For the review period, no flows were recorded at either FMP01 or FMP02. This was due to the very low rainfall in both the review period and the preceding year (57% and 66% of the annual average, respectively).

Table 13: Cattlin Creek Laboratory Analysis Results

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus/ Ortho Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
CC01	Feb-23		7.2		61,896	47,670	<5	<5	386	386	11,059	3,600	666	2,280	16,130	109	31,983	12	0.33	0.82	1.2	0.04	0.19	0.06
	May-23		7		38,785	32,230	<5	<5	448	448	7,796	2,800	630	1,510	12,600	77	32,440	5.9	0.305	0.27	9.4	0.18	0.11	0.01
	Aug-23		7.7		44,460	29,450	<5	<5	314	314	5,600	2,300	390	1,100	7,900	36	24,520	2.6	<0.10	0.23	0.79	<0.02	0.21	0.04
	Nov-23		7.2		56,612	35,610	<5	<5	365	365	12,737	4,600	810	2,600	18,000	93	47,000	6.7	<0.20	0.55	0.75	<0.02	<2.0	0.07
	May-24	-	8.11	-	52,100	33,900	<1	<1	441	441	7,070	3,160	373	1,490	10,100	53	18,500	NR	0.5	0.75	2.14	0.12	<0.01	0.06
	Aug-24	9.81	8.05	51,400	50,300	32,700	<1	<1	429	429	3,010	6,750	378	1,410	8,650	52	15,400	NR	1.42	1.71	2.1	0.12	0.01	0.05
	Nov-24	8.37	8.15	52,400	52,300	34,000	<1	<1	404	404	7,900	3,070	494	1,620	10,600	60	18,400	NR	0.14	0.76	0.604	<0.05	<0.01	0.04
	Feb-25	8.08	8.19	62,900	62,000	40,300	<1	<1	463	463	7,790	3,500	398	1,650	13,600	64	20,200	NR	<0.1	<0.52	0.179	0.15	<0.01	0.09
	May-25	-	8.24	44,400	46,100	30,000	<1	<1	334	334	6,400	2,430	468	1,270	9,160	34	15,900	NR	<0.05	<0.26	0.964	0.06	<0.01	<0.02
CC02	Feb-23		8		56,355	42,310	<5	<5	401	401	8,763	3,500	369	1,903	13,590	154	17,880	1.4	0.29	0.18	530	0.11	0.33	0.05
	May-23		8.2		41,734	35,910	<5	<5	383	383	8,517	3,100	358	1,850	14,220	142	17,080	2.9	0.22	0.16	380	<0.02	0.11	0.03
	Aug-23		8.3		43,840	29,260	<5	<5	321	321	5,400	2,400	280	1,100	7,900	45	14,025	2.1	0.19	0.30	210	0.17	0.9	0.02
	Nov-23		7.6		59,844	37,170	<5	<5	284	284	6,905	3,400	290	1,500	11,000	99	27,100	1.2	<0.20	0.36	130	<0.02	<2.0	0.03
	Aug-24	9.83	8.33	45,400	43,800	28,500	<1	12	338	351	2,560	5,950	287	1,270	7,290	78	13,200	NR	0.31	0.76	0.686	0.18	<0.01	0.02
	Nov-24	8.99	8.34	52,700	53,900	35,000	<1	15	309	323	8,070	3,160	378	1,730	10,600	124	18,800	NR	0.1	0.36	0.655	0.12	<0.01	0.07
	Feb-24	8.17	7.97	70,500	71,800	46,700	<1	<1	397	397	10,600	4,200	541	2,240	15,000	145	24,400	NR	<0.1	0.72	6.6	0.51	0.04	<0.02
	May-25	-	8.2	47,000	49,300	32,000	<1	<1	394	394	6,910	2,610	392	1,440	9,890	66	17,200	NR	0.06	0.32	1.04	0.14	0.07	<0.02
CC04	Feb-23		7.7		54,752	40,870	<5	<5	452	452	8,675	3,300	375	1,878	13,480	129	28,116	5.1	0.78	0.8	860	0.09	0.47	0.05
	May-23		7.9		42,180	38,360	<5	<5	422	422	8,622	3,000	400	1,850	15,380	130	28,365	3.8	<20	0.32	700	<0.02	0.11	0.01
	Aug-23		7.7		42,480	28,950	<5	<5	337	337	5,300	2,300	300	1,100	7,500	41	28,235	3.9	<10	<0.10	260	0.37	2.57	0.01

Bore	Sample Year	pH		(Field) Electrical Conductivity	(Lab) Electrical Conductivity	Total Dissolved Solids	Hydroxide Alkalinity	Carbonate Alkalinity	Bicarbonate Alkalinity	Total Alkalinity	Total Hardness	Sulphate as SO_4^{2-}	Calcium	Magnesium	Sodium	Potassium	Chloride	Silicon	Aluminium	Iron	Manganese	Ammonia as N	Nitrate as N	Total Phosphorus/ Ortho Phosphorus as P
		Field	Lab	µS/cm		mg/L																		
	Nov-23	-	7.4	-	63,536	39,710	<5	<5	433	433	7,417	3,200	330	1,600	11,000	85	29840	4.9	<0.20	<0.20	0.86	<0.02	<2.0	0.55
	May-24	-	8.04	-	50,300	32,700	<1	<1	423	423	7,080	2,820	330	1,520	9,680	86	16,500	NR	<0.05	<0.26	1.03	0.12	0.09	0.04
	Aug-24	9.36	7.98	46,100	44,400	28,900	<1	<1	396	396	2,620	6,080	307	1,290	7,300	70	14,400	NR	0.26	0.42	1.04	0.1	0.28	0.04
	Nov-24	8.68	8.03	47,600	49,400	32,100	<1	<1	365	365	7,360	2,860	376	1,560	9,640	95	17,300	NR	<0.05	<0.26	0.68	0.07	0.06	<0.02
	Feb-25	7.5	7.78	59,100	62,100	40,400	<1	<1	387	387	8,030	3,340	411	1,700	12,600	118	20,600	NR	<0.1	<0.52	2.44	0.17	<0.01	0.07
	May-25	-	8	45,400	47,600	30,900	<1	<1	402	402	6,310	2,510	333	1,330	9,240	53	16,100	NR	1.46	1.58	0.885	0.07	0.17	<0.02
CC08	Aug-23	-	8	-	45,600	17,180	<5	<5	214	214	3,000	1,700	210	610	4300	32	11520	3.6	<0.10	0.14	0.26	<0.02	8.26	<0.01
	Aug-24	9.33	8.18	25,160	23,800	15,500	<1	<1	252	252	1,690	2,970	210	593	3,690	48	6,980	NR	0.18	0.24	0.025	0.08	0.37	0.05
	Nov-24	8.35	8.04	25,462	35,100	22,800	<1	<1	351	351	5,590	2,340	377	1,130	6,330	72	11,500	NR	0.27	0.29	0.766	0.22	0.71	0.03
	May-25	8.44	8.47	14,246	22,400	14,600	<1	24	191	215	3,330	3,310	319	615	4,070	34	5,690	NR	0.14	0.14	0.01	0.08	82.2	0.02
Creek Water	May-25	-	8.23	-	52,600	34,200	<1	<1	386	386	7,500	3,230	331	1,620	10,400	106	19,200	NR	0.26	0.96	1.23	0.24	0.03	0.06

11 SUMMARY

During the 2023-2025 period of review, the mine's water extraction remained considerably less than the licence allocation, including groundwater extracted for dewatering purposes. In active operations, the proportion of water provided by the borefield was 6 to 12% of total water usage, with the remainder supplied by tailings reclamation and pit dewatering operations.

The mines' water requirements have been greatly reduced (to almost zero) while in care and maintenance. All monitoring obligations continue to be undertaken, to both assess aquifer recovery and to allow for a seamless transition back to active operations, should the market conditions change.

Water levels in the south-eastern aquifer, historically the largest water source, have largely recovered, however remain 10 – 13 m below pre-mining levels. It is likely that these bores will take some time to fully recover.

Over the period of review, Galaxy has been fully compliant with metering flows and water level measurements, and mostly compliant with water quality measurements. Some non-compliances for water quality were due to depth to water (>50 m), particularly in previously equipped production bores. As the aquifers recover, this issue should resolve itself.

11.1 COMPLIANCE

The licensee has generally complied with the monitoring programme (Table 14), and with commitments outlined in the GLOS. The results of the water quality monitoring and testing for the project aquifers indicate no water level or water quality trigger breaches.

Table 14: Compliance with the Monitoring Programme

Parameter	Locations	Frequency	Compliant	Comments
Cattlin Creek Flow Monitoring	FMP01 and FMP02	Fortnightly (when flowing)	N/A	Monitoring points dry
Groundwater levels	Production bores Monitoring bores	Monthly	Y	-
Meter Readings	Production bores Dewatering pumps Decant water pumps Dam return pumps RO Plant intake Dust suppression intake	Monthly	Y	All meters have been removed while in care & maintenance
Field Parameters (EC, Temp and pH)	Production bores Monitoring bores (TSF monitoring bores and selected boundary bores as required) Cattlin Creek water Water storages (selected process and potable water circuit locations)	Quarterly	Partly	Some months/bores missed
Water characterisation		Annually	Partly	Three monitoring bores were not sampled: WTD11, 19, and 21A
PPL analytical suite		Quarterly	Y	-

11.2 RECOMMENDATIONS

The following recommendations are advised:

- Field EC/pH/Temperature data should be recorded on a quarterly basis, using a calibrated meter. This is particularly important for pH as chemical reactions in transit of water samples can lead to inaccurate results.
- Bores MB22 and WTD22A should be re-developed to ensure accurate monitoring data can be collected.

REFERENCES

Department of Water and Environmental Regulation (DWER), 2009. Operational Policy No. 5.12 – Hydrogeological reporting associated with a groundwater well licence: Department of Water, Perth, Western Australia, November 2009.

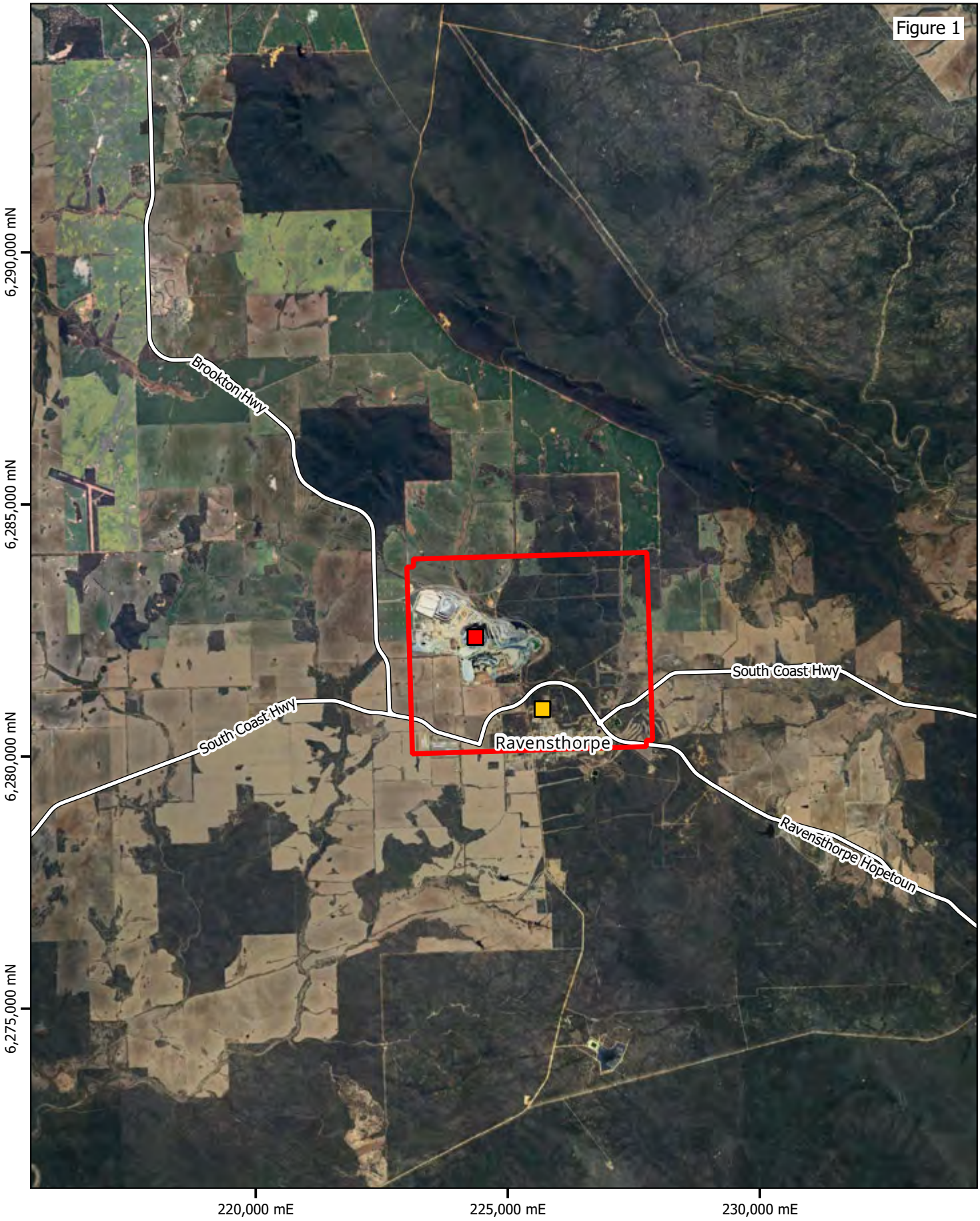
Rockwater, 2022. Mt Cattlin Spodumene Project, TSF Monitoring Bore Completion Report. Unpublished report for Galaxy Lithium Australia Ltd.

Rockwater, 2023. Mt Cattlin Spodumene Project; Triennial Aquifer Review: GWL167439(6), September 2021 to December 2022. Unpublished Report for Galaxy Lithium Australia Ltd.

Galaxy Lithium Australia, 2022. Groundwater Licence Operating Strategy for GWL 167439(6), Revision 1.4. Document number: 02-MTC-ENV-PLA-0301.

FIGURES

Figure 1



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Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL CONSULTANTS

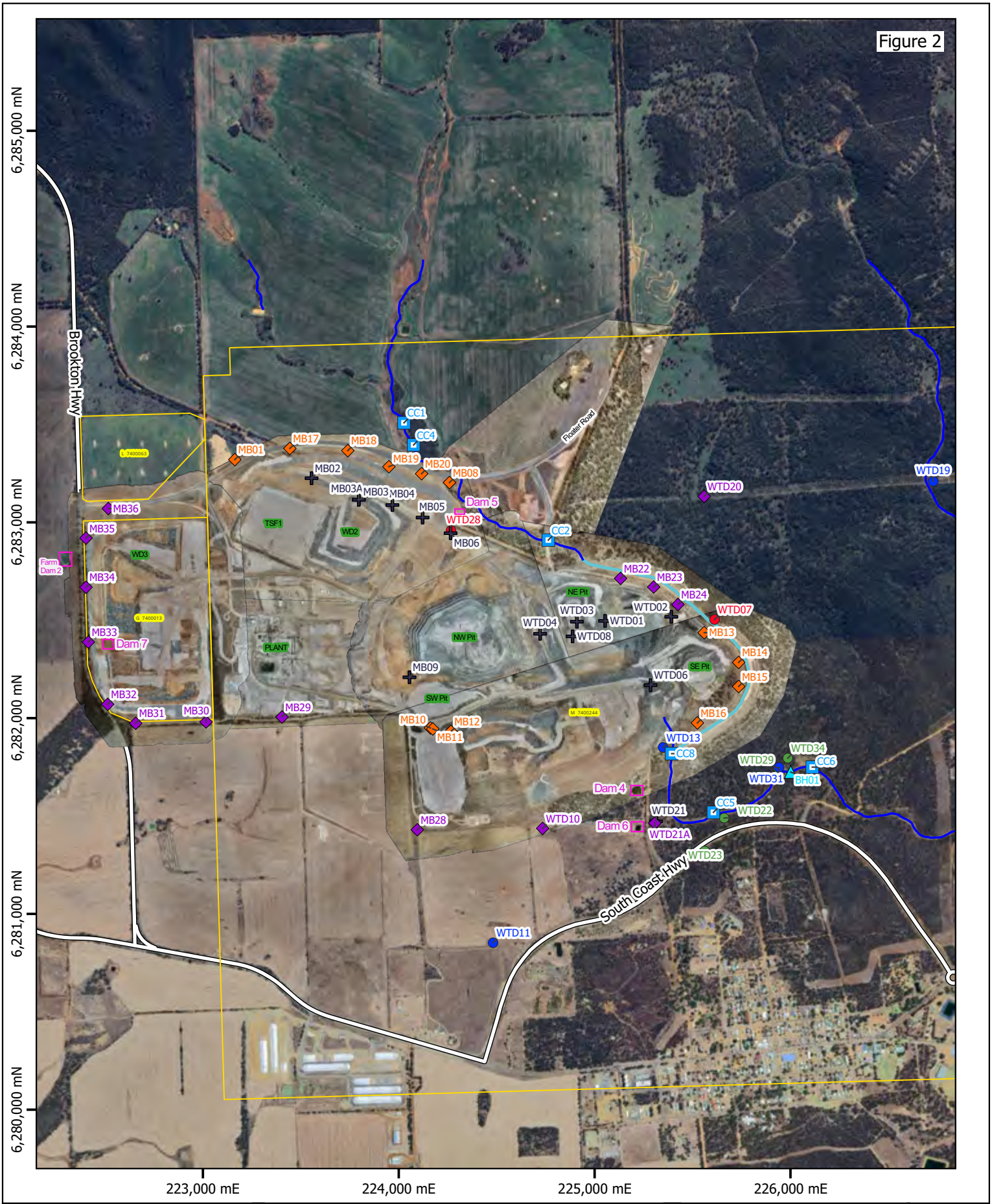
Mt Cattlin Spodumene Project
Mine Camp
Tenement M74/244 Boundary
Road Network

0 1,500 3,000 m

Coordinate System: GDA 2020 MGA Zone 51

Client	Galaxy Lithium Australia Ltd
Project	2023-25 Aquifer Review
Date	March 2026
Figure Number	352-0/26-01/1

REGIONAL LOCALITY MAP



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Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL CONSULTANTS

- Cattlin Creek Diversion
- Water Course
- Mining Tenements
- Equipped Production Bore
- Monitoring Bore
- TSF Recovery Bore
- Mined-out/Decommissioned Bore
- Cattlin Creek Recharge Hole
- Cattlin Creek Sampling Point
- Previously Equipped Production Bore
- Never Equipped Production Bore

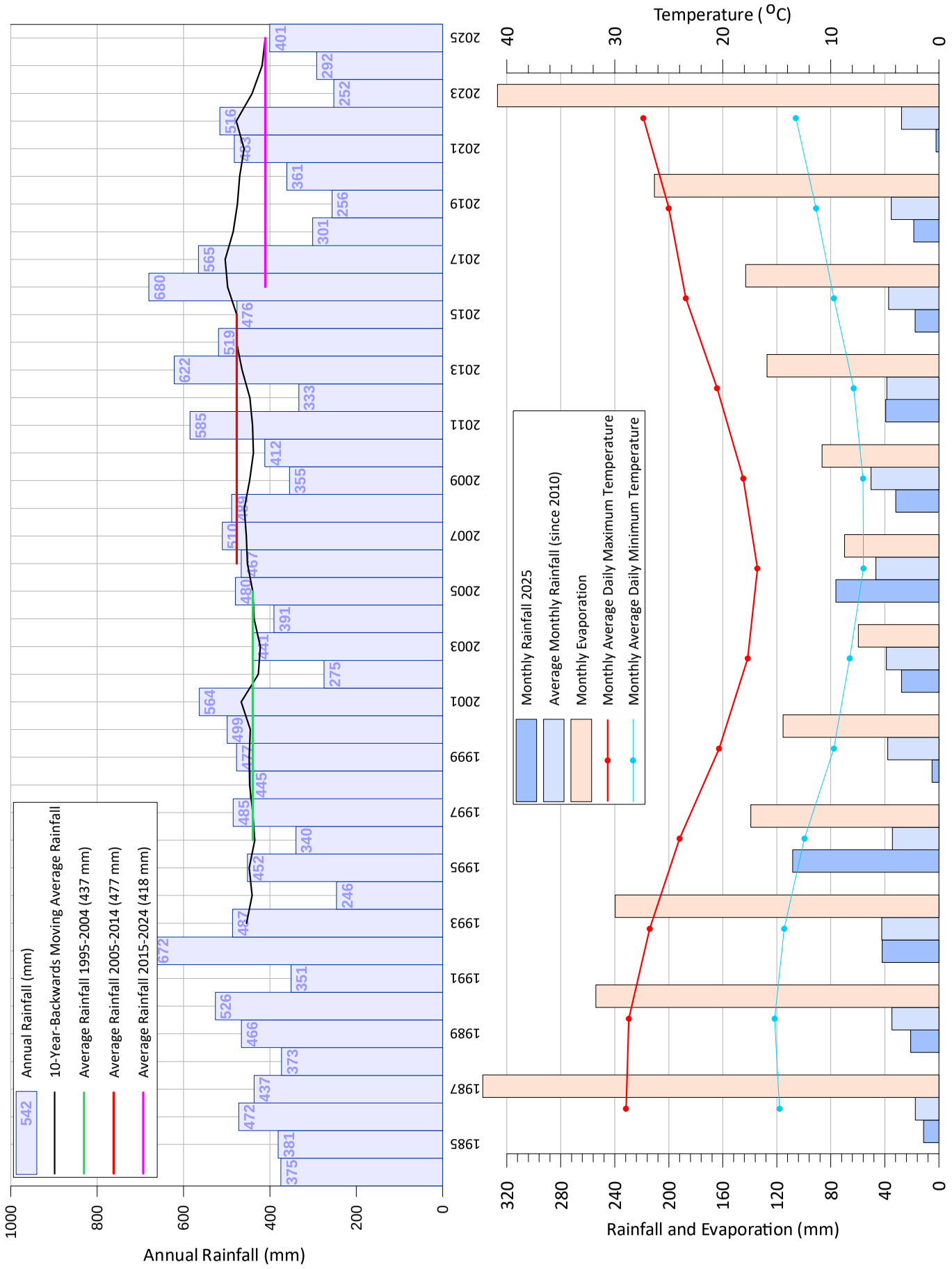
0 250 500 m

Coordinate System: GDA 2020 MGA Zone 51 A4

Client	Galaxy Lithium Australia Ltd
Project	2023-5 Aquifer Review
Date	March 2026
Figure Number	352-0/26-01/2

SITE LOCALITY MAP

Figure 3



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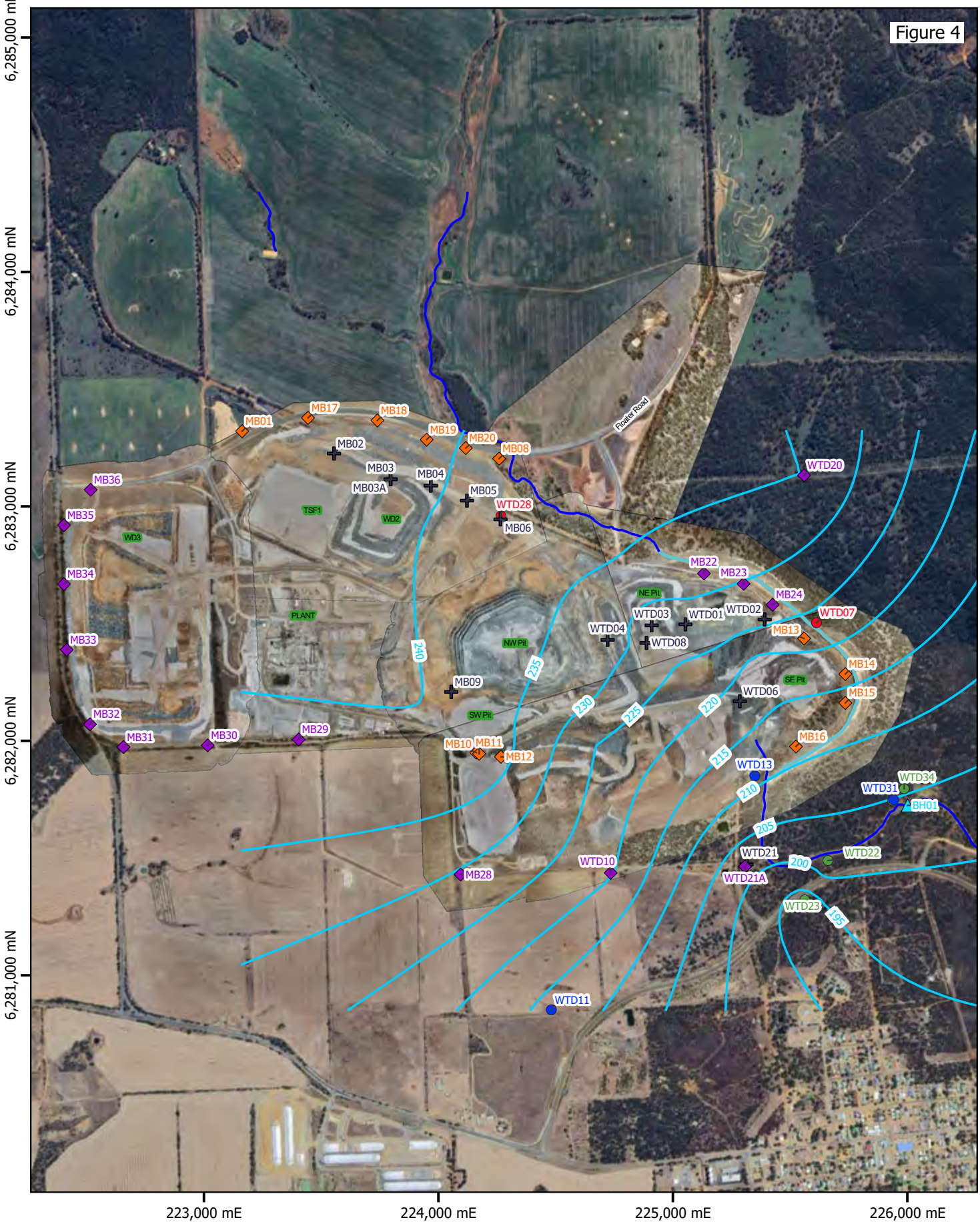
Client: Galaxy Lithium Australia Ltd

Project : Triennial Aquifer Review

Date : March 2025

Dwg. No: 352-0/25/1-3

SUMMARY OF CLIMATIC CONDITIONS AT RAVENSTHORPE (SILO, RAVENSTHORPE)



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Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL CONSULTANTS

- Water Level (m AHD)
- Monitoring Bore
- TSF Recovery Bore
- Mined-out/Decommissioned Bore
- Previously Equipped Production Bore
- Never Equipped Production Bore
- Equipped Production Bore
- Cattlin Creek Recharge Hole

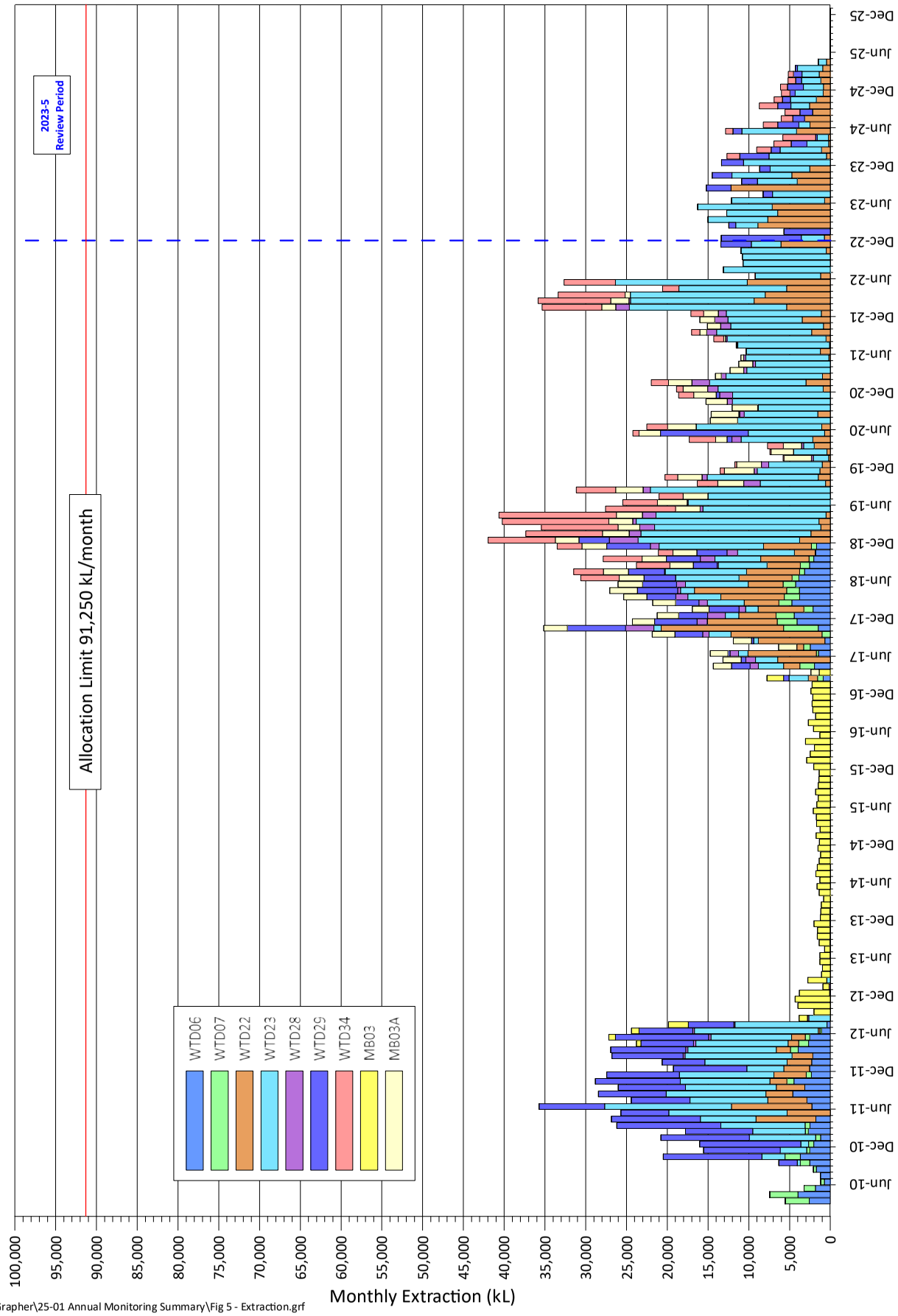
0 250 500 m

Coordinate System: GDA 2020 MGA Zone 51

Client	Galaxy Lithium Australia Ltd
Project	2024 Annual Monitoring Summary
Date	March 2025
Figure Number	352-0/26/1-4

PRE-MINING (2008 - 2010) GROUNDWATER LEVELS (m AHD)

FIGURE 5



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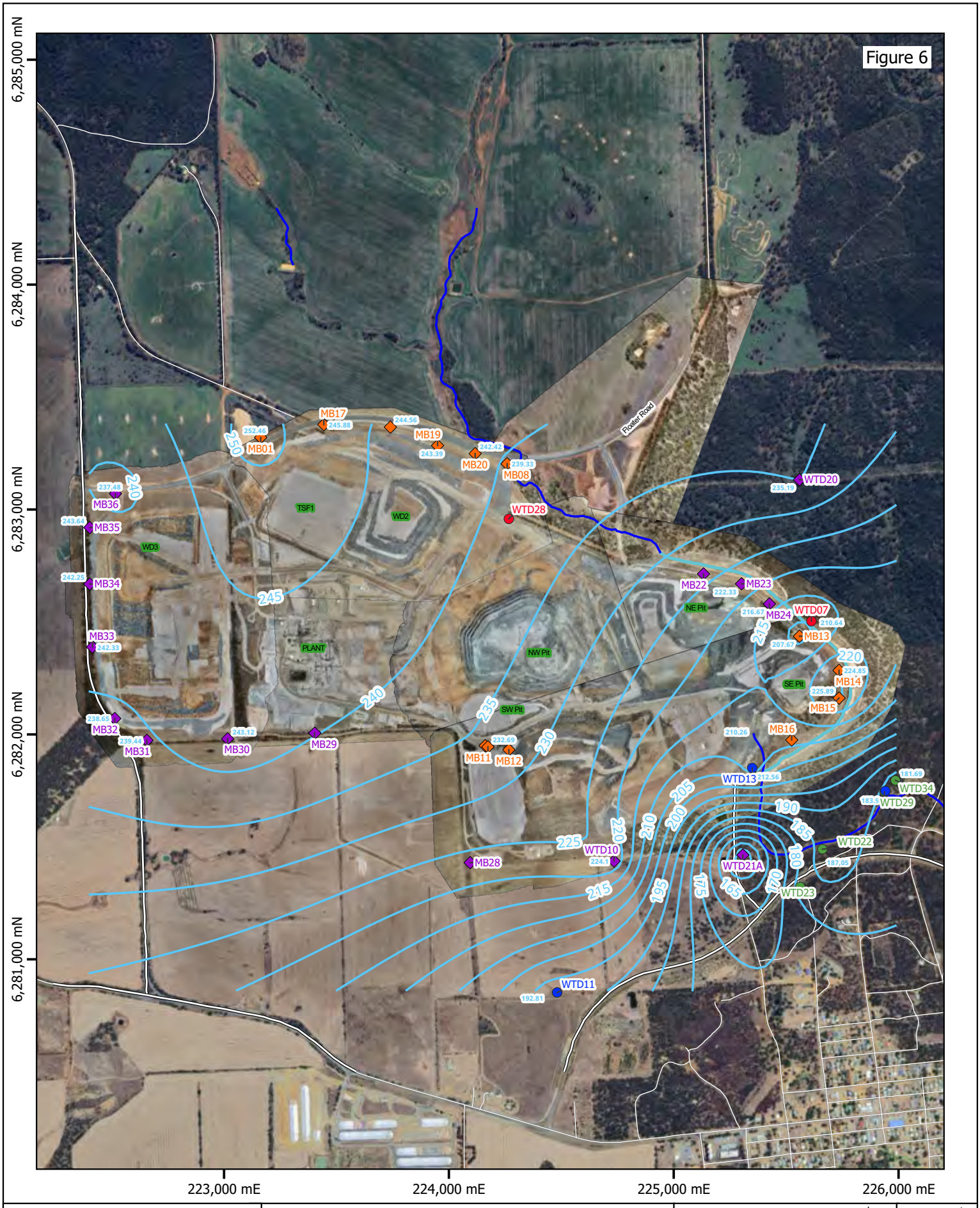
Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

Date : March 2026

Dwg. No: 352-0/26/1-5

MONTHLY BOREFIELD EXTRACTION



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Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL CONSULTANTS

All Bore Locations

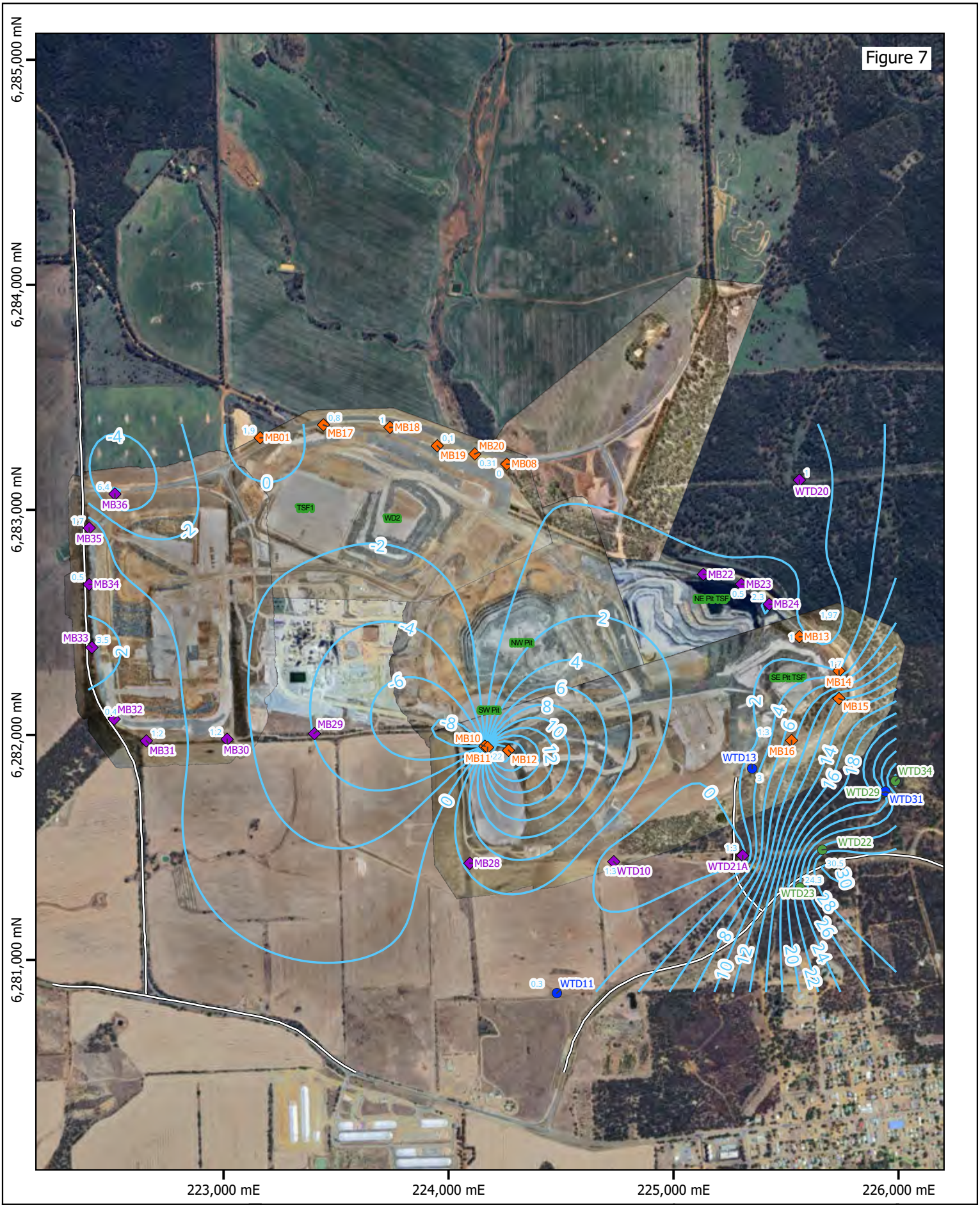
- TSF Recovery Bore
- Previously Equipped Production Bore
- Monitoring Bore
- Never Equipped Production Bore
- Equipped Production Bore
- SWL 2025 (m AHD)

0 250 500 m

Coordinate System: GDA 2020 MGA Zone 51

Client	Galaxy Lithium Australia Ltd
Project	2023-5 Aquifer Review
Date	March 2026
Figure Number	352-0/26-01/6

DECEMBER 2025
WATER LEVELS (m AHD)



L:\QGIS Projects\352-0 Galaxy\25-01\25-01 Galaxy.qgz

Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL CONSULTANTS

0.5 Water Level Change (m)
Monitoring Bore
TSF Recovery Bore
Previously Equipped Production Bore
Never Equipped Production Bore
Equipped Production Bore
Cattlin Creek Recharge Hole

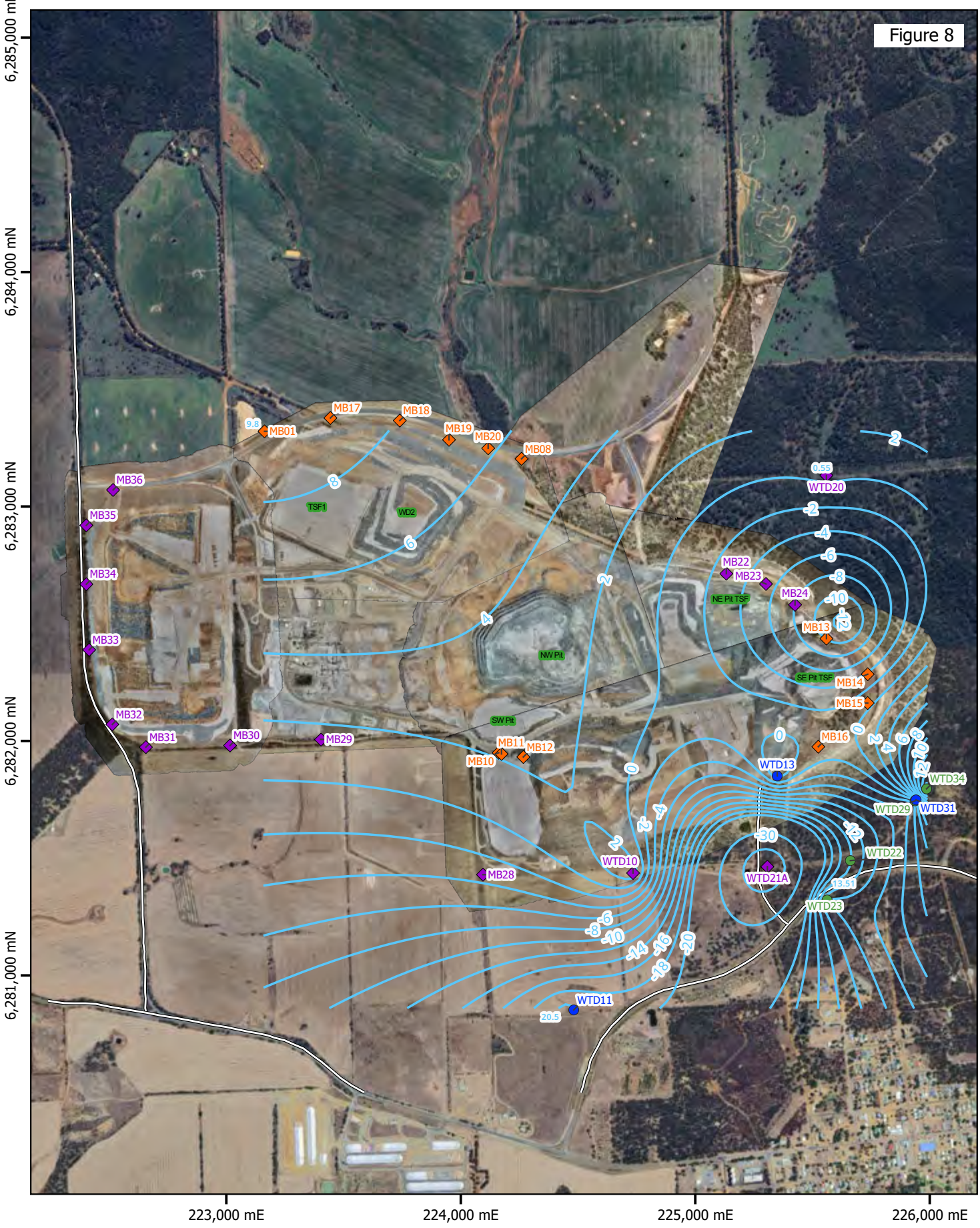
0 250 500 m

Coordinate System: GDA 2020 MGA Zone 51

Client	Galaxy Lithium Australia Ltd
Project	2023-5 Aquifer Review
Date	March 2026
Figure Number	352-0/26-01/7

CHANGE IN WATER LEVEL DECEMBER 2023 TO DECEMBER 2025

Figure 8



L:\QGIS Projects\352-0 Galaxy\25-01\25-01 Galaxy.qgz

Rockwater
HYDROGEOLOGICAL + ENVIRONMENTAL CONSULTANTS

0.5 Water Level Change (m)
Monitoring Bore
TSF Recovery Bore
Previously Equipped Production Bore
Never Equipped Production Bore
Equipped Production Bore
Cattlin Creek Recharge Hole

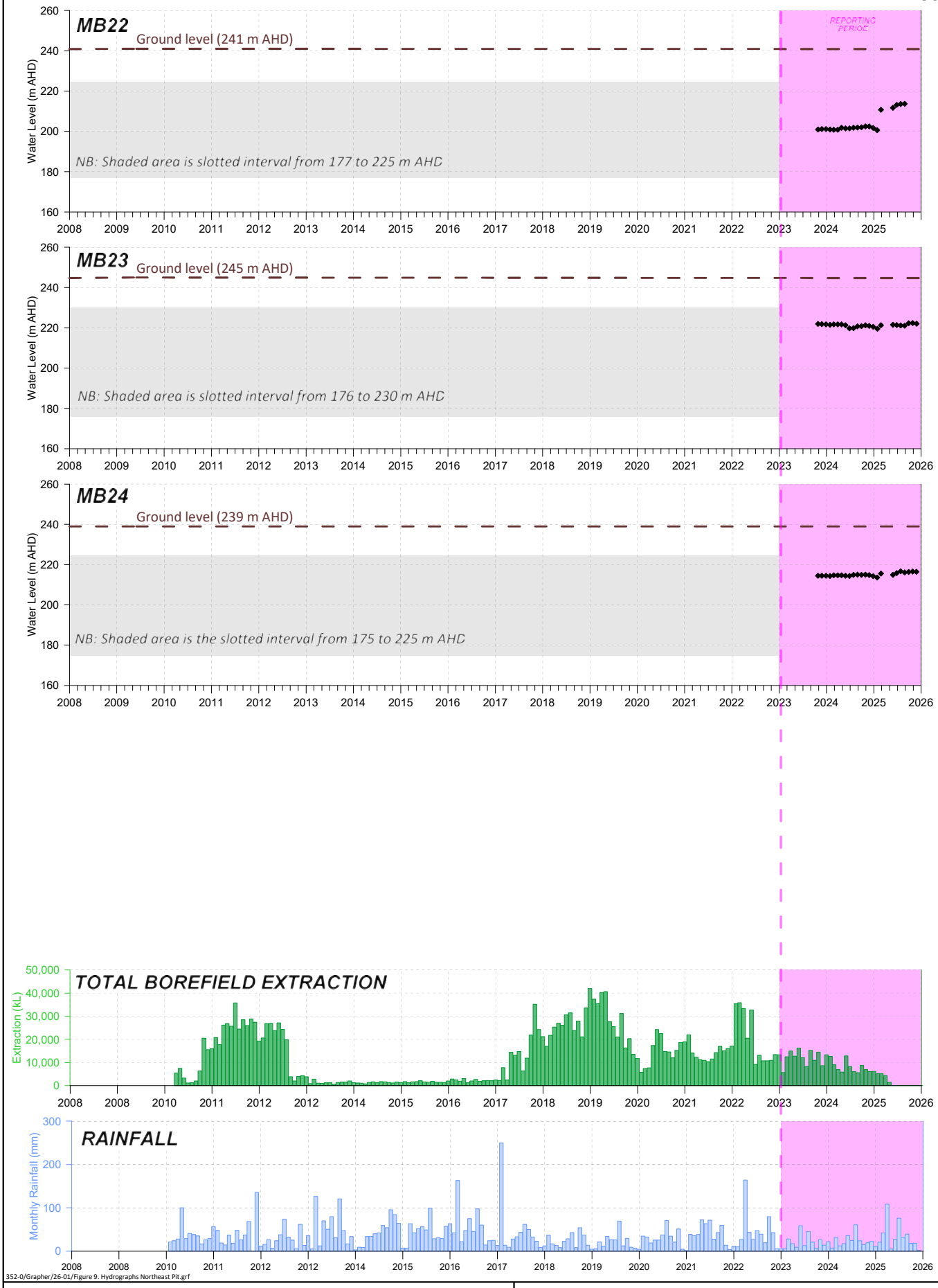
0 250 500 m

Coordinate System: GDA 2020 MGA Zone 51

Client	Galaxy Lithium Australia Ltd
Project	2023-5 Aquifer Review
Date	March 2026
Figure Number	352-0/26-01/8

CHANGE IN WATER LEVEL PRE-MINING (2008 - 2010) TO DECEMBER 2025

FIGURE 9

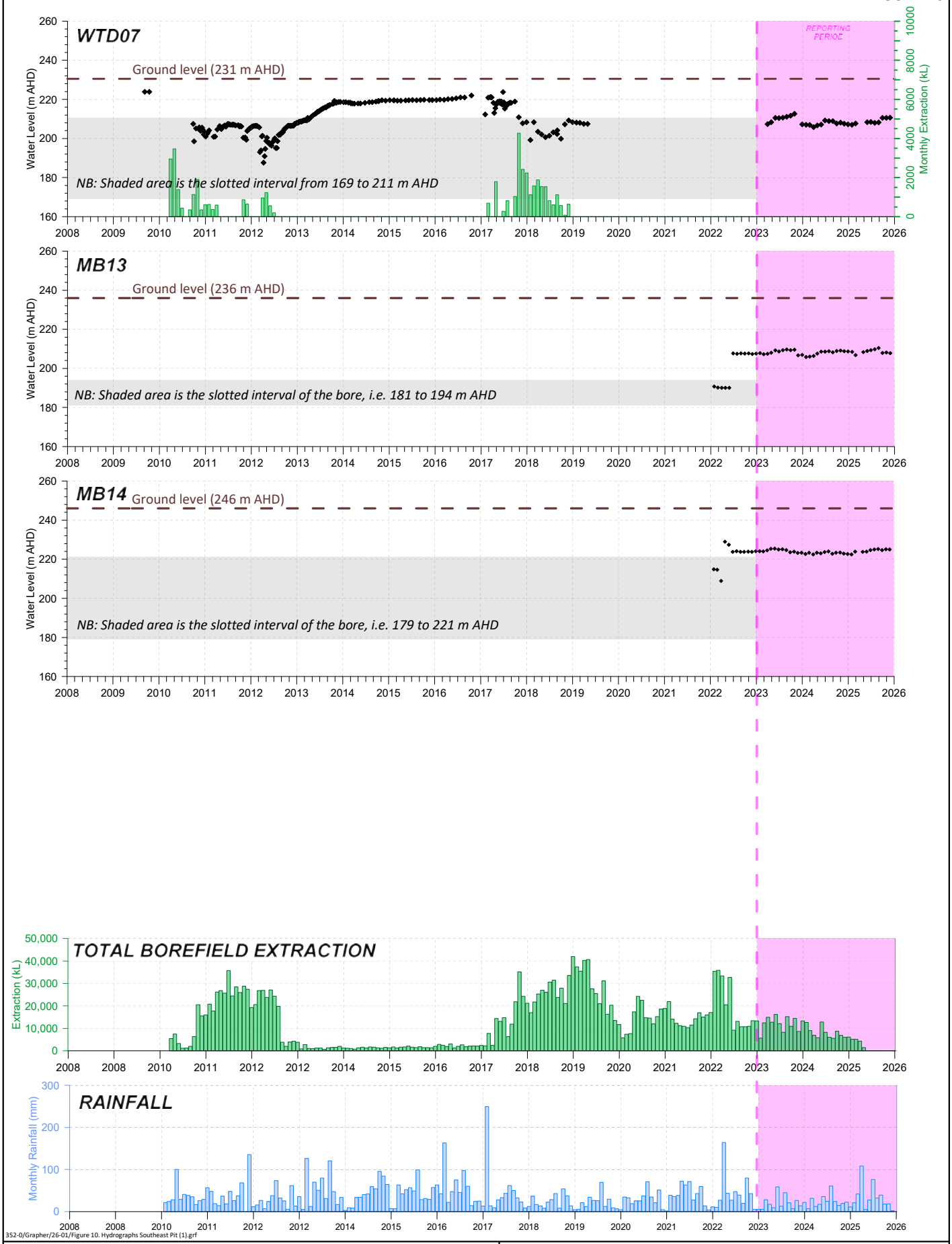


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-9

NORTH-EASTERN AQUIFER
NORTH-EAST PIT
BORE HYDROGRAPHS

Rockwater

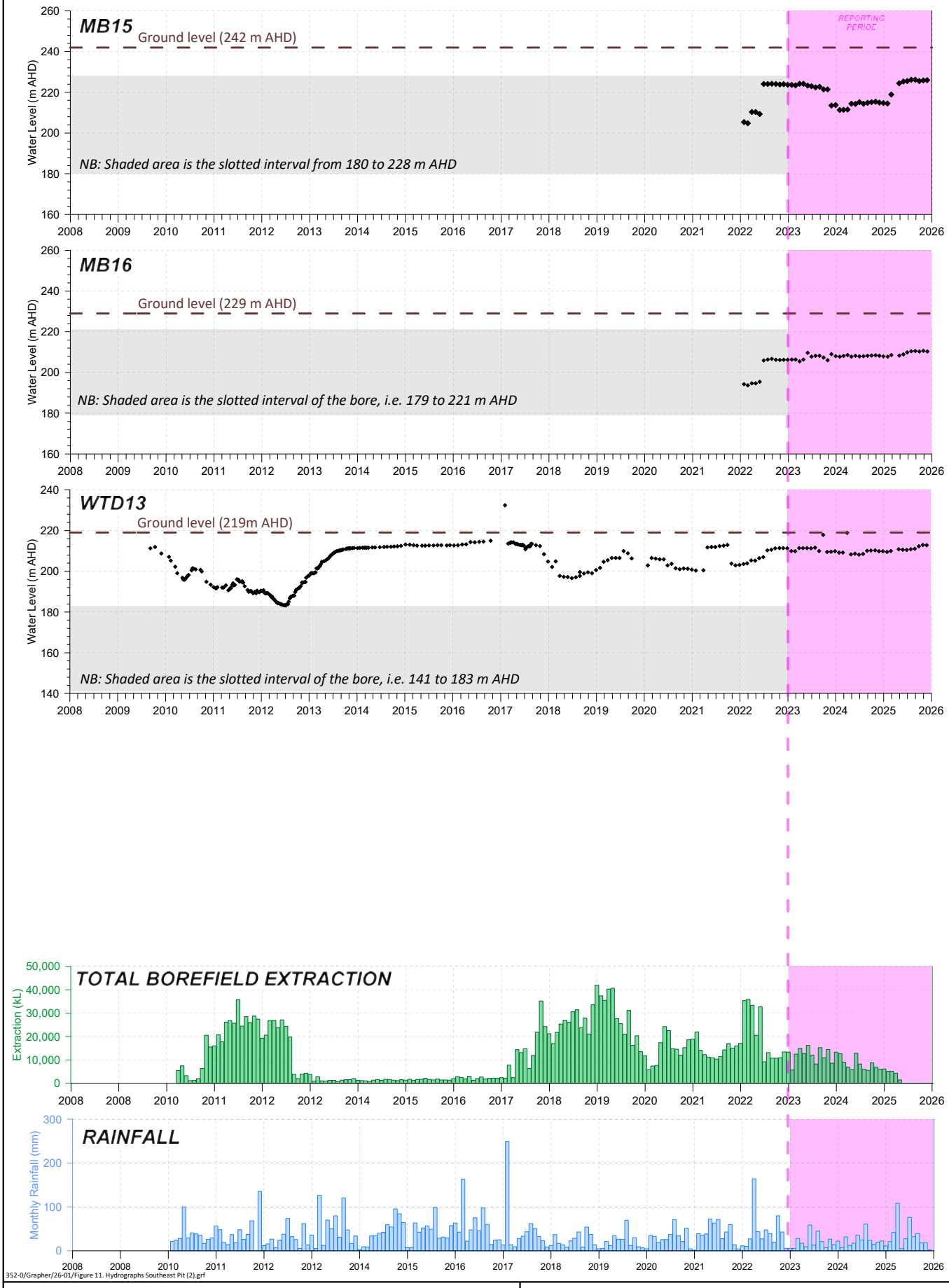
FIGURE 10



Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-10

NORTH-EASTERN AQUIFER SOUTH-EAST PIT (1) BORE HYDROGRAPHS

Rockwater

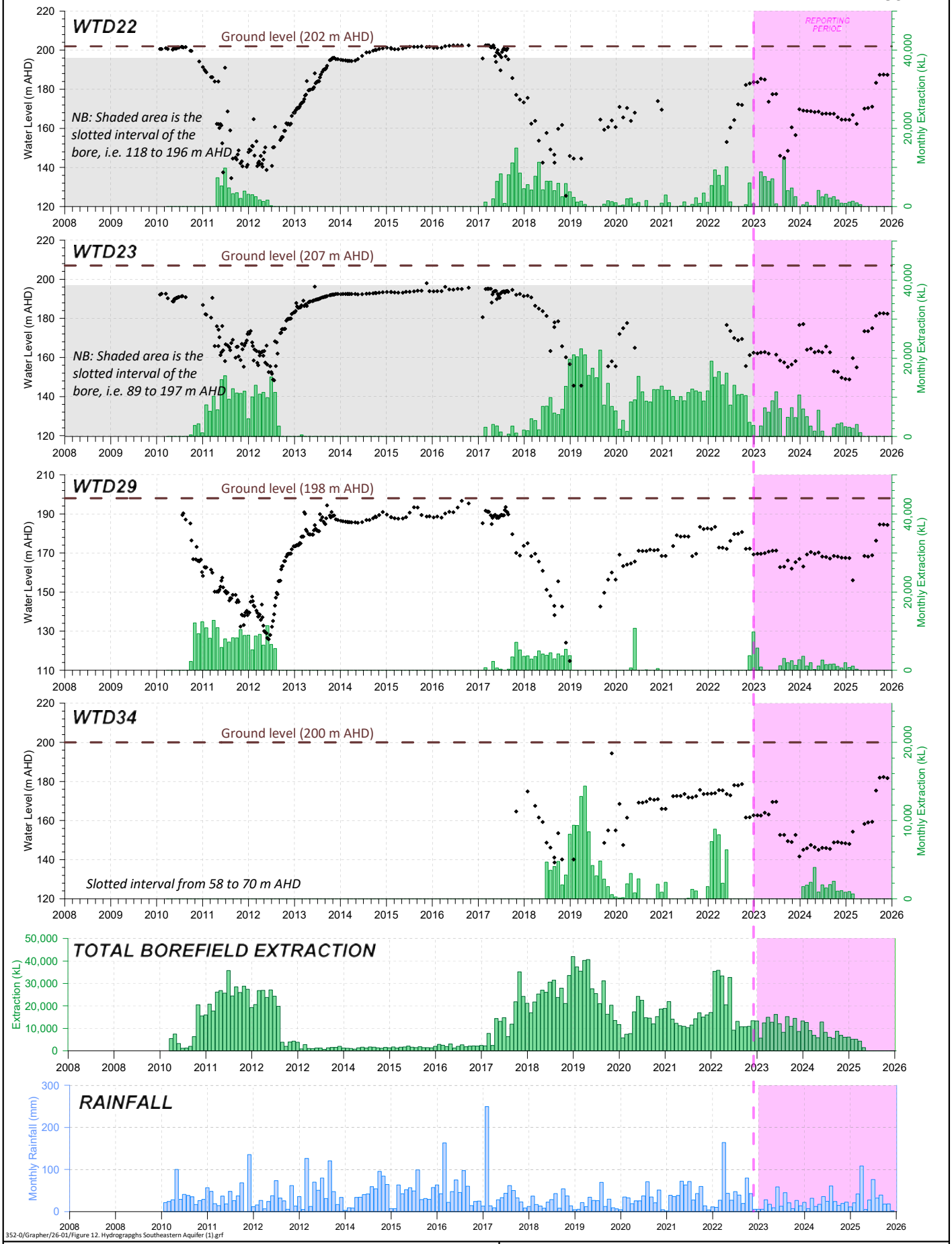


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-11

NORTH-EASTERN AQUIFER SOUTH-EAST PIT (2) BORE HYDROGRAPHS

Rockwater

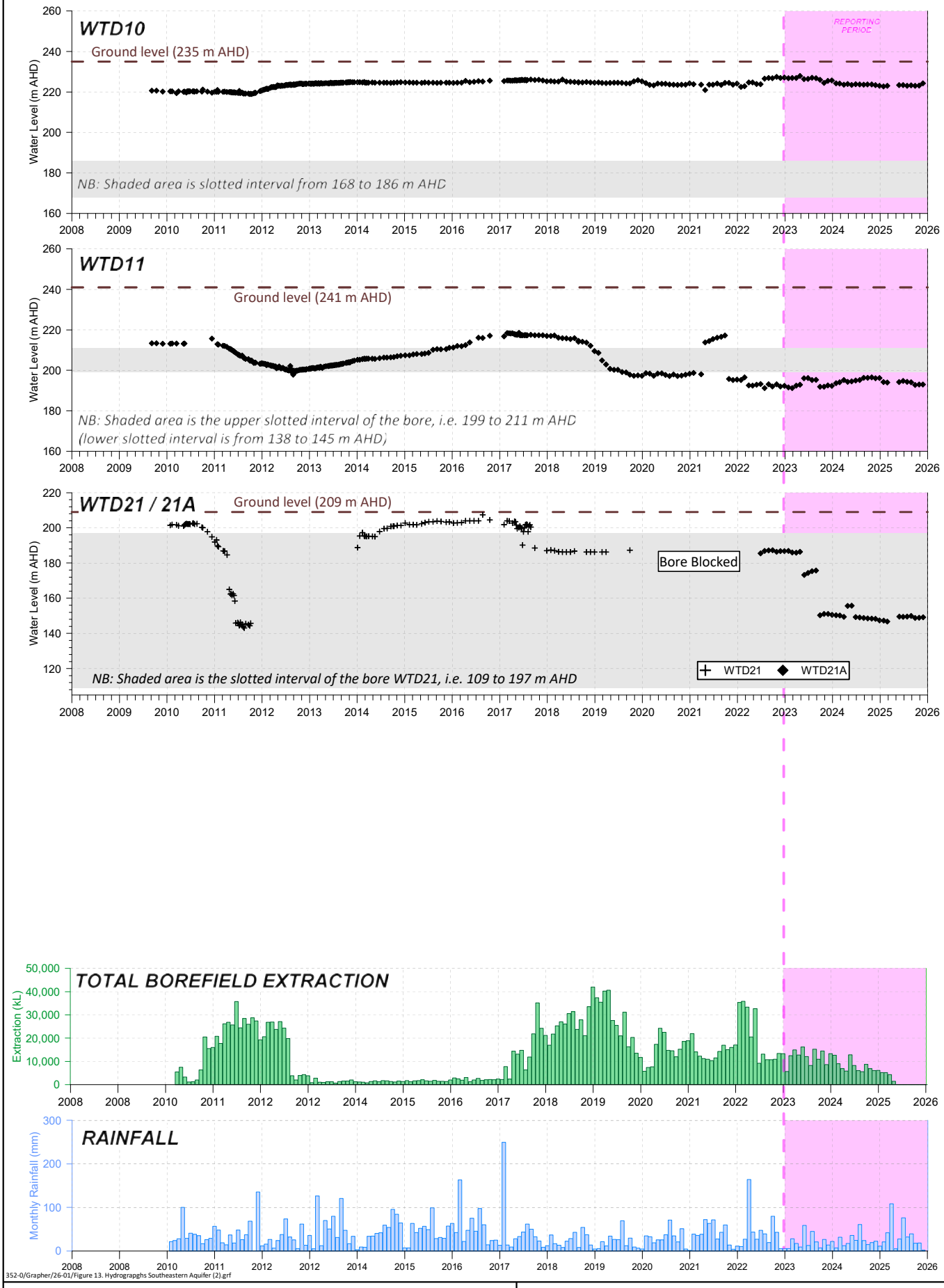
FIGURE 12



Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-12

SOUTH-EASTERN AQUIFER (1) BORE HYDROGRAPHS

Rockwater

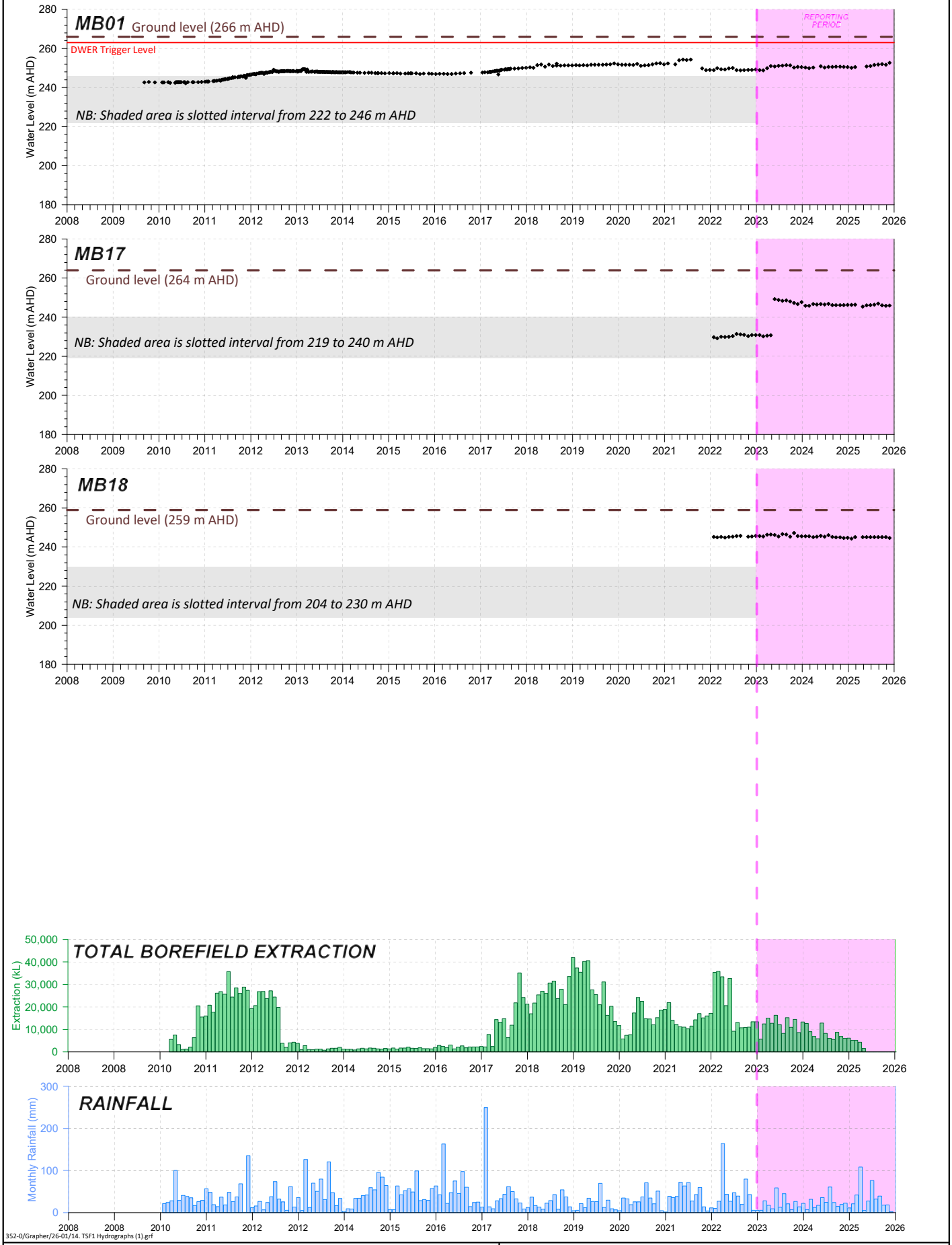


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-13

SOUTH-EASTERN AQUIFER (2) BORE HYDROGRAPHS

Rockwater

FIGURE 14

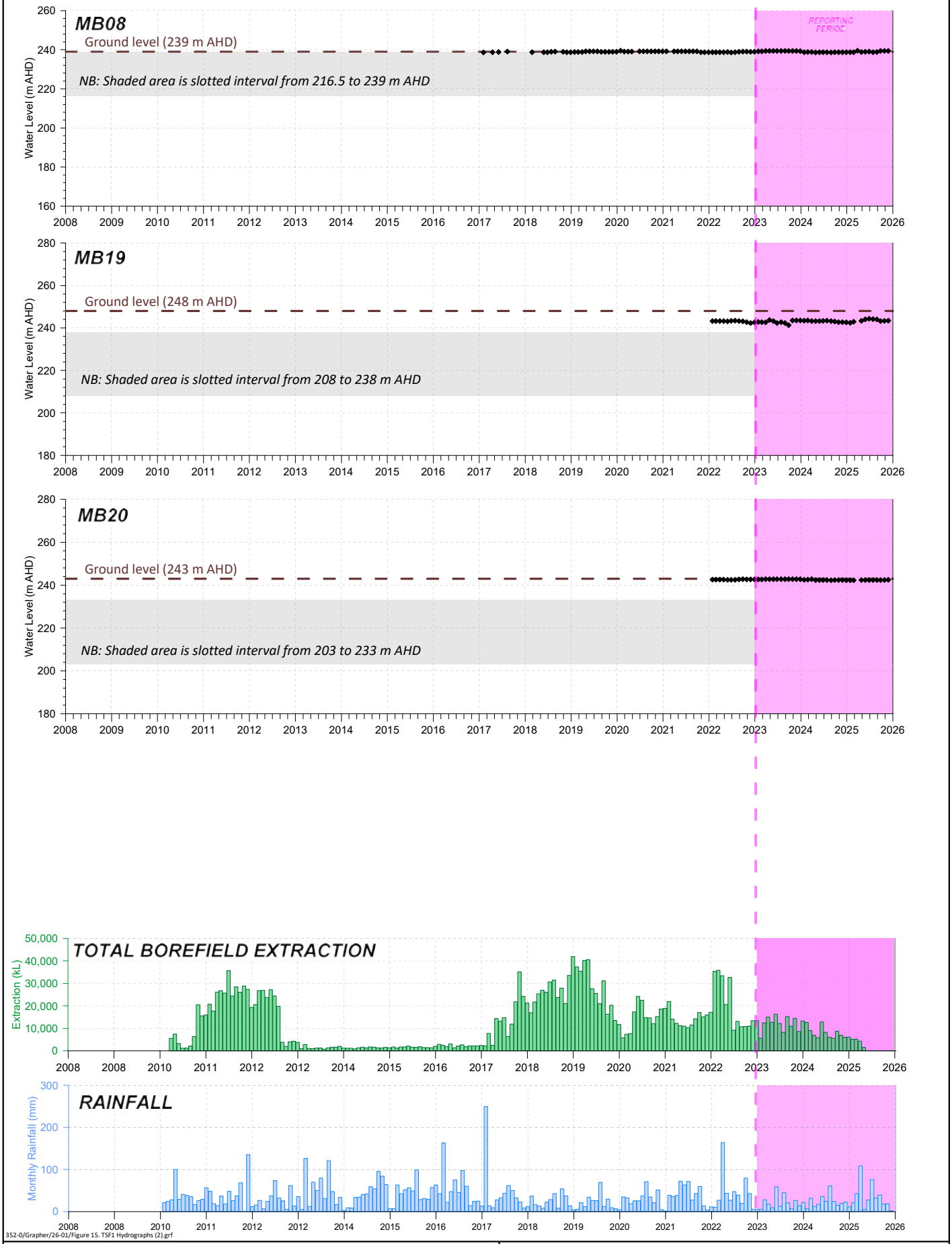


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-14

TSF1 MONTORING BORES (1)
BORE HYDROGRAPHS

Rockwater

FIGURE 15

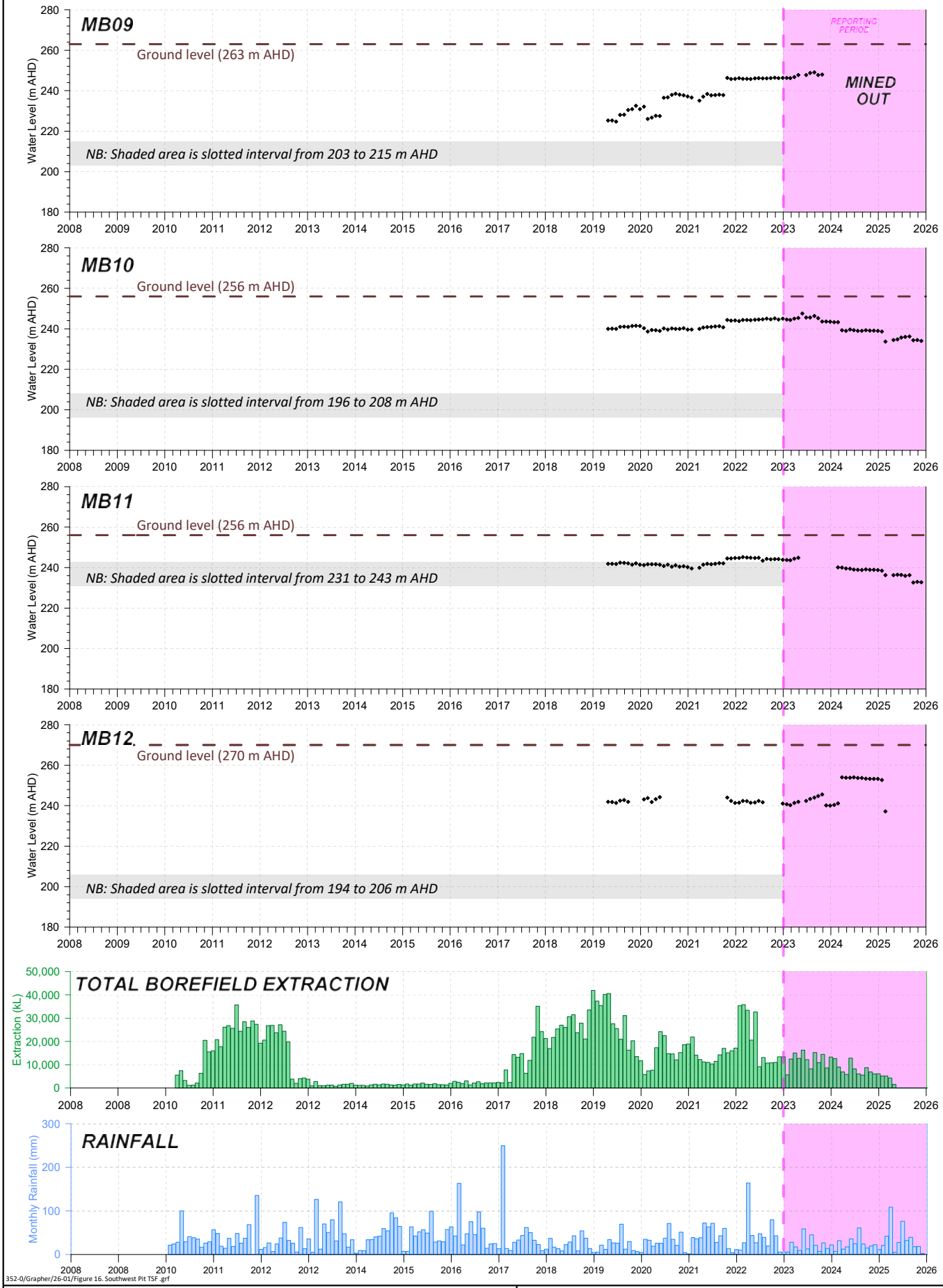


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-15

TSF1 MONTORING BORES (2)
BORE HYDROGRAPHS

Rockwater

FIGURE 16

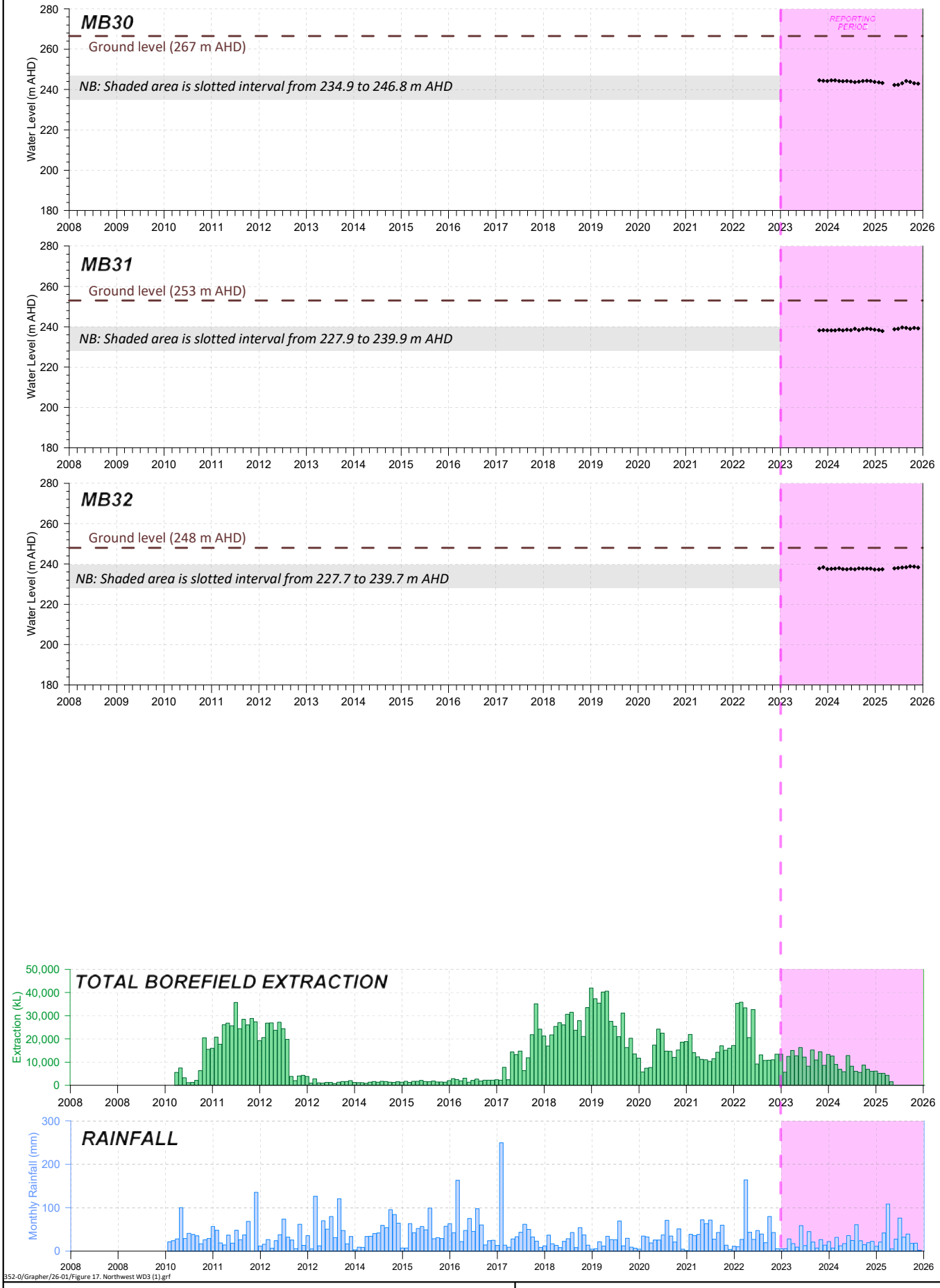


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-16

SOUTH-WEST PIT
TSF MONITORING BORES
BORE HYDROGRAPHS

Rockwater

FIGURE 17

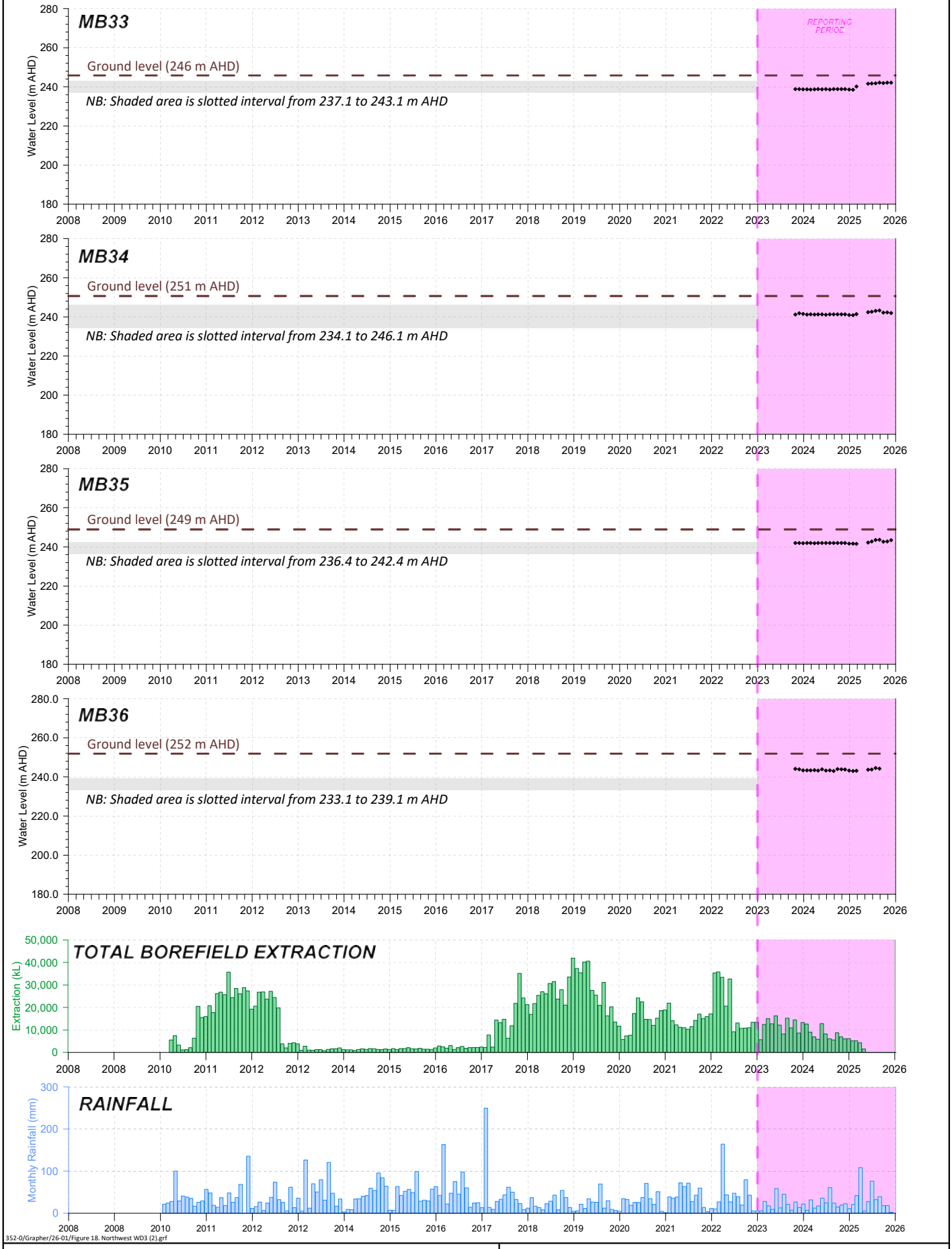


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-17

NORTH-WEST WD3 (1) BORE HYDROGRAPHS

Rockwater

FIGURE 18

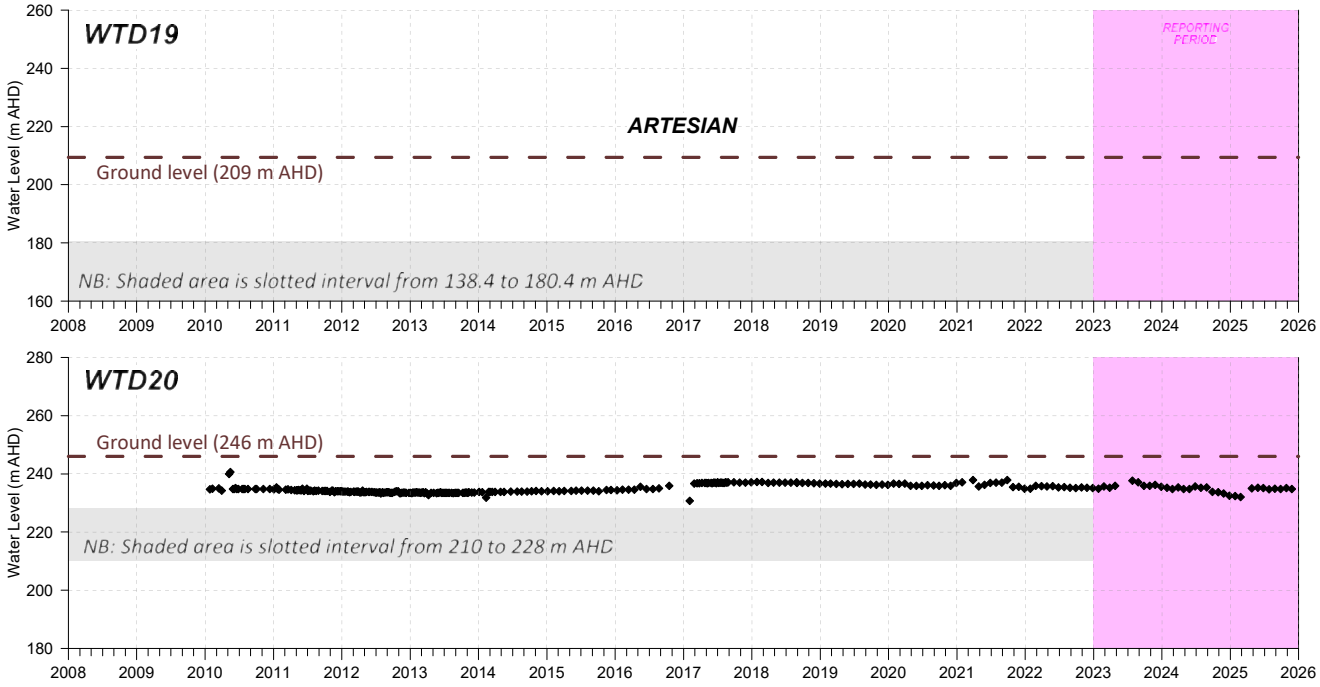


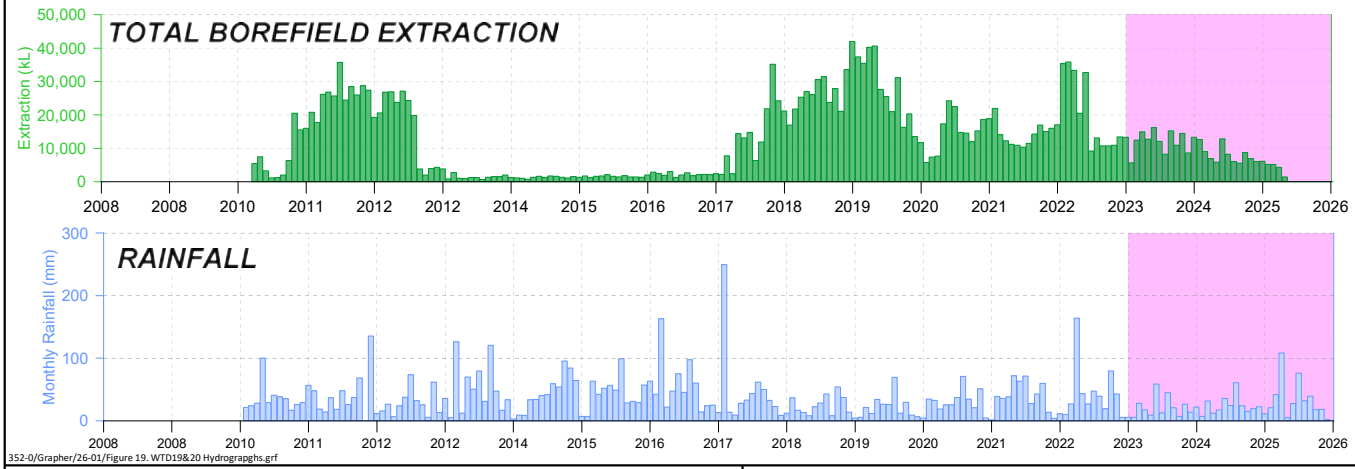
Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-18

NORTH-WEST WD3 (2) BORE HYDROGRAPHS

Rockwater

FIGURE 19



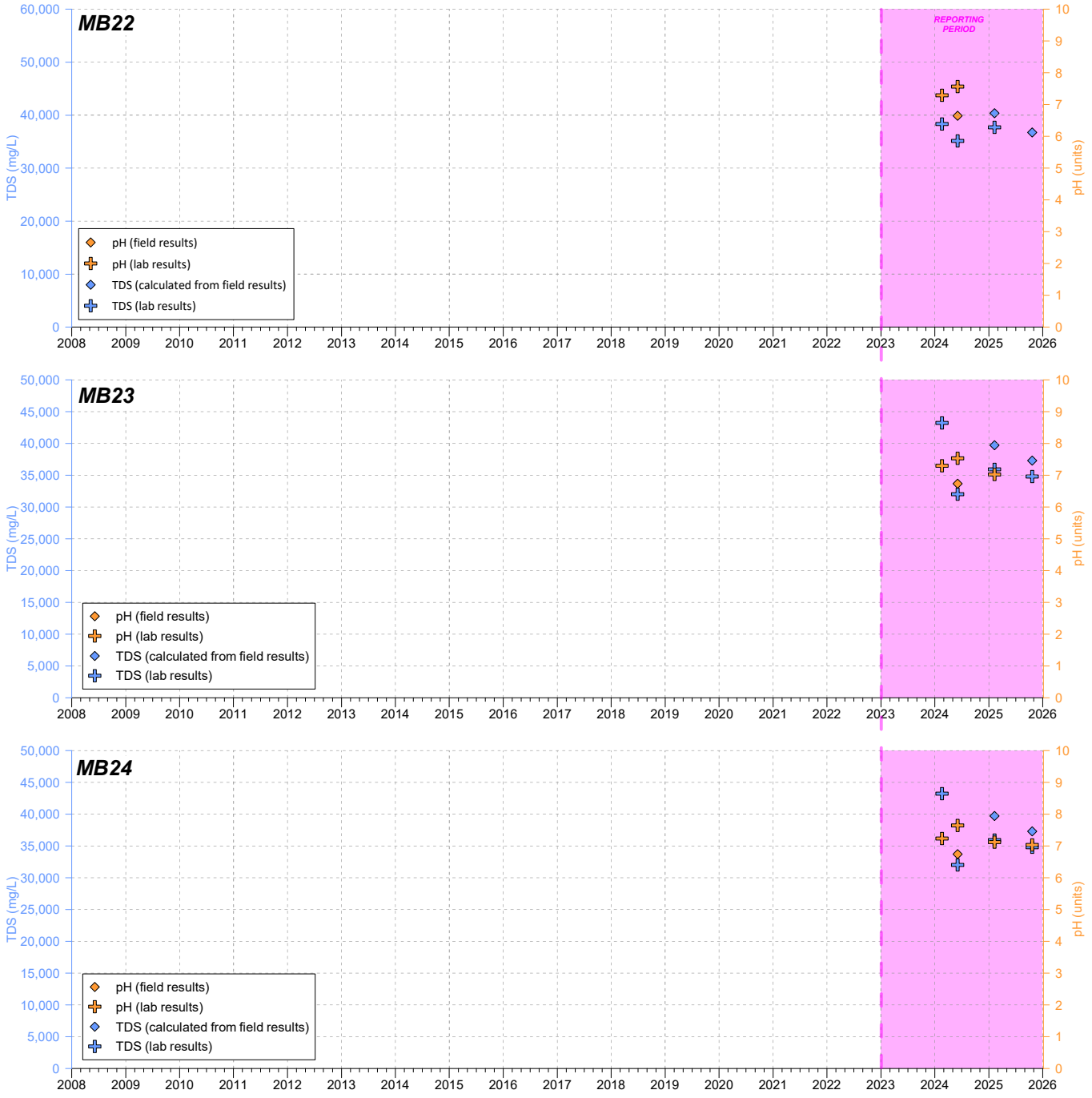


Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-19

WTD19 & WTD20
BORE HYDROGRAPHS

Rockwater

FIGURE 20



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

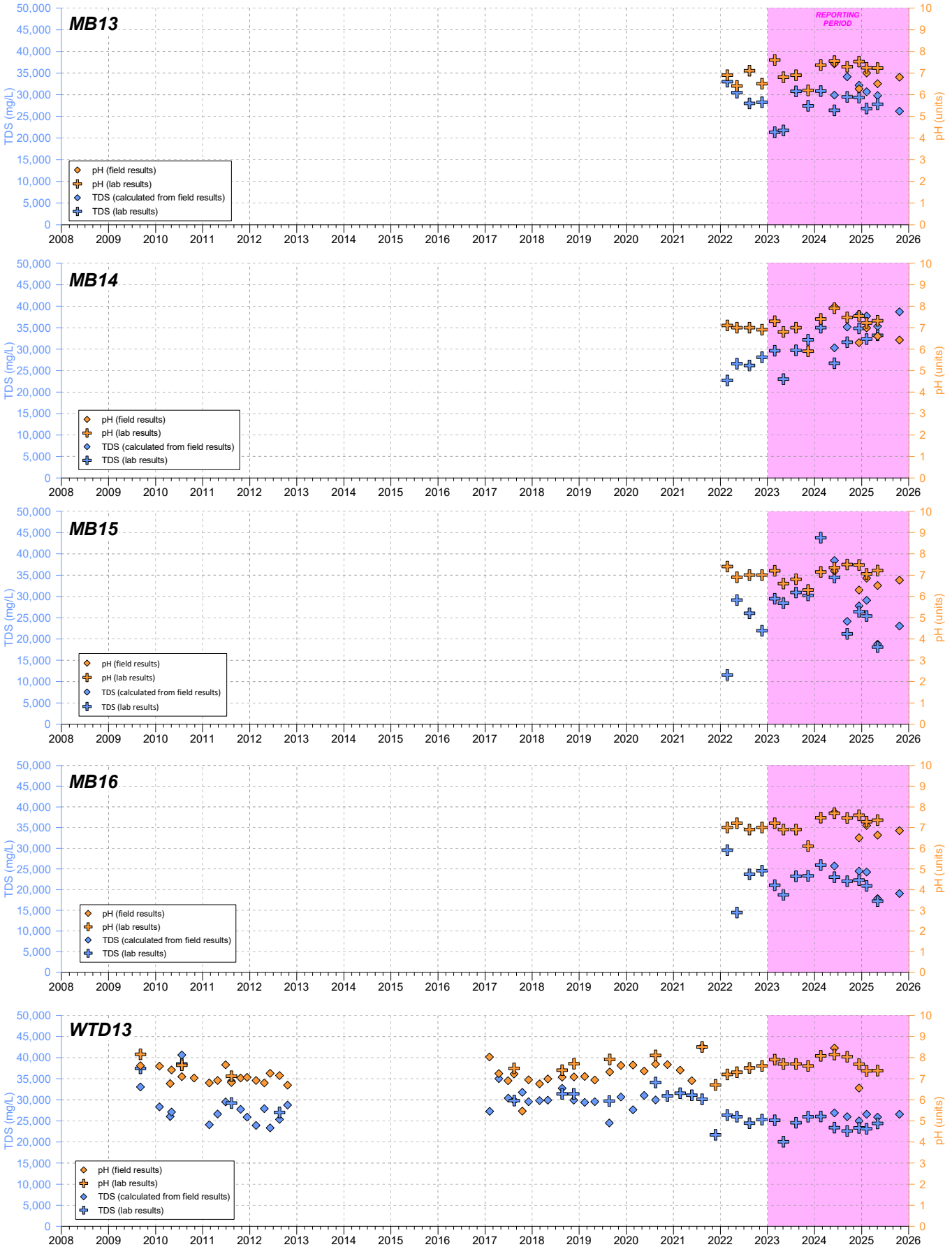
Date : March 2026

Dwg. No: 352-0/26/1-20

NORTH-EASTERN AQUIFER
NORTHEAST PIT
GROUNDWATER QUALITY

Rockwater

FIGURE 21



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

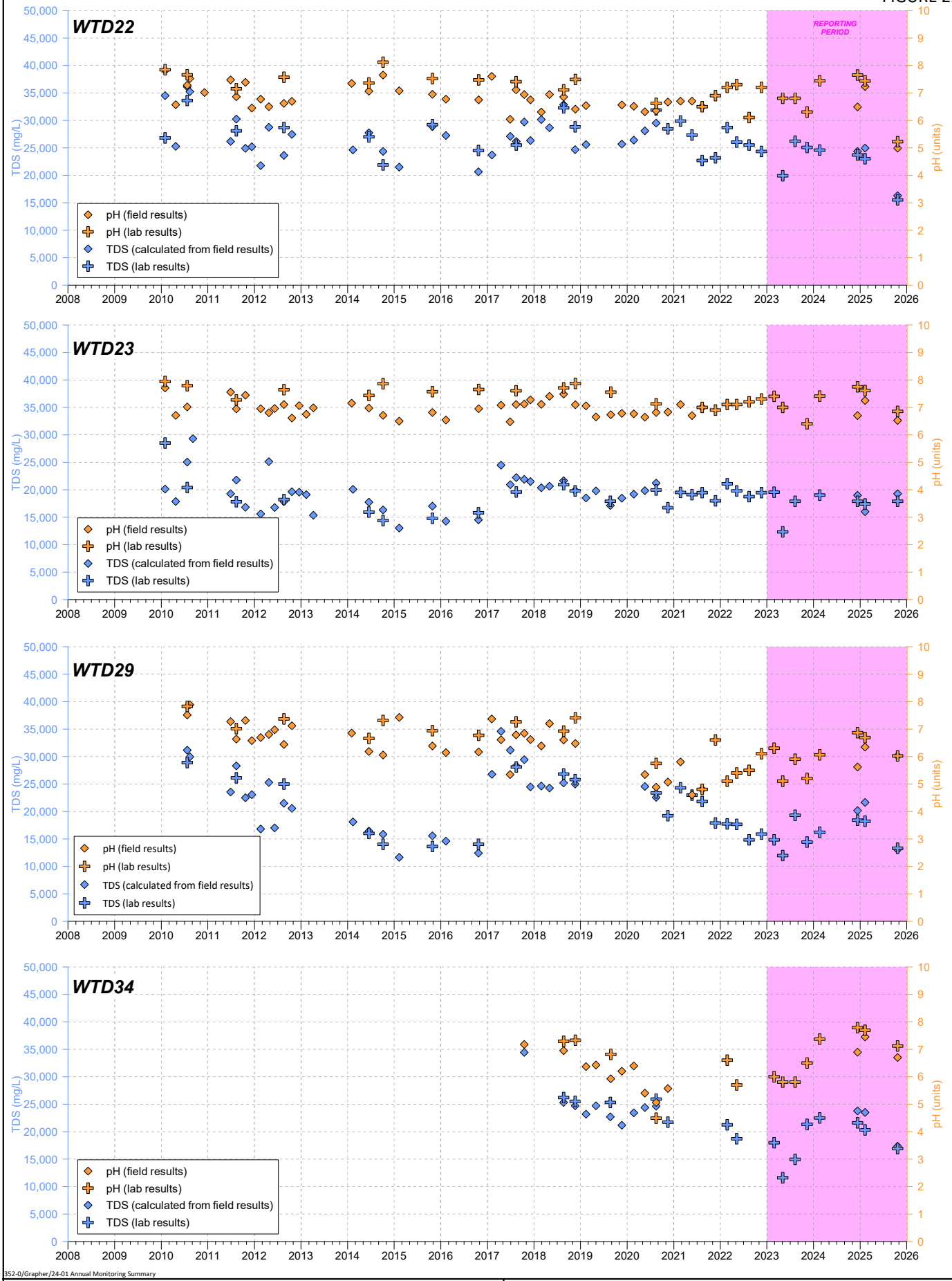
Date : March 2026

Dwg. No: 352-0/26/1-21

NORTH-EASTERN AQUIFER
SOUTH EAST PIT
GROUNDWATER QUALITY

Rockwater

FIGURE 22



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

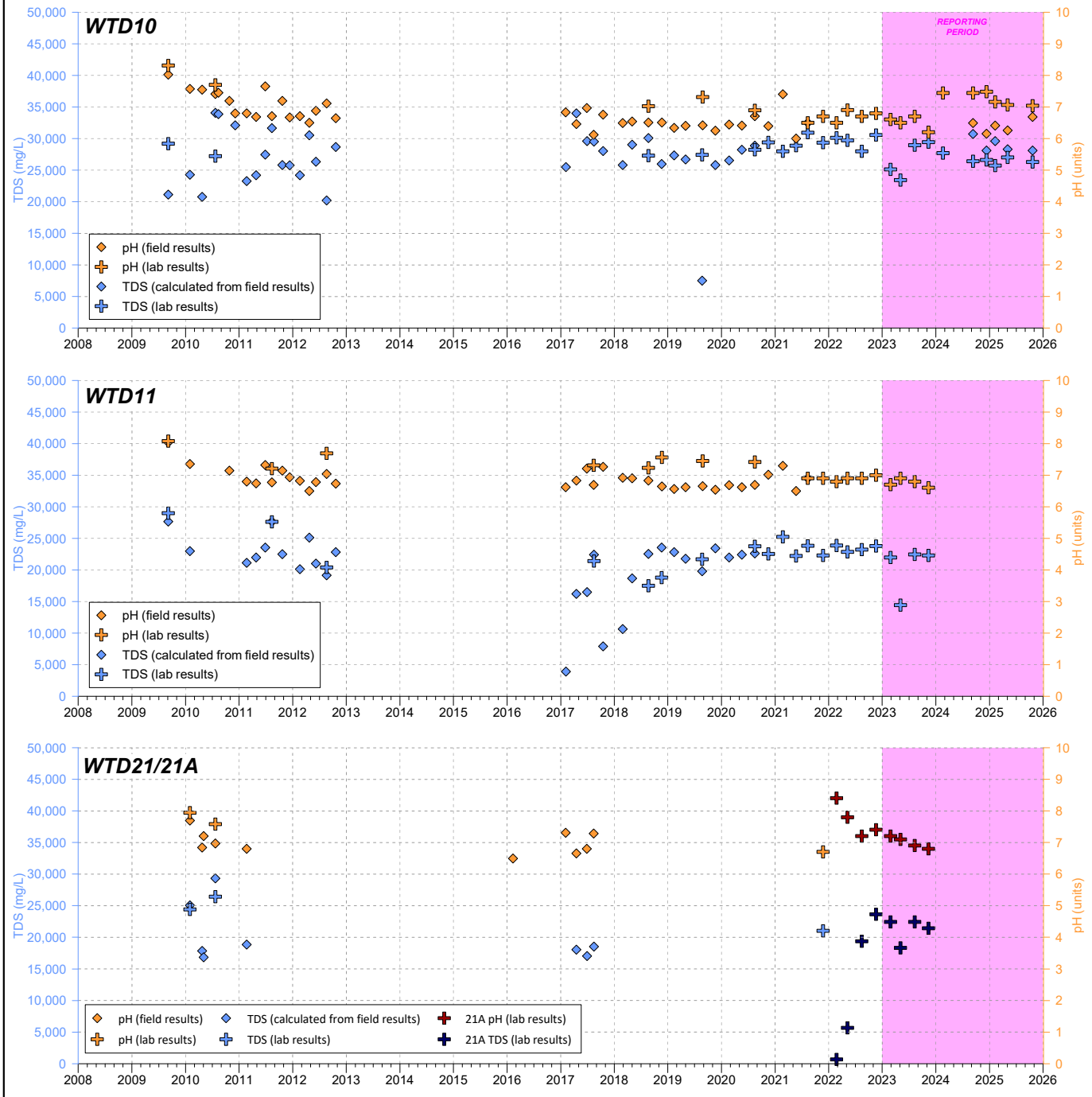
Date : March 2026

Dwg. No: 352-0/26/1-22

SOUTH-EASTERN AQUIFER (1)
GROUNDWATER QUALITY

Rockwater

FIGURE 23



352-0/Grapher/25-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

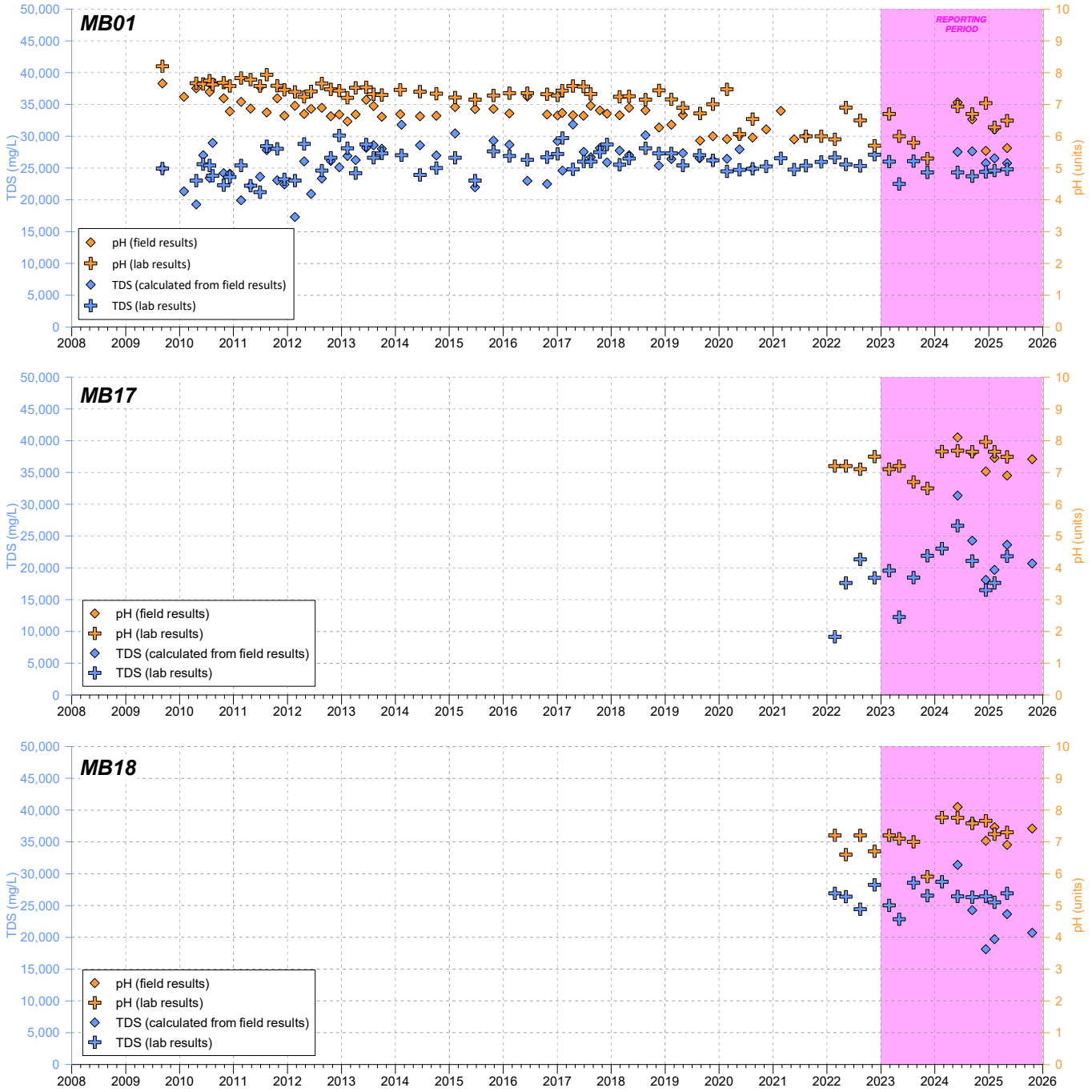
Date : March 2026

Dwg. No: 352-0/26/1-23

SOUTH-EASTERN AQUIFER (2)
GROUNDWATER QUALITY

Rockwater

FIGURE 24



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

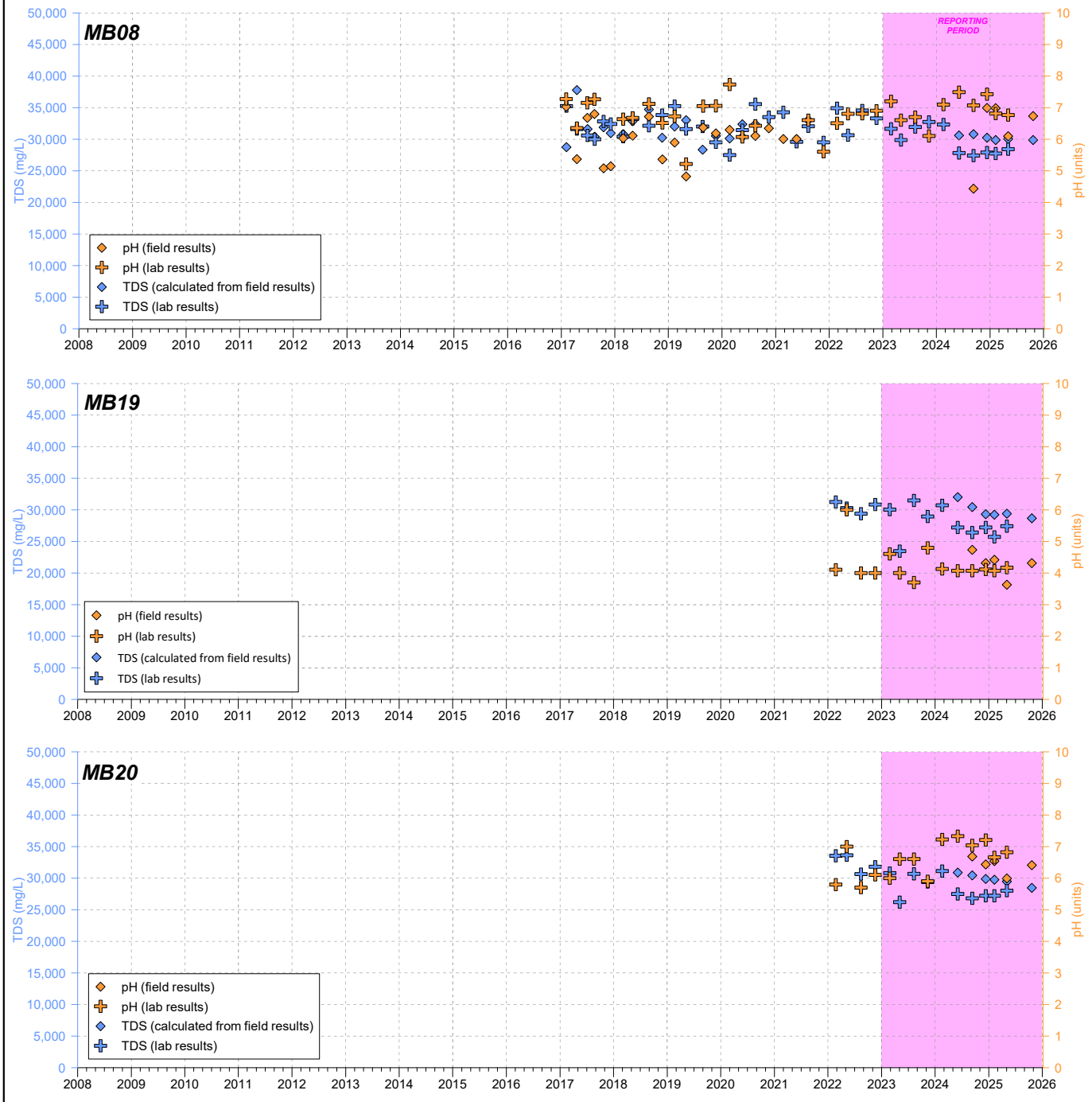
Project : Groundwater Monitoring Review 2023-25

Date : March 2026

Dwg. No: 352-0/26/1-24

TSF1 MONITORING BORES (1)
GROUNDWATER QUALITY

FIGURE 25



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

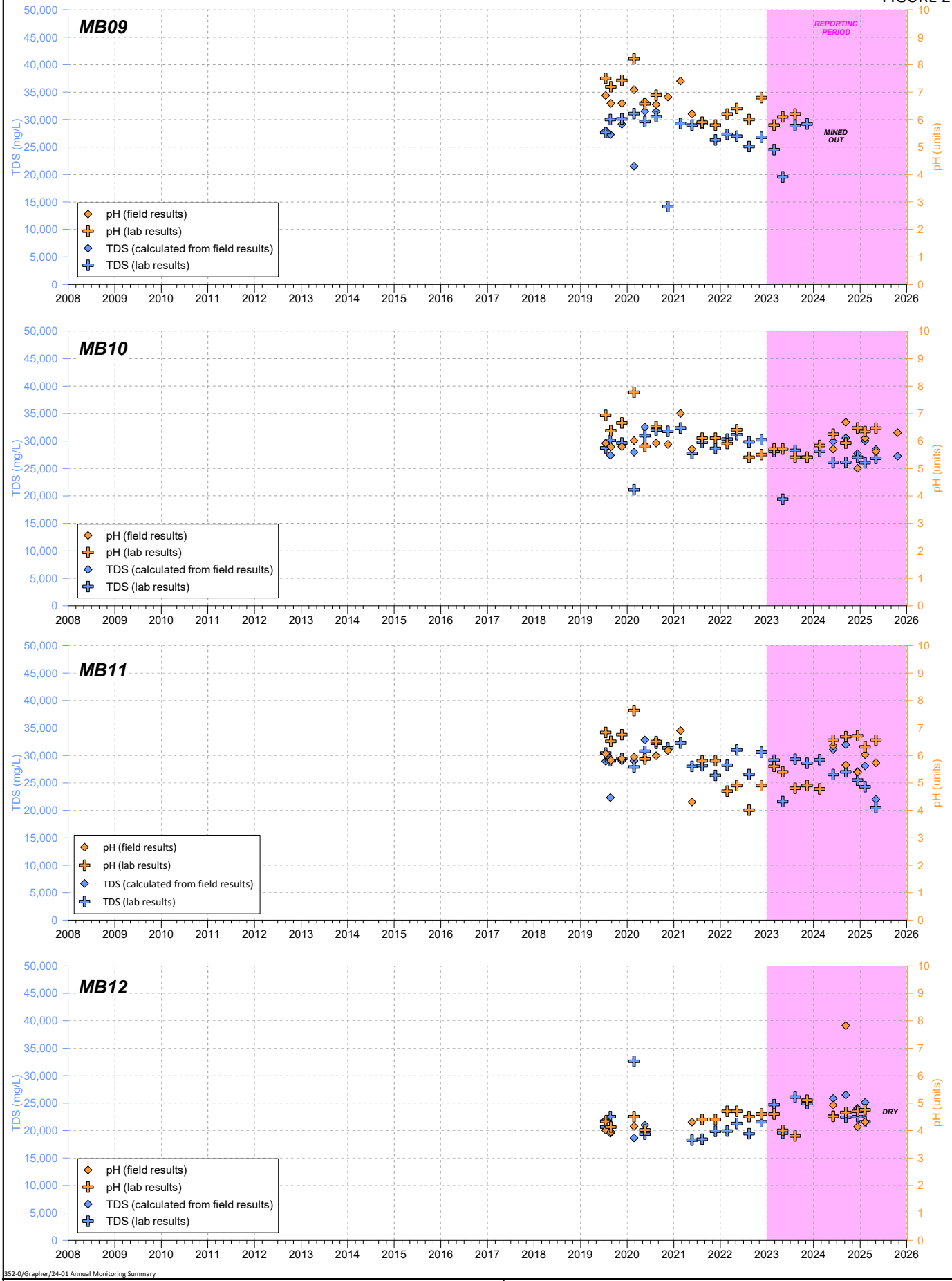
Date : March 2026

Dwg. No: 352-0/26/1-25

TSF1 MONITORING BORES (2)
GROUNDWATER QUALITY

Rockwater

FIGURE 26



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

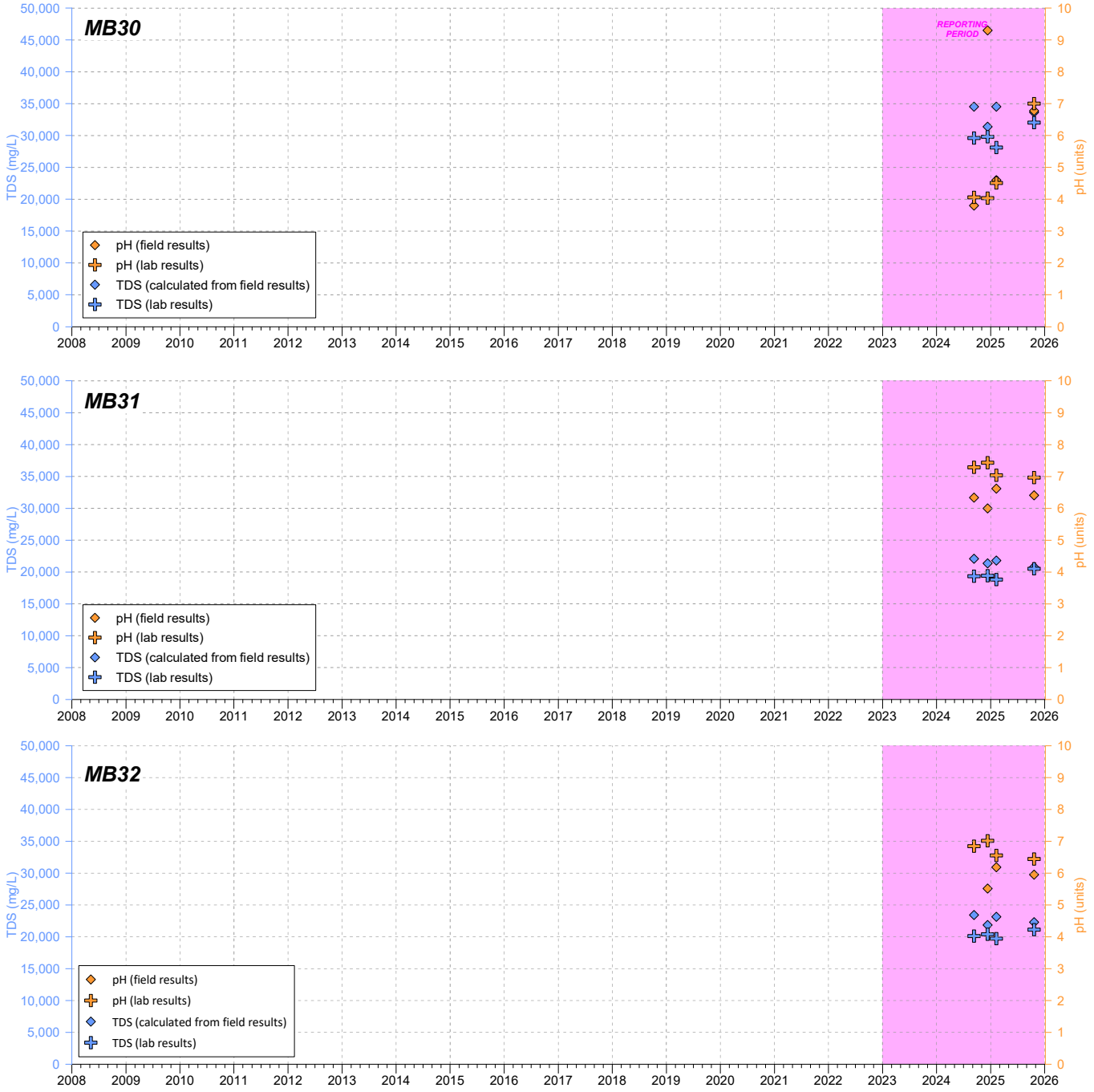
Date : March 2026

Dwg. No: 352-0/26/1-26

SOUTH-WEST PIT
TSF MONITORING BORES
GROUNDWATER QUALITY

Rockwater

FIGURE 27



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

Date : March 2026

Dwg. No: 352-0/26/1-27

NORTH-WEST WD3 (1)
GROUNDWATER QUALITY

Rockwater

FIGURE 28

352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

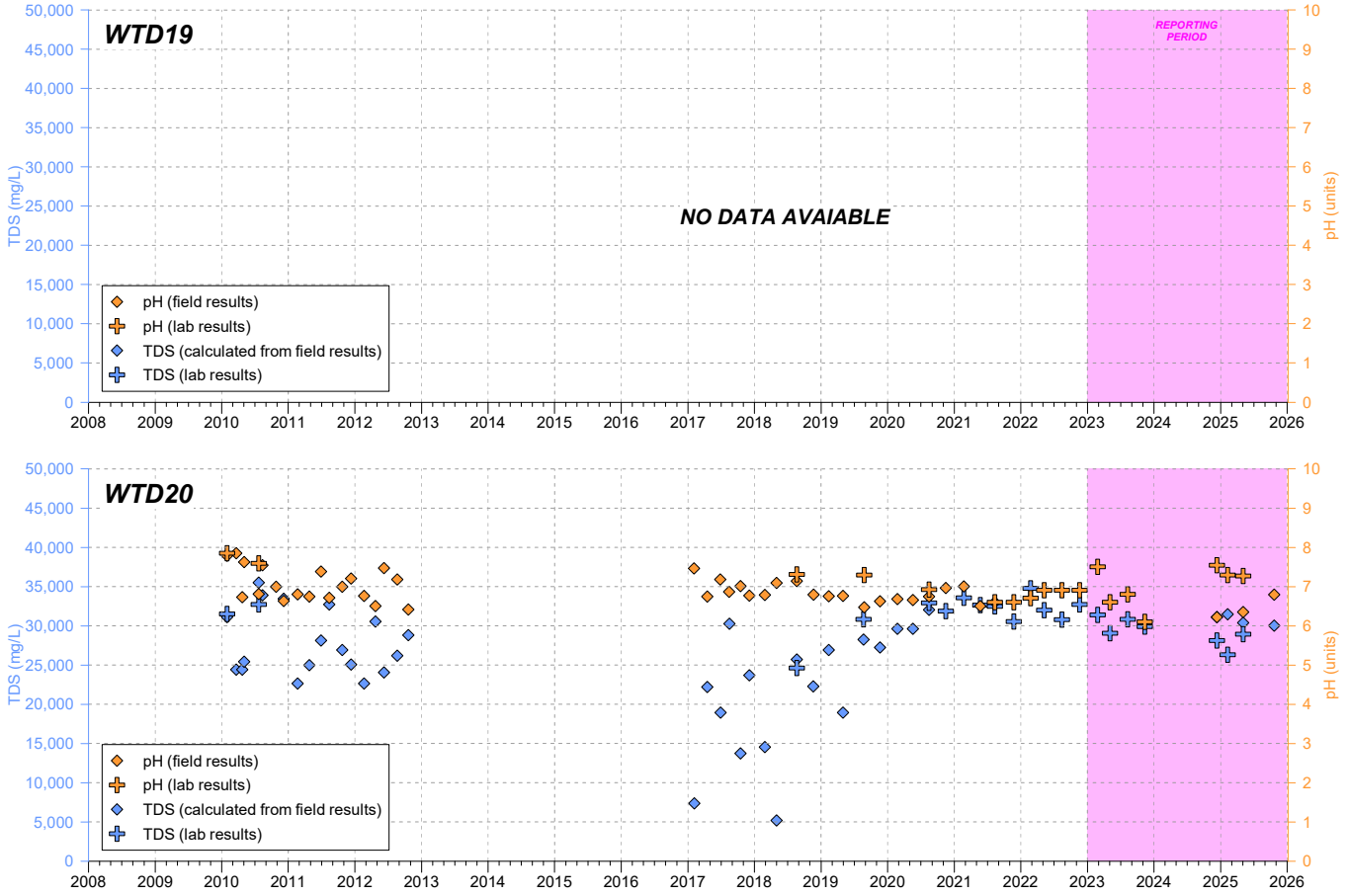
Date : March 2026

Dwg. No: 352-0/26/1-28

NORTH-WEST WD3 (2)
GROUNDWATER QUALITY

Rockwater

FIGURE 29



352-0/Grapher/24-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

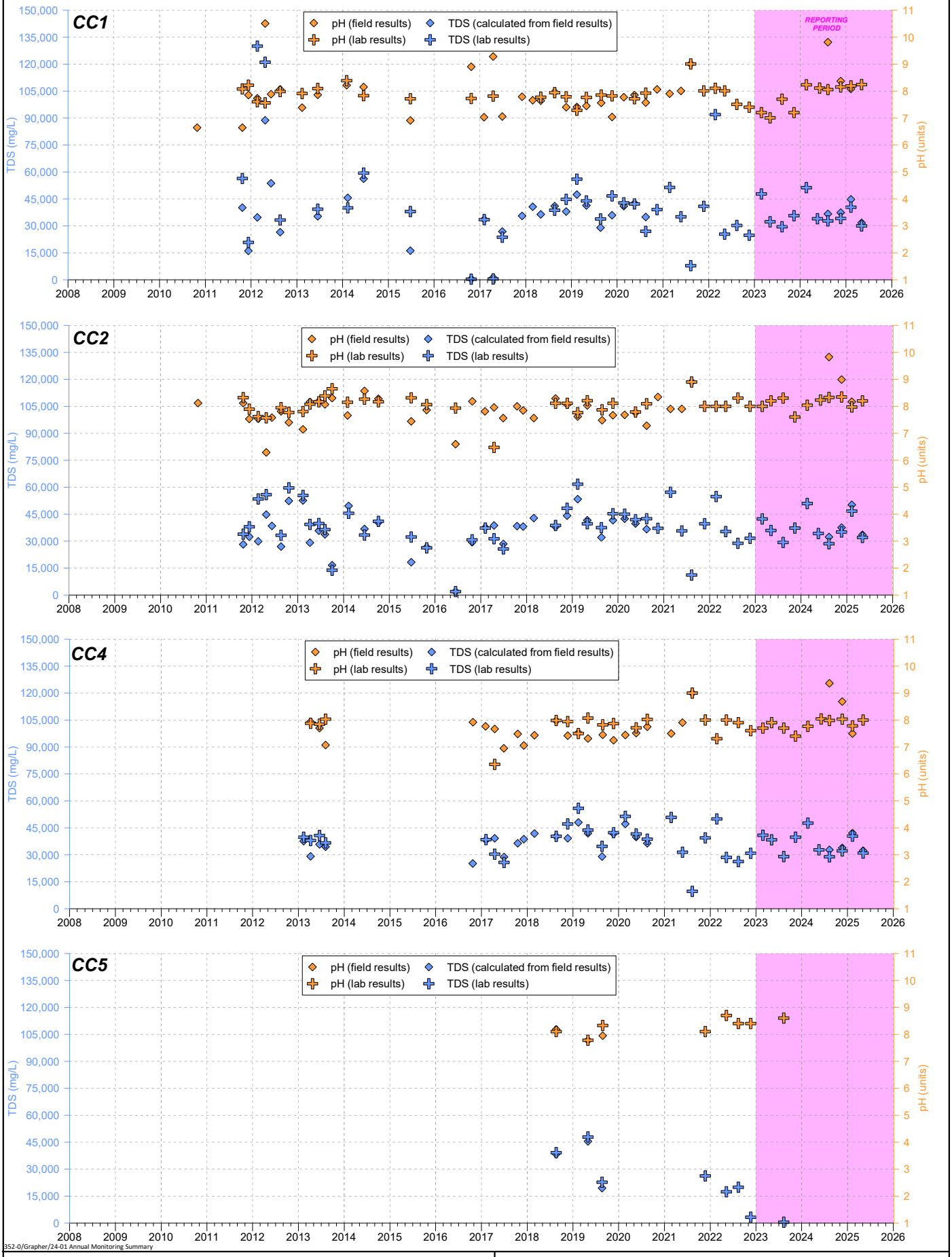
Date : March 2026

Dwg. No: 352-0/26/1-29

WTD19 & WTD20
GROUNDWATER QUALITY

Rockwater

FIGURE 30



Client: Galaxy Lithium Australia Ltd

Project : Groundwater Monitoring Review 2023-25

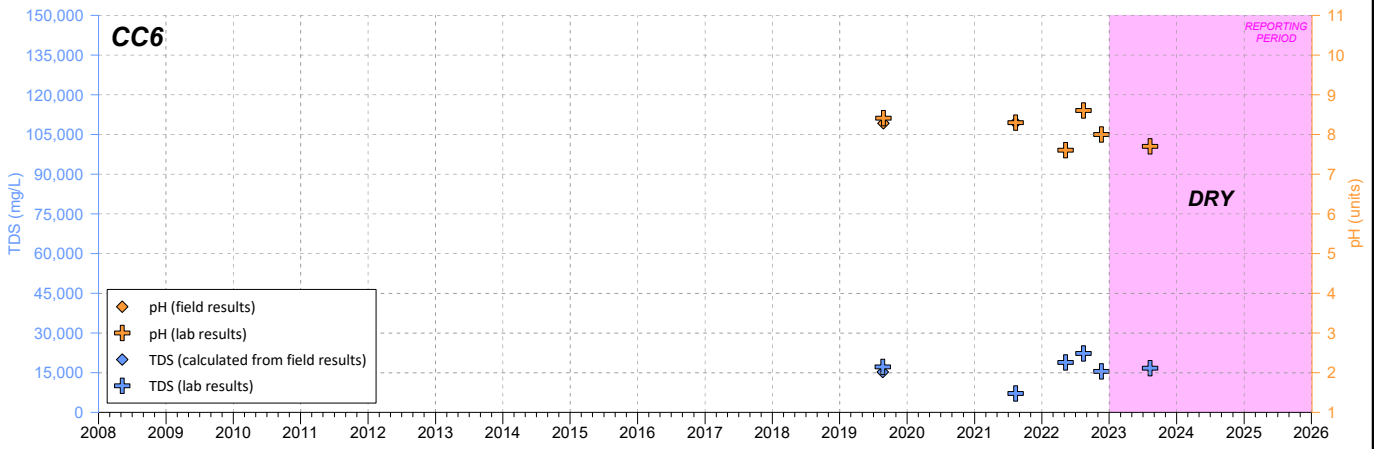
Date : March 2026

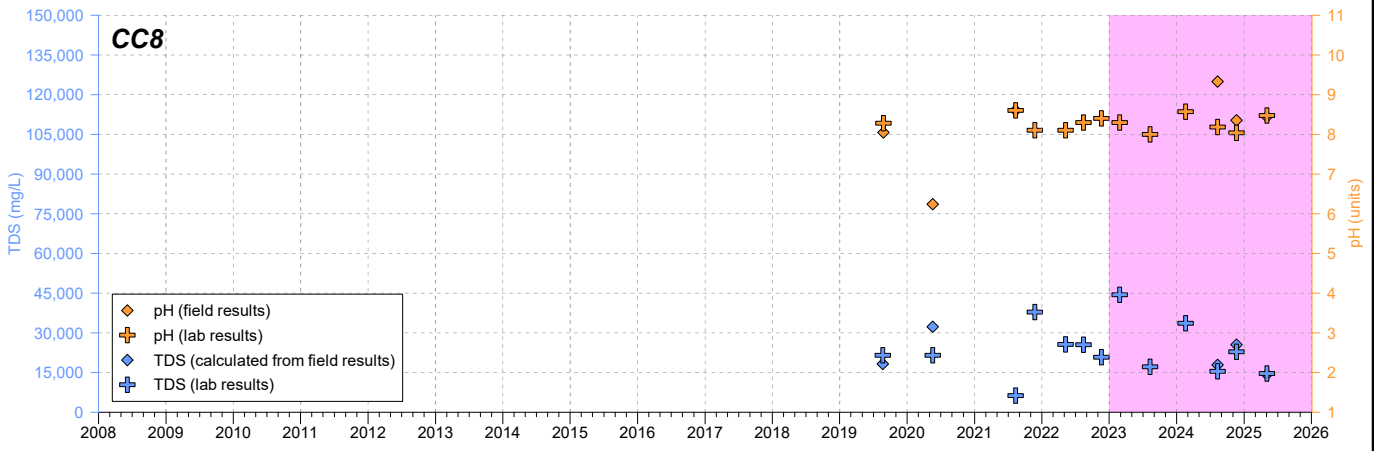
Dwg. No: 352-0/26/1-30

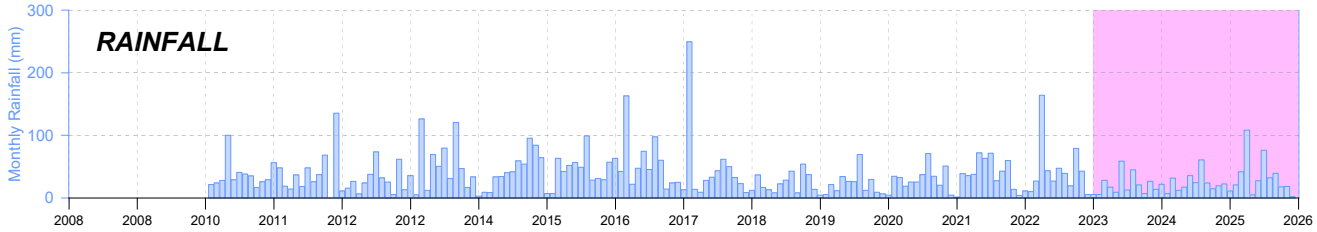
CC1, 2, 4 & CC5 GROUNDWATER QUALITY

Rockwater

FIGURE 31







352-0/Grapher/26-01 Annual Monitoring Summary

Client: Galaxy Lithium Australia Ltd

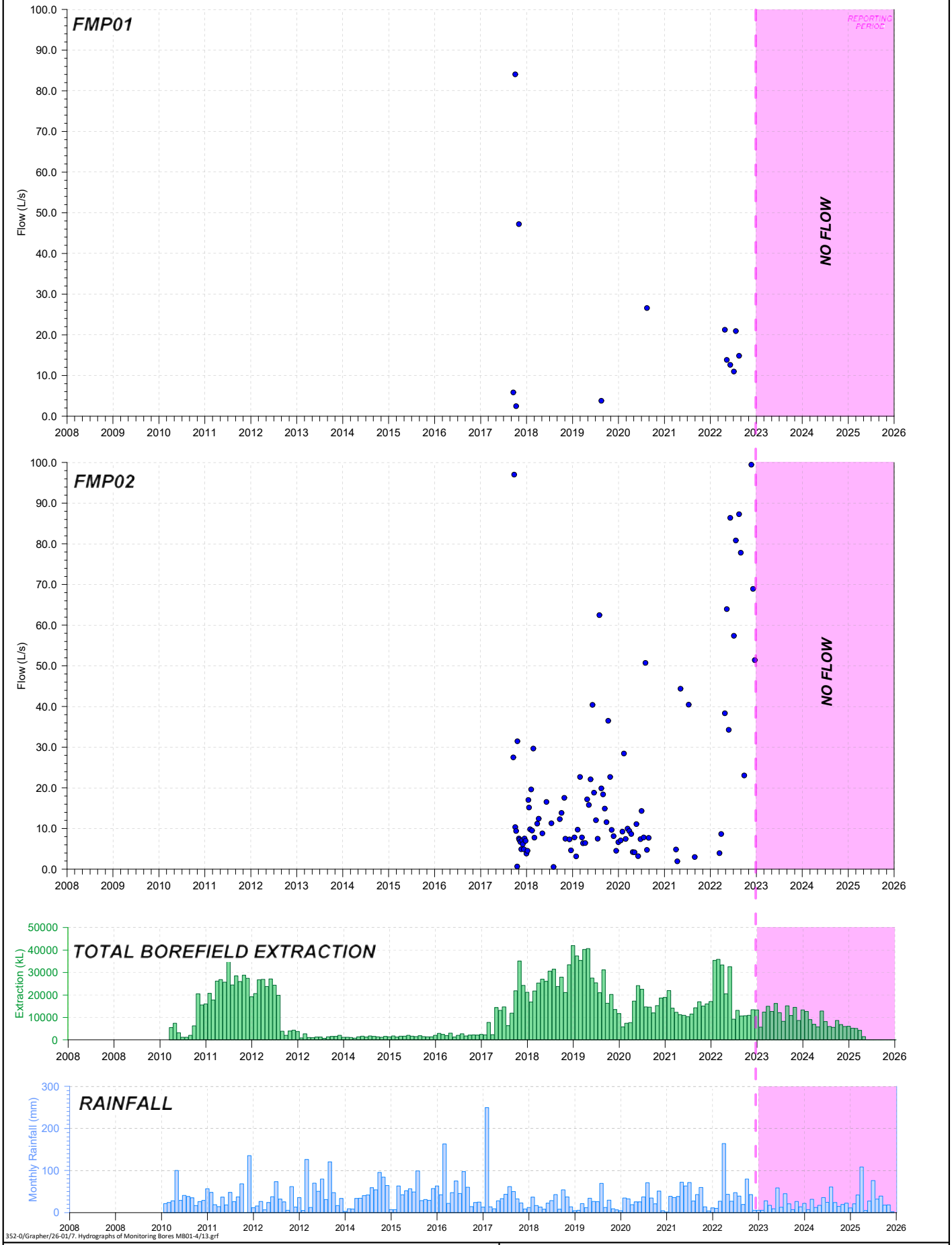
Project : Groundwater Monitoring Review 2023-25

Date : March 2026

Dwg. No: 352-0/26/1-31

CC4, CC5, CC6 & CC8
GROUNDWATER QUALITY

Rockwater



Client:	Galaxy Lithium Australia Ltd
Project :	Groundwater Monitoring Review 2023-25
Date :	March 2026
Dwg. No:	352-0/26/1-32

CATTLIN CREEK FMP01 AND FMP02 FLOW VOLUMES

APPENDIX I

5C LICENCE TO TAKE WATER GWL167439(7)
AND PERMIT TO OBSTRUCT OF INTERFERE (S21A)

Government of Western Australia
Department of Water and Environmental Regulation

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	Galaxy Lithium Australia Pty Ltd		
Description of Water Resource	Kondinin-Ravensthorpe Combined - Fractured Rock West - Fractured Rock	**Annual Water Entitlement**	1,095,000kL
Location of Water Source	M74/244 Mount Cattlin Mine		

Authorised Activities	**Taking of water for**	**Location of Activity**
	Dewatering for mining purposes	M74/244 Mount Cattlin Mine
	Dust Suppression for mining purposes	M74/244 Mount Cattlin Mine
	Mineral ore processing and other mining purposes	M74/244 Mount Cattlin Mine
Duration of Licence	From 16 December 2022 to 18 February 2026	

This Licence is subject to the following terms, conditions and restrictions:

1. Every 3 Years the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Review. The first report is due 31/03/2023. A Groundwater Monitoring Summary need not be submitted in a year in which a Groundwater Monitoring Review is due.

2. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 31/03/2024.

3. The licensee shall comply with the commitments of the operating strategy Groundwater Licence Operating Strategy for GWL 167439, as prepared by Galaxy Lithium Australia and approved by the Department of Water and Environmental Regulation on 16/12/2022 including any modifications to the commitments as approved during the term of the licence.

4. The annual water year for water taken under this licence is defined as 1 January to 31 December.

End of terms, conditions and restrictions

LICENCE TO TAKE WATER

Granted by the Minister under section 5C of the Rights in Water and Irrigation Act 1914

Licensee(s)	Galaxy Lithium Australia Pty Ltd		
Description of Water Resource	Kondinin-Ravensthorpe Combined - Fractured Rock West - Fractured Rock	**Annual Water Entitlement**	1,095,000kL
Location of Water Source	M74/244 Mount Cattlin Mine		

Authorised Activities	**Taking of water for**	**Location of Activity**
	Dewatering for mining purposes	M74/244 Mount Cattlin Mine
	Dust Suppression for mining purposes	M74/244 Mount Cattlin Mine
	Mineral ore processing and other mining purposes	M74/244 Mount Cattlin Mine
Duration of Licence	From 12 January 2026 to 11 January 2036	

This Licence is subject to the following terms, conditions and restrictions:

1. The annual water year for water taken under this licence is defined as 1 January to 31 December.

2. The licensee shall comply with the commitments of the operating strategy "Groundwater Licence Operating Strategy for GWL 167439", as prepared by Galaxy Lithium Australia and approved by the Department of Water and Environmental Regulation on 09/01/2026 including any modifications to the commitments as approved during the term of the licence.

3. Every 3 Years the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Review. The first report is due 31/03/2026. A Groundwater Monitoring Summary need not be submitted in a year in which a Groundwater Monitoring Review is due.

4. Every 12 Months the licensee shall provide to the Department of Water and Environmental Regulation a Groundwater Monitoring Summary for the preceding water year. The first report is due 31/03/2027.

End of terms, conditions and restrictions

Government of Western Australia
Department of Water and Environmental Regulation

PERMIT TO OBSTRUCT OR INTERFERE (S21A)

Granted by the Minister under section 21A of the Rights in Water and Irrigation Act 1914

Permit Holder(s)	Galaxy Lithium Australia Limited
Description of Water Resource	Esperance Coast Jerdacuttup River
Location of Water Source	M74/244 Mount Cattlin Mine

Authorised Activities	**Activity**	**Location of Activity**
	Modification of Cattlin Creek by permanent diversion around mine expansion area.	M74/244 Mount Cattlin Mine UNALLOCATED CROWN LAND - PIN 795331 UNALLOCATED CROWN LAND - PIN 795336 UNALLOCATED CROWN LAND - PIN 992004
Duration of Permit	From 17 August 2018 to 17 August 2028	

This Permit is subject to the following terms, conditions and restrictions:

1. The permit holder must comply with the commitments of the Cattlin Creek Diversion Management Plan-Rev 1 and any updated versions.

2. The permit holder is to provide water quality and stream flow data to the Department of Water and Environmental Regulation annually with their groundwater licence reporting.

3. The permit holder must comply with the commitments of the monitoring program and report to the department and take actions to ameliorate adverse impacts on the stream.

4. The permit holder must only undertake works in the area defined as Cattlin Creek between monitoring points CC2 and CC5 on the aerial photograph/diagram titled Figure 11 and the diversion schematic in Figure 2 in the Cattlin Creek Diversion Management Plan_Rev 1.

End of terms, conditions and restrictions

APPENDIX II

DEPARTMENT WATER AND ENVIRONMENTAL REGULATION
(DWER) LICENCE L8469/2010/2

APPENDIX III

WATER LEVEL MEASUREMENTS JANUARY 2023 – DECEMBER 2025

DATE	WTD07			WTD10			WTD11		
	btc	bgl	m AHD	btc	bgl	m AHD	btc	bgl	m AHD
Jan-24	23.4	22.77	207.14	9.70	9.22	225.60	48.7	48.25	192.31
Feb-24	23.6	22.97	206.94	11.1	10.62	224.20	47.4	46.95	193.61
Mar-24	23.7	23.07	206.84	11.2	10.72	224.10	47	46.55	194.01
Apr-24	24.8	24.17	205.74	11.7	11.22	223.60	45.9	45.45	195.11
May-24	23.9	23.27	206.64	11.4	10.92	223.90	46.7	46.25	194.31
Jun-24	23.5	22.87	207.04	11.9	11.42	223.40	46.5	46.05	194.51
Jul-24	21.4	20.77	209.14	11.5	11.02	223.80	46.1	45.65	194.91
Aug-24	21.7	21.07	208.84	11.6	11.12	223.70	45.9	45.45	195.11
Sep-24	21.7	21.07	208.84	11.7	11.22	223.60	44.8	44.35	196.21
Oct-24	22.9	22.27	207.64	11.6	11.12	223.70	44.7	44.25	196.31
Nov-24	22.5	21.87	208.04	11.6	11.12	223.70	44.5	44.05	196.51
Dec-24	23.0	22.37	207.54	12.0	11.52	223.30	45.0	44.55	196.01
DATE	**WTD13**			**WTD20**			**WTD21A**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	9.0	8.54	209.76	11.23	10.18	235.46	59.7	58.54	150.48
Feb-24	9.7	9.24	209.06	11.5	10.45	235.19	60	58.84	150.18
Mar-24	9.6	9.14	209.16	11.9	10.85	234.79	60.1	58.94	150.08
Apr-24	-	-	-	11.4	10.35	235.29	60.8	59.64	149.38
May-24	10.5	10.04	208.26	12	10.95	234.69	54.6	53.44	155.58
Jun-24	10.2	9.74	208.56	11.9	10.85	234.79	54.5	53.34	155.68
Jul-24	10.6	10.14	208.16	11.1	10.05	235.59	61	59.84	149.18
Aug-24	10.3	9.84	208.46	11.5	10.45	235.19	61.2	60.04	148.98
Sep-24	8.8	8.34	209.96	11.4	10.35	235.29	61.5	60.34	148.68
Oct-24	8.7	8.24	210.06	12.9	11.85	233.79	61.7	60.54	148.48
Nov-24	8.5	8.04	210.26	13	11.95	233.69	61.9	60.74	148.28
Dec-24	9	8.54	209.76	13.5	12.45	233.19	62	60.84	148.18
DATE	**WTD22**			**WTD23**			**WTD28**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	32.7	32.40	169.75	31.1	30.38	176.51	Decommissioned		
Feb-24	33.4	33.10	169.05	30.6	29.88	177.01			
Mar-24	33.6	33.30	168.85	43.7	42.98	163.91			
Apr-24	33.7	33.40	168.75	43.2	42.48	164.41			
May-24	34.2	33.90	168.25	45	44.28	162.61			
Jun-24	33.9	33.60	168.55	44.5	43.78	163.11			
Jul-24	35	34.70	167.45	45	44.28	162.61			
Aug-24	34.9	34.60	167.55	42.1	41.38	165.51			
Sep-24	35	34.70	167.45	45	44.28	162.61			
Oct-24	35.1	34.80	167.35	54.7	53.98	152.91			
Nov-24	36.8	36.50	165.65	55	54.28	152.61			
Dec-24	38	37.70	164.45	58	57.28	149.61			

DATE	WTD29			WTD31			WTD34		
	btc	bgl	m AHD	btc	bgl	m AHD	btc	bgl	m AHD
Jan-24	31.2	30.95	166.90	32.9	32.60	165.20	56.9	56.26	141.59
Feb-24	35.1	34.85	163.00	33.2	32.90	164.90	53.5	52.86	144.99
Mar-24	28.9	28.65	169.20	30.9	30.60	167.20	52.7	52.06	145.79
Apr-24	27.7	27.45	170.40	29.5	29.20	168.60	51	50.36	147.49
May-24	28.6	28.35	169.50	30.2	29.90	167.90	52.1	51.46	146.39
Jun-24	27.9	27.65	170.20	29.4	29.10	168.70	53.5	52.86	144.99
Jul-24	30	29.75	168.10	30.5	30.20	167.60	52.5	51.86	145.99
Aug-24	30.2	29.95	167.90	31.4	31.10	166.70	52.6	51.96	145.89
Sep-24	31	30.75	167.10	32.4	32.10	165.70	53	52.36	145.49
Oct-24	29.7	29.45	168.40	30.7	30.40	167.40	49.7	49.06	148.79
Nov-24	30	29.75	168.10	30.9	30.60	167.20	49.5	48.86	148.99
Dec-24	30.5	30.25	167.60	31	30.70	167.10	50	49.36	148.49
DATE	**MB01**			**MB08**			**MB09**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	16.3	15.83	250.46	0.2	-0.24	239.23	Decommissioned		
Feb-24	16.5	16.03	250.26	0.74	0.30	238.69			
Mar-24	16.9	16.43	249.86	0.7	0.26	238.73			
Apr-24	16.5	16.03	250.26	0.7	0.26	238.73			
May-24	-	-	-	0.9	0.46	238.53			
Jun-24	15.9	15.43	250.86	0.8	0.36	238.63			
Jul-24	16.5	16.03	250.26	0.8	0.36	238.63			
Aug-24	16.2	15.73	250.56	0.8	0.36	238.63			
Sep-24	16.2	15.73	250.56	0.85	0.41	238.58			
Oct-24	16.1	15.63	250.66	0.73	0.29	238.70			
Nov-24	16.1	15.63	250.66	0.76	0.32	238.67			
Dec-24	16.2	15.73	250.56	0.79	0.35	238.64			
DATE	**MB10**			**MB11**			**MB12**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	13.0	12.50	243.46	45.6	45.10	-	31.2	30.70	240.00
Feb-24	13.2	12.70	243.26	45.6	45.10	-	30.9	30.40	240.30
Mar-24	13.2	12.70	243.26	16.2	15.70	240.09	30.1	29.60	241.10
Apr-24	17.2	16.70	239.26	16.3	15.80	239.99	17.2	16.70	254.00
May-24	17.5	17.00	238.96	16.8	16.30	239.49	17.5	17.00	253.70
Jun-24	16.9	16.40	239.56	16.9	16.40	239.39	17.5	17.00	253.70
Jul-24	17.2	16.70	239.26	17.3	16.80	238.99	17.2	16.70	254.00
Aug-24	17.5	17.00	238.96	17.4	16.90	238.89	17.6	17.10	253.60
Sep-24	17.6	17.10	238.86	17.5	17.00	238.79	17.6	17.10	253.60
Oct-24	17.2	16.70	239.26	17.2	16.70	239.09	17.9	17.40	253.30
Nov-24	17.4	16.90	239.06	17.4	16.90	238.89	18	17.50	253.20
Dec-24	17.4	16.90	239.06	17.4	16.90	238.89	18	17.50	253.20

DATE	MB13			MB14			MB15		
	btc	bgl	m AHD	btc	bgl	m AHD	btc	bgl	m AHD
Jan-24	29.3	28.87	206.87	23.1	22.70	223.25	28.6	28.12	213.69
Feb-24	30.4	29.97	205.77	23.7	23.30	222.65	31	30.52	211.29
Mar-24	30.2	29.77	205.97	23.1	22.70	223.25	30.9	30.42	211.39
Apr-24	29.9	29.47	206.27	24	23.60	222.35	30.8	30.32	211.49
May-24	28.6	28.17	207.57	23.06	22.66	223.29	28	27.52	214.29
Jun-24	27.7	27.27	208.47	23.4	23.00	222.95	28.1	27.62	214.19
Jul-24	27.6	27.17	208.57	22.7	22.30	223.65	27.2	26.72	215.09
Aug-24	27.4	26.97	208.77	22.4	22.00	223.95	27.9	27.42	214.39
Sep-24	28	27.57	208.17	23.6	23.20	222.75	27.5	27.02	214.79
Oct-24	27.3	26.87	208.87	23.1	22.70	223.25	27.2	26.72	215.09
Nov-24	27.1	26.67	209.07	23	22.60	223.35	27	26.52	215.29
Dec-24	27.4	26.97	208.77	23.5	23.10	222.85	27.4	26.92	214.89
DATE	**MB16**			**MB17**			**MB18**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	20.7	20.24	207.96	16.5	16.04	247.68	13.7	13.25	245.46
Feb-24	20.9	20.44	207.76	18.4	17.94	245.78	13.7	13.25	245.46
Mar-24	20.6	20.14	208.06	18.4	17.94	245.78	13.7	13.25	245.46
Apr-24	20.1	19.64	208.56	17.5	17.04	246.68	14.1	13.65	245.06
May-24	20.9	20.44	207.76	17.7	17.24	246.48	13.9	13.45	245.26
Jun-24	20.5	20.04	208.16	17.5	17.04	246.68	13.4	12.95	245.76
Jul-24	20.8	20.34	207.86	17.7	17.24	246.48	13.9	13.45	245.26
Aug-24	20.7	20.24	207.96	17.4	16.94	246.78	13.1	12.65	246.06
Sep-24	20.5	20.04	208.16	18	17.54	246.18	14	13.55	245.16
Oct-24	20.4	19.94	208.26	18	17.54	246.18	14.2	13.75	244.96
Nov-24	20.3	19.84	208.36	18	17.54	246.18	14.2	13.75	244.96
Dec-24	20.5	20.04	208.16	18	17.54	246.18	14.5	14.05	244.66
DATE	**MB19**			**MB20**			**MB22**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	4.72	4.26	243.47	0	-0.51	242.73	39.85	39.05	201.03
Feb-24	4.77	4.31	243.42	0.24	-0.27	242.49	40	39.20	200.88
Mar-24	4.7	4.24	243.49	0.23	-0.28	242.50	40.1	39.30	200.78
Apr-24	5	4.54	243.19	0	-0.51	242.73	40.1	39.30	200.78
May-24	5	4.54	243.19	0.37	-0.14	242.36	39.1	38.30	201.78
Jun-24	5	4.54	243.19	0.34	-0.17	242.39	39.5	38.70	201.38
Jul-24	4.9	4.44	243.29	0.4	-0.11	242.33	39.5	38.70	201.38
Aug-24	4.8	4.34	243.39	0.4	-0.11	242.33	39.1	38.30	201.78
Sep-24	5	4.54	243.19	0.45	-0.06	242.28	39	38.20	201.88
Oct-24	5.2	4.74	242.99	0.41	-0.10	242.32	38.9	38.10	201.98
Nov-24	5.5	5.04	242.69	0.4	-0.11	242.33	38.5	37.70	202.38
Dec-24	5.5	5.04	242.69	0.42	-0.09	242.31	38.5	37.70	202.38

DATE	MB23			MB24			MB28		
	btc	bgl	m AHD	btc	bgl	m AHD	btc	bgl	m AHD
Jan-24	22.8	22.00	221.93	24.6	23.80	214.37	Dry		
Feb-24	22.9	22.10	221.83	24.6	23.80	214.37			
Mar-24	23	22.20	221.73	24.6	23.80	214.37			
Apr-24	23.3	22.50	221.43	24.7	23.90	214.27			
May-24	23.1	22.30	221.63	24.3	23.50	214.67			
Jun-24	23.1	22.30	221.63	24.3	23.50	214.67			
Jul-24	23.1	22.30	221.63	24.3	23.50	214.67			
Aug-24	23.5	22.70	221.23	24.6	23.80	214.37			
Sep-24	25	24.20	219.73	24.7	23.90	214.27			
Oct-24	24.9	24.10	219.83	24.1	23.30	214.87			
Nov-24	24	23.20	220.73	24	23.20	214.97			
Dec-24	23.9	23.10	220.83	24.1	23.30	214.87			
DATE	**MB29**			**MB30**			**MB31**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	Dry			22.0	21.20	244.52	14.9	14.10	238.14
Feb-24				22.2	21.40	244.32	14.8	14.00	238.24
Mar-24				22.3	21.50	244.22	14.89	14.09	238.15
Apr-24				22	21.20	244.52	14.9	14.10	238.14
May-24				22	21.20	244.52	14.9	14.10	238.14
Jun-24				22.3	21.50	244.22	14.5	13.70	238.54
Jul-24				22.5	21.70	244.02	14.9	14.10	238.14
Aug-24				22.4	21.60	244.12	14.5	13.70	238.54
Sep-24				22.6	21.80	243.92	14.8	14.00	238.24
Oct-24				22.9	22.10	243.62	14.1	13.30	238.94
Nov-24				22.7	21.90	243.82	14.8	14.00	238.24
Dec-24				22.4	21.60	244.12	14.2	13.40	238.84
DATE	**MB32**			**MB33**			**MB34**		
	btc	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**	**btc**	**bgl**	**m AHD**
Jan-24	10.3	9.50	237.75	7.0	6.20	238.83	9.5	8.70	241.15
Feb-24	9.8	9.00	238.25	7	6.20	238.83	8.9	8.10	241.75
Mar-24	10.6	9.80	237.45	7.2	6.40	238.63	9.2	8.40	241.45
Apr-24	10.5	9.70	237.55	7.2	6.40	238.63	9.5	8.70	241.15
May-24	10.4	9.60	237.65	7.3	6.50	238.53	9.4	8.60	241.25
Jun-24	10.2	9.40	237.85	7.2	6.40	238.63	9.5	8.70	241.15
Jul-24	10.6	9.80	237.45	7.1	6.30	238.73	9.4	8.60	241.25
Aug-24	10.7	9.90	237.35	7.2	6.40	238.63	9.4	8.60	241.25
Sep-24	10.5	9.70	237.55	7	6.20	238.83	9.6	8.80	241.05
Oct-24	10.7	9.90	237.35	7.3	6.50	238.53	9.4	8.60	241.25
Nov-24	10.35	9.55	237.70	7	6.20	238.83	9.4	8.60	241.25
Dec-24	10.4	9.60	237.65	7	6.20	238.83	9.4	8.60	241.25

DATE	MB35			MB36		
	btc	bgl	m AHD	btc	bgl	m AHD
Jan-24	7.00	6.20	241.94	7.80	7.00	244.08
Feb-24	7.00	6.20	241.94	8.00	7.20	243.88
Mar-24	7.10	6.30	241.84	8.60	7.80	243.28
Apr-24	7.00	6.20	241.94	8.60	7.80	243.28
May-24	7.00	6.20	241.94	8.60	7.80	243.28
Jun-24	7.10	6.30	241.84	8.50	7.70	243.38
Jul-24	7.00	6.20	241.94	8.70	7.90	243.18
Aug-24	7.00	6.20	241.94	8.00	7.20	243.88
Sep-24	7.00	6.20	241.94	8.70	7.90	243.18
Oct-24	7.00	6.20	241.94	8.60	7.80	243.28
Nov-24	7.00	6.20	241.94	8.90	8.10	242.98
Dec-24	7.00	6.20	241.94	7.90	7.10	243.98

APPENDIX IV

LABORATORY CHEMICAL ANALYSIS CERTIFICATES

Attachment C: 2025 Annual Dust Monitoring Review (Environmental Technologies & Analytics, 2026)

Annual Dust Monitoring Review

Ravensthorpe Spodumene Project

Final Report
Version 1

Prepared for Galaxy Lithium Australia Ltd

March 2026

Project Number: 1553

DOCUMENT CONTROL

Version	Description	Date	[redacted]	
0	Draft report – issued for client review	03.03.2026		
1	Final report – issued for client use	16.03.2026		

Approval for Release

[redacted]

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Figures

1 Introduction

Galaxy Lithium Australia Limited (Galaxy), which is owned by Rio Tinto Lithium Australia Limited, operates the Ravensthorpe Spodumene Project (formerly refer to as the Mt Cattlin spodumene project), located two kilometres north of the town of Ravensthorpe in Western Australia ('the Project'). Pegmatite ore was mined and processed at the Ravensthorpe operations to produce a spodumene concentrate ($LiAlSi_2O_6$) and a tantalum by-product. The Project is currently in care and maintenance.

Galaxy commissioned Environmental Technologies & Analytics (ETA) to review the results of ambient dust monitoring undertaken in accordance with Project's environmental management program for the 2025 Annual Environmental Reporting (AER) period (1 January 2025 to 31 December 2025).

The Ravensthorpe operation was placed into care and maintenance at the end of June 2025. The following activities have currently been suspended on the premises with cessation of activities as follows:

- Drill and blast activities ended on 9 December 2024
- Open pit ore transfer ended on 2 January 2025
- Processing plant operations ceased in March 2025.

Since January 2025, various activities have been conducted to prepare the site for care and maintenance, including dust control and contingency measures. The Licence (L8469/2010/2) requirements for dust monitoring were amended in September 2025 to reflect the reduced risk of dust emissions during care and maintenance due to ceasing of ore processing and mining activities.

As of 1 July 2025, the Licence Holder has ceased all Category 5 activities (Processing and beneficiation of metallic or non-metallic ore). Category 12 activities (Screening etc. of material) are continuing.

1.1 Scope of work

The scope of the review of ambient dust monitoring results involved:

- Assessment of the completeness and high-level data quality assurance checks.
- Summarise ambient monitoring results for the 2025 AER period.
- Interpretation of results in terms of comparison to previous monitoring results, contribution of Project emissions to background dust levels in the region, and compliance with ambient air quality performance targets at the Ravensthorpe townsite.

1.2 Monitoring program overview

Before entering care and maintenance, the ambient dust monitoring program implemented for the Project consisted of:

- High-Volume Air Sampler (HVAS) fitted with a PM_{10} (particulate matter with an aerodynamic diameter of 10 µm or less) size selective inlet, located in the Ravensthorpe townsite. HVAS samples are collected over a period of 24-hours every 6 days, in accordance with the relevant Australian Standard (AS/NZS 3580.9.6:2015). Composition analysis of the HVAS samples for select (indicator) trace metal species is also routinely undertaken.
- Network of dust deposition gauges located around the facility boundary (Operational monitors), and surrounding areas (Community monitors), and at sites located approximately 17 kilometres (km) northeast and 30 km southeast of the open pit mining operation (Background monitors). Dust deposition samples are collected over a calendar month period, in accordance with the relevant Australian Standard (AS/NZS 3580.10.1:2016).

In the Ravensthorpe townsite PM_{10} monitoring commenced in July 2018 and dust deposition monitoring commenced in December 2017. The dust monitoring and automatic weather station (AWS) locations are shown in Figure 1-1 with monitors remaining active in care and maintenance highlighted.

Monitoring at 16 DDG sites, the HVAS, and the meteorological station continued until the 30th of June 2025 after which four DDG sites continued monitoring, in accordance with the amended Licence requirements during care and maintenance. The HVAS was shut down for the duration of care and maintenance. The AWS continued operating.

Per Table 1-1, the four DDG sites which remain active during care and maintenance are:

- Two boundary monitors: DDG13 and DDG16 which are located upwind and downwind (respectively) of the crushing and screening operations.
- Two receptor monitoring sites: DDG08 and DDG10. DDG08 is located at the nearest sensitive receptor.

Table 1-1: Monitoring program during care and maintenance.

Location	Type	Purpose	Monitoring Device	Sampling Frequency
DDG 08	Community	Adjacent to the mining camp – closest sensitive (human) receptor.	DDG	Calendar monthly
DDG 10	Community	Located on employee occupied Galaxy property – sensitive (human) receptor.		
DDG 13	Operational	Boundary monitor located to the northwest of mobile crushing and screening plant.		
DDG 16	Operational	Boundary monitor located in the southeastern boundary, aligned with the community DDG monitor locations. This site will provide a reference for comparison to dust deposition rates measured at the Community sites (DDG 08 and DDG 10).		
Onsite	Meteorology	Real-time wind speed/direction measurements representative on site.	-	Continuous

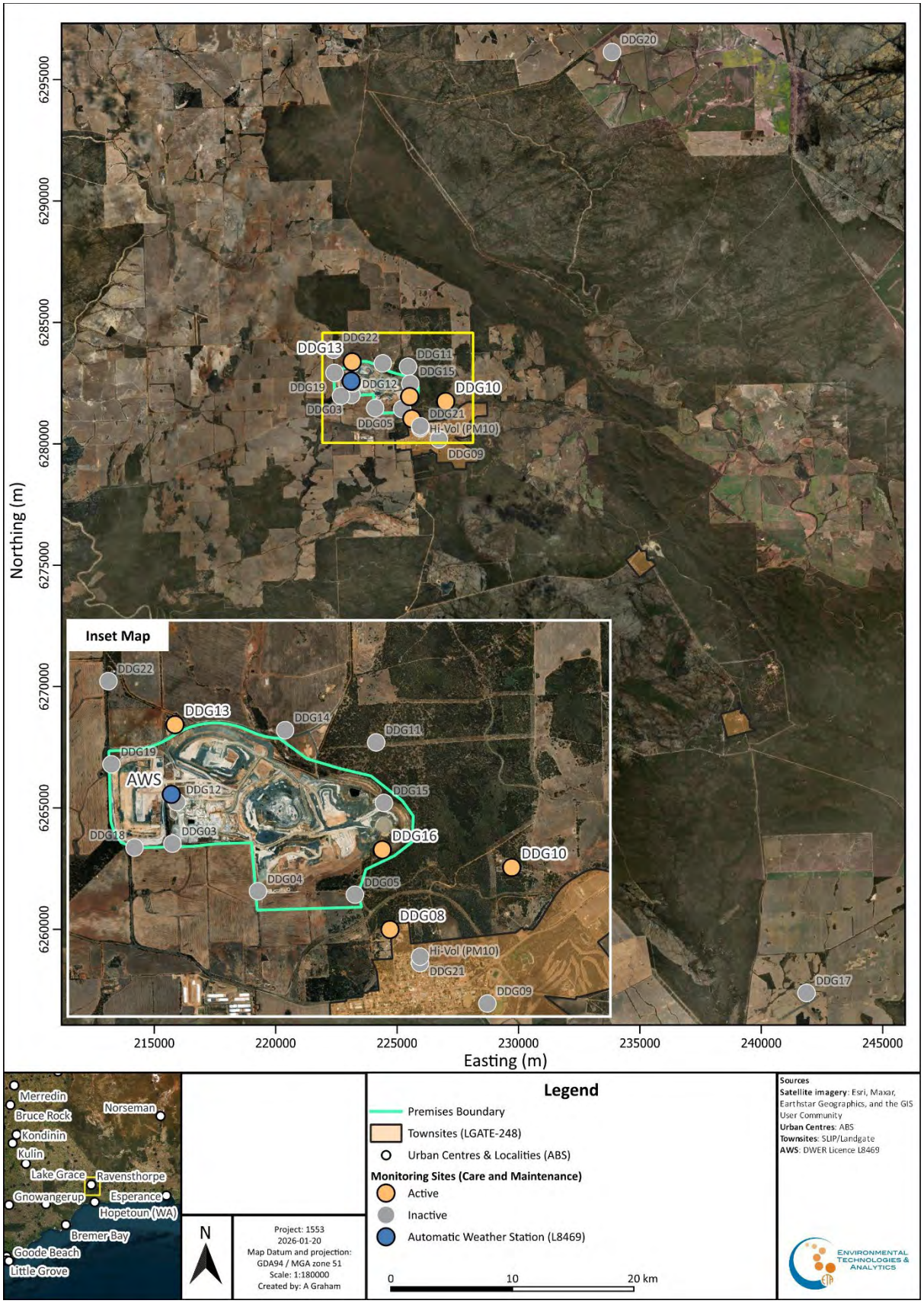


Figure 1-1: Monitoring Locations

2 Performance Targets | Ambient Air Quality

The performance targets adopted in this review to assess the results of dust monitoring of the Ravensthorpe townsite include ambient air quality criteria derived for the protection of potential human health and amenity (dust nuisance) impacts, as recommended by ETA (2018). These ambient air quality criteria are summarised in Table 2-1.

Table 2-1: Ambient air quality assessment criteria

Pollutant	Type	Averaging Period	Criteria	Units	Reference
PM_{10}	Human Health	24-hour	50	$\mu g/m^3$	DWER (2019) consistent with NEPM (NEPC, 2021)
		annual	25	$\mu g/m^3$	
Deposited Dust [1]	Amenity	annual	2 [Maximum Increase][2]	$g/m^2/month$	NSW EPA (2017 & 2022)
			4 [Maximum Total][3]	$g/m^2/month$	

Notes:

1. Dust is assessed as insoluble solids as defined by AS 3580.10.1–2016 (NSW EPA, 2022).
2. Maximum increase in deposited dust, above background.
3. Maximum total deposited dust.

National ambient air quality standards are prescribed in the National Environment Protection (Ambient Air Quality) Measure (NEPM) (NEPC, 2021) for various common air pollutants, including (but not limited to) particulate matter as PM_{10} (particulate matter with an aerodynamic equivalent diameter of 10 µm or less) and $PM_{2.5}$ (particulate matter with an aerodynamic equivalent diameter of 2.5 µm or less). There is strong evidence that exposure to particulate matter in these size ranges has adverse effects on human health.

The PM_{10} monitoring results obtained from the HVAS located in the Ravensthorpe townsite are assessed against the NEPM ambient air quality standards for PM_{10}. These standards have been derived for the adequate protection of human health.

The dust deposition criteria that are outlined in the Department of Water and Environment Regulation (DWER, 2021) draft guidelines for dust emissions can be referenced back to NERDDC (1988). These guidelines allow an increase in deposited dust levels (above background) of no more than 2 $g/m^2/month$. The total deposited dust level (including background sources) must not exceed 4 $g/m^2/month$. The 2 $g/m^2/month$ criterion is used when background data on deposited dust levels is available, while the 4 $g/m^2/month$ criterion is used when no background data exists. The criteria are for an annual averaging period (NSW EPA, 2017 & 2022).

The dust deposition criteria are expressed in units of $g/m^2/month$ however monitoring is required over at least a year to account for seasonal variation. The criteria refer to total insoluble matter as defined by the relevant Australia Standard (AS 3580.10.1-2016), and not total solids.

The criteria that have been adopted are consistent with the draft guidelines published by the Department of Water and Environment Regulation (DWER) for PM_{10} (DWER, 2019) and deposited dust (DWER, 2021).

3 Meteorology

Meteorological data, especially wind speed and direction, are important for identifying where the source of dust emissions is coming from. Galaxy operates an AWS at the Ravensthorpe operations. The Davis Vantage Pro2 weather station is a research-grade weather station that provides professional-grade data for weather professionals.

Meteorological data was provided at a fifteen-minute frequency for the 2025 AER period.[1] Data was available for the entire 2025 AER with data recovery for wind speed of 99.96% and for wind direction of 99.67%. There were no significant gaps in the data with respect to wind speed and direction, however, some dates had missing wind data:

- 5th of April 2025 7:30 to 18:00.
- 6th of April 23:00 to 7th of April 2025 7:30.
- 14th of April 2025 00:00 to 15:00.
- 26h of May 2025 had a single missing record at 13:00.
- 1st of July 2025 had a single missing record at 7:45.
- 31st of July 2025 had a single missing record at 9:30.
- 10th of September 2025 had a single missing record at 7:45.
- 2nd of December 2025 had a single missing record at 8:00.
- 31st of December 2025 had a single missing record at 12:15

Annual and seasonal windroses are presented in Figure 3-1. The windrose plots exhibit the following features:

- Over the year, east to south-easterly and westerly winds were most frequent.
    - This differs to AER 2024 where north-westerly winds were more prominent than westerly winds.
- Stronger winds were most frequent from the west while winds from the east were more typically light to moderate in strength.
- Distinct seasonal trends in wind speed and direction are evident, with;
    - light to moderate south-easterly winds in summer,
    - strong westerly and south-westerly winds in winter, and
    - mixed winds in autumn and spring reflecting their transitional nature between summer and winter patterns.

[1] Wind direction was provided as 16 binned wind directions as text which ETA translated to degrees.

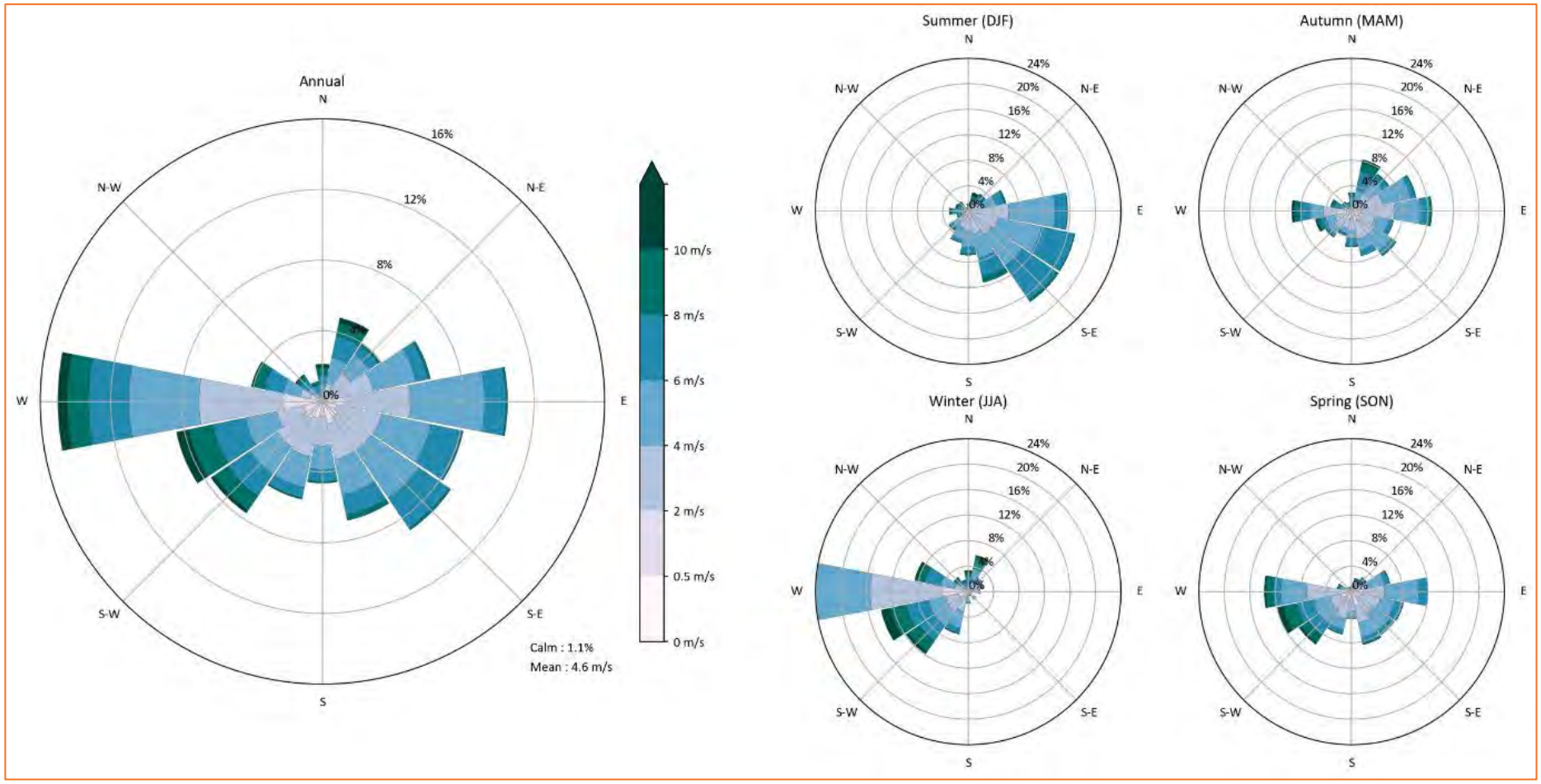


Figure 3-1 Annual and seasonal windroses for the onsite AWS

4 Monitoring Results

4.1 Particulate matter (as PM_{10})

The results of the HVAS monitoring for the 2025 AER period are presented in Figure 4-1 as the highest PM_{10} concentration (24-hour average) measured by calendar month, compared to the performance target of 50 µg/m^3. For comparison, the monitoring results for the previous calendar year periods are also shown.[2]

The results show that the PM_{10} concentration measured at the Ravensthorpe townsite met the 50 µg/m^3 (24-hour average) performance target during the 2025 AER period. The measured PM_{10} concentration at the Ravensthorpe townsite did not exceed 39 µg/m^3 (24-hour average), below the 24-hour average performance target of 50 µg/m^3.

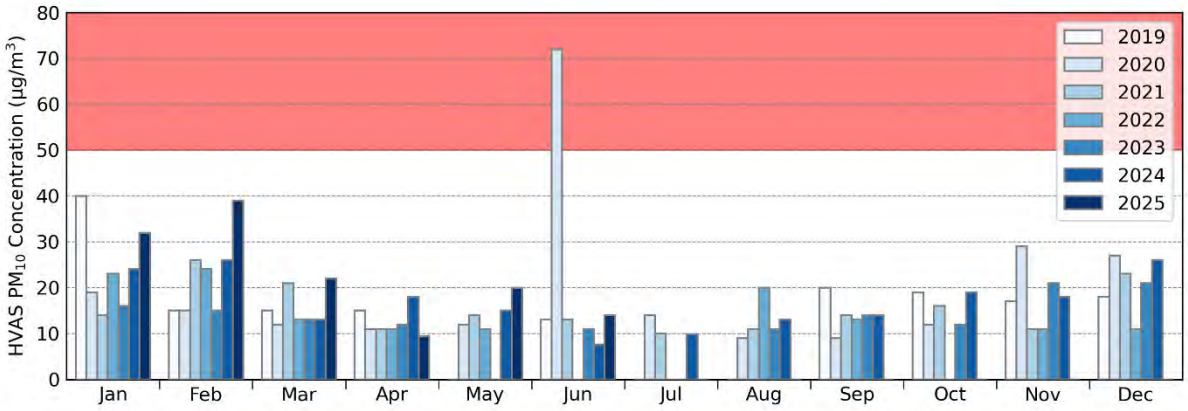
The average PM_{10} concentration for the 2025 AER period of 16.3 µg/m^3 did not exceed the 25 µg/m^3 (annual average) performance target. It is noted that the HVAS monitor was not operated from July 2025 when the Project entered care and maintenance.

With only 6 months of HVAS monitoring data for the 2025 AER period, the monitoring results cannot be directly compared to the annual average PM_{10} concentration from previous years. Nevertheless, the average of the available HVAS data for the 2025 AER period is similar, albeit slightly higher, compared to previous years where the annual average PM_{10} concentrations of 12.5 µg/m^3, 14.5 µg/m^3, 14.6 µg/m^3, 10.5 µg/m^3, 10.8 µg/m^3, and 13.0 µg/m^3 were recorded between 2024 and 2019, respectively. Variation in the Limit of Reporting (LoR) [3] restricts direct comparison of annual averages.

The quality of the HVAS data was impacted for the 15th and 21st of June 2025 where the filter paper was not replaced at the end of the 24-hour sample period and rather left in the machine to re-sample the following 24-hour period as well. Refer to Section 4.4 for further details.

[2] Previous years' monitoring results presented on calendar year basis. Note this differs from the earlier AER reporting periods of 1 September 2021 to 31 December 2022 (2022 AER), and prior to that 1 September to 31 August each year, and means that historical statistics will vary slightly from that previously reported.

[3] The smallest concentration (or amount) of analyte that can be reported by a laboratory is called the Limit of Reporting (LoR). The Limit of Reporting (LoR) attained for the HVAS PM_{10} sampling has varied across previous AER periods.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2019	40.0	15.0	15.0	15.0	<5	13.0	<5	<5	20.0	19.0	17.0	18.0
2020	19.0	15.0	12.0	11.0	12.0	72.0	14.0	9.0	9.0	12.0	29.0	27.0
2021	14.0	26.0	21.0	11.0	14.0	13.0	10.0	11.0	14.0	16.0	11.0	23.0
2022	23.0	24.0	13.0	11.0	11.0	<10	<10	20.0	13.0	<10	11.0	11.0
2023	16.0	15.0	13.0	12.0	<10	11.0	<10	11.0	14.0	12.0	21.0	21.0
2024	24.0	26.0	13.0	18.0	15.0	7.6	9.9	13.0	14.0	19.0	18.0	26.0
2025	32.0	39.0	22.0	9.4	20.0	14.0	-	-	-	-	-	-

Figure 4-1 Highest PM_{10} concentration (24-hour average) by calendar month

4.2 Dust deposition

The results of the dust deposition monitoring for the 2025 AER period are presented in Figure 4-2 to Figure 4-4.

Figure 4-2 presents the maximum and 2nd highest amount of deposited insoluble dust measured in a calendar month at each of the monitoring sites during the 2025 AER period. The monthly trends in dust deposition measured at each of the dust deposition monitoring sites are presented in Figure 4-3. The proportion of organic matter (combustible) to incombustible matter (ash) in deposited dust is also shown in Figure 4-3.

The dust deposition gauges (DDGs) are classified according to their monitoring location and purpose:

- Operational monitors (DDG 3 to DDG 5, DDG 11 to DDG 16, DDG 18 and DDG 19) are coloured orange.
- Community monitors - Ravensthorpe townsite and surrounding areas (DDG 8 to DDG 10, DDG 21 and DDG 22) are coloured green and are compared to the performance criteria.
- Background (control) monitors (DDG 17 and DDG 20) are coloured blue and are compared to the performance criteria.

Note that most monitors were decommissioned for care and maintenance phase in July 2025 (the collection date for the last monthly measurement was the 8th of July). Four monitors continued operating after this time:

- Community monitors: DDG 8 and DDG 10,
- Operational monitors: DDG 13 and DDG 16.

The deposited dust measurements for the 2025 AER period were also affected by measurement reliability issues, with several invalid measurements for April and May excluded from the analysis, as described in Section 4.4.2. Notable issues included a significant rain event which invalidated most of the April measurements, and two gauges were invalid in May due to seeds blocking the DDG funnel aperture.

The results show that the deposited dust measured at the Community monitors were relatively low during the 2025 AER period, remaining below 2 g/m^2/month. The highest deposited dust levels were measured at the:

- Cattlin Road community monitor DDG 10 - 1.2 g/m^2/month in December 2025, and 1.0 g/m^2/month in July 2025, and
- Ravensthorpe Mine Camp community monitor DDG 8 – 0.9 g/m^2/month in December 2025.

Deposited dust measured at the Community monitors were lower than the background (control) monitors, to the extent available data allowed such comparison to be made on a calendar month basis.

Generally, monthly deposition results at the Operational monitoring sites during the 2025 AER period were lower compared to previous years, consistent with the staged curtailment of mining and production activities at the Ravensthorpe operation during 2025. The only notable exception being an abnormally high deposited dust level of 17.5 g/m^2/month at Operational monitor DDG 16 in November 2025.

The associated site activity(s) that may have contributed to the DDG 16 result measured in November 2025 is not known. The slightly high Combustible Matter content (43%) compared to that typically measured at this site (30%) suggests a source contribution with a higher amount of organic matter. Galaxy has advised that there were no abnormal vehicle movements or reports of onsite dust that may have contributed to this event (*Pers comm*. J Bevan, Rio Tinto, Site Senior Executive – Care & Maintenance, Operations, Lithium. 13.03.2026). Elevated deposited dust was not measured at the nearby Community monitors (DDG 8 and DDG 10) which both had very low deposition rates for November 2025, indicating the potential extent of dust impacts beyond the site was limited.

Seasonal trends in deposited dust across the operational sites is difficult to interpret with the limited dataset available for the 2025 AER period, although the highest measurements have tended to occur during the drier months of the year.

Background monitors are located at the Ravensthorpe airport (DDG 17), 30 km southeast of the Project site, and on agricultural property 17 km north of the Mt Cattlin Operations (DDG 20). The impacts of seasonal agricultural activities (harvesting, ploughing of soil) and other localised sources is evident at DDG 20 in May and June 2025, during which measured deposited dust levels reached 20.7 g/m^2/month and 17.5 g/m^2/month, respectively. These samples at DDG 20 also have a higher fraction of organic matter (combustible material) consistent with dust associated with seasonal farming activities.

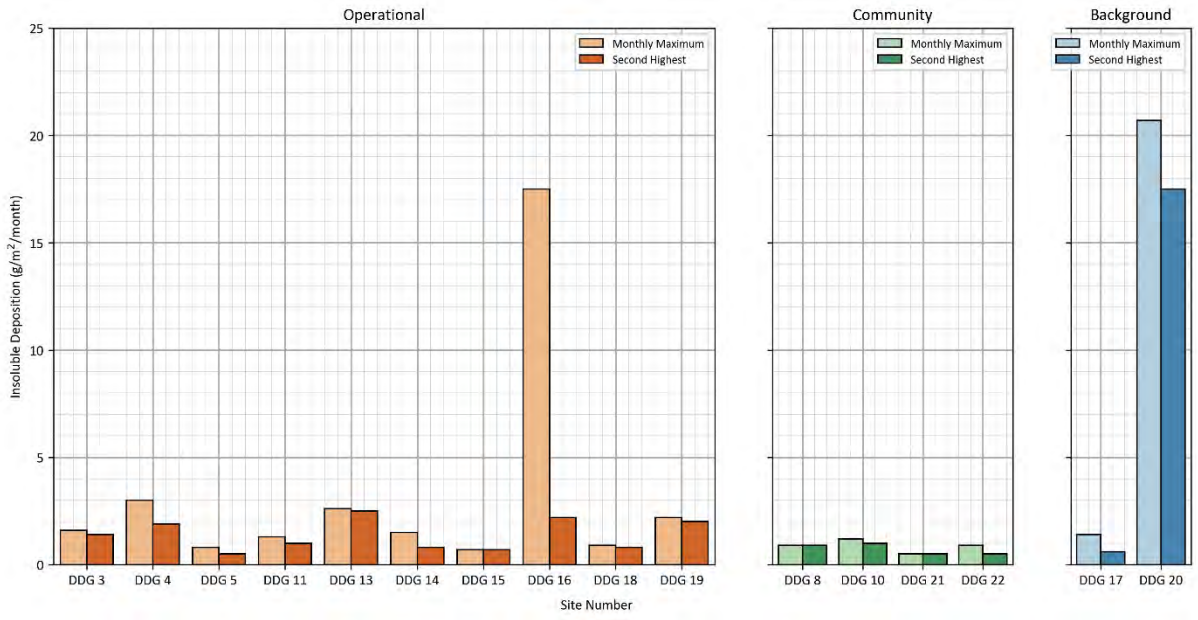


Figure 4-2 Insoluble Dust deposition results - Monthly maximum and 2nd highest.

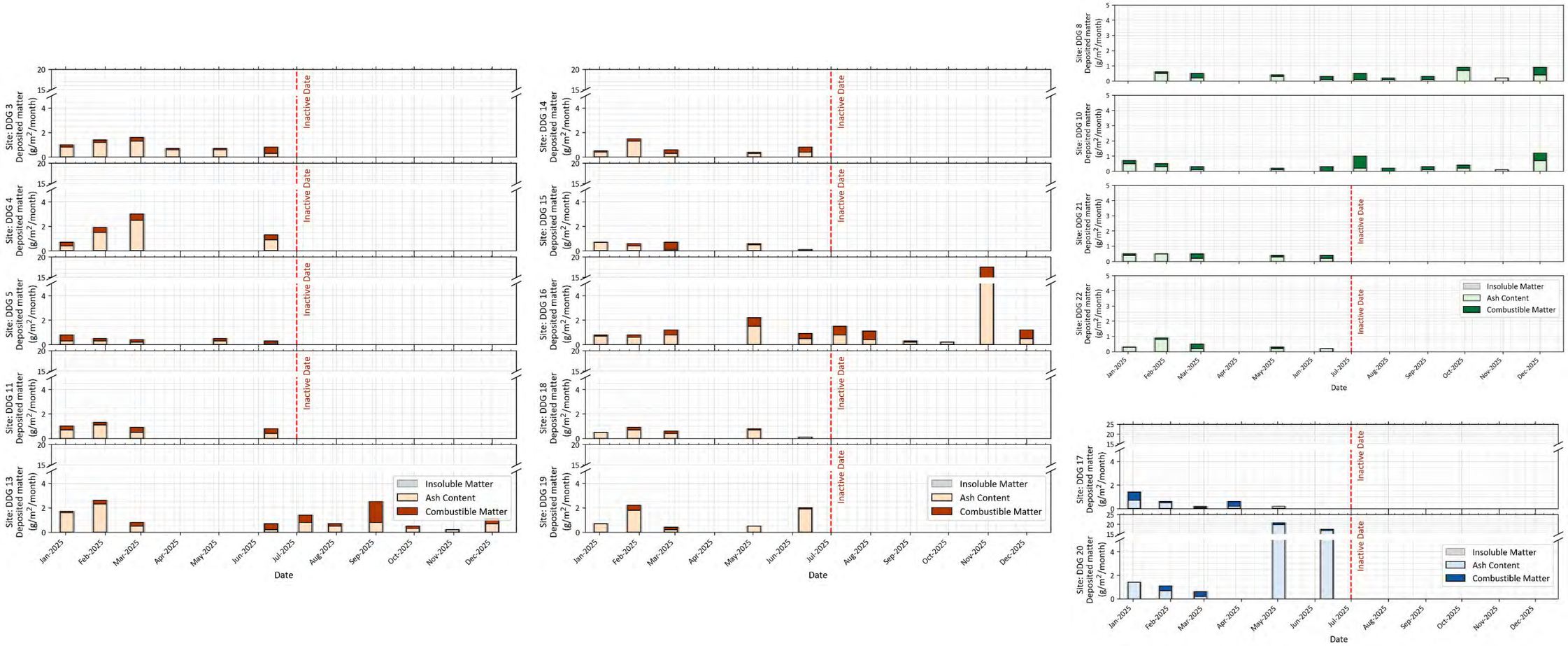


Figure 4-3 Dust deposition results – Monthly trends at selected sites

4.2.1 Annual average dust deposition

The average amount of deposited dust measured during the 2025 AER period at each of the monitoring sites is presented in Figure 4-4. The adopted performance target, of 4 g/m^2/month (i.e. maximum total deposited dust), is based on dust nuisance and amenity impacts, intended to apply at residences (not at the site boundary). As such, only the results for the Community monitors are compared to the performance target (not the Operational monitor results).

Of note is that most DDG monitors had only 6 months of monitoring data for the 2025 AER period, and thus the monitoring results cannot be directly compared to the annual average dust deposition rates from previous years. Dust deposition rates often exhibit seasonal cyclical patterns related to rainfall and soil moisture which mean that the first half of the year is not representative of the entire year.

The results show that the average level of dust deposition measured at the Community monitors for the 2025 AER period:

- are below the performance target of 4 g/m^2/month at all Community monitors (DDG 8 - annual, DDG 10 - annual, DDG 21 - 6 months and DDG 22 - 6 months),
- exhibited a decrease (improvement) in the level of dust deposition compared to the previous 2024 AER period across most sites (DDG 8 - annual, DDG 10 - annual, and DDG 21 - 6), except for DDG 22 (6 months) which showed a slight increase.
- there is no discernible longer-term trend (increase or decrease) consistently evident across all sites.
- Community monitors have exhibited lower deposition rates than at Operational monitors and compared to the Background monitors (DDG 17 and DDG 20).
- DDG 9 and DDG 12 were decommissioned before the 2025 AER period and were removed from this analysis.

For the Operational monitors, the results for the 2025 AER period show:

- deposition rates are generally lower compared to previous years across most sites, at least partly attributable to the staged curtailment of mining and production operations implemented throughout 2025. Note that 6 months of data is insufficient for direct comparison annually to previous AER periods.
- only DDG 16 (annual) showed an increase in annual average deposition rates compared to previous years, but the deposited dust rate remains relatively low (2.5 g/m^2/month).
- a noticeable decrease in deposition rates compared to previous years at several sites (6 months: DDG 3, DDG 4, DDG 5, DDG 11, DDG 14, DDG 15, DDG 18, DDG 19, and 12 months for DDG 13),

With only 6 months of monitoring data for the Background monitors (DDG 17 and DDG 20), the results for the 2025 AER period have not been compared to previous years.

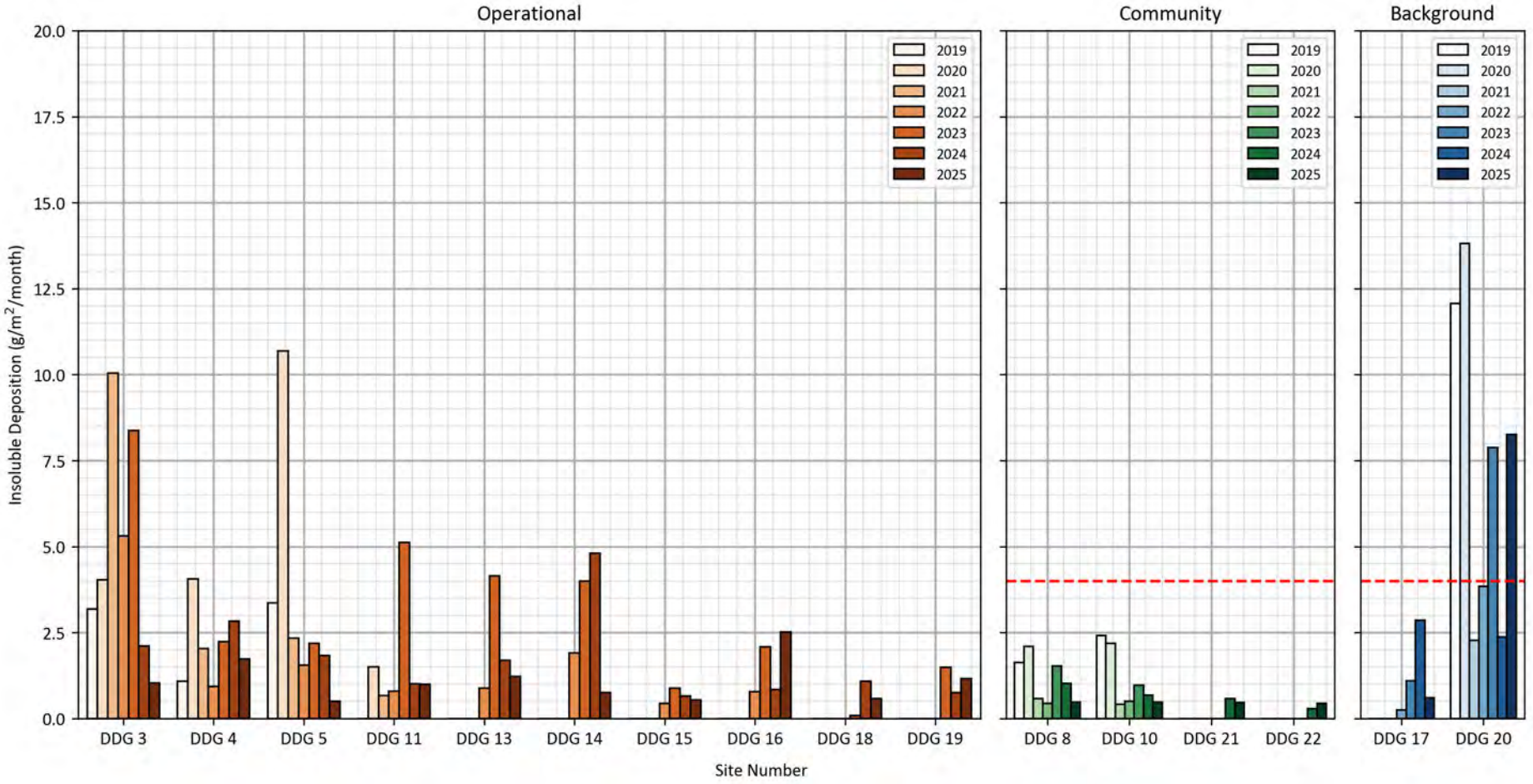


Figure 4-4 Dust deposition results - Annual average.

4.3 Trace metals

Composition analysis of the HVAS PM_{10} samples for select (indicator) trace metal species is routinely undertaken for beryllium, cadmium, manganese and lithium. The results of the trace metals analysis for the 2025 AER period are summarised in Table 4-1. For context only, the relevant ambient air quality guideline values specified in the draft Air Emissions guideline (DWER, 2019) are also presented in Table 4-1.

Note that the HVAS PM_{10} was decommissioned in July 2025. The last measurement was taken on the 27th of June 2025.

Of these trace metals, manganese was the only one to be detected (above the LoR). In summary:

- Manganese was detected in 3 of the 29 sampling days.
- The maximum concentration measured was 0.004 µg/m^3, which is below the relevant guideline value of 0.14 µg/m^3 (24-hour average) (DWER, 2019).

Manganese is a ubiquitous constituent of the environment. Therefore, lithium is considered a more suitable analyte than manganese to use as a potential indicator of the contribution of the Mt Cattlin Project to measured ambient concentrations in the Ravensthorpe townsite. Lithium was not detected in any of the HVAS samples during 2025.

The other trace metals (beryllium and cadmium) were not detected in any of the HVAS samples. This is consistent with the trace metals analysis results for the previous AER periods, in that beryllium, and cadmium have not been detected. There would appear to be little value in continuing to undertake routine analysis of the HVAS samples for beryllium and cadmium.

Table 4-1: Summary of trace metal monitoring results

Trace Metal	No. of Results	Limit of Reporting		Concentration (24-h Average)		Guideline [1]	
		µg/m^3	No. Results > LoR [1]	Statistic	µg/m^3	µg/m^3	Averaging Period [2]
Beryllium	29	0.0004	-		-	0.004	1-hour
Cadmium	29	0.0005	-		-	0.018	1-hour
Manganese	29	0.001	3	Max	0.004	0.14	24-hour
				2nd Highest	0.002		
				Average	0.003		
Lithium	29	0.001	-		-	NA	

Notes:

1. Guideline concentration referenced to 25°C, as presented in DWER (2019).
2. In the absence of a relevant guideline value corresponding to 24-hour period, 1-hour or annual average guideline values presented.

4.4 Quality of data

4.4.1 HVAS data

Onsite sampling is undertaken in accordance with the relevant procedures referenced in Galaxy's Mt Cattlin Spodumene Project Airborne Material Management Plan, last amended in July 2020, as follows:

- HVAS Sampling Procedure (02S-PRO-0230-2018)
- Dust Deposition Gauge Procedure (GLA-DGM-PROCEDURE-0118).

Refer to Table 4-2 for a summary of the HVAS PM_{10} monitoring data completeness. The overall data completeness achieved for the HVAS monitoring is adequate (93%).

Data loss was due to a failure to replace the filter paper at the end of one sampling period. The filter paper was left in the machine to re-sample the following 24-hour period as well. This impacted the 15th June 2025 and 21st of June 2025 measurements. The result is that the actual 24-hour PM_{10} concentration measurements on the affected days are under-reported, however the annual average PM_{10} concentration measurement for the 2025 AER period remains accurate.

The HVAS flowmeter, temperature and pressure sensors are required to be periodically calibrated and maintained in accordance with the relevant Australian Standard. This is undertaken on a regular basis by trained Galaxy personnel, and by an independent third-party approximately once every twelve months. An independent third-party calibration of the HVAS instrumentation was last carried out on 14 September 2023 (Ecotech, 2023).

Sample analysis is conducted by independent laboratories with NATA accreditation for compliance with ISO/IEC 17025 – Testing. Records are available as evidence of suitable sample Chain of Custody procedures. Galaxy also engaged the laboratory to conduct analysis of field blank samples monthly for select trace metals during the 2025 AER period.

Table 4-2: Summary of HVAS monitoring data completeness

Monitor	No. Results	No. Results < LoR	Data Completeness (%)	Comments
HVAS	29	0	93	Filter paper was not replaced at the end of the 24-hour sample period on the following days, resulting in a sampling duration of twice that specified in the HVAS Sampling Procedure. The following sample results are affected: 15.06.2025 [Start], 21.05.2025 [Filter not replaced]

4.4.2 Dust deposition

A summary of the dust deposition monitoring data completeness is presented in Table 4-3. Dust deposition data return was relatively complete, noting that most monitors were decommissioned in July 2025.

Explanations for why data coverage was reduced included:

- The loss of most measurements in the April sample was due to a rain event leading to bottles overflowing.
- DDG 4 and DDG 11 were rendered invalid in May 2025 as the funnel was blocked by seeds.
- DDG 8 was marked as invalid for January 2025 as the funnel was found detached from the bottle at the time of collection.
- DDG 13 May 2025 as the bottle was temporarily moved for 24hrs due to nearby works. While the result appears valid, a conservative approach was taken here.
- DDG 17 was marked invalid in June 2025 due to storm damage.
- The low data coverage (83%) reported at most DDG monitors running for only 6 months reflects how a single invalid measurement can significantly reduce coverage for a small set of samples (6 total).

Rain during April 2025 resulted in water overflowing the dust deposition gauge bottles for the monthly measurement between 26th March 2025 and 2nd May 2025, rendering the measurements for April 2025 invalid for most stations. Only DDG 3 and DDG 17 were not impacted. Analysis of the on-site meteorological station indicates that there were three days of significant rain as well as several days of less than 5mm of total rain during the monitoring period:

- 13 mm on the 13th of April,
- 14 mm on the 18th of April, and
- 10 mm on the 24th of April.

The calendar month sample collection period was not consistently attained, ranging from a sampling duration of 22 days in July to 37 days in March to April. Though not materially significant to the findings of this annual review, this does highlight the need for improved procedures to ensure that the dust deposition samples are collected over a uniform calendar month period across the monitoring network to ensure compliance with the relevant Australian Standard and to facilitate interpretation of results.

Table 4-3: Summary of dust deposition monitoring data completeness

Monitor	No. samples	No. samples < LoR (insoluble dust)	Data coverage (% of days)	Shortest monitoring period (days)	Longest monitoring period (days)	Longest gap between monitoring periods (days)
DDG3[1]	6	0	100%	26	37	7
DDG4[1,2,3]	4	0	67%	26	29	7
DDG5[1,3]	5	0	83%	26	33	7
DDG8[3,6]	10	0	83%	22	33	7
DDG10[3]	11	0	92%	22	33	7
DDG11[1,2,3]	4	0	67%	26	29	7
DDG13[3,4]	10	0	83%	22	32	7
DDG14[1,3]	5	0	83%	26	33	7
DDG15[1,3]	5	0	83%	26	33	7
DDG16[3]	11	0	92%	22	33	7
DDG17[1,5]	5	0	83%	26	37	0
DDG18[1,3]	5	0	83%	26	33	7
DDG19[1,3]	5	0	83%	26	33	7
DDG20[1,3]	5	0	83%	26	33	7
DDG21[1,3]	5	0	83%	26	33	7
DDG22[1,3]	5	0	83%	26	33	7

Notes:

1. DDG decommissioned in July 2025 are shaded.
2. Bottle blocked with seeds in May 2025.
3. Bottle overflowed with rain water in April 2025.
4. Bottle was temporarily moved for 24hrs due to nearby works in May 2025.
5. Damaged by severe weather in June 2025.
6. Plastic funnel found on the floor at the time of collection in January 2025.

5 Summary

A review has been completed of the results of ambient dust monitoring for the Ravensthorpe Spodumene Project, located near the town of Ravensthorpe in Western Australia. The scope of the assessment included summarising the results for the 2025 AER period (1 January 2025 to 31 December 2025) and evaluating them compared with ambient air quality performance targets at the Ravensthorpe townsite. The key findings of the review are outlined below.

PM_{10} concentrations measured at Ravensthorpe townsite HVAS:

- The maximum daily average (24-hour average) PM_{10} concentration measured at the Ravensthorpe townsite was 39 µg/m^3, which is below the performance target of 50 µg/m^3.
- The average PM_{10} concentration calculated from 6-months of available data of 16.3 µg/m^3 is below the annual average performance target of 25 µg/m^3.
- With only 6 months of HVAS monitoring data for the 2025 AER period, the monitoring results cannot be directly compared to the annual average PM_{10} concentration from previous years. Nevertheless, compared to the monitoring results for the previous year's PM_{10} concentrations measured at the Ravensthorpe townsite are slightly higher.

Dust deposition monitoring:

- Deposited dust measured at all Community monitor sites (DDG 8, DDG 10, DDG 21 and DDG 22), met the 4 g/m^2/month (annual average) performance target.
- The deposited dust measurements were affected by measurement reliability issues, with several invalid measurements for April 2025 and May 2025 excluded from the analysis.
- Compared to the monitoring results for the previous years:
    - Community monitors exhibited a decrease (improvement) in the level of dust deposition compared to the previous 2024 AER period across the sites with 12 months of data (DDG 8 and DDG 10).
    - For Operational sites deposition rates were generally lower compared to the previous years across most sites, at least partly attributable to the staged curtailment of mining and productions operations implemented throughout 2025.
- Significantly higher deposition rate events were detected:
    - At DDG 16 (Operational monitor): 17.5 g/m^2/month in November 2025. The source(s) of dust contributing to this event is not known. This higher result at DDG 16 was not reflected at the nearby Community monitors (DDG 8 and DDG 10) which both had very low deposition rates for November 2025.
    - At DDG 20 (Background monitor): 20.7 g/m^2/month in May and 17.5 g/m^2/month in June. The timing and location are indicative of agricultural activity.

Trace metals monitoring:

- The HVAS PM_{10} samples were analysed for select (indicator) trace metal species. Manganese was the only trace metal to be detected:
    - Manganese was detected in 3 of the 29 sampling days.
    - The maximum concentration measured was 0.004 µg/m^3, which is below the relevant guideline value of 0.14 µg/m^3 (24-hour average) (DWER, 2019).
    - Manganese is a ubiquitous constituent of the environment, and not necessarily a suitable analyte to use as a potential indicator of the contribution of the Mt Cattlin Project to measured ambient concentrations in the Ravensthorpe townsite.
- Lithium was not detected in any of the HVAS samples during 2025.

Quality of data:

- The overall data completeness achieved for the HVAS PM_{10} monitoring is adequate (93%).
    - The HVAS PM_{10} concentration data return for the 15th and 21st of June 2025 were impacted where the filter paper was not replaced at the end of the 24-hour sample period.
- Dust deposition data return was adequate for most sites, although several issues resulted in invalid measurements in April and May due to overflowing bottles from rainfall.
    - The calendar month sample collection period was not consistently attained. There is a need for improved procedures to ensure that dust deposition samples are collected over a uniform calendar month period across the monitoring network to ensure compliance with the relevant Australian Standard and to facilitate interpretation of results.

5.1 Recommendations

Based on the analysis and findings of this annual dust monitoring review, the following recommendations are made, for client consideration.

- Site procedures and/or resourcing require improvement to ensure that dust deposition samples are collected over a uniform calendar month period across the monitoring network to ensure compliance with the relevant Australian Standard and to facilitate interpretation of results.

6 References

Department of Water and Environment Regulation (DWER), 2021. *Guideline - Dust emissions*, Draft for external consultation, July 2021.

Department of Water and Environment Regulation (DWER), 2019. *Guideline - Air emissions*, Draft for external consultation, October 2019.

Environmental Technologies & Analytics (ETA), 2025. *Annual Dust Monitoring Review Galaxy Lithium Australia: Mt Cattlin Project*. Prepared for Galaxy Resources, March 2025.

Environmental Technologies & Analytics (ETA), 2024. *Annual Dust Monitoring Review Galaxy Lithium Australia: Mt Cattlin Project*. Prepared for Galaxy Resources, March 2024.

Environmental Technologies & Analytics (ETA), 2023. *Annual Dust Monitoring Review Galaxy Resources Mt Cattlin Project*. Prepared for Galaxy Resources, March 2023.

Environmental Technologies & Analytics (ETA), 2022. *Annual Dust Monitoring Review Galaxy Resources Mt Cattlin Project*. Prepared for Galaxy Resources, March 2022.

Environmental Technologies & Analytics (ETA), 2021. *Annual Dust Monitoring Review Galaxy Resources Mt Cattlin Project*. Prepared for Galaxy Resources, October 2021.

Environmental Technologies & Analytics (ETA), 2020. *Annual Dust Monitoring Review Galaxy Resources Mt Cattlin Project*. Prepared for Galaxy Resources, November 2020.

Environmental Technologies & Analytics (ETA), 2019. *Annual Dust Monitoring Review Galaxy Resources Mt Cattlin Project*. Prepared for Galaxy Resources, December 2019.

Environmental Technologies & Analytics (ETA), 2018. *Monitoring Criteria for Dust and Metals – Mt Cattlin Project*. Memorandum prepared for Galaxy Resources, dated 29 August 2018.

Ecotech, 2023. *High Volume Air Sampler 3000 Volumetric Calibration Report*. 14 September 2023.

National Environment Protection Council (NEPC), 2021. *Variation to the National Environment Protection (Ambient Air Quality) Measure*.

NSW Environment Protection Authority (NSW EPA), 2022. *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*. August 2022.

NSW Environment Protection Authority (NSW EPA), 2017. *Approved Methods for the Modelling and Assessment of Air Pollutants in New South Wales*. January 2017.

National Energy Research Development and Demonstration Council (NERDDC), 1988. A*ir Pollution from Surface Coal Mining: Measurement, Modelling and Community Perception*, Project No. 921.

Standards Australia, 2016. *AS/NZS 3580.10.1:2016 Methods for sampling and analysis of ambient air Determination of particulate matter – Deposited matter – Gravimetric method*. 13 October 2016.

Standards Australia, 2015. *AS/NZS 3580.9.6:2015 Methods for sampling and analysis of ambient air Determination of suspended particulate matter – PM_{10} high volume sampler with size selective inlet – Gravimetric method*. 28 September 2015.