Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Licence Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Licence Number	L9124/2018/1
Licence Holder	Black Cat (Lakewood) Pty Ltd
ACN	659 952 066
File Number	APP-0031711
Premises	Lakewood Gold Processing Facility Mining Tenements: M26/242 and M26/367 Mount Monger Road LAKEWOOD WA 6431 As defined by the premises maps in the accompanying amended licence.
Date of Report	6 March 2026
Decision	Revised licence granted

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1. Decision summary

Licence L9124/2018/1 is held by Black Cat (Lakewood) Pty Ltd (licence holder) for the Lakewood Gold Processing Facility (the premises), located at within Mining Tenements M26/242 and M26/367.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the additional infrastructure at the premises. As a result of this assessment, revised licence L9124/2018/1 has been granted.

The revised licence supersedes the existing licence granted in relation for the premises.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Premises overview

2.2.1 Background and current operations

The premises is located approximately 5 kilometres south-east of Kalgoorlie–Boulder on mining leases M26/242 and M26/367. The facility was originally constructed in 1989 as Lakewood Mill and operated intermittently for tailings retreatment until it was purchased by Silver Lake Resources Limited in 2007. Since then, the premises has been operated by Lakewood Mining Pty Ltd, Karora (Lakewood) Pty Ltd, and Westgold Resources Limited. In 2025, the premises was acquired by Black Cat (Lakewood) Pty Ltd. The premises currently operates under licence L9124/2018/1 and works approval W6719/2022/1.

Infrastructure at the premises includes a crushing and screening and a carbon in leach (CIL) processing plants located to the east and two Tailings Storage Facilities (TSF1 and TSF2) to the north and southwest. Further details on the processing plant are provided in Section 2.3.1.

TSF1 consists of two cells constructed using the upstream method. The facility has been raised multiple times, with the most recent embankment lift (the 8th, to RL 349.0 m) completed in September 2023 for the eastern cell and March 2024 for the western cell. A further lift is authorised under the works approval but has not been completed at the time of this assessment. Historically, tailings deposition into TSF1 has resulted in significant seepage through the base and sides of the embankment, causing groundwater mounding around the facility. Eight groundwater seepage recovery bores and eight monitoring bores surround the facility.

TSF2 comprises a single cell, with perimeter starter embankment construction completed in late 2024. Further details on TSF2 are provided in Section 2.3.2.

The premises also receives controlled liquid waste from two facilities Bureau Veritas, Kalgoorlie, and Carbon Management Solutions, Kalgoorlie. This waste is contained within a sump in the cyclone feed floor and subsequently pumped into the carbon-in-leach circuit, where cyanide in the waste is consumed during ore processing.

2.2.2 Environment

The premises lies within the Eastern Goldfields Province of the Yilgarn Craton, an area dominated by north-trending Archean greenstone belts intruded by granitoids and Proterozoic

dykes. Surface geology consists of Quaternary alluvial deposits, including clay, silt, sand and gravel. At depth, the region forms part of the eastern Yilgarn Archean gold mineral system, comprising several volcanic–sedimentary formations intruded by the Bulong Complex.

Overlying the Archean basement is a sequence of Cainozoic fluvial, aeolian and lateritic deposits. Early Cainozoic sediments include iron-cemented riverine materials associated with palaeovalley systems near salt lakes. A formerly extensive late Tertiary laterite surface is now represented by isolated remnants, locally overlain by an old sandplain. Subsequent colluvial, alluvial and eluvial deposits are widespread, while the youngest sediments—modern alluvial, colluvial and aeolian materials—are largely confined to active salt-lake systems (Swager, 1994, as cited by Tetra Tech Coffey, 2021).

Groundwater flow in the region is expected to move east–southeast along the Hannan Palaeochannel towards the Yindarlgooda South playa lake. At the local scale, groundwater within the superficial aquifer flows southwards towards Hannan Lake, located approximately 2.3 km south of the premises. Water levels in the superficial aquifer range from 0.5 m to 6.0 m below ground level, with total dissolved solids concentrations between 37,300 mg/L and 122,000 mg/L, indicating hypersaline conditions. Groundwater pH ranges between 4 and 7.

A Seepage Assessment Report (Rockwater, 2023) identified four hydrological units beneath the premises, each with differing hydraulic conductivity (Table 1). Groundwater flow was found to occur predominantly within Unit 1 (clayey gravel), while Units 2 and 3 (saprolitic clays) likely acting as aquitards due to their higher clay content. Insufficient data were available to characterise infiltration behaviour within Unit 4 (bedrock)

Two ephemeral surface-water drainage lines cross the premises, flowing southwards towards Hannan Lake, a salt lake approximately 1.5 km from the south of the premises.

The premises is situated within a highly disturbed area caused by historical gold mining activities. Nonetheless, some native vegetation still surrounds the premises particularly to the south and east beyond the processing area. Two pre-European Beard vegetation associations (468 and 540) of the Coolgardie system are located within the premises with the boundary between them following the divide between TSF1 and TSF2. The two vegetation associations include York Gum Salmon Gum, *Eucalyptus salubris* and *E. oleosa* to the north and mulga, other wattle species, *Casuarina, Atriplex*, and *Maireana* spp. to the south.

Table 1: Hydrogeological Units at the premises

Unit	Geology	Depth	Description	Hydraulic conductivity (K)
1	Clayey gravel	0–9 m	Shallow sediment	2 m/d
2a	Clay with gravels	3–33 m	Shallow sediment	0.1 m/d
2b	Alluvial gravels	>20 m	Shallow sediment	Not calculated
3	Saprolitic clay	17–63 m	Low k layer, sediment	0.008 m/d
4	Bedrock	>63 m	Fractured bedrock	0.02 m/d

2.3 Application summary

On 7 October 2025, the licence holder applied to amend licence L9124/2018/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The application seeks to transfer and operate the infrastructure constructed under works approval W6719/2022/1 to the licence, specifically the following:

- operations of Lakewood processing plant upgraded infrastructure (Dunford regrind mill, carbon-in-leach circuit upgrade);
- operations of TSF2, including the groundwater recovery and monitoring bores; and
- increase of Category 5 throughput from 900,000 tonnes per year to 1,200,000 tonnes per year.

Categories and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) are defined on the licence subject to this amendment. Infrastructure and equipment relating to the premises categories are listed on the licence.

2.3.1 Process plant expansion and upgrade

Ore received onsite is initially processed through the existing crushing and screening plant, which reduces and classifies material before it is transferred to Lakewood processing facility.

The Lakewood processing plant uses a carbon-in-leach circuit to process gold ore from a variety of sources under ongoing toll treatment agreements. Under the current licence, the premises is authorised to process up to 900,000 tonnes of ore per year.

To increase processing capacity, the licence holder undertook a staged upgrade of the processing plant, regulated under works approval W6719/2022/1. Construction of the upgrades included two additional adsorption tanks, and the recommissioning and integration of the regrind mill. The increased adsorption capacity and operation of the regrind mill enable the plant to achieve a processing throughput of up to 1,200,000 tonnes of ore per year.

The existing crushing and screening plant is capable of supporting this higher throughput by providing appropriately sized feed to the upgraded milling and CIL circuit. Dust emissions from crushing and screening activities are currently managed through the use of water sprays installed at primary transfer points. The crushing is undertaken in a closed circuit mainly consisting of a track mounted jaw crusher, two cone crushers, a vibrating screen deck and a radial stacker stockpiling the crushed ore (Karora Resources, 2023).

Table 2 outlines the processing plant upgrades regulated under works approval W6719/2022/1 and the compliance status for each component. Figure 1 provides a schematic of the CIL process before and after the upgrades.

Table 2: Summary of processing plant upgrades regulated under works approval W6719/2022/1

Stage	Infrastructure / equipment	Description of infrastructure and operations	Construction compliance demonstrated	Date of compliance assessment	Risk assessed in this report for operation under licence L9124/2018/1
1	Carbon-in-leach circuit	Two additional 300 cubic meter ($m^{3)}$ adsorption tanks. The full circuit will comprise 9 adsorption tanks with a capacity of 9 300 m^3 and one 1,500 m^3 primary leach tank (Figure 1). Slurry flow will be split into two streams after the primary leach tank and first adsorption tank (Figure 1).	Yes	9 April 2024	Yes
2	Dunford regrind mill	Recommissioning and integration of the regrind mill for further grinding of a measured portion of the grinding load. A measured portion of the grinding re-circulating load is split and directed to the Dunford regrind mill for further grinding, allowing additional “new” mill feed to be introduced into the Primary Grinding Mill at the front of the circuit (Figure 1).	Yes	9 April 2024	Yes
3	Primary grinding mill	Currently, the primary grinding mill is rated to 1,600 kW. upgrade the motor power rating from 1,600 kW to 1,850 kW. The upgrade will increase grinding media to approximately 33% to 35% of volume capacity.	Not conditioned in works approval W6719/2022/1.	N/A	N/A
4	Carbon regeneration kiln	Installation of an Ansac Rotary-style gas-fired kiln to reactivate the barren carbon on premises for re-use in the leaching circuit. Reactivation of carbon used for elution is currently done off site.	Not constructed at the time of this assessment.	N/A	No

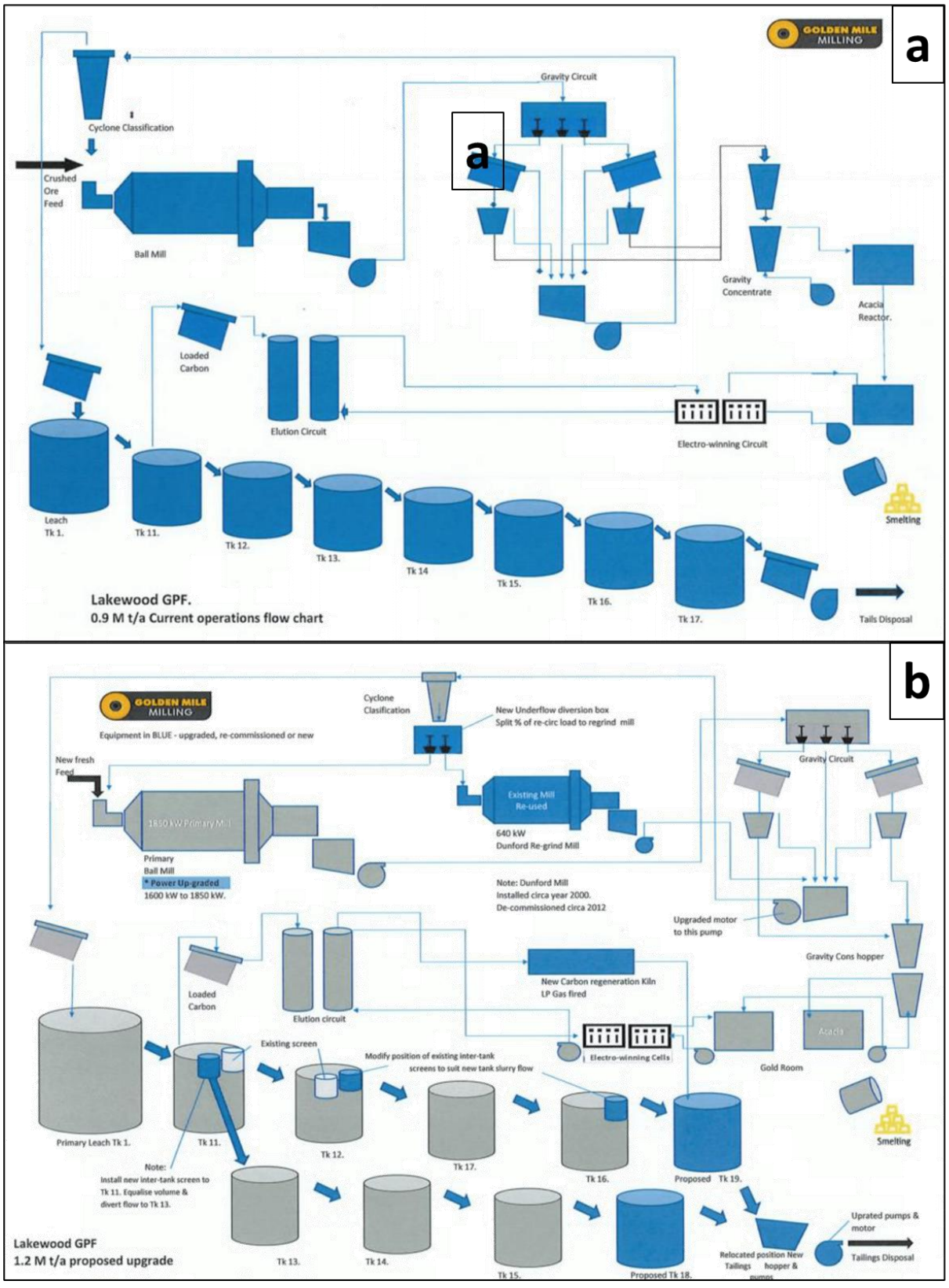


Figure 1: Process flow before (a) and after (b) the upgrades at the Lakewood processing plant

2.3.2 Operation of TSF2 starter embankment

Design and construction

Works approval W6719/2022/1 regulates the construction and time limited operations of TSF2. TSF2 is a single cell, paddock style TSF situated approximately 400 m west of the processing plant, within M26/242. The construction of the starter embankment and the associated infrastructure was completed in November 2024, with assessment of compliance undertaken by the department in early 2025. TSF2 is one of two TSFs at the premises. TSF1 is located approximately 100 metres northwest of the TSF2. The two facilities will be operated in rotation to accommodate the tailings resulting from the increased plant throughput, while allowing a rise to no higher than 2.5 m per year.

TSF2 has a footprint of approximately 35 hectares (ha) and storage capacity is 2.02 megatonnes. Its storage life at the current height is anticipated to be approximately one and a half years. The starter embankment was constructed to RL 334.0 m (approximately 5.5 m) using in situ clayey material. A 500 mm mine waste rock capping was required as a construction condition but has not yet been completed. The capping will be installed during the Stage 2 embankment raise, which is required under the works approval. The clay-rich borrow material is considered to be sufficiently erosion-resistant in the short term. The embankment has downstream and upstream slopes of 1V:2.75H and 1V:2H, respectively. Crest width is approximately 6 m with a 2% crossfall towards the upstream side. Windrows to a height of approximately 500 mm were constructed on both the downstream and upstream edges of the crest to manage stormwater runoff. ‘Drainage’ gaps were incorporated into the construction of the inner windrow to allow rainfall runoff to move away from the crest and into the TSF.

A central decant system was constructed with a centreline construction method using dried tailings. The crest is approximately 10 m wide and accessible via an accessway matching the height of the embankment. A wearing course forms the upper 100 mm. A windrow of 500 mm, or half the wheel height of the largest vehicle, was constructed on both sides of the decant accessway. The decant structure was fitted with standard slotted precast concrete well liners stacked vertically and surrounded by clean filter rockfill.

Operations

The licence holder proposes to maintain the operations of TSF2 consistent with requirements regulated under works approval W6719/2022/1.

Tailings deposition will be undertaken subaerially through rotating spigots located around the TSF perimeter. Deposition will occur in layers of a maximum of 300 mm thickness in accordance with a deposition plan. Deposition will be managed in manner to reduce drying time and to maintain the supernatant pond around the central decant structure. A design report submitted as part of the works approval application recommended the central decant pond to be:

- an average size of 49,960 m^2;
- have an equivalent radius of 130 m;
- have a minimum distance to the perimeter embankment of 120 m.

A submersible pump in the central decant system currently returns the water to the lined Process Water Pond for reuse in processing.

The operational freeboard of 300 mm and beach freeboard of 200 mm will continue to apply. Additionally, the TSF will have sufficient capacity to temporarily store a 1:100 Annual Exceedance Probability 72-hour storm event.

Dust emissions from the tailings beach will be managed using dust suppressants, silt fences and windbreaks, if necessary.

Surface water management infrastructure

A hydrologic and hydraulic assessments completed in 2021 showed that the premises lies within the flow path of a 114 km² upstream catchment, with a smaller 0.7 km² catchment contributing from the west. Much of the surrounding mining landforms are internally draining, and runoff from the site ultimately flows toward Hannan Lake to the south.

Flood modelling indicated that flows across the site are generally shallow and slow-moving, with increased depths near TSF1 due to floodplain narrowing. Existing diversion drains around TSF1 are designed to manage up to the 50% Annual Exceedance Probability (AEP) flood depth, while the embankment rock protection is suitable for events up to the 1% AEP.

TSF2 was shown to reduce local runoff volumes by about 20% and was found to not significantly alter major flow paths. The existing diversion drain to the west and south sides of TSF2 is approximately 3 meters wide and has a depth of approximately 1 meter, with sufficient capacity to maintain a 300 mm freeboard during a 10% AEP flood event. According to the report, some sedimentation was expected due to nearby disturbed landforms, therefore periodic maintenance was recommended.

Flood modelling is shown on Figure 2.

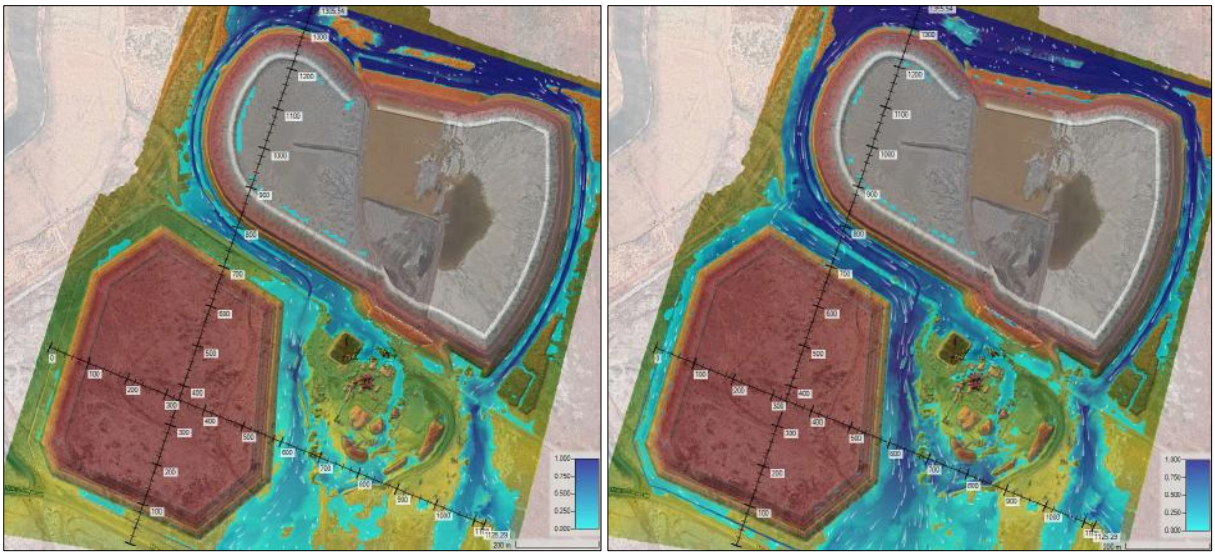


Figure 2: Flood modelling showing the premises maximum 10% (left) and 1% (right) AEP flow depth

TSF2 seepage control infrastructure

TSF2 incorporates an underdrainage system to maximise capture and reuse of seepage. Underdrainage pipework beneath the basin surface comprises a series of slotted pipes spaced at approximately 50 m intervals surrounded by filter materials and geofabrics. Intercepted seepage is designed to gravity drain through solid outfall pipes to an external sump. An early seepage assessment report estimated that the underdrainage system was expected to recover approximately 45 cubic metres (m^3) of seepage per day (Tetra Tech Coffey, 2021).

A 4 m-wide cut off trench was also excavated to a depth of 1.5 m beneath the perimeter embankment to manage any horizontal seepage. The trenches incorporate slotted pipes, geofabrics at the trench interfaces, and are backfilled with filter rock. Similarly to the underdrainage system, seepage from the trenches flows by gravity and discharges to the same sump as the underdrainage system.

Seepage water collected in the sump is pumped to the Process Water Pond for reuse.

Groundwater management infrastructure

Under works approval W6719/2022/1, the licence holder was to construct three groundwater monitoring bores (CMB9A, CMB9B, and CMB010) and three seepage recovery bores (RB01 – 03). Nevertheless, during the assessment of the construction compliance it transpired that the number and locations of the installed bores did not align with those (proposed and) approved under the works approval. The reason for this was that the bores were outside the premises boundary and the licence holder did not have legal access to construct them in the approved locations. Nonetheless, it was noted that the bores constructed in the alternative locations provided a broader spatial coverage and were likely to yield more relevant and comprehensive groundwater data and outcomes than those originally approved. Figure 3 outlines the bores constructed in 2023 and includes:

- 10 shallow bores, drilled to a depth of approximately eight meters below ground level (mbgl) (unit 1) (CMB09S – CMB18S);
- 10 deep bores, drilled to a depth between 30 mbgl and 35 mbgl (CMB09D – CMB18D); and
- five seepage recovery bores, drilled to a depth of approximately 36 mbgl (lower unit 2 and upper unit 3) (RB01 – RB05).

Following their installation, the licence holder undertook falling head (slug) testing to characterise aquifer permeability in the screened intervals of the installed monitoring and seepage recovery bores (Rockwater, 2024).

The licence holder also undertook quarterly groundwater monitoring program, which included monitoring of groundwater depth and analytes including pH, electrical conductivity, total dissolved solids (TDS), sulfate, total cyanide, weak-acid dissociable (WAD) cyanide, and a range of metals and metalloids following completion of construction. It should be noted that, although the groundwater bores were installed to monitor seepage from TSF2, the proximity of the two TSFs—and the location of some bores—means that groundwater quality and depth at some of these monitoring locations are likely to be strongly influenced by seepage from TSF1.

While seepage recovery bores currently exist at the premises, they are sited primarily to manage groundwater mounding and seepage from TSF1. During the installation of the TSF2 groundwater monitoring bores, five new seepage recovery bores were installed to service potential seepage from TSF2. According to Rockwater (2024), these new seepage recovery bores could be operated to pump up to 3 L/s. The following recommendations were made:

- That the submersible pump be installed as deep as possible within each seepage recovery bore, as it would maximise vertical and radial drawdown.
- In the case of lowest yielding bores, airwell pumps may be required to drawdown water to the base of the bore.
- Maximum seepage recovery may be required (i.e., continuous drawdown of each seepage recovery bore to the base) to manage groundwater levels at the premises.

Figure 3: Location of bores surrounding TSF1 and TSF2

2.4 Ore and tailings geochemistry monitoring and management

The premises has historically operated as a toll treating facility, with ore sourced from approximately 24 mining operations since 2015.

A 2021 inspection by the Department of Mines, Petroleum and Exploration (DMPE) identified deficiencies in the management of environmental risks associated with the storage of toll-treated ore on the ROM pad and the deposition of tailings in the TSF. Because ore was sourced from multiple locations with differing geochemical profiles, the absence of a robust assessment process presented an elevated risk to surrounding receptors, including vegetation, surface water, and groundwater (DWER 2023).

In response to the DMPE findings, the licence holder implemented a procedure requiring all externally sourced ore to be geochemically characterised prior to acceptance at the premises.

While toll treatment will continue at the premises, the current licence holder intends to transition from toll treatment to primarily using ore from the operator-owned mines as the primary process plant feed from 2026. Ore from the operator-owned mines - primarily Myhree, Majestic and Fingals deposits – will also be subject to the same geochemical characterisation procedure (Black Cat Syndicate, 2025).

The key points of the procedure are summarised below:

- All ore sources must undergo initial ore characterisation before arrival.
- Ore characterisation can be carried out by either the licence holder or third-party ore supplier.
- Sampling is based on tonnage, with three samples for batches up to 10,000 tonnes and eight samples for batches above 10,000 tonnes.
- The testing aims to measure the following parameters:
    - **Health & safety hazards:** fibrous minerals, silica, radioactivity;
    - **Plant contaminants:** arsenic, organic carbon, soluble copper;
    - **Environmental risks:** sulphur total (S-total) and/or acid mine drainage testwork.
- Risk-based decision:
    - Accept ore if S-total ≤ 3%;
    - Reject ore if S-total > 3%, unless non- acid producing (NAF) / acid consuming (ACM) is shown by acid mine drainage (AMD) testwork;
    - The licence holder may reject ore for non-prescriptive criteria (refer below).
- Additional criteria (non-prescriptive) but enforceable:
    - Fibrous minerals: <10 mg/kg, or geologist verification of absence;
    - Silica: no α-quartz or cristobalite <16 micrograms (µm);
    - Radioactivity: Uranium + Thorium < 1 becquerels / gram;
    - Arsenic: <500 parts per million (ppm);
    - Total organic carbon: <1%; and
    - Soluble copper: <300 ppm.

In addition to ore, the procedure also states that monthly sampling of tailings will be undertaken to confirm tailings remain NAF and to determine whether any change in tailings chemistry is occurring. Once sufficient understanding of tailings characteristics has been developed, monthly sampling will transition to annual sampling.

Tailings testing will include pH, electrical conductivity, total dissolved solids, cyanide species, static acid–base accounting (such as net acid generation (NAG), acid neutralising capacity (ANC), sulphur forms, and inorganic carbon), as well as leachate and bulk geochemical analysis for a wide range of metals and metalloids. If results indicate the tailings are potentially acid forming (PAF), further specialist investigation will be required to assess environmental risks and define management strategies.

Reporting obligations under the *Mining Act 1974* (Mining Proposal REG ID 111925) require the licence holder to summarise all ore and tailings characterisation results each year in the Annual Environmental Report, including acceptance decisions, ore tonnages processed, and all tailings testing results. Furthermore, the procedure must also be reviewed upon instruction from DMPE or whenever ownership or primary ore feed changes.

Acid mine drainage (AMD) testwork of ore and tailings sourced at the three operator-owned mines are summarised in Table 3. Most samples were classified as non-acid forming (NAF) with three samples, from the fresh rock at the Majestic pit being classified as uncertain. The uncertainty was attributed to the elevated sulphur content, and / or a net acid generation pH between 5.9 and 6.9. Nonetheless, these samples showed low reactivity, moderate acid neutralising capacity, and did not appear to have strong acid forming behaviour, therefore they were not considered as environmentally significant.

Table 3: Summary of acid mine drainage testwork - licence holder-operated mines

Source	Sample type	Sample size	Total S % (avg)	Total S % (min–max)	CRS %	CRS % (min–max)	NAG pH 4.5 (avg) (kg H_2SO_4/t)	NAG pH (avg)	ANC (kg H_2SO_4/t)	MPA (kg H_2SO_4/t)	NAPP (kg H_2SO_4/t)	AMD outcome
Preferred value	—	—	*<0.1%*	—	*<0.1%*	—	—	—	—	—	—	—
Myhree	Oxide ore tailings	1	0.1	–	<0.005	–	<1	7.8	8	–	–	NAF
	Primary ore tailings	1	0.82	–	0.741	–	<1	9.1	80	22.86	-57.14	NAF
Fingals Fortune	Oxide ore	1	0.04	–	—	—	<2	9.4	18	1.22	-16.78	NAF
	Tailings	1	0.12	–	—	—	<2	9.93	53	3.66	-49.34	NAF
	Fresh rock	2	0.36	0.2–1.6	—	—	<2	9.67	125	27.45	-97.55	NAF / ACM
Majestic	Transitional ore	2	0.15	0.024–0.28	—	—	<1	7.8	27.3	7.9	-19.4	NAF
	Fresh rock	6	0.65	0.4–1.04	—	—	<1	7.1	41.5	19.7	-21.8	UNC / NAF

NAF: NAG pH > 4.5 and NAPP < 0 and ANC > 2
CRS – Chromium-Reducible Sulphur: Laboratory measure of sulphide sulphur (%). Used to calculate acid generation potential (MPA).
NAG pH – Net Acid Generation pH: Final pH after peroxide digestion; indicates whether the sample generates acidity when oxidised.
NAG pH4.5 – Sequential NAG pH: Second-stage peroxide digestion for identifying slow-reacting sulphides.
ANC – Acid Neutralising Capacity (kg H_2SO_4/t): The amount of acid that can be neutralised by carbonate and other buffering minerals.
MPA – Maximum Potential Acidity (kg H_2SO_4/t): Theoretical acid generation from sulphide oxidation (calculated from CRS or sulphide S).
NAPP – Net Acid Producing Potential (kg H_2SO_4/t): MPA minus ANC; the acid–base balance used to classify NAF vs PAF.
NAF – Non-Acid Forming: Material unlikely to generate acidic drainage.
ACM – Acid Consuming Material: Material with strong neutralising capacity (ANC significantly > MPA).
UNC – Uncertain: Borderline material where NAG and NAPP results conflict or fall near classification thresholds.

2.5 Groundwater monitoring

2.5.1 TSF2 groundwater bore baseline monitoring (2023)

During the construction of the bores, the licence holder commissioned a Recovery and Monitoring Bore Completion Report (Rockwater, 2024). This report included groundwater monitoring event surrounding TSF2 undertaken in December 2023. The data built upon a previously submitted *Seepage Assessment Report* (Rockwater, 2023) and informed recommendations to manage seepage around TSF2.

Based on the results from the monitoring event completed in December 2023, the following observations are made on the newly installed monitoring bores (CMD09 – CMD18):

Groundwater depth and elevation:

- Standing water levels (SWL) ranged between 0.46 mbgl and 1.66 mbgl at all shallow bores, with CMB10S on the northern boundary of TSF2 (near TSF1) having the shallowest SWL recorded, followed by CMB16, to the west of TSF2 (0.90mbgl).
- Deep bores exhibited more variable SWL, ranging between 1.04 mbgl and 17.14 mbgl.
- SWL was generally shallow across the entire premises (including TSF1 monitoring bores), with shallowest bores observed at the centre of the premises and slightly deeper SWL along the northern premises boundary.
- Groundwater elevation ranged between 310 mAHD and 330 mAHD.
- Based on groundwater contouring of TSF1 bores and TSF2 shallow bores, groundwater flows from the west of the premises towards the south-east.

Water quality:

- Durov plots on major ion chemistry indicated that the siting of monitoring bores in relation to the TSF drove major ion composition more than the screened interval and unit of the monitoring bores (Rockwater, 2024).
- In the shallow aquifer, total cyanide concentrations ranged between 0.017 and 1.6 mg/L with a median ≈ 0.12 mg/L. The highest concentrations occurred in CMB13S (~ 1.6 mg/L), followed by CMB15S (0.49 mg/L). These bores are located to the east of TSF2 and south of TSF1 (Figure 3), near the processing plant.
- Although the total cyanide concentrations in the deep bores were lower overall (ranging between 0.004 and 0.34 mg/L, with a median 0.05 mg/L, range), data showed localised pockets of more elevated concentrations, particularly in CMB12 (0.34 mg/L), CMB17D (0.17 mg/L) and CMB18D (0.13 mg/L), east and west of TSF1 respectively. Relatively high concentration was also detected at CMB15D (0.13 mg/L) near the processing plant.
- WAD cyanide concentrations were lower than total cyanide in both shallow and deep bores, with a median of 0.01 and 0.004 mg/L respectively. In deep bores, WAD cyanide was frequently at non-detectable levels or near the limit of reporting (LOR).
- In the shallow bores, WAD cyanide concentration was generally higher where total cyanide was also elevated, but the concentration level remained low and not directly proportional. This suggests that most of the cyanide present is likely to be complexed or in a less bioavailable form.

Figure 4 shows the total and WAD cyanide distribution across the shallow and deep bores.

- Cobalt concentrations, another contaminant of concern associated with gold processing, also appeared to be higher in shallow bores than deep bores. The

spatial pattern of elevated cobalt broadly aligned with the pattern of bores showing higher cyanide concentrations, trending in a south-easterly direction.

Figure 5 shows the distribution of cobalt within shallow and deep bores.

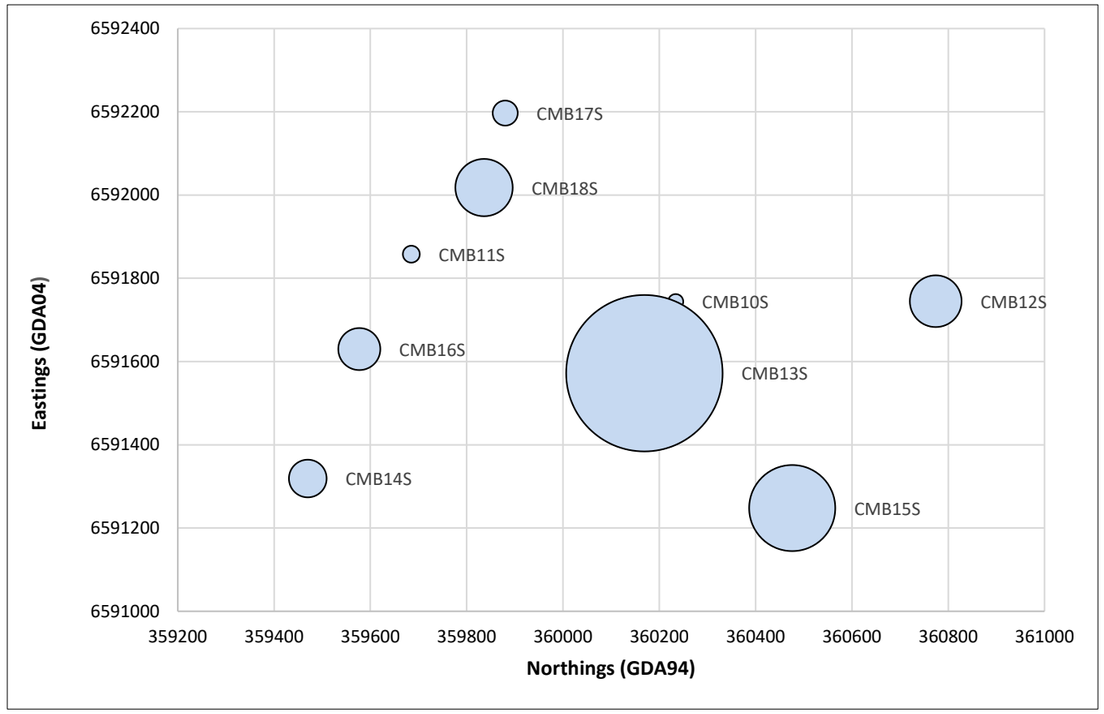
- pH in shallow bores and deep bores varied quite widely.
- For CMB18D, CMB11D and CMB10D, CMB12D, pH at the deep bores was lower than the shallow bores, the widest gap was found at CMB12 where pH at the deep bore was 5.1 versus 7.7 in the shallow bore.
- All other shallow bores showed a lower pH in the shallow aquifer, with the widest gap at CMB16S (4.7 at the shallow bore versus the 7.2 in the deep bore).

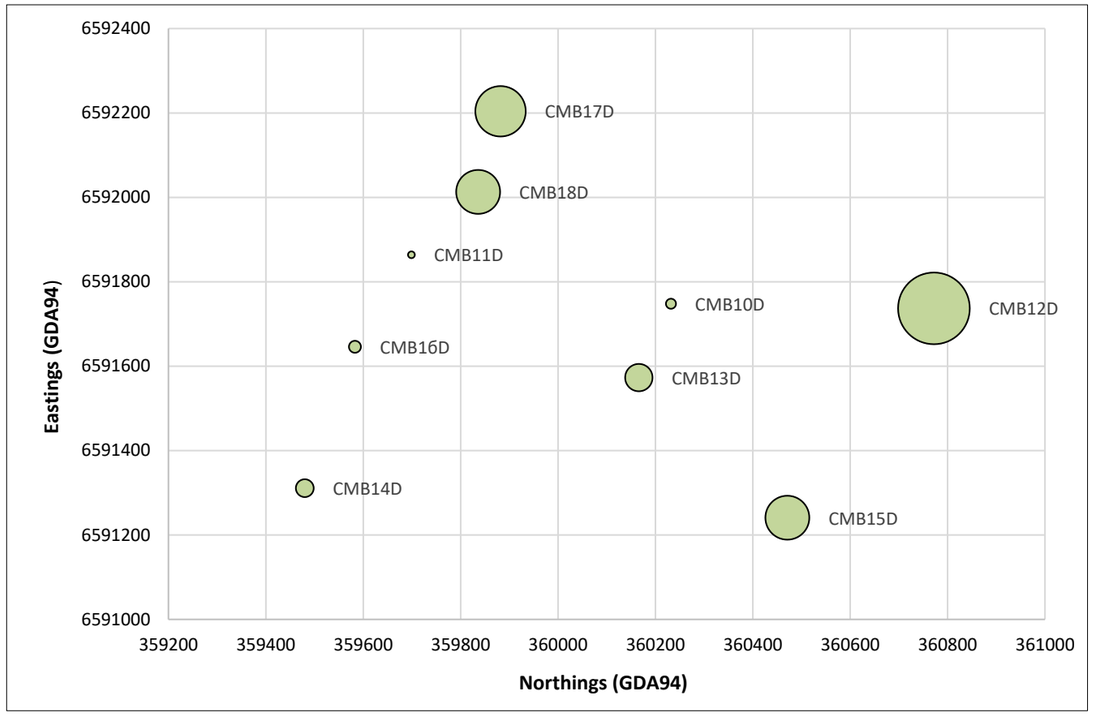
Figure 6 shows the pH relative to the location surrounding the TSF (values scaled). Figure 7 shows the direct comparison between pH value in the shallow and deep bore.

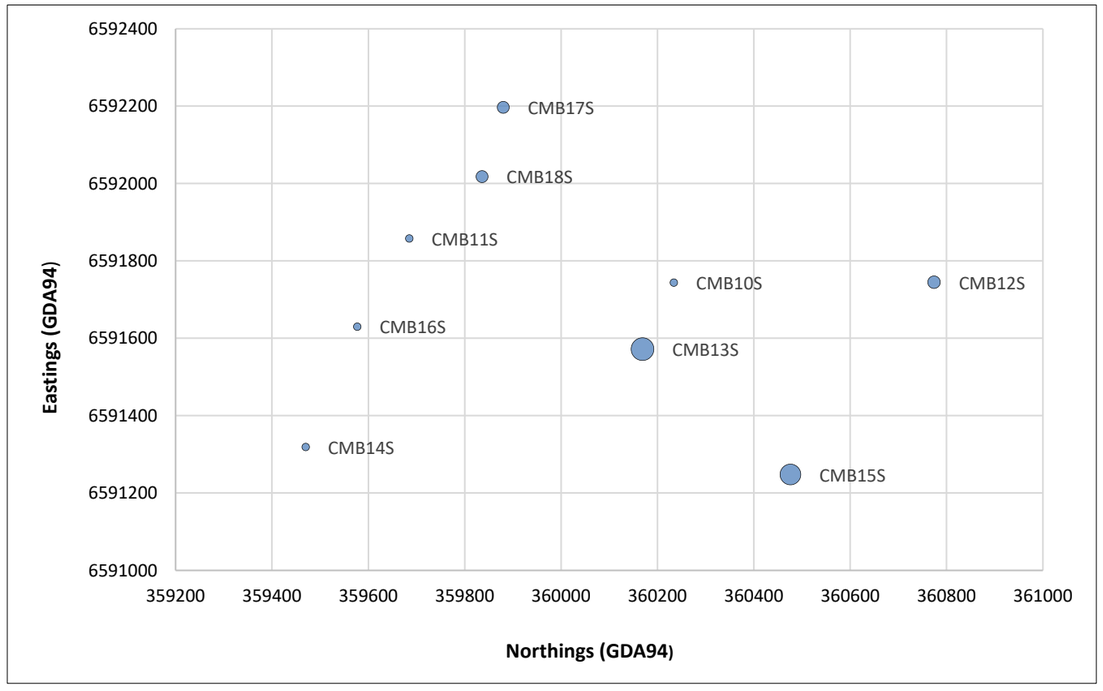
Based on the lithological and hydraulic monitoring data, Rockwater (2024) concluded that most of the groundwater flow, and therefore seepage, was occurring within the shallower unconfined aquifer (unit 1), while deeper clays (unit 2 and 3) acted as aquitards to dampen the downward infiltration of seepage into the deeper aquifers.

Overall, the groundwater levels and chemistry measured around TSF2 do not represent an undisturbed baseline condition. Although deposition into TSF2 had not commenced at the time of monitoring, several indicators suggest that groundwater in the area is already being influenced by seepage from TSF1 and potentially other upstream sources. This is reflected in the consistently shallow SWL recorded in bores closest to TSF1, the elevated total cyanide and cobalt concentrations in shallow bores down-gradient of TSF1, and the spatial patterns of major-ion chemistry that differ notably between shallow and deep aquifers. The presence of elevated cyanide and cobalt in shallow bores south-east of TSF1, along with localised increases in deep bores east and west of TSF1, further supports a pre-existing contaminant load likely attributable to historical or ongoing seepage prior to TSF2 deposition commencing.

Given this context, the dataset should be interpreted as an early operational snapshot of existing groundwater conditions rather than a true pre-impact baseline for TSF2. Future monitoring events will be essential to distinguish new impacts attributable to TSF2 deposition from the pre-existing influence of TSF1 and adjacent infrastructure, as well as any cumulative impacts from both facilities.







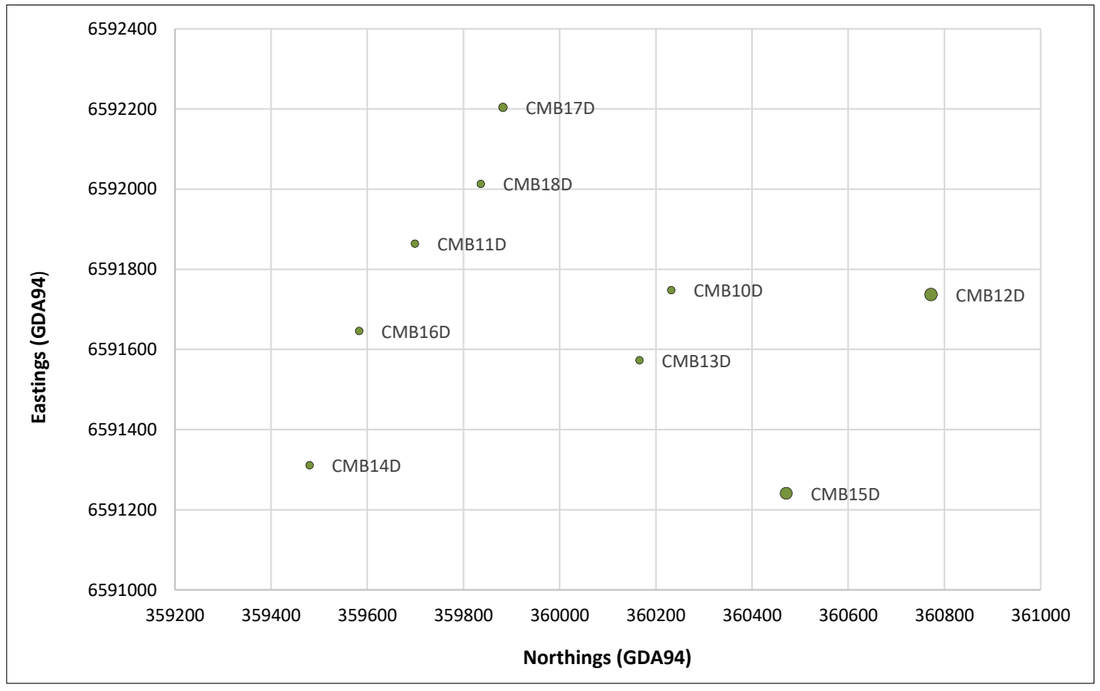


Figure 4: Concentration of total cyanide (top) and WAD cyanide (bottom) at the shallow (left) and deep (right) bores surrounding TSF2

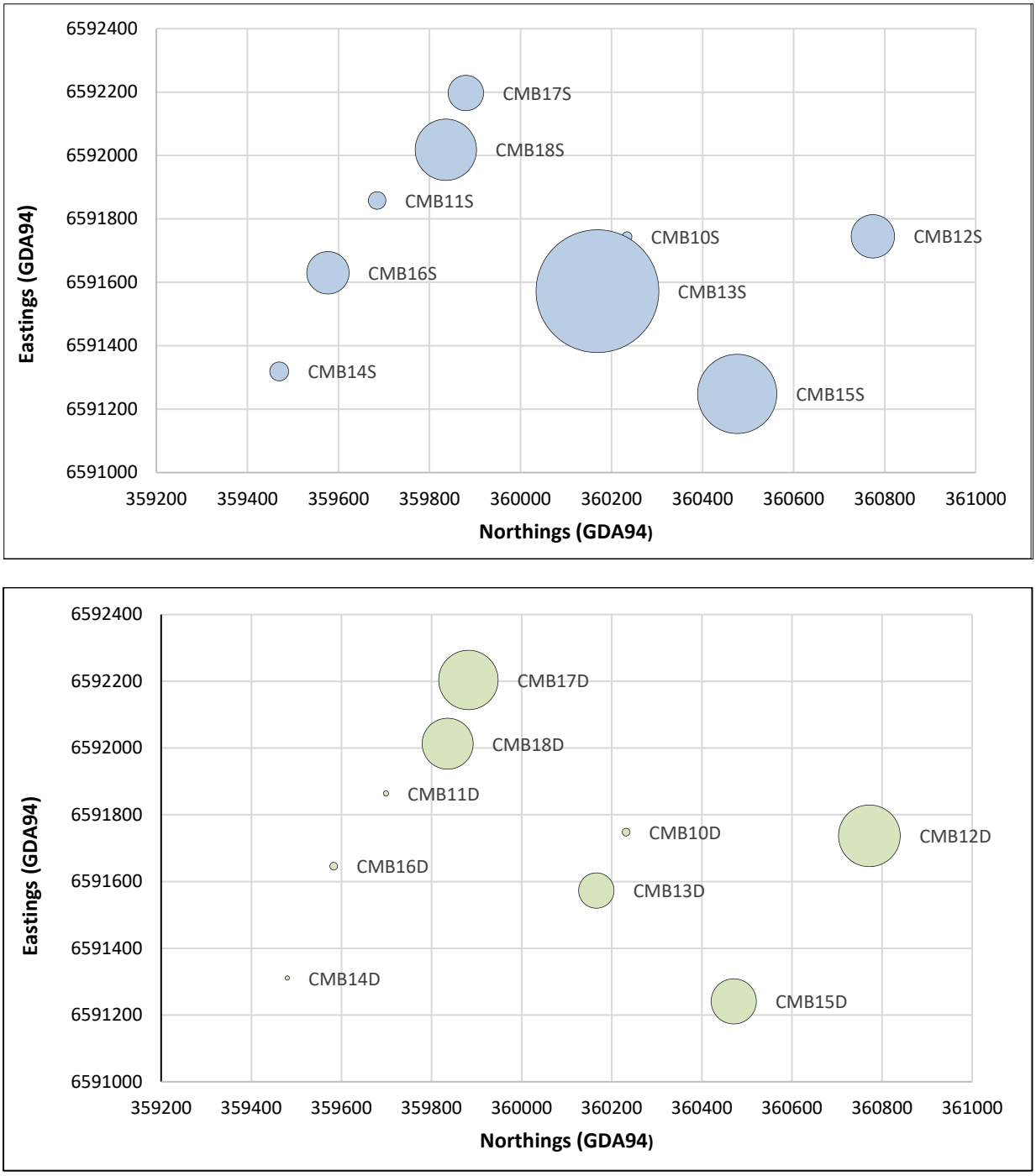


Figure 5: Cobalt concentrations in shallow (top) and deep (bottom) bores surrounding TSF2

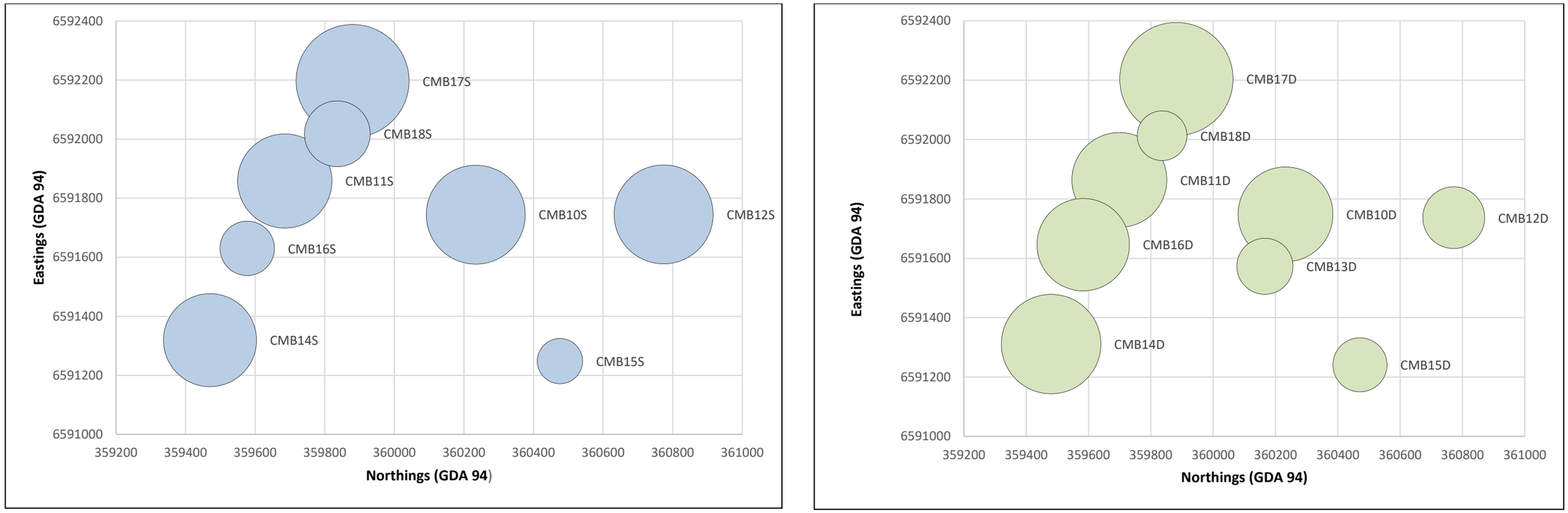


Figure 6: pH in deep and shallow (left) and deep (right) bores relative to the location surrounding the TSF2 (values scaled for clarity)

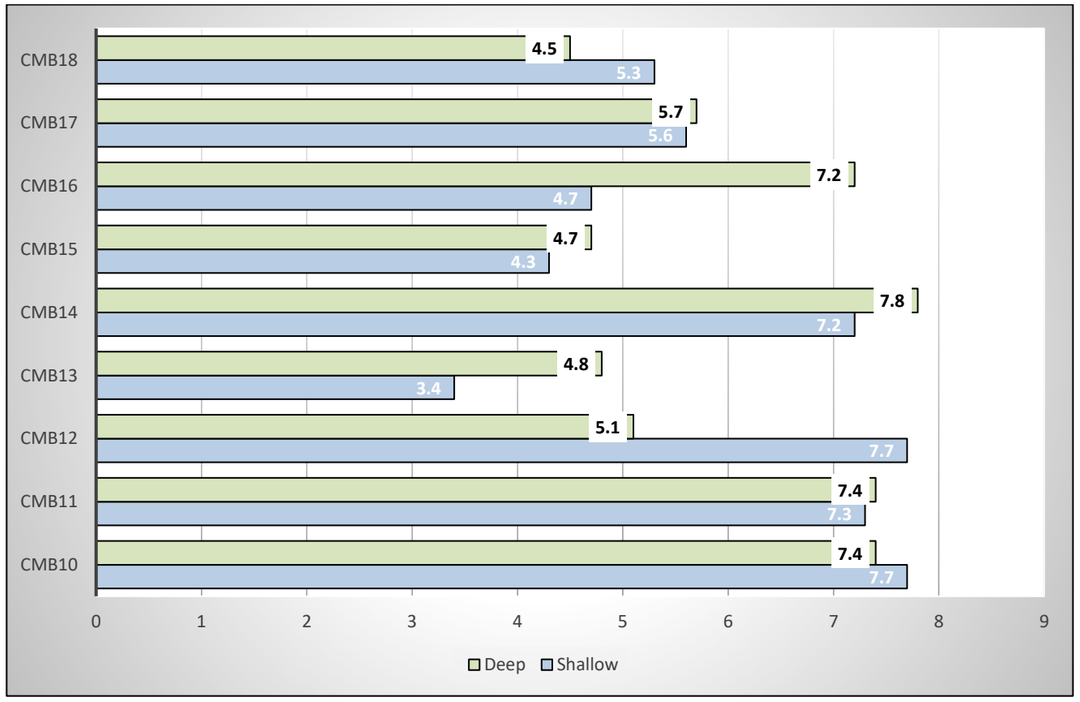


Figure 7: Direct comparison of pH actual value difference in deep and shallow bores

2.5.2 Groundwater trends over time – Depth to groundwater

Since the installation of monitoring bores at TSF2 in 2023, the licence holder has undertaken additional groundwater monitoring. Groundwater monitoring results available to date were submitted to support this assessment. However, the intervals of monitoring events between mid-2025 and early 2026 were inconsistent, with most bores remaining unmonitored. The lack of consistent monitoring over the eight months following the start of tailings deposition at TSF2 around February 2026 introduced significant uncertainty and limited the ability to interpret post-deposition groundwater trends over time. Tailings deposition into TSF1 ceased when deposition commenced at TSF1.

The analysis below considers existing data from the baseline monitoring event in December 2023. Due to the inconsistent nature of subsequent monitoring events, any trends inferred from this data should be treated with caution.

Variation in depth to groundwater in the shallow and deep monitoring bores since late 2023 is shown in Figure 8 and Figure 9 respectively. For clarity, bores are grouped by their position relative to TSF2:

- Group 1: north of TSF2, adjacent to TSF1 - CMB17S, CMB18S, CMS10S, CMB12S
- Group 2: west of TSF2 - CMB11S, CMB16S
- Group 3: east of TSF2 - CMB13S, CMS15S
- Group 4: south of TSF2 - CMB14S and CMS09S

Shallow bores review

- From late 2023 to August 2025, most shallow bores showed a general decrease in depth to groundwater, indicating a rising water table across the monitored area.
- Two bores that diverged from this shallowing trend were:
  - CMB10S (north-east of TSF2) showed an increase in depth to groundwater from 0.1 to 0.9 mbgl between March and September 2025.
  - CMB14S recorded a higher standing water level in June 2025 compared with 2023, with no monitoring events between these.
- Several bores exhibited pronounced fluctuations between monitoring events (e.g. CMB11S in May–June 2024, CMB9S in May–June 2024, and CMB13S in early and mid-2024). These variations may reflect climatic effects or localised operational influences, including seepage recovery, noting that the fluctuations were not consistently observed across all shallow bores.
- Variation in groundwater depth between bores appeared to decrease over time, converging towards 0.5–1.0 mbgl by early 2025. Based on limited monitoring, variation increased again from mid-2025.
- CMB9S and CMB11S (west and south of TSF2 respectively) recorded the shallowest groundwater depths in the last monitoring events of 2025 (0.2 and –0.2 mbgl).
- CMB11S showed the most consistent and strong shallowing trend, with recent monitoring measurements being above ground level, likely standing within the riser pipe of the bore.

Deep bores review

- Deep bores generally recorded greater groundwater depths than shallow bores, ranging from 1 to 16 mbgl, compared with –0.2 to 2.5 mbgl in shallow bores.
- A general shallowing trend in water depth was present but less strong and less consistent

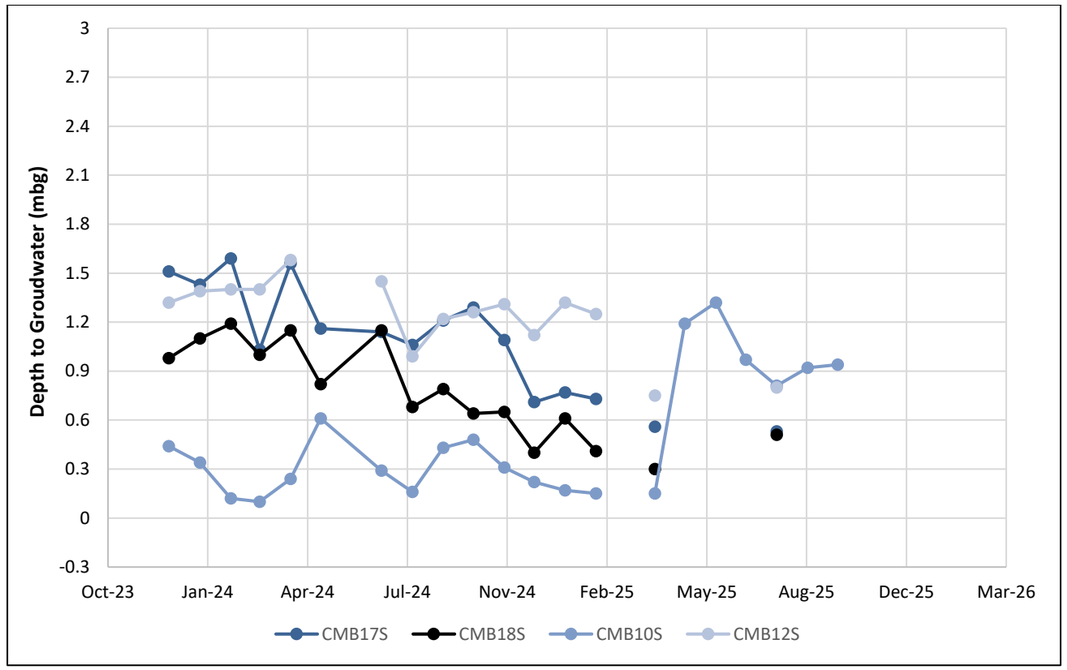
than in shallow bores. Most bores showed slightly shallower water levels compared with late 2023, except CMB14D, CMB11D and CMB18D, which showed increased depths in mid-2025.

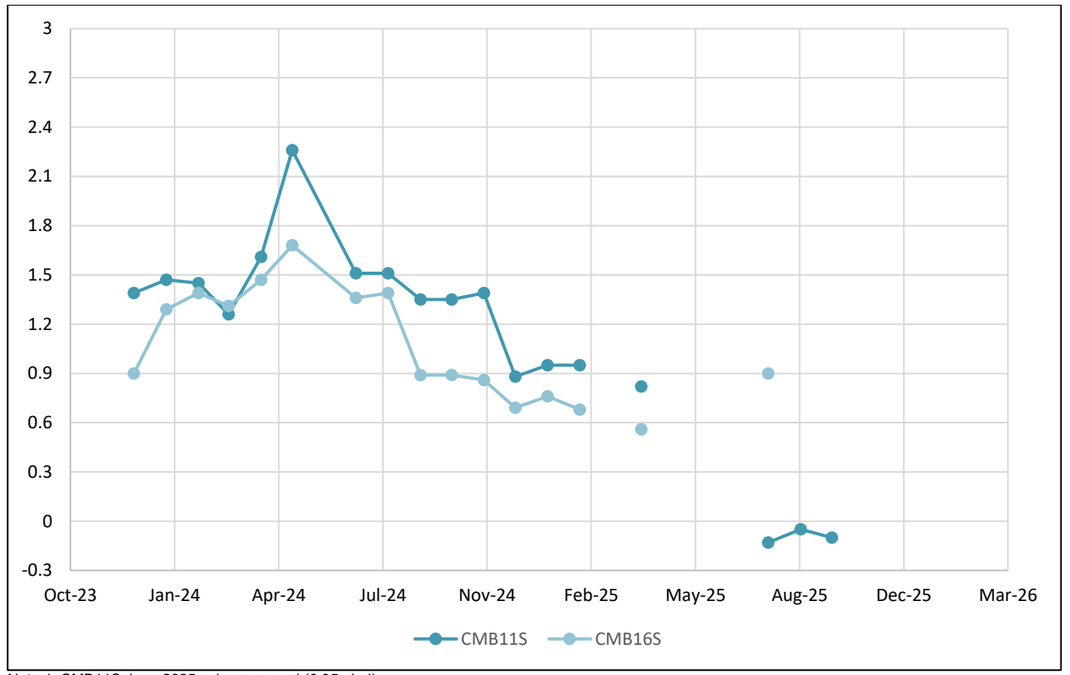
- CMB18D showed a consistent downward trend until April 2025, where water levels reached 0 mbgl. Only one further measurement was taken (July 2025), showing a depth of ~2 mbgl, approximately 1 m above its 2023 level.
- The greatest long-term decreases occurred at CMB10D and CMB13D, located between TSF1 and TSF2 and between TSF2 and the processing plant respectively.
- Significant variability between monitoring events was observed in bores east of TSF2, potentially reflecting localised influences such as seepage recovery operations or stratification within the aquifer.
- Unlike the shallow bores, which converged towards consistently shallow levels by early 2025, the deep bores did not converge and continued to fluctuate between bores. This pattern supports earlier findings that the deeper groundwater system responds differently, possibly due to lower hydraulic conductivity, delayed seepage response, or multiple aquifer layers.

Across the monitoring period, shallow bores generally showed a decrease in depth to groundwater (i.e., a rising water table), with convergence towards ~0.5–1.0 mbgl by early 2025 before variability increased again. Localised departures from the general trend (e.g., CMB10S, CMB14S) and episodic fluctuations at some of the bores could reflect weather events or operational factors such as seepage recovery (noting that the licence holder is currently not required to report the volume of seepage abstracted from the seepage recovery bores). By late 2025, the shallowest water levels were recorded to the west and south of TSF2 (e.g., CMB9S, CMB11S), consistent with mounding in parts of the shallow aquifer and highlighting a need for continued seepage and groundwater mounding management in these areas, despite the recency of TSF2 commissioning.

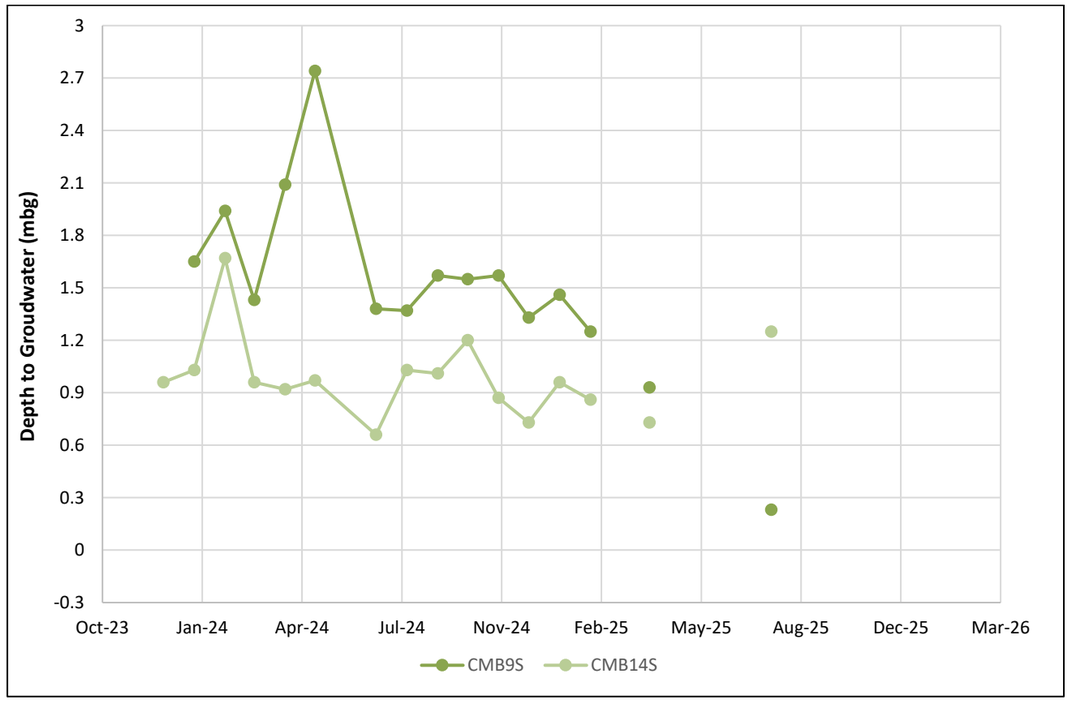
In contrast, deep bores recorded greater depths to groundwater and exhibited weaker, less consistent downward trends, with prominent fluctuations persisting into early 2025, particularly to the east of TSF2. Nonetheless some deep bores (e.g., CMB10D, CMB13D) showed the largest long-term decreases among the network, whereas others (e.g., CMB14D, CMB11D, CMB18D) indicated reversals or rebounds by mid-2025. This pattern supports earlier findings that the deeper groundwater system responds differently, possibly due to lower hydraulic conductivity, delayed seepage response, or multiple aquifer layers.

Overall, the divergent behaviours of shallow and deep bores suggest vertical heterogeneity and delayed transmission of seepage at depth, with the shallow aquifer more responsive to seepage and recovery operations. Given the inconsistent monitoring coverage from mid-2025 to early-2026, the Delegated Officer considers TSF2 post-deposition groundwater trends to be limited and difficult to interpret, with no clear trends evident at this stage. Further monitoring may be required to better understand groundwater behaviour within shallow and deep bores throughout the operational life of TSF2.





Note 1. CMB11S June 2025 value removed (6.95mbgl)



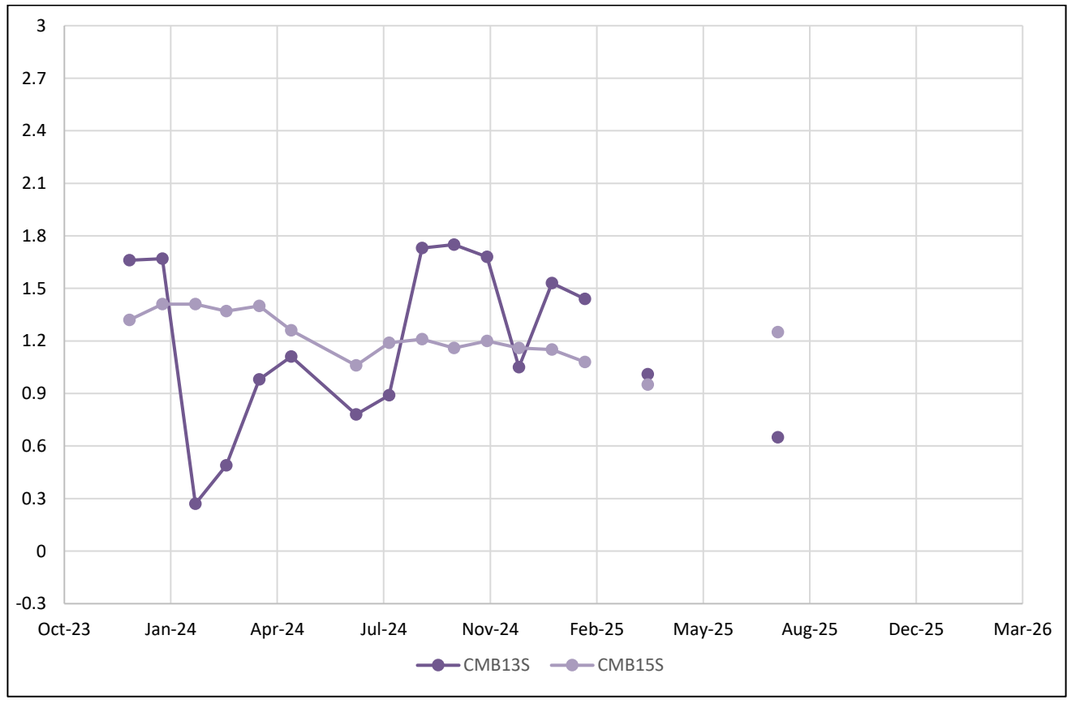
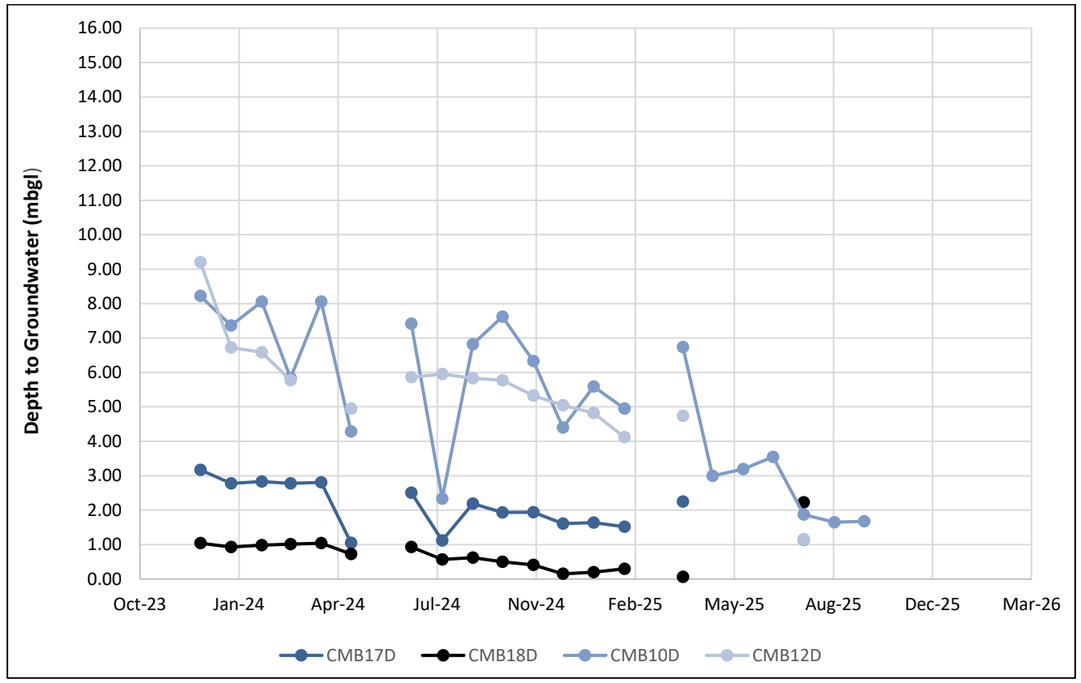
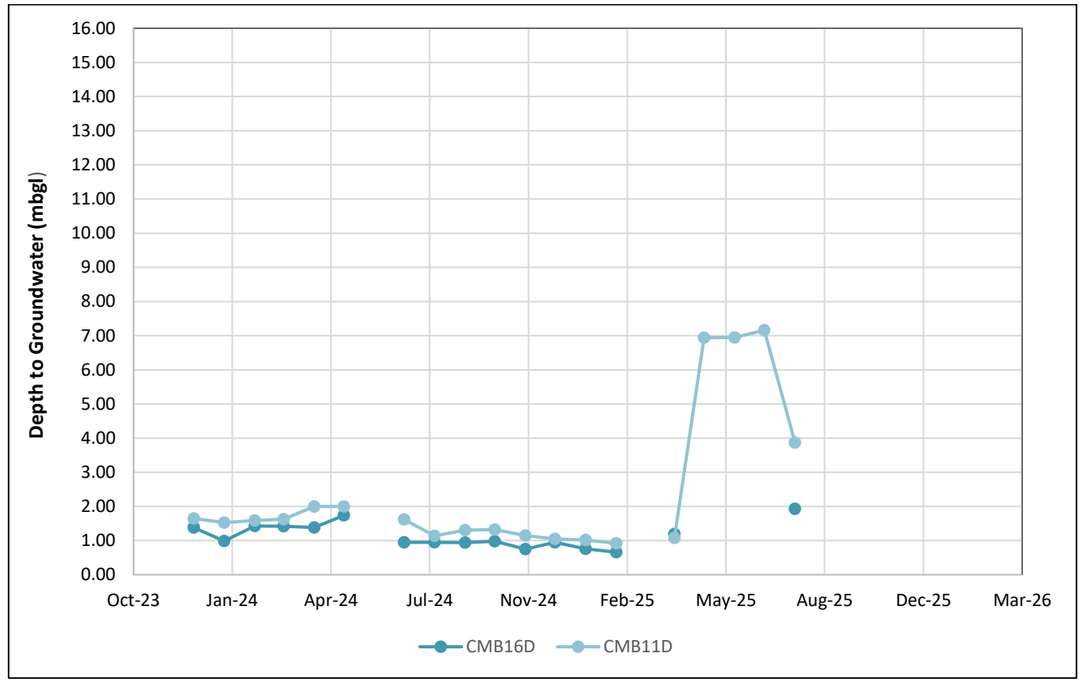
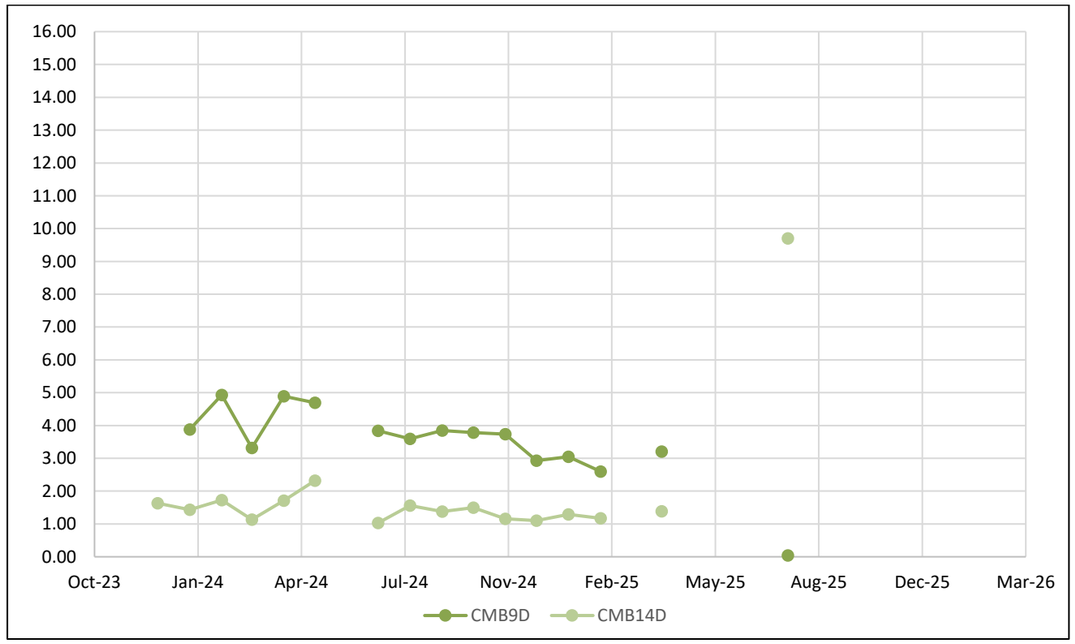


Figure 8: Groundwater level changes from late 2023 and early 2025 at the 2023 constructed shallow groundwater bores (Group 1-4 shown in a clockwise direction)







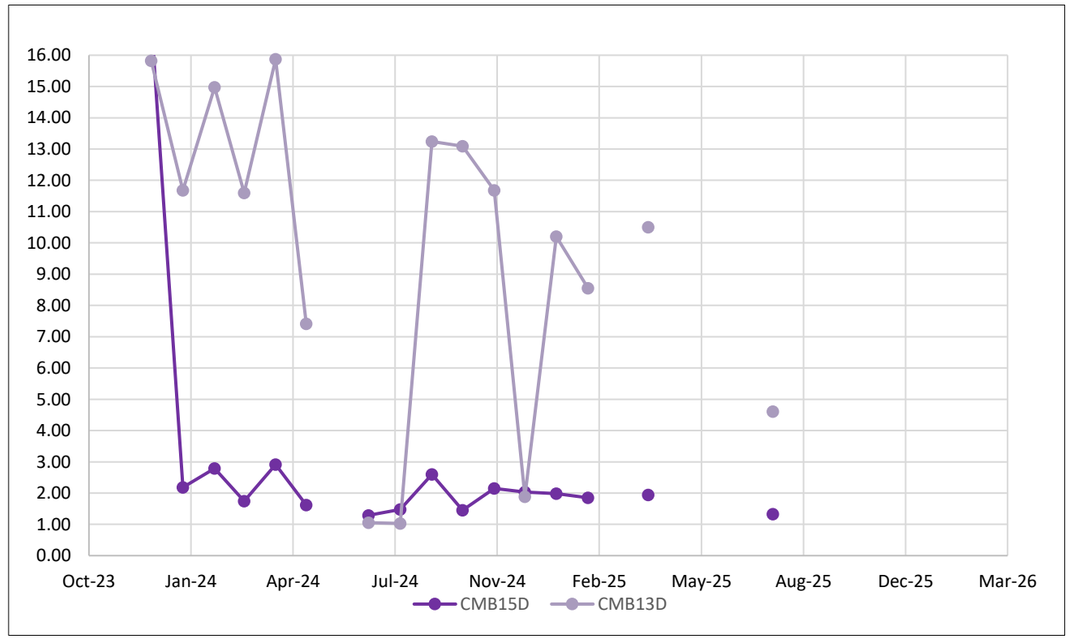


Figure 9: Groundwater level changes from late 2023 and early 2025 at 2023 constructed groundwater bores (Group 1-4 shown in a clockwise direction)

2.5.3 Groundwater trends over time – Water quality

Given the highest susceptibility to seepage of the shallow aquifer, groundwater quality data in shallow bores was also reviewed for total cyanide, WAD cyanide and cobalt. As with groundwater depth, additional monitoring data was requested during the assessment, to determine the influence of seepage on groundwater after deposition commenced at TSF2 but monitoring in most cases had not been conducted. The analysis below considers any potential trends from December 2023, mostly until February 2025, unless additional data was submitted.

Total cyanide (Figure 10)

- Concentrations of total cyanide in most shallow bores were higher in early 2025 when compared to 2023. The bore with highest increase was CMB10S (approximately 2.3 mg/L) followed by CMB12S at around 2.0 mg/L. These bores are located to the south and east of TSF1 respectively. This broadly reflects the observed groundwater depth trends.
- Total cyanide monitoring of the shallow bores did not occur beyond February 2025.

WAD cyanide (Figure 11)

- Variation in the concentration of WAD cyanide was more limited than the total cyanide.
- The greatest increase occurred in CMB10S where the concentration of WAD cyanide tripled between July 2024 and January 2025 and was approximately 52 times that of 2023. This was followed by CMB12S with concentration five times that of 2023.
- CMB17S was monitored in December 2024 and February 2025 following the initial baseline in 2023 and was the only bore where the WAD cyanide concentration decreased over time.
- CMB9S only had two monitoring events (February and April 2024) with no monitoring event undertaken in 2023. WAD cyanide concentration at this bore increased from 0.02 to 0.04 mg/L during this time.
- CMB16S remained unmonitored after the initial monitoring event in 2023.

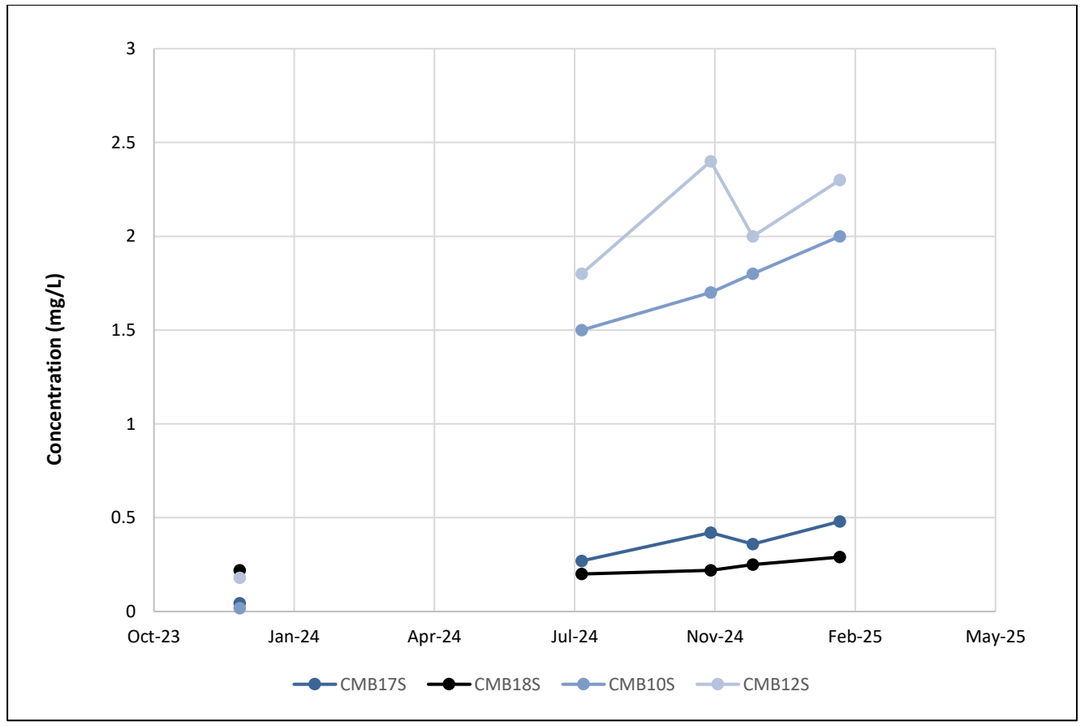
Cobalt (Figure 12)

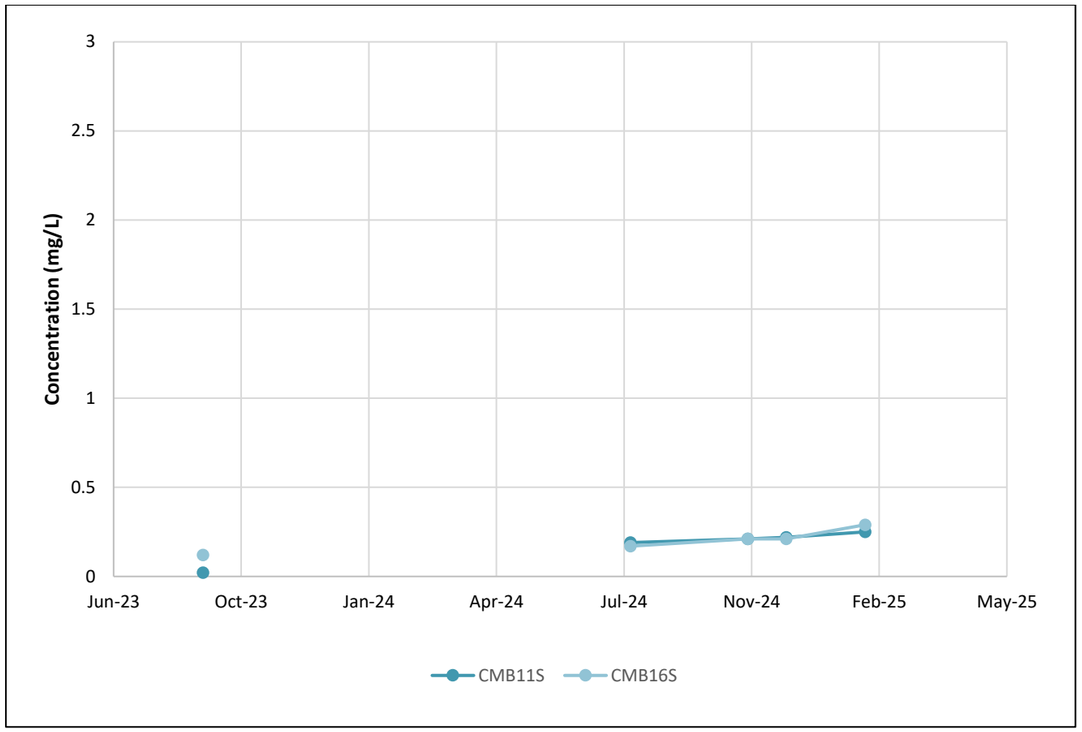
- The highest increase in cobalt concentration from 2023 measurements occurred at CMB10S (4.2 mg/L) and CMB12S (4.2 mg/L). In both cases the latest concentrations were over 100 times higher than 2023.
- Across most bores (when monitoring occurred) concentration dropped to approximately the limit of reporting in April 2024. A marked and persistent increase occurred after that.
- Only CMB9S and CMB18S recorded lower concentrations in early 2025 compared to their 2023 initial reading.
- Cobalt concentrations were monitored more consistently than cyanide, however, as for cyanide, most monitoring stopped in February 2025. Furthermore, no monitoring was undertaken between the initial event in 2023 and April 2024.

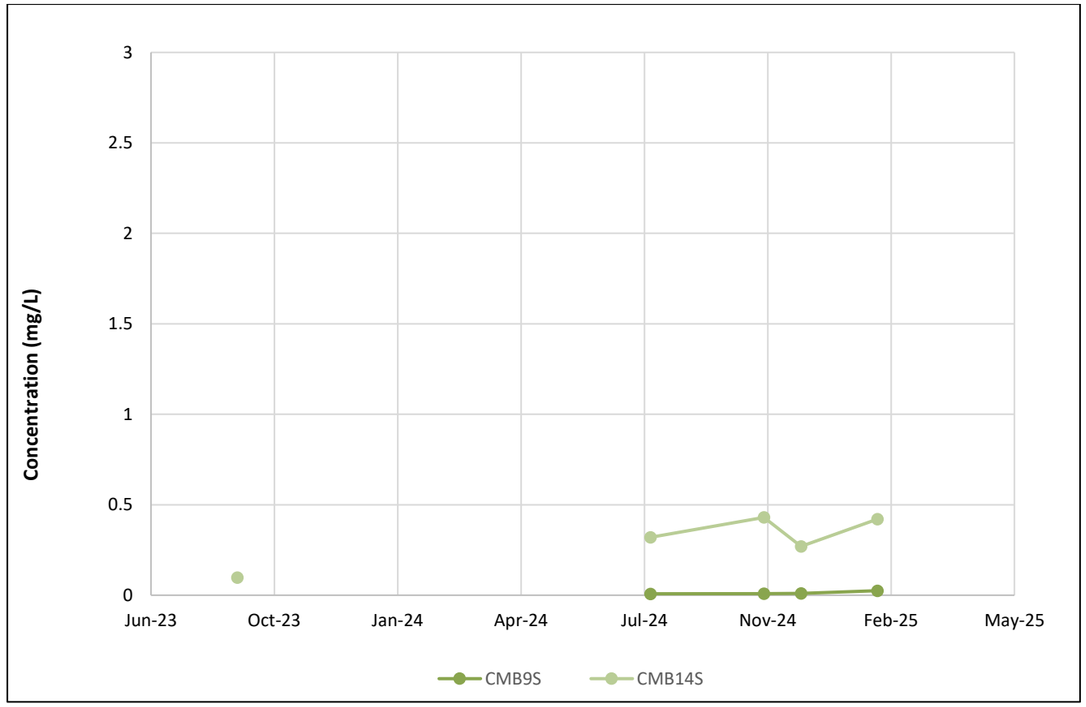
Based on the limited groundwater quality results, evidence suggests a localised seepage influence to the south and east of TSF1, with a consistent increasing trend in total cyanide, WAD cyanide and cobalt concentrations. This appears to be associated with the existing seepage plume being emitted from TSF1, as all contaminants analysed in this report follow a similar spatial and temporal pattern with some bores outside of this area showing stable or decreasing concentrations. Furthermore, the magnitude of the increase near TSF1, particularly for cobalt and the sharp and discontinuous changes in WAD cyanide suggest episodic and operationally driven changes. It should be noted that confidence of any trend assessment is moderate due to

major gaps in the monitoring frequency and the cessation of shallow bore monitoring after February 2025.

Given the operational expectation that seepage may increase again with the continued deposition into TSF2, future risk to shallow groundwater quality cannot be ruled out and may have been under-characterised. At a later stage, seepage influences associated with both TSF1 and TSF2 may amalgamate and require appropriate holistic groundwater management.







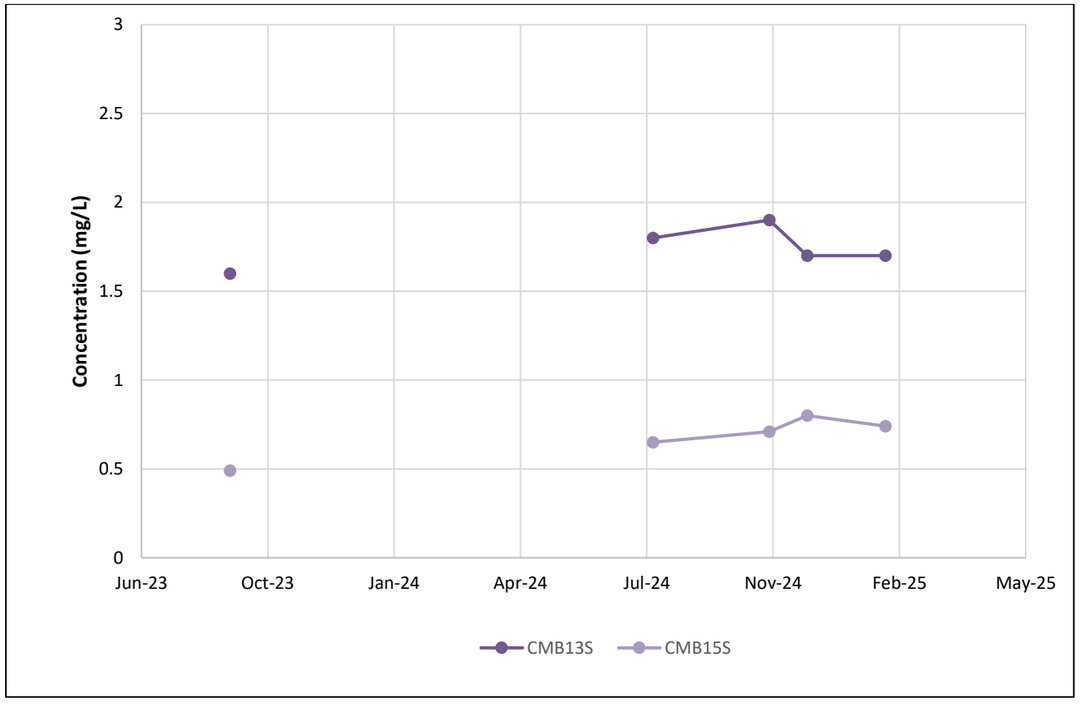
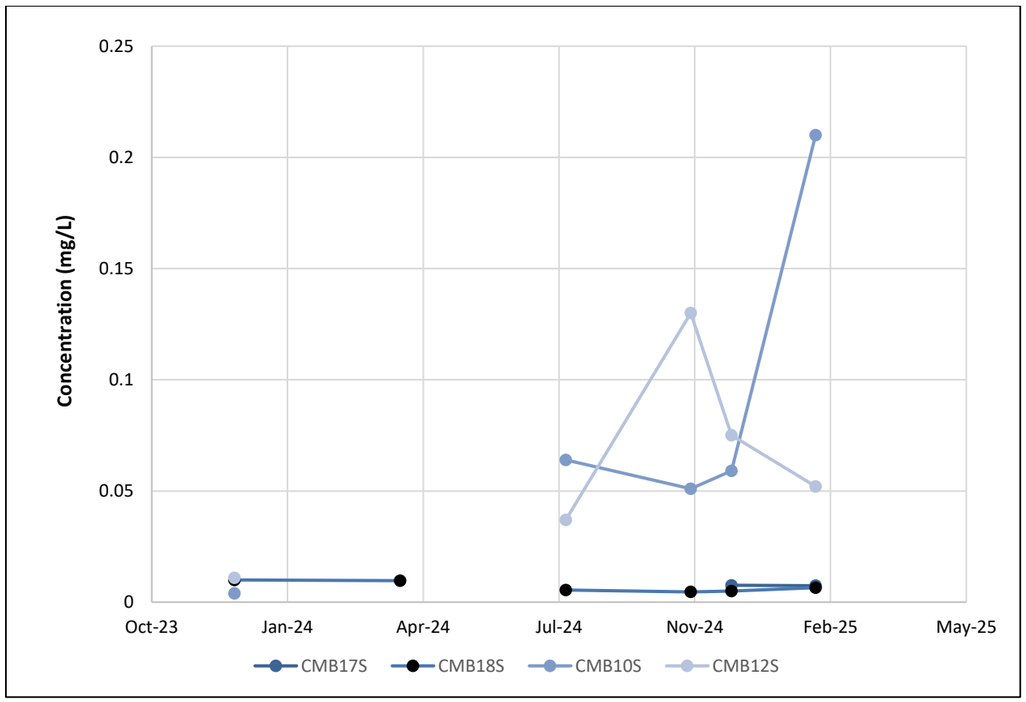


Figure 10: Total cyanide concentration TSF2 shallow bores



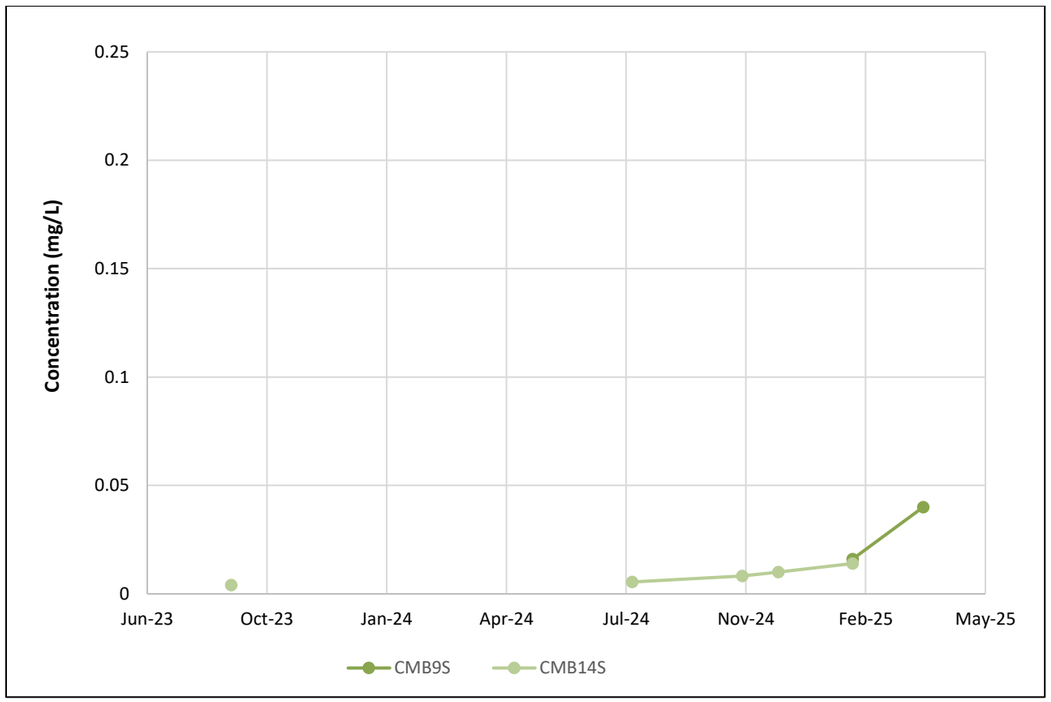
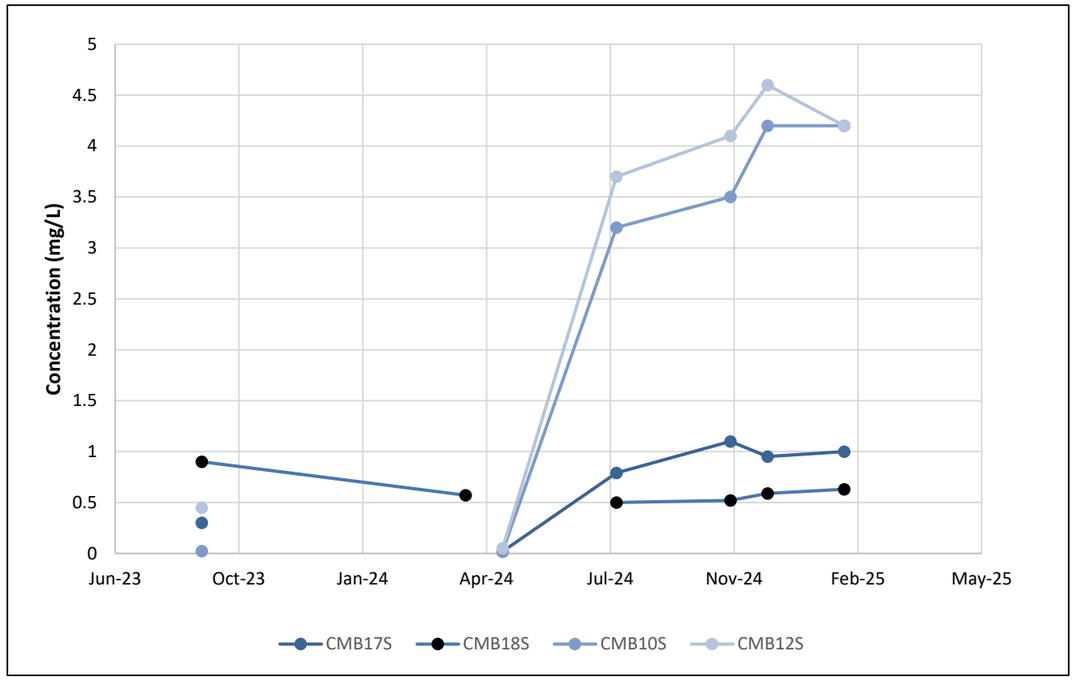
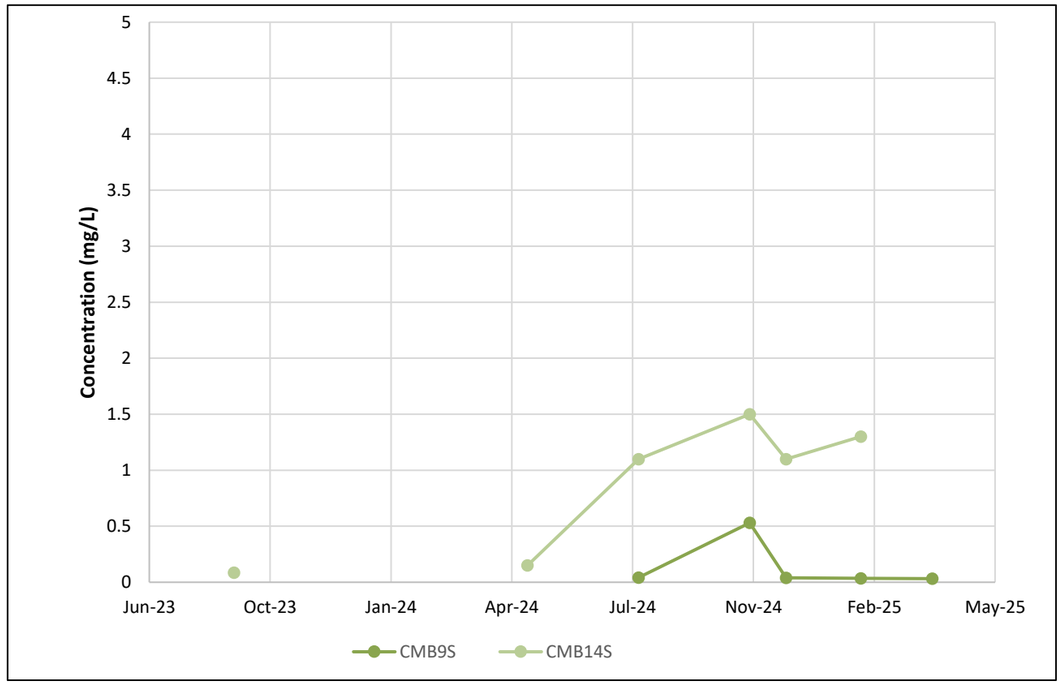
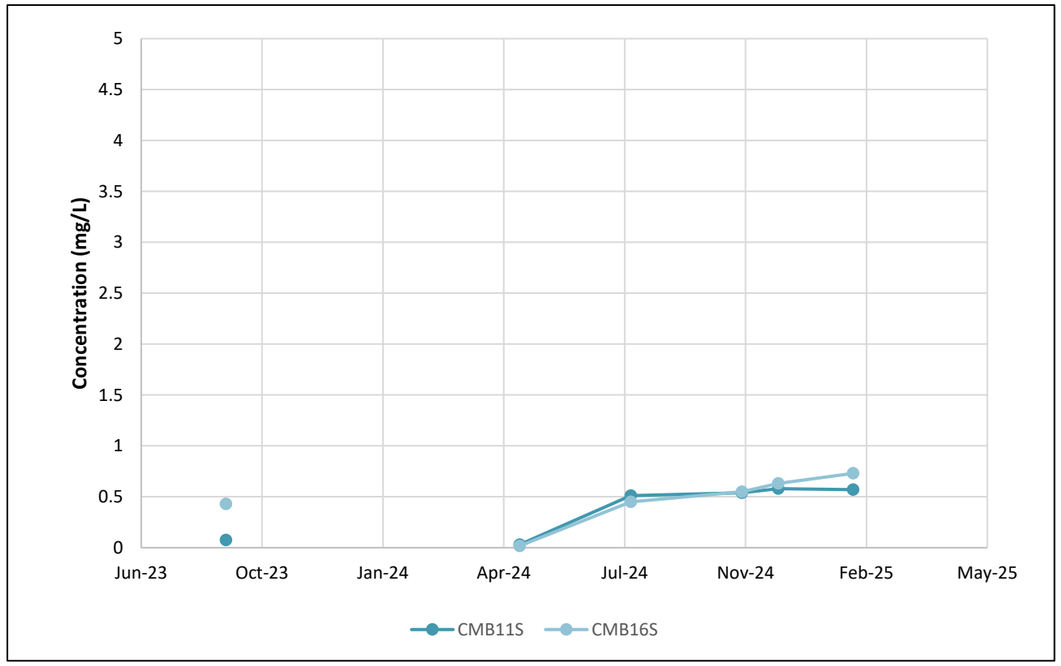


Figure 11: WAD cyanide concentration on TSF2 shallow bores







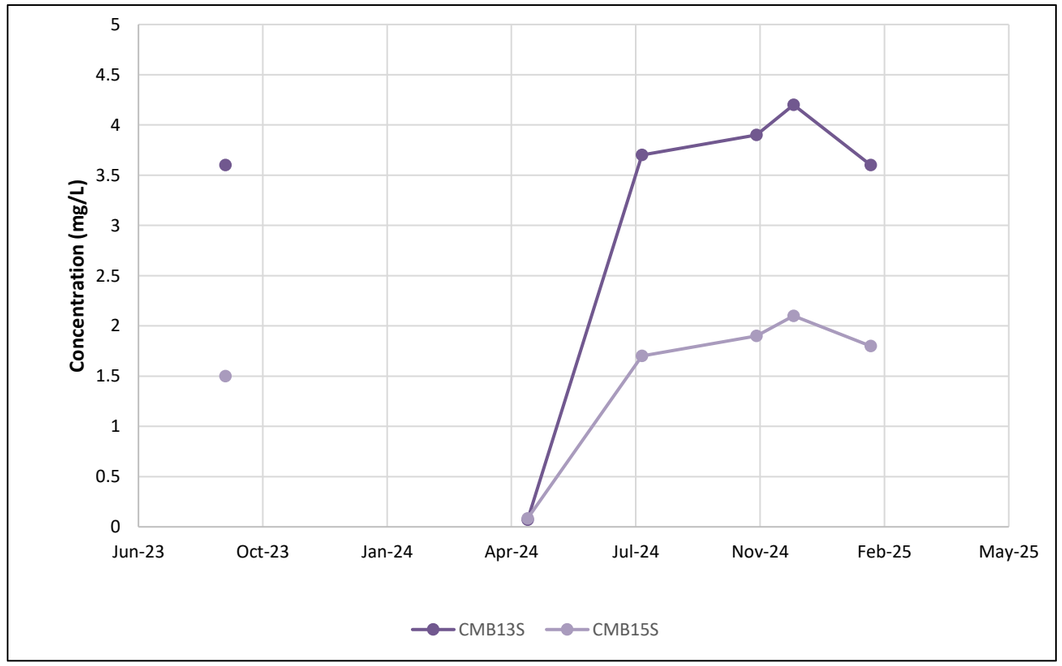


Figure 12: Cobalt concentration on TSF2 shallow bores

2.6 Update to licence format

As part of this application, the CEO has initiated an amendment to:

- update the format and appearance of the licence, as well as standard conditions, to align with current licensing format;
- revise licence condition numbers, remove redundant conditions, and realign condition numbers for numerical consistency; and
- corrected any clerical mistakes and unintentional errors.

In particular, there was an error in existing Table 1.3.3, where the quantity limit for industrial wash water contaminated with controlled waste (L150) was specified as 3,500,000 L/annual period, where the assessed production capacity for Category 61 was reduced to 1,300,000 L/annual period (or 1,300 tonnes/annual period) in a licence amendment on 22 March 2019. As such, the department has revised the quantity limit to align with the assessed production capacity.

The full list of changes made to the licence conditions as they relate to this amended licence are detailed in Section 4.1. Previously issued Amendment Notices will remain on the department's website for future reference and will act as a record of the department's decision making.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a risk event there must be an emission, a receptor exposed to that emission through an actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathways during the premises operation considered in this Amendment Report are detailed in Table 4. Table 4 also details the licence holder proposed control measures to assist in controlling these emissions.

Table 4: Potential emissions, sources, pathways and licence holder controls

Emission	Sources	Potential pathways	Proposed controls
Category 5 increased throughput and operations of the processing plant			
Dust	Operation of the Lakewood processing facility with maximum throughput of 1,200,000 tonnes (from 900,000 tonnes) per annum, including toll treating ore from third-parties.	Air/windborne pathway	The licence holder will operate the processing plant in accordance with works approval W6719/2022/1: • Routine dust suppression will be undertaken using water carts and /or water sprays across the work area when dust is visible • The plant (and individual components) will be maintained in accordance with the manufacturer's specifications

Emission	Sources	Potential pathways	Proposed controls
			Furthermore, the licence holder will continue to suppress dust emissions from the crushing and screening activities with the use of water sprays.
Sediment laden / contaminated stormwater		Overland runoff and infiltration during rainfall events	The licence holder will operate the processing plant in accordance with works approval W6719/2022/1: • Bunding integrity and containment volumes will be routinely monitored • Sumps will be routinely inspected and material removed
Hydrocarbon / chemical reagents		Direct discharge, overland runoff and infiltration	The licence holder will operate the processing plant in accordance with works approval W6719/2022/1: • All adsorption tanks will continue to be located within a containment bund • Bunding integrity and containment volumes will be monitored routinely and maintained as required Furthermore, the licence holder has committed to: • Contain and remediated any spills within 24 hours using spill kits at key locations at the premises. Site personnel will be trained in their use • Inspect all hydrocarbon storage, refuelling, workshops and laydown areas weekly • Hydrocarbons and chemical reagents storage will be licensed in accordance with the *Dangerous Goods Safety Act 2004*
Operations of TSF2 starter embankment			
Dust (from dry tailings)	Operations of TSF2 starter embankment, including tailings deposition of toll-treated ore, transfer of tailings and decant water to and from TSF2	Air / windborne pathway	The licence holder will operate the TSF in accordance with works approval W6719/2022/1: • Tailings slurry will be discharged sub-aerially and cyclically from the perimeter embankment to maintain damp beaches • Dust suppression will be undertaken using water carts where required Furthermore, the licence holder has committed to • Use dust suppressants when

Emission	Sources	Potential pathways	Proposed controls
			excessive dust from tailings is noted • Use defined access roads and haul routes, with speed restrictions • Action complaints from stakeholders regarding dust emissions immediately and review management measures
Sediment laden / contaminated stormwater		Overland runoff and infiltration	In accordance with W6719/2022/1: • The embankment crest was constructed with a 2% design crossfall toward the upstream side and nominal 0.5m-high windrows at both the downstream and upstream edge, with regular drainage gaps in the upstream windrow • A 4m-wide cut-off trench was excavated to approximately 1.5 m in depth beneath the embankment footprint with side batter slopes of 1V:1H, backfilled with compacted clayey material • Diversion drains were excavated to a nominal depth of 1 meter with a base width of 3 meters. Furthermore, under the current licence condition 1.2.3 requires the licence holder to: (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.
Tailings slurry, tailings and supernatant water (highly saline, high concentrations of heavy metals and metalloids)		Seepage (vertical infiltration and horizontal migration)	The licence holder will operate TSF2 in accordance with works approval W6719/2022/1: • Supernatant pond boundary will be at least 120m away from nearest perimeter embankment • Seepage recovery bores will be maintained and operated as outlined • Operational freeboard will be maintained at a minimum of 300mm and beach freeboard of 200mm • An ongoing groundwater

Emission	Sources	Potential pathways	Proposed controls
			monitoring program including depth and concentration of major dissolved metals, metalloids, salts and general parameters will extend to the constructed bores surrounding TSF2 • Tailings volume and return water will be recorded. Furthermore, the licence holder will: • Tailings from external sources will comply with the Ore Acceptance Procedure (Rev1 | July 2025).
		Direct discharge from overtopping and embankment failure with subsequent infiltration	The licence holder will operate TSF2 in accordance with works approval W6719/2022/1: • Supernatant pond boundary will be at least 120m away from nearest perimeter embankment • Operational freeboard will be maintained at a minimum of 300mm and beach freeboard of 200mm and the current licence: Daily visual check of freeboard capacity
		Direct discharge, overland runoff and infiltration from a pipeline failure	The licence holder will operate TSF2 in accordance with works approval W6719/2022/1: • Maintain telemetry system and pressure sensor and automatic cut-off in event of pipe failure in tailings and return water pipelines; and the current licence: • Daily visual check of pipeline integrity
Supernatant water containing high concentrations of heavy metals and high salinity	Operation of the supernatant pond and process water pond, and collection of seepage in the return water pond	Direct contact of fauna to the process pond	No controls have been proposed
		Overland runoff and infiltration from overtopping	The licence holder will operate TSF2 in accordance with works approval W6719/2022/1: • The Process Water Pond and the Return Water Pond (sump) will maintain a minimum freeboard of 500 mm • The licence holder will maintain

Emission	Sources	Potential pathways	Proposed controls
			the integrity of the HDPE liner Furthermore, the licence holder committed to: • Maintain a freeboard of 0.5 m in the soakwell associated with the capture trench • Undertake routine inspections (twice per shift) of active TSF, water storage ponds and tailings/return water pipelines.

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 5 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental siting* (DWER 2020)).

Table 5: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
• Town of Kalgoorlie Boulder	South Boulder (part of the City of Kalgoorlie-Boulder) is located approximately 3.2 km west of the premises boundary with the closest residential premises located approximately 4.0 km west of the premises boundary. Given the separation distance, it is unlikely that the town will be affected by the activities. As an actual or likely source-pathway-receptor linkage does not exist, this potential receptor has not been considered further in this assessment.
Environmental receptors	**Distance from prescribed activity**
Native vegetation	
• Pre-European remnant vegetation around the premises	Adjacent to TSF2
• Lakeside Timber Reserve	3.1 km southeast of TSF2
Fauna	
• Jalmenus Aridus (Inland Hairstreak / Desert Blue butterfly) – conservation significant	Approximately 900 m northeast of TSF2
• Wood sandpiper (specially	In the area

protected migratory)	
Groundwater • Goldfields Groundwater area (proclaimed under the RIWI Act).	Underlying the premises
Surface Water • Hannan Lake • Unamend smaller isolated ephemeral lakes • Two ephemeral drainage lines	2.25 km south of the southern premises boundary (and TSF2) The closest lake located approximately 1.5 km from the premises boundary 44 meters to the east of TSF2 parallel to the eastern embankment 450 meters to the east of TSF2 parallel to the eastern embankment

3.2 Risk ratings

Risk ratings associated with the change in emissions at the premises from the proposed amendment have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020). As identified in section 3 each identified emission source considers a potential source-pathway-receptor linkage. Where linkages are incomplete, they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1.1), these have been considered when determining the final risk rating. If the Delegated Officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, the same proposed controls will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Additional controls will be justified in Table 6

The revised licence that accompanies this amendment report authorises emissions associated with the operation of the premises.

The conditions in the issued licence, as outlined in Table 6 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 6. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Operation								
Operation of the Lakewood processing facility with maximum throughput of 1,200,000 tonnes (from 900,000 tonnes) per annum, including toll treating ore from third-parties.	Dust	**Pathway:** air / windborne pathway **Impact:** deterioration of remnant vegetation health	Remnant native vegetation, and priority flora	Refer to Section 3.1	C = Minor L = Unlikely **Medium risk**	Y	Condition 1	Existing controls on the works approval will be transferred to the licence to ensure the appropriate management of dust continues to occur, reducing the risk of deterioration of the surrounding vegetation. To manage dust emissions from ore processing up to 1,200,000 tonnes per year, operational requirements associated with crushing and screening infrastructure have been included in the amended licence. The Delegated Officer has deemed the risk event to be **medium** as a result of a **minor** consequence and an **unlikely** likelihood rating.
	Sediment laden /contaminated stormwater	**Pathway:** overland runoff and infiltration during rainfall events **Impact:** discharge to land, resulting in impacts to ecological health	Remnant vegetation, surface water	Refer to Section 3.1	C = Moderate L = Unlikely **Medium risk**	Y	Condition 1 Condition 9	Contaminated / sediment laden stormwater runoff can have a detrimental effect on surrounding native vegetation and surface water, with its extent dependent on volume of runoff and receptors' exposure over time. Existing controls on the works approval will be transferred to the licence to ensure the ongoing appropriate management of the stormwater infrastructure. Existing condition 1.2.3 for the management of stormwater has been retained and updated to current licensing format (condition 9). The Delegated Officer has also specified operational requirements at the processing plant in the amended licence (condition 1). The Delegated Officer has deemed the risk event to be **medium** as a result of a **moderate** consequence and an **unlikely** likelihood rating.
	Hydrocarbon / chemical reagents release	**Pathway:** direct discharge from loss of containment **Impact:** discharge to land, resulting in impacts to ecological health	Soil / remnant vegetation, surface water	Refer to Section 3.1	C = Slight L = Unlikely **Low risk**	Y	Condition 1	A loss of containment associated with the hydrocarbons and chemical reagents used at the processing plant could result in the release of hazardous substances including cyanide, creating a contamination risk to soil, surface water and the surrounding vegetation. Existing controls on the works approval will be transferred to the licence to ensure ongoing integrity inspections of bunding, verification of containment capacity and routine maintenance (including removal of accumulated material in sumps). The Delegated Officer has also specified operational requirements at the processing plant in the amended licence (condition 1). Based on the anticipated effectiveness of the controls, the Delegated Officer has deemed the risk event to be **low** as a result of a **slight** consequence and an **unlikely** likelihood rating.
Operations of TSF2 starter embankment, including tailings deposition of toll-treated ore, transfer of tailings and decant water to and from TSF2.	Dust (dry tailings)	**Pathway:** air / windborne pathway **Impact:** deterioration of remnant vegetation health	Remnant native vegetation, including conservation area and priority flora	Refer to Section 3.1	C = Minor L = Unlikely **Medium risk**	Y	Condition 1	According to the Design Report for TSF2, solids concentration in the tailings slurry was expected to be approximately 45% - 47% during deposition. On this basis, dust emissions are not expected to occur during this stage of operations. However, as tailings settle, dry and consolidate on the tailings beach, the likelihood of dust generation will increase, noting that the fines content has been deemed to be between 47% and 92%. Nonetheless, the licence holder's proposed controls including maintaining damp beaches and using dust suppressants if excessive dust is noted, are deemed acceptable in maintaining an acceptable level of risk during operations. The risk rating has been deemed **medium** as a result of a **minor** consequence u**nlikely** likelihood rating.
	Sediment laden / contaminated stormwater	**Pathway:** overland runoff and infiltration during rainfall events **Impact:** discharge to land, resulting in	Remnant vegetation, surface water	Refer to Section 3.1	C = Slight L = Possible **Low risk**	Y	Condition 1 Condition 9	Contaminated / sediment laden stormwater runoff can have a detrimental effect on surrounding native vegetation and surface water, with its extent dependent on volume of runoff and receptors' exposure over time. Existing controls on the works approval will be transferred to the licence to ensure the ongoing appropriate management of the stormwater infrastructure. Existing condition

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
		impacts to ecological health						1.2.3 for the management of stormwater has been retained and updated to current licensing format (condition 9). However, it is noted that construction of rock armouring on the downstream embankment of TSF2 has not been undertaken at the starter embankment and will only be undertaken during subsequent embankment raises. Therefore, the likelihood of this risk event has been elevated. The Delegated Officer has deemed the risk event to be **low** as a result of a **slight** consequence and a **possible** likelihood rating.
	Tailings seepage	**Pathway:** vertical infiltration and horizontal migration **Impact:** groundwater mounding, groundwater contamination and potential ecological disturbance	Soil / remnant vegetation, surface water, groundwater	Refer to Section 3.1	C = Moderate L = Possible **Medium risk**		Condition 1 Condition 3 **Condition 6** Condition 14 **Condition 15** **Condition 16** Condition 17 **Condition 24** **Condition 25**	Tailings seepage through the base and the sides of the embankment was discussed throughout this report. Evidence from the data provided indicates that groundwater at the premises has been affected by TSF1 seepage. While limited groundwater data was available for TSF2, it is reasonable to assume that an increased deposition of tailings into TSF2 (from additional throughput and ongoing operations) may exacerbate existing seepage and groundwater mounding issues. Effective TSF operations and management are key to reducing seepage. As a result, the Delegated Officer has outlined the following requirements in the amended licence: • Condition 1 – Maintaining decant pond size and separation distance from perimeter embankments. This was included as an additional regulatory requirement in works approval W6719/2022/1 and has been carried over. These controls are based on the embankment stability, freeboard and TSF balance assessment completed by Tetra Tech Coffey (2021). • Condition 1 – Specifying operational requirements for TSF1. While the amendment relates to the operation of TSF2, the Delegated Officer notes that existing seepage and groundwater mounding impacts from historical operation of TSF1 remain present and require ongoing management. Therefore, the Delegated Officer has specified operational requirements that align with TSF2 for operation of TSF1. • Condition 1 and 14 – Operating the seepage recovery bores continuously to drawdown groundwater mounding around TSF1 and TSF2, including monitoring of the bore pumping rate to assess that system performance is adequate. • Condition 17 – Maintaining an accurate water balance, to ensure the facility remains stable and environmental impacts are minimised. A water balance was temporarily required on a quarterly basis under condition 4.1.2 (improvement condition) of the licence. Routine water balance monitoring will improve understand and predictions of seepage behaviour over time. The works approval conditions (outlined in section 3.1.1 of this report) will also be incorporated into the amended licence, including emission monitoring of the decant ponds at TSF1 and TSF2 (condition 15), and ambient groundwater monitoring of additional parameters (e.g., sulfate, cobalt, mercury, molybdenum, selenium, thallium, uranium, vanadium) at the additional monitoring bores installed at TSF2 (condition 16). Furthermore, the premises' ongoing function as a toll treatment facility may result in changes to geochemistry of the tailings produced, as well as the resultant seepage. Of particular concern is the acceptance and processing of potentially acid forming ore, which may result in acid mine drainage, elevating the potential consequence of seepage emitted from the TSFs. To ensure that these potential changes are adequately assessed, the department has considered the Ore Acceptance Procedure being implemented by the licence holder and included a requirement for ore and tailings geochemical assessment when toll-treating external ore, such that there are no adverse environmental impacts (condition 6). In the assessment of works approval W6719/2022/1, the department noted the limited suite of parameters analysed using Australian Standard Leaching Procedures under the

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
								Ore Acceptance Procedure. As the licence holder intends to primarily treat ore sourced from their own mining operations, the department has specified an additional regulatory requirement to undertake a detailed characterization of the resultant tailings under condition 24 and 25. The Delegated Officer has also decided to increase the reporting frequency for the licence from biennially to annually in condition 22, due to greater degree of regulatory oversight required at the premises. The Delegated Officer deems the final risk rating as **medium** from a **moderate** consequence and a **possible** likelihood.
	Tailings slurry / supernatant water discharge	**Pathway:** overtopping resulting in direct discharge and subsequent infiltration **Impact:** Ecological disturbance, contamination of soil and surface water and habitat degradation	Soil / remnant vegetation, surface water	Refer to Section 3.1	C = Moderate L = Rare **Medium risk**	Y	Condition 1 Condition 3	An overtopping event has the potential to release contaminated water and tailings slurry into the surrounding landscape causing habitat degradation, and contamination of soil and surface water. Current controls, including a TSF2 freeboard (also applied to TSF1) have been deemed acceptable to manage the risk event. The Risk rating has been deemed **medium**, from a **moderate** consequence (mid-level onsite and low-level offsite impacts) and a **rare** likelihood rating.
	Tailings slurry / supernatant water discharge	**Pathway:** pipeline failure, resulting in direct discharge, overland runoff and infiltration **Impact:** Ecological disturbance, including impact to avifauna health, contamination of soil and surface water	Soil / remnant vegetation, surface water	Refer to Section 3.1	C = Minor L = Unlikely **Medium risk**	Y	Condition 2 Condition 3	Pipelines carrying tailings and return water to and from TSF2 are located on disturbed ground within the operational area. Nevertheless, spills could cause contamination of soil, surface water and ecological disturbance to any transient species surrounding the premises. The Delegated Officer considers that the current pipeline controls on the works approval and those already on the licence to be acceptable to continue to manage the risk of a spill affecting the surrounding receptors. As such they will be transferred to the amended licence. The risk event has been deemed medium from a **minor** consequence and an **unlikely** likelihood rating.
Operation of the supernatant pond and process water pond, and collection of seepage in the return water pond	Supernatant water (high concentration of heavy metals and high salinity)	**Pathway:** direct access through the ingestion of supernatant water **Impact:** deterioration of avian health	Avifauna	Refer to Section 3.1	C = Moderate L = Unlikely **Medium risk**	Y	Condition 15	High concentrations of heavy metals, particularly cyanide, associated with the processing of gold ore, can be harmful to transient birds that may use the supernatant pond and the water process pond as drinking water sources. However, supernatant pond water quality data provided by the licence holder indicates that while salinity concentrations varied at TSF1, they ranged between 23,000 and 190,000 mg/L TDS with an average of approximately 120,000 mg /L. This concentration is likely to render the water unpalatable to most birds. No TSF2 data was available, nonetheless it is expected that salinity concentration would be similar, due to comparable level of sulfate measured. On this basis the Delegated Officer considers the likelihood of the risk event occurring **unlikely** with the consequence of potential exposure assessed as **minor**, as any impacts are expected to be limited to the local scale. The resulting risk rating is **medium.** Condition 15 of the works approval requiring the licence holder to monitor the supernatant pond water quality quarterly will be transferred to the licence as this control will provide continued oversight into the quality of water and the consequent risk of exposure of birds to the decant water as a source of drinking water.
		Pathway: overtopping resulting in direct discharge and subsequent infiltration **Impact:** Ecological disturbance, contamination of soil and surface water and	Soil / remnant vegetation, surface water	Refer to Section 3.1	C = Minor L = Unlikely **Medium risk**	Y	Condition 1 Condition 3	The licence holder proposed controls are deemed adequate to manage the risk of soil, groundwater and surface water contamination from overtopping of the water storage ponds at the premises. Licence holder's controls have been conditioned within the amended licence in accordance with DWER *Guideline: Risk Assessments (DWER 2020).* The risk event has been deemed as **medium** risk from a **moderate** consequence and an **unlikely** likelihood.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for regulatory controls
Source/Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
		habitat degradation						

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed licence holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

Table 7: Consultation

Consultation method	Comments received	Department response
Licence Holder was provided with draft amendment on 12 February 2026.	Comments were submitted on 18 February 2026 and 6 March 2026. Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a revised licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 8 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

Table 8: Summary of licence amendments

Condition no.	Proposed amendments
Condition 1	Crushing and screening plant infrastructure, operational requirements and location added in accordance with the increased throughput assessed in this amendment report Process plant infrastructure, operational requirements and location added in accordance with the increased throughput assessed in this amendment report TSF1 operational requirement updated and revised for clarity, with construction requirements removed as redundant TSF2 infrastructure, operational requirements and location added in accordance with this amendment report. Seepage recovery bore infrastructure, operational requirements and location added in accordance with this amendment report.
Condition 2	Updated for clarity and consistency with new departmental standards
Condition 3	Table 2: *Scope of Inspection* reworded to *Infrastructure* for clarity Infrastructure location column added for clarity Infrastructure column (previously Scope of inspection) expanded to include *Process Water Pond, Return Water Pond, TSF1 (West Cell), TSF1 (East Cell) and TSF2* in accordance with this amendment report Type of inspection description expanded for clarity Frequency of inspection amended to: *when operating* for clarity
Condition 4	Table 3: L150 rate at which waste is received amended from L to tonnes for consistency with assessed production capacity

Condition no.	Proposed amendments
	L150 quantity limit revised from 3,500 tonnes to 1,300 tonnes to reflect assessed production capacity Added T*otal waste accepted* row (including Controlled waste code and Rate at which waste is received) for clarity Process plant location added to the Acceptance Specification column for clarity
Condition 5	Table 4: Process plant location added to the Process column for clarity.
Condition 6	Condition for processing of toll treated ore added in accordance with this amendment report
Condition 7	Condition for authorised discharge point added in accordance with current departmental standards.
Condition 9	Updated for clarity and consistency with new departmental standards. Please refer to Table 8 of amendment report.
Condition 10 and 11	Updated for clarity and consistency with new departmental standards.
Condition 12 and 13	Condition for monitoring equipment calibration added as standard condition.
Condition 14	Table 6: Added Monitoring location column for clarity Added Process Plant and Seepage Recovery Bores to the monitoring point reference and relevant requirements including location, parameter, unit and frequency, in accordance with this amendment report Added additional parameters for TSF1 and TSF2, including return water from decant system and seepage recovered from underdrainage system, cut-off trench and toe drains.
Condition 15	Condition for emission and discharge monitoring added in accordance with this amendment report
Condition 16	Table 8: Added Monitoring location column for clarity Additional monitoring points (CMD09-CMD18) added in accordance with this amendment report. Parameters expanded to include *Sulfate, Cobalt, Mercury, Molybdenum, Selenium, Thallium, Uranium* and *Vanadium* in accordance with this amendment report.
Condition 17	Condition for water balance monitoring added in accordance with this amendment report
Condition 19	Updated to reflect current conditions in the amended licence.
Condition 22	Updated to increase reporting frequency from biennial to annual. Table 9: Added reporting requirement for process monitoring, monitoring of emissions and discharges, and water balance.
Condition 23	Table 10: Condition updated to the relevant number for consistency
Condition 24 and	Condition for specified actions (tailings characterisation) added in accordance with this

Condition no.	Proposed amendments
25	amendment report
-	Definitions - Table 12: Terms *Potentially Acid Forming,* and *US EPA LEAF Method 1313*, *Environmental Harm* added.
-	Schedule 1, Figure 1 added (premises boundary), where existing Figure 1, Figure 2 and Figure 3 have been updated as Figure 2, Figure 4, and Figure 3.

Table 9: Consolidation of licence conditions in this amendment

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.1.1 1.1.2	Interpretation and definitions	N/A Interpretation section, Definitions and Table 1.	Redundant condition. Revised to current licensing format.
1.1.3	Australian or other standard	N/A Interpretation section, Definitions and Table 1	Redundant condition. Revised to current licensing format.
1.1.4	Reference to code of practice	N/A Interpretation section, Definitions and Table 1	Redundant condition. Revised to current licensing format.
1.1.5	Authorised emissions	N/A	Redundant condition. Revised to current licensing format.
1.2.1	Pollution control and monitoring equipment	N/A	Redundant condition. Adequately covered by alternative conditions in the licence (condition 1). Deleted from licence.
1.2.2	Recovery and removal of spills	Condition 8	None.
1.2.5	Prevention of contamination and containment of contaminated stormwater	Condition 9	Revised to current licensing format.
1.3.1	Pipeline management of environmentally hazardous substances	Condition 2	Revised to current licensing format.
1.3.2	Containment infrastructure	Condition 1	Revised to current licensing format, to include non-containment-type infrastructure.
1.3.3	Inspection	Condition 3	Revised to current licensing format.
1.3.4	Seepage collection	Condition 1	Adequately covered by alternative condition in the licence (condition 1). Deleted from licence.

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.3.5	Waste acceptance	Condition 4	None.
1.3.6	Waste processing	Condition 5	None.
2.1.1	Monitoring standards	Condition 10	None.
2.1.2	Monitoring frequency	Condition 11	None.
2.2.1	Monitoring of input and output	Condition 14	Amalgamated with condition for processing monitoring.
2.3.1	Process monitoring	Condition 14	Amalgamated with condition for monitoring of input and output.
2.4.1	Ambient groundwater quality monitoring	Condition 16	Revised to current licensing format.
2.4.2	Groundwater recovery	Condition 1	Adequately covered by alternative condition in the licence (condition 1). Deleted from licence.
3.1.1	Records	Condition 19 Condition 20	Revised to current licensing format.
3.1.2	Licence awareness	N/A	Redundant condition. Revised to current licensing format.
3.1.3	Annual Audit Compliance Report	Condition 21	Revised to current licensing format.
3.1.4	Complaints	Condition 18	Revised to current licensing format.
3.2.1	Environmental Report	Condition 22	Revised to current licensing format.
3.2.2	Environmental Report	Condition 22	Adequately covered by alternative condition in the licence (condition 22). Deleted from licence.
3.3.1	Notification	Condition 23	None.
4.1.1	Improvement program	N/A	Adequately covered by alternative condition in the licence (condition 17). Deleted from licence.
4.1.2	Improvement program - reporting	N/A	Adequately covered by alternative condition in the licence (condition 18). Deleted from licence.
Schedule 1	Maps	Schedule 1	None.
Schedule 2	Notification and forms	Schedule 2	None.

References

1. Black Cat Syndicate, July 2025, *Lakewood Gold Processing Facility: Ore Acceptance Procedure, Revision 1.* Perth, Western Australia.
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
5. DWER 2023, *Decision Report*: *Application for Works Approval W6719/2022/1,* Perth, Western Australia.
6. Graeme Campbell & Associates (GCA) 2023, *Lakewood Mill: Assessment of Potential Acidification Risk for Tailings-Storage Facility (TSF) from Occasional 'Toll Treatment' of External-Ore Sources (EOS)*, Bridgetown, Western Australia.
7. Karora Resources 2023, *Lakewood Gold Processing Facility Mining Proposal: Version 1.3*, Perth, Western Australia.
8. Tetra Tech Coffey November 2021, *754-PERGE287196-R01-Lakewood TSF2 & TSF1 Raise Design Report Rev0,* Perth, Western Australia.

Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
1 – Table 1	The inclusion of production capacity within the main body of the licence, as well as the cover page, may lead to errors in the future when the production capacity is changed. Please consider removal.	The production capacity of ore crushing and screening infrastructure specified in Table 1 is intended to be consistent with assessed production capacity of the licence on the cover page. The cover page of the licence summarises key details and should be read in conjunction with the condition text of the licence. However, information presented in the cover page (including the assessed production capacity) do not form part of the condition text and is not enforceable.
	The infrastructure listed in Column 1 of Table 1 is overly prescriptive and should be removed as it could unnecessarily restrict operational flexibility. The Infrastructure column of Table 1 should be rephrased to *Processing plant*. Additional equipment may be added to the processing plant without requiring a licence amendment. The current draft condition showing individual items of infrastructure could restrict this.	The department acknowledges that some components provided may unintentionally restrict operational flexibility. Consequently, the components of the processing plant have been revised, based on information provided on 6 March 2026. The department understands that the carbon regeneration kiln authorised under works approval W6719/2022/1 has not been constructed. Thus, it was not included as a plant component in Table 1.
	The licence holder requested changes to the operational requirements for the processing plant and seepage recovery bores. No further rationale was provided for the requested changes.	The department has not modified the operational requirements for the processing plant, as the changes do not significantly alter the intent of the requirement. The department has not modified the operational requirement for the seepage recovery bores, as the changes would significantly modify the intent of the requirement. The intention of the requirement is for seepage recovery bores to continuously operate (outside of periods of repair and/or maintenance) and abstract groundwater for the purposes of controlling the existing groundwater mound around the TSFs. The operational requirement was modified to provide further clarity.
	For TSF1 and TSF2, the addition of the approved stage of construction and corresponding embankment height would render the licence conditions clearer. However, please note that the current wording may contradict works approval W6719/2022/1, which authorises construction of TSF2, Stages 2-5 to a height exceeding	The department has modified the relevant requirements for TSF1 and TSF2 in Table 1 to clearly reference the approved embankment stages (in addition to the crest and tailings elevation). Construction and operation of TSF1 and TSF2 beyond the specified elevations in the amended licence is authorised under existing works

Condition	Summary of Licence Holder's comment	Department's response
	RL334.0 m and TSF1 Stage 9 to a height exceeding RL349.0 m. Please consider amending wording to clarify that the elevation limit applies to the operating level of the approved stage of the embankment (e.g. "Operating elevation is limited to RL 334.0m for TSF2 Stage 1").	approval W6719/2022/1. The requirements specified in the amended licence is not intended to prevent this authorisation conferred by the existing works approval. It is noted that the elevation of the TSF2 starter embankment on the licence (RL 334.0 m) does not align with the elevation shown specified in existing works approval W6719/2022/1. The discrepancy is due to a typographical error at the time of the works approval being granted. Nonetheless, the risk assessment completed for the works approval and this current licence amendment has been undertaken for an embankment construction height of RL 334.0m and an operational height of RL 333.7m, as shown on the amended licence.
	Please remove the following: With reference to TSF2 in column 2 either: • *Underdrainage system, seepage cut-off trench, toe drainage and stormwater diversion infrastructure must be maintained;* Or • *Underdrainage system, cut-off trench, toe drain, and stormwater diversion infrastructure must be maintained* With reference to the Return Water Pond (Column 2): • *To receive seepage from the underdrainage system and the cut-off trench* As it appears to be a duplication of: • *Return water pond is permitted to accept water from the process water pond, seepage recovery bores and trenches, underdrainage systems, decant pond (at TSF1 and TSF2), and bore water.*	These duplications have been removed.
4 - Table 3	The total waste accepted for L150 has been amended to 1,300 m^3 from a previous 3,500,000 L. Noting the production capacity on the licence is shown as 1300 m^3 when combining the rate at which both wastes are received, the total should be 1,400 m^3 (instead of 1,300 m^3 as shown). Please amend and advise in relation to the units' inconsistencies.	The department has modified the units such that they align with the assessed production capacity for Category 61 on the cover page of the amended licence (i.e., tonnes). The department has retained a total waste acceptance limit of 1,300 tonnes per annual period, as the Category 61 production capacity was reduced to 1,300 tonnes per annual period in an amendment granted on 22 March 2019.

Condition	Summary of Licence Holder's comment	Department's response
		In amending Table 3, it is intended that the licence holder may accept waste at any throughput, where: • Waste A130 is not accepted above 100 tonnes per annual period, consistent with existing limit; • Waste L150 is not accepted above 1,300 tonnes per annual period, as this is the maximum assessed production capacity (assuming no A130 waste is accepted in the annual period); and • Total A130 and L150 waste accepted is not above 1,300 tonnes per annual period, as this is the maximum assessed production capacity.
6	This condition should be amended and clarified for better outcomes because: • It appears to be unique to Lakewood and is not consistent with the current Lakewood Ore Acceptance Procedure (OAP) framework. • The OAP was approved by DMPE under mining proposal reg ID: 500048, which the licence holder has already committed to. • The condition is too general and does not have a defined criteria or framework for condition 6(a) and 6(b), and lacks measurable benchmark for the term 'adverse impacts to the environment'. • The condition should allow for acceptance oSf external ore that is potentially acid forming (PAF), so long as the net feed blend is not classified as PAF. Supporting memorandum was provided to support this (GCA 2023). • The condition may create duplication with reporting requirements under DMPE.	Regulation of toll treated ore under a Part V instrument is not unique to this premises. The department understands that the condition does not contradict the current Lakewood OAP framework. While the department acknowledges this may result in some level of reporting duplication between the department and DMPE, the condition was deemed necessary for regulating the potential impact of emissions on the environment under Part V of the *Environmental Protection Act 1986* (EP Act). The condition is intended to be outcome-based rather than prescriptive, noting that the department has considered the OAP framework during the assessment. The department has modified the condition to reference *environmental harm*, rather than *adverse environmental impact*, and has defined it as having the same meaning as in the EP Act, as outlined in Table 12 of the amended licence. The request to accept external ore that is PAF provided the net feed blend is not classified as PAF has not been accepted at this time. While the supporting memorandum (GCA 2023) stated that the bulk tailings generated at the premises were geochemically accommodating in terms of the sulfur content of any external ore tailings generated from toll treatment, the department notes this memorandum was prepared in the context of bulk tailings being derived from fresh ore from the Beta Hunt Mine. In accordance with the OAP framework, ore feed from the Beta Hunt Mine will only continue up until 2025 (consistent with the change in premises ownership), with ore from Majestic and Fingals deposit being

Condition	Summary of Licence Holder's comment	Department's response
		the primary feed from 2026 onwards. Test work on ore sources from Beta Hunt, Myrhee, Fingals, and Majestic indicated that the high acid neutralising capacity observed within the Beta Hunt ore was not clearly demonstrated in the Fingals and Majestic ore, such that they were not classified as acid-consuming material. While sulfur content in these ore samples remained relatively low, it is uncertain whether they contain sufficient acid neutralising capacity to mitigate potential acid generation from external ore sources, noting that the licence does not restrict the amount or ratio of external ore processed. Therefore, the advice in the memorandum would need to be updated to reflect the change in primary feed and bulk tailings composition. The department understands that the licence holder is undertaking further tailings characterisation of bulk tailings, in accordance with the OAP framework. The licence holder may request that the requirements of the condition be reassessed following further investigation of primary ore feed and bulk tailings composition.
14 – Table 6	With reference to Process Monitoring, please amend: *Volume of groundwater recovered* to: *Volume of groundwater recovered from TSF2 Recovery Bores*.	The department has noted that the draft Table 6 had only specified seepage recovery bores for TSF2, unintentionally omitting existing seepage recovery bores for TSF1. Consequently, the department has modified the requirement in Table 6 to include TSF1 seepage recovery bores (TSF1 to TSF10), in addition to the TSF seepage recovery bores (RB01 to RB05).
16 – Table 8	Please remove reporting for the following parameters: • Molybdenum, Thallium, Vanadium: historically below the limit of reporting • Uranium: historically below the World Health Organisation (WHO) drinking water guideline	The department notes the licence holder comments. However, there remains a degree of uncertainty due to limited monitoring undertaken since the granting of works approval W6719/2022/1. Further, the acceptance of external ore further contributes to this uncertainty. Therefore, the department has retained these monitoring parameters in the amended licence to ensure potential contaminants may be monitored over time. The licence holder may request this requirement be reassessed in the future, following further monitoring and better understanding of the ore stream and tailings composition.
	Please label *TSF2 shallow bores* to *TSF2 deep bores* for the relevant monitoring bores.	This typographical error has been amended.
24 and 25	Please correct Notes 1 and 2 order, which appear to be inverted.	Corrected.

Condition	Summary of Licence Holder's comment	Department's response

	Please clarify that, in accordance with the requirements of condition 24, the following are required:
	• Three monthly tailings composite samples (each comprising three sub-samples collected within a 24-hour period):
	  ○ The composite samples do not need to be collected in consecutive months.
	  ○ All sampling must be completed within 12 months of licence amendment being granted
	• Three supernatant (decant) samples collected during the same 24-hour period as tailings composite sampling
		The department confirms that the licence holder's understanding of the requirements of condition 24 is correct.

	Please confirm there is no explicit requirements that tailings supernatant samples be analysed for the corresponding parameter suite.	The department has modified the requirement to undertake monitoring of the tailings supernatant samples for the parameters listed in Table 11, consistent with requirements of composite tailings samples collected. No composite sampling of tailings supernatant sample is required, though the licence holder may choose to do so. The licence holder must ensure that requirements of condition 10 are met: • all water samples are collected and preserved in accordance with AS/NZS 5667.1; • all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measures, unless indicated otherwise in the relevant condition