

Licence

Licence number L8249/2008/3

Licence holder Focus Operations Pty Ltd

ACN (if applicable) 115 821 255

Registered business address Level 2, 159 Adelaide Terrace

EAST PERTH WA 6004

DWER file number 2011/005901-2

Duration 27/09/2013 to 28/09/2042

Date of issue 27 September 2013

Date of amendment 30 May 2024

Premises details Three Mile Hill Gold Project

COOLGARDIE WA 6429

Legal description -

Mining Tenements M15/1114, M15/154, M15/645, M15/646, M15/660, M15/958, M15/1294, M15/1432,

M15/1788 and L15/161

As defined by the premises map depicted in Schedule 1

Prescribed premises category description (Schedule 1, Environmental Protection Regulations 1987)	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	1.5 million tonnes per annual period
Category 6: Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore	475,000 kL per annual period
Category 89: Putrescible landfill site	200 tonnes per annual period

This amended licence is granted to the licence holder, subject to the attached conditions, on 30 May 2024 by:

MANAGER, RESOURCE INDUSTRIES REGULATORY SERVICES

an officer delegated under section 20 of the Environmental Protection Act 1986 (WA)

Licence history

Instrument	Issued	Description	
L8249/2008/1	25/09/2008	New application	
L8249/2008/1	14/01/2010	Licence amendment to increase dewatering capacity	
L8249/2008/1	20/12/2012	Licence amendment to included used tyre disposal conditions and	
		groundwater levels and recovery plan conditions	
L8249/2008/2	27/09/2013	Licence reissue	
L8249/2008/2	21/11/2013	Licence amendment	
L8249/2008/2	11/06/2015	Licence amendment to REFIRE format, to include the discharge from TMHWMB-5 to CNX pit and to change reporting month from September to August	
L8249/2008/2	19/11/2020	The department-initiated licence amendment to rectify for Mining Tenement record M15/1114 and to update a site map. The Schedule 2: Reporting & notification forms and Annual audit compliance report proforma sections containing information were also deleted	
L8249/2008/3	12/09/2022	Licence amendment to:	
		Extend expiry date;	
		Addition of mining tenement M15/1788 and miscellaneous tenement	
		L15/161 to premises boundary;	
		 New dewatering infrastructure from Greenfields Pit; and 	
		New mine dewatering discharge locations	
L8249/2008/3	06/07/2023	Licence amendment for:	
		 Construction and operation of a pipeline route from Lindsays pit to Bayleys dam for temporary dewatering of Lindsays pit (approximately 105,000KL) to provide additional water to the TMH Processing Plan to supplement its startup 	
L8249/2008/3	10/08/2023	Licence amendment to:	
		 Increase throughput capacity for category 89: Putrescible landfill site and; 	
1.0040/0000/0	00/44/0000	Add the construction and operation of Tindal's landfill	
L8249/2008/3	03/11/2023	Licence amendment to:	
1.0040/0000/0	20/0E/2024	To allow the reprocessing of tailings from Bonnievale (off site) License amendment to:	
L8249/2008/3	30/05/2024	Licence amendment to:	
		Increase the embankment height at the existing TMH TSF by an additional 6 matres to PI 428m (Store 2); and	
		additional 6 metres to RL428m (Stage 3); and	
		Construction and operation of the Greenfields In-Pit TSF.	

Department of Water and Environmental Regulation

Interpretation

In this licence:

- (a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a condition, each row in a table constitutes a separate condition:
- (d) any reference to an Australian or other standard, guideline, or code of practice in this licence:
 - (i) if dated, refers to that particular version; and
 - (ii) if not dated, refers to the latest version and therefore may be subject to change over time:
- (e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and
- (f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

General conditions

- 1. The licence holder must operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 2. The licence holder, except where storage is prescribed in the Premises operation section, must ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.
- **3.** The licence holder must immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 4. The licence holder must:
 - (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.¹

Note1: The Environmental Protection (Unauthorised Discharges) Regulations 2004 make it an offence to discharge certain materials into the environment.

- **5.** Dust emissions from premises construction works and operations are to be managed via a water cart that is available at the premises at all times.
- **6.** The licence holder must ensure that no visible dust generated from the premises crosses the boundary of the premises.

Premises operation

7. The licence holder must only accept onto the premises material which meets the corresponding requirements set out in Table 1.

Table 1: Material acceptance

Material type	Source	Storage requirements
Gold mine ore	Various surrounding underground and surface gold mines	To be stored at the ROM pad prior to processing in the Three Mile Hill processing plant
Historic tailings	Bonnivale historic mine	

- **8.** The licence holder must ensure that all pipelines containing environmentally hazardous substances are either:
 - (a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
 - (b) equipped with automatic cut-outs in the event of a pipe failure; or
 - (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.

- **9.** The licence holder must ensure that any saline dewatering effluent shall only be disposed of in the following manner:
 - (a) used for dust suppression in a manner that minimises damage to surrounding vegetation; or
 - (b) discharged to previously mined pits;
- **10.** The licence holder must ensure that tailings and decant water are only discharged into containment cells, dams, and ponds with the relevant infrastructure requirements and at the locations specified in Table 2.

Table 2: Containment Infrastructure

Containment cell or dam	Material	Infrastructure requirements
Three Mile Hill In-Pit TSF	Tailings	Constructed with a permeability of 10 ⁻⁷ m/s
CIL TSF	Tailings Lined with in-situ clay to limit seepage to groundwater	
Process water pond	Process water Mine dewater	Lined with HDPE liner to achieve a permeability of 10 ⁻⁹ m/s
Bayley's dam	Underground mine dewater and dewater of no more than 105,000 KL from Lindsays Pit.	Lined with HDPE liner to achieve a permeability of 10 ⁻⁹ m/s
Gravity dam	Underground mine dewater	Lined with HDPE liner to achieve a permeability of 10 ⁻⁹ m/s
Greenfields In-Pit TSF	Tailings	Constructed with a permeability equal to, or less, than 10 ⁻⁷ m/s.

- **11.** The licence holder must manage containment cells, dams, ponds and turkey's nests in Table 2 such that:
 - (a) a minimum top of embankment freeboard of 500mm or a 1 in 100 year/72 hour storm event (whichever is greater) is maintained; and
 - (b) methods of operation minimise the likelihood of erosion of the embankments by wave action.
- **12.** The licence holder must manage TSFs such that:
 - (a) a seepage collection and recovery system is provided and used to capture seepage from the TSF;
 - (b) seepage is returned to the TSF or re-used in process; and
 - (c) the supernatant pond on the TSF is minimised as far as practicable.
- **13.** The licence holder must undertake monitoring of the water balance for the TSFs specified in Condition 10 for each monthly period, and (as a minimum) record the following information:
 - (a) Site rainfall;
 - (b) Evaporation rate:
 - (c) Decant water recovery volumes;
 - (d) Volume of tailings deposited; and
 - (e) Estimate of seepage losses.
- 14. The licence holder must:
 - (a) undertake inspections as detailed in Table 3;
 - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and

(c) maintain a record of all inspections undertaken.

Table 3: Inspection of infrastructure

Scope of inspection	Type of inspection	Frequency of inspection
Tailings pipelines	Visual integrity	Daily whilst in operation
Return water lines	Visual integrity	
Embankment freeboard	Visual to confirm required freeboard capacity is available	Weekly whilst in Care and Maintenance
Decant system	Visual integrity	
Dewatering pipelines	Visual integrity	
Borefield pipelines and pump stations	Visual integrity	
		Daily whilst in operation
Bayleys dam	Visual to confirm required freeboard capacity is available	Weekly whilst in Care and Maintenance
		Monitored during or immediately after heavy rainfall events.

Waste processing and operations

15. The licence holder must ensure that where wastes produced on the Premises which are not taken off-site for lawful use or disposal, they are managed in accordance with the requirements of Table 4.

Table 4: Management of waste

Waste type	Process(es)	Process Limits
Inert Waste Type 1		All waste types Storage of waste shall only take place within the landfill area shown in Schedule 1, Figure 7, Figure 8 and Figure 9. The licence holder must manage the landfill sites in a manner such that:
Inert Waste Type 2		 Adequate measures shall be implemented to ensure that waste is contained within the landfill containment infrastructure. Waste shall be stored within a defined trench or within an area enclosed by earth bunds. Tipping area shall be less than 30 metres in length.
Putrescible waste ¹	Disposal of waste by landfilling	 Each trench to have the dimensions of 30m long, 2m wide and 3m deep. A suitable barrier is maintained to prevent windblown waste leaving the trench. Signage installed and clearly visible at the landfill identifying the following as a minimum:
		following as a minimum: i. wastes that may be accepted; and ii. wastes that are not to be accepted. No waste is to be burnt and fire fighting gear shall be readily available
Clean Fill		 Used Tyres The licence holder must ensure that the following criteria are met when used tyres are buried: Used tyres from the premises shall only be buried at the Dreadnaught waste rock dump in the area depicted in Schedule 1, Figure 7. Not more than 2000 tyres are to be buried within the Dreadnaught waste dump within any 12 month period.

Waste type	Process(es)	Process Limits
		The location of all tyre burial areas within the Dreadnaught waste rock dump shall be accurately recorded with GPS coordinates.

Note 1: Defined in the Landfill Definitions

Note 2: Requirements for landfilling tyres are set out in Part 6 of the Environmental Protection Regulations 1987.

Note 3: Additional requirements for landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004.*

16. The licence holder must ensure that cover is applied and maintained on landfilled wastes in accordance with Table 5 and that sufficient stockpiles of cover are maintained on site at all times.

Table 5: Cover Requirements¹

Waste Type	Cover requirements
Putrescible wastes	Waste is covered monthly with sufficient depth to ensure the waste is completely covered and that no waste is exposed.
Inert Waste Type 1	No cover required
Inert Waste Type 2 (Tyres ¹)	A minimum depth of 500mm of soil is maintained over the buried tyres following disposal.

Note 1: Additional requirements for final cover of tyres are set out in Part 6 of the Environmental Protection Regulations 1987.

17. The licence holder must take all reasonable and practical measures to ensure that no wind-blow waste escapes from the Premises and that wind-blown waste is collected on at least a weekly basis and returned to the tipping area.

Infrastructure and equipment

- 18. The licence holder must construct the infrastructure listed in Table 6, in accordance with:
 - (a) the corresponding design and construction requirement; and
 - (b) at the corresponding infrastructure location, as set out in Table 6.

Table 6: Design and construction requirements

Item	Infrastructure	Design and construction requirements	Infrastructure location
1.	Dewatering pipeline from Greenfields Pit to CNX Pits	, , , , , , , , , , , , , , , , , , , ,	As shown in Schedule 1, Figure 6
2.	Embankment height raise at existing TMH TSF	TSF: (a) Tailings storage capacity of approximately 2,730,000 tonnes; (b) Embankment elevation from RL422m up to RL428m; (c) Embankment to be constructed with a low-permeability clay zone and waste material on either side of the low-permeability zone; (d) North embankment comprises a low-permeability core surrounded by waste rock; (e) South embankment comprises a low-permeability zone on the upstream side to be constructed against the existing WRD on the downstream side. A layer of erosion protection is to be placed on the upstream side of the low-permeability zone (f) Stage 3 north embankment will be raised upstream and partially founded on tailings.	As shown in Schedule 1, Figure 10 and Figure 14

Item	Infrastructure	Design and construction requirements	Infrastructure location
		Stormwater controls: (a) 1:100 AEP, 72-hour runoff storm capacity; and (b) Total freeboard 500 mm with sub-minimum of 300 mm operational freeboard	
		VWPs: a) 5 monitoring sections, with different numbers of VWPs in each section.	
		Pipelines: (a) Tailings pipelines and decant return pipelines fitted with pressure monitors and automatic shut off valves; (b) Tailings pipelines and decant return pipelines located in a V drain or bunded area; and (c) Flow meter on the decant pipeline.	
3.	Greenfields In-Pit TSF	TSF: (a) Conversion of Greenfields Pit to Greenfield In-Pit TSF; and (b) Tailings storage capacity of approximately 6,570,000 tonnes.	As shown in Schedule 1, Figure 11
		 Stormwater controls: (a) 1:100 AEP, 72-hour runoff storm capacity; (b) Total freeboard 500 mm with sub-minimum of 300 mm operational freeboard; and (c) Flood control bund breaks with competent rock armour located at the main streamlines entering the pit to assist in drainage of surface rainfall-runoff water from the external catchment area above the pit. The rainfall-runoff water will then eventually flow into the Greenfields In-Pit TSF supernatant pond and be pumped back to the TMH Processing Plant for reuse. 	
		Pipelines: (a) Tailings pipelines and decant return pipelines fitted with pressure monitors and automatic shut off valves; (b) Tailings pipelines and decant return pipelines located in a V drain or bunded area; and (c) Flow meter on the decant pipeline.	
		Installation of three ambient groundwater monitoring bores¹ prior to discharge of tailings into Greenfields In-Pit TSF, to establish baseline concentrations: (a) IPTSFMB1 (b) IPTSFMB2 (c) IPTSFMB3	
		Locations depicted in Schedule 1, Figure 11 Note 1: Monitoring bores must be installed in accordance with the requirements specified in Schedule 3	

- **19.** The licence holder must within 30 days of each item of infrastructure required by condition 18 being constructed:
 - (a) undertake an audit of their compliance with the requirements of condition 18; and
 - (b) prepare and submit to the CEO an audit report on that compliance.
- **20.** The report required by condition 19 must:
 - (a) be certified by a suitably qualified professional that each item of infrastructure listed in Table 6 meets the corresponding specifications and at the locations set out in Table 6 and has been constructed with no material defects;
 - (b) contain as constructed plans or photographs for the works; and
 - (c) be signed by a person authorised to represent the licence holder and contains the printed name and the position of that person within the company.
- **21.** The licence holder must operate the infrastructure specified in condition 18, Table 6 in accordance with the conditions of this Licence, following submission of the compliance documents required under condition 20.

Emissions and discharges

General

22. The licence holder must record and investigate the exceedance of any descriptive or numerical limit or target specified in any part of the Emissions and discharges section of this Licence.

Emissions to land

23. The licence holder is permitted, subject to conditions in the Licence, to emit waste to land through the emissions points listed in Table 7 and identified in locations listed in Table 7.

Table 7: Emissions to land

Emission point reference and location on Map of emission points	Description	Source including abatement	Infrastructure location
CNX pit	Receiving environment – previously mined pit	Water from dewatering of bore 5 Water from Greenfields Pit.	As shown in Schedule 1, Figure 4 and Figure 6.
Brilliant Pit	Receiving environment – previously mined pit	Water from dewatering of Tindal's underground mine	As shown in Schedule 1, Figure 5

24. The licence holder must not cause or allow emissions to land greater than the limits specified in Table 8.

Table 8: Emissions to land

Emission point reference	Parameter	Limit (including units)	Averaging period
Brilliant pit CNX pit	Freeboard	4 m below crest level	Spot sample
	Weak acid dissociable cyanide	0.5 mg/L	

25. The licence holder must target emissions to land at or below the levels specified in Table 9.

Table 9: Emission targets to land

Emission point reference	Parameter	Target (including units)	Averaging period
Brilliant pit	Freeboard	6 m below crest level	Spot sample
CNX pit			

Monitoring

General monitoring

- 26. The licence holder must ensure that:
 - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
 - (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
 - (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.
- 27. The licence holder must ensure that:
 - (a) quarterly monitoring is undertaken at least 45 days apart; and
 - (b) six monthly monitoring is undertaken at least 5 months apart;

Monitoring of emissions to land

28. The licence holder must undertake the monitoring in Table 10 according to the specifications in that table.

Table 10: Monitoring of emissions to land

Emission point reference	Parameter	Units	Frequency
CNX pit	Volumetric flow rate	kL	Monthly
Brilliant pit	Freeboard	metres below crest level	
	pH ¹	-	Quarterly
	TDS ¹	mg/L	
	Total cyanide		
	WAD cyanide		
	Cadmium (Cd), copper (Cu), lead (Pb), mercury		
	(Hg), zinc (Zn), arsenic (As), chromium (Cr), iron		
	(Fe), magnesium (Mg), nickel (Ni), sodium (Na),		
	gold (Au), potassium (K), calcium (Ca) and chloride (Cl)		

Note 1: In-field non-NATA accredited analysis permitted.

Process monitoring

29. The licence holder must undertake the monitoring in Table 11 according to the specifications in that table.

Table 11: Process monitoring

Process description	Parameter	Units	Frequency	Method
Mine dewatering	Cumulative volumes of dewatering water discharge into approved pits	kL	Monthly	None specified

Process description	Parameter	Units	Frequency	Method
	Cumulative volumes of dewatering water from Lindsays Pit discharged into Bayleys dam	kL	Monthly	None specified
Tailings deposition	Volumes of tailings deposited into respective TSFs (refer to Condition 10) Volumes of water recovered from respective TSFs (refer to Condition 10) Volume of seepage recovered from respective TSFs (refer to Condition 10)	tonnes	Continuous	None specified

30. The licence holder must undertake the monitoring in Table 12 according to the specifications in that table

Table 12: Monitoring of decant water

Monitoring point reference and location	Parameter	Units	Averaging period	Frequency
Decant water from the	pH ¹	pH units	Spot sample	Six monthly
TMH TSF	TDS ¹	mg/L		
	Total cyanide			
Decant water from the CIL	WAD cyanide			
TSF	Arsenic (As)			
	Bicarbonate (HCO ₃)			
Decant water from the	Cadmium (Cd)			
Greenfields In-Pit TSF	Calcium (Ca)			
	Chloride (CI)			
	Chromium (Cr)			
	Copper (Cu)			
	Gold (Au)			
	Iron (Fe)			
	Lead (Pb)			
	Magnesium (Mg)			
	Mercury (Hg)			
	Nickel (Ni)			
	Potassium (K)			
	Sodium (Na)			
	Sulfate (SO ₄)			
	Zinc (Zn)			

Ambient environmental quality monitoring

31. The licence holder must undertake the monitoring in Table 13 according to the specifications in that table and record and investigate results that do not meet any target specified.

Table 13: Monitoring of ambient groundwater quality

Monitoring point reference and location	Parameter	Target	Limit	Units	Averaging period	Frequency
Three Mile Hill in-pit tailings	SWL ¹	6	4	mbgl	Spot	Quarterly
storage facilities	pH ²	-	1	pH units	sample	
	TDS ²	-	1	mg/L		
	Total cyanide	-	1	mg/L		
	WAD cyanide	-		mg/L		

Monitoring point reference and location	Parameter	Target	Limit	Units	Averaging period	Frequency
Groundwater monitoring bores: TMHMB04, TMHMB05, TMHMB06, TMHMB07, TMHMB08, and TMHMB09	Cadmium (Cd), copper (Cu), lead (Pb), mercury (Hg), zinc (Zn), arsenic (As), chromium (Cr), iron (Fe), magnesium (Mg), nickel (Ni), sodium (Na), gold (Au), potassium (K), calcium (Ca) chloride (Cl), bicarbonate (HCO ₃) and sulfate (SO ₄) Standing water level	-	-	mg/L mbgl	Spot	Quarterly
and CIL tailings storage facilities Groundwater monitoring bores: TB4 TB5 SEEP6 SEEP9 SEEP13 SEEP14 GAM6A GAM8 GAM12 GAM14 GAM16 GAM17 CIL TAIL FLOT TAIL	pH ² TDS ² Total cyanide WAD cyanide			pH units mg/L mg/L mg/L	Sample Spot Sample	Six monthly
Greenfields In-Pit TSF Groundwater monitoring bores: IPTSFMB1 IPTSFMB2 IPTSFMB3	SWL¹ pH² TDS² Total cyanide WAD cyanide Cadmium (Cd), copper (Cu), lead (Pb), mercury (Hg), zinc (Zn), arsenic (As), chromium (Cr), iron (Fe), magnesium (Mg), nickel (Ni), sodium (Na), gold (Au), potassium (K), calcium (Ca) chloride (Cl), bicarbonate (HCO₃) and sulfate (SO₄)	6 - - - -	4 - - - -	mbgl pH units mg/L mg/L mg/L mg/L	Spot sample	Baseline, prior to tailings deposition then Quarterly thereafter

Note 1: SWL shall be determined prior to the collection of other water samples

32. The licence holder must ensure within six months of becoming aware of standing water levels outside the target range in monitoring bores as per condition 31, design and implement a Groundwater Recovery Plan as per condition 33.

Note 2: In-field non-NATA accredited analysis permitted.

- **33.** The licence holder must ensure that the Groundwater Recovery Plan includes but is not limited to:
 - (a) Notification to the CEO of when and in how many bores the target could not be met.
 - (b) Any significant environmental impacts observed;
 - (c) Strategies to achieve the groundwater level target, including predicted increases in groundwater recovery and any additional recovery bores or trenches required;
 - (d) Predicted timeframes to achieve the groundwater level or groundwater quality target; and
 - (e) Strategies to ensure the target will be met in the future.

Records and reporting

Records

- **34.** The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department of another party) about any alleged emissions from the premises;
 - (a) the name and contact details of the complainant, (if provided);
 - (b) the time and date of the complaint;
 - (c) the complete details of the complaint and any other concerns or other issues raised; and
 - (d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.
- **35.** The licence holder must:
 - (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and
 - (b) prepare and submit to the CEO, by no later than 60 calendar days after the end of that annual period, an Annual Audit Compliance Report in the approved form.
- **36.** The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:
 - (a) the calculation of fees payable in respect of this licence;
 - (b) the works conducted in accordance with condition of this licence;
 - (c) any maintenance of infrastructure that is performed in the course of complying with condition the Premises Operation section of this licence;
 - (d) monitoring programmes undertaken in accordance with condition 28 Table 10, condition 29 Table 11 and condition 31 Table 13 of the licence; and
 - (e) complaints received under condition 34.
- **37.** The books specified under condition 36 must:
 - (a) be legible;
 - (b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;
 - (c) be retained by the licence holder for the duration of the licence; and
 - (d) be available to be produced to an inspector or the CEO as required.

Reporting

38. The licence holder must submit to the CEO an Annual Environmental Report by 31 August after the end of the annual period. The report shall contain the information listed in Table 14 in the format or form specified in that table.

Table 14: Annual Environmental Report

Condition or table (if relevant)	Parameter	Format or form
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
34	Complaints summary	None specified
35	Compliance	Annual Audit Compliance Report (AACR) ¹
28, Table 10	Monitoring of emissions to land	None specified
29, Table 11	Process Monitoring	
31, Table 13	Ambient groundwater monitoring	
-	Measures taken to suppress dust	

Note 1: AACR Form is available on the Department's website

- **39.** The licence holder must ensure that the Annual Environmental Report also contains:
 - (a) any relevant process, production or operational data recorded; and
 - (b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets.
- **40.** The licence holder must submit the information in Table 15 to the CEO according to the specifications in that table.

Table 15: Non-annual reporting requirements

Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties
31, Table 13	Target exceedances	Quarterly	28 calendar days	None specified

Notifications

41. The licence holder must ensure that the parameters listed in Table 16 are notified to the CEO in accordance with the notification requirements of the table.

Table 16: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
-	Breach of any limit specified in the Licence Any failure or malfunction of any	Part A: As soon as practicable but no later than 5pm of the next usual working day.	N1
	pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part B: As soon as practicable	
-	Intention for the site to recommence normal operations from care and maintenance status	At least 30 calendar days prior to site recommencing operations	None specified

Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 4

Definitions

In this works approval, the terms in Table 17 have the meaning defined.

Table 17: Definitions

Term	Definition
Act	means the Environmental Protection Act 1986.
annual period	means the inclusive period from 1 July until 30 June in the following year.
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples.
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 Water Quality – Sampling – Guidance on sampling of groundwaters.
CEO	means Chief Executive Officer of the Department of Water and Environmental Regulation.
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the Environmental Protection Act 1986 Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
code of practice for the storage and handling of dangerous goods	means document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines, Industry Regulation and Safety, as amended from time to time.
controlled waste	has the definition in Environmental Protection (Controlled Waste) Regulations 2004.
dangerous goods	has the meaning defined in the <i>Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations</i> 2007.
Dreadnaught waste rock dump	means the tyre disposal area depicted in Schedule 1.
Dreadnaught	means the landfill area depicted in Schedule 1.
environmentally hazardous material	means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is

	regulated by the Department of Mines, Industry Regulation and Safety.
freeboard	means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point.
fugitive emissions	means all emissions not arising from point sources.
Licence	means this Licence numbered L8249/2008/3 and issued under the Act.
Licence holder	means the person or organisation named as Licensee on page 1 of the Licence.
NATA	means the National Association of Testing Authorities, Australia.
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
Premises	means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence.
quarterly	means the 4 inclusive periods from 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March and 1 April to 30 June.
Schedule 1	means Schedule 1 of this Licence unless otherwise stated.
Schedule 2	means Schedule 2 of this Licence unless otherwise stated.
Schedule 3	means Schedule 3 of this Licence unless otherwise stated.
Schedule 4	means Schedule 4 of this Licence unless otherwise stated.
six monthly	means the 2 inclusive periods from 1 July to 31 December and 1 January to 30 June in the following year.
spot sample	means a discrete sample representative at the time and place at which the sample is taken.
TDS	Total Dissolved Solids
SWL	Standing Water Levels
WAD cyanide	Weak Acid Dissociable Cyanide

Schedule 1: Maps

Premises map

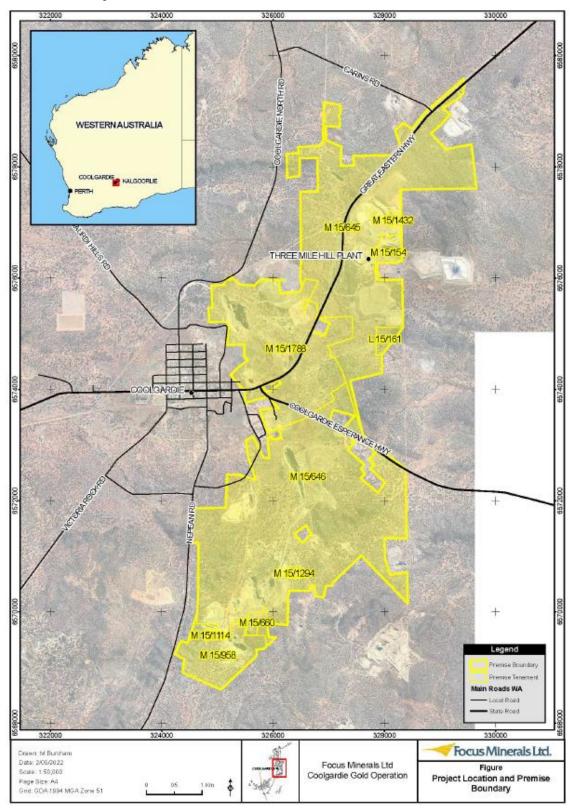


Figure 1: Prescribed premises map

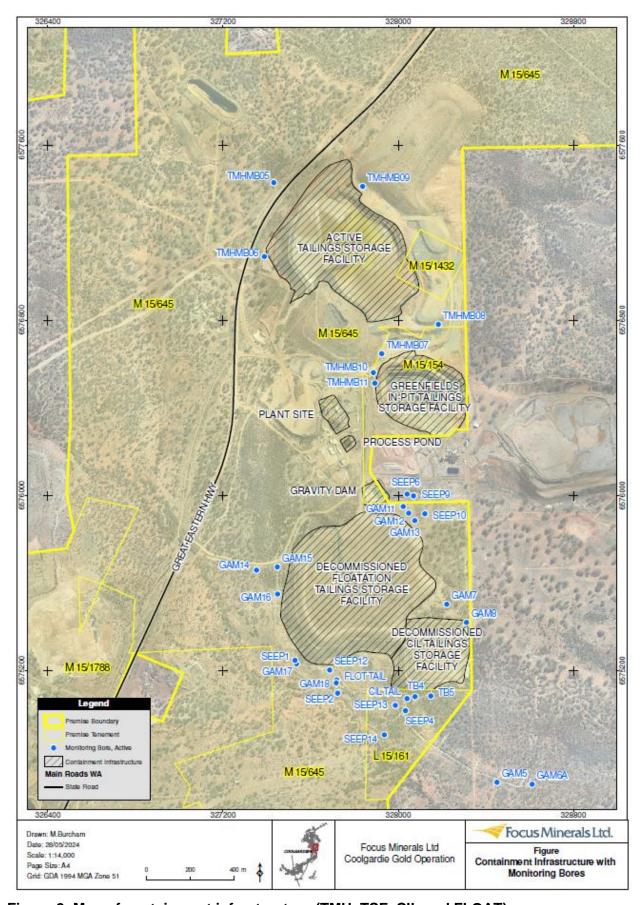


Figure 2: Map of containment infrastructure (TMH, TSF, CIL and FLOAT)

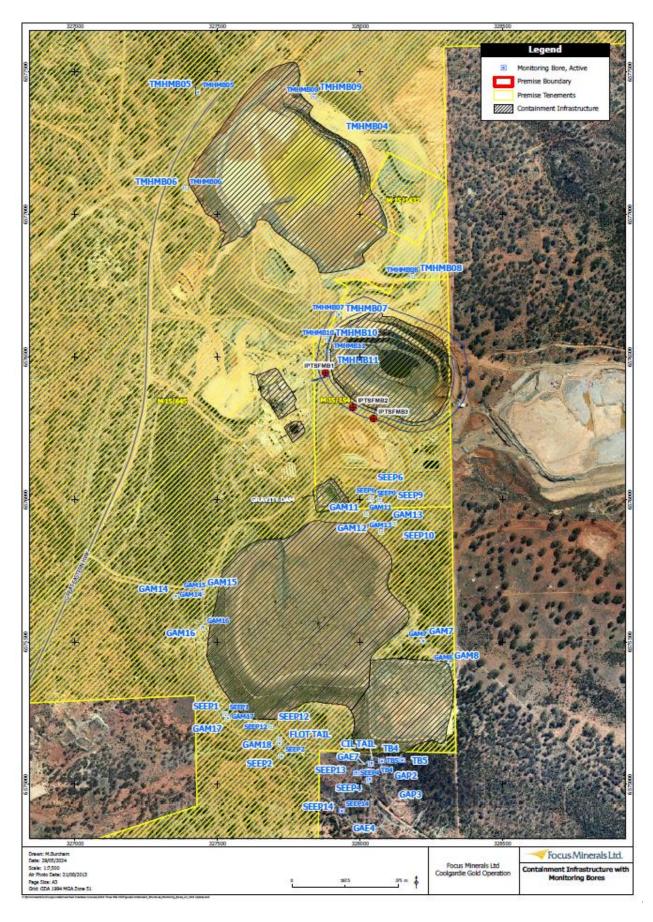


Figure 3: Map of monitoring bore locations

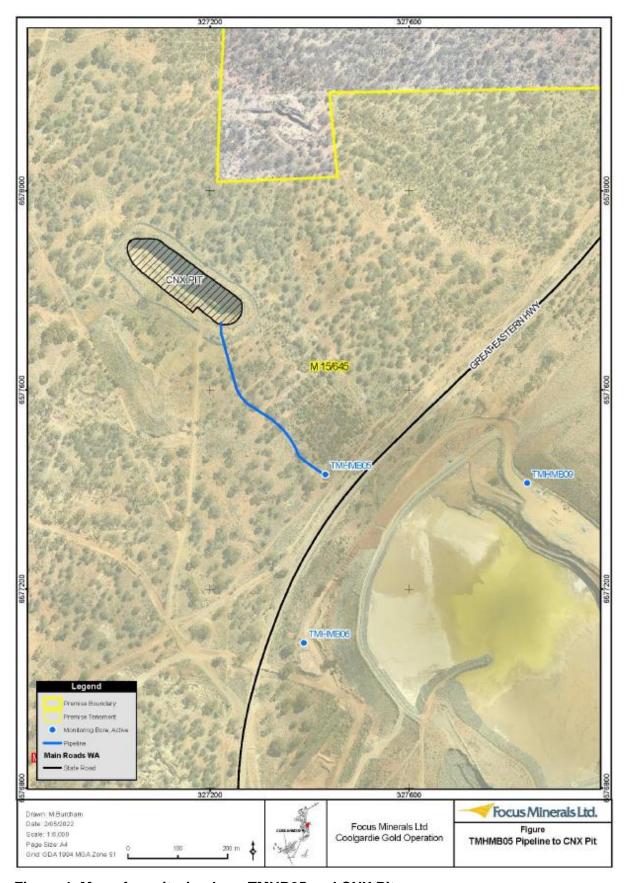


Figure 4: Map of monitoring bore TMHB05 and CNX Pit

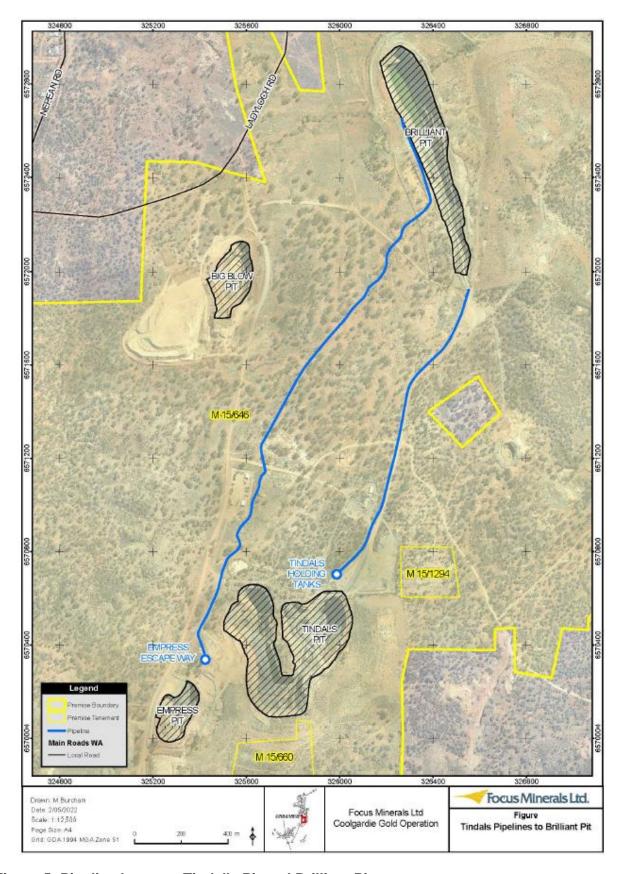


Figure 5: Pipeline between Tindal's Pit and Brilliant Pit

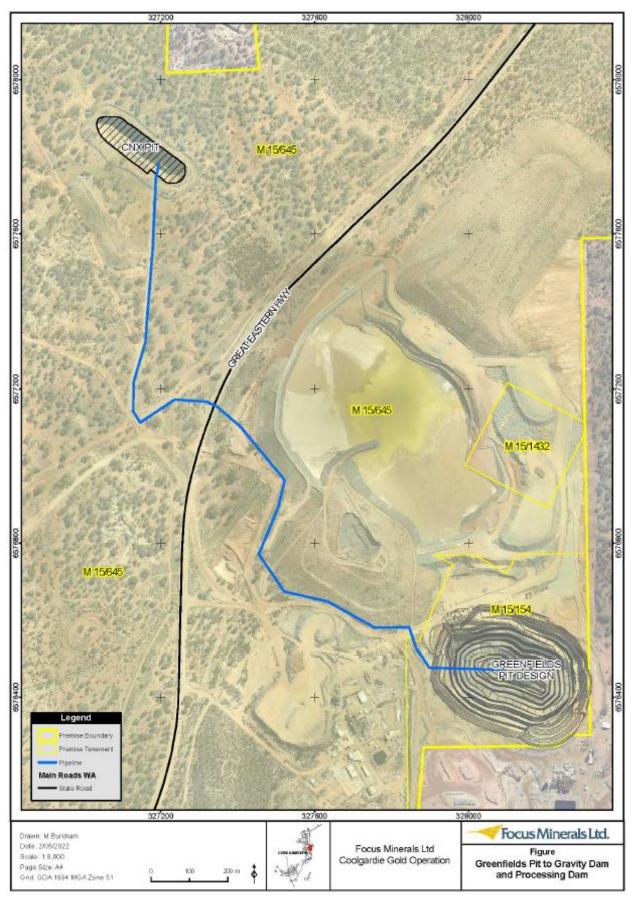


Figure 6: Pipeline infrastructure from Greenfields Pit to CNX Pit

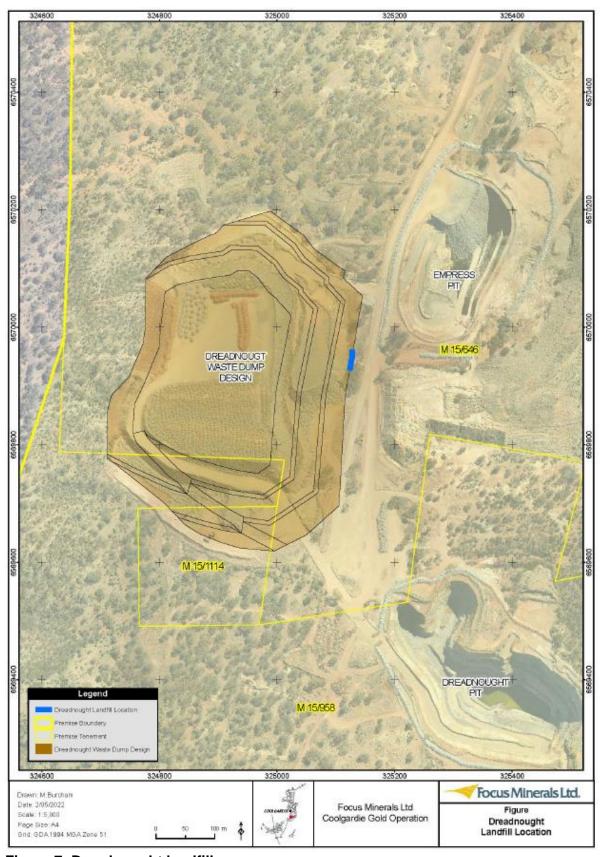


Figure 7: Dreadnought landfill

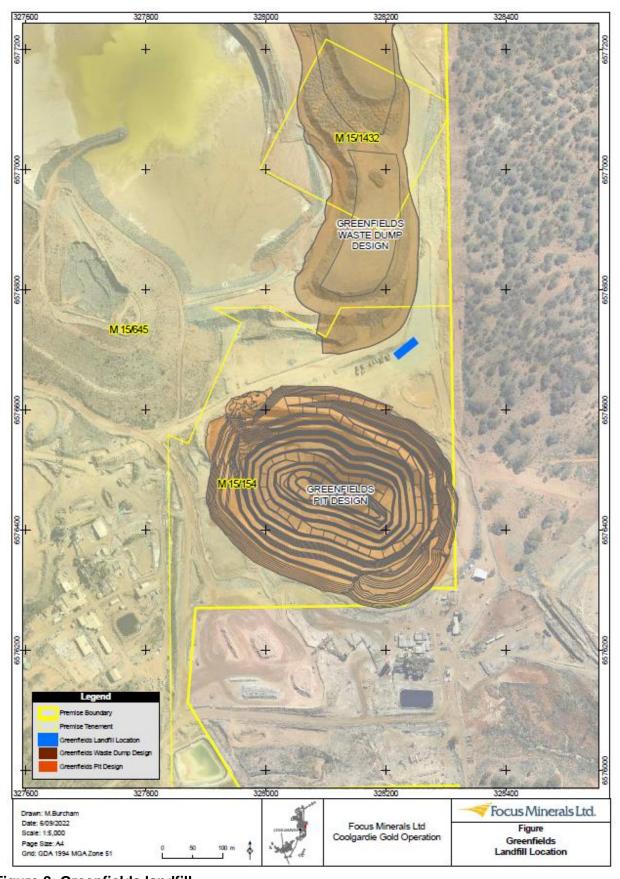


Figure 8: Greenfields landfill

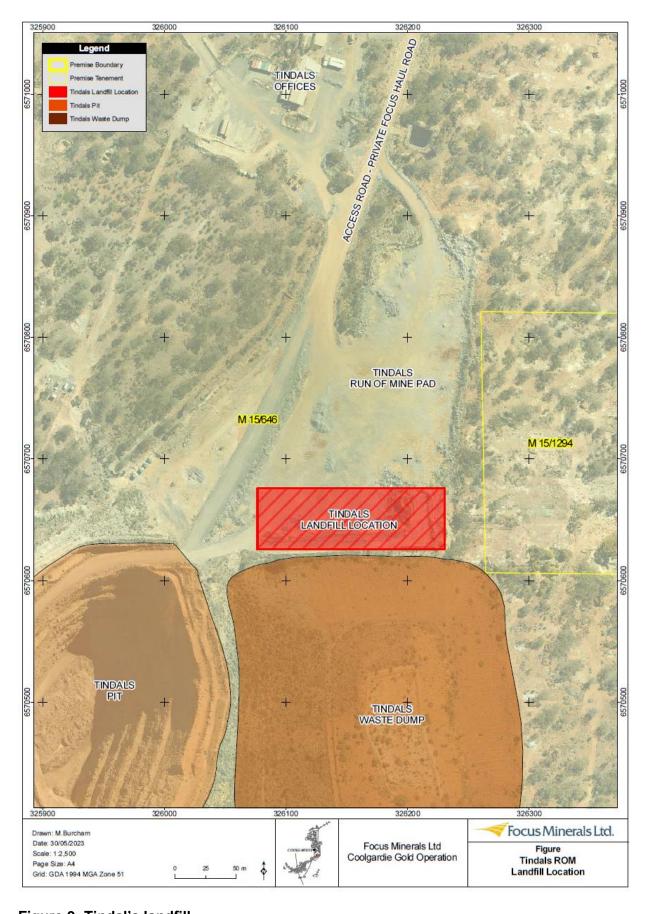


Figure 9: Tindal's landfill

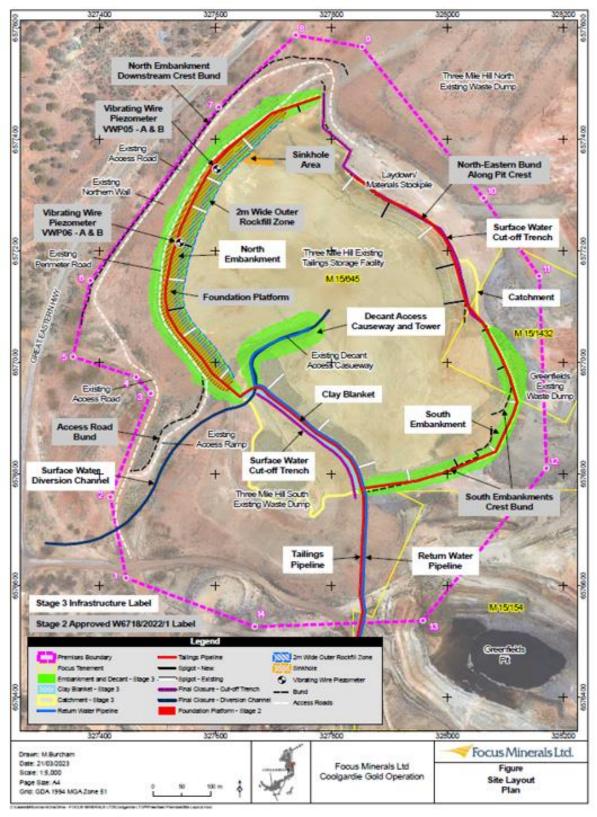


Figure 10: Infrastructure Layout

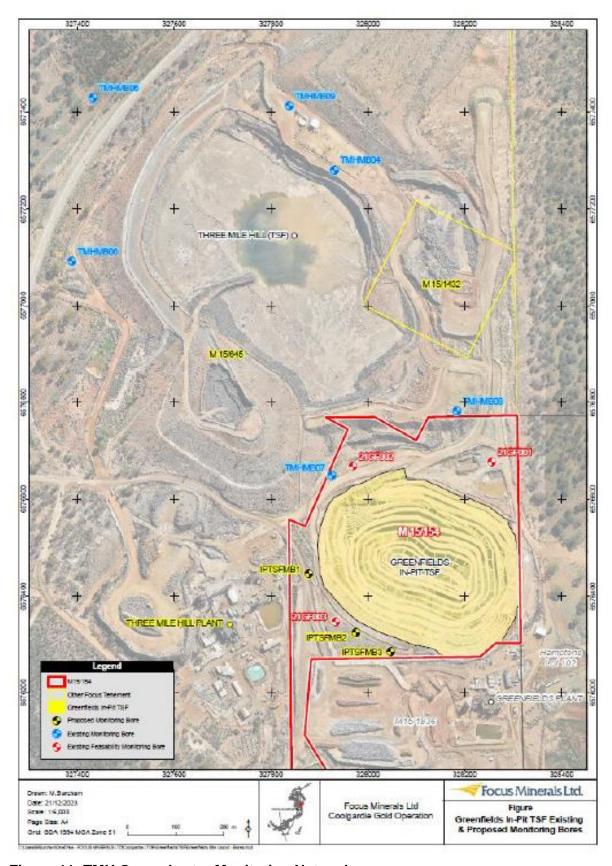


Figure 11: TMH Groundwater Monitoring Network

Schedule 2: Design Drawings

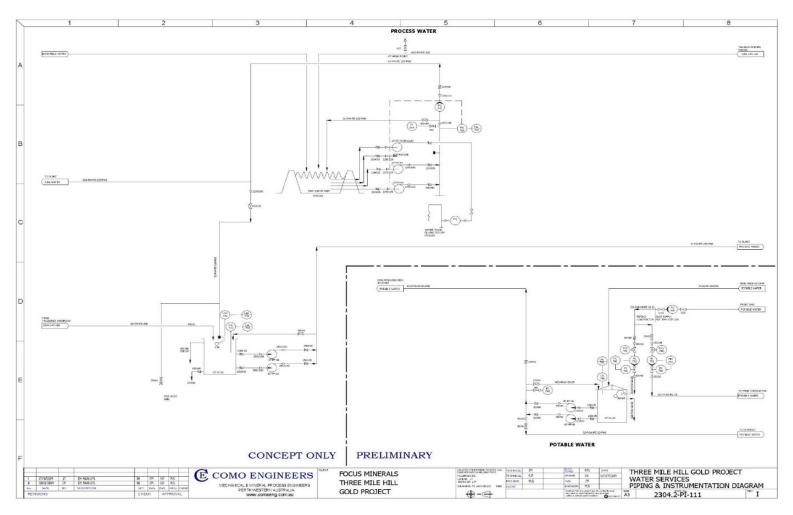


Figure 12: Three Mile Hill plant infrastructure layout – Water services piping and instrumentation

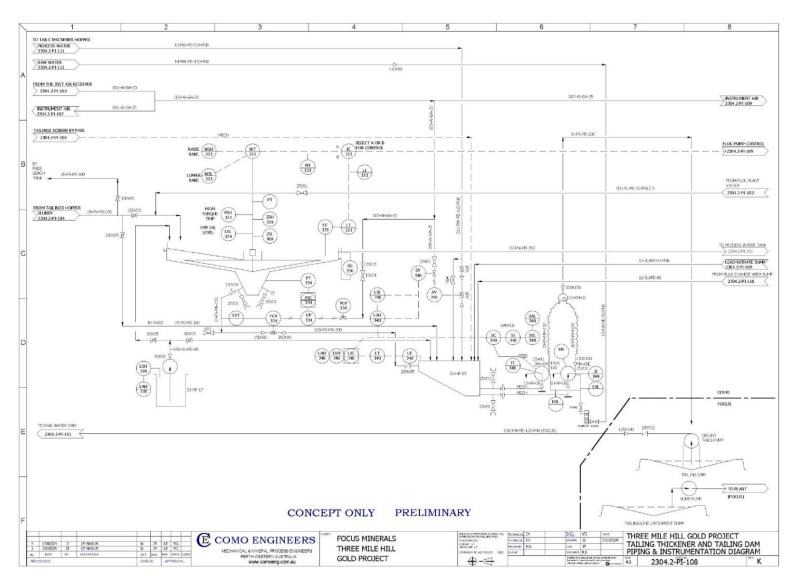


Figure 13: Three Mile Hill plant infrastructure layout - Tailings thickener and tailings dam piping and instrumentation

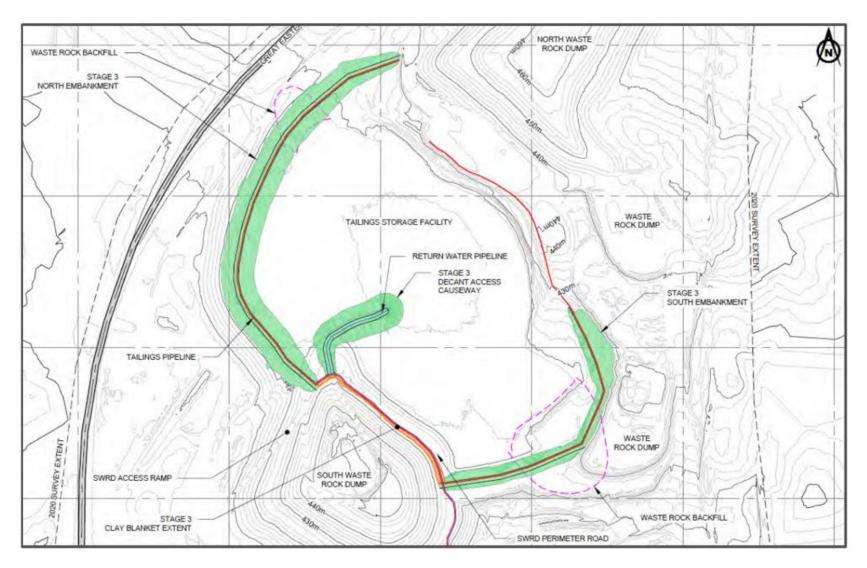


Figure 14: TMH TSF Stage 3 Raise Design

Schedule 3: Infrastructure requirements – groundwater monitoring wells

The monitoring bores specified in condition 18 must be designed, constructed, and installed in accordance with the requirements specified in Table 18.

Table 18: Infrastructure requirements – groundwater monitoring wells

Infrastructure	Design, construction, and installation requirements	Monitoring well location(s)
Monitoring wells specified in Condition 18 (item 3)	 Well design and construction: Designed and constructed in accordance with relevant standards: ASTM D5092/D5092M-16: Standard practice for design and installation of groundwater monitoring bores¹. Well screens must target the part, or parts, of the aquifer most likely to be affected by contamination². 	As depicted in Figure 11
	 Logging of borehole: Soil samples must be collected and logged during the installation of the monitoring wells. A record of the geology encountered during drilling must be described and classified in accordance with the Australian Standard Geotechnical Site Investigations AS1726. Any observations of staining / odours or other indications of contamination must be included in the bore log. 	
	Well construction log: Well construction details must be documented within a well construction log to demonstrate compliance with ASTM D5092/D5092M-16. The construction logs shall include elevations of the top of casing position to be used as the reference point for water-level measurements, and the elevations of the ground surface protective installations.	
	Well development: All installed monitoring wells must be developed after drilling to remove fine sand, silt, clay and any drilling mud residues from around the well screen to ensure the hydraulic functioning of the well. A detailed record should be kept of well development activities and included in the well construction log.	
	 Installation survey: The vertical (top of casing) and horizontal position of each monitoring well must be surveyed and subsequently mapped by a suitably qualified surveyor. 	

Note 1: Suitable alternative standard: *Minimum construction requirements for water bores in Australia* 4th Ed. (National Uniform Drillers Licensing Committee (NUDLC), 2020).

Note 2: refer to Section 8 of Schedule B2 of the Assessment of Site Contamination NEPM for guidance on well screen depth and length.

Licence holder:

Schedule 4: Reporting & notification forms

Licence:

Form: N1	Date of breach:
Notification of detection of the b	reach of a limit.
These pages outline the informatio	n that the operator must provide.
	rmation supplied under Part A and B requirements shall be f the emission. Where appropriate, a comparison should be orised emission limits.
Part A	
Licence number	
Name of operator	
Location of premises	
Time and date of the detection	
Notification requirements for th	e breach of a limit
Emission point reference/source	
Parameter(s)	
Limit	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

OFFICIAL

Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	
Name	
Post	
Signature on behalf of licence holder	
Date	