



<b>Licence number</b>	L8859/2014/1
<b>Licence Holder</b>	Mineral Resources Limited
<b>ACN</b>	118 549 910
<b>Registered business address</b>	1 Sleat Road Applecross WA 6153
<b>DWER file number</b>	DER2014/001998-1
<b>Duration</b>	22/12/2014 to 21/12/2036
<b>Date of amendment</b>	09/12/2021
<b>Premises details</b>	Iron Valley Iron Ore Project Mining Tenement M47/1439 and Miscellaneous Licence L47/757 NEWMAN WA 6753 As defined in Schedule 1

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i> )	Assessed production / design capacity
Category 5: Processing or beneficiation of metallic or non-metallic ore	10,000,000 tonnes per annual period
Category 6: Mine dewatering	42,000,000 tonnes per annual period
Category 89: Putrescible landfill site	1,500 tonnes per annual period

This licence is granted to the Licence Holder, subject to the attached conditions, on 9 December 2021, by:

**Lauren Edmands**

**Manager, Resource Industries**

REGULATORY SERVICES

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

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## Introduction

This Introduction is not part of the licence conditions.

### DWER's industry licensing role

The Department of Water and Environmental Regulation (DWER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

### Licence requirements

This licence is issued under Part V of the Act. Conditions contained within the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the premises/Licence Holder the intention is not to replicate them in the licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link:

<http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your licence. Non-compliance with your licence is an offence and strict penalties exist for those who do not comply.

Licence Holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.

### Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

### Ministerial Conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

### Premises Description and licence summary

Mineral Resources Limited (Licence Holder) operates the Iron Valley Iron Ore Mine (the Project) on behalf to BC Pilbara Iron Ore Pty Ltd (BCP). The Project is located on mining tenement M47/1439 and miscellaneous licence L47/757, which is approximately 90 kilometres (km) north-west of Newman and 150km east of Tom Price in the East Pilbara region of Western Australia.

The Project involves the below water table (BWT), blast and hydraulic shovel open pit mining of 10 million tonnes of iron ore per annum. Ore is sent to the Run of Mine (ROM) pad where it is blended to achieve the required grade. Ore is then crushed and screened at one of the two ore processing plants before being sold at the mine gate.

Ministerial Statement (MS) 1044 was signed by the Minister for Environment on 8 December 2016 granting approval for BCP to progress mining at the Project BWT. Revised MS 1044 was issued 26 November 2019 to allow increase volume of mine dewatering discharge to Weeli Wolli Creek from 17 gegalitres per year GL to 42 GL/annum.

Dewatering of up to 42 GL/year from the underlying aquifer is required for safe, dry pit excavation. Ministerial Statement 1044 allows for the discharge of up to 42 GL/year of surplus dewater into Weeli Wolli Creek via three separate on-site dewater discharge locations (DDL1, DDL4 and DDL5). As of this Licence amendment only DDL4 has been constructed and is operational. DDL1 and DDL5 have yet to be constructed. Mine dewater will also be utilised by the Project for purposes such as mineral processing, dust suppression, potable water supply and wash down facilities.

The Licence Holder operates a putrescible landfill which is designed to accept 1,500 tonnes per annum of Inert Waste Type 1, Inert Waste Type 2, Putrescible Waste and Clean Fill.

## Licence history

Date	Reference number	Summary of changes
18/12/2014	L8859/2014/1	New Licence
19/02/2015		Amended to include Categories 5,6, and 57
17/06/2016		Amended to dispose of 2GL of dewatering effluent to undertake Below Water Table mining Inclusion of construction conditions for Stage 1 and Stage 2 and the increase in capacity to 10,000,000 tonnes per annum for Category 5
15/12/16		Amended to increase the capacity of Category 6, the approval to accept and dispose of plastics and asbestos at the Landfill, dispose of rubber to the Tyre Disposal Area and expansion of the Tyre Disposal Area. Inclusion of conditions relating to the construction of Stage 2, additional screener and dewatering discharge infrastructure, process limits, emission points to surface water and removal of process monitoring, ambient surface water monitoring and improvement conditions
12/07/2019		Amended to relocate the existing Landfill site Groundwater monitoring points were also relocated
21/12/2018	24/09/2020	Licence Holder applied for an amendment to increase the dewatering discharge from 17 GL per annum to 42 GL per annum
27/07/2019		Licence Holder applied for an amendment to use E1 Pit to settle dewatering water and stormwater prior to discharge to DDL4b and remove the existing dewatering discharge point W1
11/03/2020		Licence Holder applied for an amendment to extend the existing Landfill into a waste rock landform to allow for increased operational flexibility and to increase the capacity of the Landfill to 1500 tonnes per annum (tpa)
09/12/2021	L8859/2014/1	Licence Holder applied for an amendment to change ambient groundwater monitoring bores, and change parameters related to ambient groundwater monitoring.

### Severance

It is the intent of these licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this licence to impose and are not otherwise *ultra vires* or invalid.

### END OF INTRODUCTION

# Licence conditions

## 1 General

### 1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

**Table 1: Definitions**

Term	Definition
Acceptance Criteria	As defined in Landfill Definitions
ACN	Australian Company Number
AHD	Australian Height Datum
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 1 April until 31 March of the immediately following year.
ANZECC Guidelines	means the Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2000) produced by Australian and New Zealand Environment and Conservation Council and the Agricultural and Resources Management Council of Australia and New Zealand
ANZG	Australian and New Zealand Guidelines for Fresh and Marine Water Quality
AS/NZS 5667.1	means the Australian Standard AS/NZS 5667.1 <i>Water Quality- Sampling- Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples</i>
AS/NZS 5667.6	means the Australian Standard AS/NZS 5667.6 <i>Water Quality- Sampling- Guidance on sampling of rivers and streams</i>
AS/NZS 5667.11	means the Australian Standard AS/NZS 5667.11 <i>Water Quality- Sampling- Guidance on sampling of groundwaters</i>
asbestos	means the asbestiform variety of mineral silicates belonging to the serpentine or amphibole groups of rock-forming minerals and includes actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite and any mixture containing 2 or more of those
asbestos fibres	has the meaning defined in the "Guidelines for Assessment, Remediation and Management of Asbestos-Contaminated Sites in Western Australia", published by the Department of Health, May 2009
averaging period	means the time over which a limit is measured or a monitoring result is obtained
books	has the same meaning given to that term under the EP Act.

Term	Definition
CDFM	Cumulative deviation from mean rainfall methodology
CEO	means Chief Executive Officer of the Department. “submit to / notify the CEO” (or similar), means either: Director General Department administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 or: <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
Clean fill	has the meaning defined in Landfill Definitions
Controlled waste	has the definition in <i>Environmental Protection (Controlled Waste) Regulations 2004</i>
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
DN	Means diameter normal
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
Inert Waste Type 1	Has the meaning defined in Landfill Definitions
Inert Waste Type 2	Has the meaning defined in Landfill Definitions
kPa	means kilopascal
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
Licence Holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
mbgl	Metres below ground level
monthly period	means a one-month period commencing from day 28 of a month until day 27 of the immediately following month.
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 specific analysis at the time of the analysis
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map(s) (Figure 1) in Schedule 1 to this licence.

Term	Definition
prescribed premises	has the same meaning given to that term under the EP Act.
putrescible	Has the meaning defined in Landfill Definitions
rehabilitation	means the completion of the engineering of a landfill cell and includes capping and/or final cover
six monthly	means 2 consecutive periods from 1 April to 30 September and 1 October to 31 March in the following year
Special Waste Type 1	Has the meaning defined in Landfill Definitions
spot sample	means a discrete sample representative at the time and place at which the sample is taken
SWL	Standing Water Level
TPA	Tonnes per annum
µS/cm	means micro Seimens per centimetre
waste	has the same meaning given to that term under the EP Act.

- 1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.
- 1.1.4 Any reference to a guideline or code of practice in the Licence means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

## 1.2 Premises operation

- 1.2.1 The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit in this section.
- 1.2.2 The Licence Holder shall ensure that where waste produced on the Premises are not taken off-site for lawful use or disposal, they are managed according to the requirements in Table 1.2.1.

Table 1.2.1: Management of waste			
Facility as depicted in Schedule 1	Waste type	Management Strategy	Requirements <sup>1,2</sup>
Landfill Facility	Inert Waste Type 1	Receipt, handling, and disposal of waste by landfilling	<p><u>All waste types</u></p> <p>No more than 1,500 tonnes per Annual Period of all waste types cumulatively shall be disposed of by landfilling.</p> <p>Disposal of waste by landfilling shall only take place at the Landfill Facility shown on the Premises Map in Schedule 1 (with the exception of Inert Waste Type 2 - tyres and rubber).</p> <p>No waste shall be temporarily stored or landfilled within 35 m from the boundary of the Premises.</p>
	Putrescible Waste		
	Clean Fill		
	Inert Waste Type 2 (plastics)		
	Special Waste Type 1 (asbestos contaminated personal protective equipment, air filters from heavy equipment and vehicles and cleaning rags)		
Tyre Disposal Area	Inert Waste Type 2 (Used Tyres – T140 and rubber)	Receipt, handling and disposal of waste by landfilling	<p>The separation distance between the base of the landfill and the highest groundwater level shall not be less than 2 m.</p> <p>The separation distance between the landfill and any surface water body shall not be less than 100 m.</p> <p>A fence or other physical barrier shall be maintained around the active landfill area.</p> <p>Ensure that wind-blown waste is contained within the boundary of the landfill and that wind-blown waste is returned to the tipping area on at least a monthly basis.</p> <p><u>Special Waste Type 1 (asbestos)<sup>1</sup></u></p> <p>Only to be disposed of into a designated asbestos disposal area within the Landfill Facility.</p> <p>Not to be deposited within 2 m of the final tipping surface of the landfill.</p> <p>No works shall be carried out on the landfill that could lead to a release of asbestos fibres.</p> <p><u>Tyres and Rubber (Inert Waste Type 2)<sup>1,2</sup></u></p> <p>Tyres and rubber shall only be landfilled within the Tyre Disposal Areas shown on the Premises Map in Schedule 1.</p>

- 1.2.3 The Licence Holder shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.2.2 it is removed from the Premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.
- 1.2.4 The Licence Holder shall ensure that cover is applied and maintained on landfilled wastes in accordance with Table 1.2.2 and that sufficient stockpiles of cover are maintained on site at all times.

**Table 1.2.2: Cover requirements**

Waste Type	Material	Depth	Timescales
Inert Waste Type 1	Inert and incombustible material	Sufficient to ensure that waste is completely covered and that no waste is exposed	Weekly-or as soon as practicable after deposit and prior to compaction
Inert Waste Type 2 (plastics)			
Putrescible Waste			
Inert Waste Type 2 (rubber and used tyres) <sup>1</sup>		100 mm	-
Special Waste Type 1		500 mm	At least weekly or as soon as practicable after the asbestos waste was deposited

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

- 1.2.5 The Licence Holder shall manage the landfilling activities to ensure:
- (a) waste is levelled and compacted as soon as practicable after it is discharged;
  - (b) waste is placed and compacted to ensure all faces are stable and capable of retaining rehabilitation material; and
  - (c) rehabilitation of a cell or phase takes place within 6 months after disposal in that cell or phase has been completed.
- 1.2.6 The Licence Holder shall ensure that each item of infrastructure or equipment specified in Table 1.2.3 is designed and constructed in accordance with the requirements specified in Table 1.2.3.
- 1.2.7 The Licence Holder must not depart from the requirements specified in Table 1.2.3 except:
- (a) where such departures is minor in nature and does not materially change or affect the infrastructure; or
  - (b) where such departure improves the functionality of the infrastructure and does not increase the risks to public health, public amenity or the environment.

Table 1.2.3: Infrastructure Requirements	
Infrastructure	Requirements (design and construction)
Stage 2	2 x 1,600 tonnes per hour linear luffing stackers
	1 x 5,000 tonnes per hour ore processing plant reclaimer
Dewatering infrastructure, including DDL4b pipework and discharge outfall structure	<p><u>Pipework</u></p> <ul style="list-style-type: none"> <li>Constructed of high density polyethylene PE100 PN8 with 80 m head (800 kPa) rating;</li> <li>Located in previously disturbed areas where possible and placed close to existing operational structures;</li> <li>Collector main pipeline equipped with a discharge flow meter from the discharge locations (DDL1, DDL5 and DDL4b) to allow for continuous abstraction and discharge flow rate monitoring; and</li> <li>Isolation valves mainly at the headworks, the start and end of the bore pipeline (spur line) and at certain locations on the main collector pipeline.</li> </ul> <p><u>Pipeline corridors:</u></p> <ul style="list-style-type: none"> <li>Dewatering pipelines contained within a pit shell, V-drain or within a bunded area;</li> <li>Ruptures contained with water directed back into the Drain and then into the E1 Pit;</li> <li>Booster station, sump pumps and bore pumps are fitted with alarms and automatic shut off systems that monitor water level, flow and pressure</li> </ul> <p><u>Discharge outfall structure</u></p> <ul style="list-style-type: none"> <li>Consist of DN710 pipe anchored by concrete headwall structure discharging into a rectangular channel;</li> <li>Channel dimensions will be 15 m long by 15 m wide and 2 m deep;</li> <li>Channel constructed of mound earth on the sides and compacted ground at the bottom;</li> <li>The sides and bottom of the channel lined with impervious geofabric material; and</li> <li>Channel floor topped up with angular rock spalls with sizes between 100 to 800 mm</li> </ul> <p><u>Drain</u></p> <ul style="list-style-type: none"> <li>New drain will intersect existing stormwater drain and divert water through the eastern edge of Stockyard 5 and 9 where it will enter the E1 Pit;</li> <li>Drain depth starts from ~0.5 m to 2 m where it intersects the pit with a 1:100 slope towards the pit;</li> <li>The base of the drain will be 1 m wide;</li> <li>The batter angle of the drain will be 30°;</li> <li>Rip rap will be rock pitched into stream training areas and keyed into place;</li> <li>Further rip rap will be laid into place to slow and turn water flow to relieve sediment before out flow at each end; and</li> <li>1.5 m windrows will be installed along the drain.</li> </ul> <p><u>E1 Pit</u></p> <ul style="list-style-type: none"> <li>Volume capacity up to 462 RL;</li> <li>Pump located at the southern end of E1 Pit at 463 RL;</li> <li>Designed so that water level within E1 Pit will be maintained at the 462 RL maintaining a minimum freeboard of 3 meters from the lowest point on the E1 pit wall; and</li> <li>DN70 pipeline to transfer water to the new discharge point DDL4b.</li> </ul>
Landfill	Refer to Condition 1.2.2, Table 1.2.1 for landfill requirements.

1.2.8 The Licence Holder shall operate Stage 2 and the dewatering infrastructure in accordance with the conditions of this Licence, following submission of the construction compliance document required under condition 4.3.1.

1.2.9 The Licence Holder shall ensure the limits specified in Table 1.2.4 are not exceeded.

Table 1.2.4: Production or design capacity limits		
Category <sup>1</sup>	Category Description <sup>1</sup>	Premises production or design capacity limit
5	Processing or beneficiation of metallic or non-metallic ore	10,000,000 tonnes per Annual Period
6	Mine dewatering	42,000,000 tonnes per Annual Period

## Emissions

### 2.1 General

2.1.1 The Licence Holder shall record and investigate the exceedance of any descriptive or numerical limit specified in any part of section 2 of this Licence.

### 2.2 Point source emissions to surface water

2.2.1 The Licence Holder shall ensure that where waste is emitted to surface water from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1 it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emission points to surface water		
Emission point reference and location on Map of emission points	Description	Source including abatement
DDL1	Discharge points for excess mine dewater to a tributary of Weeli Wolli Creek	Water from dewatering of mine pits (from production bores and in-pit sumps)
DDL4a		
DDL5		
DDL4b	Discharge point for excess mine dewater to a tributary of Weeli Wolli Creek	Water from dewatering of mine pits (from production bores and in-pit sumps) and stormwater

2.2.2 The Licence Holder shall not cause or allow emissions to surface water greater than the limits listed in Table 2.2.2.

Table 2.2.2: Emissions limit to surface water			
Emission point reference	Parameter	Reportable triggers (including unit)	Averaging period
DDL4b	Total Recoverable Hydrocarbons (TRH)	15 mg/L	Spot sample

## Monitoring

### 3.1 General monitoring

3.1.1 The Licence Holder shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- (b) all surface water sampling is conducted in accordance with AS/NZS 5667.6;
- (c) all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
- (d) 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.

3.1.2 The Licence Holder must ensure that:

- (a) monitoring is undertaken in each weekly period such that there are at least 4 days in between the days on which samples are taken in successive weeks;
- (b) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months;
- (c) monitoring is undertaken in each quarterly period such that there are at least 45 days in between the days on which samples are taken in successive quarters;
- (d) monitoring is undertaken in each six-monthly period such that there are at least 5 months in between the days on which samples are taken in successive periods of six months; and
- (e) monitoring is undertaken in each annual period such that there are at least 9 months in between the days on which samples are taken in successive years.

3.1.3 The Licence Holder must ensure that all monitoring equipment used to comply with the conditions of this licence is operated and calibrated in accordance with the manufacturer's specifications.

### 3.2 Monitoring of point source emissions to surface water

3.2.1 The Licence Holder shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of point source emissions to surface water					
Emission point reference	Description	Parameter	Unit	Averaging period	Frequency
DDL1	Flow meters to discharge points	Volumetric flow rate (cumulative) <sup>1</sup>	ML/day	Monthly	Continuous when discharging
DDL4a					
DDL4b					
DDL5					
DDL4b	Discharge point	Total Recoverable Hydrocarbons (TRH)	mg/L	Spot sample	Monthly when discharging  One week after the reportable trigger in Table 2.2.2 is exceeded, for a maximum of 3 total consecutive exceedances, following which

					discharge from that emission point must cease, until sampling demonstrates no exceedance of the reportable trigger
DDL4a (for the first 12 months)	Discharge point	pH <sup>1</sup>	pH units	Spot sample	Monthly when discharging
		Electrical conductivity (EC) <sup>1</sup>	µS/cm		
		Total Recoverable Hydrocarbons (TRH) Total Dissolved Solids (TDS) Total Suspended Solids (TSS) Ionic balance Total alkalinity Calcium (Ca) Magnesium (Mg) Sodium (Na) Potassium (K) Chlorine (Cl) Sulphate (SO <sub>4</sub> ) Fluoride (F) Aluminium (Al) Antimony (Sb) Arsenic (As) Boron (B) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Mercury (Hg) Molybdenum (Mo) Nickel (Ni) Nitrite as NO <sub>2</sub> Nitrate as NO <sub>3</sub> Total Nitrogen Total Phosphorus Selenium (Se) Tungsten (W) Uranium (U) Vanadium (V) Zinc (Zn)	mg/L		
DDL4b (for the first 12 months)					
DDL4 Cumulative Sampling Location					

### 3.3 Monitoring of inputs and outputs

3.3.1 The Licence Holder shall undertake the monitoring in Table 3.3.1 according to the specifications in that table.

Table 3.3.1: Monitoring of inputs and outputs				
Input/ Output	Parameter	Units	Averaging period	Frequency
Waste Inputs	Inert Waste Type 1 Inert Waste Type 2 Special Waste Type 1 Putrescible Waste Clean Fill	tonnes or m <sup>3</sup> (where no weighbridge is present)	N/A	Each load arriving at the Premises
Waste Outputs	Waste type as defined in the Landfill Definitions			Each load leaving or rejected from the Premises

### 3.4 Ambient environmental quality monitoring

3.4.1 The Licence Holder shall undertake the monitoring in Table 3.1.1 according to the specifications in that table.

Table 3.4.1: Ambient groundwater monitoring				
Monitoring point reference and location on Map of emission points	Parameter	Units	Averaging period	Frequency
PB22	Standing water level <sup>1</sup>	mbgl	Spot sample	Six monthly
BH1	pH <sup>1</sup>	pH units		
MB21	Electrical conductivity <sup>1</sup>	µS/cm		
MBD MBK	Total Dissolved Solids (TDS) Total Recoverable Hydrocarbons (TRH) Total Suspended Solids (TSS) Total Nitrogen Total Phosphorus Ionic Balance Total Alkalinity Calcium (Ca) Cobalt (Co) Magnesium (Mg) Sodium (Na) Potassium (K) Chloride (Cl) Sulphate (SO <sub>4</sub> ) Fluoride (F) Aluminium Arsenic (As) Boron (B) Cadmium (Cd) Chromium (Cr)	mg/L		

Table 3.4.1: Ambient groundwater monitoring				
Monitoring point reference and location on Map of emission points	Parameter	Units	Averaging period	Frequency
	Copper (Cu) Iron (Fe) Manganese (Mn) Mercury (Hg) Molybdenum (Mo) Nickel (Ni) Lead (Pb) Antimony (Sb) Selenium (Se) Tungsten (W) Vanadium (V) Uranium (U) Zinc (Zn)			

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

## Information

### 4.1 Records

- 4.1.1 All information and records required by the Licence shall:
- (a) be legible;
  - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
  - (c) except for records listed in 5.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
  - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
    - (i) off-site environmental effects; or
    - (ii) matters which affect the condition of the land or waters.
- 4.1.2 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 90 days after the end of that annual period an Annual Audit Compliance Report in the approved form.
- 4.1.3 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 or 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.
- 4.1.4 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 conditions 1.2.6 and 1.2.7 of this licence;
  - (c) any maintenance of infrastructure that is performed in the course of complying with conditions 1.2.6 and 1.2.7 of this licence;
  - (d) monitoring programmes undertaken in accordance with conditions 3.2.1, 3.3.1 and 3.4.1 of this licence; and
  - (e) complaints received under condition 4.1.3 of this licence.
- 4.1.5 The books specified under condition 4.1.4 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.
- 4.1.6 The Licence Holder shall implement and maintain a system which ensures that a record is made of any documentary evidence to demonstrate compliance with the Class II landfill acceptance criteria.

- 4.1.7 The Licence Holder shall conduct daily inspections of pumps and pipelines associated with the dewatering infrastructure.

## 4.2 Reporting

- 4.2.1 The Licence Holder must submit to the CEO within 28 days after the end of each annual period, an Annual Environmental Report for that annual period, containing the monitoring results and data collected as a requirement of any condition of this licence, including the information in Table 4.2.1.

Table 4.2.1: 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
Table 1.2.4	Production or design capacity data and limit exceedance	None specified
Table 2.2.1	DDL4b – provide dates (month) and volume of production bore water transferred to the E1 Pit transfer point"	None specified
Table 3.2.1	Cumulative volume discharged via each separate surface water emission point	None specified
	Monitoring of point source emissions to surface water and a comparison against ANZECC/ARMCANZ 2018 Australian and New Zealand Guidelines for Fresh and Marine Water Quality, trigger values for freshwater, 95% level of protection and previous collected monitoring results	None specified
Table 3.3.1	Summary of inputs and outputs	None specified
Table 3.4.1	Monitoring of ambient groundwater quality and a comparison against ANZECC/ARMCANZ 2018 Australian and New Zealand Guidelines for Fresh and Marine Water Quality, trigger values for freshwater, 95% level of protection	None specified
4.1.2	Compliance	None specified
4.1.3	Complaints summary	None specified

- 4.2.2 The Licence Holder shall ensure that the Annual Environmental Report also contains an assessment of the information contained within the report against previous monitoring results and Licence limits.

## 4.3 Notification

- 4.3.1 The Licence Holder shall ensure that the parameters listed in Table 4.3.1 are notified to the CEO in accordance with the notification requirements of the table.

<b>Table 4.3.1: Notification requirements</b>			
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Notification requirement<sup>1</sup></b>	<b>Format or form<sup>2</sup></b>
1.2.1, 2.1.1 and Tables 1.2.1, 1.2.4	Breach of any limit/trigger specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day.  Part B: As soon as practicable	N1
1.2.6	The Licence Holder shall submit a construction compliance document to the CEO, following the construction of Stage 2 and the dewatering discharge infrastructure  The Licence Holder must ensure the construction compliance document: a) is certified by a suitably qualified professional engineer or builder stating that each item of infrastructure specified in Table 1.2.3 has been constructed in accordance with the conditions of the Licence with no material defects; and b) be signed by a person authorised to represent the Licence Holder and contain the printed name and position of that person within the company	Within 7 days of the completion of construction	None specified
1.2.7	If condition 1.2.7 applies, then the Licence Holder must provide the CEO with a list of departures which are certified as complying with condition 1.2.6	Within 7 days of the completion of construction	None specified
3.1.3	Calibration report	As soon as practicable	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 2

## Schedule 1: Maps

### Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

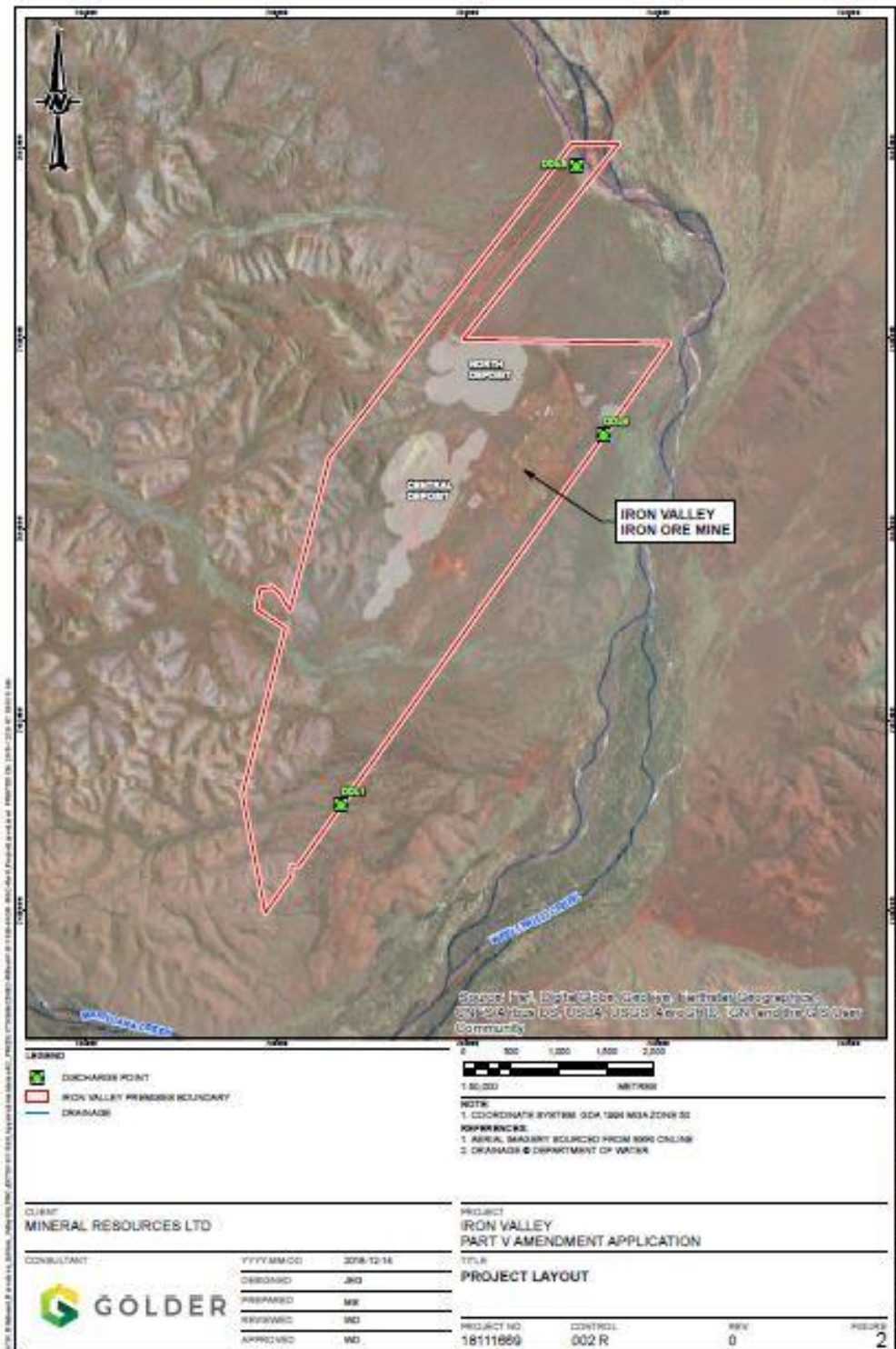


Figure 1: Prescribed Premises Boundary

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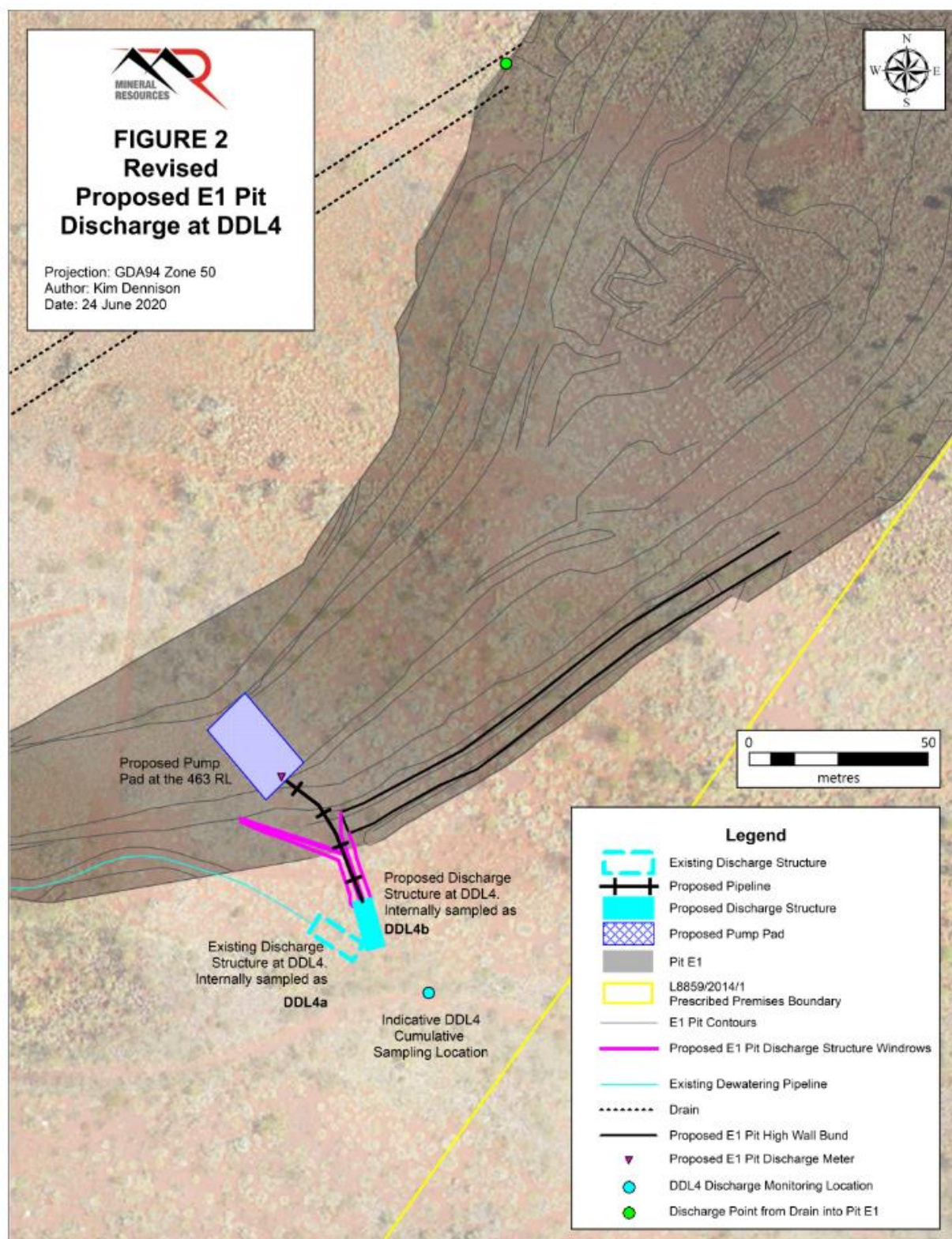


Figure 2: DDL4a, DDL4b and DDL4 Cumulative Sampling Location

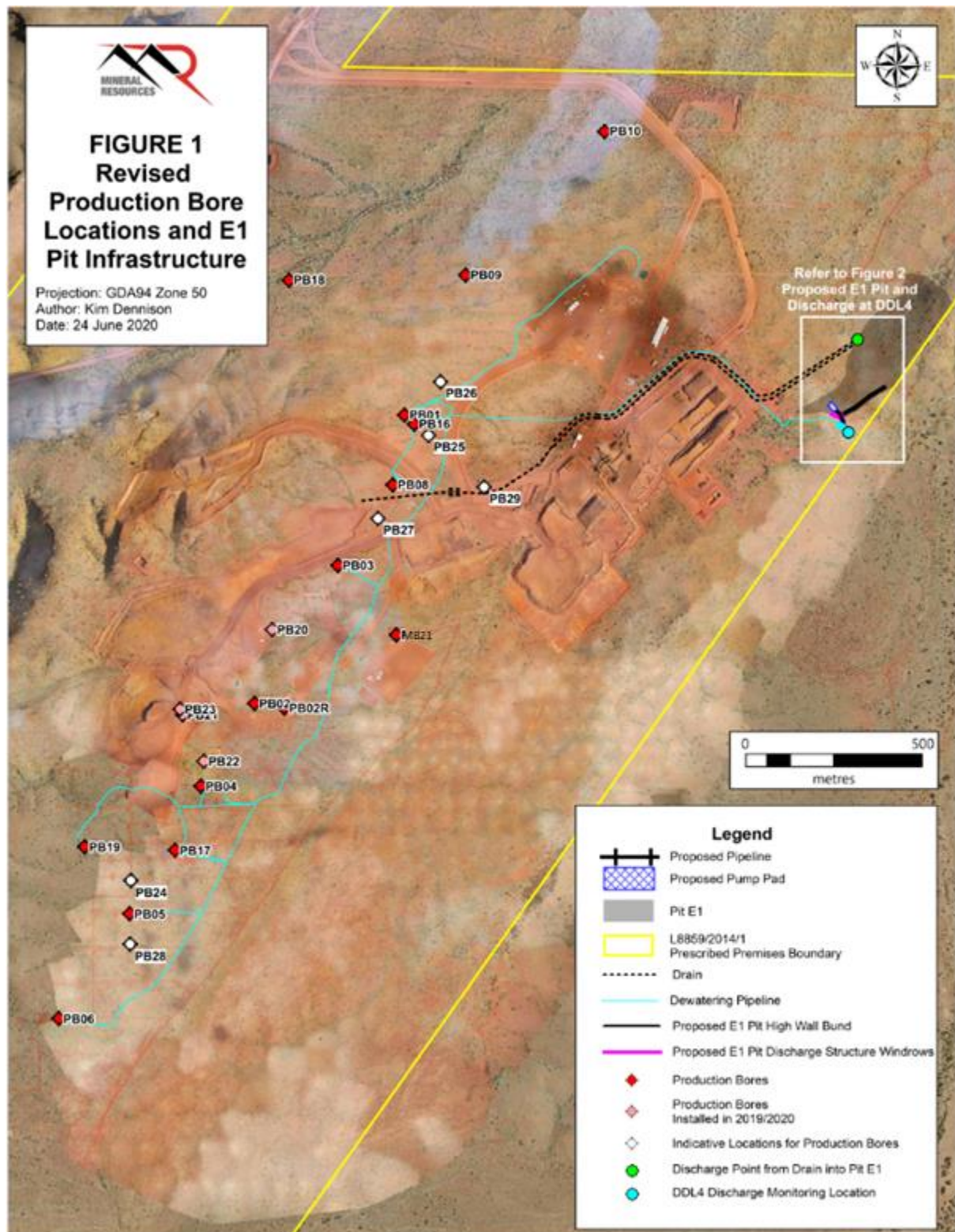
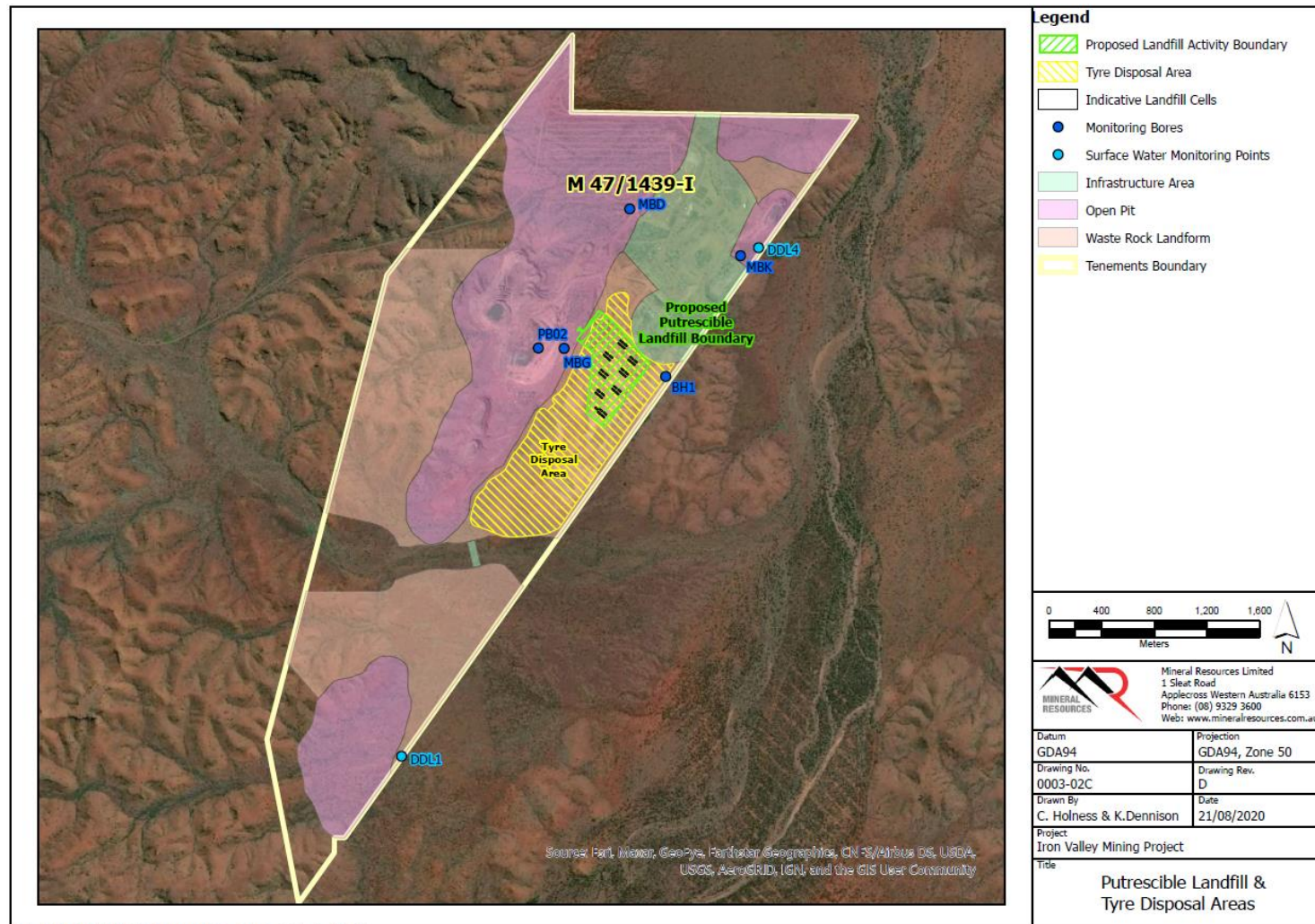


Figure 3: Locations of proposed bores and E1 Pit infrastructure



**Figure 4: Putrescible landfill prescribed premises boundary**

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## Schedule 2: Forms

Licence: L8859/2014/1  
Form: N1

Licence Holder: Mineral Resources Limited  
Date of breach:

### Notification of detection of the breach of a limit/trigger or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.

Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

#### Part A

Licence Number	
Name of operator	
Location of Premises	
Time and date of the detection	

Notification requirements for the breach of a limit/trigger	
Emission point reference/ source	
Parameter(s)	
Limit/Trigger	
Measured value	
Date and time of monitoring	
Measures taken, or intended to be taken, to stop the emission	

Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution	
Date and time of event	
Reference or description of the location of the event	
Description of where any release into the environment took place	
Substances potentially released	
Best estimate of the quantity or rate of release of substances	
Measures taken, or intended to be taken, to stop any emission	
Description of the failure or accident	

## 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 Mineral Resources Limited	
Date	