



# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:** Mt Magnet Gold Pty Ltd

**Licence:** L5529/1988/12

**Registered office:** Mt Magnet Gold Pty Ltd  
 Suite 4, 148 Greenhill Road  
 PARKSIDE SA 5063

**ACN:** 008 669 556

**Premises address:** Mt Magnet Gold  
 M58/121, M58/193 and M58/205  
 MOUNT MAGNET WA 6623  
 as depicted in Schedule 1.

**Issue date:** Thursday, 3 September 2015

**Commencement date:** Thursday, 10 September 2015

**Expiry date:** Tuesday, 9 September 2025

**Prescribed premises category**

Schedule 1 of the *Environmental Protection Regulations 1987*

Category number	Category description	Category production or design capacity	Approved Premises production or design capacity
5	Processing or beneficiation of metallic or non-metallic ore	50,000 tonnes or more per year	2,400,000 tonnes per annual period
6	Mine dewatering	50,000 tonnes or more per year	500,000 tonnes per annual period
64	Class II putrescible landfill site	20 tonnes or more per year	10,000 tonnes per annual period

**Conditions**

This Licence is subject to the conditions set out in the attached pages.

Date signed: 16 June 2016

.....  
**Alana Kidd**  
**Manager Licensing – Resource Industries**  
 Officer delegated under section 20  
 of the *Environmental Protection Act 1986*



## Contents

Licence	1
Contents	2
Introduction	2
Licence conditions	4
1 General	4
2 Emissions	8
3 Monitoring	8
4 Information	10
Schedule 1: Maps	13
Schedule 2: Reporting & notification forms	19

## Introduction

This Introduction is not part of the Licence conditions.

### DER's industry licensing role

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

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER 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/Licensee 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**

Mt Magnet Gold Pty Ltd operates the Mt Magnet Gold mine (MMG) which is located adjacent to the town of Mount Magnet in the Murchison Region of Western Australia. The area is highly disturbed and degraded due to 130 years of mining activities within this region.

Tenements for the mine cover an area of approximately 225 square kilometres however the mining activities are focused around the Mars, Saturn and Perseverance open pits which are collectively referred to as the Galaxy Project Area.

The Checkers Mill (mill) is an existing 1.7 million tonne per annum (mtpa) conventional semi autogenous grinding (SAG) gold mill. The mill has previously been operated at a maximum capacity of 2.4mtpa and could be reconfigured if required. Mill tailings are deposited into the Checker Tailings Storage Facility Cell 3 (CTSF3). The plant is located approximately two kilometres from the Galaxy Project Area and ore haulage is via an existing haul road network including the Run of Mine (ROM) access road that runs parallel to Richardson Street public road.

Dewatering of groundwater occurs at MMG to allow the mining of ore. The dewatering effluent water is discharged into the disused mined Titan and Brown Hill pits, and the process water dam for storage to be later used in the processing facility and for dust suppression.

The landfill facility at MMG only accepts type 1 and 2 inert wastes, type 1 special wastes and putrescible wastes that are generated at the Premises.

Mt Magnet Gold is powered from an offsite power generating facility located in the town of Mount Magnet. Mt Magnet Gold also has a 14 megawatt diesel power station located at the Premises however, is only used as an emergency backup during power outages, and when the processing plant is restarted following shut downs.

The main emissions and discharges at MMG are dust from the crushing and screening circuit, tailings discharge into the TSF and dewatering effluent disposal into a disused mined pits.

The licences and works approvals issued for the Premises since 30/08/2010 are:

<b>Instrument log</b>		
<b>Instrument</b>	<b>Issued</b>	<b>Description</b>
W4695/2010/1	30/8/2010	Works Approval for the dewatering of pits.
L5529/1988/11	10/9/2010	Licence re-issue.
L5529/1988/11	07/02/2013	Licence amendment. Company name change and removal of condition referencing a dust management plan.
W5385/2013/1	08/08/2013	Tailings storage facility embankment lift.



L5529/1988/11	17/10/2013	Licence amendment following partial compliance with W4695/2010/1.
L5529/1988/11	09/01/2014	Licence amendment following partial compliance with W4695/2010/1.
L5529/1988/12	03/09/2015	Licence reissued.
L5529/1988/12	16/06/2016	Licence amendment for the removal of an obsolete groundwater monitoring bore and the replacement with new groundwater monitoring bores, update of Schedule 1 maps, change landfill category from 89 to 64 as a result of an increase in the throughput from 5,000 tpa to 10,000 tpa, and correction of monitoring reference in Table 3.4.1.

### 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:

‘**Act**’ means the *Environmental Protection Act 1986*;

‘**annual period**’ means the inclusive period from 1 July until 30 June in the following year;

‘**APHA**’ means the American Public Health Association: Standard Methods for the Examination of Water and Wastewater;

‘**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 5667.10**’ means the Australian Standard AS/NZS 5667.10 *Water Quality – Sampling – Guidance on sampling of waste waters*;

‘**AS/NZS 5667.11**’ means the Australian Standard AS/NZS 5667.11 *Water Quality – Sampling – Guidance on sampling of groundwaters*;

‘**averaging period**’ means the time over which a limit is measured or a monitoring result is obtained;

‘**CEO**’ means Chief Executive Officer of the Department of Environment Regulation;

‘**CEO**’ for the purpose of correspondence means;  
Chief Executive Officer



Department Administering the Environmental Protection Act 1986  
Locked Bag 33  
CLOISTERS SQUARE WA 6850  
Email: [info@der.wa.gov.au](mailto:info@der.wa.gov.au)

**'clean fill'** has the meaning defined in the Landfill Definitions;

**'extreme rainfall event'** means a 1 in 100 year rainfall event that has a duration greater than 72 hours;

**'freeboard'** means the distance between the maximum water surface elevations and the top of retaining banks or structures at their lowest point;

**'Inert Waste Type 1'** has the meaning defined in the Landfill Definitions;

**'Inert Waste Type 2'** has the meaning defined in the Landfill Definitions;

**'Landfill Definitions'** means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment Regulation as amended from time to time;

**'Licence'** means this Licence numbered L5529/1988/12 and issued under the Act;

**'Licensee'** means the person or organisation named as Licensee on page 1 of the Licence;

**'mbgl'** means metres below ground level;

**'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;

**'Putrescible Waste'** has the meaning defined in the Landfill Definitions;

**'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;

**'Special Waste Type 1'** has the meaning defined in the Landfill Definitions;

**'spot sample'** means a discrete sample representative at the time and place at which the sample is taken; and

**'WAD cyanide'** means cyanide species liberated at moderate pH of 4.5.

1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the 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 version of that 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 General conditions**

1.2.1 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.

**1.3 Premises operation**

1.3.1 The Licensee shall record and investigate the exceedance of any descriptive or numerical limit in this section.

1.3.2 The Licensee shall only accept waste on to the landfill identified in Schedule 1 if:

- it is of a type listed in Table 1.3.1;
- the quantity accepted is below any quantity limit listed in Table 1.3.1;
- it meets any specification listed in Table 1.3.1; and
- it conforms to the description in the documentation supplied by the producer and holder.

Waste	Quantity limit	Specification
Clean Fill	None specified	None specified
Inert Waste Type 1	10,000 tonnes per annual period	
Putrescible Waste		
Special Waste Type 1		
Inert Waste Type 2	100 used tyres are stored	Tyres and plastics only

Note 1: Additional requirements for the acceptance and landfilling of controlled waste are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.3.3 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.3.2, it is stored in a quarantined storage area or container and removed from the Premises to an appropriately authorised facility as soon as practicable.

1.3.4 The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the process(es) set out in Table 1.3.2 and in accordance with any process limits described in that Table.

Waste type	Process(es)	Process limits <sup>1,2</sup>
Clean fill	Receipt, handling, associated storage and disposal of waste by landfilling	The Licensee shall: <ul style="list-style-type: none"> <li>ensure landfilling only takes place within a defined trench or within an area enclosed by earthen bunds;</li> <li>manage the active landfill area such that at no time does landfilling result in the tipping face exceeding two metres in height;</li> <li>ensure the tipping area is restricted to a linear length no greater than 30 metres;</li> <li>ensure no asbestos waste or material containing asbestos waste is deposited within two metres of the final tipping surface of the landfill; and</li> <li>ensure any existing asbestos waste or material containing asbestos deposited at the landfill remains undisturbed.</li> </ul>
Inert Waste Type 1		
Inert Waste Type 2		
Putrescible waste		
Special Waste Type 1		

Note 1: Requirements for landfilling tyres are set out in Part 6 of the *Environmental Protection Regulations 1987*.

Note 2: Additional requirements for the acceptance and landfilling of controlled waste (including asbestos and tyres) are set out in the *Environmental Protection (Controlled Waste) Regulations 2004*.

1.3.5 The Licensee shall ensure that cover is applied to waste in the tipping area in accordance with Table 1.3.3 and that sufficient stockpiles of cover are maintained on site at all times.





Table 1.3.3: Cover requirements			
Waste type	Material	Depth	Timescales
Inert Waste Type 1	No cover required		
Inert Waste Type 2	Type 1 Inert Waste or Clean fill	100mm	Immediately once the number of disposed whole tyres reaches 100
Putrescible Waste		A minimum of 200 mm	Cover shall be applied fortnightly
Special Waste Type 1	Type 1 Inert Waste or Clean fill	A minimum of 1,000 mm	Immediately by supervised covering of the waste following deposition

1.3.6 The Licensee shall ensure that any waste that has been blown outside the active landfill area is collected and returned to the tipping area on a weekly basis.

1.3.7 The Licensee shall ensure that all pipelines containing environmentally hazardous substances are either:

- equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
- equipped with automatic cut-outs in the event of a pipe failure; or
- provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.

1.3.8 The Licensee shall ensure that waste materials are discharged into dams with the relevant infrastructure requirements and at the location specified in Table 1.3.4 and identified in Schedule 1.

Table 1.3.4: Containment infrastructure		
Containment point reference	Material	Infrastructure requirements
CTSf3	Tailings	<p>Measures to prevent or minimise dust generated from surface of the tailings storage facility installed</p> <p>A seepage interceptor drain is maintained immediately downstream of the external toe of the tailings dam to recover any liquid matter resulting from seepage or breach of the embankment</p> <p>Any matter collected in interceptor drain(s) shall be returned to either the tailings dam, an evaporation dam or used in the processing plant</p> <p>Seepage recovery bores T3RB1, T3RB2A, T3RB3, T3RB4, T3RB6 and T3RB7 are maintained to recover any liquid matter resulting from seepage</p> <p>A minimum top of embankment freeboard of 300mm is maintained in order to accommodate an extreme rainfall event</p>
Process Water Dam	Dewatering effluent water and seepage recovery water	<p>A minimum top of embankment freeboard of 300mm is maintained</p> <p>Lined to achieve a permeability of <math>10^{-9}</math> m/s or less.</p>

1.3.9 The Licensee shall:

- undertake inspections as detailed in Table 1.3.5;



- (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.

<b>Table 1.3.5: Inspection of infrastructure</b>		
<b>Scope of inspection</b>	<b>Type of inspection</b>	<b>Frequency of inspection</b>
Tailings delivery pipelines	Visual integrity	Daily
Return water lines		
Dewatering pipelines		Weekly
Chemical storage areas		
Processing plant		
Embankment freeboard	Visual to confirm required freeboard capacity is available	Daily

1.3.10 The Licensee shall ensure the limits specified in Table 1.3.6 are not exceeded.

<b>Table 1.3.6: Production or design capacity limits</b>		
<b>Category<sup>1</sup></b>	<b>Category description<sup>1</sup></b>	<b>Premises production or design capacity limit</b>
5	Processing or beneficiation of metallic or non-metallic ore	2,400,000 tonnes per annual period
6	Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore	500,000 tonnes per annual period

Note 1: *Environmental Protection Regulations 1987, Schedule 1.*

## 2 Emissions

### 2.1 General

2.1.1 The Licensee 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 groundwater

2.2.1 The Licensee shall ensure that where waste is emitted to groundwater from the emission point 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.

<b>Table 2.2.1: Emission points to groundwater</b>		
<b>Emission point reference</b>	<b>Description</b>	<b>Source including abatement</b>
Brown Hill and Titan pits	Dewatering waste water discharge into disused mine pits.	Water from dewatering of the Saturn, Mars, Titan and Perseverance pits.

## 3 Monitoring

### 3.1 General monitoring

3.1.1 The Licensee shall ensure that:

- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;





- (b) groundwater samples for the monitoring of WAD cyanide are collected and preserved in accordance with APHA;
- (c) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
- (d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
- (e) 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 Licensee shall ensure that:

- (a) quarterly monitoring is undertaken at least 45 days apart; and
- (b) annual monitoring is undertaken at least 9 months apart.

3.1.3 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications and the requirements of the Licence.

3.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

### 3.2 Monitoring of point source emissions to groundwater

3.2.1 The Licensee 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 groundwater				
Emission point reference	Parameter	Units	Averaging Period	Frequency
Dewatering discharge outlet into the Titan and Brown Hill pits	Volumetric flow rate	m <sup>3</sup> /day	Monthly	Continuous
	Arsenic; Cadmium; Chromium; Copper; Manganese; Mercury; Molybdenum; Nickel; Total recoverable hydrocarbons; and Zinc	mg/L	Spot sample	Annually
	Standing water level in pits	mbgl		Quarterly
	Total dissolved solids and Total Nitrogen	mg/L		
	pH <sup>1</sup>	-		

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

### 3.3 Process monitoring

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

Table 3.3.1: Process monitoring					
Monitoring point reference	Process description	Parameter	Units	Frequency	Method
CTSF3	-	Volumes of tailings deposited	m <sup>3</sup>	Continuous	None specified



		into the CTSF3			
	-	Volumes of water recovered from the CTSF3	m <sup>3</sup>	Continuous	None specified

### 3.4 Ambient environmental quality monitoring

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table and record and investigate results that do not meet any limit specified.

Table 3.4.1: Monitoring of ambient groundwater quality								
Monitoring point reference and location	Parameter	Limit	Units	Averaging period	Frequency			
CTDP2D, TRB001, T3MB1, T3MB2, T3MB4, T3MB5, T3MB6, T3MB7, T3MB8, T3MB9 and T3MB10	Aluminium	5.0	mg/L	Spot sample	Annually			
	Arsenic	0.5						
	Cadmium	0.08						
	Chromium (+6)	1.0						
	Cobalt	1.4						
	Copper	0.5						
	Lead	0.4						
	Mercury	0.11						
	Molybdenum	0.05						
	Nickel	1.0						
	Selenium	0.08						
	Zinc	20.0						
	Electrical conductivity	-				mg/L		Quarterly
	Standing water level (SWL) <sup>1</sup>							
Total cyanide								
Total dissolved solids								
Weak acid dissociable cyanide (WAD cyanide)	0.5							
pH <sup>1</sup>	6.0 to 9.0	-						
PHMB3 and PHMB4	Total recoverable hydrocarbons	-	mg/L					

Note 1: In-field non-NATA accredited analysis permitted. SWL shall be determined prior to collection of other water samples.

## 4 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 4.1.1(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 Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

4.1.3 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

## 4.2 Reporting

4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 60 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

<b>Table 4.2.1: Annual Environmental Report</b>		
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Format or form<sup>1</sup></b>
-	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
-	Brief overview of the Premises and its processes and a current plan of the Premises	None specified
Table 3.2.1	Specified monitoring of point source to groundwater	GR1
Table 3.3.1	Volumes of tailings deposited into the CTSF3 and volumes of water recovered from the CTSF3	None specified
Table 3.4.1	Monitoring of ambient groundwater quality	None specified
4.1.2	Compliance	Annual Audit Compliance Report (AACR)
4.1.3	Complaints summary	None specified

Note 1: Forms are in Schedule 2

4.2.2 The Licensee 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.

4.2.3 The Licensee shall submit the information in Table 4.2.2 to the CEO according to the specifications in that table.

<b>Table 4.2.2: Non-annual reporting requirements</b>				
<b>Condition or table (if relevant)</b>	<b>Parameter</b>	<b>Reporting period</b>	<b>Reporting date (after end of the reporting period)</b>	<b>Format or form</b>
-	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



### 4.3 Notification

4.3.1 The Licensee 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>
2.1.1 and 3.4.1	Breach of any limit 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

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

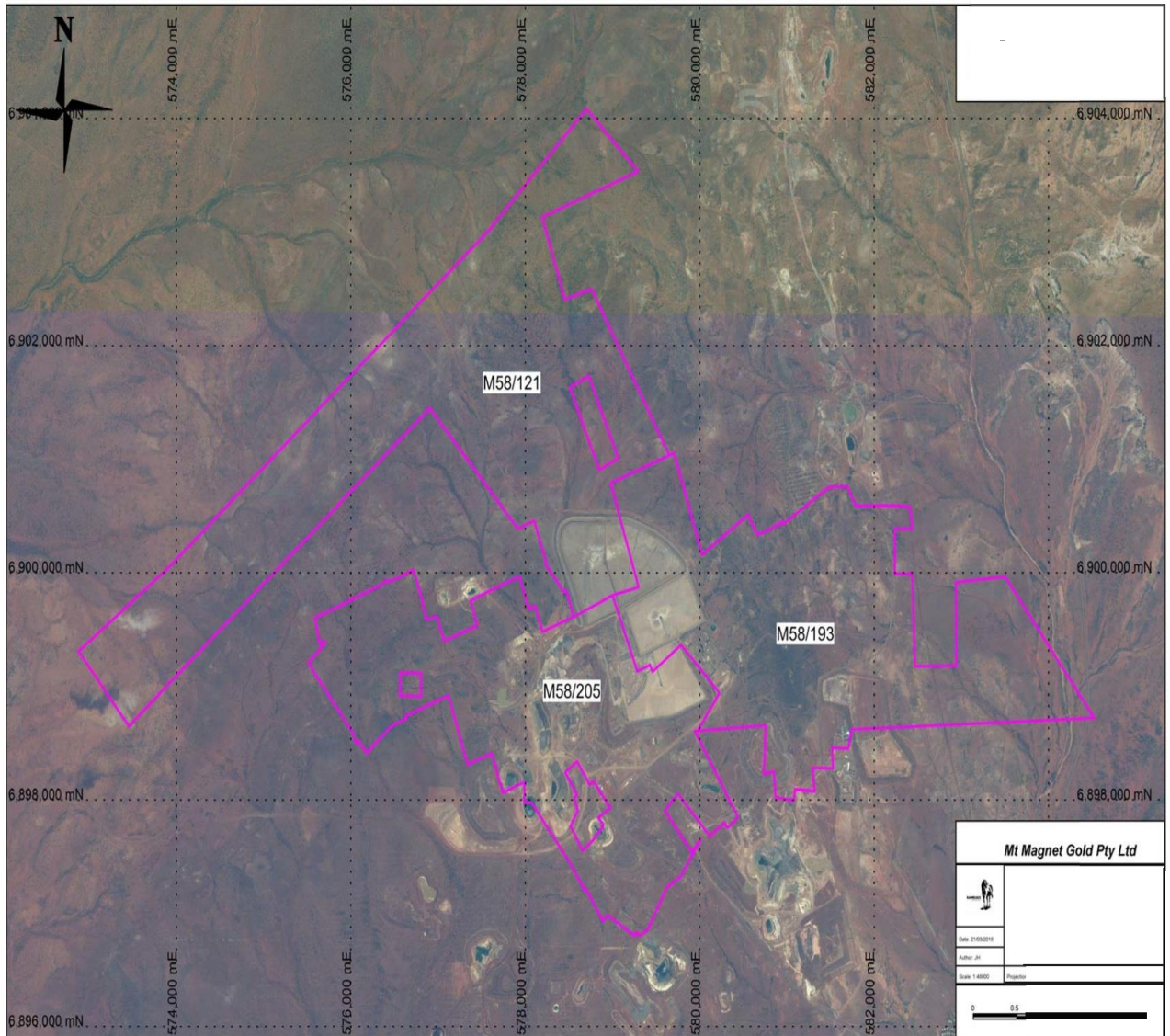
Note 2: Forms are in Schedule 2



# Schedule 1: Maps

## Premises map

The Premises is shown in the map below. The pink line depicts the Premises boundary.

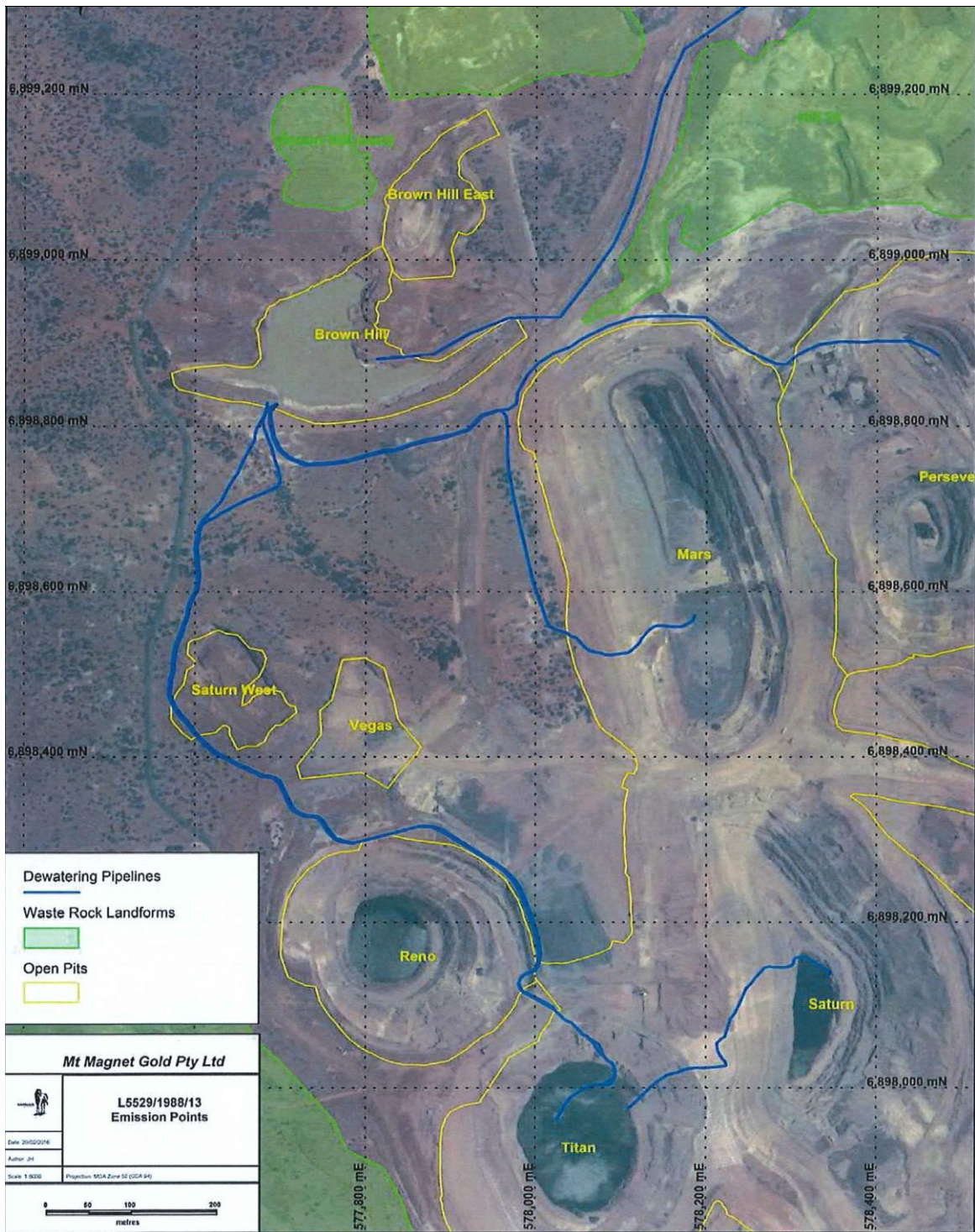






### Map of emission points

The locations of the emission points defined in Table 2.2.1 is shown below.

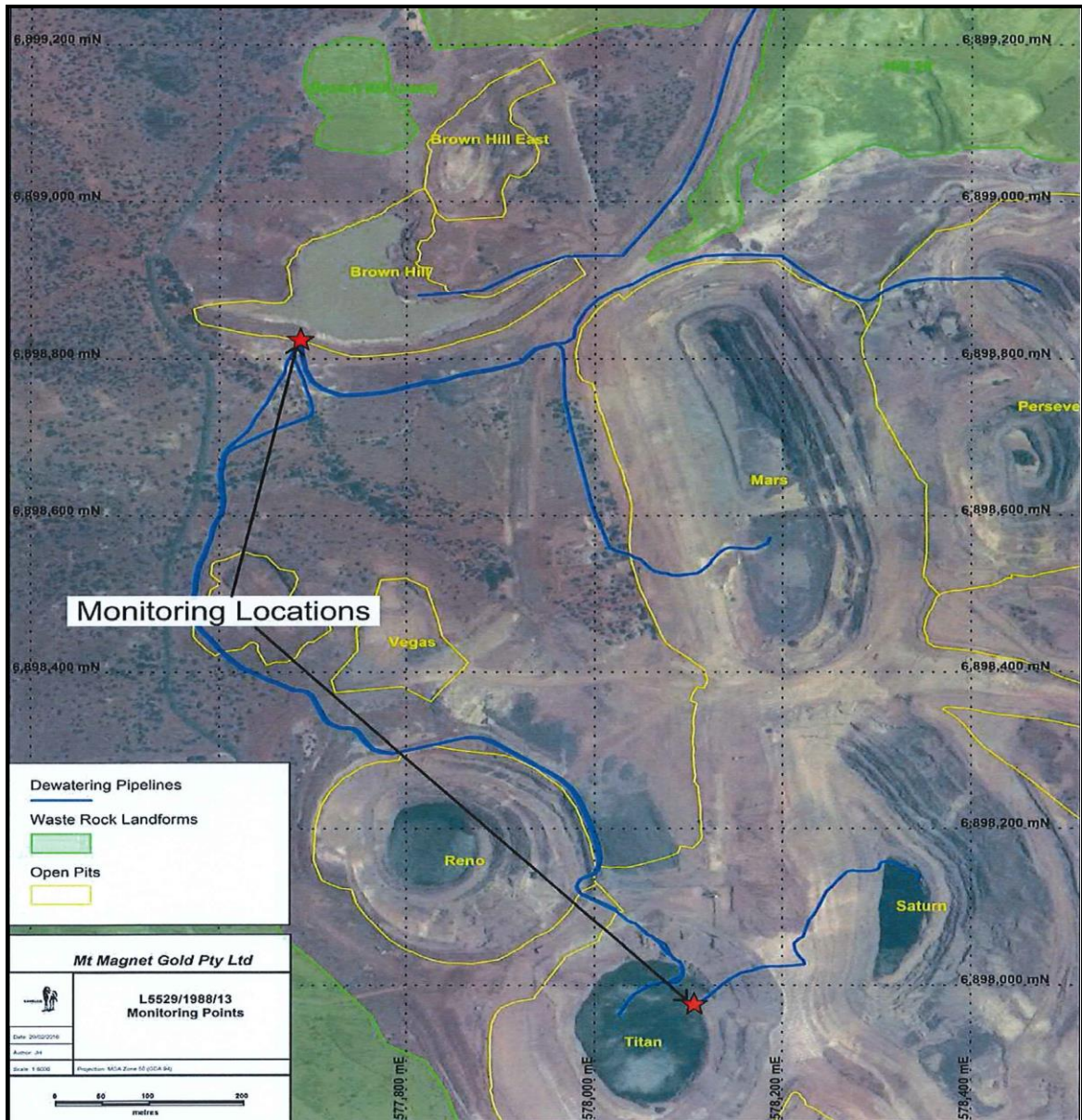






### Map of monitoring locations

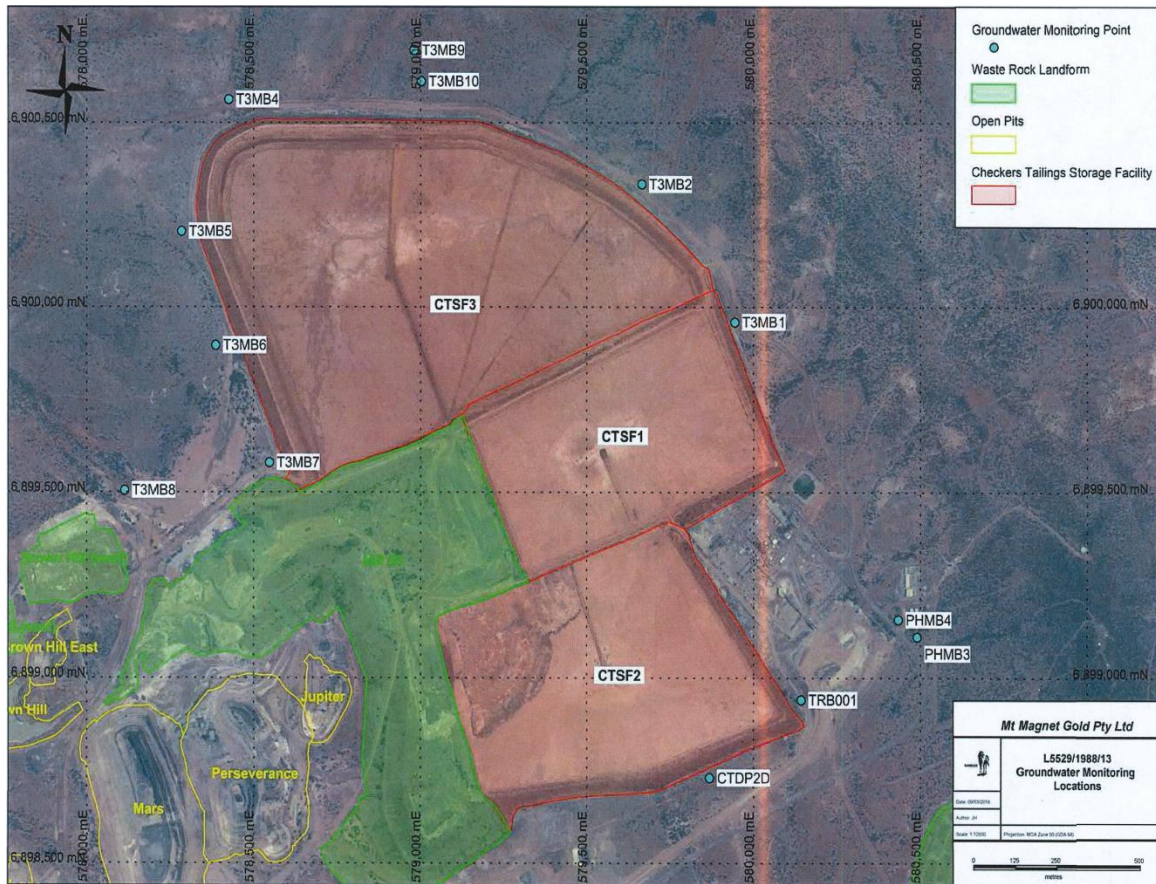
The locations of the monitoring points defined in Table 3.2.1 are shown below.





The locations of the monitoring points defined in Tables 3.4.1 are shown below.

### CTSF3 Groundwater monitoring locations



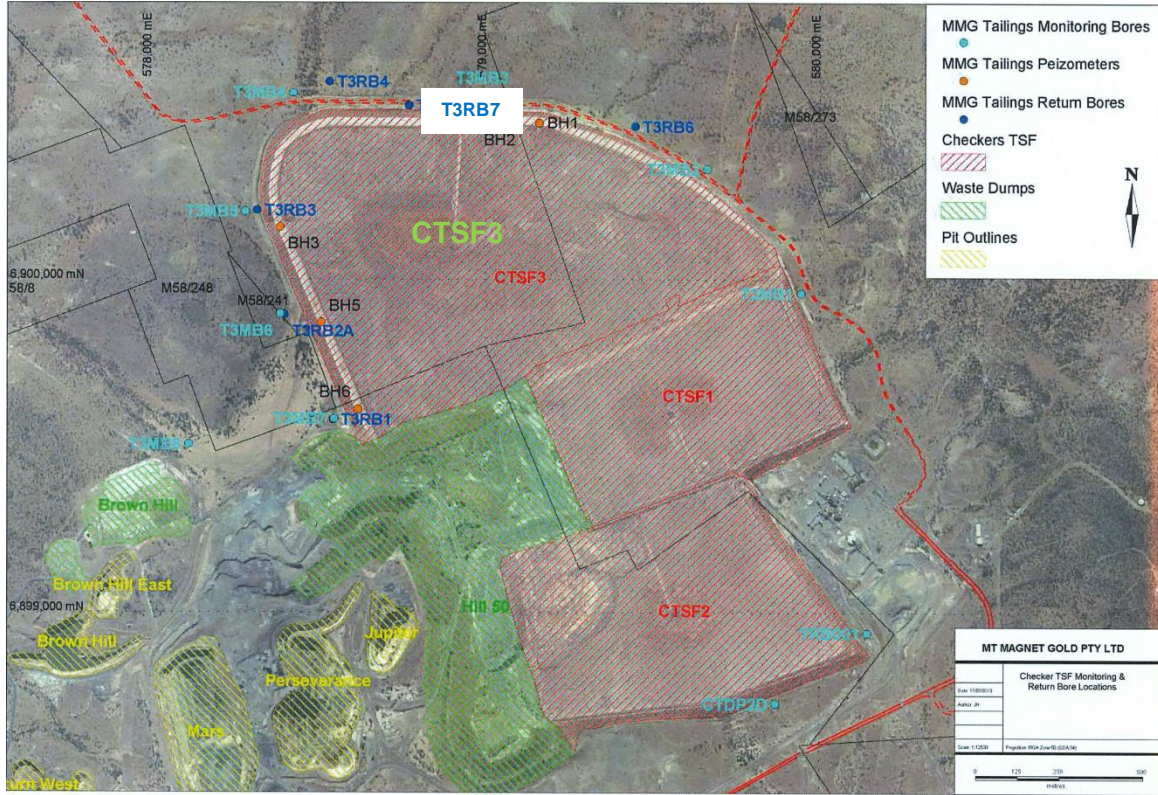




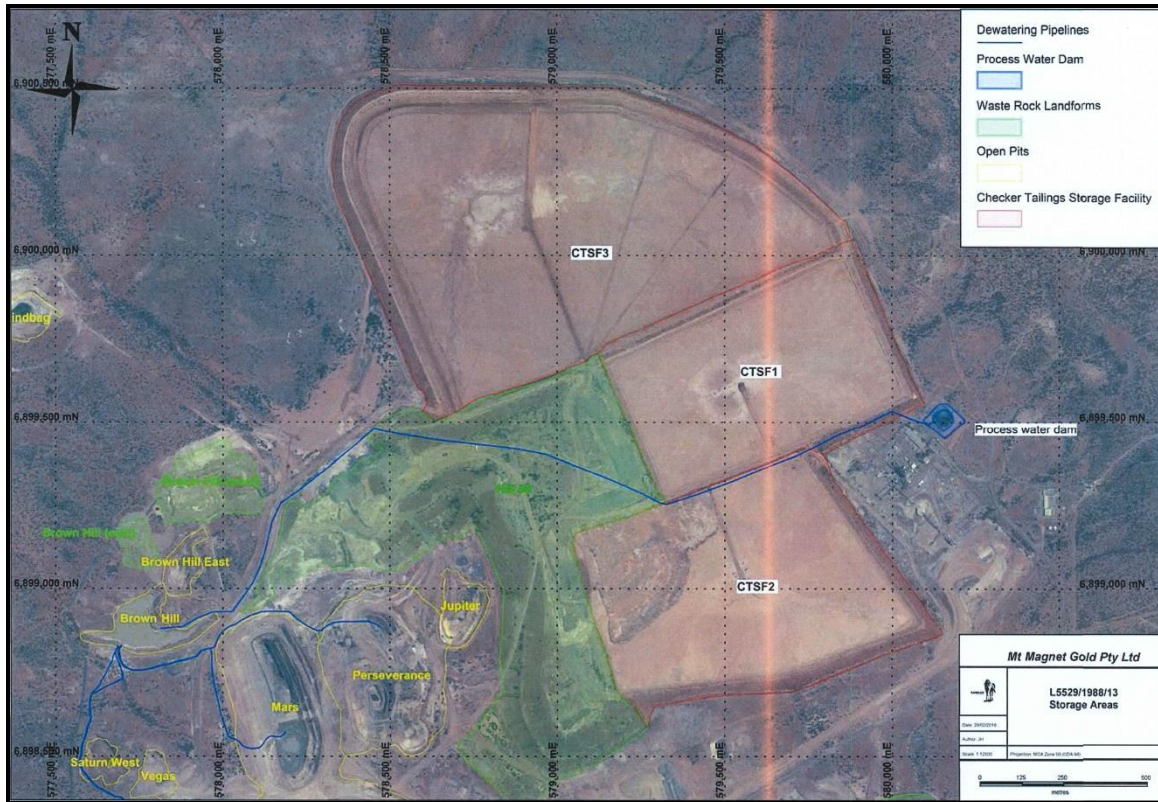
### Map of storage locations

The location of the storage areas defined in Table 1.3.4 are shown below.

#### CTSF3



#### Process water dam









## Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

### ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

#### SECTION A LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

#### STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

- Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes  Please proceed to Section C

No  Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:







## SECTION C

### SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) must only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
An individual	<input type="checkbox"/> <input type="checkbox"/>	by the individual licence holder, or by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A corporation	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or by two directors of the licensee; or by a director and a company secretary of the licensee, or if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
A public authority (other than a local government)	<input type="checkbox"/> <input type="checkbox"/>	by the principal executive officer of the licensee; or by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.
a local government	<input type="checkbox"/> <input type="checkbox"/>	by the chief executive officer of the licensee; or by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

POSITION: \_\_\_\_\_

POSITION: \_\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

SEAL (if signing under seal)



Licence: L5529/1988/12  
Form: GR1  
Name: Monitoring of point source emissions to groundwater

Licensee: Mt Magnet Gold Pty Ltd  
Period :

Emission point	Parameter	Result	Averaging period	Sample date & times
Dewatering discharge into Titan pit	Volumetric flow rate	m <sup>3</sup> /day	Monthly	
	Standing water level	mbgl	Spot sample	
	pH	-		
	Arsenic	mg/L		
	Cadmium	mg/L		
	Chromium	mg/L		
	Copper	mg/L		
	Manganese	mg/L		
	Mercury	mg/L		
	Molybdenum	mg/L		
	Nickel	mg/L		
	Total dissolved solids	mg/L		
	Total nitrogen	mg/L		
	Total recoverable hydrocarbons	mg/L		
Zinc	mg/L			

Signed on behalf of Mt Magnet Gold Pty Ltd: ..... Date: .....



Licence: L5529/1988/12  
Form: GR1  
Name: Monitoring of point source emissions to groundwater

Licensee: Mt Magnet Gold Pty Ltd  
Period :

Emission point	Parameter	Result	Averaging period	Sample date & times
Dewatering discharge into Brown Hill pit	Volumetric flow rate	m <sup>3</sup> /day	Monthly	
	Standing water level	mbgl	Spot sample	
	pH	-		
	Arsenic	mg/L		
	Cadmium	mg/L		
	Chromium	mg/L		
	Copper	mg/L		
	Manganese	mg/L		
	Mercury	mg/L		
	Molybdenum	mg/L		
	Nickel	mg/L		
	Total dissolved solids	mg/L		
	Total nitrogen	mg/L		
	Total recoverable hydrocarbons	mg/L		
Zinc	mg/L			

Signed on behalf of Mt Magnet Gold Pty Ltd: ..... Date: .....



Licence: L5529/1988/12  
 Form: N1

Licensee: Mt Magnet Gold Pty Ltd  
 Date of breach:

**Notification of detection of the breach of a limit.**

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	

<b>Notification requirements for the breach of a limit</b>	
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	



## 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 Mt Magnet Gold Pty Ltd	
Date	



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** Mt Magnet Gold Pty Ltd

**Licence:** L5529/1988/12

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**Registered office:** Mt Magnet Gold Pty Ltd  
Suite 4, 148 Greenhill Road  
PARKSIDE SA 5063

**ACN:** 008 669 556

**Premises address:** Mt Magnet Gold  
M58/121, M58/193 and M58/205  
MOUNT MAGNET WA 6623

**Issue date:** Thursday, 3 September 2015

**Commencement date:** Thursday, 10 September 2015

**Expiry date:** Tuesday, 9 September 2025

### **Decision**

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue an amended Licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements, and that the amended Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by: Paul Anderson  
Licensing Officer

Decision Document authorised by: Alana Kidd  
Delegated Officer





# Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	2
3 Executive summary of proposal and assessment	3
4 Decision table	4
5 Advertisement and consultation table	9
6 Risk Assessment	10
Appendix A	11

## 1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER’s decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER’s assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent’s responsibility to ensure they have all relevant approvals for their Premises.

## 2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	<b>Category number(s)</b>	<b>Assessed design capacity</b>
	5	2,400,000 tonnes per annual period
	6	500,000 tonnes per annual period
	64	10,000 tonnes per annual period
Application verified	Date: Not applicable	
Application fee paid	Date: Not applicable	
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Commercial-in-confidence claim outcome		
Is the proposal a Major Resource Project?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/>



		Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes include details of which EPP(s) here.		
Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If Yes, include details here, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.		

### 3 Executive summary of proposal and assessment

Mt Magnet Gold Pty Ltd (MMG) operates the Mt Magnet Gold Mine (Mt Magnet Gold) through *Environmental Protection Act 1986* Licence L5529/1988/11 (Licence).

Mt Magnet Gold is located adjacent to the town of Mount Magnet in the Murchison Region of Western Australia. Tenements for the mine cover an area of approximately 225 square kilometres however the prescribed activities are located on Mining Tenements M58/121, M58/193 and M58/205.

MMG has applied to DER for an amendment to their Licence. The request for an amendment to the Licence relates to the removal of a groundwater monitoring bore which is no longer functional and has been replaced by two additional groundwater monitoring bores, change the landfill category from 89 to 64 for an increase in the throughput to 10,000 tonnes per annual period, update the monitoring locations referenced in Table 3.4.1 and update the maps in Schedule 1.

MMG's Licence was reissued on the 3 September 2015 and as part of that reissue process, DER converted the Licence into the latest licensing format. Any additional changes made as part of this Licence amendment process, are described in more detail in the decision table in section 4 of this document.



## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.2.1 to L1.2.3	<p><b>Operation</b></p> <p>The Licence does not reference any pollution control equipment used at the Premises and therefore previous condition 1.2.1 has been removed from the Licence.</p> <p>Previous condition 1.2.3 has been removed from the Licence as it is unclear what stormwater infrastructure is required to be constructed and maintained, or what if any specific management actions are required. The potential discharge of contaminated stormwater to the environment is considered adequately regulated by the <i>Environmental Protection Act 1986</i>.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i></p>
Premises operation	L1.3.1 to 1.3.11	<p><b>Operation</b></p> <p><b>Landfill</b></p> <p>The prescribed premises table on the Licence has been amended for the class II landfill by replacing category 89 with category 64 and increasing the throughput to 10,000 tonnes per annum (tpa).</p> <p>MMG currently accepts at the Mt Magnet Gold landfill less than 720 tonnes per annum of mainly inert waste with small quantities of putrescible and special waste type 1 wastes (as reported in MMG's 2014-2015 Annual Environmental Report). All wastes accepted for burial at the landfill is generated at Mt Magnet Gold.</p>	<p><i>Environmental Protection Regulations 1987</i>.</p> <p>Landfill Waste Classification and Waste Definitions 1996' published by the Chief Executive Officer of the Department of Environment</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>MMG has requested an amended to their Licence by increasing the throughput at the landfill to 10,000 tpa. MMG are progressing with mine closure activities which includes removal of redundant infrastructure and associated wastes, and the closure of historic and inactive mining areas. These works will increase the requirement for the burial of construction and demolition wastes, scrap metals and poly-pipe. The majority of materials will be Inert Waste Type 1 with lesser amounts of Inert Waste Type 2 and Special Waste Type 1 (used tyres and asbestos containing wastes respectively).</p> <p>Category 89 is usually applied to a registered premises as described in Schedule 1, Part 2 of the <i>Environmental Protection Regulations 1987</i> (Regulations), and is normally associated with small rural type premises accepting class II wastes which has been generated offsite. The maximum throughput permitted in the Regulations for category 89 is 5,000 tpa.</p> <p>Category 64 is a licence category as described in Schedule 1, Part 1 of the Regulations, whereby conditions are applied to the licence for its operation. Category 64 usually applies to all other class II or III putrescible landfills (as defined in the Landfill Waste Classification and Waste Definitions 1996, DER) which do not satisfy the requirements for a category 89 registration. Category 64 has a minimum throughput of 20 tpa or more, with no upper limit.</p> <p><u>Emission Description</u></p> <p><i>Emission:</i> Increase throughput of waste disposal to the landfill from 5,000 tpa to 10,000 tpa. Potential leaching to groundwater, wind blown waste.</p> <p><i>Impact:</i> Potential for contamination of surrounding environment, including surface water and groundwater.</p> <p><i>Controls:</i> The increased waste accepted for burial mainly consists of Inert Waste Type 1 which is made up of demolition wastes (concrete), scrap metals and poly-pipe. Only a small increase in Inert Waste Type 2 and Special Waste Type 1 (used tyres and</p>	<p>Regulation as amended from time to time.</p> <p>General provisions of the <i>Environmental Protection Act 1986</i>.</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>asbestos containing wastes respectively) is expected for burial. There is no increase in the burial of putrescible wastes. The depth to groundwater is greater than 130 m below ground level. The nearest surface water body (drainage creek) is more than 500 m away. The landfill is located within an historical tailings storage facility which had minimal use for tailings disposal over 15 years ago. The landfill is constructed with greater than 30 m high earthen walls surrounding the perimeter of the facility (Appendix A). These walls assist in retaining any contaminated stormwater within the landfill area and reduce the likelihood of wind blown waste escaping.</p> <p><u>Risk Assessment</u>  <i>Consequence:</i> Insignificant  <i>Likelihood:</i> Rare  <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u>            Conditions for the operation of the Mt Magnet landfill are already included in the Licence.            Condition 1.3.2 allows the Licensee to accept for burial at the landfill, up to 10,000 tpa of Inert Waste Type 1, Putrescible Waste, Special Waste Type 1 and Inert Waste Type 2 only.            Condition 1.3.3 requires the Licensee to store in a quarantined area and then remove from the Premises when practicable, any waste that does not meet the acceptance criteria required in condition 1.3.3.            Condition 1.3.4 establishes criteria for the storage, handling and burial of waste accepted at the landfill.            Condition 1.3.5 establishes criteria for the covering of each waste type accepted at the landfill for burial.            Condition 1.3.6 requires the Licensee to collect any windblown waste that has blown outside of the landfill area and return it to the tipping area on a weekly basis.</p> <p><u>Residual Risk</u></p>	



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Consequence:</i> Insignificant <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p> <p>Condition 1.3.7 has been removed from the Licence because it doesn't relate to a prescribed activity or related to a prescribed activity.</p> <p>Condition 1.3.10 is a new condition which has been added to the Licence to include production or capacity limits for categories 5 and 6. Limits have already been applied through condition 1.3.2 for waste accepted at the landfill (new category 64).</p>	
Ambient quality monitoring	L3.4.1	<p><b>Operation</b> Condition 3.4.1 has been amended by removing monitoring points T3MB3, PHMB1 and PHMB2 and adding replacement monitoring points T3MB9, T3MB10, PHMB3 and PHMB4.</p> <p>MMG has not been able to obtain a representative water sample from groundwater monitoring bore T3MB3 as it has silted up over time. MMG conducted a survey of the groundwater in that area to ensure the significant groundwater flows were identified. An outcome of the survey was MMG installed groundwater monitoring bores T3MB9 and T3MB10 in February 2015 to replace T3MB3. Preliminary groundwater sampling from T3MB9 and T3MB10 indicates water levels and quality is similar to that previously identified in T3MB3. Therefore the same sampling requirements which were applied to T3MB3 in condition 3.4.1, will now be applied to T3MB9 and T3MB10.</p> <p>Groundwater monitoring bores PHMB1 and PHMB2 were re-drilled in April 2014 and were renamed PHMB3 and PHMB4 respectively. During the Licence reissue in September 2015 these name changes was overlooked. Therefore monitoring points PHMB1 and PHMB2 in Table 3.4.1 have been replaced with PHMB3 and PHMB4 respectively. The map of monitoring locations has been updated to reflect the changes.</p>	General provisions of the <i>Environmental Protection Act 1986</i> .



<b>DECISION TABLE</b>			
<b>Works Approval / Licence section</b>	<b>Condition number W = Works Approval L= Licence</b>	<b>Justification (including risk description &amp; decision methodology where relevant)</b>	<b>Reference documents</b>
Information	4.1.2	Condition 4.1.2 has been removed from the Licence as required by DER's Operational Procedure IR-OP-02 – Redundant Conditions, Schedule 1.	Department of Environment Regulation, <i>Operational Procedure IR-OP-02 – Redundant Conditions</i> , 19 May 2016
<b>Licence Duration</b>	N/A	The Licence duration has been updated in line with DER's Guidance Statement <i>Licence Duration</i> to the 9 September 2025.	N/A



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
25/5/2016	Proponent sent a copy of draft instrument	Comments received 8/06/2016 and are described below: <ul style="list-style-type: none"><li>• Licensee wishes for the Brown Hill pit for dewatering to be retained in the Licence as dewatering will still be occurring (Titan to B Hill) for the time being. Brown Hill will continue to be de-watered to the processing pond and utilised at Checker Mill for the purpose of gold processing operations; and</li><li>• The maps in the amended licence pages 14 &amp; 15 Map of emission points &amp; map of monitoring locations are old maps and not the maps supplied with the amendment (from email sent on 22/03/16)</li></ul>	All reference to Brown Hill as a dewatering location will be retained within the Licence. Monitoring of the Brown Hill pit will also remain. Maps have been updated as requested.
16/6/2016	Licence amendment signed	N/A	N/A





## 6 Risk Assessment

*Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management*

**Table 1: Emissions Risk Matrix**

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High



## APPENDIX A

Mount Magnet Landfill

