



Licence

Environmental Protection Act 1986, Part V

Licensee: Whitfield Minerals Pty Ltd

Licence: L8636/2012/2

Registered office: 32 Tuckey St
 MANDURAH WA 6210

ACN: 009 062 257

Premises address: Gypsum Production Plant
 M63/85, M63/87, M63/148, M63/170, M63/237, M63/528, M63/529,
 L63/63 as depicted in Schedule 1.
 NORSEMAN WA 6443

Issue date: Thursday, 7 May 2012

Commencement date: Monday, 25 May 2015

Expiry date: Saturday, 24 May 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
80	Non-metallic mineral processing: premises on which non-metallic minerals are crushed, ground, milled or separated.	100 tonnes or more per year	81 840 tonnes per annual period

Conditions

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

Date signed: 9 May 2016

.....
Tim Gentle

Officer delegated under section 20
 of the *Environmental Protection Act 1986*



Contents

Contents	2
Introduction	2
Licence conditions	5
1 General	5
2 Emissions	6
3 Monitoring	7
4 Information	8
Schedule 1: Maps	11
Schedule 2: Reporting & notification forms	13

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 works with the business owners, community, consultants, industry and other representatives 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

The Gypsum Production Plant is located in the Dundas Mineral Field on Lake Cowan which is a salt lake located approximately 8 kilometres (km) north-west of the Norseman town site, the closest sensitive receptor. A botanical survey undertaken of the premises has not identified the presence of any priority or declared rare flora or fauna.

Whitfield Minerals uses shallow open pit mining method to mine gypsum which is then carried via the haul pack truck to the raw materials storage area located near the production plant on M63/170. Mined gypsum from the lake is in wet condition and a natural crust forms on the top layer of stockpiles which minimises airborne dust emissions. Whitfields Minerals has indicated that a water truck is available on site to control any dust emissions from stockpile areas. The dried gypsum is screened using a sieve before feeding into the fluidised bed dryer via the feed hopper. Hot air is circulated around the fluidised bed dryer and waste dust is captured using an LPM series pneumatic bag dust collector installed in 2012.

Stack testing and material assays were conducted to verify emissions from the bag collector and to verify the quality of collected dust to determine reuse or disposal options. Stack test results indicate that concentrations of total particulate matter, PM₁₀ and PM_{2.5} are below limit of detection of 2mg/m³ and are not considered to pose a risk to human health. This is in comparison with the NSW Clean Air Regulations which stipulate a limit of 250mg/m³ for total solid matter. DER considers emissions from this type of dust collector should not exceed 50mg/m³ if operated properly and therefore has set a licence limit of 50mg/m³. Other contaminants were measured such as arsenic and metals and were found to be well below Ecological Investigation Levels.

This Licence is the result of an amendment sought by Whitfield Minerals to reduce their monitoring requirements at the fluidised bed dryer stack, which has demonstrated consistently low particulate matter emissions. DER has considered whether the risk profile of emissions and discharges from the premises has significantly changed since the previous licence was granted. No significant changes have occurred and therefore DER has not amended conditions relating to emissions and discharges.



The licences and works approvals issued for the Premises for the two licences prior to issue of this Licence are:

Instrument log		
Instrument	Issued	Description
L8636/2012/1	24/5/2012	New licence
L8636/2012/1	29/5/2014	Licence amended to allow the operation of a bag filter
L8636/2012/1	20/11/2014	Licence amended to remove NATA accreditation requirement
L8636/2012/2	24/05/2015	Reissued licence
L8636/2012/2	05/052016	Reduction in monitoring requirements at the dryer stack

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 January until 31 December of that year;

'AS 4323.1' means the Australian Standard AS4323.1 *Stationary Source Emissions Method 1: Selection of sampling positions*;

'AS 4323.2' means the Australian Standard AS4323.2 *Stationary source emissions - Determination of total particulate matter - Isokinetic manual sampling - Gravimetric method*;

'averaging period' means the time over which a limit or target is measured or a monitoring result is obtained;

'CEMS' means continuous emissions monitoring system;

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means:
Manager Licensing (Resources South)

At the following address:

Department Administering the *Environmental Protection Act 1986*
Locked Bag 33
CLOISTERS SQUARE WA 6850
Phone: (08) 6467 5000
Fax: (08) 6467 5562
Email: info@der.wa.gov.au

'controlled waste' has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

'Licence' means this Licence numbered L8636/2012/1 and issued under the Act;

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

'normal operating conditions' means any operation of a particular process (including abatement equipment) excluding start-up, shut-down and upset conditions, in relation to stack sampling or monitoring;

'PM' means total particulate matter including both solid fragments of material and miniscule droplets of liquid;

'PM₁₀' means particles with an aerodynamic diameter of less or equal to 10 µm;



'**PM_{2.5}**' means particles with an aerodynamic diameter of less or equal to 2.5 µm;

'**Premises**' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

'**Schedule 1**' means Schedule 1 of this Licence unless otherwise stated;

'**Schedule 2**' means Schedule 2 of this Licence unless otherwise stated;

'**shut-down**' means the period when plant or equipment is brought from normal operating conditions to inactivity;

'**stack test**' means a discrete set of samples taken over a representative period at normal operating conditions;

'**start-up**' means the period when plant or equipment is brought from inactivity to normal operating conditions;

'**STP dry**' means standard temperature and pressure (0° Celsius and 101.325 kilopascals respectively), dry;

'**triennially**' means every third annual period from 2015;

'**upset conditions**' means the operation of the process in a state where pollution control equipment or production levels are not representative of the typical parameters for feed, fuel, air or any other relevant input during the current testing period;

'**USEPA**' means United States (of America) Environmental Protection Agency;

'**USEPA Method 2**' means *Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)*; and

'**usual working day**' means 0800 – 1700 hours, Monday to Friday excluding public holidays in Western Australia;

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 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.

2 Emissions

2.1 General

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



2.2 Point source emissions to air

2.2.1 The Licensee shall ensure that where waste is emitted to air 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 air		
Emission point reference	Emission point	Source, including any abatement
A1	Dryer stack	Dryer stack via pneumatic bag dust collector

2.2.2 The Licensee shall not cause or allow point source emissions to air greater than the limits listed in Table 2.2.2.

Table 2.2.2: Point source emission limits to air			
Emission point Reference	Parameter	Limit (including units) ¹	Averaging period
A1	PM	50 mg/m ³	30 minutes

Note 1: All units are referenced to STP dry

2.2.3 The Licensee is exempt from compliance with condition 2.2.2. if in the case of an event in Table 2.2.3 the corresponding management action identified in that table is taken.

Table 2.2.3: Management actions			
Emission point reference	Event/ action reference	Event	Management action
A1	EA1	Blocked, frayed or leaking filters in the pneumatic bag dust collector are detected.	The Licensee shall immediately replace the affected filters within the pneumatic bag dust collector.

2.2.4 The Licensee shall ensure that the pneumatic bag dust collector is operational prior to start-up of the dryer and operates continuously whilst the dryer is operational.

2.2.5 The Licensee shall have spare filters available on site at all times for the purposes of condition 2.2.3.

3 Monitoring

3.1 General monitoring

3.1.1 The Licensee shall ensure that annual monitoring is undertaken at least 9 months apart.

3.1.2 The Licensee shall record production or throughput data and any other process parameters relevant to any non-continuous or CEMS monitoring undertaken.

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.



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 air

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 air				
Emission point reference	Parameter	Units¹	Frequency²	Method
A1	Volumetric flow	m ³ /minute	Triennially	USEPA Method 2
A1	Stack velocity	m/s		USEPA Method 2
A1	Total Particulate Matter	mg/m ³		AS 4323.2
A1	PM ₁₀	mg/m ³ g/s		AS 4323.2
A1	PM _{2.5}	mg/m ³ g/s		AS 4323.2

Note 1: All units are referenced to STP dry

Note 2: Monitoring shall be undertaken to reflect normal operating conditions and any limits or conditions on inputs or production.

3.2.2 The Licensee shall ensure that sampling required under condition 3.2.1 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1 or relevant part of the CEMS Code.

3.2.3 The Licensee shall undertake weekly inspections of the condition and operation of the pneumatic bag dust collector and maintain a logbook of these inspections.

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 ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.



4.1.3 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.

4.1.4 The Licensee shall:

- (a) implement a complaints management system that shall record the following information (if known or provided) about complaints received at the Premises concerning any environmental impact of the activities undertaken at the Premises:
 - (i) name and address of the complainants (if consented);
 - (ii) date and time of complaint;
 - (iii) date and time of alleged incident;
 - (iv) alleged source of the incident;
 - (v) general description of the alleged incident, including any environmental or health impacts reported by the complainant;
 - (vi) wind direction, wind speed and temperature at time of alleged incident;
 - (vii) likely source of the alleged incident; and
 - (viii) actions taken by the Licensee to address the complaint, including the outcome of any investigation(s) and action(s) to verify any impacts.
- (b) complete an annual analysis and review of complaints recorded under 4.1.4(a) to identify any common factors and root cause of complaints and proposals to address these.

4.2 Reporting

4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 90 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.

Table 4.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or form¹
-	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 3.2.1	Volumetric flow rate, stack velocity, particulates	AR1
3.2.3	Pneumatic bag dust collector inspection logbook	None specified
4.1.3	Compliance	Annual Audit Compliance Report (AACR)
4.1.4	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 any relevant process, production or operational data recorded.



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.

Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement¹	Format or form²
2.1.1	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
Table 2.2.3	Management actions following an environmental event	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

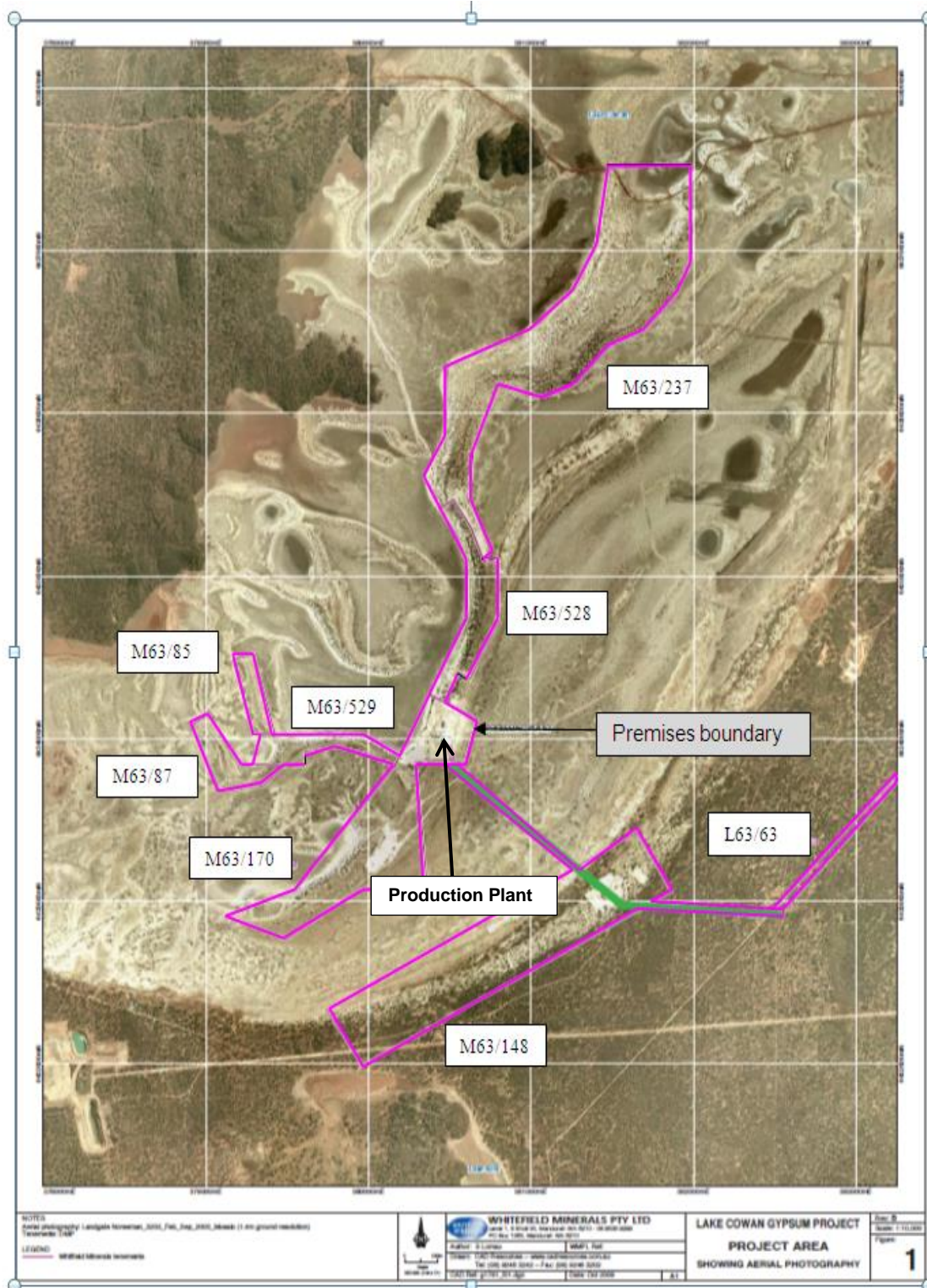
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

The 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 Tables 2.2.1-2.2.3 and 3.2.1 are shown below.





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) may 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: L8636/2012/1
Form: AR1
Name: Monitoring of point source emissions to air

Licensee: Whitfield Minerals Pty Ltd
Period :

Form AR1: Monitoring of point source emissions to air							
Emission point	Parameter	Limit	Result ¹	Result ¹	Averaging period	Method	Sample date & times
A1	Volumetric flow rate	N/A	m ³ /min			USEPA Method 2	
A1	Stack velocity	N/A	m/s			USEPA Method 2	
A1	PM ₁₀	N/A	mg/m ³			AS 4323.2	
A1	PM _{2.5}	50 mg/m ³	mg/m ³			AS 4323.2	
A1	Total Particulate Matter	N/A	mg/m ³			AS 4323.2	

Note 1: All units are referenced to STP dry and relevant Oxygen Correction in Table 2.2.2

Signed on behalf of Whitfield Minerals Pty Ltd:

Date:



Licence: L8636/2012/1
 Form: N1

Licensee: Whitfield Minerals Pty Ltd
 Date of breach:

Notification of detection of the breach of a limit 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	
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 Whitfields Minerals Pty Ltd	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Whitfield Minerals Pty Ltd

Licence: L8636/2012/2

Registered office: 32 Tuckey St
MANDURAH WA 6210

ACN: 009 062 257

Premises address: Gypsum Production Plant
M63/85, M63/87, M63/148, M63/170, M63/237, M63/528, M63/529, L63/63
as depicted in Schedule 1.
NORSEMAN WA 6443

Issue date: Thursday, 7 May 2012

Commencement date: Monday, 25 May 2015

Expiry date: Saturday, 24 May 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 Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:

Clarrie Green
Licensing Officer

Decision Document authorised by:

Tim Gentle
Delegated Officer



Contents

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	8
6	Risk Assessment	9

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 checked="" type="checkbox"/>	
	Licence amendment <input type="checkbox"/>	
	Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	80	81 840 tonnes per annual period
Application verified	Date: 02/02/2015	
Application fee paid	Date: 09/02/2015	
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"/>
Is the proposal subject to Ministerial Conditions?	Yes <input 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"/>	Ministerial statement No:
		EPA Report No:



<p>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>)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input type="checkbox"/></p>
<p>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.</p>	
<p>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 SO₂ requirements of Kwinana EPP.</p>	

3 Executive summary of proposal and assessment

The Gypsum Production Plant is located in the Dundas Mineral Field on Lake Cowan which is a salt lake located approximately 4.5 kilometres (km) south-west of the Norseman town site. The closest sensitive human receptor, being a residential dwelling, is located approximately 2.5 km from premises infrastructure.

Whitfield Minerals Pty Ltd (Whitfield Minerals) use a shallow open pit mining method to mine gypsum which is then carried via the haul pack truck to the raw materials storage area located near the production plant on M63/170. Mined gypsum from the lake is in wet condition and a natural crust forms on the top layer of stockpiles which minimises airborne dust emissions. During a site inspection on 1 February 2016, DER representatives noted a water truck available on site that Whitfields Minerals indicated is used to control any dust emissions from stockpile areas.

Mined raw materials are then transported from the dry storage area to a screening grate that then feeds into the fluidised bed dryer via the feed hopper. The existing fluid bed is housed in a shed designed to create a barrier from prevailing winds. Once sized correctly gypsum is stored in silos ready for batching.

This amendment allows for a reduction in stack monitoring frequency from annually to triennially. Consecutive monitoring data since 2012 has indicated that concentrations of particulate matter from the dryer stack are consistently low and existing Licence conditions are adequate in managing fugitive and point source air emissions from the Gypsum Production Plant. Therefore no further controls to prevent fugitive emissions have been applied to the Licence.



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 L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Throughput increase	N/A	Authorised throughputs have been increased from 21,840 tonnes to 81,840 tonnes per annual period. Although there are no predicted increases in throughput at the production plant, existing screening activities within mining tenement M63/148 have not been captured in throughput data. Therefore the increase in approved production capacity is not expected to result in any change to emissions.	N/A
General conditions	Former conditions L1.2.1 – 1.2.5	Generic conditions L1.2.1 to 1.2.5 have been removed from the Licence as they are unclear in their intent and are therefore unenforceable. General provisions of the <i>Environmental Protection Act 1986</i> adequately regulate the release of environmentally hazardous materials to the environment.	General provisions of the <i>Environmental Protection Act 1986</i> .
Point source emissions to air including monitoring	L2.2.1 – 2.2.5 L3.2.1 – 3.2.3	<p><u>Emission Description</u> <i>Emission:</i> Dust emissions from the dryer stack.</p> <p><i>Impact:</i> Dust deposition on nearby native vegetation, blocking stomata and limiting the ability for plants to photosynthesise. A botanical survey undertaken of the premises has not identified the presence of any priority or declared rare flora or fauna. Dust can also reduce the quality of life for nearby residents. The nearest human receptor is located approximately 2.5 km away with the townsite of Norseman around 4.5 km to the north east of the production plant.</p> <p><i>Controls:</i> Air will continue to be vented from the dryer stack via a pneumatic bag dust collector. Stack testing and material assays were conducted in 2012 to verify emissions from the bag collector prior to works and to verify the quality of</p>	Ambient Air Assessment Criteria, National Environmental Protection Measure (Ambient Air Quality)



DECISION TABLE			
Works Approval / Licence section	Condition number L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p>collected dust to determine reuse or disposal options. Stack test results between 2012 and 2015 indicate that concentrations of total particulate matter, PM₁₀ and PM_{2.5} range from below the limit of detection of 2mg/m³ to 13 and 3.3 mg/m³ respectively. Therefore dust emissions from the dryer stack are not likely to impact human health due to their low concentrations and distance to the nearest receptor approximately 2.5 km away.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Dryer stack monitoring requirements have been reduced from annually to triennially (once every three years) as Whitfield Minerals have sufficiently demonstrated that the dryer stack can be operated effectively so as to prevent significant dust emissions.</p> <p>Maintenance of the bag collector will remain a requirement to prevent an increase in dust emissions. DER considers emissions from this type of dust collector should not exceed 50mg/m³ if operated properly and therefore the licence limit of 50mg/m³ will remain on the amended Licence. Under pre-existing Licence conditions Whitfields will ensure that the dust collector is operational during dryer use and prior to its start up. Conditions relating to the replacement of the filters will also remain on the Licence.</p> <p>As changes to monitoring do not change the risk of fugitive dust emissions, the residual risk remains unchanged from previous assessments.</p> <p><u>Residual Risk</u></p>	



DECISION TABLE			
Works Approval / Licence section	Condition number L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<p><i>Consequence:</i> Moderate <i>Likelihood:</i> Rare <i>Residual Risk Rating:</i> Moderate</p>	
Fugitive emissions	Former conditions L2.6.1 – 2.6.2	<p>Generic fugitive emissions conditions L2.6.1 and 2.6.2 have been removed from the Licence as they are no longer considered clear or certain and are unenforceable.</p> <p><u>Emission Description</u> <i>Emission:</i> Fugitive dust emissions from the excavation, storage screening and drying of gypsum. Emissions are likely to be greatest when material is screened and dried during windy weather. The mined gypsum from the lake is in wet condition and a natural crust forms on the top layer of the stockpiles which minimises airborne dust emissions. However, when moved the crust can break and expose the fine raw material. <i>Impact:</i> The Gypsum Production Plant is located on Lake Cowan with the nearest human receptors approximately 2.5 km away. <i>Controls:</i> A water truck is available on site to control any dust emissions from the stockpile area. Mining is not conducted on windy days and the screening plant is located within a partially enclosed shed that is walled to prevent exposure to prevailing winds.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Moderate <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Moderate</p> <p><u>Regulatory Controls</u> Current proponent controls are adequate in managing fugitive emission risks. The residual risk therefore does not differ from the original assessment with the</p>	Ambient Air Assessment Criteria, National Environmental Protection Measure (Ambient Air Quality)



DECISION TABLE			
Works Approval / Licence section	Condition number L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		removal of generic dust conditions.	
Information	L4.2.2	Condition L4.2.2 has been applied to the Licence to require Whitfield Minerals to submit throughput data with the submission of an Annual Environmental Report. Throughput data is required to provide evidence of compliance with authorised throughputs on the Licence.	General provisions of the <i>Environmental Protection Act 1986</i> .
Licence Duration	N/A	In line with DER's Guidance Statement: Licence Durations, the Licence expiry date has been extended to Saturday, 24 May 2025 to more closely align with the term for mining lease M63/529, the tenement soonest to expire.	DER Guidance Statement: Licence Duration, May 2015



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
03/05/2016	Proponent sent a copy of draft instrument	No comments received.	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