



Aidan Keogh  
Registered Mine Manager  
FMR Investments Pty Ltd  
Locked Bag 6  
SOUTH PERTH WA 6951

Dear Mr Keogh

**ENVIRONMENTAL PROTECTION ACT 1986 – AMENDMENT TO LICENCE**

**Licence:** L8574/2011/1

**Premises:** Gordon Sirdar Minesite

Further to my letter dated 14 October 2014, please find enclosed your amended *Environmental Protection Act 1986* licence.

If you have any questions or objections relating to the licence, please do not hesitate to contact the enquiries officer above on (08) 9080 5513 for clarification or discussion of any grievances you have.

If you are concerned about, or object to any aspect of the amendment, you may lodge an appeal with the Minister for the Environment within 21 days from the date on which this licence is received. The Office of the Appeals Convenor can be contacted on 6467 5190 to find out the procedure and fee.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the closing date of appeals to check whether any appeals were received.

Yours sincerely

Danielle Eyre  
Officer delegated under Section 20  
of the *Environmental Protection Act 1986*

6 November 2014

enc: L8574/2011/1  
copy to: Local Government Authority: City of Kalgoorlie-Boulder



# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:** FMR Investments Pty Ltd

**Licence:** L8574/2011/1

**Registered office:** FMR Investments  
2 Hardy Street  
SOUTH PERTH WA 6151

**ABN:** 24 757 019 296

**Premises address:** Gordon Sirdar Minesite  
Mining Tenements M27/154, M27/311, M27/411, M27/412, M27/413,  
L27/54 and part tenement L27/78  
KALGOORLIE WA 6430  
As depicted in Schedule 1

**Issue date:** Thursday, 14 July 2011

**Commencement date:** Thursday, 14 July 2011

**Expiry date:** Wednesday, 13 July 2016


**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
6	Mine dewatering: premises on which water is extracted and discharged to the environment to allow mining of ore.	50 000 tonnes or more per year	200,000 tonnes per annual period

**Conditions**

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

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



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## 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**

Gordon Sirdar Project (Gordon Sirdar) is a gold mine owned and operated by FMR Investments Pty Ltd (FMR), formerly Barmenco Investments Pty Ltd (Barmenco). Gordon Sirdar is located 45km north-east of Kalgoorlie-Boulder on the Mount Vettors pastoral station within the shire of Kalgoorlie-Boulder. Barmenco purchased the Gordon Sirdar leases and commenced mining in 1999. Mining ceased in 2002 and all associated infrastructure was removed from the site. The project remained in care and maintenance between 2002-2010 with periodic exploration work and open pit dewatering being carried out. Operations resumed in October 2010.

Gordon Sirdar consists of an open pit, underground mine, four waste rock landforms and associated support facilities. There is no processing facility associated with the site. Ore from underground mining operations is stockpiled on a small run-of-mine (ROM) pad and trucked periodically to the Greenfields Mill operated by FMR at Coolgardie. This will continue throughout the life of the underground operations. No wastes are returned to the site from Greenfields Mill.

Groundwater is extracted from the bottom of the pit by a portable diesel powered pump to manage the water table level. Water extracted from the mine is discharged via a pipe into a creek. The discharge flows down the creekline and ultimately flows into Gordon Lake. The discharge point is located at MGA zone 51, easting 364 894, northing 6 629 737.

This Licence is the result of an amendment sought by the Licensee to revise licence conditions for stormwater management. The Licence has been changed to the REFIRE format in the process.

The licences and works approvals issued for the Premises since 09 December 2004 are:

Instrument log		
Instrument	Issued	Description
L5813/1995/6	09/12/2004	Licence re-issue
L8220/2008/1	29/02/2008	New application
L8574/2011/1	14/07/2011	New application
L8574/2011/1	06/11/2014	Licence amendment to REFIRE format and to remove the requirement for sedimentation basins

**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 April until 31 March in the following year;

**'AS/NZS 5667.1'** means the Australian Standard AS/NZS 5667.1 *Water Quality – Sampling – Guidance of the Design of sampling programs, sampling techniques and the preservation and handling of samples*;

**'AS/NZS 5667.4'** means the Australian Standard AS/NZS 5667.4 *Water Quality – Sampling – Guidance on sampling from lakes, natural and man-made*;

**'averaging period'** means the time over which a limit or target 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:

Manager Licensing (Goldfields)  
Department of Environment Regulation  
PO Box 10173  
KALGOORLIE WA 6433  
Telephone: (08) 9080 5555  
Facsimile: (08) 9021 7831  
Email: Goldfields@der.wa.gov.au;

**'code of practice for the storage and handling of dangerous goods'** means the document titled "Storage and handling of dangerous goods: Code of Practice" published by the Department of Mines and Petroleum, as amended from time to time;

**'dangerous goods'** has the meaning defined in the *Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007*;

**'environmentally hazardous material'** means material (either solid or liquid raw materials, materials in the process of manufacture, manufactured products, products used in the manufacturing process, by-products and waste) which if discharged into the environment from or within the premises may cause pollution or environmental harm. Note: Environmentally hazardous materials include dangerous goods where they are stored in quantities below placard quantities. The storage of dangerous goods above placard quantities is regulated by the Department of Mines and Petroleum;

**'fugitive emissions'** means all emissions not arising from point sources;

**'Licence'** means this Licence numbered L8574/2011/1 and issued under the Act;

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



'**NATA**' means the National Association of Testing Authorities, Australia;

'**NATA accredited**' means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

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

'**quarterly**' means the 4 inclusive periods from 1 April to 30 June, 1 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March;

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

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

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

'**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 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 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:

- (a) pollution;
- (b) unreasonable emission;
- (c) discharge of waste in circumstances likely to cause pollution; or
- (d) being contrary to any written law.

1.2.2 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.

1.2.3 The Licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.

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

1.2.5 The Licensee shall:

- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
- (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.<sup>1</sup>

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



**1.3 Premises operation**

- 1.3.1 The Licensee shall ensure that all pipelines containing environmentally hazardous substances are either:
- a) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures;
  - b) equipped with automatic cut-offs in the event of a pipeline failure; or
  - b) provided with secondary containment sufficient to contain any spill for a period equal to the time between routine inspections.
- 1.3.2 The Licensee shall ensure that saline dewatering effluent used for dust suppression is used in a manner that minimises damage to surrounding vegetation.
- 1.3.3 The Licensee shall:
- a) undertake inspections as detailed in Table 1.3.1
  - b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
  - c) maintain a record of all inspections undertaken.

**Table 1.3.1: Inspection of infrastructure**

<b>Scope of inspection</b>	<b>Type of inspection</b>	<b>Frequency of inspection</b>
Dewater pipelines and pump stations	Visual Integrity	Daily



## 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

There are no specified conditions relating to point source emissions to air in this section.

### 2.3 Point source emissions to surface water

2.3.1 The Licensee shall ensure that where waste is emitted to surface water from the emission points in Table 2.3.1 it is done so in accordance with the conditions of this Licence.

Table 2.3.1: Emission points to surface water		
Emission point reference	Description	Source including abatement
W1 – Schedule 1	Mine dewater	<b>Source:</b> Mine pit void. <b>Abatement:</b> The Licensee shall: a) allow for sufficient time for the settling of suspended solids before discharge; and b) the discharge spillway releasing mine dewatering water shall be designed so as to prevent erosion c) ensure any area affected by saline spills is rehabilitated as needed.

### 2.4 Point source emissions to groundwater

There are no specified conditions relating to point source emissions to groundwater in this section.

### 2.5 Emissions to land

There are no specified conditions relating to emissions to land in this section.

### 2.6 Fugitive emissions

2.6.1 The Licensee shall use all reasonable and practical measures to prevent and where that is not practicable to minimise dust emissions from the Premises.

2.6.2 The Licensee shall ensure that no visible dust generated by the activities on the Premises crosses the boundary of the Premises.

### 2.7 Odour

There are no specified conditions relating to odour in this section.

### 2.8 Noise

There are no specified conditions relating to noise in this section.





### 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) all surface water sampling is conducted in accordance with AS/NZS 5667.4
  - (c) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in the relevant table.
- 3.1.2 The Licensee shall ensure that:
- (a) monthly monitoring is undertaken at least 15 days apart; and
  - (b) quarterly monitoring is undertaken at least 45 days apart.

#### 3.2 Monitoring of point source emissions to air

There are no specified conditions relating to monitoring of point source emissions to air in this section.

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

- 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: Monitoring of point source emissions to surface water**

Emission point reference	Parameter	Units	Frequency
W1	Cumulative volume	kL	Monthly
	pH	-	Quarterly
	Total dissolved solids (TDS), Total Suspended Solids (TSS), Arsenic, Copper	mg/L	

#### 3.4 Monitoring of point source emissions to groundwater

There are no specified conditions relating to monitoring of point source emissions to groundwater in this section.

#### 3.5 Monitoring of emissions to land

There are no specified conditions relating to monitoring of emissions to land in this section.

#### 3.6 Monitoring of inputs and outputs

There are no specified conditions relating to monitoring of inputs and outputs in this section.

#### 3.7 Process monitoring

- 3.7.1 The Licensee shall undertake the monitoring in Table 3.7.1 according to the specifications in that table.



**3.8 Ambient environmental quality monitoring**

- 3.8.1 The licensee shall maintain a photographic record from fixed land locations (GST 01, GST 02 and GST 03), of the discharge of mine dewater and flow area and flow regime. This shall take place on a quarterly basis in July, October, January and April.

**3.9 Meteorological monitoring**

There are no specified conditions relating to meteorological monitoring in this section.



## 4 Improvements

There are no specified improvement conditions in this section.

## 5 Information

### 5.1 Records

- 5.1.1 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.
- 5.1.2 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.
- 5.1.3 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.
- 5.1.4 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.



## 5.2 Reporting

5.2.1 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 5.2.1 in the format or form specified in that table.

<b>Table 5.2.1: 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
Table 3.3.1	Volumetric flow rate, pH, TDS, Arsenic, Copper	None specified
3.8.1	Photographic record of the discharge of mine dewater and flow area and flow regime	None specified
2.3.1 and 3.3.1	Annual dewatering discharge report including: (a) a site description (aerial photographs etc) including plan showing dewatering discharge point(s); (b) topographical and meteorological data; (c) hydrology – catchment, rainfall and evaporation, runoff etc; (d) significance of waterbody/watercourse with respect to flora and fauna'; (e) waterbody/watercourse levels as a result of rainfall events (with respect to the seasonality of the waterbody/watercourse); (f) dewater discharge (volume and and quality) as compared to runoff into the waterbody/watercourse and water quality (salt and metals) of the receiving waters; (g) the area of the waterbody/watercourse likely to be affected by the dewater discharge and effects on waterbody/watercourse levels resulting from the discharge; (h) the potential for water to flow along/out of the receiving waterbody/watercourse; (i) if dewatering occurs to a creek system (permanent or ephemeral), it will also be necessary to consider the consequences of the alteration of the receiving environment, especially with respect to the impacts on vegetation and existing ecosystems; (j) water balance estimates – including dewater and non-dewater scenarios (with and without consideration of runoff events); (k) chemistry of the waterbody/watercourse – including dewater and non-dewater scenarios (with and without consideration of runoff events); and (l) a comparison between each year's monitoring data and that of all available data from previous years since mining commenced; and (m) findings (including trends), conclusions and recommendations.	None specified
5.1.3	Compliance	Annual Audit Compliance Report (AACR)



5.1.4	Complaints summary	None specified
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Note 1: Forms are in Schedule 2

- 5.2.2 The Licensee shall ensure that the Annual Environmental Report also contains:
- (a) any relevant process, production or operational data recorded; and
  - (b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets

**5.3 Notification**

- 5.3.1 The Licensee shall ensure that the parameters listed in Table 5.3.1 are notified to the CEO in accordance with the notification requirements of the table.

<b>Table 5.3.1: 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>
-	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.	N1
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part B: As soon as practicable	

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

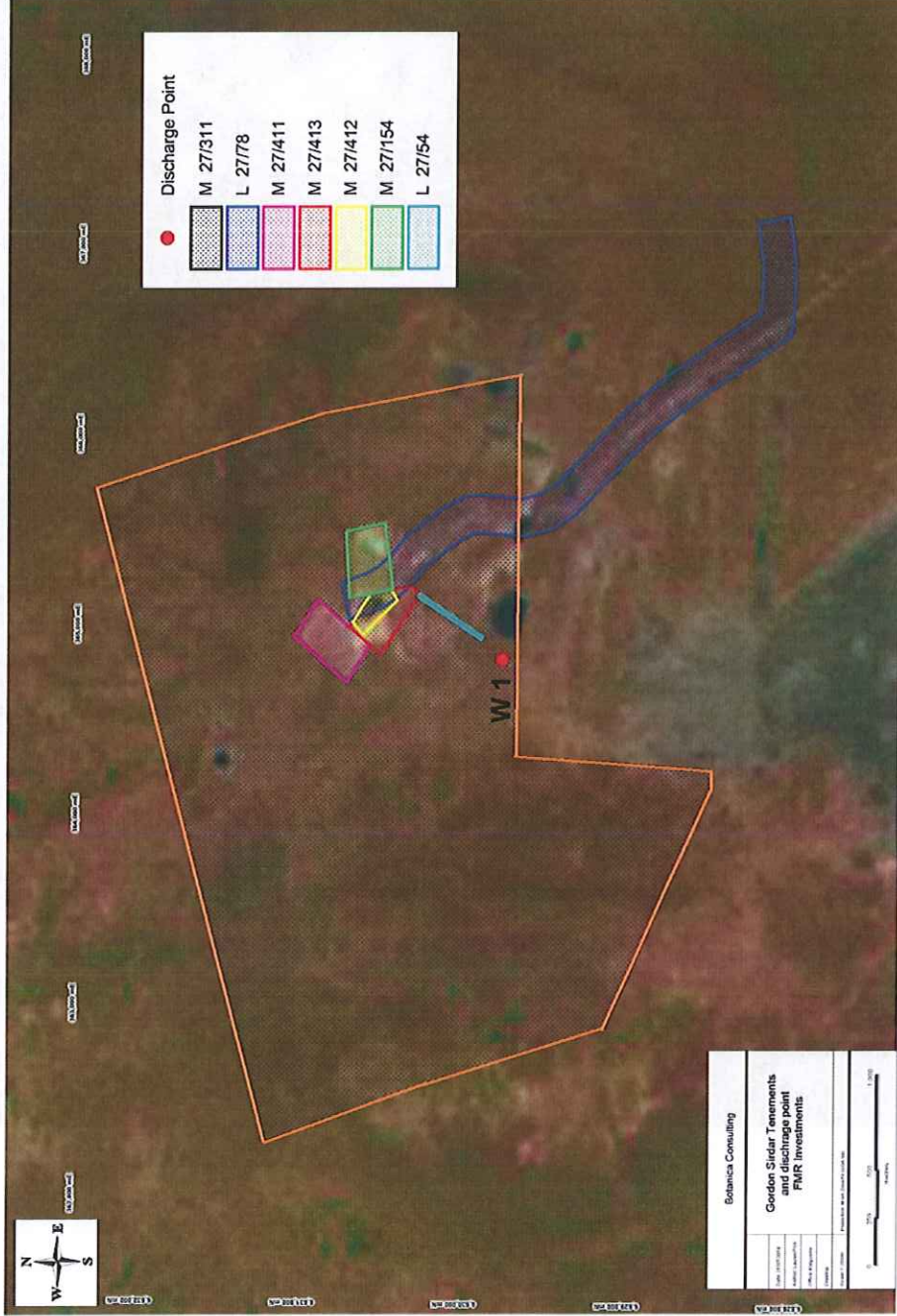
Note 2: Forms are in Schedule 2



## Schedule 1: Maps

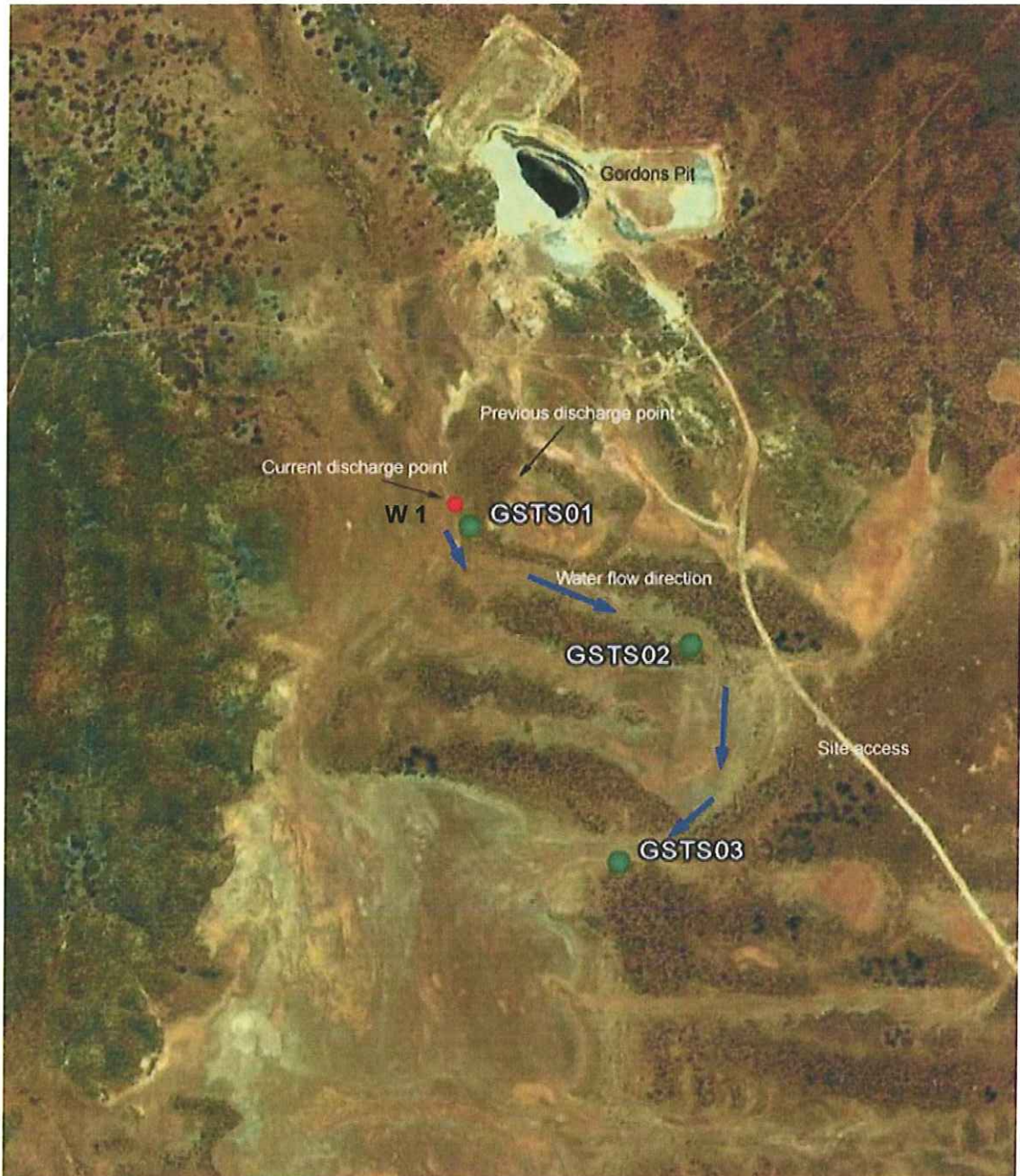
### Premises map

The Premises is shown in the map below. The orange line depicts the Premises boundary. The location of the emission and monitoring point defined in Tables 2.3.1 and 3.3.1 are shown below. The red dot indicates the emission and monitoring point.





The location of the photographic monitoring points as referred to in condition 3.8.1 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

1. 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: L8574/2011/1  
Form: N1

Licensee: FMR Investments 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	

<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	

<b>Notification requirements for any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution</b>	
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 FMR Investments Pty Ltd	
Date	



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:** FMR Investments Pty Ltd

**Licence:** L8574/2011/1

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**Registered office:** FMR Investments  
2 Hardy Street  
SOUTH PERTH WA 6151

**ABN:** 24 757 019 296

**Premises address:** Gordon Sirdar Minesite  
Mining Tenements M27/154, M27/311, M27/411, M27/412, M27/413,  
L27/54 and part tenement L27/78  
KALGOORLIE WA 6430  
As depicted in Schedule 1

**Issue date:** Thursday, 14 July 2011

**Commencement date:** Thursday, 14 July 2011

**Expiry date:** Wednesday 13 July 2016

### 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 Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:

Candace Godley  
Licensing Officer

Decision Document authorised by:

James Milne  
Manager Licensing (Goldfields)



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### 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.

#### Works approval and licence conditions

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

##### Standard conditions

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

##### Optional standard conditions

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions is justified in section 4 of this document.

##### Non standard conditions

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in section 4.



## 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	<table border="1"> <thead> <tr> <th>Category number(s)</th> <th>Assessed design capacity</th> </tr> </thead> <tbody> <tr> <td>6</td> <td>200,000 tonnes per annual period</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Category number(s)	Assessed design capacity	6	200,000 tonnes per annual period				
	Category number(s)	Assessed design capacity							
	6	200,000 tonnes per annual period							
Application verified	Date: 28 June 2011								
Application fee paid	Date: 7 July 2011								
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> ?	<table border="1"> <tr> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td>           Referral decision No:            Managed under Part V <input type="checkbox"/>            Assessed under Part IV <input type="checkbox"/> </td> </tr> </table>	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"/>						
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?	<table border="1"> <tr> <td>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></td> <td>           Ministerial statement No:            EPA Report No:         </td> </tr> </table>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:						
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**

The Gordon Sirdar Project (Gordon Sirdar) is a gold mine owned and operated by FMR Investments Pty Ltd (FMR), formerly Barmenco Investments Pty Ltd (Barmenco). Gordon Sirdar is located 45 kilometres (km) north-east of Kalgoorlie-Boulder, on the Mount (Mt) Veters pastoral station, within the Shire of Kalgoorlie-Boulder, in the Eastern Goldfields region of Western Australia. This premises was previously licenced under L8220/2008/1 which ceased 2 March 2011 due to non-payment of fees.

Barmenco purchased the Gordon Sirdar leases and commenced mining in 1999. Mining ceased in 2002 and all associated infrastructure was removed from the site. The project remained in care and maintenance between 2002 and 2010 with periodic exploration work and open pit dewatering being carried out. Operations resumed in October 2010 with the expansion of the open pit cut back and the first cut of the portal for the underground operations commencing in late April 2012.

Gordon Sirdar consists of an open pit, underground mine, four waste rock landforms and associated support facilities. There is no processing facility associated with the site. Ore from underground mining operations will be stockpiled on a small run-of-mine (ROM) pad and trucked periodically to the Greenfields Mill, operated by FMR at Coolgardie. Groundwater is abstracted from the bottom of the underground pit by a portable diesel powered pump to manage the water table level. Water is discharged down a creekline into Gordon Lake.

DER has amended the licence following a request by the licensee to revise the licence requirements in relation to stormwater management. The Licence was converted into the new standardised REFIRE format. Existing stormwater conditions have been replaced with the REFIRE optional standard condition 1.2.5.



## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, DEC's Policy Statement - Limits and targets for prescribed premises (2006), 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.

OSC = optional standard condition  
NSC = non-standard condition

### DECISION TABLE

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.2.5 L1.3.1 – L1.3.3	OSC	DER's assessment and decision making are detailed in Appendix A.	General provisions of the <i>Environmental Protection Act 1986</i>
Emissions general	L2.1.1	OSC	Descriptive limits will be set through condition 2.6.2 of the licence and therefore OSC regarding recording and investigation of exceedances of limits or targets has been included.	N/A
Point source emissions to air including monitoring	L2.2 and L3.2	N/A	There will be no significant point source emissions to air as a result of the operations. No specified conditions relating to point source air emissions or the monitoring of such emissions are required for the Licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Point source emissions to surface water including monitoring	L2.3.1 and L3.3.1	OSC	<b>Normal Operation</b> <b>Emission Description</b> <i>Emission:</i> Hypersaline dewatering water is discharged into Lake Gordon. <i>Impact:</i> Hypersaline water can pose negative impacts on the quality of water in the salt lake, to the salt lake ecosystem and to surrounding flora and fauna. There is also potential for erosion to occur along the spillway where the dewatering effluent is discharged into the lake. If excessive suspended solids are discharged from the site, sedimentation of the natural drainage system	General provisions of the <i>Environmental Protection Act 1986</i>



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>and the lake may occur. Metallic contaminants may also be attached to the suspended solids, causing further contamination to the surrounding ecosystem.</p> <p><i>Controls:</i> Existing Licence conditions have required the Licensee to complete a Dewatering Discharge Licence report. The Licensee samples and analyses the dewatering discharge on a quarterly basis and keeps a quarterly photographic record from fixed land locations. TSS is not included in the current monitoring regime.</p> <p><u>Risk Assessment</u>  <i>Consequence: Moderate</i>  <i>Likelihood: Likely</i>  <i>Risk Rating: High</i></p> <p><u>Regulatory Controls</u>            OSC 1.3.2 and 2.3.1 have been included to ensure saline dewatering effluent is disposed of in the approved manner and that the discharge spillway is designed so as to prevent erosion. OSC 3.3.1 has been included to monitor the quality of dewatering water entering into the salt lake and ambient quality monitoring has been included requiring an adequate assessment of the environmental impact on the lake is carried out annually to ensure that the saline dewatering effluent is not having a significant impact on the environment. TSS has been added to the proposed monitoring regime to assess sediment loadings associated with discharges.</p> <p><u>Residual Risk</u>  <i>Consequence: Moderate</i>  <i>Likelihood: Possible</i>  <i>Risk: Moderate</i></p>	



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Point source emissions to groundwater including monitoring	L2.4 and L3.4	N/A	There will be no significant point source emissions to groundwater as a result of the operations. No specified conditions relating to point source emissions to groundwater or the monitoring of such emissions are required for the Licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Emissions to land including monitoring	L2.5.1	OSC	There are no specified conditions relating to emissions to land or the monitoring of such conditions.	General provisions of the <i>Environmental Protection Act 1986</i>
Fugitive emissions	L2.6.1 and L2.6.2	OSC	<p><b>Normal Operation</b>  <b>Emission Description</b>  <i>Emission:</i> Dust is generated from the movement of vehicles, materials handling and open areas.  <i>Impact:</i> Dust emissions can be harmful to human health and the environment. Elevated total suspended particulates (TSP) impacts ambient environmental quality which can result in amenity impacts and can smother vegetation. Particulate matter that are less than 10 (PM<sub>20</sub>) or 2.5 (PM<sub>2.5</sub>) micrometres in diameter can be drawn deep into the lungs creating health impacts. The chemical and physical properties of the particles, the size of the particles and the duration of exposure are all factors which may affect human health impacts from dust.  <i>Controls:</i> The Licensee has not specified any controls for management of fugitive dust emissions, however existing licence conditions have required the Licensee to take measures to prevent or minimise the generation of visible dust from all materials handling operations, stockpiles, open areas and transport activities.</p> <p><b>Risk Rating</b>  <i>Consequence: Minor</i>  <i>Likelihood: Possible</i>  <i>Risk: Moderate</i></p>	General provisions of the <i>Environmental Protection Act 1986</i>



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
			<p>Regulatory Controls OSCs 2.6.1 and 2.6.2 are included in the Licence to ensure adequate management of fugitive dust emissions on site.</p> <p><u>Residual Risk</u> Consequence: <i>Minor</i> Likelihood: <i>Possible</i> Risk: <i>Moderate</i></p>	
<b>Odour</b>	L2.7	N/A	There are no significant odour emissions as a result of the operations. No conditions relating to odour are required for the Licence.	General provisions of the <i>Environmental Protection Act 1986</i>
<b>Noise</b>	L2.8	N/A	There are no significant noise emissions as a result of the operations. No conditions relating to noise are required for the Licence.	<i>Environmental Protection (Noise) Regulations 1997</i>
<b>Monitoring general</b>	L3.1.1 and L3.1.2	OSC	General OSC's 3.1.1 and 3.1.2 have been included in the Licence to specify the standard methods and frequency of monitoring that is required.	Australian Standard AS/NZS 5667.1 – Water Quality – Sampling – Guidance on the Design of sampling programs, sampling techniques and the preservation and handling of samples
<b>Monitoring of point source emissions to surface water</b>	L3.3.1	NSC	Monitoring of point source emissions to surface water were carried over from the previous licence. However, WAD cyanide and total cyanide have been removed from the suit of parameters as no processing is occurring at the site, nor is any processed material stockpiled there. No source of these contaminants has been identified.	General provisions of the <i>Environmental Protection Act 1986</i>



**DECISION TABLE**

Works Approval / Licence section	Condition number W = Works Approval L = Licence	OSC or NSC	Justification (including risk description & decision methodology where relevant)	Reference documents
Monitoring of inputs and outputs	L3.6	N/A	There are no specified monitoring conditions relating to inputs and outputs required for the Licence.	N/A
Process monitoring	L3.7.1	OSC	There are no specified process monitoring conditions required for the Licence.	General provisions of the <i>Environmental Protection Act 1986</i>
Ambient quality monitoring	L3.8.1	NSC	Non standard ambient monitoring conditions 3.8.1 has been included in the Licence. Condition 3.8.1 requires for maintenance of a photographic record on a quarterly basis from fixed land locations to assess the discharge of mine dewater and flow area and flow regime.	General provisions of the <i>Environmental Protection Act 1986</i>
Meteorological monitoring	L3.9	N/A	There are no specified conditions relating to meteorological monitoring required for the Licence.	N/A
Improvements	L4	N/A	No specified improvements are required by DER for the operation of the Gordon Sirdar Project.	N/A
Information	L5	OSC	Standard conditions relating to the management of records and complaints, notification requirements and the submission of an annual audit compliance report and annual environmental report are included in the Licence. Submission of a photographic record of the discharge of mine dewater and flow area and flow regime as well as submission of an annual dewatering discharge report are also required to be submitted in the Annual Environmental Report.	General provisions of the <i>Environmental Protection Act 1986</i>
Licence Duration	N/A	N/A	The Licence duration has not been extended as a result of this amendment.	



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
18/07/2011	Application advertised in West Australian (or other relevant newspaper)	No comments received	
14/10/2014	Proponent sent a copy of draft amended instrument	No comments received	



## 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

### General Conditions

#### *Emission Risk Assessment*

##### **Normal Operation**

###### Emission Description

*Emission:* Stormwater contaminated with environmentally hazardous materials.

*Impact:* Potential contamination of surrounding land and surface water drainage systems.

*Controls:* The Licensee has a rock bund wall, approximately 0.5m high, along the south/south-west side of the workshop area to prevent dispersal or sediments from stormwater events.

###### Risk Rating

*Consequence:* Minor

*Likelihood:* Possible

*Risk Rating:* Moderate

###### Regulatory Controls

OSC 1.2.5 has been included in the Licence to ensure that uncontaminated stormwater is kept separate from contaminated or potentially contaminated stormwater and that if stormwater has come into contact with a possible source of contamination, it is then treated as contaminated.

###### Residual Risk

*Consequence:* Minor

*Likelihood:* Rare

*Risk Rating:* Low

##### **Normal Operation**

###### Emission Description

*Emission:* Hypersaline water used for dust suppression

*Impact:* Potential contamination of surrounding soils with hypersaline water resulting in vegetation death

*Controls:* The Licensee has not specified any controls regarding hypersaline water use for dust suppression; however existing Licence conditions require that where saline water is used for dust suppression, damage to surrounding vegetation shall be avoided.

###### Risk Rating

*Consequence:* Minor

*Likelihood:* Possible

*Risk Rating:* Moderate

###### Regulatory Controls

OSC 1.3.2 has been included in the Licence to ensure that dewatering effluent used for dust suppression is used in a manner that minimises damage to surrounding vegetation.

###### Residual Risk

*Consequence:* Minor

*Likelihood:* Unlikely

*Risk Rating:* Moderate





**Emergency Situation**

Emission Description

*Emission:* Hypersaline water is transported in pipelines through areas of native vegetation. Emissions will occur if the pipelines rupture and/or leak.

*Impact:* Potential contamination of surrounding soil with hypersaline water resulting in vegetation death.

*Controls:* Pipelines are located within bunded areas.

Risk Assessment

*Consequence:* Minor

*Likelihood:* Possible

*Risk Rating:* Moderate

Regulatory Controls

OSC 1.3.1 requires the Licensee to ensure that all pipelines are either equipped with automatic cut-offs or sufficiently contained within a secondary containment in the event of a pipe failure. OSC 1.3.3 is included to ensure regular visual inspections of the pipeline are carried out to ensure an appropriate level of environmental protection is being maintained.

Residual Risk

*Consequence:* Minor

*Likelihood:* Unlikely

*Risk Rating:* Moderate