



LICENCE FOR PRESCRIBED PREMISES

Environmental Protection Act 1986, Part V

LICENCE NUMBER: L8234/2008/2

FILE NUMBER: DER2014/000868

LICENSEE AND OCCUPIER OF PREMISES

Robe River Mining Co Pty Ltd
Level 22, Central Park
152-158 St Georges Terrace
PERTH WA 6000
ACN: 008 694 246

NAME AND LOCATION OF PREMISES

Mesa A Warramboe Iron Ore Mine
Mining tenement ML248SA
FORTESCUE WA 6716
(as depicted in Attachment 1)

PRESCRIBED PREMISES CATEGORY

Schedule 1 of the *Environmental Protection Regulations 1987*

CATEGORY NUMBER	CATEGORY DESCRIPTION	CATEGORY PRODUCTION OR DESIGN CAPACITY	PREMISES PRODUCTION OR DESIGN CAPACITY
5	Processing or beneficiation of metallic or non-metallic ore	50 000 tonnes or more per year	35 000 000 tonnes per year
12	Screening, etc. of material	50 000 tonnes or more per year	10 000 000 tonnes per year
54	Sewage facility	100 cubic metres or more per day	155 cubic metres per day

CONDITIONS OF LICENCE

Subject to the conditions of licence set out in the attached pages.

Date signed: 25 August 2016

Alana Kidd

Manager Licensing – Resource Industries
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

ISSUE DATE: Thursday, 18 July 2013

COMMENCEMENT DATE: Wednesday, 31 July 2013

AMENDMENT DATE: Thursday, 25 August 2016

EXPIRY DATE: Thursday, 30 June 2033



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DEFINITIONS

In these conditions, unless inconsistent with the text or subject matter:

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

‘**annual period**’ means the inclusive period from 1 January until 31 December in the same year;

“**Australian Standard 5667**” means the most recent version and the relevant parts of the Australian and New Zealand series of guidance standards on Water Quality Sampling;

“**Australian Standard 3580**” means the most recent version of the relevant parts of the Australian and New Zealand series of guidance standards on methods for sampling and analysis of ambient air;

“**cfu/100ml**” means colony-forming units per 100 millilitres;

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

“**CEO**” for the purposes of correspondence means;

Chief Executive Officer
Department of Environment Regulation
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

‘**Licence**’ means this Licence numbered L8234/2008/2 and issued under the Act;

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

‘**NWQMS**’ means National Water Quality Management Strategy, Australian Guidelines for Sewerage Systems – Effluent Management (Agriculture and Resource Management Council of Australia and New Zealand and New Zealand Environment and Conservation Council) 1997;

“**m/s**” means metres per second;

“**mg/L**” means milligrams per litre;

“**NATA**” means 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;

“**PM₁₀**” means airborne particulate matter (dust) with an equivalent aerodynamic diameter of 10 micrometres (10µm) or less;

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“**sandsheet community**” means the ‘Sand sheet vegetation (Robe Valley)’ threatened ecological community listed by the Threatened Ecological Communities (TEC) Scientific Committee;

“**SBR**” means Sequencing Batch Reactor;

“**Standard Methods for Examination of Water and Wastewater**” means the most recent edition of the “Standard Methods for Examination of Water and Wastewater” as published by the American Public Health Association (APHA), the American Water Works Association (AWWA) and the Water Environment Federation (WEF), generally abbreviated to APHA-AWWA-WEF;

‘**Western Australian guidelines for biosolids management**’ means the document titled *Western Australian guidelines for biosolids management, December 2012* published by the Department of Environment and Conservation as amended from time to time; and

“**WWTP**” means Wastewater Treatment Plant.



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GENERAL CONDITIONS

- 1 The Licensee shall only operate the Mobile Crushing and Screening Plant(s) in accordance with the Iron Ore (WA) Mobile Crushing and Screening Management Plan (RTIO-HSE-0235877).

DUST CONTROL

- 2(a) The Licensee shall maintain and operate installed dust control systems including:
- (i) primary sizer deluge PW-101;
 - (ii) dust collectors DC-101 and DC-102;
 - (iii) moisture analysers MN-101 and MN-102;
 - (iv) water-add systems on AF-101, CV-101, CV-102;
 - (v) water cannons at train load-out stockpile, and
 - (vi) sprinkler systems SP-101, SP-102, SP-103 and SP-104 as described in drawing number MA-2000-G-0302 contained in the document "Compliance Statement – Works Approval W4489/2008/1 Mesa A – Warramboe Iron Ore Project 9 October 2009" (document reference RTIO-HSE-0073427), such that iron ore product conveyed on CV-101 is maintained in a moist condition.
- 2(b) The Licensee shall maintain records of the moisture content as determined by moisture analysers MN-101 and MN-102 described in part (a) (iii) of this condition.

DUST MONITORING

- 3(a) The Licensee shall undertake a dust monitoring programme at locations (indicative locations depicted in Attachment 2) for the purpose of determining impacts of dust generated from within the premises. The programme shall incorporate:
- (i) three PM₁₀ E-sampler dust monitors and six Depositional Dust Gauges installed in accordance with Australian Standard 3580 (1.1:2007 - Guide to siting air monitoring equipment);
 - (ii) total deposition shall be monitored using the depositional dust gauges referred to in part (i) of this condition as per Australian Standard 3580 (10.1:2003 - Determination of particulate matter – Deposited matter – Gravimetric method); and
 - (iii) dust monitors and gauges required under parts (i) and (ii) of this condition shall be sited in order to allow comparison of results to assess dust emissions from the premises at the sandsheet community and background levels of particulate matter.
- 3(b) The results of monitoring required under part (a) of this condition shall be included in the Annual Environmental Report.

WWTP DISCHARGE TO LAND

- 4 The Licensee shall ensure that all effluent discharged consists only of treated wastewater and is only discharged to the irrigation area (as depicted in Attachment 3).

MESA A VILLAGE SBR WWTP MONITORING

- 5(a) The Licensee shall record the cumulative volume of treated wastewater discharged for the purpose of irrigation. This data shall be included in the Annual Environmental Report in tabular form.

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- 5(b) The Licensee shall ensure that water quality monitoring occurs during the operation of the Mesa A Village SBR WWTP, such that water quality of the effluent is monitored at the frequency stated in column 2 of Table 1 for the parameters in column 1 of Table 1.

Table 1: Mesa A Village SBR WWTP monitoring requirements

Column 1	Column 2
Parameters	Monitoring Frequency
Biochemical Oxygen Demand (mg/L)	Quarterly
Total Suspended Solids (mg/L)	Quarterly
pH ¹ (pH units)	Quarterly
Total Nitrogen (mg/L)	Quarterly
Total Phosphorus (mg/L)	Quarterly
<i>E.coli</i> (cfu/100mL)	Quarterly

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

- 5(c) The Licensee shall collect the results of the monitoring required by condition 5(b) above and present this information in the Annual Environmental Report, including a comparison against the NWQMS 1997 and previous monitoring results.
- 5(d) The Licensee shall collect all water samples required by part (b) of this condition, in accordance with the relevant parts of Australian Standard 5667.
- 5(e) The Licensee shall ensure that all parameters requiring laboratory analyses are conducted by an organisation with NATA accreditation for the specified parameters in accordance with the current "Standard Methods for Examination of Water and Wastewater-APHA-AWWA-WEF".

SURFACE WATER – DISCHARGE OUTFALL

- 6 The Licensee shall ensure that the concentration of Total Recoverable Hydrocarbons in waters discharged from the premises does not exceed 30mg/L.

DISPOSAL OF BIOSOLID AND OTHER RESIDUALS

- 7 The Licensee shall dispose of sludge and biosolids in accordance with the document: *Western Australian guidelines for biosolids management, Department of Environment and Conservation (December, 2012), Department of Water and Department of Health (February, 2002, as amended or replaced from time to time)* or to a licensed or registered landfill facility.
- 8 The Licensee shall ensure that sludge is immediately removed offsite or stored onsite within a hardstand area or drying bed with a hydraulic conductivity of equal to or less than 1×10^{-9} m/s.
- 9 The Licensee shall ensure that the storage area referred to in condition 8 is bunded to enable the containment and recovery of any liquid matter.

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REPORTING CONDITIONS

- ANNUAL ENVIRONMENTAL REPORT**
- 10 The Licensee shall provide the CEO, by **30 April** each year, a copy of an Annual Environmental Report containing monitoring results and data collected as a requirement of any condition of this licence, during the period **1 January** the previous year and ending on **31 December** in that year.
- ANNUAL AUDIT COMPLIANCE REPORT**
- 11 The Licensee shall by **30 April** in each year, provide to the CEO an Annual Audit Compliance Report in Attachment 4 to this licence, signed and certified in the manner required by Section C of the form, indicating the extent to which the licensee has complied with the conditions of this licence, and any previous licence issued under Part V of the Act for the premises, during the period beginning **1 January** the previous year and ending on **31 December**.



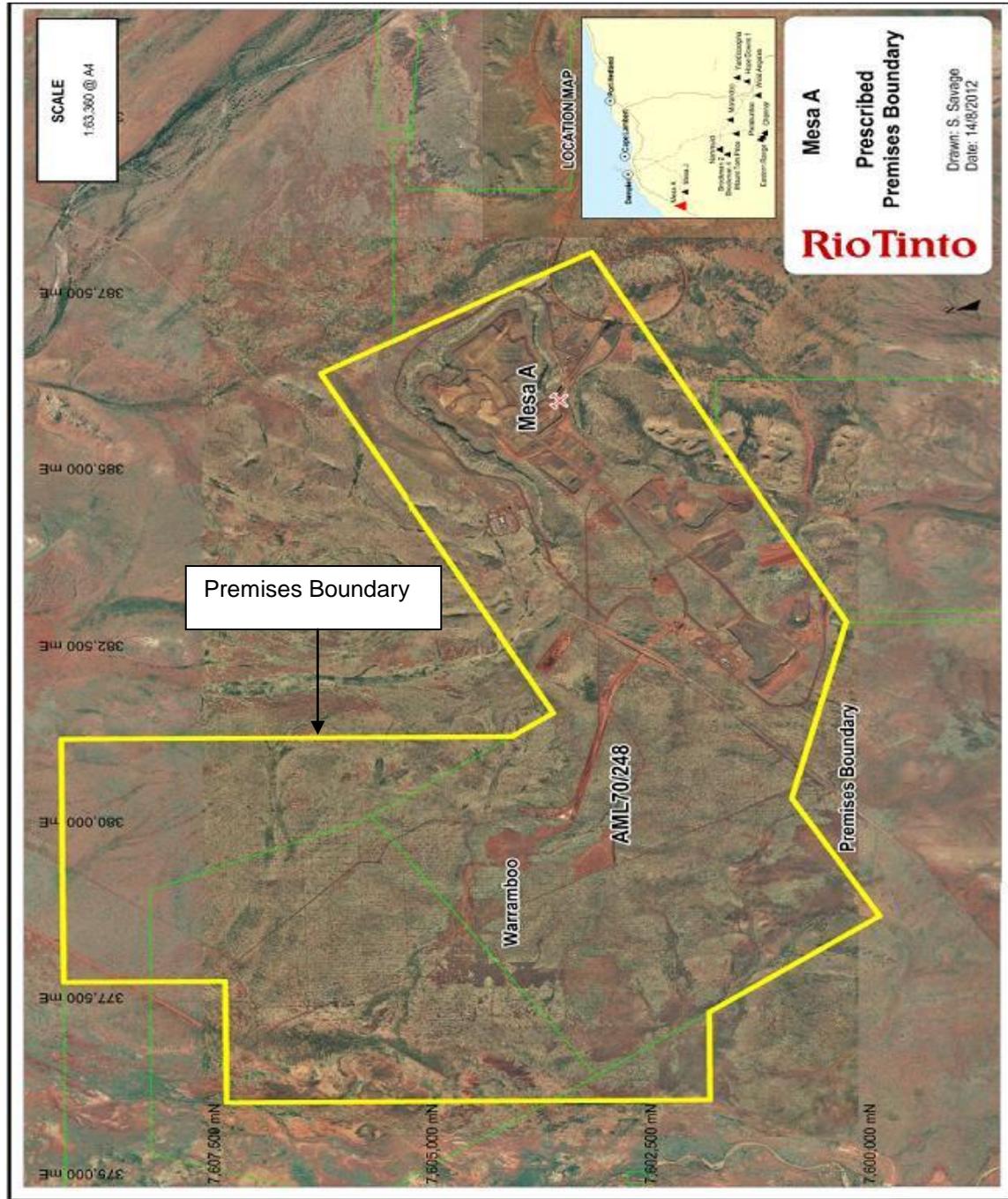
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ATTACHMENT 1 – PLAN OF PREMISES



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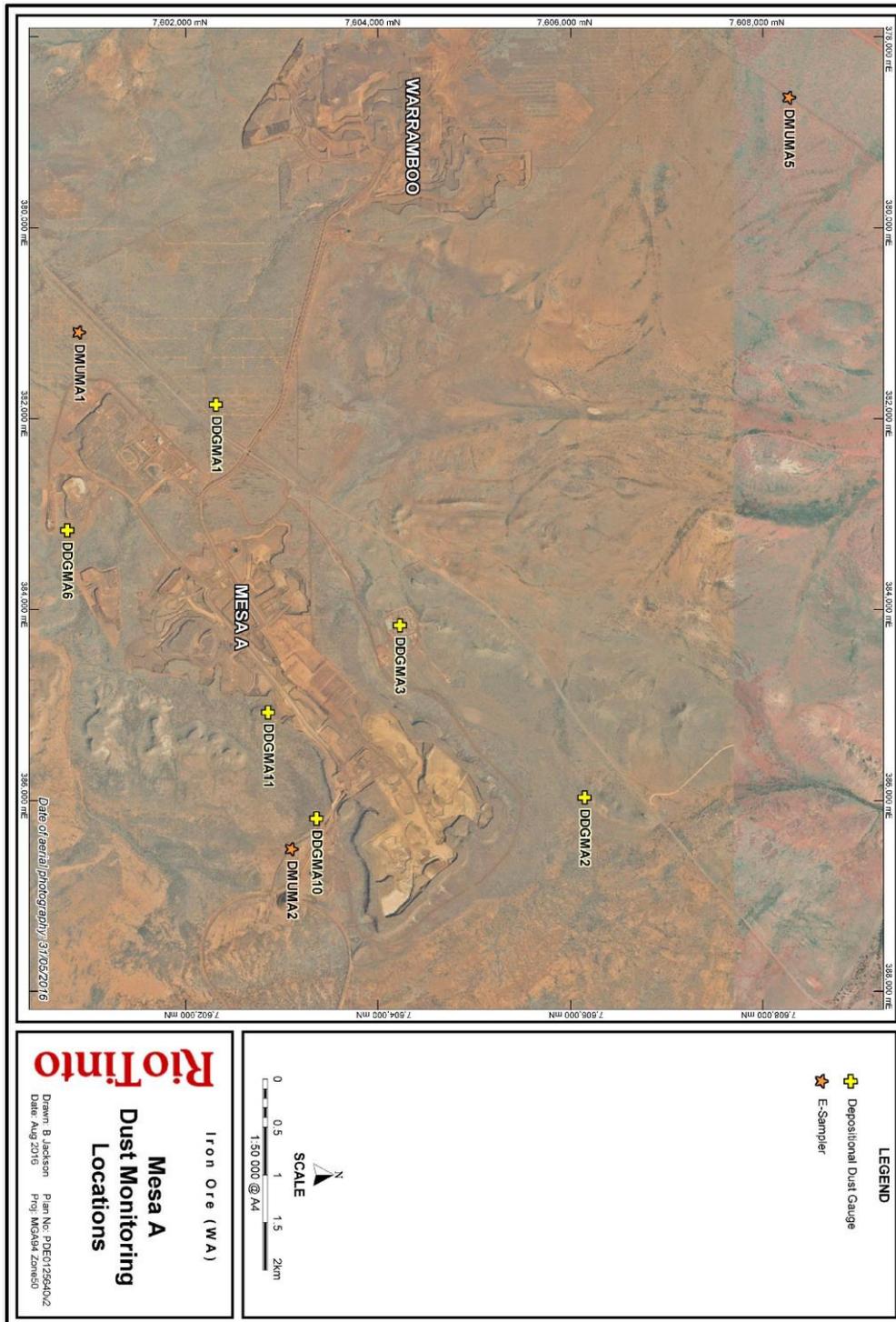
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ATTACHMENT 2 – INDICATIVE DUST MONITORING LOCATIONS



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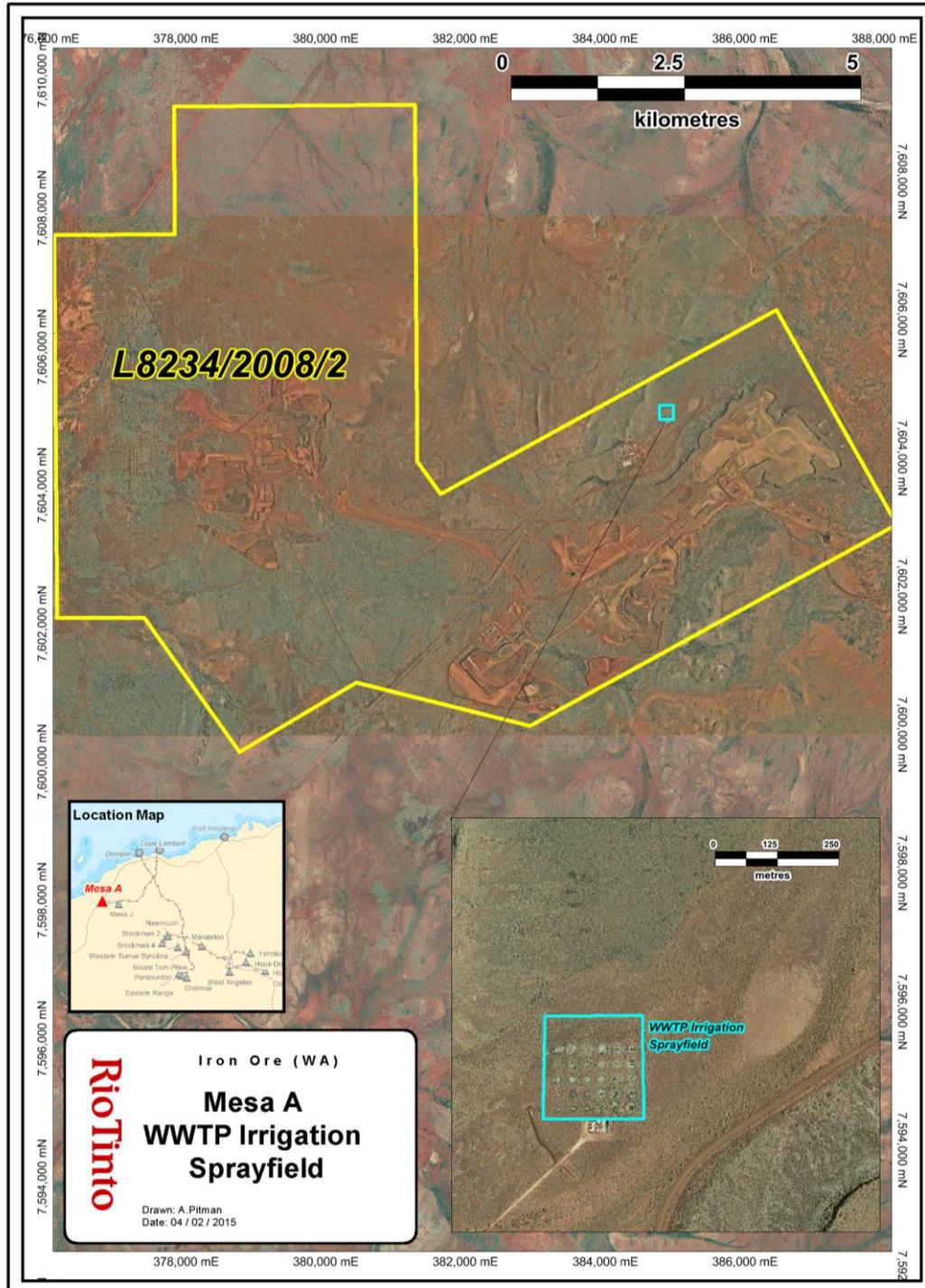
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ATTACHMENT 3 – IRRIGATION FIELD



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ATTACHMENT 4 – ANNUAL AUDIT COMPLIANCE REPORT

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 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 initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

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SECTION B - DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with?	
b) Date(s) when the non compliance occurred, if applicable?	
c) Was this non compliance reported to DER?	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DER verbally Date _____ <input type="checkbox"/> Reported to DER in writing Date _____	<input type="checkbox"/> No
d) Has DER taken, or finalised any action in relation to the non compliance?	
e) Summary of particulars of non compliance, and what was the environmental impact?	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram)	
g) Cause of non compliance	
h) Action taken or that will be taken to mitigate any adverse effects of the non compliance	
i) Action taken or that will be taken to prevent recurrence of the non compliance	

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Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report
INITIAL: _____



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SECTION C - SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report must only be signed by a person(s) with legal authority to sign it. The ways in which the Annual Audit Compliance Report 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 Annual Audit Compliance Report 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"/>	by the individual licence holder, or
	<input type="checkbox"/>	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"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	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"/>	by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or
	<input type="checkbox"/>	by two directors of the licensee; or
	<input type="checkbox"/>	by a director and a company secretary of the licensee, or
	<input type="checkbox"/>	if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	<input type="checkbox"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	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"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	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"/>	by the chief executive officer of the licensee; or
	<input type="checkbox"/>	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.

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SIGNATURE: _____

SIGNATURE: _____

NAME: (printed) _____

NAME: (printed) _____

POSITION: _____

POSITION: _____

DATE: _____/_____/_____

DATE: _____/_____/_____

SEAL (if signing under seal)

ISSUE DATE: Thursday, 18 July 2013

DATE OF AMENDMENT: Thursday, 25 August 2016



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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.

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	Category number(s)	Assessed design capacity
	5	35 000 000 tonnes per year
	12	10 000 000 tonnes per year
	54	155 cubic metres per day
Application verified	Date: N/A	
Application fee paid	Date: N/A	
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	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No:



<i>Environmental Protection Act 1986?</i>		Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ministerial statement No: 756 EPA Report No: 1264 and 1251
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 checked="" type="checkbox"/> No <input type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input checked="" 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, e.g. Site is subject to SO ₂ requirements of Kwinana EPP.		

3 Executive summary of proposal and assessment

Robe River Mining Co Pty Ltd (Robe River) operate the Mesa A Warramboe Iron Ore Mine (Mesa A) on Mining tenement ML248SA, adjacent to the North West Coastal Highway in the Pilbara region of Western Australia. Mesa A is approximately 43 kilometres (km) west of Pannawonica, 38km north-west of the Mesa J mine site and 245km by rail from the existing Cape Lambert port facility.

Mesa A has been previously assessed as a prescribed premises under category number 5 and 54 within Schedule 1 of the *Environmental Protection Regulations 1987*. The mine includes a dry processing plant, which has a throughput of 25 million tonnes per annum (mtpa) and a design capacity of 35mtpa. The Premises includes a wastewater treatment plant (WWTP) to service the Mesa A mine camp.

Robe River has applied to amend licence L8234/2008/2 to include a Sequencing Batch Reactor (SBR) WWTP constructed under works approval W5872/2015/1. The WWTP has been constructed to service up to 500 people with a maximum design capacity of 155 cubic metres per day (m³/day). Therefore, as part of this amendment, the assessed design capacity for prescribed category 54 has been reduced from 296m³/day. The previous WWTP operating under this licence has now been decommissioned.

The SBR WWTP consists of an influent screening and balance tank, two anoxic tanks, aeration/decant tank, effluent tank and a previously installed spray irrigation field. Two balance tanks from the decommissioned plant remain to be used as contingency storage.

Further to these amendments, existing Licence conditions were also reassessed in accordance with Departmental reform as published on DER’s website under “*Administrative changes implemented within the Department of Environment Regulation*” www.der.wa.gov.au. Changes to the Licence in accordance with Departmental reform includes:

- A revision of terms in the ‘Definitions’ section; and
- Removal of previous conditions relating to targets, stormwater management and liquid chemical storage.



Finally, as a part of this amendment the expiry date for L8234/2008/2 has been extended to Thursday, 30 June 2033 in accordance with DER's strategic realignment of Licence expiry dates and the *Guidance Statement: Licence Duration*.

This licence will be subject to strategic review by DER during 2016/17.

Where conditions have been added or removed from the existing Licence these have been justified in Table 4 below. Some existing conditions have been renumbered as part of this amendment.



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
Premises operation	L1. N/A. N/A.	<p>Screening Category 12 with a design capacity of 10,000,000 tpa has been included onto the Licence to allow for multiple plants to operate onsite simultaneously in the future. The Licensee must ensure that the combined design capacity of all Category 12 mobile plants onsite at the same time is restricted to 10,000,000 tpa.</p> <p>Condition L1 has been added to the Licence. The mobile plants are to be managed in accordance with the <i>Iron Ore (WA) Mobile Crushing and Screening Management Plan</i>, Rio Tinto, 2015 (RTIO-HSE-0235877) and Licence conditions. This condition has replaced former conditions 1(a) and 1(b).</p> <p>Chemical storage Previous conditions 8(a), 8(b) and 8(c) were removed in accordance with Departmental reform. These conditions have been deleted as it is the occupier's responsibility to ensure they comply with relevant legislative requirements for the storage and handling of environmentally hazardous materials. Unauthorised discharges of environmentally hazardous materials may be subject to the provisions of the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p> <p>Stormwater Previous stormwater conditions 6(a) and 6(b) were removed in accordance with Departmental reform and the removal of non-specific conditions. Unauthorised discharges of environmentally hazardous materials may be subject to the provisions of the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.</p>	<p><i>Iron Ore (WA) Mobile Crushing and Screening Management Plan</i>, Rio Tinto, 2015 (RTIO-HSE-0235877)</p> <p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Environmental Protection (Unauthorised Discharges) Regulations 2004</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
Emissions to land including monitoring	L4, 5(a) – (e).	Details of DER's assessment and decision making are included in Appendix A.	Works approval supporting documentation (RTIO-HSE-0259909) Works approval compliance document (RTIO-HSE-026451)
Fugitive emissions	L2(a) – (b), L3(a) – (b).	Dust control and monitoring conditions remain on the Licence. The indicative map of monitoring locations has been included in Attachment 2. Dust monitoring locations are required to be moved from time to time as mining locations within the premises change. This promotes adaptive management of any potential risk associated with the dust onsite.	General provisions of the <i>Environmental Protection Act 1986</i> .
Odour	N/A.	<p><u>Emission Description</u> <i>Emission:</i> Fugitive odour emissions from the Mesa A Village SBR WWTP. <i>Impact:</i> Nuisance odour for residents at Mesa A Village. <i>Controls:</i> The WWTP and sprayfield are located approximately 500m south-west of Mesa A Village. Regular monitoring, maintenance and appropriate management of the facility will be upheld to reduce the likelihood of odour emissions. Sludge will be removed off site.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Unlikely <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> Nil, odour emissions can be sufficiently regulated under section 49 of the</p>	General provisions of the <i>Environmental Protection Act 1986</i> .



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		<i>Environmental Protection Act 1986.</i>	
Information	L5(c).	An additional requirement to report against the NWQMS 1997 guideline and previous monitoring results has been included in the amended licence in the absence of limits or target conditions for the WWTP. This will ensure that the plant is maintained for optimal performance to ensure the risk from emissions remains low.	NWQMS 1997
Licence Duration	N/A.	As a part of this amendment the expiry date for L8234/2008/2 was extended until Thursday, 30 June 2033 in regard to the DER Guidance Statement on Licence Duration.	DER Guidance Statement on Licence Duration, revised May 2016



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
15/08/2016	Proponent sent a copy of draft instrument.	Comments received 18/08/2016. Requested changes: <ul style="list-style-type: none">• Reference to dust monitoring locations to be “indicative” as monitoring locations are required to be moved from time to time with the operational changes on site. This enables an adaptive approach to dust management; and• Other minor administrative changes.	<ul style="list-style-type: none">• Condition 3(a) and map of dust monitoring locations in Attachment 2 amended to include the word “indicative”. Explanatory note included in the decision document; and• Other minor administrative changes made as requested.



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

Emission Description

Emission: Nutrient-rich wastewater to land via the irrigation sprayfields.

Impact: Effluent discharged to land has the potential to lead to waterlogged soils, leading to contamination of stormwater or groundwater contamination due to effluent being rich in nutrients and/or trace metals. Excess nutrients in waterways can cause eutrophication and algal blooms.

Controls: The location of the WWTP is approximately 9.9 km from the closest drainage line (Warrambo Creek). The nearest groundwater bore is 680 metres south-west of the WWTP indicating a depth to groundwater of approximately 23 metres below ground level. Treated effluent will be discharged to land through an existing spray irrigation system which has an area of 4.2 hectares (ha).

The expected treated wastewater quality as per the manufacturer's specifications is shown in Table 1 below.

Table 1: Expected wastewater quality of SBR WWTP

Parameter (Units)	SBR expected wastewater quality	Australian Guidelines*
Biochemical Oxygen Demand (mg/L)	≤ 20	20-30
Total Suspended Solids (mg/L)	≤ 30	25-40
pH (pH units)	6.5 - 8.5	6-9
Total Nitrogen (mg/L)	≤ 30	20-50
Total Phosphorus (mg/L)	≤ 8	6-12
Thermo-tolerant faecal coliforms (cfu/100mL)	≤ 1000	N/A
Residual free chlorine (mg/L)	0.5	N/A

*Refers to *Secondary Treatment of Wastewater – National Water Quality Management Strategy, Australian Guidelines for Sewerage Systems – Effluent Management* (Agriculture and Resource Management Council of Australia and New Zealand Australian and New Zealand Environment and Conservation Council, 1997)

During the commissioning period, five samples taken between January 2016 and March 2016 as shown in Table 2 below, indicate that the performance of the SBR WWTP is well within the expected quality as per the manufacturer's specifications.

Table 2: W5872/2015/1 SBR WWTP commissioning results

Sample Date	pH (pH Units)	Faecal coliforms* (cfu/100 mL)	Nitrogen Total (mg/L)	Phosphorus Total (mg/L)	Biochemical Oxygen Demand (mg/L)	Total Suspended Solids (mg/L)	Residual Free Chlorine
12/01/16	6.54	49	4.0	0.34	2	<5	0.1
26/01/16	6.02	110	4.4	0.32	4	<5	0.04
02/02/16	7.05	8000	5.6	0.45	3	<5	0.04
23/02/16	6.25	360,000	15.2	0.86	8	8	0.12
07/03/16	6.26	54,000	8.6	2.85	10	24	0.17

Risk Assessment

Consequence: Insignificant

Likelihood: Unlikely

Risk Rating: Low

Regulatory Controls

Conditions L4, 5(a) – (e) relating to the discharge to land and the monitoring of these emissions have been amended to apply to the new Mesa A Village SBR WWTP. Former conditions 4(a) and 4(b) have been merged into a single condition (L4). Former conditions related to water quality monitoring



targets have been removed in accordance with Departmental reform as published on DER's website under "*Administrative changes implemented within the Department of Environment Regulation*" www.der.wa.gov.au.

Residual Risk Assessment

Consequence: Insignificant

Likelihood: Unlikely

Risk Rating: Low