



Licence

Environmental Protection Act 1986, Part V

Licensee: Fox Radio Hill Pty Ltd

Licence: L7922/1989/5

Registered office: 10 Abbotsford Street
WEST LEEDERVILLE WA 6008

ACN: 092 493 653

Premises address: Radio Hill Mine Site
Mining Lease M47/161 and M47/337
KARRATHA WA 6714
as depicted in Schedule 1.

Issue date: Thursday, 14 June 2012

Commencement date: Thursday, 21 June 2012

Expiry date: Monday, 20 June 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
5	Processing or beneficiation of metallic or non-metallic ore: premises on which – (a) metallic or non-metallic ore is crushed, ground, milled or otherwise processed; (b) tailings from metallic or non-metallic ore are reprocessed; or (c) tailings or residue from metallic or non-metallic ore are discharged into a containment cell or dam.	50,000 tonnes per annual period	50,000 tonnes per annual period
6	Mine dewatering	50,000 tonnes or more per annual period	50,000 tonnes per annual period
85	Sewage facility premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	More than 20 but less than 100 cubic metres per day	45 cubic metres per day



Conditions

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

Date signed: 12 November 2015

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Alana Kidd

Manager Licensing – Resource Industries
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 regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

Licence requirements

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

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

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

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

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

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



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

Licence fees

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

Ministerial conditions

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

Premises description and Licence summary

Radio Hill is an underground mine focussed on the production of medium to low grade nickel and copper sulphide ore. When operational, ore is trucked from the underground mine to the surface and fed through the ore treatment plant. Waste material is placed on the mullock dump or where possible used as slope fill. Ore processing at Radio Hill involves crushing, mechanical floatation, concentrate thickening, filtration and tailings disposal.

The main components of Radio Hill include:

- underground mining operations;
- a mullock dump for the underground waste rock;
- a Run-of-Mine (ROM) ore pad;
- open cut Trial Pit and associated waste dump;
- a processing plant including crushing, grinding, floatation, thickening and filtration units;
- three Tailings Storage Facilities (TSF1, TSF2 and TSF3), of which TSF1 and 2 have been decommissioned;
- a borrow pit;
- a water containment dam (environmental dam);
- water supply from the southern and mine borefields and associated pipelines;
- haul roads and other site access roads;
- a scats stockpile;
- administrative buildings, workshops and laydowns area;
- Radio Hill accommodation camp; and
- Radio Hill Wastewater Treatment Plant (WWTP) and adjacent 1.7 hectare irrigation field.

Radio Hill mine site has been in care and maintenance (C&M) since 2008.

This amendment has been initiated to extend the licence duration to 20 June 2016, as licence L7922/1989/5 was due to expire on 20 November 2015.

As part of this amendment the Licence was converted to version 2.9. In addition at the request of the Licensee (Form P4 dated 27/10/2014) the monitoring frequency for groundwaters was reduced from quarterly to six-monthly and visual inspections of the TSF from 12-hourly to weekly whilst in C&M. These changes were determined based on a review of the groundwater monitoring report requested of improvement condition 39 of the preceeding Licence version, and consideration of the site being in C&M.

The licences and works approvals issued for the Premises since 21 June 2004 are:



Instrument log		
Instrument	Issued	Description
L7922/1989/1	21/06/2004	New application
L7922/1989/2	21/06/2005	Licence re-issue
L7922/1989/3	21/06/2006	Licence re-issue
L7922/1989/4	21/06/2009	Licence re-issue
W4264/1986/1	07/08/2006	Works approval for Category 5 – Tailings Storage Facility
W4719/2010/1	11/06/2010	Works approval for Category 6 – Mine Dewatering
L7922/1989/4	07/10/2010	Licence amendment to include a Category 85 Sewage Facility
W4731/2010/1	20/01/2011	Works approval for Category 7 – Vat or <i>in situ</i> leaching of metal – Ion Exchange Plant
L7922/1989/4	20/10/2011	Licence amendment to include Category 6 – Mine dewatering
W5026/2011/1	03/11/2011	Works approval for Category 7 – Vat or <i>in situ</i> leaching of metal – Mini Heap Leach Project
L7922/1989/5	21/06/2012	Licence re-issue
L7922/1989/5	11/06/ 2015	Licence amendment to extend the expiry date from 20 June 2015 until 20 November 2015
L7922/1989/5	12/11/2015	Licence amendment to extend the expiry date from November 2015 until 20 June 2016

Severance

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

END OF INTRODUCTION

Licence conditions

1 General

1.1 Interpretation

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

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

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

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

‘**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*;

‘**AS/NZS 5667.6**’ means the Australian Standard AS/NZS 5667.6 *Water Quality – Sampling – Guidance on sampling of rivers and streams*;



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

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

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

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

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the Environmental Protection Act 1986
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au;

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

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

'HDPE' means high-density polyethylene;

'kL' means kilolitres;

'Licence' means this Licence numbered L7922/1989/5 and issued under the Act;

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

'mm' means millimetres;

'mg/L' means milligrams per litre;

'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;

'six monthly' means the 2 inclusive periods from 1 July to 31 December and in the following year, 1 January to 30 June; and

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

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.
- 1.1.5 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 General conditions

- 1.2.1 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.
- 1.2.2 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.3 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.¹

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 record and investigate the exceedance of any descriptive or numerical limit in this section.
- 1.3.2 The Licensee shall carry out the Authorised Activities on the Premises in accordance with the requirements set out in Table 1.3.1.

Table 1.3.1: Authorised Activities		
Authorised activity	Process(es)	Process limits
Category 5	Processing or beneficiation of metallic or non-metallic ore	Processing of material at the premises shall not exceed 50,000 tonnes per annual period
Category 6	Mine dewatering	Dewatering at the premises shall not exceed 50,000 tonnes per annual period
Category 85	Sewage facility	Processing of material at the premises shall not exceed 45 cubic metres per day.

- 1.3.3 The Licensee shall ensure that waste material is only stored and/or treated within vessels or compounds provided with the infrastructure detailed in Table 1.3.2.



Table 1.3.2: Containment infrastructure

Storage vessel or compound as shown on the Premises map in Schedule 1	Material	Requirements
Tailings storage facility (TSF)	Tailings and slurry	The Licensee must: <ul style="list-style-type: none"> (i) maintain all installed toe drains and associated cut offs along the external toe of the TSF perimeter embankments, so that any liquid matter resulting from seepage or breach of the TSF embankments may be contained and recovered; (ii) ensure that pipelines, carrying process waters to the TSF, are contained within an appropriately sized bund to ensure leaks or spillage from pipeline are contained; and (iii) maintain a minimum top of embankment freeboard of 300 mm.
Environmental dam	Potentially contaminated stormwater and wash water	A HDPE lined pond containing un-treated water, with a minimum freeboard of 300 mm maintained.

- 1.3.4 The Licensee shall ensure that where wastes produced on the Premises are not taken off-site for lawful use or disposal, they are managed according with the requirements in Table 1.3.3.

Table 1.3.3: Management of Waste

Facility as shown on the Premises map in Schedule 1	Waste type	Management Strategy	Requirements ^{1,2}
TSF	Tailings and slurry	Containment in the TSF	Disposal of waste shall only take place within the TSF.
Wastewater treatment plant (WWTP) and irrigation field	Sewage	Biological, physical and chemical treatment	Treated wastewater will only be irrigated to the adjacent 1.7 hectare irrigation field.
	Sewage sludge	Drying and Storage	None specified.
Environmental dam	Potentially contaminated stormwater and wash water	Drying and Storage	A HDPE lined pond containing un-treated water, with a minimum freeboard of 300 mm maintained.

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

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

- 1.3.5 The Licensee shall ensure that where waste does not comply with condition 1.3.4 it is removed from the Premises by a controlled waste contractor or, where that is not possible, stored in a segregated storage area or container and removed to an appropriately authorised facility as soon as practicable.



2 Emissions

2.1 General

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

2.2 Emissions to land

2.2.1 The Licensee shall ensure that where waste is emitted to land 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: Emissions to land		
Emission point reference on Map of emission points	Description	Source including abatement
DP1, DP2 and DP3	End of pipe discharges	Water from dewatering of mine. Approved to discharge a maximum of 50,000 tonnes per annual period.

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

Table 2.2.2: Emission limits to land			
Emission point reference	Parameter	Limit (including units)	Averaging period
DP1, DP2 and DP3	Total Dissolved Solids	5,000 mg/L	Spot sample
	pH	6 to 9 pH units	
	Major ions (mg/L) – Na, K, Ca, Mg, SO ₄	ANZECC, 2000 – Livestock drinking water quality or ± 15% of background range (whichever is applicable)	
	Metals (mg/L) – Fe, Cu, Zn, As, Cr, Pb, Cd, Hg, Mn, Mo		

3 Monitoring

3.1 General monitoring

3.1.1 The Licensee shall ensure that:

- all water samples are collected and preserved in accordance with AS/NZS 5667.1;
- all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
- all surface water sampling is conducted in accordance with AS/NZS 5667.4 or AS/NZS 5667.6 as relevant;
- all groundwater sampling is conducted in accordance with AS/NZS 5667.11; and
- 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:

- quarterly monitoring is undertaken at least 45 days apart; and
- six monthly monitoring is undertaken at least 5 months apart; and

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 emissions to land

- 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 emissions to land			
Emission point reference	Parameter	Units	Frequency
WWTP	Cumulative volume	kL	Continuous
	pH ¹	pH units	Quarterly
	<i>E.coli</i>	cfu/100mL	
	Biochemical Oxygen Demand	mg/L	
	Total Suspended Solids		
	Total Nitrogen		
	Total Phosphorus		
DP1, DP2 and DP3 As shown in Map of emission points in Schedule 1.	Cumulative volume	kL	Continuous
	pH ¹	pH units	Weekly during discharge
	Total Dissolved Solids	mg/L	
	Major ions and metals - Aluminium (Al), Iron (Fe), Copper (Cu), Zinc (Zn), Silver (Ag), Arsenic (As), Chromium (Cr), Lead (Pb), Cadmium (Cd), Mercury (Hg), Nickel (Ni), Selenium (Se), Manganese (Mn), Magnesium (Mg) and Sulphate (SO ₄)		

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

3.3 Process monitoring

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



Table 3.3.1: Process monitoring

Monitoring point reference	Process description	Requirements	Frequency	Method
TSF	Tailings and slurry containment in TSF for drying and Storage	<p>Inspection of the following infrastructure:</p> <ul style="list-style-type: none"> (i) the tailings storage facility embankments; (ii) tailings delivery pipelines; (iii) return water pipelines; (iv) pumping facilities; and (v) ponding on the surface of the tailings storage facility. <p>The Licence must maintain a log of the TSF inspections, which shall contain the following:</p> <ul style="list-style-type: none"> (i) the date and time of the inspection, and the name and signature of the person undertaking the inspection; (ii) any seepage, spills or leaks resulting from failures, including the date, approximate time, volume and area extent of land affected by seepage, spills or leakages; and (iii) record corrective measures undertaken to rectify any issues identified. 	Weekly	Visual inspection

3.4 Ambient environmental quality monitoring

3.4.1 The Licensee shall undertake the monitoring in Tables 3.4.1 to 3.4.3 according to the specifications in those tables and record and investigate results that do not meet any limit specified.

Table 3.4.1: Monitoring of ambient surface water quality

Monitoring point reference and location as depicted in Schedule 1	Parameter	Limit (including units)	Averaging period
Creek 2, Creek 2a, Creek 2b, Creek 3, Creek 5 and Creek 6	Total Dissolved Solids	5,000 mg/L	Monthly when discharging
	pH ¹	6 to 9 pH units	
	Major ions and metals - Aluminium (Al), Iron (Fe), Copper (Cu), Zinc (Zn), Silver (Ag), Arsenic (As), Chromium (Cr), Lead (Pb), Cadmium (Cd), Mercury (Hg), Nickel (Ni), Selenium (Se), Manganese (Mn), Magnesium (Mg) and Sulphate (SO ₄)	ANZECC, 2000 – Livestock drinking water quality or ± 15% of background range (whichever is applicable)	

Note 1: Infield non-NATA accredited analysis permitted



Table 3.4.2: Monitoring of ambient groundwater quality				
Monitoring point reference and location as depicted in Schedule 1	Parameter	Units	Averaging period	Frequency
Environmental Dam RHW35, RWH36 and RHW37 TSF RHW1 and RHW 22 to RHW 42 Production/ Observation RHW3, RHW4, RHW5 and RHW6D	Standing Water Level (SWL)	m(AHD)	Spot sample	Six monthly
	pH ¹	pH units		
	Total Dissolved Solids (TDS)	mg/L		
	Major ions and metals - Aluminium (Al), Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu) Cobalt (Co), Lead (Pb), Selenium (Se), Silver (Ag), Sulphate (SO ₄), Zinc (Zn), Manganese (Mn), Mercury (Hg), Iron (Fe), Magnesium (Mg) and Nickel (Ni)			

Note 1: Infield non-NATA accredited analysis permitted

Table 3.4.3: Monitoring of ambient vegetation quality				
Monitoring point reference and location as depicted in Schedule 1	Parameter	Requirements	Frequency	Method
Creek 2, Creek 2a, Creek 2b, Creek 3, Creek 5 and Creek 6	Vegetation health (i.e. decline in vegetation or change in composition)	The licensee shall on a quarterly basis: (i) take a photographic image; (ii) provide a general environmental description of the site; and (vi) record any changes to vegetation health or composition which may have been induced by dewatering.	Quarterly while dewatering is occurring	Visual inspection

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

4.2 Reporting

- 4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report by 30 September each year. 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	Parameter	Format or form ¹
-	Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken	None specified
Table 1.3.1	Actual throughput for the annual period for categories 5, 6 and 85	
Table 3.2.1	All parameters specified in Table 3.2.1	
Table 3.3.1	Summary of the TSF inspections including details on any seepage, spills or leaks and corrective measures undertaken to rectify any issues identified.	
Table 3.4.1	All ambient surface water monitoring parameters specified in Table 3.4.1	
Table 3.4.2	All ambient groundwater quality monitoring parameters specified in Table 3.4.2	
Table 3.4.3	All ambient vegetation quality monitoring parameters specified in Table 3.4.3	
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:
- (a) any relevant process, production or operational data recorded under Condition 3.1.3; and
 - (b) an assessment of the information contained within the report against previous monitoring results and Licence limits.
- 4.2.3 The Licensee shall submit the information in Table 4.2.2 to the CEO according to the specifications in that table.



Table 4.2.2: Non-annual reporting requirements				
Condition or table (if relevant)	Parameter	Reporting period	Reporting date	Format or form ¹
-	Copies of original monitoring reports submitted to the Licensee by third parties	Not Applicable	Within 14 days of the CEOs request	As received by the Licensee from third parties
Table 3.4.2	Groundwater data and summary against previous years monitoring data	Not Applicable	Friday, 20 May 2016	None specified

Note 1: Forms are in Schedule 2

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	Parameter	Notification requirement ¹	Format or form ²
1.4.1, 2.1.1, 2.2.2 and 3.4.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1
3.1.5	Calibration report	As soon as practicable.	None specified
-	Intention for the site to recommence normal operations from care and maintenance status	At least 60 calendar days prior to site recommencing operations	None specified

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

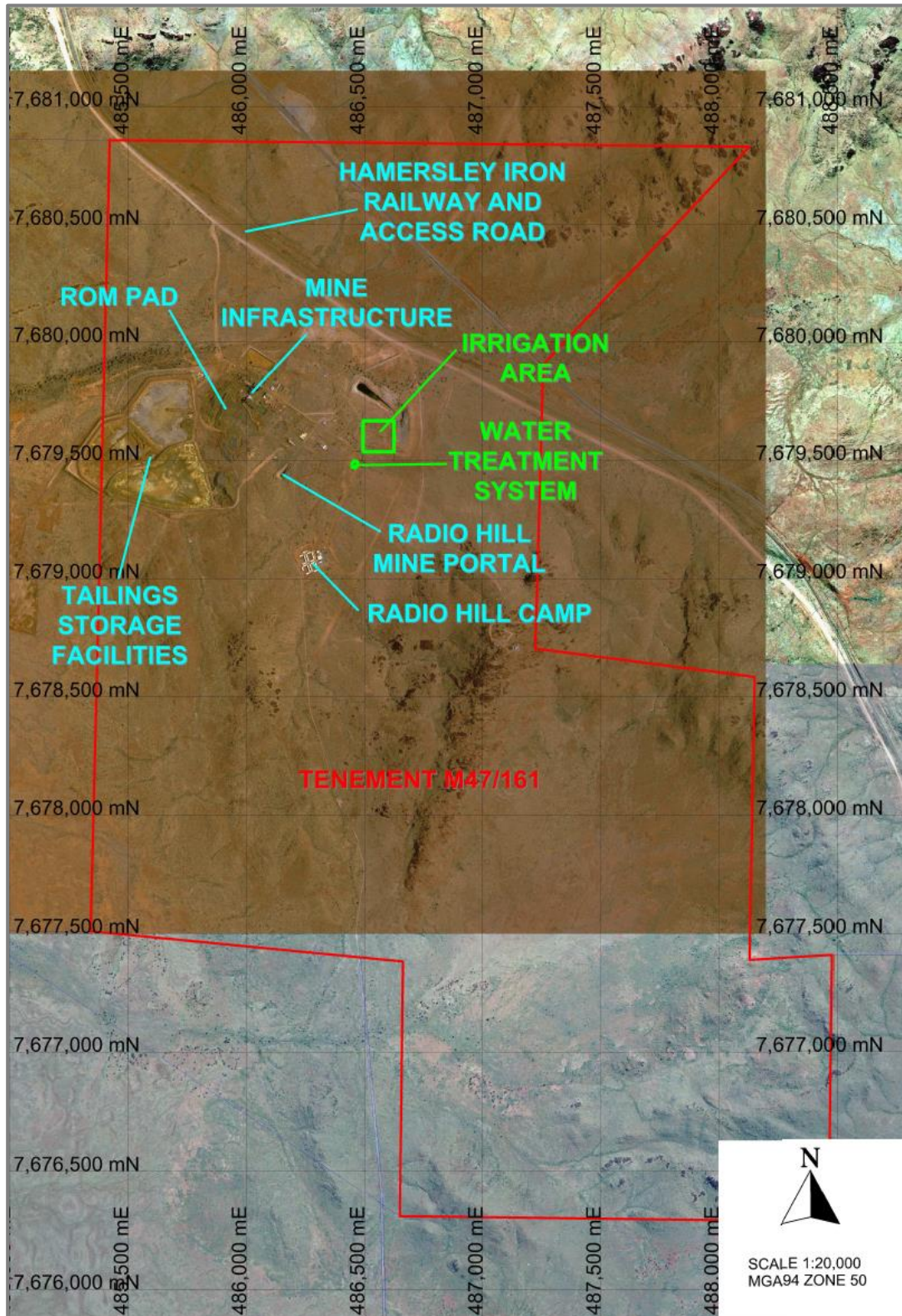
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

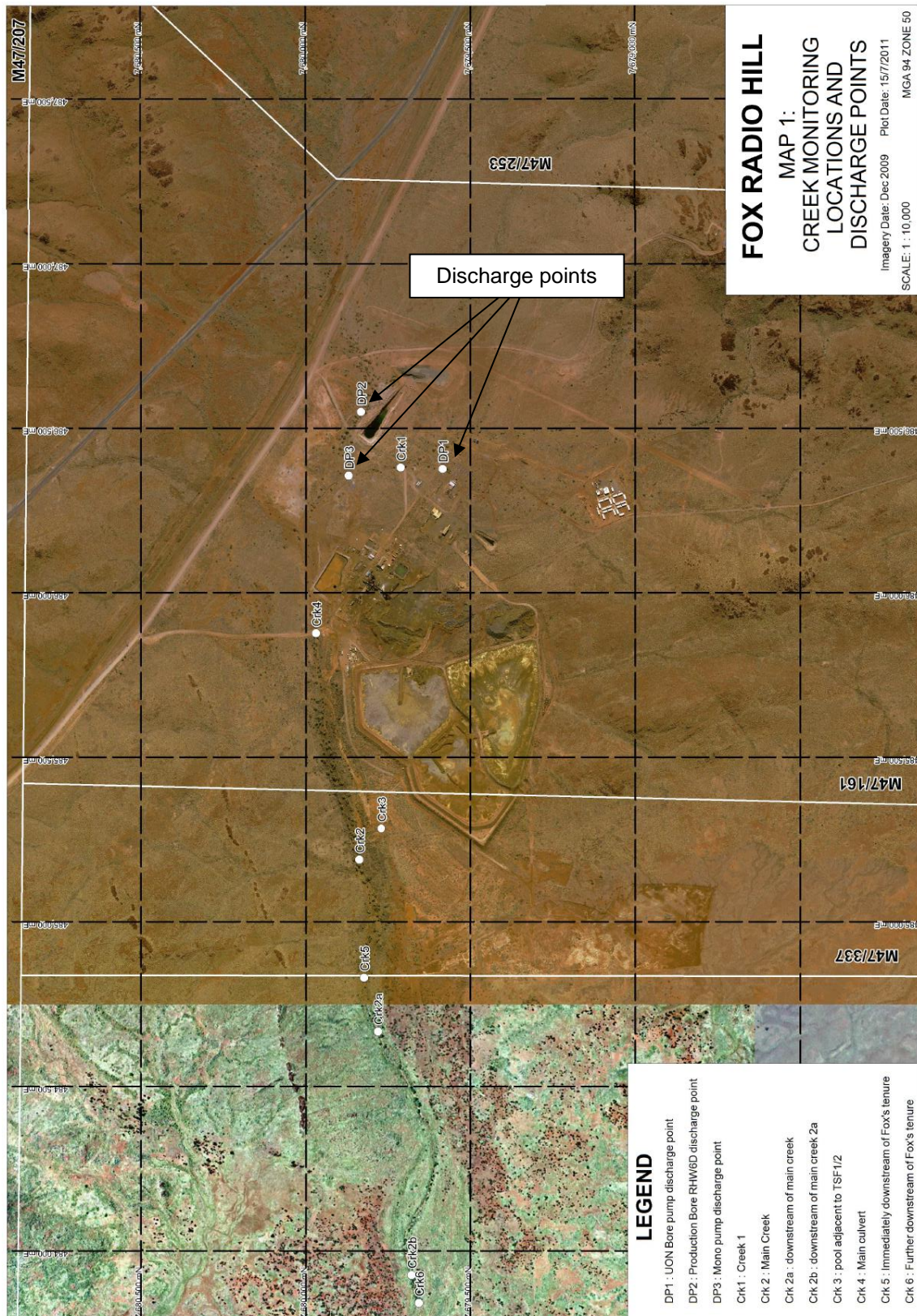
The Premises is shown in the map below. The red line depicts the Premises boundary.





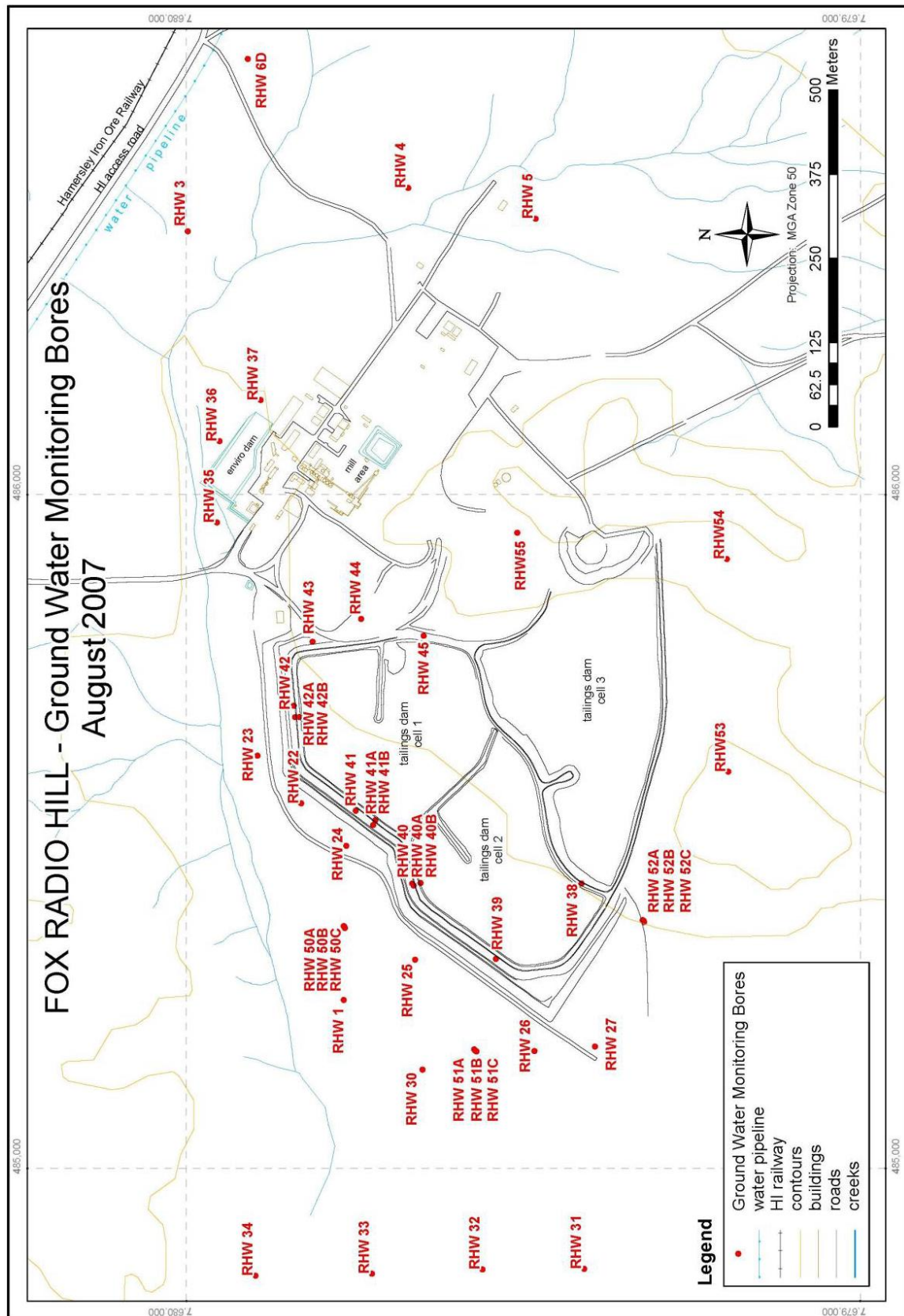
Map of emission and monitoring points

The locations of the surface water discharge and monitoring points defined in Tables 2.2.1, 2.3.2, 3.2.1, 3.3.1, 3.4.1 and 3.4.3 are shown below.





The locations of the groundwater monitoring points defined in Table 3.4.2 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: Trading as:	ABN:
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 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 the 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:	

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:



SECTION C

SIGNATURE AND CERTIFICATION

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

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

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

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

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

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: ____/____/____

SEAL (if signing under seal)

SIGNATURE: _____

NAME:
(printed) _____

POSITION: _____

DATE: ____/____/____



Licence: L7922/1989/5
Form: N1

Licensee: Fox Radio Hill Pty Ltd
Date of breach:

Notification of detection of the breach of a limit.

These pages outline the information that the operator must provide.

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

Part A

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

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 Fox Radio Hill Pty Ltd	
Date	



Partial Decision Document

Environmental Protection Act 1986, Part V

Proponent: Fox Radio Hill Pty Ltd

Licence: L7922/1989/5

Registered office: 10 Abbotsford Street
WEST LEEDERVILLE
WA 6008

ACN: 092 493 653

Premises address: Radio Hill Mine Site
Mining Lease M47/161 and M47/337
KARRATHA WA 6714

Issue date: Thursday, 14 June 2012

Commencement date: Thursday, 21 June 2012

Expiry date: Monday, 20 June 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.

Decision Document prepared by: Ty Hibberd
Licensing Officer

Decision Document authorised by: Alana Kidd
Manager Licensing



Contents

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1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
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6 Risk Assessment	11

1 Purpose of this Document

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



2 Administrative summary

Administrative details		
Application type	Works Approval <input type="checkbox"/> New Licence <input type="checkbox"/> Licence amendment <input checked="" type="checkbox"/> Works Approval amendment <input type="checkbox"/>	
Activities that cause the premises to become prescribed premises	Category number(s)	Assessed design capacity
	5	50,000 tonnes per year
	6	50,000 tonnes per year
	85	45 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 <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i>)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted Yes <input type="checkbox"/> No <input 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, eg Site is subject to SO ₂ requirements of Kwinana EPP.		



3 Executive summary of proposal and assessment

Fox Radio Hill Pty Ltd (Fox) operates the Radio Hill mine site (Radio Hill) approximately 25km south of Karratha in the West Pilbara region of Western Australia. Radio Hill is an underground mine focussed on the production of medium to low grade nickel and copper sulphide ore. When operational, ore is trucked from the underground mine to the surface and fed through the ore treatment plant. Waste material is placed on the mullock dump or where possible used as slope fill. Ore processing at Radio Hill involves crushing, mechanical floatation, concentrate thickening, filtration and tailings disposal.

The main components of Radio Hill include:

- underground mining operations;
- a mullock dump for the underground waste rock;
- a Run-of-Mine (ROM) ore pad;
- open cut Trial Pit and associated waste dump;
- a processing plant including crushing, grinding, floatation, thickening and filtration units;
- three Tailings Storage Facilities (TSF1, TSF2 and TSF3), of which TSF1 and 2 have been decommissioned;
- a borrow pit;
- a water containment dam (environmental dam);
- water supply from the southern and mine borefields and associated pipelines;
- haul roads and other site access roads;
- a scats stockpile;
- administrative buildings, workshops and laydowns area;
- Radio Hill accommodation camp; and
- Radio Hill Wastewater Treatment Plant (WWTP) and an adjacent 1.7 hectare irrigation field.

Radio Hill has been in care and maintenance (C&M) since 2008.

This amendment has been initiated to extend the licence duration to 20 June 2016, as licence L7922/1989/5 was due to expire on 20 November 2015. Upon receipt of outstanding information, DER will undertake an evaluation and assessment of the premises in accordance with Part V of the *Environmental Protection Act 1986* with a view to re-issue the licence (version: L7922/1985/6) in June 2016.

As part of this amendment the Licence was converted to version 2.9. In addition, at the request of the Licensee (Form P4 dated 27/10/2014) the monitoring frequency for groundwaters was reduced from quarterly to six-monthly and visual inspections of the TSF from 12-hourly to weekly whilst in C&M. These changes were determined based on a review of the groundwater monitoring report requested of improvement condition 39 of the preceding Licence version, and consideration of the site being in C&M.

The following changes have been made to the licence during this amendment:

- Conversion to the version 2.9 template;
- Addition of definitions;
- Previous conditions 5, 14 and 15 are now covered by L1.3.3 and L1.3.4;
- Previous conditions 6, 7, 8, 9, 10, 13 are now covered by L1.2.2 and L1.2.3;
- Previous conditions 9, 10 and 18 are now covered by L1.3.5;
- Previous conditions 11, 12, 17 and 31 are now covered by conditions L2.2.1 and L2.2.2;



- Previous conditions 19, 20 and 21 are now covered by condition L3.3.1. At the request of the Licensee (Form P4 dated 27/10/2014) the monitoring frequency visual inspections of the TSF was changed from 12-hourly to weekly whilst in C&M;
- Previous conditions 24, 25, 28 and 30 are now covered by condition L3.2.1;
- Previous conditions 32 and 33 are now covered by condition L3.1.1;
- Previous conditions 22, 23, 34, 35 and 36 are now covered by condition L3.4.1. At the request of the Licensee (Form P4 dated 27/10/2014) the monitoring frequency for groundwaters was reduced from quarterly to six-monthly whilst in C&M;
- Previous conditions 37 and 38 are now covered under conditions L4.1.3, L4.1.4 and Table 4.2.1;
- Conditions L1.3.1, L1.3.2, L2.1.1, L3.1.2, L3.1.3, L3.1.4 and L4.2.3 have been added to the licence; and
- Previous conditions 1, 2, 3, 4, 11, 12, 13, 16, 26, 27, 29 and 39 have been removed

Where conditions have been added or removed from the existing licence these have been justified in Section 4.



4 Decision table

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

DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	L1.2.1 – L1.2.3.	<p>Previous conditions 6, 7, 8, 9, 10, 13 are now covered by L1.2.2 and L1.2.3.</p> <p>Previous conditions 11, 12 and 13 relating to the storage of environmentally hazardous liquid chemicals have been removed. Storage of these substances is adequately regulated by the Code of Practice for the Storage and Handling of Dangerous Goods.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p> <p><i>Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007</i></p>
Premises operation	L1.3.1 – L1.3.5.	<p>L1.3.1 has been added to the licence to ensure Fox record and investigate any exceedances of a descriptive or numerical limit in this section.</p> <p>L1.3.2 had been added to stipulate processing limits for categories 5, 6 and 85.</p> <p>Previous conditions 5, 14 and 15 are now covered by L1.3.3 and L1.3.4 which specify the requirements for containment infrastructure and management of waste onsite.</p> <p>Previous conditions 9, 10 and 18 are now covered by L1.3.5.</p> <p>Previous condition 16 has been removed since the Licence is related to emissions of dewatering water not abstraction.</p>	<p>General provisions of the <i>Environmental Protection Act 1986</i>.</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Emissions general	L2.1.1.	L2.1.1 has been added to the licence to ensure Fox record and investigate any descriptive or numerical limit for section 2 of the licence.	N/A.
Point source emissions to air including monitoring	L2.2.1 and L2.2.2.	Previous conditions 11 and 12 are now covered by conditions L2.2.2 and L2.2.1.	General provisions of the <i>Environmental Protection Act 1986</i> .
Emissions to land including monitoring	L2.3.1, L2.3.2 and L3.2.1.	Previous conditions 17 and 31 are now covered by conditions L2.2.1 and L2.2.2. Previous conditions 24, 25, 28, 29 and 30 are now covered by condition L3.2.1. Previous conditions 26 and 27 have been removed in line with version 2.9 of the licence template. Irrigation of treated effluent is considered a low risk for Radio Hill given the small size of the WWTP, current occupation of the mine camp (3 personnel whilst in C&M), location of the Premises and distance to the nearest sensitive receptor. As such the irrigation of treated effluent at Radio Hill can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> .	General provisions of the <i>Environmental Protection Act 1986</i> .
Fugitive emissions	N/A.	Previous conditions 1, 2 and 3 have been removed. Fugitive emissions of dust are considered a low risk given the location of the Premises and distance to the nearest sensitive receptor, as such fugitive emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> .	General provisions of the <i>Environmental Protection Act 1986</i> .
Odour	N/A.	Previous condition 4 has been removed. Fugitive emissions of odour are considered a low risk given the location of the Premises and distance to the nearest sensitive receptor, as such fugitive emissions can be sufficiently regulated under section 49 of the <i>Environmental Protection Act 1986</i> .	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
Monitoring general	L3.1.1 – L3.1.4	Previous conditions 32 and 33 are now covered by condition L3.1.1. L3.1.2, L3.1.3 and L3.1.4 have been added to the Licence to provide definitions for monitoring frequency and to ensure monitoring equipment are appropriately calibrated.	General provisions of the <i>Environmental Protection Act 1986</i> .
Process monitoring	L3.3.1	Previous conditions 19, 20 and 21 are now covered by condition L3.3.1. At the request of the Licensee (Form P4 dated 27/10/2014) the monitoring frequency for visual inspections of the TSF was changed from 12-hourly to weekly. The DER, after visiting the Premises on 13 October 2015, and giving consideration that the TSFs are not in use, has determined that a weekly inspection frequency is adequate to identify any potential environmental concerns.	General provisions of the <i>Environmental Protection Act 1986</i> .
Ambient quality monitoring	L3.4.1	Previous conditions 22, 23, 34, 35 and 36 are now covered by condition L3.4.1. At the request of the Licensee (Form P4 dated 27/10/2014) the monitoring frequency for groundwaters was reduced from quarterly to six-monthly. The DER, after review of the groundwater monitoring report requested of improvement condition 39 of the preceding Licence version, has determined that a six-monthly monitoring frequency is adequate to evaluate any change in groundwater quality.	General provisions of the <i>Environmental Protection Act 1986</i> . Report on assessment of ground water quality and sources of contamination Radio Hill Nickel Project, WA (Stass Environmental, August 2015)
Improvements	N/A.	Previous condition 39 was removed as this improvement condition was adequately addressed by Fox in a report compiled by Stass Environmental, titled "Report on assessment of ground water quality and sources of contamination Radio Hill Nickel Project, WA" (August 2015).	Report on assessment of ground water quality and sources of contamination Radio Hill Nickel Project, WA (Stass Environmental, August 2015)



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
Information	L4.1.1 – L4.1.4, L4.2.1 – 4.2.3 and 4.3.1.	<p>Previous conditions 37 and 38 are now covered under conditions L4.1.3, L4.1.4 and Table 4.2.1.</p> <p>A requirement has been added to condition 4.2.3, Table 4.2.2, requiring the Licensee to prepare and submit an updated groundwater quality report by 20 May 2016. This report should include the most recent monitoring data, and provide a comparison of this data against previous results as detailed in the report compiled by Stass Environmental, titled "<i>Report on assessment of ground water quality and sources of contamination Radio Hill Nickel Project, WA</i>" (August 2015).</p> <p>A requirement has been added to notify DER of the intention for the site to recommence normal operations from C&M status to ensure DER has sufficient time to carry-out any required amendments to this Licence.</p>	Report on assessment of ground water quality and sources of contamination Radio Hill Nickel Project, WA (Stass Environmental, August 2015)
Licence Duration	N/A.	The licence has been extended until 20 June 2016. This extension will allow the Licensee to prepare and submit the required reports and DER to then undertake an evaluation for the licence reissue without having the licence lapse.	N/A.



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
5/11/2015	Proponent sent a copy of draft instrument	Nil comments. Waiver form received 10 November 2015.	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