

Licence

Environmental Protection Act 1986, Part V

Licensee: Atlantic Vanadium Pty Ltd

Licence: L8314/2008/3

Registered office:	Level 11 Brookfield Place 125 St Georges Terrace Perth WA 6000
ACN:	610 583 090
Premises address:	Windimurra Vanadium Project Mining Tenements: M58/178, M58/279 and M58/280 MOUNT MAGNET WA 6638
Issue date:	Thursday, 19 February 2015
Commencement date:	Thursday, 19 February 2015
Expiry date:	Monday, 18 February 2036

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	50,000 tonnes or	3,900,000 tonnes
	non-metallic ore	more per year	per annual period
7	Vat or in situ leaching of metal	5,000 tonnes or	900,000 tonnes per
		more per year	annual period
44	Metal smelting or refining	1,000 tonnes or	10,515 tonnes per
		more per year	annual period
64	Class II or III putrescible landfill site	20 tonnes or more	220 tonnes per
		per year	annual period
84	Electric power generation	10 megawatts or	15 megawatts
		more in aggregate	
		(using a fuel other	
		than natural gas)	
85	Sewage facility	More than 20 but	62 cubic metres
		less than 100 cubic	per day
		metres per day	



Conditions

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

Date signed: 25 August 2016

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.

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

Licence fees

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

Ministerial conditions

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

Premises description and Licence summary

The Windimurra Vanadium Project (Windimurra) is situated approximately 600 kilometres north east of Perth in Western Australia. Windimurra is approximately 80 kilometres south east of Mount Magnet, the closest town, in the Murchison region of Western Australia.

Emissions and discharges produced by prescribed activities at Windimurra include tailings discharge to the tailings storage facility and Calcine dam, discharge of barren liquor to evaporation ponds, irrigation to land with treated waste water, process stack air emissions, power generation, crushing and screening, and disposal of waste at the landfill. The site is currently in care and maintenance.

Windimurra was granted Ministerial Approval on the 16 September 1992 (Ministerial Statement 283) which was subsequently amended on the 9 July 1998 (Ministerial Statement 481).

On 26 May 2016, Atlantic Vanadium Pty Ltd (Atlantic), a subsidiary of Atlantic Ltd, became the legal occupier of the premises. A transfer application was submitted to DER in June 2016.

Instrument log		
Instrument	Commenced	Description
W4403/2007/1	27/3/2008	New application for works approval – Category 5,7,31,44,84,85 and 89
W4428/2008/1	21/8/2008	Works approval amendment – Category 5
L8314/2008/1	19/02/2009	Licence reissue
W5029/2011/1	6/10/2011	New application for works approval – Category 5
L8314/2008/2	19/02/2012	Licence reissue
L8314/2008/3	19/02/2015	Licence reissue
L8314/2008/3	25/08/2016	Licence transferred to Atlantic Vanadium Pty Ltd

The last 5 licences and works approvals issued for the Premises are:

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 October to 30 September in the following year;

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

'AS/NZS 2031' means the Australian Standard AS/NZS 2031 Selection of containers and preservation of water samples for microbiological analysis;

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

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

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

'averaging period' means the time over which a limit 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;

Chief Executive Officer At the following address: Department Administering the *Environmental Protection Act 1986* Locked Bag 33 CLOISTERS SQUARE WA 6850 Telephone: (08) 9333 7510 Facsimile: (08) 9333 7550 Email: info@der.wa.gov.au

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

'Licence' means this Licence numbered L8314/2008/3 and issued under the Act;

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

'mbgl' means metres below ground level;

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



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

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

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

'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;

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

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

1.2 **Premises operation**

- 1.2.1 The Licensee shall only accept waste on to the landfill if:
 - a) it is of a type listed in Table 1.2.1;
 - b) the quantity accepted is below any quantity limit listed in Table 1.2.1;
 - c) it meets any specification listed in Table 1.2.1; and
 - d) it conforms to the description in the documentation supplied by the producer and holder.

Table 1.2.1: Waste acceptance				
Waste Quantity Limit Specification				
Clean fill	220 tonnes per annual period	None specified		
Inert Waste Type 1	220 tonnes per annual period			
Inert Waste Type 2	100 used tyres are stored	Used tyres only		
Putrescible waste	220 tonnes per annual period	None specified		
Special Waste Type 2		None specified		

1.2.2 The Licensee shall ensure that cover is applied to waste in the tipping area in accordance with Table 1.2.2 and that sufficient stockpiles of cover are maintained on site at all times for the tipping area of the site to be covered, in accordance with this condition.

Table 1.2.2: Cover requirements				
Waste type	Material	Depth	Timescale	
Putrescible Wastes	Inert and incombustible material	A minimum of 200 mm. No waste is to be left exposed after covering	Cover shall be applied fortnightly	

1.2.3 The Licensee shall ensure that tailings are only discharged into dams with the relevant infrastructure requirements and at the location specified in Table 1.2.3 and identified in Schedule 1.

Table 1.2.3: Containment infrastructure			
Containment point Material		Infrastructure requirements	
reference			
TSF Cell 1	Tailings	None specified	
Calcine Tailings Storage	Calcine	Lined to achieve a permeability of 10 ⁻⁹ metres per	



Facility	Waste	second or less
Barren Liquor Pond 2	Barren	Lined to achieve a permeability of 10 ⁻⁹ metres per
	Liquor	second or less

- 1.2.4 The Licensee shall manage dams in Table 1.2.3 such that:
 - (a) a minimum top of embankment freeboard of 500mm is maintained; and,
 - (b) methods of operation minimise the likelihood of erosion of the embankments by wave action.
- 1.2.5 The Licensee shall:
 - (a) undertake inspections when infrastructure is operational as detailed in Table 1.2.4;
 - (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 1.2.4: Inspection of infrastructure				
Scope of inspection Type of inspection		Frequency of inspection		
Tailings pipelines	Visual integrity	Daily		
Barren Liquor pipelines	Visual integrity	Daily		
Return water lines	Visual integrity	Daily		
Embankment freeboard	Visual to confirm required freeboard capacity is available	Daily		

- 1.2.6 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-outs in the event of a pipe failure; or
 - (c) provided with secondary containment sufficient to contain any spill for a period equal to the time between inspections.

2 Emissions

2.1 General

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

2.2 Point source emissions to air

2.2.1 The Licensee shall ensure that where waste is emitted to air from the emission points in Table 2.2.1 and identified on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this Licence.

Table 2.2.1: Emission points to air	
Emission point reference	Emission Point
Rotary Kiln Stack (S1)	Stack
Hot Chain Scrubber (S7)	
AMV Flash Dryer (S2)	
V ₂ O ₃ Reactor Process Gas Stack (S3a & b)	
Deammoniator Process Stack (S5a)	
Ferrovanadium Handling Bag House (S6)	
Ferrovanadium Furnace Bag House (S6)	
V ₂ O ₃ Combusted Gas Stack (S3)	



2.3 **Emissions to land**

2.3.1 The Licensee shall ensure that where waste is emitted to land from the emission point in Table 2.3.1, and identified on the map of emission points in Schedule 1, it is done so in accordance with the conditions of this licence.

Table 2.3.1: Emission points to land				
Emission point	Source	including		
reference		abat	abatement	
WWTP Irrigation	Discharge of treated waste water by	Accommoda	ation camp	
area	irrigation to land	waste water treatment		
		plant		

Monitoring 3

3.1 **General monitoring**

- 3.1.1 The licensee shall ensure that:
 - all water samples are collected and preserved in accordance with AS/NZS (a) 5667.1:
 - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10:
 - all groundwater sampling is conducted in accordance with AS/NZS 5667.11; (c)
 - all microbiological samples are collected and preserved in accordance with (d) AS/NZS 2031; and
 - (e) all samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured unless indicated otherwise in relevant table.
- 3.1.2 The Licensee shall ensure that :
 - quarterly monitoring is undertaken at least 45 days apart; and (a)
 - (b) annual monitoring is undertaken at least 9 months apart.
- The Licensee shall ensure that all monitoring equipment used on the Premises to comply 3.1.3 with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications and the requirements of the Licence.
- 3.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.

3.2 Monitoring of point source emissions to air

3.2.1 The Licensee shall undertake the monitoring in Table 3.2.1 according to the specifications in that table.

Table 3.2.1: Monitoring of point source emissions to air					
Emission point reference	Parameter	Units ¹	Frequency ²	Method	
Rotary Kiln Stack	Sulfur dioxide	mg/m ³ g/min	Annually	USEPA Method 6	
Rotary Kiln Stack, AMV Flash Dryer, Deammoniator Process Stack, V ₂ O ₃ Combusted Gas Stack	Nitrogen oxides	mg/m ³ g/min		USEPA Method 7E or 7D	
Rotary Kiln Stack, Hot Chain Scrubber, AMV Flash Dryer, V ₂ O ₃	Particulates	mg/m ³ g/min		USEPA Method 5	



Reactor Process Gas Stack, Deammoniator Process Stack, V_2O_5 Handling Bag House, Ferrovanadium Furnace Bag House			
V ₂ O ₃ Reactor Process Gas Stack, Deammoniator Process Stack	Ammonia (NH ₃)	mg/m ³ g/min	USEPA Method 17
Rotary Kiln Stack, Hot Chain Scrubber, AMV Flash Dryer, V_2O_3 Reactor Process Gas Stack, Deammoniator Process Stack, Ferrovanadium Handling Bag House, V_2O_5 Handling Bag House, Ferrovanadium Furnace Bag House	Total Vanadium	mg/m ³ g/min	None specified

Note 1: All units are referenced to STP dry

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

- 3.2.2 The Licensee shall ensure that sampling required under Condition 3.2.1 of the Licence is undertaken at sampling locations in compliance with the AS 4323.1 or relevant part of the CEMS Code.
- 3.2.3 The Licensee shall ensure that all non-continuous sampling and analysis undertaken pursuant to condition 3.2.1 is undertaken by a holder of NATA accreditation for the relevant methods of sampling and analysis.

3.3 Monitoring of emissions to land

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 land		
Monitoring point reference	Parameter	Units	Frequency
Discharge to	Biochemical Oxygen Demand	mg/L	Quarterly
WWTP	Residual chlorine		
irrigation area	Total Phosphorus		
	Total Nitrogen		
	Total Suspended Solids		
	Volumes of waste water discharged to the	m ³	Continuous
	environment		

Note 1: Actual units are to be reported except where the result is greater than the highest detectable level of 24,000 cfu/100mL. In this case reporting the highest detectable level is permitted.

3.4 Ambient environmental quality monitoring

3.4.1 The Licensee shall undertake the monitoring specified in Table 3.4.1.

Monitoring point reference	Parameter	Units	Averaging period	Frequency
PSMB1,	Aluminium	mg/L	Spot sample	Quarterly
PSMB2,	Bicarbonate			
PSMB6 to	Calcium			
PSMB8,	Chloride			
EPMB1 to	Chromium			



EPMB5, EP2MB1 to EP2MB4, CTMB1 to CTMB4, TSMB1 to TSMB10, GATB1, GATB3 to	Copper Iron Lead Magnesium Nickel pH Potassium Silicon	-		
GATB6	Sodium Standing water level	mbgl	-	
	Sodium oxolate	mg/L		
	Sulfate]		
	Total dissolved solids			
	Vanadium			
	Zinc			

4 Information

4.1 Records

- 4.1.1 All information and records required by the Licence shall:
 - (a) be legible;
 - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
 - (c) except for records listed in 4.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
 - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
 - (i) off-site environmental effects; or
 - (ii) matters which affect the condition of the land or waters.
- 4.1.2 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.
- 4.1.3 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

4.2 Reporting

4.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 90 calendar days after the end of the annual period. The report shall contain the information listed in Table 4.2.1 in the format or form specified in that table.

Table 4.2.1: Annual Environmental Report		
Condition or table (if relevant)	Parameter	Format or 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 3.2.1	Specified monitoring of point source emissions to air	Tabulate
Table 3.3.1	Specified monitoring of point source emissions to land	Tabulate



Condition or table (if relevant)	Parameter	Format or form ¹	
Table 3.4.1	Monitoring of ambient groundwater quality	Tabulate	
4.1.2	Compliance	Annual Audit Compliance Report (AACR)	
4.1.3	Complaints summary None specified		

Note 1: Forms are in Schedule 2

- 4.2.2 The Licensee shall ensure that the annual environmental report also contains:
 - (a) any relevant process, production or operational data recorded under Condition 3.1.3;
 - (b) an assessment of the information contained within the report against previous monitoring results and Licence limits and/or targets; and
 - (c) a list of any original monitoring reports submitted to the Licensee from third parties in the reporting period and make these reports available on request.

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: N	Table 4.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²	
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution.	Part A: As soon as practicable but no later than 5pm of the next usual working day. Part B: As soon as practicable	N1	
-	Production ceasing for an unspecified period of time	As soon as practicable after the decision has been made	None Specified	
-	Production recommencing	At least 28 days prior to production recommencing	None specified	

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

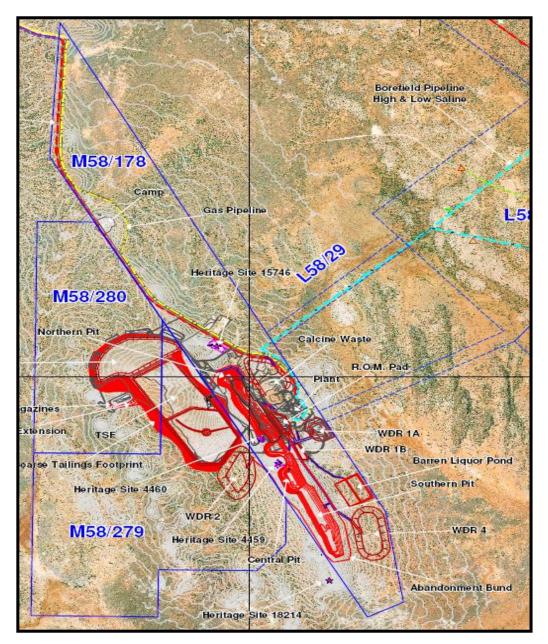
Note 2: Forms are in Schedule 2



Schedule 1: Maps

Premises map

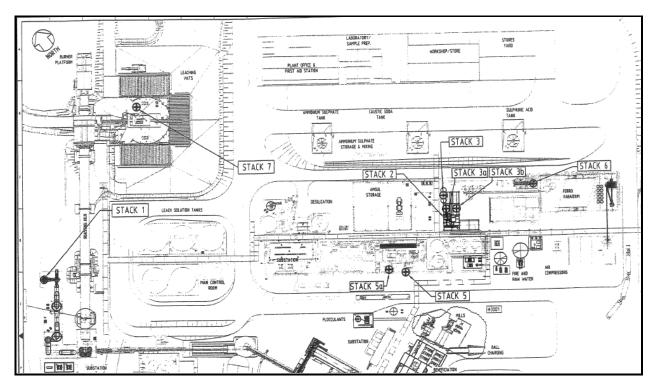
The Premises is shown in the map below. The blue line depicts the Premises boundary.



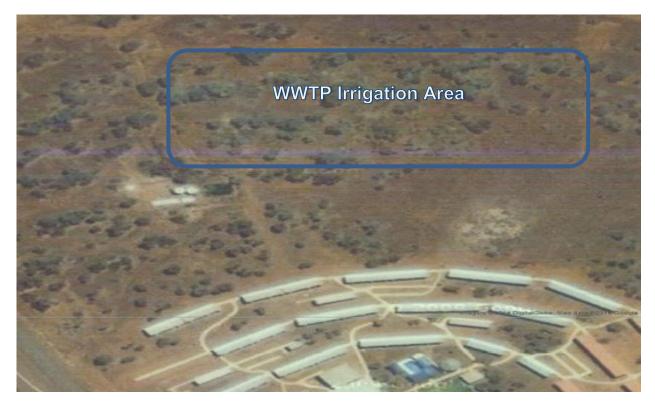


Map of emission points

The location of the emission point defined in Table 2.2.1 is shown below.



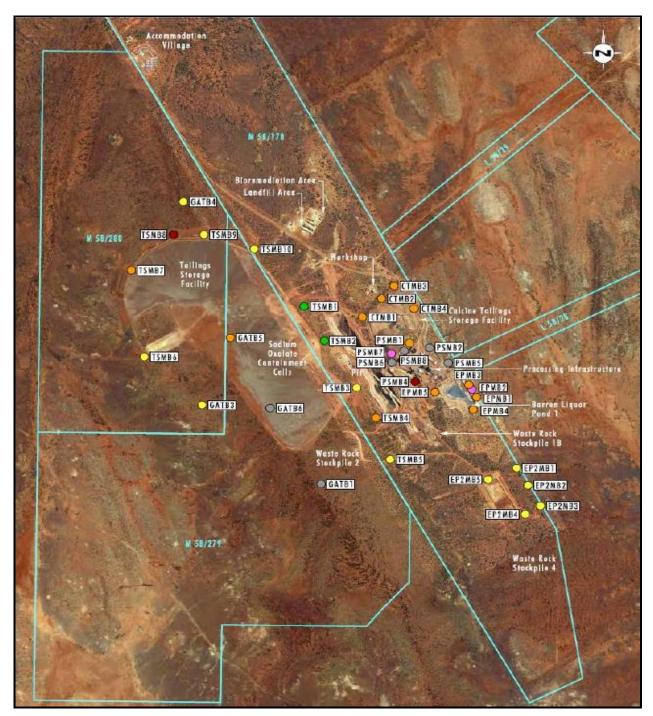
The location of the emission points defined in Table 2.5.1 is shown below.





Map of monitoring locations

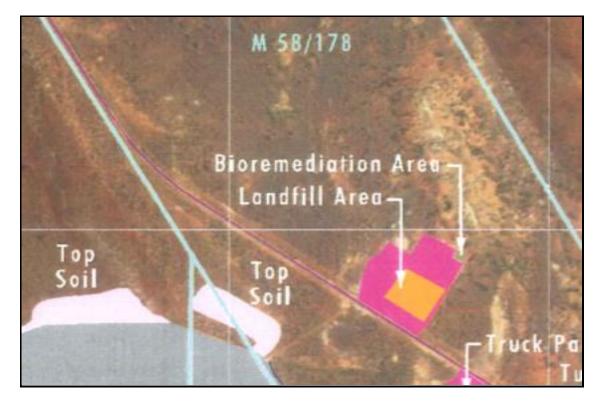
The locations of the monitoring points defined in Table 3.8.1 are shown below.





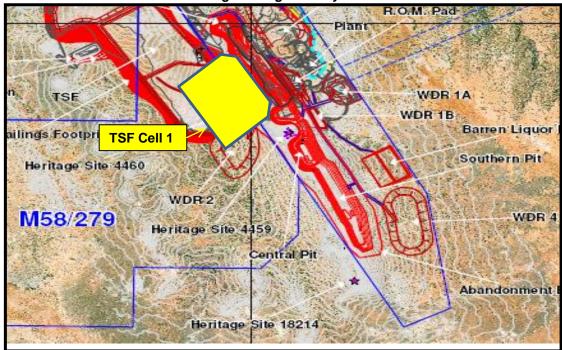
Landfill Area Map

The area in which the disposal of waste by landfilling may take place is show in the map below.



Map of storage locations

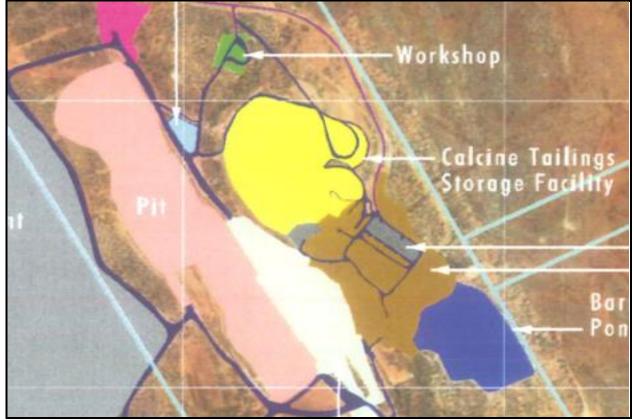
The location of the storage areas defined in Table 1.3.3 is shown below.



Tailings Storage Facility Cell 1



Calcine Tailings Storage Facility



Barren Liquor Pond 2





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 🛛 🏼 Ple	ease proce	eed to S	Section C
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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?:		
Yes Reported to DER verbally Date Reported to DER in writing Date	□ No	
d) Has DER taken, or finalised any action in relation to the non con	npliance?:	
e) Summary of particulars of the non compliance, and what was th	e environmental impact:	
f) If relevant, the precise location where the non compliance occurr	red (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) 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	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	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.
	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
A corporation	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 outbority	by the principal executive officer of the licensee; or
A public authority (other than a local government)	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	by the chief executive officer of the licensee; or
gereininger	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: Form:

L8314/2008/3 N1 Licensee: Atlantic Vanadium Pty Ltd Date of breach:

Notification of detection of the breach of a limit or any failure or malfunction of any pollution control equipment or any incident which has caused, is causing or may cause pollution.

These pages outline the information that the operator must provide.

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

Part A

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

Notification requirements for the breach of a limit		
Emission point reference/ source		
Parameter(s)		
Limit		
Measured value		
Date and time of monitoring		
Measures taken, or intended to		
be taken, to stop the emission		



Part B

Any more accurate information on the matters for notification under Part A.	
Measures taken, or intended to be taken, to prevent a recurrence of the incident.	
Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission.	
The dates of any previous N1 notifications for the Premises in the preceding 24 months.	

Name	
Post	
Signature on behalf of	
Atlantic Vanadium Pty Ltd	
Date	



Decision Document

Environmental Protection Act 1986, Part V

Proponent: Atlantic Vanadium Pty Ltd

Licence: L8314/2008/3

Registered office:	Level 11 Brookfield Place 125 St Georges Terrace Perth WA 6000
ACN:	610 583 090
Premises address:	Windimurra Vanadium Project Mining Tenements: M58/178, M58/279 and M58/280 MOUNT MAGNET WA 6638
Issue date:	Thursday, 19 February 2015
Commencement date:	Thursday, 19 February 2015

Expiry date: Monday, 18 February 2036

Decision

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a 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:

Fiona Sharpe Licensing Officer

Decision Document authorised by:

Danielle Eyre Delegated Officer



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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 ApprovalImage: Constraint of the second s		
	Category number(s)	Assessed design capacity	
	5	3,900,000 tonnes per year	
Activities that cause the premises to become	7	900,000 tonnes per year	
prescribed premises	44	10,515 tonnes per year	
	64	220 tonnes per annual period	
	84	15 megawatts	
	85	62 cubic metres per day	
Application verified	Date: 5 July 2016		
Application fee paid	Date: 2 June 2016		
Works Approval has been complied with	Yes No N/A		
Compliance Certificate received	Yes No No	J/A 🖂	
Commercial-in-confidence claim	Yes No		
Commercial-in-confidence claim outcome			
Is the proposal a Major Resource Project?	Yes No		
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes⊠ No⊡ Ma	ferral decision No: inaged under Part V □ sessed under Part IV ⊠	



Is the proposal subject to Ministerial Conditions?	Yes⊠ No[Ministerial statement No: 283, 481 and 773 EPA Report No: 1743		
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 No⊠ Department of W] ater consulted Yes 🗌 No 🖾		
Is the Premises within an Environmental Protection Policy (EPP) Area Yes No				
Is the Premises subject to any EPP requirements? Yes No \boxtimes If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP.				

3 Executive summary of proposal and assessment

The Windimurra Vanadium Project was operated by Precious Metals Australia (PMA) and Xstrata from approximately 1999 until 2003 when it was placed on care and maintenance, and one year later was closed. Approvals were obtained by PMA (name later changed to Windimurra Vanadium Ltd, then to Midwest Vanadium Pty Ltd) to re-open the mine in 2007 and 2008. In 2009 the company went into receivership for one and a half years.

Midwest Vanadium Pty Ltd (MVPL) was acquired by Atlantic Limited in September 2010 and construction began in January 2011 for recommencement of operations. Mining and processing operations continued intermittently from 2012 to 2014. A fire occurred in the beneficiation plant on 4 February 2014. Activities related to mining and ferrovanadium processing ceased at that time. Rebuilding activities continued throughout 2014.

In February 2015, the site went into receivership and since then activities on site were reduced. As of March 2016, there was a small crew undertaking care and maintenance activities on site, with typically 2-3 people on site at any one time.

On 26 May 2016, Atlantic Vanadium Pty Ltd (Atlantic), a subsidiary of Atlantic Ltd, became the legal occupier of the premises. A transfer application was submitted to DER in June 2016.

Windimurra is located on Mining Leases M58/178, M58/279 and M58/280 in the Shire of Mount Magnet. Windimurra is situated approximately 600 kilometres north east of Perth in Western Australia. Windimurra is approximately 80 kilometres south east of the town of Mount Magnet.

Prescribed activities that produce emissions and discharges at Windimurra include tailings discharge to the tailings storage facility and calcine tailings storage facility, discharge of barren liquor to evaporation ponds, irrigation to land with treated waste water, process stack air emissions, power generation, crushing and screening, and disposal of waste at the landfill.

As part of this transfer, minor amendments have been made in accordance with DER's Guidance Statement on Setting Conditions (October 2015). The partial Decision Table justifies such changes.



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 TABL	.E		
Works Approval / Licence section	Condition number W = Works Approval L= Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
General conditions	No conditions	General conditions have been removed from the licence. They are considered redundant as they are not sufficiently clear or certain.	DER's Guidance Statement – Setting Conditions October 2015
Emissions to land including monitoring	L2.5.2	Condition 2.5.2 has been removed from the Licence. Targets are considered redundant as they are not enforceable and does not clearly state an outcome that must be achieved.	DER's Guidance Statement – Setting Conditions October 2015
Fugitive emissions	No conditions	Existing fugitive conditions have been removed from the Licence as they are not risk- based. The substantive offenses of the <i>Environmental Protection Act 1986</i> provide enforceable prohibitions for dust emissions that result in pollution or environmental harm.	DER's Guidance Statement – Setting Conditions October 2015
Information	L5.1.2	Condition 5.1.2 has been removed as this condition is not considered enforceable.	DER's Guidance Statement – Setting Conditions October 2015
Licence Duration	N/A	The expiry date of the Licence has been changed from 18 February 2020 to 18 February 2036, in accordance with DER's Guidance Statmenent on Licence Duration (May 2015).	DER's Guidance Statement on Licence Duration May 2015

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5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
04/08/2016	Proponent sent a copy of draft instrument	 The following comments were received by the proponent: 1. Condition 1.3.2 – suggest removal of the words "at least twice" as this is not relevant – frequency is specified in Table 1.3.2. 2. Condition 1.3.5(a) – suggest amendment to read "undertake inspections when infrastructure is operational as detailed in Table 1.3.4" – this is to reflect the current infrequent use of pipelines under care and maintenance conditions. 3. Table 3.5.1 – suggest removal of the requirement to monitor <i>E. coli</i> in wastewater treatment discharge, as there is low risk of human exposure, and it is practically difficult to meet the holding time requirements given the remote location of the site. 4. Suggest removal of reference to forms LR1 and ET1 from the appendices / schedules as we understand these are no longer required. 	Comments were considered minor and mostly administrative. Relevant changes to the licence have been made, including the removal of <i>E.coli</i> from the monitoring schedule due to low risk of human exposure and low levels recorded in monitoring data.



6 Risk Assessment

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

Table 1	Emissions	Risk Matrix
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Likelihood	Consequence					
	Insignificant	ignificant 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	