



Licence Number	L8501/2010/2		
Licence Holder	Global Advanced Metals Greenbushes Pty Ltd		
ACN	125 585 284		
Registered business address	Gate 4 Maranup Ford Road PO Box 247		
	GREENBUSHES WA 6254		
File Number	2012/007163-1		
Duration	12 December 2013 to 13 December 2026		
Date of amendment	26 October 2020		
Premises	Global Advanced Metals Greenbushes Maranup Ford Road GREENBUSHES WA 6254		
	Being Sub-leases of Mining Tenements M01/06 and M01/03 as shown in Schedule 1		

Prescribed premises category description	Assessed production /
(Schedule 1, <i>Environmental Protection Regulations 1987</i> )	design capacity
Category 44: Metal smelting or refining	10 000 tonnes per annual period

This Licence is granted to the Licence Holder, subject to the following conditions, on 26 October 2020, by:

Lauren Fox A/MANAGER, RESOURCE INDUSTRIES REGULATORY SERVICES an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)



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### Introduction

This Introduction is not part of the Licence conditions.

#### DWER's industry licensing role

The Department of Water and Environmental Regulation (DWER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DWER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DWER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DWER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DWER 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: <a href="http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html">http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html</a>

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

This Licence is the result of an amendment sought by the Licensee to update the Licence conditions following a major amendment to the adjacent Talison Lithium Mine Licence L4247/1991/13. Delineation of emissions and impacts on this Licence have been defined in relation to those originating from Global Advanced Metals' activities within their two sub-leases located on Talison Lithium Mine's Mining Tenements M01/6 and M01/3.



The licences and works approvals issued for the Premises since 2010 are:

Instrument log		
Instrument	Issued	Description
L8501/2010/1	01/07/2010	New application for tantalum operations conducted by newly formed company Global Advanced Metals; activities were previously authorised by Licence L4247/1991/12 as part of the Talison Lithium Greenbushes operations.
L8501/2010/2	14/12/2013	Licence re-issue
L8501/2010/2	23/06/2016	Amendment notice to extend the expiry date to 13/12/2026
L8501/2010/2	15/04/2019	Licence amendment to update conditions following major amendment of Talison Lithium Australia's Licence L4247/1991/13.
L8501/2010/2	23/12/2019	Amendment to add a new concentrate dryer at the Secondary processing plant, and remove the primary plant from the licence
L8501/2010/2	26/10/2020	Administrative amendment to change registered business address

#### 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;

'AHD' means the Australian height datum;

'annual period' means the inclusive period from 1 July until 30 June in the following year;

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

**'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 5667.10'** 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;

'Bq/L' means becquerel per litre;

'CEMS' means continuous emissions monitoring system;

**'CEMS Code'** means the current version of the Continuous Emission Monitoring System (CEMS) Code for Stationary Source Air Emissions, Department of Environment & Conservation, Government of Western Australia;

**'CEO'** means Chief Executive Officer of the Department of Water and Environmental Regulation;

'CEO' for the purpose of correspondence means;

Department Administering the Environmental Protection Act 1986

Locked Bag 10

Joondalup DC WA 6919

Email: <u>info@dwer.wa.gov.au</u>

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

'environmental commissioning' means the sequence of activities to be undertaken to test



equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications;

**'Environmental Commissioning Report'** means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions and discharges, waste containment, and other environmental factors;

**'Environmental Compliance Report'** means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the licence conditions;

**'Engineer'** means a professional engineer eligible to admission as a member of the Institute of Engineers, Australia, qualified in the field of Engineering;

'**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 L8501/2010/2 and issued under the Act;

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

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

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

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

**'NOx'** means oxides of nitrogen, calculated as the sum of nitric oxide and nitrogen dioxide and expressed as nitrogen dioxide;

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

'PM<sub>10</sub>' means particles with an aerodynamic diameter of less or equal to 10  $\mu$ m;

**'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 July to 30 September, 1 October to 31 December and in the following year, 1 January to 31 March and 1 April to 30 June;

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

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

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

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

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

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

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

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

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**'SO<sub>2</sub>'** means sulphur dioxide;

**'Talison'** means Talison Lithium Australia Pty Ltd or any other registered holder of the Tenements from time to time;

**'Tenements'** means the mining tenements on which the Premises subject to this Licence are located and the adjoining tenements on which Talison's operations (the subject of L4247/1991/13) are located;

'TSF' means Tailings Storage Facility;

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

'**VOCs**' means volatile organic compounds

- 1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.
- 1.1.4 Any reference to a guideline or code of practice in the Licence means the version of that guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.

#### 1.2 General conditions

1.2.1 The Licensee shall immediately recover, or remove and dispose of spills of process liquors including tailings and saline wastewaters which occur outside an engineered containment system.

#### 1.3 **Premises operation**

1.3.1 The Licensee shall ensure that the materials listed in Table 1.3.1 are only discharged into containment cells and/or dams or ponds with the relevant infrastructure requirements and at the locations specified in Table 1.3.1.

Table 1.3.1: Containment infrastructure					
Containment cell or dam number(s)	Material	Infrastructure requirements			
Tin Shed Dam	Process water, tailings decant/seepage, contaminated stormwater	Arsenic remediation unit to treat all process water/ contaminated stormwater inflows prior to discharge to Tin Shed Dam			

- 1.3.2 The Licensee shall operate the Tin Shed Dam such that a freeboard of 0.8m is available at all times.
- 1.3.3 The arsenic remediation unit shall treat process and stormwater water discharged to the Tin Shed Dam. At least one unit (8 vessels) needs to operate with a 90%



availability within a calendar month and at least 95% availability within a year (i.e. one unit in operation for at least 95% of the time).

- 1.3.4 The Licensee shall:
  - (a) undertake inspections as detailed in Table 1.3.2;
  - (b) where any inspection identifies that an appropriate level of environmental protection is not being maintained, take corrective action to mitigate adverse environmental consequences as soon as practicable; and
  - (c) maintain a record of all inspections undertaken.

Table 1.3.2: Inspection of infrastructure					
Scope of inspection	e of inspection Type of inspection				
Tailings delivery lines (within Licensee sub-leases feeding to Talison Lithium Mine TSFs)	Visual integrity				
Tin Shed Dam embankment freeboard	Visual to confirm required freeboard capacity is available				
Roaster baghouse filter	Inspect the discharge; if visible particulate is observed, identify the source of the leak (baghouse section) and isolate that section.				
Smelter baghouse filter	Inspect the discharge; if visible particulate is observed, identify the source of the leak (baghouse section) and isolate that section.	Daily			
Secondary dryer baghouse filter <sup>2</sup> Inspect the discharge; if visible particulate is observed, identify the source of the leak (baghouse section) and isolate that section.					
Concentrate storage area and dryer area	Daily visual inspections of concentrate storage area and dryer area to identify any concentrate spills or excessive dust.				

Note 1: If circumstances at the scheduled time of inspection are identified as immediately hazardous to personnel the inspection should be undertaken as soon as practicable and the reason(s) recorded.

Note 2: Once dryer at secondary plant is operational



# 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 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 the secondary plant 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 as shown on Secondary Plant Map	Emission point height (m)	Source, including any abatement			
Roaster stack	38	via Cooler/Baghouse System			
Smelter stack	16	via Cooler/Baghouse System			
Dryer stack <sup>1</sup>	11.75	Via Cyclone/Baghouse System			

Note 1: Once dryer at secondary plant is operational

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

Table 2.2.2: Point source emission limits to air					
Emission point Reference	Averaging period				
Roaster Stack Smelter Stack Dryer Stack <sup>3</sup>	РМ	50 mg/m³	Stack test (60 minute average)		

Note 1: All units are referenced to STP dry

Note 2: Concentration units for A5 are referenced to  $6\% O_2$ . Correction for continuous monitoring should be made continuously.

Note 3: Once dryer at secondary plant is operational

### 3 Monitoring

#### 3.1 General monitoring

- 3.1.1 The licensee shall ensure that:
  - (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
  - (b) all wastewater sampling is conducted in accordance with AS/NZS 5667.10;
  - (c) all surface water sampling is conducted in accordance with AS/NZS 5667.4, AS/NZS 5667.6 or AS/NZS 5667.9 as relevant;
  - (d) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;

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- (e) all soil sampling is conducted in accordance with AS 4482.1 and AS 4482.2 as relevant; and
- (f) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.
- 3.1.2 The Licensee shall ensure that :
  - (a) monthly monitoring is undertaken at least 15 days apart;
  - (b) quarterly monitoring is undertaken at least 45 days apart; and
  - (c) six monthly monitoring is undertaken at least 5 months apart.
- 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, the requirements of the Licence and any relevant Australian standard.
- 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

Table 3.2.1:	Table 3.2.1: Monitoring of point source emissions to air						
Emission point reference	Parameter	Units <sup>1, 3</sup>	Averaging period	Frequency <sup>2</sup>	Method		
Roaster Stack	Volumetric flow rate	m³/s	n/a	Quarterly	USEPA Method 2		
Smelter (Furnace)	Particulates	mg/m <sup>3</sup>	60 min		USEPA Method 5 or USEPA Method 17		
Stack	Sulfur dioxide	mg/m <sup>3</sup>	60 min		USEPA Method 6		
Dryer							
Stack <sup>3</sup>	Nitrogen oxides	mg/m <sup>3</sup>	60 min		USEPA Method 7E or 7D		
	Carbon monoxide	mg/m <sup>3</sup>	60 min		USEPA Method 10		
	Arsenic (particulate and vapour)	mg/m <sup>3</sup>	60 min		USEPA Method 29		

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



Roaster Stack	Antimony	mg/m <sup>3</sup>	60 min	Six monthly	USEPA Method 29
Claim	Cadmium				
	Chromium				
Dryer Stack <sup>3</sup>	Cobalt				
	Copper				
	Lead				
	Manganese Mercury				
	Nickel				
	Thallium				
	Thorium				
	Tin				
	Uranium				
	Zinc				

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.
- Note 3: Monitoring to commence once the dryer at secondary plant is operational
- 3.2.3 The Licensee shall ensure that sampling required under Condition 3.2.4 of the Licence is undertaken at sampling locations in accordance with the AS 4323.1 or relevant part of the CEMS Code.
- 3.2.4 The Licensee shall maintain emissions sampling ports, platforms and access ways on the roaster stack, dryer stack and smelter stack at the Tantalum Secondary Processing Plant, in accordance with AS4323.1.
- 3.2.5 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.
- 3.2.6 The Licensee shall monitor the pressure drop across the Roaster baghouse filter system on a daily basis. A record shall be kept of each pressure drop check.
- 3.2.7 Where a pressure drop is detected, consistent with the failure of a filter bag, the Licensee shall close-off the section where the leak is detected and not use that filter bag until the leak is repaired. The source of the leak shall be recorded.

#### 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	Parameter	Units	Averaging Period	Frequency	Method	
Tin Shed Dam	Flow discharged to Talison's S3 sump or other components of Talison's water circuit on the Tenements	m <sup>3</sup>	Cumulative monthly	Quarterly	AS/NZS 5667.10	
	рН	-	Spot sample			
	TDS	mg/L	-			
	Bicarbonate Calcium Chloride Carbonate Magnesium Potassium Phosphate Sodium Sulfate	mg/L				
	Arsenic Caesium Cadmium Copper Lead Lithium Manganese Iron Rubidium Uranium Thorium Zinc	mg/L				
	Radium 226 Radium 228	Bq/L	Spot sample	Six monthly		

#### 3.4 Groundwater monitoring

3.4.1 The Licensee shall undertake the monitoring in Table 3.4.1 according to the specifications in that table.



Table 3.4.1: Groundwater monitoring					
Monitoring point reference	Parameter	Units	Frequency	Method	
MB19/01S	рН	-	Quarterly	AS/NZS 5667.11:1998	
MB19/01I	TDS	mg/L			
MB19/01D Shown as MB1901 in Figure 1 of Schedule 1	Bicarbonate Calcium Chloride Carbonate Magnesium Potassium Phosphate Sodium Sulfate	mg/L			
	Arsenic Caesium Cadmium Copper Lead Lithium Manganese Iron Rubidium Uranium Thorium Zinc	mg/L			
	Radium 226 Radium 228	Bq/L	Six monthly		

### 4 New infrastructure and equipment

#### 4.1 Construction

- 4.1.1 The Licence Holder must construct the infrastructure listed in Table 4.1.1, in accordance with;
  - (a) the corresponding design and construction requirement ; and
  - (b) at the corresponding infrastructure location; and
  - (c) within the corresponding timeframe,

as set out in Table 4.1.1.



Table 4.1.1: Design and construction requirements			
Infrastructure	Design and construction requirement	Infrastructure location	Timeframe
Rotary Dryer (In shed on concrete pad) - includes: Dust cyclone Dryer baghouse (186 m <sup>2</sup> bag house filter) Draught fan Dryer exhaust stack (11.75m)	<ul> <li>Designs as per Figures 4-5 in Schedule 1.</li> <li><u>Baghouse</u>: <ul> <li>Capable of a maximum processing air flow of 13,400 m<sup>3</sup>/h</li> <li>Filter bags capable of resisting 130°C</li> <li>Fitted with a system for detection and isolation of broken bags, without requiring a bag filter system bypass</li> <li>Fitted with gauges to provide differential pressure across the baghouse</li> <li>Fitted with means for automatically cleaning filter elements</li> <li>Alarms to alert operators to potential issues, including risk of emissions and functioning of baghouses</li> </ul> </li> <li>Stack: <ul> <li>Fitted with stack monitoring ports that meet the requirements of AS 4323.1 and are sufficient in diameter to accommodate apparatus used for emission testing required by this licence</li> </ul> </li> </ul>	Location as shown on site layout in Figure 2B in Schedule 1 – • Shed identified as 'Drying Plant' • Stack identified as 'Exhaust stack'	30/11/2021
Concentrate bag storage area	Constructed from compacted road base hard stand Graded towards the dryer away from areas of native vegetation	Location - 'Bag storage' in site layout Figure 2B, and plan in Figure 3 in Schedule 1	

#### 4.2 Construction compliance

4.2.1 The Licence Holder must within 60 calendar days of an item of infrastructure or equipment required by condition 4.1.1 being constructed and/or installed:

- (a) undertake an audit of their compliance with the requirements of condition 4.1.1; and
- (b) prepare and submit to the CEO an Environmental Compliance Report detailing how compliance with Condition 4.1.1 is met.

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4.2.2 The Environmental Compliance Report required by condition 4.2.1, must include as a minimum the following:

- (a) certification by a suitably qualified Engineer that the concentrate dryer and associated bag storage area component(s) thereof, as specified in condition 4.1.1, have been constructed in accordance with the relevant requirements specified in condition 4.1.1;
- (b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 4.1.1; and
- (c) be signed by a person authorised to represent the Licence Holder and contains the printed name and position of that person.

#### 4.3 Commissioning

- 4.3.1 The Licence Holder may only commence environmental commissioning of an item of infrastructure listed in condition 4.3.2 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 4.2.1 of this licence.
- 4.3.2 Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 4.3.2 may only be carried out:
  - (a) in accordance with the corresponding commissioning requirements; and
  - (b) for the corresponding authorised commissioning duration.

Table 4.3.2: Environmental commissioning requirements			
Infrastructure	Commissioning requirements	Averaging Period	Authorised commissioning duration
Dryer	<ul> <li>Stack emissions monitoring for:</li> <li>Total particulate matter (PM<sub>10</sub>)</li> <li>Metals – As, Ag, B, Ba, Be, Cd, Co, Cr(III), Cu, Hg, Mn, Ni, P, Pb, Sb, Se, Sn, Th, Tl, U, Zn.</li> <li>NO<sub>x</sub>, CO, VOCs, SO<sub>2</sub>.</li> </ul>	60 min	For a period not exceeding 30 calendar days in aggregate.
	Maintain records of daily visual stack and ambient dust observations	N/A	

4.3.3 During environmental commissioning, the Licence Holder must ensure that the emission(s) specified in Table 4.3.3, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).



Table 4.3.3: Authorised discharge points during commissioning			
Emission		Discharge point	Discharge point location
1.	Particulates not exceeding 50 mg/m <sup>3</sup> , and combustion gases	Dryer stack	"Exhaust stack", as shown in Figure 2B of Schedule 1.

- 4.3.4 The Licence Holder must submit to the CEO an Environmental Commissioning Report within 60 calendar days of the completion date of environmental commissioning for all items of infrastructure specified in Table 4.3.3.
- 4.3.5 The Licence Holder must ensure the Environmental Commissioning Report required by condition 4.3.4 of this Licence includes the following:
  - (a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of concentrate processed;
  - (b) the point-source emissions monitoring results recorded in accordance with condition 4.3.2;
  - (c) a summary of the environmental performance of each item of infrastructure as constructed, which at minimum includes records detailing the
    - (i) sampling of the dryer stack during normal operation;
    - (ii) commissioning of the process control system; and
    - (iii) log of daily stack and ambient dust observations.
  - (d) a review of the Licence Holder's performance and compliance against the dryer commissioning conditions of this licence; and
  - (e) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

### 5 Improvements

#### 5.1 Improvement program

5.1.1 The Licensee shall complete the improvements in Table 5.1.1 by the date of completion in Table 5.1.1.



Table 5.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
IR1	Following completion of the verification monitoring of the dryer stack emissions, the Licensee shall update the arsenic and particulate emissions dispersion model submitted to DWER on 11 November 2019 (A1842562), to include emissions from the new dryer for both normal operations and a worst case scenario operation. The ground level concentrations at each receptor within a 5km radius shall be compared to the criteria in the draft DWER Guideline: Air Emissions (DWER 2019b)	Within 90 days of the first sampling required under Condition 3.2.1

### 6 Information

#### 6.1 Records

- 6.1.1 All information and records required by the Licence shall:
  - (a) be legible;
  - (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
  - (c) except for records listed in 5.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
  - (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
    - (i) off-site environmental effects; or
    - (ii) matters which affect the condition of the land or waters.
- 6.1.2 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.
- 6.1.3 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.
- 6.1.4 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.



#### 6.2 Reporting

6.2.1 The Licensee shall submit to the CEO by 30 September an Annual Environmental Report for the previous annual period. The report shall contain the information listed in Table 6.2.1 in the format or form specified in that table.

Table 6.2.1: Annual Environmental Report		
Condition or table	Parameter	Format or form <sup>1</sup>
(if relevant)		
-	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 3.4.1	Summary of data trends over the annual period	None specified
Table 3.3.1	compared to previous years	
Table 3.2.1		
6.1.3	Compliance	Annual Audit Compliance Report (AACR)
6.1.4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

- 6.2.2 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.
- 6.2.3 The Licensee shall submit the information in Table 6.2.2 to the CEO according to the specifications in that table.



Table 6.2.2: Non-a	Table 6.2.2: Non-annual reporting requirements			
Condition or table (if relevant)	Parameter	Reporting period	Reporting date (after end of the reporting period)	Format or form
-	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 3.2.1	Point source emissions to air	Six monthly	30 calendar days	None specified
Table 3.3.1	Volumetric flow rate to TSFs, surface water quality parameters	Quarterly	30 calendar days	None specified
Table 3.4.1	Groundwater quality parameters	Quarterly	30 calendar days	None specified

#### 6.3 Notification

6.3.1 The Licensee shall ensure that the parameters listed in Table 6.3.1 are notified to the CEO in accordance with the notification requirements of the table.

Table 6.3.1: Notification requirements			
Condition or table (if relevant)	Parameter	Notification requirement <sup>1</sup>	Format or form <sup>2</sup>
2.1.1	Breach of any limit specified in the Licence	Part A: As soon as practicable but no later than 5pm of the next usual working day.	N1
		Part B: As soon as practicable	
3.1.5	Calibration report	As soon as practicable.	None specified

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

Note 2: Forms are in Schedule 2



# Schedule 1: Maps

### **Premises map**



Figure 1: Global Advanced Metals Secondary Plant Sub-lease

Licence: L8501/2010/2



### Maps of emission points and storages

The locations of the emission points defined in Table 2.2.1, are shown below in Figure 2A and Figure 2B



Figure 2A: Global Advanced Metals Secondary Plant (excluding dryer) Key Infrastructure, Emission points, Stormwater drainage pathways

Licence: L8501/2010/2





Figure 2B: Global Advanced Metals Dryer Infrastructure, Emission points, Stormwater drainage pathways

Licence: L8501/2010/2





Figure 3: Tantalite dryer area plan

Licence: L8501/2010/2





Figure 4: Tantalite dryer shed plan (zoomed in from Figure 3)

Licence: L8501/2010/2





#### Figure 5: Tantalite dryer shed – cross sections

Licence: L8501/2010/2

### **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.

Licence:	L8501/2010/2	Licensee:	Global Advanced Metals Pty Ltd
Form:	N1	Date of breach	ו:

#### 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	
Global Advanced Metals Pty Ltd	
Date	