



Licence Number L8469/2010/2

Licence Holder Galaxy Lithium Australia Limited

ACN 130 182 099

File Number: DER2014/001110

Premises
Mt Cattlin Project
RAVENSTHORPE WA 6346
Lot 31 on Plan 224145 and Lot 127 on Plan 145763
(part of Mining tenement M74/244) Newdegate-
Ravensthorpe Road RAVENSTHORPE WA 6346

Date of Amendment 27 March 2018

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B (9) of the EP Act.

Date signed: 27 March 2018

Tim Gentle

Manager Licensing – Resource Industries

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
AMMP	Airborne Materials Management Plan (2010) revised on 26 September 2017
Annual period	means the inclusive period from 1 September until 31 August in the following year.
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer of the Department of Water and Environmental Regulation;
CEO	for the purpose of correspondence means; Chief Executive Officer Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 33 CLOISTERS SQUARE WA 6850 Email: info@dwer.wa.gov.au ;
Delegated Officer	an officer delegated under section 20 of the EP Act
DMIRS	Department of Mines, Industry Regulation and Safety (from 1 July 2017 Department of Mines and Petroleum (DMP) became part of the Department of Mines, Industry Regulation and Safety – see https://publicsector.wa.gov.au/public-administration/machinery-government/2017-machinery-government-changes for further details)
DWER	Department of Water and Environmental Regulation As of 1 July 2017, the Department of Environment Regulation (DER), the Office of the Environmental Protection Authority (OEPA) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER). DWER was established under section 35 of the <i>Public Sector Management Act 1994</i> and is responsible for the administration of

	the <i>Environmental Protection Act 1986</i> along with other legislation.
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
GL/yr	means Gigalitres per year
Licence Holder	Galaxy Lithium Australia Limited
Licensee	has the same meaning as Licence Holder
m ³	cubic metres
Mining Act	<i>Mining Act 1978</i> (WA)
mbgl	metre(s) below ground level
mg/L	milligrams per litre
tpa	tonnes per annum
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997</i> (WA)
Occupier	has the same meaning given to that term under the EP Act.
OEPA	means the former Office of the Environmental Protection Authority As of 1 July 2017, the Office of the Environmental Protection Authority (OEPA), the Department of Environment Regulation (DER) and the Department of Water (DoW) amalgamated to form the Department of Water and Environmental Regulation (DWER).
Processing Plant	means the infrastructure related to the crushing, processing and /or beneficiation of the ore including the wet crushing circuit, wet plant and ROM pad as depicted and labelled on the Premise Map 1 in Schedule 1
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>
RL	refers to the term 'Relative Level' and is the height or elevation above the point adopted as the site datum for the purpose of establishing levels.
TSF	Tailings Storage Facility
TTSA	Temporary Tailings Storage Area

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B (9) of the EP Act.

This notice authorises amendments to the Licence to increase the annual production capacity of Category 5, operate the new wet plant process circuit, include two mobile screening and crushing plants and discharge tailing residue from the upgraded plant into the repaired Tailings Storage Facility at the Mt Cattlin project.

The following DWER guidance statements have informed the decision made on this amendment;

- *Guidance Statement: Regulatory Principles (July 2015)*
- *Guidance Statement: Setting Conditions (October 2015)*
- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

Amendment description

This Amendment Notice addresses upgrades to the wet process plant and the repaired Tailings Storage Facility (TSF) plus addition of two mobile crushing and screening plants and, an increased production capacity for category 5 activities up to 1,600,000 tonnes per annum (tpa).

Licence number L8469/2010/2 was amended on 2 June 2016 to authorise the installation of reflux classifiers and lithium filter belts in the process plant as part of the debottlenecking and improved plant efficiency initiatives proposed by the Licence Holder. This licence amendment also authorised repairs to the drainage and collection circuit within the existing TSF. Dry tailings containing economic tantalum materials were removed from the TSF and stored in the adjacent Temporary Tailing Storage Area (TTSA) for reprocessing whilst TSF repairs were completed.

On 15 May 2017, Galaxy Lithium Australia Limited (Galaxy) submitted the licence amendment application which is the subject of this Amendment Notice. Supporting documents to the amendment application included an “as construction” Compliance Report and TTSA Management Plan.

DWER reviewed the Compliance Report and confirmed the equipment for the wet plant upgrade had been installed except for a second Lithium belt filter. The Licence Holder has determined the first Lithium belt filter achieves the desired process efficiencies and product quality such that installation of the second filter was not required.

An increase in the annual production capacity will increase emissions and therefore need to be risk assessed. The risk assessment is presented in Table 10. The new upgraded wet plant process circuit is diagrammatically shown in Appendix 3.

The TSF drainage collection circuit was repaired by relocating dried tailings into the TTSA and then repairs completed. The dry tailings in the TTSA were managed in line with the operational procedures described in the TTSA Management Plan. The recovered tailings will be stored in the TTSA until they can be gradually reprocessed as part of normal operations. Reprocessed tailings will then be returned from the plant to the repaired TSF. Commissioning of the plant and TSF concluded in April 2017.

Condition 4.1 required the TTSA Management Plan to be submitted on 2 October 2016 but was not submitted until 15 May 2017 approximately 7 months and two weeks late. Tailings continue to be stored in the TTSA in accordance with the TTSA Management Plan and the existing Licence condition will remain in force until stored tailings recovery is completed.

On 14 July 2017, Galaxy provided two acoustics reports in support of the Licence amendment application. The reports are titled “Operational Noise Management Plan Version 5” (ONMP) plus “Environmental Noise Assessment” (ENA) both dated May 2017 and completed by Herring Storer Acoustics (HSA) consultants. Also, on 17 August 2017, two noise monitoring reports dated February 2017 and May 2017 were provided by the Licence Holder that measured the noise generated at the upgraded wet plant and included the use of two mobile crushing plants that accompany the existing ternary crushing plant. DWER has reviewed the reports and reassessed the risk associated with noise emissions.

On the 26 September 2017, Galaxy submitted a revised Airborne Materials Management Plan (AMMP) that also reassesses the dust risk that is described in Table 10 “Risk Assessment” section of this notice.

Following the applicants submission on the draft document dated 2 February 2018 further information was requested and provided on 6 March 2018. The information included an acoustics reassessment by HSA dated February 2018, revised ONMP, plus letter of comments dated 2 February 2018 and plan of monitoring locations.

Table 2 below outlines the proposed changes to the Licence production capacity.

Table 2: Proposed throughput capacity change.

Category	Current throughput capacity	Proposed throughput capacity	Description of proposed amendment
5	1,000,000 tonnes per annum	1,600,000 tonnes per annum	Increased production capacity has not changed the type of emissions nor their discharge locations. Increased production capacity will be achieved through debottlenecking and improved process efficiency of the upgraded wet plant.

Other approvals

The Licence Holder has provided the following information relating to other approvals as outlined in Table 3.

Table 3: Relevant approvals

Legislation	Number	Approval
<i>Mining Act 1978 (WA)</i> (Department of Mines, Industry Regulation and Safety)	Registration Id: 22377 and subsequent Amendments	Ravensthorpe Spodumene Project was granted mining approval on 4 November 2009 and Mining Tenement M74/244 was granted on 24 December 2009.
<i>Rights in Water and Irrigation Act 1914 (WA)</i> (Department of Water and Environmental Regulation)	GWL167439(5) – expire 18/2/2026 CAW167437(1) - CAW169547(1) – CAW170586(1) -	Process plant – 1.095 GL/yr Construct wells Construct wells Construct wells
<i>Environmental Protection Act 1986 (WA)</i> (delegated to Department of Mines, Industry Regulation and Safety)	Native Vegetation Clearing Permit CPS #3045/5- Granted 22/08/2009 expiring on 31/07/2024.	Approval to clear 15 ha within part of Mining Tenement M74/244.

The Licence Holders proposal was submitted to the Office of the Environmental Protection Authority (OEPA) on 22 September 2008 where the level of assessment was determined as

“not assessed, managed under Part V EP Act (Clearing)” as recommended on 28 October 2008. The production throughput identified in the 2008 initial proposal was approximately 1,000,000 tonnes per year therefore on 13 September 2017 (A1519036) clarification was sought from EPA Services as to whether the proposed amendment requires further consideration under Part IV of the EP Act. On 19 October 2017 the EPA services responded concluding that further consideration for an increase in annual production to 1,600,000 tpa under Part IV of the EP Act is unnecessary (A1521947).

Amendment history

Table 4 provides the amendment history for L8469/2010/2.

Table 4: Licence amendments

Instrument	Issued	Amendment
W4533/2009/1	19/06/2009	New works approval for premises construction
W4533/2009/1	8/07/2010	Works approval amendment (removal of Phase 2)
W4533/2009/1	11/10/2010	Works approval amendment (removal of spill trays under conveyors)
L8469/2010/1	14/10/2010	New licence issued for premises operation
L8469/2010/1	7/07/2011	Licence amendment (noise management requirements)
L8469/2010/1	24/05/2012	Licence amendment (TSF manual revision)
W4533/2009/1	24/05/2012	Works approval amendment (extension to expiry for TSF lifts)
W4533/2009/1	17/01/2013	Works approval amendment (reflux classifier)
L8469/2010/2	3/10/2013	Licence reissue
L8469/2010/2	4/09/2014	Licence amendment (groundwater management and conversion to latest DER licence format).
L8469/2010/2	29/04/2016	Amendment Notice 1 granted to extend expiry date to 13 October 2029
L8469/2010/2	02/06/2016	Licence amendment application to include construction of temporary tailings stockpile area and inclusion of Reflux classifiers and Lithium Belt Filter into the wet process plant circuit.
L8469/2010/2	27/03/2018	Amendment Notice 2 granted to increased throughput capacity, remove construction Compliance Report requirements plus reference new acoustics reports and monitoring, minor changes to premise operation conditions, minor changes to monitoring of inputs and outputs and replace Premises maps in Schedule 1. This amendment includes the transfer of Licence from Galaxy Resources Limited to Galaxy Lithium Australia Limited.

Works Approval W4533/2009/1 granted on 19 June 2009, was extended on 24 May 2012 with partial compliance with the works to be constructed at Ravensthorpe. On 17 January 2013, the works approval was extended to expire on 21 June 2018. The extension of expiry date was to allow for construction of the outstanding TSF lift. This works approval will remain active until it expires or, the TSF lift is constructed. Any change to the TSF lift proposal from that which was initially approved by Works Approval W4533/2009/1 will require DWER reassessment and authorization.

Location and receptors

Table 5 lists the relevant sensitive receptors in the vicinity of the primary activity with a location plan enclosed in Appendix 4 of this report.

Table 5: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
<i>Farm residence #1</i>	<i>Located 1.830 km north west of wet process plant</i>
<i>Farm residence #9</i>	<i>Located 2.091 km south of wet process plant</i>
<i>Residence #10</i>	<i>Located 2.246 km south west of wet process plant</i>

<i>Residential – Township of Ravensthorpe</i>	<i>Located ~ 2.650 km east southeast of wet process plant</i>
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Table 6 below lists the closest relevant environmental receptors in the vicinity of the Prescribed Premises relevant to the proposed amendment.

Table 6: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
<i>Kondinin-Ravensthorpe Groundwater Area (GWA)</i>	<i>Ravensthorpe Mt Cattlin Spodumene project is part located in the GWA</i>
<i>Esperance Coastal Hydrographic Catchment</i>	<i>Ravensthorpe Mt Cattlin Spodumene Project is located in the catchment</i>
<i>Native Title Claims</i>	<i>Ravensthorpe Mt Cattlin Spodumene Project is located in the; Single Noongar Claim (Area 1) – Cth claim Wagyl Kaip – NNTT registered Southern Noongar – NNTT registered</i>
<i>Clearing Regulation - Environmentally Sensitive Areas (ESA's)</i>	<i>Premises is located 5.4 km south and 8.6 km north east of restricted clearing areas.</i>

The area surrounding the prescribed activity contains no recorded rare or threatened flora, fauna or ecological communities. The majority of the project area is cleared agricultural land and will be managed in accordance with commitments described in the Licence Holders Environmental Management Plan.

Risk Assessment Methodology

The risk assessment following utilizes the risk rating matrix as shown in Table 7, recently updated in accord with DER's *Guidance Statement: Risk Assessments (February 2017)*. The risk criteria used in the matrix below is further defined in Table 8 and 9 below.

Table 7: Risk Rating Matrix

Likelihood	Consequence				
	Slight	Minor	Moderate	Major	Severe
Almost certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Medium	Medium	Medium	High
Rare	Low	Low	Medium	Medium	High

DWER will undertake an assessment of the consequence and likelihood of the Risk Event in accordance with Table 8 following:

Table 8: Risk criteria definitions (taken from DER's Guidance Statement: Risk Assessments)

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the Risk Event occurring.		The following criteria has been used to determine the consequences of a Risk Event occurring:		
			Environment	Public health* and amenity (such as air and water quality, noise, and odour)
Almost Certain	The risk event is expected to occur in most circumstances	Severe	<ul style="list-style-type: none"> • onsite impacts: catastrophic • offsite impacts local scale: high level or above • offsite impacts wider scale: mid-level or above • Mid to long-term or permanent impact to an area of high conservation value or special significance[^] • Specific Consequence Criteria (for environment) are significantly exceeded 	<ul style="list-style-type: none"> • Loss of life • Adverse health effects: high level or ongoing medical treatment • Specific Consequence Criteria (for public health) are significantly exceeded • Local scale impacts: permanent loss of amenity
Likely	The risk event will probably occur in most circumstances	Major	<ul style="list-style-type: none"> • onsite impacts: high level • offsite impacts local scale: mid-level • offsite impacts wider scale: low level • Short-term impact to an area of high conservation value or special significance[^] • Specific Consequence Criteria (for environment) are exceeded 	<ul style="list-style-type: none"> • Adverse health effects: mid-level or frequent medical treatment • Specific Consequence Criteria (for public health) are exceeded • Local scale impacts: high level impact to amenity
Possible	The risk event could occur at some time	Moderate	<ul style="list-style-type: none"> • onsite impacts: mid-level • offsite impacts local scale: low level • offsite impacts wider scale: minimal • Specific Consequence Criteria (for environment) are at risk of not being met 	<ul style="list-style-type: none"> • Adverse health effects: low level or occasional medical treatment • Specific Consequence Criteria (for public health) are at risk of not being met • Local scale impacts: mid-level impact to amenity
Unlikely	The risk event will probably not occur in most circumstances	Minor	<ul style="list-style-type: none"> • onsite impacts: low level • offsite impacts local scale: minimal • offsite impacts wider scale: not detectable • Specific Consequence Criteria (for environment) likely to be met 	<ul style="list-style-type: none"> • Specific Consequence Criteria (for public health) are likely to be met • Local scale impacts: low level impact to amenity
Rare	The risk event may only occur in exceptional circumstances	Slight	<ul style="list-style-type: none"> • onsite impact: minimal • Specific Consequence Criteria (for environment) met 	<ul style="list-style-type: none"> • Local scale: minimal to amenity • Specific Consequence Criteria (for public health) met

[^] Determination of areas of high conservation value or special significance should be informed by the *Guidance Statement: Environmental Siting*.

* In applying public health criteria, DWER may have regard to the Department of Health's *Health Risk Assessment (Scoping) Guidelines*.

"onsite" means within the Prescribed Premises boundary.

DWER will determine the acceptability and treatment of Risk Events in accordance with the Risk treatment table 9 below:

Table 9: Risk treatment table

Rating of Risk Event	Acceptability	Treatment
Extreme	Unacceptable.	Risk Event will not be tolerated. DWER may refuse application.
High	May be acceptable. Subject to multiple regulatory controls.	Risk Event may be tolerated and may be subject to multiple regulatory controls. This may include both outcome-based and management conditions.
Medium	Acceptable, generally subject to regulatory controls.	Risk Event is tolerable and is likely to be subject to some regulatory controls. A preference for outcome-based conditions where practical and appropriate will be applied.
Low	Acceptable, generally not controlled.	Risk Event is acceptable and will generally not be subject to regulatory controls.

Risk assessment

Tables 10 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. This table identifies whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 10: Risk assessment for proposed amendment during operation

Risk Event						Consequen ce rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Category 5 Processing or beneficiation of metallic or non-metallic ore	Operation of Ravensthorpe Mt Cattlin Wet Process plant	Dust: Release of particulate matter from wet plant production circuit	Nearby Residents: Located greater than 1.8 km from wet process plant.	Air: Wind dispersion	Health and amenity impacts	N/A	N/A	N/A	Wet plant not expected to release dust
		Local Flora species Located greater than 1km east of wet process plant	Impact to native vegetation health		N/A	N/A	N/A	Wet plant not expected to release dust	
		Noise: associated with wet plant production circuit	Nearby Residents:	Air: Wind dispersion	Amenity impacts	-	-	-	Based on its assessment of the Environmental Noise Assessment for the upgraded plant, DWER has concluded that noise can be managed to ensure compliance with the Environmental Protection (Noise) Regulations 1997. Pumps and bearings and pulleys will be managed by Licence Holder employing strict plant maintenance and replacement program ensuring plant noise emissions remain compliant with Noise Regulations. The ONMP dated May 2017 submitted with the amendment application contains management commitments by the Licence Holder. Condition 2.2.1 will be amended to include the latest version of Galaxy's ONMP version 5, May 2017.

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Category 5 Processing or beneficiation of metallic or non-metallic ore	Operation of two mobile crushing and screening plants located on Plant pad and ROM stockpile zone.	Dust	Nearby Residents: Located greater than 1.8 km from wet process plant.	Air:	Health and Amenity impacts	Minor	Unlikely	Medium	<p>The Delegated Officer considers the overall risk rated as “medium” as dust emissions can be controlled at the two mobile crushing and screening plants and the existing crusher in accordance with latest version of AMMP.</p> <p>Existing licence conditions 2.1.1 adequately address dust emissions and a new condition 2.1.2 describes the management controls specified in the AMMP.</p>
		Noise		Air:	Amenity impacts	-	-	-	<p>Based on DWER’s review and assessment of the Environmental Noise Assessment for the operation of two (Modular and ROM) crushing plants, it is concluded that noise can be managed to ensure compliance with the Noise Regulations during daytime and evening operations.</p> <p>The controls to be implemented require one Modular crusher to be located south of the wet plant and the other on the ROM stockpile zone. Both plants will need acoustics bunds to attenuate noise emissions and be operated consistent with the revised Galaxy ONMP Revision 5 May 2017. This includes;</p> <ul style="list-style-type: none">No crushing operations at night-time when EP Noise Regulation assigned noise level is at its lowest; and,Only one mobile crusher will operate during worst case weather conditions in the evenings. <p>New licence conditions 1.2.12 to 1.2.14 reflect these management controls. Existing licence conditions 1.2.2 will be amended to include mobile crushing plants operations. Conditions 2.2.1 will be amended to include the implementation of the latest version of Galaxy’s ONMP version 5, May 2017 and existing condition 4.1.1 be amended to include IR 2 requiring noise bund construction on the ROM stockpile and IR 3 to complete monitoring</p>

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
									trial of night time noise at receptors to support night time operations with winds from the west, north west and north and provide a measurement report to CEO.
Category 5 Processing or beneficiation of metallic or non-metallic ore		Stormwater runoff	Surrounding environment and vegetation	Overland flow	Impacts of contaminated stormwater on surrounding environment and vegetation	Further information is required	Further information is required	Further information is required	Further information is required. An improvement condition has been applied requiring the Licence Holder to provide an updated surface water management plan to the CEO within 6 months of Licence amendment being approved.
	Tailings deposition	Waste: Tailings seepage	Groundwater: Local shallow (4.5- 5 mbgl) aquifer is saline (salinity equivalent to seawater or greater ~ 36,000 uS/cm to 49,000 uS/cm) (AER 2015 - 2016).	Land: infiltration through the base of the TSF to soil profile and groundwater	Contamination of groundwater with metalloid. Groundwater mounding or lateral seepage with negative impacts on roots of vegetation.	Moderate	Possible	Medium	<p>The overall risk rating is "medium".</p> <p>Groundwater quality is saline and unacceptable for domestic and livestock uses. Decant water is recycled back to the raw water dam for reuse in the wet plant.</p> <p>The Licence Holder has completed the reinstatement of TSF drainage collection system that captures and diverts decant water back into the wet plant water circuit. The TSF drainage system is a Licence Holder commitment as an alternative impermeable TSF liner. Now the drainage system has been repaired it is expected that the overall risk rating remains unchanged.</p> <p>The existing conditions 3.4.1 and table 3.8.1 will be amended to include a Standing Water Level (SWL) limit of greater than 3 metres below ground level (mbgl) for all the TSF monitoring bores.</p> <p>The Licence Holders proposed amendment to metalloid units from micrograms to milligrams is deemed acceptable and table 3.8.1 is amended accordingly. The parameters of Uranium and Thorium will be included as these elements are normally observed at Lithium mining operations. Also, now that tailing deposition is occurring the monitoring frequency will change to four times per year.</p>

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
		Waste: Release of tailings or tailings decant process water (return water) pipeline failure	Terrestrial ecosystems: local soils, vegetation and surface water	Land: Direct discharge from pipeline failure	Contamination of soil, vegetation, and surface water with salt, metals or metalloid.	Moderate	Unlikely	Medium	<p>The Licence Holder has committed to the following controls for all tailings pipelines at Galaxy operations; Either;</p> <ul style="list-style-type: none"> • Secondary containment to collect spills; or, • Pressure sensors along pipelines; or, • Isolation valves installed at discharge pumps and return water pumps. <p>Daily inspections of TSF pipelines will be conducted by the Licence Holder during operations.</p> <p>Given these controls, the overall risk of tailings or decant water release in the event of a pipeline failure is deemed to be "medium" and is consistent with similar industries licence conditions modified to require 12 hourly inspections with an inspection log to be maintained for purpose of compliance auditing.</p> <p>A new condition 1.2.11 will be added to the licence to manage pipelines at the Premise and existing conditions 5.2.1 adequately controls reporting of environmental incidents, failures or malfunctions that occur during the annual reporting period.</p>
Category 5 Processing or beneficiation of metallic or non-metallic ore	Overtopping of TSF	Waste: Uncontrolled release of tailings/decant water	Terrestrial ecosystems: local soils, vegetation and surface water	Land: Direct discharge from overtopping of in-pit TSF	Contamination of surrounding soils with metals and metalloids, affecting soil and vegetation	Slight	Rare	Low	<p>Consequence rated as "slight" and overall risk rated as "low" based on application of existing controls. Tailings disposal is limited by existing licence condition 1.2.6 requiring 300 mm freeboard during operations. Therefore the likelihood of TSF overtopping occurring is "rare".</p> <p>Existing condition 3.3.1 Table 3.7.1 ensures routine inspection of TSF is completed and provides adequate control to manage overtopping.</p> <p>It is noted the Licence Holder has a current Works Approval to complete TSF wall lifts that expires on 21 June 2018.</p>

Risk Event						Consequen ce rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
	Overtopping of raw water and catchment dams					Slight	Rare	Low	<p>The considers the overall risk of overtopping as “low” because the likelihood is “rare” and the consequences “slight”. The raw water dam spillway direct excess water back towards the Catchment dam where water is collected and recycled back to the process water circuit.</p> <p>The Licence Holders management control for Galaxy’s process water dams and storage ponds which contain process water are:</p> <ul style="list-style-type: none">• Either evaporate or recycle the water;• Maintain a 300 mm freeboard; or,• Directs excess water to the existing upgraded TSF for recycling. <p>Existing condition 3.3.1 and Table 3.7.1 ensure routine inspection of all dams and ponds are completed. Existing condition 1.2.4 and 1.2.5 will be amended to include all water storages at the Galaxy operations.</p> <p>Agricultural Dams 3, 4 and 5 to be excluded if they don’t receive operational waters and do not discharge. Consistent with similar industries the licence condition will be modified to require an inspection log to be maintained for purpose of compliance audits.</p>
Category 5 Processing or beneficiation of metallic or non-metallic ore	TSF deposition and storage of tailings and decant water	Waste: Tailings and decant pond	Local fauna Birds and other Wildlife	Land: Direct ingestion (birds or fauna drinking the water)	Fauna sickness or death from drinking water. Entrapment / death of fauna in the tailings	Moderate	Possible	Medium	<p>The overall risk of fauna entrapment is “medium”. The process/decant water in the TSF and water storage facilities is saline, similar to seawater and is unattractive to local birds and animals for drinking purposes.</p> <p>The Licence Holder controls include;</p> <ul style="list-style-type: none">• Recycling TSF decant water back into the process water circuit;• Management of dams to maintain structural integrity with reduce supernatant pond sizes;• Maintaining fauna egress at the raw water and turkey nest dams (to allow

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
									<i>fauna to escape).</i> <i>Given these controls, the overall risk of fauna impacts is "medium" and licence condition 3.3.1 and Table 3.7.1 adequately address the risk to fauna for Galaxy's containment infrastructure.</i>

Decision

The potential emissions associated with operation at the Galaxy Ravensthorpe Spodumene project are;

- noise from screening and crushing and the wet process plant;
- fugitive dust from conveyors, screening and crushing plant, wet plant processes, (it is a wet plant) TSF, product stockpiles, waste dumps, mine blasting and from mining vehicle movements;
- TSF seepage or spillage of tailings; and,
- Mechanical workshops waste (tyres and hydrocarbons).

The Delegated Officer has considered the overall risk of the emissions upon local receptors together with Galaxy's proposed management controls and determined, the proposed amendments will not result in emissions which are unacceptable to public health or the environment and therefore grants the Licence amendment.

The Licence is amended by;

- Add definitions for 'AMMP', 'catchment dam', 'CEO', 'Compliance report', 'DWER', 'EP Act', 'mbgl', 'ONMP', 'RL', 'TSF' and delete definition 'µg/L';
- Transfer the Licence from Galaxy Resources Limited to Galaxy Lithium Australia Limited. Delegated Officer noted that Galaxy Lithium Australia Limited is a wholly owned subsidiary of Galaxy Resources Limited.
- Deleting Licence conditions 1.2.10 and 4.1.1 in their entirety as the information required by these conditions has been provided to the CEO;
- Add a new Improvement condition 4.1.1 requiring the preparation of a Surface Water Management Plan (IR 1) within 6 months of licence amendment approval;
- Add a new improvement condition 4.1.1 requiring the construction of the ROM stockpile zone noise bund (IR 2) within 2 months plus 8 week trial night time noise monitoring (IR 3) within 6 months of the licence amendment;
- Inserting changes to Licence condition 1.2.2, 1.2.4, 1.2.5, 1.2.7, 1.2.8, 2.2.1, 3.2.1, Table 3.6.1, 3.4.1, add limits to table 3.8.1, redefining units to mg/L and including Uranium and Thorium parameters plus changes to 3.4.2, 5.1.2, 5.1.5, 5.2.1, table 5.2.1 and table 5.3.1;
- Adding new conditions 1.2.11, 1.2.12, 1.2.13, 1.2.14 and 2.1.2 for pipeline management, plus controls for the two mobile crushing units operational times and positioning behind acoustics barriers;
- Add new conditions 2.1.2 that describes the operational controls for dust management;
- Deleting the Annual Audit Compliance Report (AACR) template from Schedule 2 of the licence and reference the website address for the 'Compliance Report' referenced by condition 5.1.2 of Licence;
- Replace the Premise map in Schedule 1 of the Licence; and,
- Including new maps in schedule 1 of the Licence that indicate the monitoring point references described in table 3.7.1 and table 3.8.1 plus vegetation monitoring locations.

Changes to the Licence have been made in accordance with DWER administrative changes including the name, logo and contacts for the Department and redefining terms in the licence.

The Delegated Officer has determined the Galaxy Premises risk remains unchanged following the completion of the upgrades to the wet process plant, repairs to the TSF, increased production throughput and the operation of the two mobile crushing plants.

Licence Holder's comments

The Licence Holder was provided with the draft Amendment Notice on 13 October 2017. Comments received from the Licence Holder have been considered by the Delegated Officer as shown in Appendix 2.

Amendment

1. Definitions of the Licence are amended by the deletion of the text shown in strikethrough and the insertion of new definitions shown in red text underline below:

'AMMP' means the most recent version of the Galaxy document titled "Airborne Materials Management Plan";

'catchment dam' means the dam receiving stormwater runoff from the processing plant area, as depicted and labelled 'catchment dam' on the Premises Map in Schedule 1;

'CEO' for the purpose of correspondence means:

Director General
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33 Cloisters Square
PERTH WA 6850
Telephone: ~~(08) 9333 7510~~
Facsimile: ~~(08) 9333 7550~~
Email: info@dwer.wa.gov.au

'Compliance Report' means a report in a format approved by the CEO as presented by the Licensee or as specified by the CEO from Time to time and published on the Departments website;

'DWER' means the Department of Water and Environmental Regulation;

'EP Act' means *Environmental Protection Act 1986*;

'mbgl' means metres below ground level;

'mg/L' means milligrams per litre;

'ONMP' means the Operational Noise Management Plan revision 5 dated May 2017

'RL' means Relative Level and is the height or elevation above a survey point adopted as the site datum for the purpose of establishing levels.

'TSF' means the Tailings Storage Facility as depicted and labelled "TSF Cell 1" on the Premise map in schedule 1

~~**'µg/L'** means micrograms per litre; and~~

2. The Licence Holders name and registered business address is amended from the name and address below:

Galaxy Resources Limited
ACN: 071 976 442
Level 2, 16 Ord Street
WEST PERTH WA 6005

To the new name and registered business address below:

Galaxy Lithium Australia Limited
ACN: 130 182 099
Level 4, 21 Kintail Road
APPLECROSS WA 6953

3. Conditions 1.2.10, 4.1.1 and 5.1.5 of the Licence are deleted in their entirety.

~~1.2.10 The Licensee shall complete construction of the Temporary Tailing stockpile area and the process plant improvements in accordance with the documentation listed in Table 1.3.10 and in the location depicted in Schedule 1:~~

Table 1.3.1: Construction requirements¹		
Document	Parts	Date of Document
Application to amend the Ravensthorpe Spodumene Project prescribed Premise Licence L8469/2010/2 plus supporting documentation.	All	10 May 2016
"Mt Cattlin Spodumene Project Mining Proposal Addendum – Amendment to Processing Circuit and Temporary Tailings Storage M74/244" dated 5 April 2016 reference GMM-MP-01	All	5 April 2016

Note 1: Where the details and commitments of the documents listed in condition 1.3.6 are inconsistent with any other condition of this licence, the conditions of this licence shall prevail.

~~4.1.1. The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1~~

Table 4.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
IR1	<p>The Licensee shall prepare and submit to the Chief Executive Officer a Temporary Tailing Stockpile Area Management Plan for the tailings storage area. The Management Plan shall include (but not be limited to):</p> <ul style="list-style-type: none"> (i) the immediate (short term) monitoring proposed to manage any seepage and prevent environmental impacts, including operational procedures to reduce seepage generation; (ii) the long term proposal that will ensure that Temporary Stockpile area is decommissioned and rehabilitated; and (i) Identify the final report format that clearly demonstrates that the temporary tailing stockpile seepage has not affect groundwater or groundwater levels in the future. 	Within 4 months of the amendment date of this licence.

4 New Improvement Condition

A new Improvement Condition number 4.1.1 is applied as shown in red text below

4.1.1 The Licensee shall complete the improvements in Table 4.1.1 by the date of completion in Table 4.1.1.

Table 4.1.1: Improvement program		
Improvement reference	Improvement	Date of completion
IR 1	The Licensee shall submit an updated Surface Water Management	Within 6

	<p>Plan to the CEO. The plan shall include details relating to:</p> <ul style="list-style-type: none"> (a) Assessment of capacity of existing stormwater infrastructure to contain runoff from the processing plant, stockpiles, concentrate storage, and laydown areas so that there is zero discharge of contaminated stormwater from the site for a 1 in 100 annual exceedance probability (AEP) storm event over 72 hours; (b) Surface water drainage map of the site showing contours, flow paths and containment cells; (c) If (a) finds existing infrastructure is insufficient, identification of additional infrastructure/operational controls required to ensure no discharges of contaminated stormwater during a 1 in 100 annual exceedance probability (AEP) storm event over 72 hours; and (d) Provision of schedule for constructing additional infrastructure and/or implementing operational controls, if required. (e) Determining impacts of seepage from the temporary tailings stockpile on groundwater quality and groundwater levels. 	months of the amendment date of this licence.
IR 2	The Licensee shall construct a noise bund on the ROM stockpile zone with dimensions and location sufficient to ensure compliance with the <i>Environmental Protection (Noise) Regulations 1997</i> .	Within 2 months of the amendment date of this licence.
IR 3	<p>The Licensee shall undertake a noise monitoring trial of the ROM crusher to measure night time noise emissions received by the noise sensitive receptors. The trial will be conducted when the winds are from the West, North West and North quadrants and following construction of the ROM stockpile noise bund. The measurements report shall be submitted to the CEO. The report shall include details relating to:</p> <ul style="list-style-type: none"> (a) The ROM crusher production throughput during the night time monitoring trial; (b) The type, location and number of mine equipment and mine vehicle operating during the monitoring trial; (c) The weather conditions at the time the monitoring trial was conducted; (d) An environmental assessment of the night time noise impacts recorded during the trial monitoring; (e) Provide justification how night time operations will comply with the <i>Environmental Protection (Noise) Regulations 1997</i>. 	Within 6 months of the amendment date of this licence.

5. Conditions 1.2.2, 1.2.4, 1.2.5, 1.2.7, 1.2.8, 2.2.1, 3.2.1, 3.4.1, 3.4.2, 5.1.2, 5.2.1 and 5.3.1 of the Licence are amended by the deletion of the text shown in strikethrough and the insertion of bold red text shown below:

- 1.2.2 The Licensee shall ensure that activities at night are restricted to the operation of the Processing Plant area only, with exception to the operation of the following which may occur outside the Processing Plant area:
- (a) One grader (~~GR501 CAT 14G~~ **16H** model, or equivalent);
 - (b) One truck (~~WT 105 MACK~~ **CAT773** model, or equivalent) and,
 - (c) One loader (~~LT03 KOMATSU WA500~~ **CAT988** model, or equivalent).
 - (d) **One Moxi Truck or equivalent.**
- 1.2.4 The Licensee shall maintain a freeboard of at least 300 millimetres at all times in the catchment dam, the raw water ~~dam pond~~, and the dust suppression dam(**s**).
- 1.2.5 The Licensee shall ensure that water in the Catchment Dam, the Raw Water ~~Dam Pond~~ and the Dust Suppression Dam(**s**) is reused for dust suppression, processing and/or is

retained in the ponds to evaporate so discharges from these ponds to the environment do not occur.

1.2.7 The Licensee shall ensure that standing water levels in all **Tailings Storage Facilities (TSF)** monitoring bores remain greater than three metres below ground level.

1.2.8 The Licensee shall:

- (a) ensure that tyres are not stored prior to burial in any location on the premises other than the **Workshop or the allocated tyre storage area** ~~Waste Dump~~ area, as depicted in ~~Attachment~~ **Schedule 1 Premises map. 2;**
- (b) ensure that no more than **Twenty five (25)** ~~four~~ tyres are stored at any one time before burial at the Waste Dump;
- (c) ensure that tyres are only stacked on level ground; and
- (d) ensure that all tyres are stacked on their side walls.

2.2.1 The Licensee must ensure that noise is managed in accordance with the **Galaxy Lithium Australia Limited Mt Cattlin Spodumene Project (formerly Ravensthorpe) Spodumene Project - Operational Noise Management Plan, Revision 5 (May 2017) June 2014).**

3.2.1 The Licensee shall undertake the monitoring in Table 3.6.1 according to the specifications in that table.

Table 3.6.1: Monitoring of inputs and outputs				
Input/Output	Parameter	Units	Averaging period	Frequency
Tyres	Numbers of waste tyres stored and buried	Number of waste tyres	Annual period	Continuous
Waste rock	Volume produced and stockpiled	m ³		
Industrial waste	Volume produced (off-site disposal)			
Domestic waste	Volume produced (off-site disposal)			
Tailings	Volume discharged to the Tailings Storage Facility	m ³	Annual period	
			Daily	
Tailings decant	Inflows from the decant and underdrainage system		Annual period	
			Daily	

3.4.1 The Licensee **must** ~~shall~~ undertake the monitoring in Tables 3.8.1 according to the specifications in that table and record and investigate results that do not meet any **target limit** specified.

Table 3.8.1: Monitoring of ambient groundwater quality					
Monitoring point reference and location as depicted in the Premises Map in Schedule 1	Parameter	Target Limit	Units	Averaging period	Frequency
MB01, MB02, MB03, MB04, MB05 and MB06	Standing water level	> 3	m(BGL)	Spot sample	(i) Monthly; and
		-	M(AHD)		(ii) Daily when levels are exceed the target limit .
	pH ¹	-			(i) Four Six times per year (in November October, December, February, May April, June and
	Electrical conductivity ¹		µS/cm		
	Total Dissolved Solids (TDS)		mg/L		

	Sodium				<p>August) when tailings deposition into the tailings storage facility is occurring; and</p> <p>(ii) Three times per year (in October, February and June) when tailings deposition into the tailings storage facility is not occurring</p>
	Calcium				
	Potassium				
	Magnesium				
	Sulphate				
	Chloride				
	Fluoride				
	Aluminium				
	Arsenic				
	Cadmium				
	Cobalt				
	Chromium (III)				
	Copper				
	Iron				
	Manganese			µmg/L	
	Nickel				
	Lead				
	Zinc				
	Barium				
	Boron				
	Chromium (III)				
	Mercury				
	Molybdenum				
	Antimony				
	Selenium				
	Tin				
	Vanadium				
	Uranium				
	Thorium				

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

- 3.4.2 Upon becoming aware of any exceedance of the standing water level target **limit** in Table 3.8.1, the licensee must implement increased frequency of groundwater level monitoring and continual assessment as outlined in the TSF Operating Manual.
- 5.1.2 The Licensee must **submit to the CEO within 60 calendar days after the end of the annual period, complete an Annual Audit Compliance Report** indicating the extent to which the Licensee **Holder** has complied with the conditions of the **in this Licence** ,and any previous licence issued under Part V of the Act for the Premises **for the previous annual period.**
- 5.1.4 The Licensee Must maintain inspection log book/s on site in which each inspection undertaken in accordance with Condition **3.3.1 Table 3** 2.7.1 is logged and comments made on observations at the time of inspection.
- 5.1.5 The Licensee must submit a compliance document to the CEO, following the completion of the works under condition ~~4.2.10~~ **4.1.1 (IR 2).**
- 5.2.1 The Licensee must submit to the CEO an Annual Environmental Report within 60 calendar days after the end of the annual period. The report shall contain the information listed in Table 5.2.1 in the format or form specified in that table.

Table 5.2.1: 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

3.1.3	Production / throughput data	
3.6.1	Monitoring of inputs and outputs	
3.8.1	Monitoring of ambient groundwater quality	
5.1.3 & 5.1.7	Compliance	Annual Audit Compliance Report (AACR)
5.1.3 4	Complaints summary	None specified

Note 1: Forms are in Schedule 2

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

Table 5.3.1: Notification requirements

Condition or table (if relevant)	Parameter	Notification requirement ¹	Format or form ²
1.4 3.1	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
-	Any failure or malfunction of any pollution control equipment or any incident, which has caused, is causing or may cause pollution	Part B: As soon as practicable	
3.1.5	Calibration report	As soon as practicable.	None specified
-	Cessation of any care and maintenance period and transitioning to production and the intention to re-commence crushing, processing and/or beneficiation of ore through the Processing Plant	No less than 60 days prior.	Include proposed timeframes
-	Cessation of production and transition to care and maintenance.	No less than 60 days prior.	Include proposed timeframes

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

Note 2: Form s-are is in Schedule 2

6. The Licence is amended by adding new “Premises operation” conditions 1.2.11, 1.2.12, 1.2.13 & 1.2.14 as shown by the red text as follows;

- 1.2.11 The Licensee must ensure that pipelines containing tailings have either;**
- (a) secondary containment sufficient to contain any spill for a period equal to the time between routine inspections; or, :**
 - (b) equipped with telemetry systems and pressure sensors along pipelines to allow the detection of leaks and failures; or**
 - (c) equipped with automatic cut-outs in the event of a pipe failure.**

1.2.12 The Licensee shall ensure the two mobile crushing units do not operate between 10:00 pm till 7:00 am.

1.2.13 The Licensee shall ensure only one mobile crushing units will be operated during the evening period (7:00 pm till 10:00 pm) during worst-case weather conditions. (Temperature inversions and/or light winds from the south-east).

1.2.14 The Licensee must ensure the two mobile crushing units are located on the southern side of the processing plant and the ROM Stockpile within acoustics barriers.

7. The Licence is amended by adding new “Fugitive dust management requirements” conditions 2.1.2 as shown by the red text as follows;

2.1.2 The Licensee must undertake the fugitive dust management requirements in Table 2.2.1

Table 2.2.1: Fugitive dust management requirements	
Activity	Operation details
Water and Dust suppressants	Operate proactively subject to weather forecasting over a 24 hour period. Reduce the scope of activity or halting the activity if there is risk of receptors (residences) being impacted.
Monitoring operations	Conduct dust monitoring at the frequency and to the standards described in section 5.2 of the AMMP at the locations indicated in Schedule 1 map titled “Baseline Dust Monitoring locations”.
Continuous improvement	The Licensee shall continuously improve site dust management through identification of dust sources and identifying and implementing improved dust controls as required.

8. The Licence is amended by removing the Annual Audit Compliance Report template in Schedule 2. The Compliance Report template is available from the DER's website <https://www.der.wa.gov.au/our-work/regulatory-framework>

Schedule 1 – Maps

Premises map

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

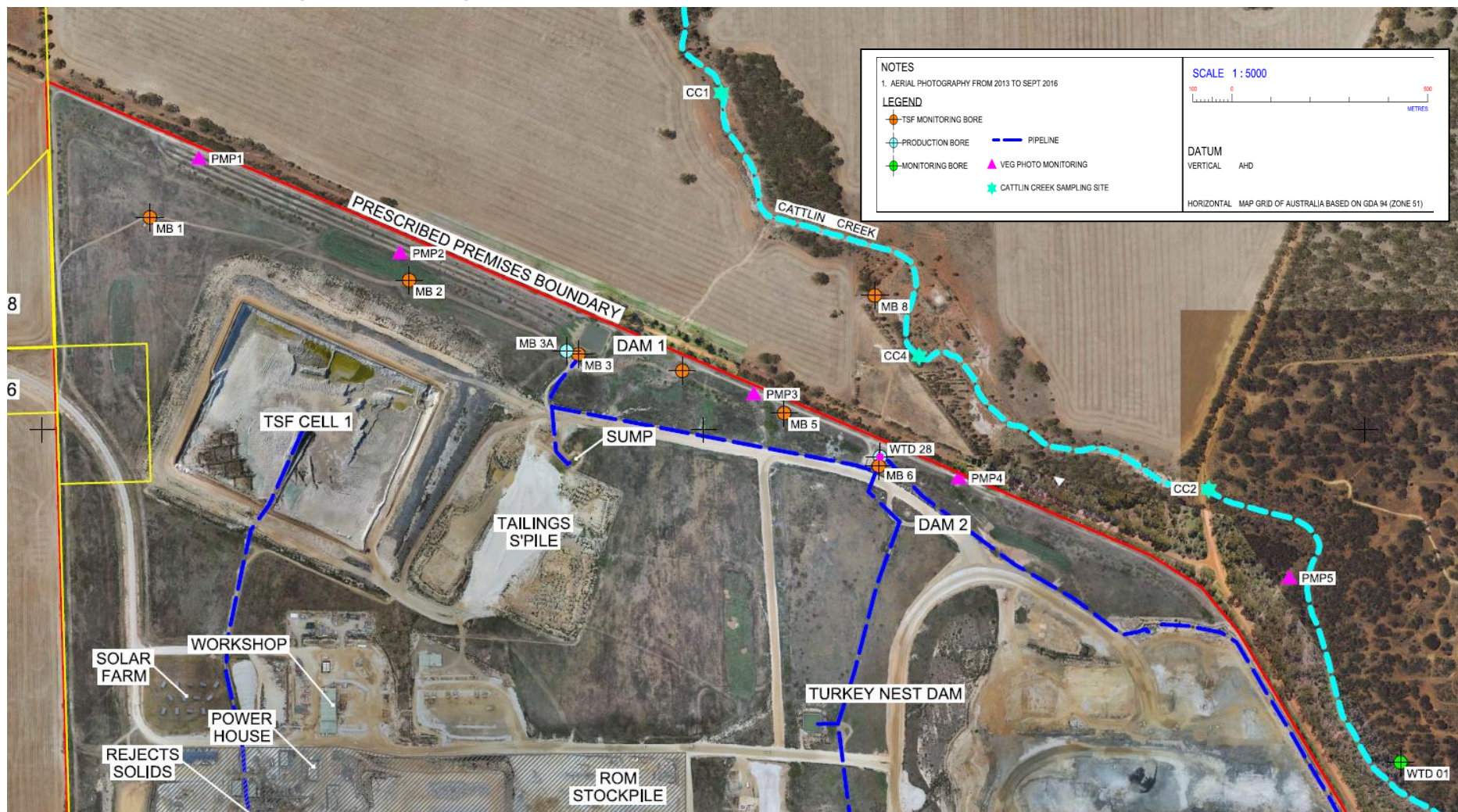


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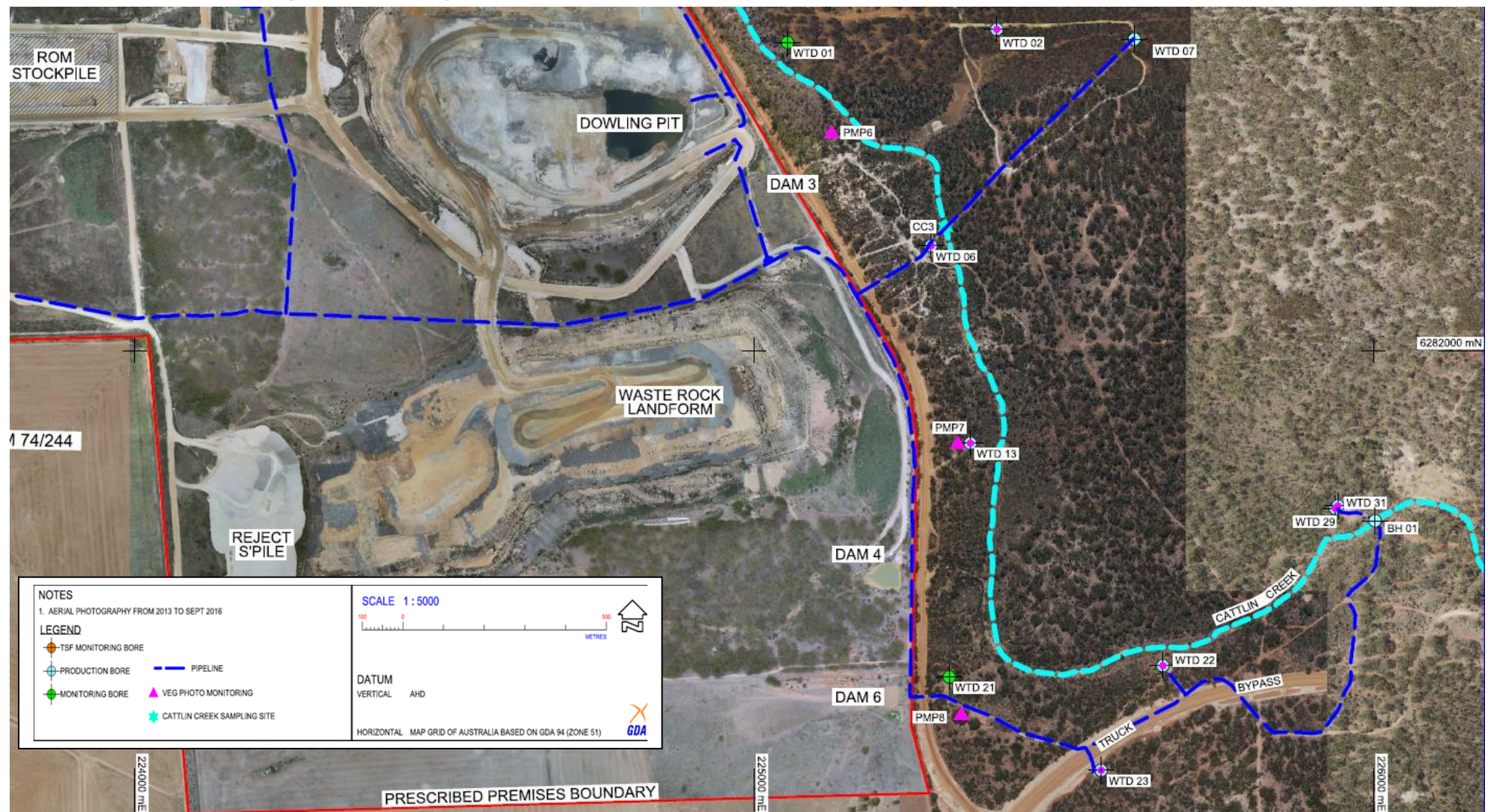
Premises map

Map 1 of 3 “Groundwater and Vegetation Monitoring locations”.



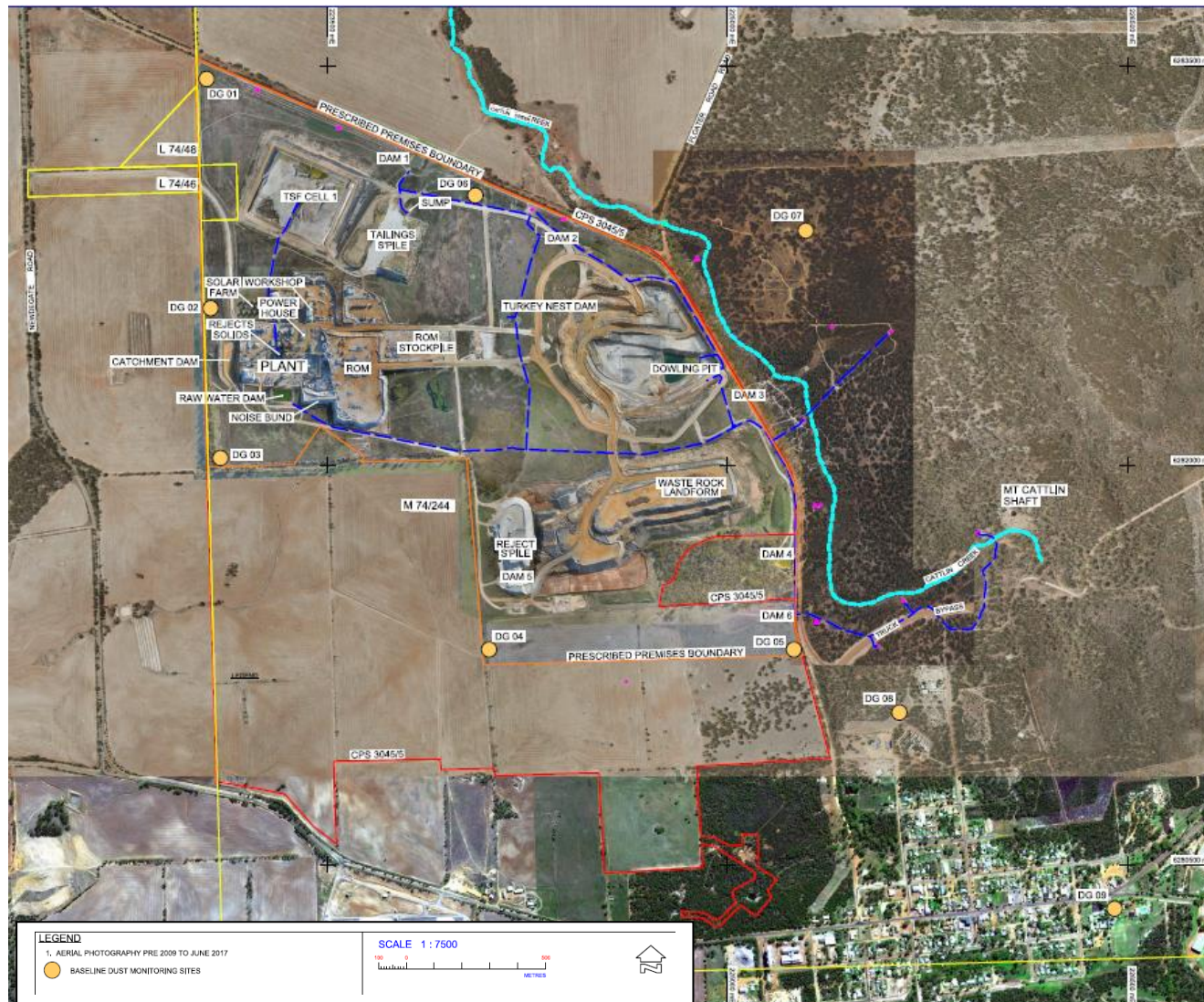
Premises map

Map 2 of 3 “Groundwater and Vegetation Monitoring locations”.



Premises map

Map 3 of 3 “Baseline Dust Monitoring locations”.



Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L8469/2010/2 – Ravensthorpe Spodumene Project amended 2 June 2016	L8469/2010/2	accessed at www.der.wa.gov.au
2	Works Approval W4533/2009/1 – Ravensthorpe Spodumene Project amended 24 May 2012	W4533/2009/1	accessed at www.der.wa.gov.au
3	Application for amendment of Licence L8469/2010/2 dated 15 May 2017	Application	DWER records (A1431076)
4	Supporting documentation to the application to amend Licence L8469/2010/2 dated 15 May 2017	Compliance Report & TTSA management plan	DWER records (A1431076 attachment 1) & DWER records (A1431076 attachment 2)
5	Galaxy Lithium Australia Limited – Operational Noise Management Plan - May 2017 – revision 5	ONMP	DWER record (A1507469)
6	Galaxy Lithium Australia Limited – Environmental Noise Assessment – Mobile Crusher System - May 2017 – revision 2	Noise Assessment	DWER record (A1507471)
7	Environmental Noise Assessment (Ref: 22846-2-17171) Mt Cattlin Operations: Crusher system Noise emissions – Modular Crusher and ROM Crusher – Herring Storer Acoustics – February 2018.	Noise Assessment	DWER record (A1629347)
8	Galaxy Lithium Australia Limited – Environmental Noise Monitoring – February 2017 (reference 21791-1-16219)	February 2017	DWER record (A1507462)
9	Galaxy Lithium Australia Limited – Environmental Noise Monitoring – May 2017 (reference 21792-1-16219)	May 2017	DWER record (A1507464)
10	Galaxy Lithium Australia Limited - Mt Cattlin Spodumene Project - Annual Environmental Report for Prescribed Premises Licence 8469/2010/2 – category 5 - 1 September 2015 to 31 August 2016 dated October 2016	AER 2015 – 2016	DWER record (A1368681)
11	Memorandum to Executive Director EPA Services from Regulatory Services request advise on increased production from 1.0 Mtpa to 1.6 Mtpa dated 13 September 2017	A1521947	DWER record (A1519036 & A1521947)

12	EPA services response 13 September 2017 memo dated 18 October 2017.	EPA	DER record (A1543280)
13	26 September 2017 e-mail from Galaxy submitting the AMMP that was enclosed	AMMP	DER records (A1529443 and AMMP is A1529444)
14	DER, July 2015. <i>Guidance Statement: Regulatory principles.</i> Department of Environment Regulation, Perth.	DER 2015a	accessed at www.der.wa.gov.au
15	DER, October 2015. <i>Guidance Statement: Setting conditions.</i> Department of Environment Regulation, Perth.	DER 2015b	
16	DER, November 2016. <i>Guidance Statement: Environmental Siting.</i> Department of Environment Regulation, Perth.	DER 2016a	
17	DER, February 2017. <i>Guidance Statement: Risk Assessments.</i> Department of Environment Regulation, Perth.	DER 2017a	
18	DER, February 2017. <i>Guidance Statement: Decision Making.</i> Department of Environment Regulation, Perth.	DER 2017b	

Appendix 2: Summary of Licence Holder comments

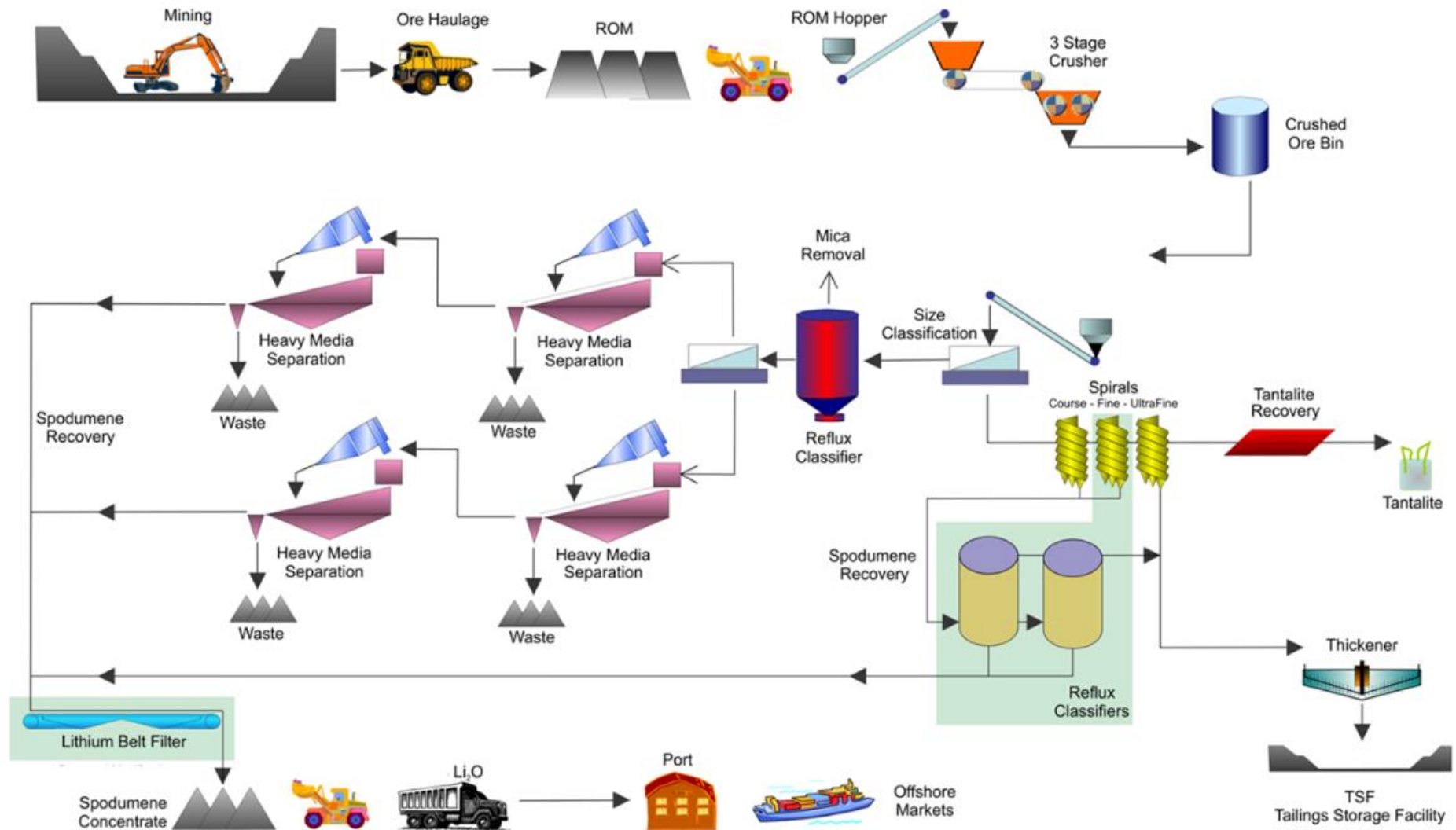
The Licence Holder was provided with the draft Amendment Notice on 13 October 2017 for review and comment. The Licence Holder responded on 7 November 2017 and 6 March 2018. The following comments were received on the draft Amendment Notice.

Condition	Summary of Licence Holder comment	DER response
Definitions: Process plant	Process plant should be defined	A definition for process plant exists on the current licence and does not require redefining.
Conditions 1.2.10, 4.1.1 and 5.1.5 Temporary tailings Storage facility	The Temporary Tailings Stockpile will remain until plant modifications are implemented by middle of 2018 when stockpile will be drawn down according to product demand. This could cover 2 years longer than Management Plan originally estimated.	The Delegated Officer acknowledges this comment and will participate in discussions as the project expansion progresses. Licence conditions will be removed in their entirety.
New condition 4.1.1, 1.2.4 & 1.2.5 Surface water Management Plan and controls	Surface water conditions require understanding of DWER requirements especially the tailings stockpile and why are the agricultural dams 3, 4 & 5 now included in the licence.	The DWER considers all containment infrastructures that received operational or contaminated water which has the potential to discharge that water to the environment requirement assessment to determine the risk. The improvement condition shall provide better understanding of containment infrastructure including agricultural dams 3, 4 & 5 plus proposed expansion of the project.
Amended condition 1.2.2 and new condition 1.2.12, 1.2.13, 1.2.14 & 2.2.1 Noise emissions and Noise management Plan	Include the use of a Moxi truck in condition 1.2.2. Conditions 1.2.12 to 1.2.14 are covered by the Noise Management Plan.	The use of a Moxi truck, or equivalent during night time mining operations is agreed therefore condition 1.2.2 will be amended. New Conditions 1.2.12 to 1.2.14 have been included in the licence as controls that were identified in the Environmental Noise Assessment (May 2017 & February 2018), and will be addressed in the next version of the Operational Noise Management Plan (ONMP) following the trial identified in 4.1.1 – IR 3. The latest version of the ONMP is identified in the amended condition 2.2.1.
Amended condition	Waste tyres are stored at the Workshop and a designated	The Delegated Officer accepts the locations for

Condition	Summary of Licence Holder comment	DER response
1.2.8, 3.2.1 & 3.6.1 Tyre storage and output records	tyre storage area before being disposed at the Waste Rock Landform. Increase the number of waste tyres stored from four to eight to fifty and finally agreed upon twenty five.	storage of waste tyres but the application of 15 May 2017 requested eight waste tyres which was confirmed as 25 tyres in correspondence dated on 6 March 2018.
Amended condition 3.2.1 Output monitoring of Tailings	The company wishes to discuss the daily monitoring of tailings volumes to the TSF plus the inflows from the underdrainage system.	Similar industries are completing their monitoring to the same averaging periods as described in this licence. This confirms consistency within the industry. The daily monitoring will be discussed when Galaxy's project expansion progresses.
Amended condition 3.4.1 & 3.4.2 TSF monitoring bores parameters	Request that monitoring during operations be changed from six to four times per year. No value in monitoring all the parameters listed in Table 3.8.1 especially Cr (VI).	The reduced frequency of monitoring requested in the May 2017 application was reviewed and accepted at four times per year. Sound environmental management practices requires that any further changes to parameters or frequency will be considered following an extensive review of all monitoring data to provide understanding of interactions between tailings leachate and groundwater. Any review should clearly demonstrate the risk of a reduced monitoring programme has upon the environment. A limit on TSF monitoring bore SWL's plus Uranium and Thorium has been added as these elements normally are present at Lithium operations.
Amended condition 5.3.1 Reporting failures	There is a concern that all incidence will need to be reported and insert the term "significant" to reduce reporting requirements.	The use of the term significant is problematical in that it is ambiguous and not auditable. The condition requires incidents to be recorded and reported as soon as practicable.
New condition 2.1.2 Fugitive Dust Management	The company views the Airborne Materials management Plan adequately addresses fugitive dust emissions and "cessation of activities" is best determined from emissions at the time.	The Delegated Officer considered this view and agreed to remove this requirement from the new condition 2.1.2.
New condition 1.2.11	Not all existing pipelines at the Galaxy operation meet	The condition was reworded to address only the

Condition	Summary of Licence Holder comment	DER response
Pipeline management	these management controls	pipelines that contain tailings.

Appendix 3: Diagram of Galaxy plant process from July 2016



Appendix 4: Closest relevant sensitive receptors

