

ASX Release  
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## QUARTERLY ACTIVITIES REPORT FOR PERIOD ENDING 31 DECEMBER 2015

### Highlights

#### Mackay SOP Project

- Mineral Resource increased to 164 million tonnes of Sulphate of Potash (“SOP”) at a grade of 8.25kg/m<sup>3</sup> of brine, based on total porosity (for industry comparative purposes only)
- Indicated and Inferred Mineral Resource of 23.2 million tonnes of SOP based on specific yield (drainable porosity), including 9.7 million tonnes within the top 6 metres from surface
- Mineral Resource confirms a shallow and homogeneous deposit to an average depth of only 24.7m and remains largely open at depth
- Mass balance modelling undertaken on the bulk brine sample prior to the commencement of evaporation trials
- Laboratory testwork completed on geotechnical samples and results are being incorporated into a geotechnical study
- Hydrogeological modelling to determine brine extraction parameters is nearing completion

Agrimin Limited (ASX: AMN) (“Agrimin” or “the Company”) is pleased to report its activities for the quarter ending 31 December 2015.

During the quarter, Agrimin reported an updated Mineral Resource for its 100% owned Mackay SOP Project. The Company is extremely pleased that an estimated 9.7 million tonnes of extractable resource lies within six metres of surface. This large near-surface resource presents an excellent opportunity to deliver a economically robust development proposition using trenching.

Agrimin completed a comprehensive exploration program in August and September 2015 and is now progressing numerous development studies to allow for the completion of a Scoping Study in the first half of 2016.

## Mackay SOP Project – Western Australia (100% owned)

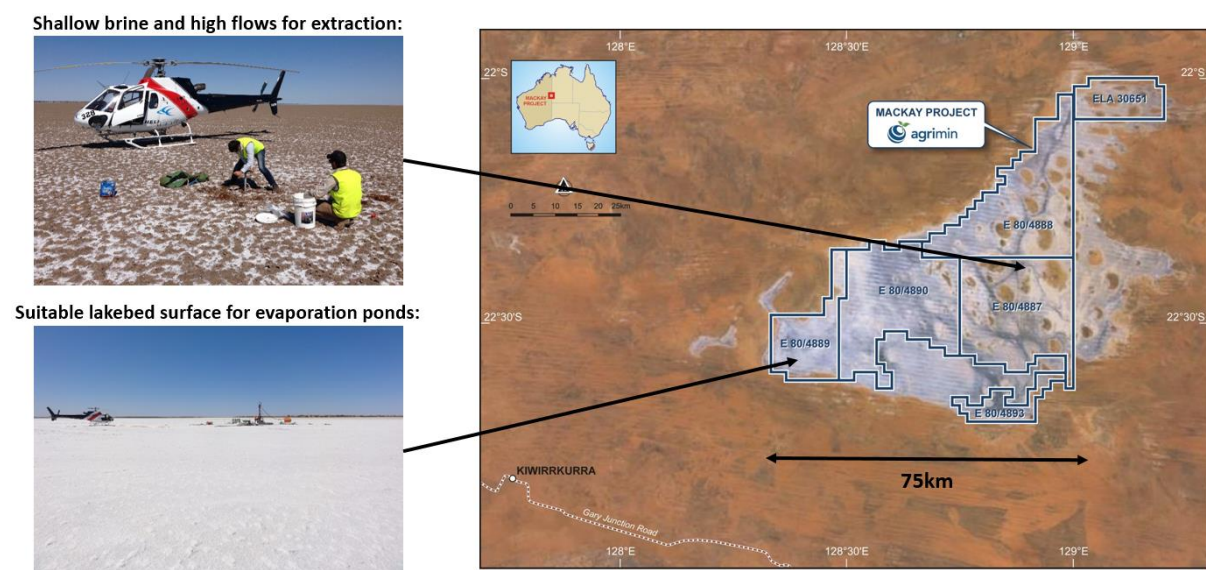
### Overview

The Mackay SOP Project covers an extensive area of 2,457km<sup>2</sup>. Lake Mackay is Western Australia’s largest salt lake with a surface area of 3,500km<sup>2</sup> and an estimated groundwater and surface water catchment area of 87,000km<sup>2</sup>.

A key observation from the 2015 exploration program was the distinct difference in zoning between the western and eastern sides of Lake Mackay (**Figure 1**). The western side of the lake appears to host a lower energy zone, with predominantly higher clay content. This is likely to represent an area suitable for the application of un-lined solar evaporation ponds.

In contrast, the eastern side of the lake contains higher sand and grit content with higher brine flows being encountered. This area appears most favourable for recovering brines via shallow trenching. The potential to employ trenching methods is further enhanced by the immense lateral extent of the Mackay Project.

**Figure 1. Key Features of Lake Mackay**

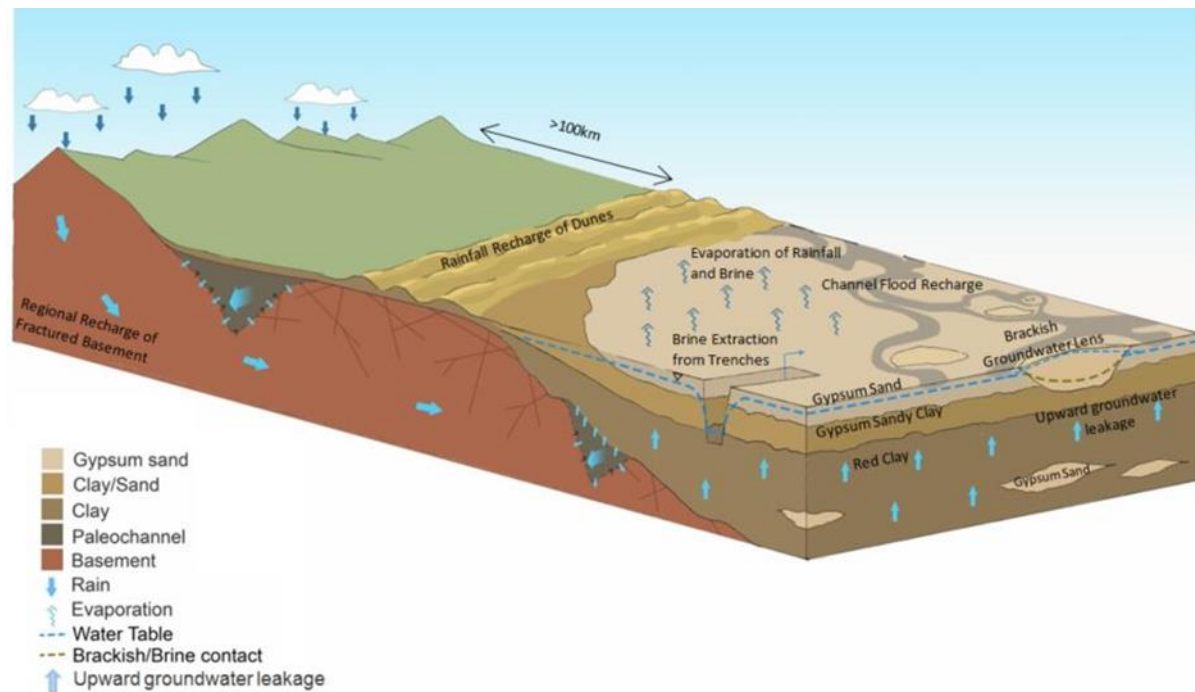


The sediments within Lake Mackay thicken from a shallowest point of 16m in the southwest up to 30m in the northeast. Drill hole depths were constrained by the capability of the specially modified aircore rig, which was capable of drilling depths up to 30m. The water table was encountered at around 0.4m in most drill holes, with the brine saturated sediments continuing from this point to the bottom of hole in all drill holes, leaving the deposit open at depth.

The sediments consist of two flat lying lithological units, as presented below in the geological model (**Figure 2**):

- **Upper Zone** – a unit of coarse gypsum sand, with an approximate thickness of 1m grading downward into sandy and silty clay, with significant sand, to depths beyond 6m; and
- **Lower Zone** – a unit where the lithology is dominantly clay intermixed with sands and silts, and interbedded layers of granular and crystalline gypsum.

**Figure 2. Geological Model of the Eastern Lake Area**



### **Brine Analysis**

During the quarter, Agrimin reported the results of brine analyses for drill holes completed in 2015. The average SOP grade returned from aircore drill holes was 8.0kg/m<sup>3</sup> of brine and the average SOP grade returned from auger sampling was 8.2kg/m<sup>3</sup> of brine.

A total of 137 brine samples were submitted for analyses to an independent, NATA accredited, minerals laboratory in Perth. Check analyses were also completed at a separate minerals laboratory in Perth and at the University of Antofagasta laboratory in Chile, a laboratory with extensive experience in analysing brine samples.

### **Porosity Testwork**

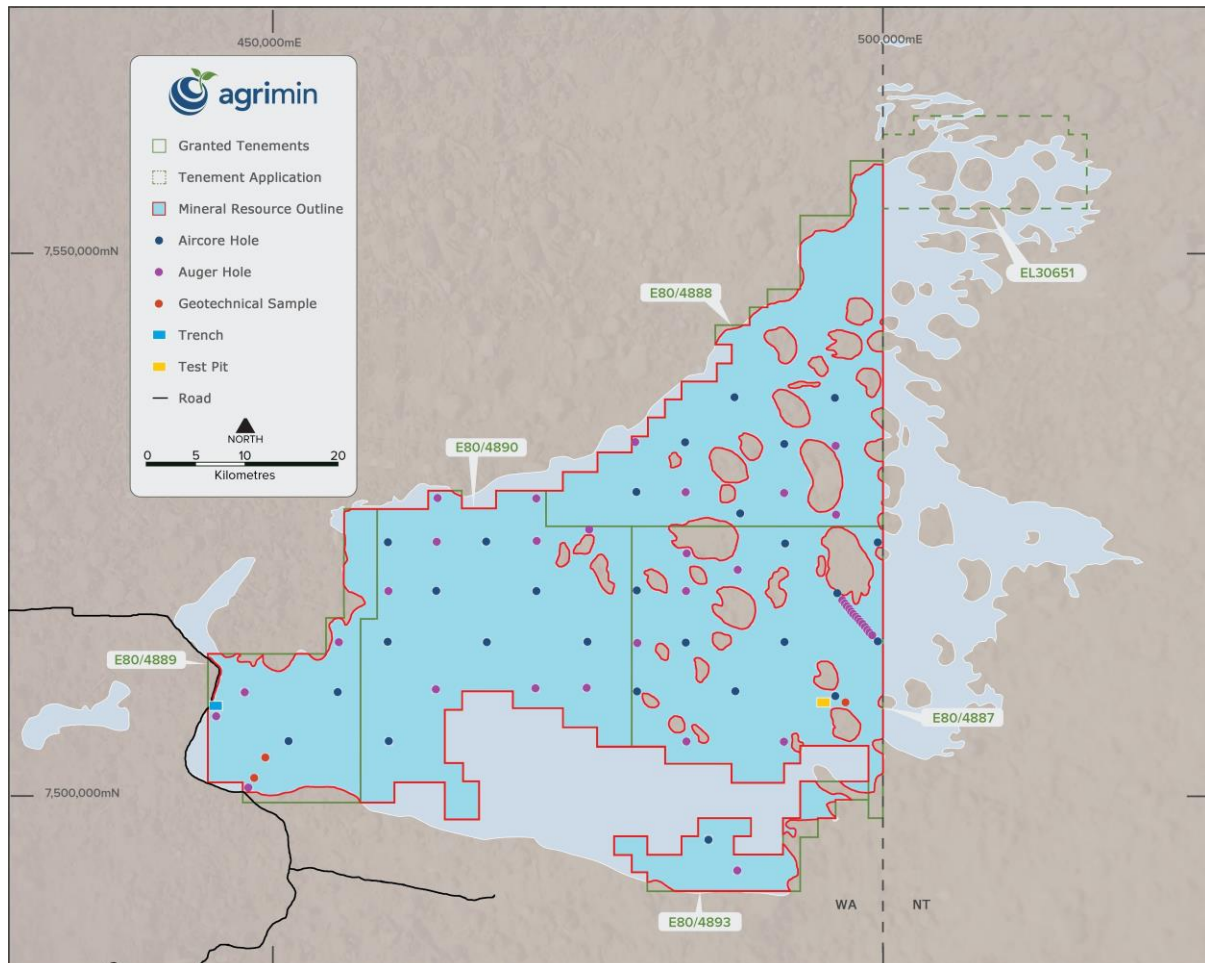
During the quarter, Agrimin received the results from physical properties testwork completed on the push tube core samples which were taken at three sites, designed to be representative of the overall Mackay Project area. The testwork was undertaken by Core Lab, a highly experienced physical properties laboratory in Perth.

A selection of material from the push tube cores was analysed for determination of **total porosity** and **specific yield** (otherwise known as *drainable porosity*). Total porosity averaged 45%, similar to other Australian salt lakes. The clay dominated samples had specific yields of 6% to 8.5%. Samples with higher proportions of sand and silt had specific yields ranging between 6% to 25%. A lower specific yield value consistent with other published data has been applied to the deeper clay unit, allowing for typical compaction at greater depths.

### Mineral Resource Estimate

During the quarter, Agrimin reported an updated Mineral Resource Estimate. The Mineral Resource encompasses 2,201km<sup>2</sup>, being the majority of Agrimin’s granted tenements in Western Australia which total 2,268km<sup>2</sup>. The drilling data used for the estimation consisted of 27 aircore holes, 34 power auger holes, five hand auger holes and three direct push drill holes which were completed in 2015 (**Figure 3**).

**Figure 3. Mineral Resource Outline and Drill Collar Locations**



The Mineral Resource Estimate was undertaken in two different ways using two separate variables, being **total porosity** and **specific yield**.

The **total porosity** resource estimate of 164 million tonnes of SOP relates to the overall in-situ resource as defined by drilling to an average depth of 24.7m. This is a directly comparable number to the estimates released by other companies quoted on the ASX. Agrimin provides this number for comparative purposes only and it does not reflect the amount of extractable Mineral Resource (**Table 1**).

The **specific yield** resource estimate of 23.2 million tonnes is based on the free-draining portion of the deposit, and represents the portion of the in-situ resource which will likely be extractable using conventional trenches

and/or wells. The specific yield estimate does not take into account any potential recharge factor which could increase the amount of extractable resources over the life of an operation (**Table 2**).

From a development perspective, the most important value to note is the **specific yield** estimate of 9.7 million tonnes which lies within the Upper Zone of 0 – 6 metres. This is the portion of the total 23.2 million tonnes which is predicted to be extracted using low-risk and low-cost trenching methods.

**Table 1. Mineral Resource Estimate – Total Porosity**

Category	Zone	Depth (m)	Volume (M m <sup>3</sup> )	Average Total Porosity	SOP Grade (kg/m <sup>3</sup> )	Contained SOP (Mt)
Indicated	Upper	0.4 – 2.7	4,036	45.0%	8.41	15.0
Inferred	Upper	0.4 – 6.0	7,047	45.0%	8.25	26.0
Inferred	Lower	6.0 – 24.7	33,004	45.0%	8.23	122.0
<b>Total</b>	<b>Upper &amp; Lower</b>	<b>0.4 – 24.7</b>	<b>44,088</b>	<b>45.0%</b>	<b>8.25</b>	<b>164.0</b>

**Table 2. Mineral Resource Estimate – Specific Yield**

Category	Zone	Depth (m)	Volume (M m <sup>3</sup> )	Average Specific Yield	SOP Grade (kg/m <sup>3</sup> )	Contained SOP (Mt)
Indicated	Upper	0.4 – 2.7	4,036	12.5%	8.41	4.3
Inferred	Upper	0.4 – 6.0	7,047	9.4%	8.25	5.5
<b>Total</b>	<b>Upper</b>	<b>0.4 – 6.0</b>	<b>11,083</b>	<b>10.5%</b>	<b>8.31</b>	<b>9.7</b>
Inferred	Lower	6.0 – 24.7	33,004	5.0%	8.23	13.6
<b>Total</b>	<b>Upper &amp; Lower</b>	<b>0.4 – 24.7</b>	<b>44,088</b>	<b>6.0%</b>	<b>8.25</b>	<b>23.2</b>

Notes:

1. Average depth of drilling was 24.7m, however the estimation extends to 30.0m where drilling reached this depth
2. Water table is at 0.4m below surface
3. Potassium grades are converted to K<sub>2</sub>SO<sub>4</sub> using a conversion factor of 2.23
4. Resource to 2.7m depth is 89% Indicated. The remaining 11% to 2.7m is Inferred. Resource from 2.7 – 6.0m is all Inferred
5. Errors are due to rounding

## **Hydrogeological Evaluation**

During the quarter, the Company’s hydrogeologists progressed the development of a hydrogeological model.

In 2015, Agrimin completed a drilling program which included 27 aircore holes. Three of these holes have been converted into 100mm cased wells and the Company completed two 24 hour pump tests, with sustainable yields achieved over the duration of both tests. In addition, 14 of the aircore holes had 50mm piezometers installed for water monitoring purposes and three hydrological data loggers were installed across the lake for long term water monitoring.

Agrimin also constructed two trenches on Lake Mackay and completed constant rate pump tests on each. Trench MT1 was constructed near the western edge of the lake given its proximity to existing access tracks. It was approximately 110m long and 2.5m deep (**Figure 4**) and was dug into clays with interbedded sand and crystalline gypsum zones. A pump test was completed over 19 consecutive days and a sustainable yield was achieved over the duration of the test.



Trench MP1 was constructed in the eastern area of the lake. It was approximately 23m long and 0.5m deep (**Figure 4**) and was dug into porous gypsiferous sands which occur over vast areas of the Project, extending from surface. A pump test was completed over a 24 hour period by the Company's hydrogeologist and very promising yields were achieved over the duration of the test.

**Figure 4. Trenches Completed**



### Ongoing Activities

Agrimin is extremely pleased by the results of the exploration program conducted in 2015 and the updated Mineral Resource. The Company is currently focussed on:

- Hydrogeological modelling;
- Geotechnical studies;
- Evaporation trials and process testwork; and
- Planning for the next stage of field feasibility work.

## Corporate Activities

### Share Issues

During and the quarter, the Company issued 5,178,584 ordinary shares due to the exercise of listed options with an exercise price of \$0.05 per share. Subsequent to 31 December 2015 the Company issued a further 7,375,267 ordinary shares on the exercise of listed options. The exercise of listed options during this period generated proceeds of \$627,693 of which \$611,334 was received prior to 31 December 2015.

A total of 126,572 listed options were not exercised prior to the expiry date and lapsed.

## **Business Development**

Agrimin has a strategic focus on SOP due to market fundamentals which remain very supportive of new production. The Company continues to actively assess business development opportunities which would be complementary to its existing project portfolio. As and when acquisitions are completed the Company will make announcements to the market at appropriate times.

## Tenement Interests

**Table 3. Schedule of Tenement Interests as at 31 December 2015**

Tenement Ref.	Project	Holder	State	Blocks	Status	Interest
E80/4887	Mackay	Agrimin Limited	W.A.	195	Granted	100%
E80/4888	Mackay	Agrimin Limited	W.A.	200	Granted	100%
E80/4889	Mackay	Agrimin Limited	W.A.	86	Granted	100%
E80/4890	Mackay	Agrimin Limited	W.A.	200	Granted	100%
E80/4893	Mackay	Agrimin Limited	W.A.	36	Granted	100%
EL30651	Mackay	Agrimin Limited	N.T.	57	Application	100%
EPM 18616		Agrimin Limited	QLD	30	Granted	6%

Notes:

1. Agrimin retains a 1% net smelter royalty on any and all minerals produced from EPM 18616.

**ENDS**

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**Competent Person's Statements**

*The information in this statement that relates to the Mineral Resource Estimate of December 2015 and to Exploration Results for the Mackay Project is based on information compiled or reviewed by Mr Murray Brooker who is a full-time employee of Hydrominex Geoscience Pty Ltd. Mr Brooker is a geologist and hydrogeologist and is an independent consultant to Agrimin. Mr Brooker is a Member of the Australian Institute of Geoscientists and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). Mr Brooker consents to the inclusion of such information in this statement in the form and context in which it appears.*

*The information in this statement that relates to Mineral Processing for the Mackay Project is based on information compiled or reviewed by Mr Peter Ehren who is a full-time employee of Process and Environmental Consultancy (Ehren-González Limitada). Mr Ehren is a Mineral Process Engineer and is an independent consultant to Agrimin. Mr Ehren is a Member of the Australasian Institute of Mining and Metallurgy and has sufficient experience, which is relevant to the style of mineralisation and type of deposit under consideration, and to the activity he is undertaking, to qualify as a Competent Person in terms of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code 2012 Edition). Mr Ehren consents to the inclusion of such information in this statement in the form and context in which it appears.*