

ASX Release
19 February 2020

PILOT TRIAL AND PRODUCT DEVELOPMENT UPDATE

Highlights

- DFS process design confirms targeted SOP and SOPM product specifications with an 80% overall process recovery (brine extraction to product)
- DFS pond model validated by a full year of data collection from the pilot evaporation trial
- Larger batches of SOP and SOPM product samples dispatched to several potential off-takers
- DFS on schedule for completion in Q2-2020

Agrimin Limited (ASX: AMN) (“Agrimin” or “the Company”) is pleased to provide an update on the pilot evaporation trial and product development activities for its 100%-owned Mackay Potash Project in Western Australia.

Mark Savich, CEO of Agrimin said: “We are delighted to announce the excellent results achieved from the first full year of operations at our long-term pilot evaporation trial on Lake Mackay. This trial has successfully validated the Definitive Feasibility Study pond model and process assumptions, which is another major de-risking milestone for the project.”

“We have now harvested over 50 tonnes of raw potash salts which continue to produce SOP and SOPM samples from pilot tests that exceed the targeted specifications outlined in our product specification sheets. These samples have been progressively distributed to potential off-takers and project partners.”

Pilot Evaporation Trial & Process Testwork

The Company’s pilot evaporation trial continues to operate and has now captured a full annual cycle of operating data with seasonal variation. The trial was commissioned in October 2018 and utilises a 3,000m² pond system that is being run as a constant flow operation with brines being transferred through the ponds under a daily transfer regime (**Figure 1**).

Of significance, the Company is pleased with how closely the brine chemistry trends in the pilot ponds have tracked compared to the Definitive Feasibility Study (“DFS”) pond model. The brine concentration curve in **Figure 2** shows the change in concentration of key chemical constituents within the brine (including potassium,

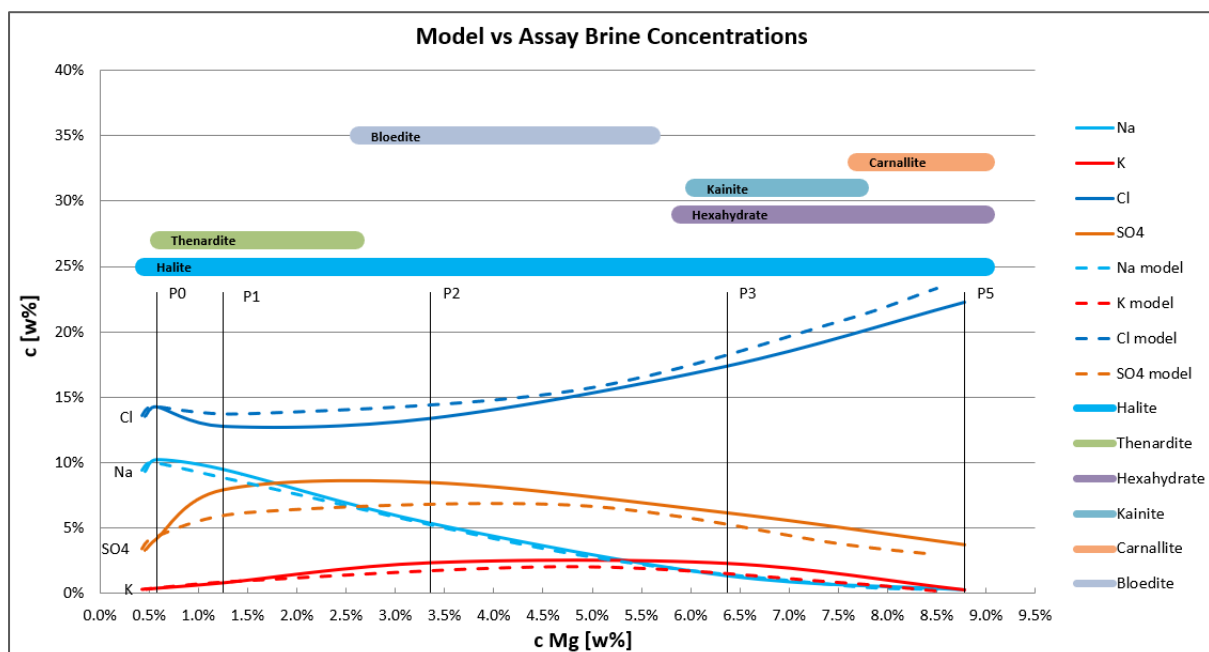
sodium, chloride and sulphate) as it has progressed through the five pond system. The graph also shows the corresponding precipitated salt mix.

The recorded evaporation rates over the trial period to date have averaged up to 30% higher than those currently used in the DFS pond model. This could potentially result in reduced evaporation pond sizes and cycle times at full scale.

Figure 1. Pilot Evaporation Trial



Figure 2. Brine Concentration Curve – Pilot Trial Actual vs DFS Pond Model



The pilot evaporation trial continues to successfully produce raw potash salts with over 50 tonnes of salt harvested at grades of up to 12% K_2O (**Figure 3**). It is planned for the trial to continue in steady-state operation until Q3-2020 in order to collect further pond data and produce additional potash salts for the Company's product development and marketing studies.

Figure 3. Harvested Salts from the Pilot Evaporation Trial



The potash salts generated from the pilot ponds have undergone pilot processing tests at Bureau Veritas' laboratory in Perth to produce larger quantities of both SOP and SOPM samples. The product samples produced are very high-quality with an average SOP grade of 53% K_2O and average SOPM grade of 24% K_2O plus 11% MgO , both with low-levels of impurities. Chemical assays including for heavy metals, particle size distributions, angles of repose, density and solubility tests have all been conducted on the products.

The Company's process consultants at Novopro Projects Inc. have completed the process design work associated with both SOP and SOPM production scenarios as part of the current DFS. The work has been supported by laboratory tests completed at the Saskatchewan Research Council and Bureau Veritas over the past year, in conjunction with the Company's ongoing pilot evaporation trial.

The Company is very pleased with the outcomes of the process design work, which has supported the targeted product specifications with an 80% overall process recovery (from brine extraction to production at steady-state). This is in-line with the outcomes reported in the Pre-Feasibility Study of 2018¹. In addition, a number of key optimisations have been made to the design, which will result in greater operational control and efficiency.

The Company continues to receive strong market interest for both its SOP and SOPM products. Further samples have been dispatched to potential fertiliser customers.

¹ Refer to the ASX Release on 7 May 2018 for full Pre-Feasibility Study details. All material assumptions underpinning the production target and forecast financial information derived from the production target continue to apply and have not materially changed.

Product Specifications

The Company's targeted product specifications for its SOP and SOPM are shown in **Table 1** and **Table 2**. Agrimin's SOP product specifications compare very favourably to existing SOP products in the market which range from 50-52% K₂O. Agrimin's SOPM also compares well to other SOPM products which range from 22-30% K₂O and 10-19% MgO (**Figure 4**).

The development of the Company's product specification sheets are supported by extensive pilot testing and based on an 80% overall process recovery at steady-state operations.

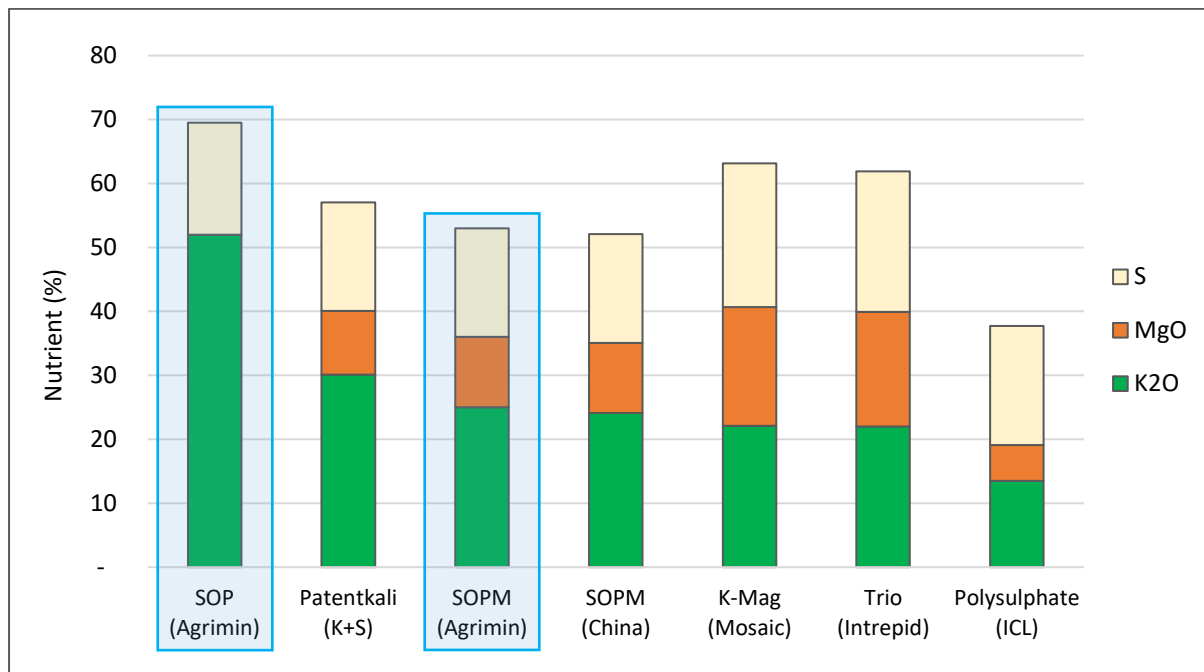
Table 1. SOP Product Specifications

CHEMICAL ANALYSIS		
Component	Chemical Formula	Indicative Weight %
Potassium	K	43%
Potassium Oxide	K ₂ O	52%
Sulphur	S	18%
Chloride	Cl	<2%
Heavy Metals	-	<1ppm
PHYSICAL ANALYSIS		
Parameter	Description	
Appearance	White, fine particles	
Solubility in Water	12g/100mL at 25°C	
Particle Size	+/- 200μ powder or 2-4mm granular	

Table 2. SOPM Product Specifications

CHEMICAL ANALYSIS		
Component	Chemical Formula	Indicative Weight %
Potassium	K	20%
Potassium Oxide	K ₂ O	25%
Magnesium	Mg	6%
Magnesium Oxide	MgO	11%
Sulphur	S	17%
Chloride	Cl	<2%
Heavy Metals	-	<1ppm
PHYSICAL ANALYSIS		
Parameter	Description	
Appearance	White, fine particles	
Solubility in Water	34g/100mL at 25°C	
Particle Size	+/- 200μ powder or 2-4mm granular	

Figure 4. Comparison of Chloride-Free Potash Products



Source: Product Specification Sheets

ENDS

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This ASX Release is authorised for market release by Agrimin's CEO and Executive Director, Mark Savich.

About Agrimin

Based in Perth, Agrimin Limited is a leading fertiliser development company focused on the development of its 100% owned Mackay Potash Project. The Project is situated on Lake Mackay in Western Australia, the largest undeveloped potash-bearing salt lake in the world. Agrimin is aiming to be a global supplier of specialty potash fertilisers to both traditional and emerging value-added markets. Agrimin Limited's shares are traded on the Australian Stock Exchange (ASX: AMN).

Forward-Looking Statements

This ASX Release may contain certain “forward-looking statements” which may be based on forward-looking information that are subject to a number of known and unknown risks, uncertainties, and other factors that may cause actual results to differ materially from those presented here. Where the Company expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. Forward-looking information includes exchange rates; the proposed production plan; projected brine concentrations and recovery rates; uncertainties and risks regarding the estimated capital and operating costs; uncertainties and risks regarding the development timeline, including the need to obtain the necessary approvals. For a more detailed discussion of such risks and other factors, see the Company’s Annual Reports, as well as the Company’s other ASX Releases. Readers should not place undue reliance on forward-looking information. The Company does not undertake any obligation to release publicly any revisions to any forward-looking statement to reflect events or circumstances after the date of this ASX Release, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.