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ASX via Electronic Lodgement

Exceptional 97% Lithium Recoveries at San Jose Lithium Project

- **Exceptional metallurgy results - 97% lithium recovery achieved in first stage metallurgical testwork, using well understood sulphuric acid processing route**
- **Mineralogy confirms ore amenable to simple beneficiation as per previous Historical feasibility study**
- **Historical feasibility study continues to be positively verified, supporting process flow sheet to produce lithium carbonate on site**
- **Gas pipeline infrastructure adjacent to deposit increases processing route opportunities to produce lithium carbonate and improves project economics**

Plymouth Minerals Limited (ASX:PLH) (Plymouth or the Company) is pleased to announce exceptionally high lithium recovery results from its ongoing metallurgical testwork program at its highly-advanced San Jose Lithium Project in Spain. San Jose is a highly advanced lithium project which is hosted in lithium-mica.

The initial results of this first pass metallurgical testwork program exceed Plymouth's expectations. Testwork using a sulphuric acid leach has produced a **recovery of 97%** lithium oxide (Li_2O) - which compares favourably to historic feasibility study data at the project which shows a 96% recovery (Historic study completed by Spanish Company Tolsa 1987-1991). The testwork results confirm the integrity of the comprehensive body of historical project data recently acquired by Plymouth (ASX release, 14 March 2017).

The quality of the historical data, in conjunction with the positive results being achieved in Plymouth's field programs at San Jose, now position the Company to fast-track economic studies and a Mining Lease Application at the San Jose Lithium Project. Plymouth Executive Chairman Adrian Byass commented:

"*We are delighted with these latest results from our ongoing field programs at San Jose. Achieving 97% recovery results from the initial metallurgical testwork plus the continued broad intersections being delivered from our drilling further confirms the Company's confidence in the strength of the San Jose Lithium Project. Plymouth is focused on bringing the project to Feasibility Study and development as quickly as possible*."

To ensure the rapid advancement of San Jose, Plymouth is leveraging off the detailed metallurgical testwork reports commissioned by Tolsa from their earlier feasibility study. Plymouth advises that its first stage metallurgical work is consistent with, and in some cases exceeds, the historic testwork results achieved by Tolsa. The Company's current testwork program has been developed to confirm the work completed by Tolsa in order to produce a modern flowsheet that can produce lithium carbonate from the San Jose deposit.

Metallurgical Testwork Results

Plymouth has completed initial testwork to confirm the data that supports the previous sulphuric acid flowsheet produced by Tolsa. Testwork completed by Spanish laboratory, AGQ Mining and Bioenergy, has confirmed Tolsa's results of 96% lithium recovery to the leach liquor on non-calcined ore with sulphuric acid (at atmospheric pressure and 100 degrees centigrade).

Plymouth's results on San Jose material achieved **97% lithium recovery** into the leach liquor at a -200 micron grind size, at atmospheric pressure and 100 degrees centigrade on non-calcined ore. It appears from this testwork that less grinding may be required for the same lithium recoveries, which will reduce the power requirements and improve the economics of any future mining operation.

Plymouth's testwork was completed on non-beneficiated samples with a head grade of 0.88% Li_2O. This is below predicted ROM grades estimated from historical optimisation and mining schedules in the Tolsa study. Feed grade to the process plant post beneficiation would likely be materially higher. As a result, it is likely that increased recoveries could be expected from higher feed grades.

Metallurgy Background

Tolsa produced Lithium Carbonate (LCE) via two preferred routes, each with +90% recoveries of lithium. These were; 1) Sulphuric acid route and 2) Sulphate roast process

Tolsa pursued these two routes in preference to others investigated and produced excellent recoveries. The Sulphuric acid route was selected in preference due to a combination of factors including, readily accessible and cheap acid in Spain. Advances in metallurgical technology and the changes in the distribution of power and gas within the Caceres region, which hosts the San Jose project, have significantly and positively changed the potential economics of both processes. As a result Plymouth is reviewing the feasibility of both processes, with a view to identifying efficiencies for the benefit of its own feasibility study.

FIGURE 1 SPAIN AND PORTUGAL'S NATURAL GAS PIPELINE NETWORK IN RED.

Infrastructure Efficiencies

A high pressure, natural gas pipeline which connects Caceres to the national gas network is situated within 1000m of the San Jose project (Figure 1). This represents a significant potential power advantage for the project and has the potential to significantly change input operating costs for a calcining route (as used in the sulphate process route identified by Tolsa). Access to reticulated natural gas enhances the economics of the project greatly when compared to more remote lithium projects. An initial program of testwork is currently being completed for the sulphate flowsheet using information from the previous Tolsa work. Results of this program will be released when complete.

Plymouth Executive Chairman Adrian Byass commented:

"*The impact of the installation of a regional gas pipeline which is located approximately 200m from the edge of the San Jose tenement boundary cannot be underestimated. This was not a factor in the earlier work by Tolsa which required calcining (roasting) in the second of their preferred process flow sheet pathways to produce Lithium carbonate. We are fortunate to have this massive windfall and Plymouth will work to ensure we maximise the benefits of the Spanish investment in this valuable infrastructure.*"

Mineralogy Results

Plymouth commissioned petrology on samples from San Jose to determine liberation size and the mineral assemblages present. The mineralised samples are predominately made up of quartz, white micas and tourmaline in a roughly 1:1:1 ratio. The quartz grains are significantly larger than the tourmaline and mica. This confirms the ability to beneficiate the ore easily by removing the quartz. This is consistent with work completed by Tolsa which demonstrated a 35% reduction in mass for a 1% loss of lithium through gravity separation. A testwork program has been put together to test gravity separation and flotation processes as part of the next steps.

Beneficiation increases process plant feed grades which usually result in increased recoveries and also the decrease in tonnes treated within the process plant, it is anticipated that there would be a proportional and substantial decrease in reagents and handling costs.

ENDS.

For more information, visit www.plymouthminerals.com

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About Plymouth Minerals' Lithium Project

Plymouth has partnered with the large Spanish company Sacyr and its wholly owned subsidiary Valoriza Mineria in an earn-in JV over a large, lithium-tin project (San Jose) in central Spain. Plymouth can earn up to 75% of San Jose by completing a Feasibility Study within 4 years (approximately A$6 million in spend). Plymouth also retains an 80% interest in the Morille tungsten project in Spain which was extensively explored by Plymouth in 2013-2015.

San Jose is a highly advanced lithium project which is hosted in lithium-mica. A feasibility study completed in 1991 defined an open pit mining operation and a process flow sheet which produced lithium carbonate through acid-leach processing. This historical drilling, mining and processing study work highlights the differences with San Jose and many other hard rock style lithium deposits and highlights the advantages enjoyed by San Jose.

About Plymouth Minerals' Potash Projects

Plymouth owns 100% of the Banio and Mamana Potash Projects, which are drill proven, high-grade, shallow potash deposits that are favourably located on the coast of Gabon and on major transport river ways (barge) with direct access to export ports. Banio has a multi-billion tonne Exploration Target of carnallite and sylvanite based on historical seismic and drilling data. Plymouth intends to drill test this Exploration Target.

Competent Persons Statement

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on the information compiled or reviewed by Mr Adrian Byass, B.Sc Hons (Geol), B.Econ, FSEG, MAIG and an employee of Plymouth Minerals Limited. Mr Byass has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Exploration Targets, Mineral Resources and Ore Reserves. Mr Byass consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

Disclaimer

Forward-looking statements are statements that are not historical facts. Words such as "expect(s)", "feel(s)", "believe(s)", "will", "may", "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to statements regarding future production, resources or reserves and exploration results. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: (i) those relating to the interpretation of drill results, the geology, grade and continuity of mineral deposits and conclusions of economic evaluations, (ii) risks relating to possible variations in reserves, grade, planned mining dilution and ore loss, or recovery rates and changes in project parameters as plans continue to be refined, (iii) the potential for delays in exploration or development activities or the completion of feasibility studies, (iv) risks related to commodity price and foreign exchange rate fluctuations, (v) risks related to failure to obtain adequate financing on a timely basis and on acceptable terms or delays in obtaining governmental approvals or in the completion of development or construction activities, and (vi) other risks and uncertainties related to the Company's prospects, properties and business strategy. Our audience is cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.