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The Manager Companies
ASX Limited
20 Bridge Street
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(3 pages by email)

SUCCESSFUL HPA PRODUCTION USING THE 'HPA FIRST' PROCESS

HIGHLIGHTS

- **The HPA First process has successfully completed the first Solvent Extraction (SX) Mini-Rig run using the 'HPA First' process industrial feedstock**
- **The strip liquor from the SX Mini-Rig run has been successfully refined to High Purity Alumina (HPA)**
- **Final HPA purity assays are awaited, with SX liquor assays indicating a very high-purity HPA product**
- **Preparations are underway for a longer second mini-rig run, as well as early stage planning for the DFS Pilot Plant construction**



Sample of High Purity Alumina generated from the HPA First process

Collerina Cobalt ('the Company') is pleased to provide an update to the process development work on the HPA First Process, as part of the Company's Pre-Feasibility Study (PFS).

Successful SX Mini-Rig Run

The Company has successfully completed the maiden Solvent Extraction (SX) Mini-Rig run using the industrial feedstock identified for the 'HPA First' process. The mini-rig mimics the aluminium SX section of the intended commercial scale process, results from which provide valuable engineering data for improving and validating the design of the commercial facility. The mini-rig was run continuously over a 3.5-day period, achieving a maximum aluminium extraction of 69.4%, with this expected to increase to greater than 95% for the upcoming second mini-rig run.

HPA Production

The aluminium loaded solution generated from the SX mini-rig run was successfully refined into High Purity Alumina in 3 batches. Each of these batches has been sampled and sent for purity, crystal form and sizing analysis. Results are expected within ~2 weeks, however the SX liquor assays are indicative of a very high-purity HPA product.

Next Steps

Preparations are underway for a second SX mini-rig run, which will be designed to generate a larger quantity of HPA. The second mini-rig run will employ a number of adjustments based on observations from the first run, which are expected to increase the feedstock aluminium tenor and improve the aluminium recovery to +95%.

Preparations have also commenced for the design and construction of a larger scale continuous pilot plant, which will follow the completion of the mini-rig testwork. The larger continuous pilot plant will form the testwork basis for the Definitive Feasibility Study (DFS) and provide engineering data to allow the detailed design of the commercial HPA production facility.

The Company has also commenced dialog with selected HPA end-users, with a view to providing samples for indicative off-take terms.

About the HPA First Process

The **HPA First** Process is the application of the Company's proprietary licenced solvent extraction (SX) and refining technology to produce High Purity Alumina (HPA) from an industrial feedstock.

HPA First was adopted in July 2018 as a major advance on the previous process flowsheet, which used a feedstock generated from the acid-leaching of laterite mineralisation from the Collerina Ni-Co-Sc Project, in central NSW.

The Company considers the HPA First Process a dramatically improved business case on the basis of:

- The HPA First process delivers HPA, the dominant project revenue product, using a simplified process;
- the industrial feedstock delivers an aluminium tenor at multiples higher than the previous flowsheet;
- a far simpler process flowsheet which does not require the development of a mining operation or associated acid plant, leach vessels, filtration, neutralisation circuits or tailings facilities;
- a significant reduction in process plant equipment and vessel sizing;
- significant CapEx reductions;
- significant OpEx reductions;
- the simplification of the process flowsheet substantially de-risks the project, providing a **fast-track** through Definitive Feasibility Study (DFS), permitting, financing, project implementation and operational cash flow; and
- the option is retained to integrate PLS feed from the Collerina Project at a future date, to expand the revenue base into nickel, cobalt and scandium.

The modified Pre-Feasibility Study (PFS), based on the HPA First Process, is due for delivery in October 2018.

Yours sincerely



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Competent Persons Statement (Process Development Test Work)

Information in this announcement that relates to metallurgical results is based on information compiled by or under the supervision of Mr Boyd Willis, an Independent Consultant trading as Boyd Willis Hydromet Consulting. Mr Willis is a Fellow and Chartered Professional of The Australasian Institute of Mining and Metallurgy (AusIMM). Mr Willis has sufficient experience to the activity which he is undertaking to qualify as a Competent Persons under the 2012 Edition of the 'Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Willis consents to the inclusion of the technical data in the form and context in which it appears.

For further information on testwork results and processes see ASX announcements dated 9 July 2018, 30 April 2018, 26 April 2018, 21 March 2018, 6 March 2018, 21 February 2018, 8 December 2017, 30 November 2017, 29 November 2017, 24 November 2017 and 13 November 2017.