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ANNOUNCEMENT

Lithium Australia, Venus Metals and MRIWA extend to Phase 2 experimental test work

Highlights

- **Phase 1 test work completed for MRIWA Project M479 and results incorporated into the Large Scale Pilot Plant design**
- **Phase 2 test work commenced under the terms of the MRIWA grant**
- **Further optimisations sole funded by Lithium Australia as Phase 3 and Phase 4 being conducted in parallel with other research work at Murdoch University**

Background

Western Australian state government funding has been provided to Lithium Australia (ASX: LIT) and Venus Metals (ASX: VMC) under the auspices of MRIWA Project M479 – "Solution purification and valuable by-products formation during the production of battery-grade lithium." The program commenced in late 2016 (ASX announcement 8 November 2016).

Under the terms of the grant, research work is being undertaken at Murdoch University located in Perth, Western Australia. Murdoch University is renowned for its world-class hydrometallurgical research. The research project aimed to develop an understanding of the effect of process parameters on the purification of a lithium leach solution from LIT's 100% owned Sileach™ process, and investigate opportunities for the production of potential by-products.

Murdoch University Program

The experimental program of study was divided into two phases. The first phase focused on the fundamental controls of Sileach™ process chemistry, and the second phase will focus on optimisation and alternatives to add further value to the process.

Phase 1 completion

Phase 1 focused on understanding the effect of the acid neutralisation reagents, pH, seeding, and redox potential on the precipitation of the impurities and influence on lithium deportment. The results of Phase 1 have been incorporated into the engineering studies for the Large Scale Pilot Plant (ASX announcement 12 December 2016) together with pilot plant results generated by ANSTO Minerals (a division of the Australian Nuclear Science and Technology Organisation). Initial results of the engineering studies are nearing completion.

Phase 2 commenced

Phase 2 of the MRIWA program will focus on the added value that can be obtained by optimisation or additions to the Sileach™ circuit as currently envisaged. This program will also be undertaken at Murdoch University utilising personnel and facilities used for Phase 1 (Figure 1).

Figure 1 Laboratory testing at Murdoch University

The program will investigate alternatives for the production of lithium carbonate and by-products along with investigation of the potential options for recovery of key reagents, such as fluoride and acid. The leach residues from each impurity separation stage will also be further examined to determine if they can be converted into marketable by-products.

The research being undertaken by Murdoch University will greatly enhance the value of the Sileach™ process and improve the process flexibility.

Additional research commitments at Murdoch University

Process optimisation studies, sole funded by LIT, continue outside the scope of the MRIWA Project 479. Where appropriate, results from these research modules (Phase 3 and Phase 4) will be incorporated into future plant design.

Comment by Lithium Australia management

Lithium Australia's managing director, Adrian Griffin said:

> *"Lithium Australia is proud to be at the forefront of global innovation and pleased to be sponsored by both the state government of Western Australia and the Australian federal government. Processing technology of this type has been sadly neglected in the lithium industry and at Lithium Australia we see the development of such technologies being of national importance – something that will establish Australia as the focus of the energy revolution."*

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About Lithium Australia

Lithium Australia NL is a dedicated developer of disruptive lithium extraction technologies, and 100% owner of the Sileach™ process for the recovery of lithium from silicates. LIT has strategic alliances with a number of companies, potentially providing access to a diversified lithium mineral inventory. LIT aspires to create the union between resources and the best available technology and to establish a global lithium processing business.

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