

13 June 2018

ASX ANNOUNCEMENT

LITHIUM AUSTRALIA (ASX: LIT) BREAKS NEW GROUND IN PROCESSING TECHNOLOGY

PATENT PROTECTION FOR BREAKTHROUGH

LIT has recently lodged two new patent applications; namely:

- 'Process to produce lithium phosphate', and
- 'Process for recovering lithium phosphate and/or lithium sulphate from lithium-bearing silicates'.

PROCESS ADVANTAGES

The innovations covered by the patents provide LIT's SiLeach[®] process with an unprecedented advantage, that of lithium recovery from the process liquors without the requirement for extensive evaporation. This remarkable breakthrough may also have application to process streams other than those generated by SiLeach[®], such as, conventional spodumene conversion, mica sulfation roasting or lithium-containing waste waters.

COMMERCIALISATION

These new process steps will further refine Lithium Australia's plans to commercialise SiLeach[®], including the development of a large-scale pilot plant (LSPP) ([see ASX release dated 6 July 2017](#)). The enhancements will not only reduce capital costs and the operating costs associated with managing the water balance but also improve the quality of the lithium chemicals and potassium by-products that SiLeach[®] generates.

FROM MINE WASTE TO CATHODE MATERIALS

Lithium Australia's SiLeach[®] process can extract lithium from all silicate minerals, but is ideally suited to processing lithium micas, considered a waste product in many mining operations. Lithium Australia is currently undertaking a scoping study on its recently acquired Sadisdorf deposit ([ASX announcement 12 June 2018](#)), where, it is hoped, SiLeach[®] will breathe new life into the mothballed tin mine, enabling the recovery of lithium, tin and other by-products.

The resulting lithium chemicals can be used as a feed source for Lithium Australia's VSPC cathode powder production technology, providing a cost-effective means of delivering lithium units to battery producers.

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THE ANSTO PARTNERSHIP

In the past three years, Lithium Australia's ongoing technical partnership with ANSTO Minerals (a division of the Australian Nuclear Science and Technology Organisation) has been instrumental in achieving the outcomes reported here.

Says Lithium Australia managing director Adrian Griffin:

"Managing the water balance correctly has, until now, been an expensive and vexing issue for many lithium chemical producers. Lithium Australia will expedite commercialisation of the SiLeach® process, capitalising on the advantages gained by solving this processing challenge. Being able to produce lithium chemicals without the necessity of evaporating large quantities of water clearly puts us ahead of our peers."

Adrian Griffin

Managing Director

Mobile +61 (0) 418 927 658

Adrian.Griffin@lithium-au.com

About Lithium Australia

Lithium Australia aspires to 'close the loop' on the energy-metal cycle. Its disruptive extraction processes are designed to convert *all* lithium silicates to lithium chemicals, from which advanced components for the battery industry can be created. By uniting resources and the best available technology, Lithium Australia seeks to establish a vertically integrated lithium processing business.

MEDIA CONTACTS

Adrian Griffin Lithium Australia NL 08 6145 0288 | 0418 927 658

Kevin Skinner Field Public Relations 08 8234 9555 | 0414 822 631

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