

17 January 2017

ASX ANNOUNCEMENT

SILEACH™ HALOGEN PROCESS PRODUCES BATTERY GRADE LITHIUM CARBONATE

Lithium Australia (ASX:LIT) has exceeded quality specifications for the production of lithium carbonate from material processed using its wholly owned Sileach™ halogen digestion process.

Operations undertaken at ANSTO Minerals (a division of the Australian Nuclear Science and Technology Organisation) have demonstrated the production of battery grade lithium carbonate. The lithium carbonate feed was produced by Lithium Australia's Sileach™ pilot plant, processing ore from Lepidolite Hill in Western Australia. The refinement of the lithium carbonate produced during piloting was undertaken using a bicarbonate – carbonate re-precipitation approach, widely adopted in the lithium chemicals industry. The quality of the lithium carbonate meets or exceeds the specification of battery grade lithium carbonate produced by one of the world's largest suppliers of lithium chemicals, FMC Lithium.

A comparison of carbonate quality achieved from the Sileach™ tests and published is as follows:

	Refined Lithium Carbonate Assay (ppm, unless otherwise stated)	Battery Grade Specification (FMC Lithium)
Li ₂ CO ₃ (%)	>99.5	>99.5
Al	4.5	10
Ca	97	400
Cl	<81	100
Cu	1.3	5
Fe	<3	5
Na	44	500
Ni	0.3	6
SO ₄	89	1,000
Zn	3.7	5

Production of high-quality carbonate demonstrates the ability to produce commercial products from a range of silicate materials, some of which are not commonly processed to produce lithium chemicals, due to limitations in existing processing routes.

This outstanding result is a significant prelude to continuous Sileach™ pilot plant operations on spodumene concentrates from Pilbara Minerals' (ASX:PLS) Pilgangoora project. The pilot plant at ANSTO is being prepared for processing the concentrates towards the end of January. Lithium Australia is confident that the run will create a benchmark in the hydrometallurgical processing of spodumene, potentially heralding a paradigm shift in lithium processing practices.

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MANAGING DIRECTOR, ADRIAN GRIFFIN SAID:

“The production of such pure lithium carbonate, puts Lithium Australia’s Sileach™ process in the hydrometallurgical limelight. We have demonstrated the ability to process complex lithium ores, without the requirement of the traditional and expensive roasting step. We anticipate generating similar ground-breaking results with the production of lithium carbonate from Pilbara Minerals’ Pilgangoora spodumene concentrates, later this month.”

Adrian Griffin

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About Lithium Australia

LIT is a dedicated developer of disruptive lithium extraction technologies and sole owner of the Sileach™ halogen based lithium recovery process. 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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