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ASX ANNOUNCEMENT

COST EFFECTIVE LITHIUM HYDROXIDE FROM MICA

Highlights

- High quality lithium hydroxide produced from lithium mica
- Process achieved by conversion of carbonate to hydroxide
- Low incremental cost required for significant revenue enhancement
- Lithium processing losses low
- Universal application of the process

Background

Subsequent to the announcement made by Lithium Australia NL (ASX:LIT) on 11 December 2015, initial assays have been received which demonstrate the veracity of the lithium hydroxide production process from micas. The hydroxide has been produced by simple chemical conversion of a primary lithium carbonate product that was derived by processing lithium mica from one of LIT's projects. The following lithium hydroxide quality was achieved on the first attempt undertaken in an independent laboratory.

Sample	***LiOH-A***	***LiOH-B***
Element	(wt%)	
Al	<0.001	<0.001
B	<0.001	<0.001
Ca	0.039	0.017
Fe	<0.001	<0.001
K	0.012	0.012
Li	16.52	16.53
Mg	0.001	0.001
Mn	<0.001	<0.001
Na	0.016	0.017
S	0.012	0.012
H_2O	~43	~43
Impurities (wt%)	0.055	0.034
LiOH (%)	**99.83**	**99.89**

These positive results demonstrate the potential for a paradigm shift in operating revenue from lithium mica deposits by focusing on high value lithium hydroxide as a deliverable product. The hydroxide can be produced from a lithium carbonate precursor, for a marginal incremental cost.

Implications

The conversion of lithium carbonate to lithium hydroxide when combined with disruptive processing technology licensed to LIT, provides a fully integrated flowsheet from mica to lithium hydroxide.

The marginal increase in operating cost, to produce the higher value hydroxide product, has the potential to produce significant revenue increases for mica based lithium projects.

LIT has a non-binding Memorandum of Understanding with European Metals Holdings (ASX: EMH) to commercialize lithium production from the Cinovec Project (Czech Republic). In May 2015 EMH released scoping study for which LIT provided metallurgical testing, process design and costing, based on the processing of mica to produce lithium carbonate. Rising prices of lithium chemicals since that time, and the ability to produce the value added hydroxide product, have the potential to double the lithium revenue from that project.

Universal application to other projects

The conversion of lithium carbonate, to lithium hydroxide is not dependent upon the source or chemistry of the mica feed. The process is applicable to the processing of all lithium micas tested to date by LIT.

Further developments

Various process control assays remain outstanding. A comprehensive mass balance will be completed when those assays become available. LIT will continue to pursue process optimization to reduce cost, and improve product quality.

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About Lithium Australia NL:

LIT is a dedicated developer of disruptive lithium extraction technologies. LIT has strategic alliances with a number of companies, potentially providing access to a diversified lithium mineral inventory on three continents.

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