

### COMPANY DETAILS

#### LITHIUM AUSTRALIA NL

ABN: 29 126 129 413

ASX CODE: LIT & LITCB

#### PRINCIPAL AND REGISTERED OFFICE

Suite 3  
23 Belgravia Street  
Belmont WA 6104

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#### POSTAL ADDRESS

PO Box 588  
Belmont WA 6984

#### CORPORATE INFORMATION

(3 September 2015)  
134M Ordinary Shares  
48M Contributing Partly Paid Shares  
9M Unlisted Options

#### BOARD OF DIRECTORS

**George Bauk**  
(Non-Executive Chairman)  
**Adrian Griffin**  
(Managing Director)  
**Bryan Dixon**  
(Non-Executive Director)

#### For further information contact:

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### Lithium Australia's Mini-plant Test Results: One Step Closer to Commercialization

#### HIGHLIGHTS

- Lithium Australia moves one step closer to commercialization
- 10 day's continuous plant operation produces 99.53% lithium carbonate
- No fatal flaws in chemistry or plant mechanics
- Feed material from Lepidolite Hill (80% LIT, 20% FML)
- Head grade 2.9% Li<sub>2</sub>O
- 8.7kg of lithium carbonate produced for market evaluation
- Recovery circuits for other metals under development

#### One step closer to Commercialization

Lithium Australia NL (ASX: LIT) continues towards commercialization of the only known viable process to recover lithium from micas. In a recently completed 10 day continuous mini-plant run (ASX announcement 9 July 2015, released under the Company's previous name, Cobre Montana) LIT produced an outstanding trial performance (ASX announcement 12 August 2015). All assay results have now been received and metallurgical balances completed which allows the Company to release this synopsis of results culminating in the production of lithium carbonate for market evaluation.

#### Lithium carbonate produced during the mini plant campaign



#### MEDIA CONTACT:

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## The test plant

The test plant as operated by Lepidico was designed to recover lithium carbonate from lithium micas, including lepidolite and zinnwaldite. The plant utilizes the L-Max hydrometallurgical flow sheet which is based on:

- direct leaching of the mica (no energy intensive roasting required);
- impurity removal;
- recovery of lithium as a carbonate (suitable for the battery industry); and
- recovery of potassium as a sulphate (fertilizer).

This is the second successful attempt to recover lithium from lepidolite on a continuous basis. Both campaigns have used lepidolite mineralization sourced from Lepidolite Hill, part of the Coolgardie Rare Metals Venture (LIT 80% and Focus Minerals 20% (ASX:FML)).

The test plant was constructed of bench-scale laboratory equipment with a nominal feed rate of 2kg/hr concentrate to the leach circuit.

### Plant operation parameters

The plant was operated in several stages, pre-fill, continuous operation and de-commissioning over an approximate 15 day period. A total of 229 kg of mica ore was processed in 111 hours of continuous leaching. The downstream processing plant was operated continuously for 168 hours in which a total of 8.7 kg of lithium carbonate, at an average grade of 99.53%, and a recovery rate of 94%.

### Significant results

The main conclusions derived from the campaign are:

- Continuous mini plant operation successfully demonstrated the process chemistry;
- No fatal flaws were evident in the chemistry or mechanical operation of the plant;
- Continuous leach results emulated batch results, indicating the relative ease of predicting continuous leach performance from batch test data;
- High recoveries of potassium, rubidium, cesium, aluminium and fluorine to intermediate products were achieved heralding development of additional circuits to recover these commodities;
- High recovery of lithium from the leach liquor to the final product;
- All slurries filtered and dewatered exceptionally well; and
- A well-defined set of design criteria for a pilot plant can be extracted from the mini plant run.

### Lithium carbonate quality

High-grade lithium carbonate was produced throughout the majority of the campaign with the total product averaging 99.53%  $\text{Li}_2\text{CO}_3$ . The following impurities were detected and are expressed as parts per million:

$\text{Al}_2\text{O}_3$	$\text{CaCO}_3$	$\text{CuO}$	$\text{FeO}$	$\text{K}_2\text{O}$	$\text{MgO}$	$\text{Na}_2\text{O}$	$\text{NiO}$	$\text{P}_2\text{O}_5$	$\text{PbO}$	$\text{Rb}_2\text{O}$	$\text{SO}_3$	$\text{SiO}_2$
59	539	2	15	26	42	539	3	10	2	2	2792	260

Some of the impurities detected are soluble salts, in particular sodium sulfate that can be removed by improved washing of the final carbonate product.

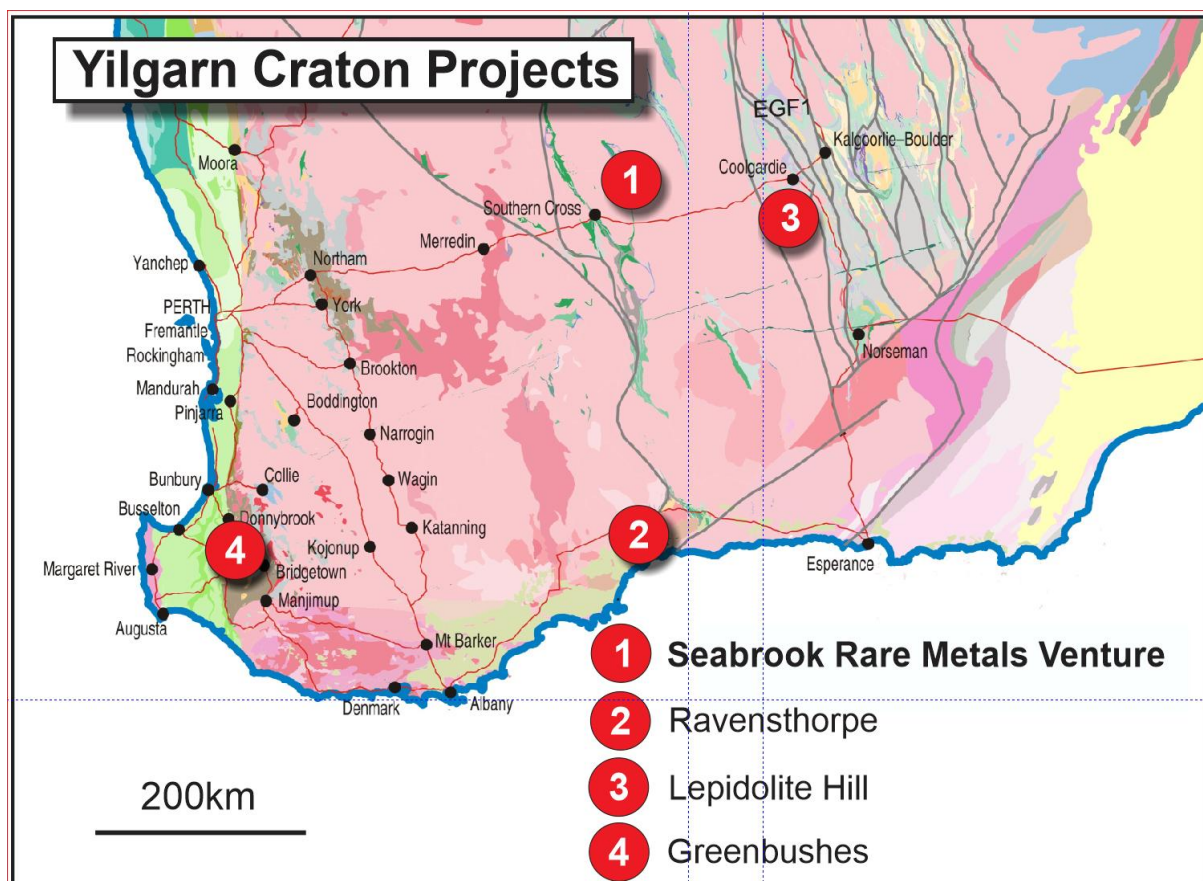
### Conclusion

The results are a clear demonstration of the ability to control the L-Max process and produce high quality products on a continuous basis.

Adrian Griffin  
Managing Director

## ABOUT LITHIUM AUSTRALIA

Lithium Australia (LIT) has a technical alliance with Strategic Metallurgy Pty Ltd to commercialise disruptive lithium extraction technology based on the recovery of lithium from micas; minerals not generally used as a source of lithium chemicals. LIT has a non-binding Heads of Agreement with European Metals Holdings Limited to process lithium mineralisation at Cinovec in the Czech Republic on a 50/50 JV basis. Cinovec contains abundant lithium micas and is one of the world's largest hard-rock lithium occurrences. In addition, LIT has strategic alliances with Pilbara Minerals Limited, Focus Minerals Limited and Tungsten Mining NL, to investigate lithium and rare metals in prospective locations of Western Australia close to well-developed infrastructure. LIT also has lithium exploration assets near Greenbushes and Ravensthorpe in Western Australia. LIT is also evaluating other European opportunities.



### Background to Change of Licensor

Since Lithium Australia (ASX:LIT) embarked on its quest to commercialize the production of lithium chemicals from micas, the Company's development partner, Strategic Metallurgy Pty Ltd (SMPL) has ceded its interest in the technology, known as L-Max, to Lepidico Limited ("Lepidico") an unlisted public Australian company. SMPL will continue to provide technical services to LIT, supporting process development on projects covered under the current licensing arrangements, including the three licences issued so far being:

- Licence to use the L-Max process exclusively throughout Western Australia;
- Licence to use the L-Max process exclusively on the Cinovec project (Czech Republic); and
- Licence to use the L-Max process on a project yet to be nominated.

The licences referred to above were initially issued by SMPL as licensor and have been novated to Lepidico as licensor.