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## ASX ANNOUNCEMENT

### LITHIUM AUSTRALIA SURVEY OF LITHIUM PEGMATITES AT MEDCALF, WESTERN AUSTRALIA

#### INTRODUCTION

In 2018, Lithium Australia NL (ASX: LIT) (or 'the Company') identified lithium pegmatite swarms at Medcalf, part of the Company's Lake Johnston project (see Figure 1).

Medcalf lies within the highly lithium-prospective Yilgarn Craton, which hosts major lithium deposits at:

- Earl Grey (the Kidman Resources/Sociedad Química y Minera de Chile S.A. (SQM) joint venture);
- Mt Marion (NeoMetals, Gangfeng and Mineral Resources); and
- Mt Cattlin (Galaxy).

Much of the mineralisation within these deposits, including Medcalf and the Company's Mt Day prospect (located nearby) has similar geological features.

The lithium pegmatites of the Yilgarn Craton are attracting investment from some of the world's largest lithium companies.

#### MEDCALF EXPLORATION

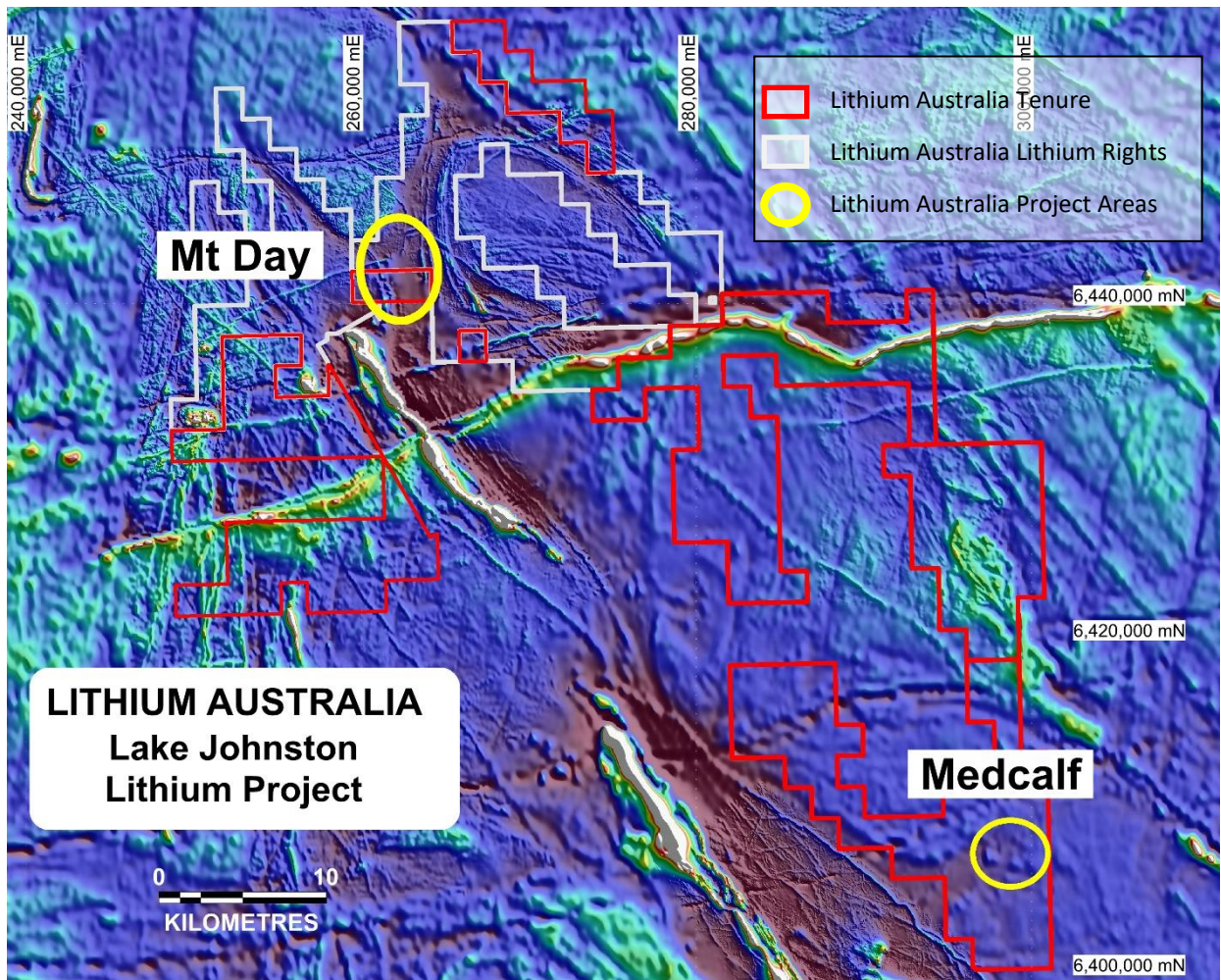
The exploration programme undertaken in January 2019 included:

- field mapping;
- rock-chip sampling; and
- geochemical soil sampling.

Samples generated during the programme have been submitted for laboratory analysis in Perth, Western Australia, with results expected in March 2019.

Previously reported results (see [ASX announcement 21 May 2018](#)) include rock-chip samples that are prospective, with grades ranging from 3.07% Li<sub>2</sub>O up to 4.78% Li<sub>2</sub>O, and a spodumene-only specimen sample grading 7.15% Li<sub>2</sub>O. The samples originated from lithium caesium tantalum ('LCT') pegmatites.





**Figure 1:** Lithium Australia's Lake Johnston tenement package, underlain by regional magnetic data.

## REGIONAL EXPLORATION POTENTIAL

Lithium Australia's 100% owned Medcalf lithium project (E63/1809) lies within the southeast portion of the Company's Lake Johnston project in the southern Yilgarn region of Western Australia. It is about 460 kilometres east of Perth, the state's capital (Figure 1), some 45 kilometres southeast of Lithium Australia's Mt Day lithium prospect (see [ASX release 27 January 2017](#)) and about 120 kilometres east-southeast of the Earl Grey lithium deposit currently being developed by Kidman Resources (ASK: KDR) and SQM.

Both the regional geological setting and the proximity of the pegmatites to fertile granites are important in the emplacement of LCT pegmatites. It appears that for the Mt Day and Medcalf pegmatite fields, that source granites may form part of the same igneous complex.

Brittle failure zones in the greenstones and gneisses adjacent to the fertile granites are excellent target zones. Indeed, the greenstones between Medcalf and Mt Day may well host further LCT pegmatite occurrences, as might other parts of the greenstone sequence adjacent to the granite dome. Lithium Australia has most of that greenstone sequence covered by exploration licences (granted, and as applications) and has access through a lithium rights agreement with Lefroy Exploration (ASX: LEX) (see [ASX release 18 October 2016](#)) and ([LEX ASX release dated 17 January 2019](#)).

**Adrian Griffin – Managing Director**

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## About Lithium Australia NL

Lithium Australia aspires to 'close the loop' on the energy-metal cycle in an ethical and sustainable manner. To that end, it has amassed a portfolio of projects and alliances and developed innovative extraction processes to convert *all* lithium silicates (including mine waste) to lithium chemicals. From these chemicals, the Company plans to produce advanced components for the lithium-ion battery industry. The final step for Lithium Australia involves the recycling of spent batteries and e-waste. By uniting resources and the best available technology, the Company aims to establish a vertically integrated lithium processing business.

## MEDIA CONTACTS

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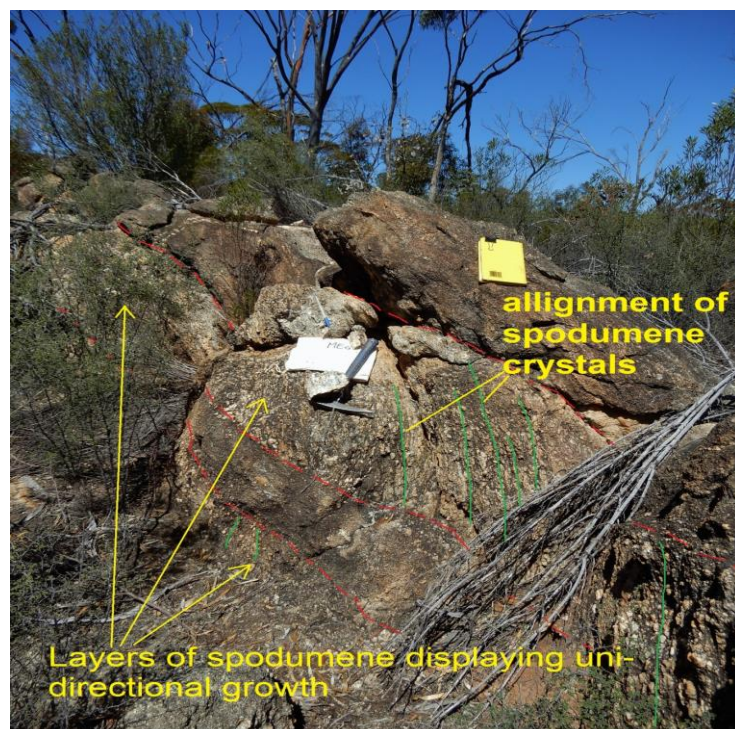
## Competent Persons Statement

The information contained in the report that relates to Exploration Results, together with any related assessments and interpretations, is based on information compiled by Peter Spitalny on behalf of Mr Adrian Griffin, managing director of Lithium Australia NL. Mr Spitalny is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the styles of mineralisation under consideration, and to the activity he has undertaken, to qualify as a Competent Person. Mr Griffin is a member of the Australasian Institute of Mining and Metallurgy and has sufficient experience relevant to the style of mineralisation under consideration, and to the activity being reported, to qualify as a Competent Person as defined under the 2012 edition of the *Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves*. Mr Spitalny consents to the inclusion in the report of the matters based on his information in the form and context in which they appear. The Company is not aware of any new information or data that materially affects the information in this report, and such information is based on the information compiled on behalf of Lithium Australia managing director Mr Griffin.

Figure 2, at right, shows an example of outcropping pegmatite at the Medcalf Lithium prospect area from field inspections in April 2018.

Alignment and layering of spodumene crystals indicating directional growth during formation of the pegmatites are evident in this outcrop.

The image also shows the location of one of the reconnaissance rock chip samples – ME6 – which returned an assay of 3.13%  $\text{Li}_2\text{O}$  as reported in April 2018.



**Figure 2:** Outcropping spodumene pegmatite (sample ME6)