

ASX ANNOUNCEMENT



23 March 2020

Lithium Australia – exploration progress update

SUMMARY

- **Drilling planned for Medcalf spodumene deposit.**
- **5 tonne spodumene sample for LieNA® CRC research project collected.**

Lithium Australia NL (ASX: LIT, 'the Company') is pleased to provide investors with an update to its raw materials strategy for 2020 and beyond. This announcement provides further information in respect of an announcement to ASX dated 19 March 2020.

The Company's raw materials division is charged with establishing a quality lithium resource base in order to provide feed options for a downstream processing facility that may include the Company's 100%-owned LieNA® process.

Comment from Lithium Australia MD Adrian Griffin

"In addition to considering sourcing lithium minerals from third-party mine-waste streams, the Medcalf Project provides a potential internal source of spodumene feed for the Company's experimental LieNA® lithium extraction business.

"The Medcalf Project's development timeline is a good example of how the Company applies a methodical, disciplined and cost-effective approach to exploration so that any discovery occurs in a low-cost environment, whilst balancing all stakeholder's interests. Our ultimate aim is to participate in Western Australia's energy security strategy, from mineral processing to batteries, and recycling of energy metals."

Medcalf spodumene deposit – Western Australia

Following a request from ASX, the Company now provides further information about its Medcalf Project, located near Lake Johnston, Western Australia. The Company earlier announced that it had identified strongly mineralised lithium-bearing pegmatite swarms within its Medcalf prospect, near Lake Johnston. The dominant lithium mineral is spodumene (see [ASX announcement](#) dated 15 April 2019).

In the announcement, the Company noted that the Medcalf prospect provided the following.

- A cluster of stacked pegmatite dikes with abundant spodumene, outcropping over a strike length of 450 metres and a width of 100 metres; and
- subsequently, a soil geochemistry programme covering an area of 1,300m x 700m generated lithium-in-soil anomalies that suggest possible extensions under cover.

The 15 April 2019 announcement included an Exploration Target for the Medcalf prospect based upon the potential quantity of mineralisation present, in the range of: 5 million tonnes ('Mt') to 8 Mt at 0.8% lithium oxide ('Li₂O') to 1.2% Li₂O.

An Exploration Target is not a JORC compliant Mineral Resource – the potential quantity and grade are conceptual in nature, as exploration to date has been insufficient to determine a Mineral Resource and there is no certainty that further exploration work will result in the determination of a Mineral Resource.

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The size potential of the Exploration Target is based upon the results of geological mapping and rock-chip geochemistry of the outcropping mineralised pegmatites, and the Lithium geochemical soil anomaly.

The dyke swarm is interpreted to:

- have a strike length of between 300-500m;
- have an assumed down-dip extent of 200m;
- comprise at least 10 dykes, with average thicknesses of 3m; and
- have a bulk density of 2.7g/cm³.

The grade potential is based upon 10 rock chip samples of spodumene-bearing rock, which averaged 3.6% Li₂O. Based on field observations, approximately one third of each pegmatite is spodumene bearing, giving a potential grade range of up to 1.2% Li₂O.

Outlook

The majority of the Medcalf spodumene-bearing pegmatites investigated to date form in a swarm centered upon "Bontempelli Hill". The pegmatite swarm comprises at least 20 individual dykes, ranging from about 20m to 120m in length and 1 to 5m thick in outcrop.

Soil geochemistry results also indicate the possibility of additional, potentially mineralised, pegmatites that do not outcrop. The Company is planning to widen its geological and geochemical knowledge through further targeted programmes of mapping and geochemistry.

Drilling to test the Medcalf spodumene is also planned. Prior to drilling, Lithium Australia requires the approval of the Department of Mines, Industry Regulation and Safety for a programme of work, as well as completion of a botanical study. Both are well in-train.

Subject to receiving the requisite approvals, the inaugural drilling programme will be completed during the second quarter of 2020 and will comprise approximately 12 reverse circulation drill holes for 2,500 metres, with results provided to the market once received. There will be provision for additional holes.

Lithium Australia's LieNA[®] process

The Company continues to advance development of its 100%-owned LieNA[®] process, which represents an innovative and potentially more efficient treatment route for the lithium mineral spodumene. LieNA[®] replaces thermal conversion of spodumene with conversion at a lower temperature using caustic soda. The lithium is then selectively leached and recovered as tri-lithium phosphate.

On [13 February 2020](#), Lithium Australia announced it had been awarded a grant totalling \$1.3 million by the Australian federal government's Co-operative Research Centre Projects initiative.

Leading researchers and companies participating in that R&D programme include ANSTO (the Australian Nuclear Science and Technology Organisation), Murdoch University, Curtin University, Pioneer, ALS Metallurgy Pty Ltd ('ALS'), Carnac Project Delivery Services Pty Ltd and Lithium Australia's 100%-owned subsidiary VSPC Ltd.

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About Lithium Australia NL

Lithium Australia aims to ensure an ethical, sustainable and efficient supply of energy metals to the battery industry (enhancing energy security in the process) by creating a circular battery economy. The recycling of old lithium-ion batteries to new is intrinsic to this plan. While rationalising its portfolio of lithium projects/alliances, the Company continues with R&D on its proprietary extraction processes for the conversion of *all* lithium silicates (including mine waste), and of unused fines from spodumene processing, to lithium chemicals. From those chemicals, Lithium Australia plans to produce advanced components for the battery industry globally, and for stationary energy-storage systems locally. By uniting resources and innovation, the Company seeks to vertically integrate lithium extraction, processing and recycling.

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Competent Person's Statement – Lithium Mineral Resources, Australia

The information in this report that relates to the Medcalf Exploration Target, together with any related assessments and interpretations, is based on information supplied to and compiled by Mr Adrian Griffin on behalf of Lithium Australia. Mr Griffin 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 activities undertaken, to qualify as a Competent Person, as defined in the *JORC Code 2012*. Mr Griffin consents to the inclusion in the report of the matters based on the information in the form and context in which they appear. Lithium Australia is not aware of any new information or data that materially affects that contained herein.