

ASX ANNOUNCEMENT

17 July 2019



Lithium Australia RC drilling intersects multiple lithium mineralised intervals in pegmatites at Youanmi

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HIGHLIGHTS

- Lithium mineralisation intersected in 36 out of 37 RC holes drilled to date
- Pegmatite intervals of up to 9m downhole intersected in drilling
- RC drilling testing pegmatites within a 3km by 200m corridor
- First assay results expected before the end of July

Lithium Australia NL (ASX: LIT) continues to intersect significant lithium mineralisation in RC drilling targeting lithium, caesium tantalum ("LCT") pegmatites within the Youanmi project area. Lithium Australia NL has an option to acquire full rights and title to 3 exploration licences at Youanmi in Western Australia ([announced 2 October 2018](#)) which contain the pegmatites and also vanadium mineralisation in a nearby layered mafic complex.



Lithium Drilling

This first pass RC drilling program ([announced 25 June 2019](#)) has been designed to test down-dip extensions of outcropping lithium bearing pegmatites where [rock-chip samples yielding up to 4.2% Li₂O had been identified](#).

Up until 15 July 2019, Lithium Australia has drilled 37 RC holes for 1,579 metres on the 3km by 200 metre lithium target. Lepidolite mineralisation hosted in pegmatites has been observed in 36 holes.

Lepidolite is a lithium mica from which lithium and valuable by-products can be recovered using Lithium Australia's 100% owned SiLeach® process. Of the holes drilled; 19 report lithium mineralised intersections greater than 5 metres with the longest downhole intercept being 9 metres.

Encouragingly, there have been pegmatite intersections on drill lines where there was no surface outcrop. All pegmatites intersected so far are dipping at shallow angles (up to 40°) towards the east.

Information from the drill program will be used to assess the resource potential and geometry of the pegmatites. A program of mineralisation characterisation and metallurgical testing will be performed on RC samples recovered from the programme.

Lithium Australia expects to receive the first assay results before the end of the month and anticipates drilling activities on site will be completed within 14 days.

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Vanadium drilling – metallurgical samples

The Youanmi Project covers not only lithium pegmatites, but also a large, layered mafic complex, which hosts abundant vanadiferous magnetite. Much of the complex is weathered, resulting in vanadium bearing minerals that are acid soluble i.e. roasting is not required to recover the vanadium. LIT announced a maiden JORC 2012 Inferred Minerals Resource of 185 Mt @ 0.33% V₂O₅ on [22 May 2019](#).

Samples from 4 RC drill holes (252 metres) drilled at the start of the current program have been dispatched for chemical analysis in Perth, and metallurgical testing at ANSTO (Sydney, Australia).



Figure 1: RC Drilling at Youanmi

Comment from the MD, Adrian Griffin

"Our RC program continues to intersect good widths of lithium mineralisation in pegmatites at Youanmi. The lithium is hosted in lepidolite which is ideally suited for processing using our proprietary SiLeach® process. This first pass drill program is testing a lithium target with a strike of around 3km and I am eagerly awaiting the first batch of assay results before the end of the month."

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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 Person Statement

The information in this report that relates to Exploration Results together with any related assessments and interpretations is based on information compiled by Mr Adrian Griffin, Managing Director of Lithium Australia NL. 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 activity being reported to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves.

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Table 1: Youanmi RC Drill Collars

Hole ID	MGA_E Zone 50	MGA_N Zone 50	Azi	Incl	EOH	Target	Assays
19YMRC001	667704	6832251	315	-60	60	V	pending
19YMRC002	667737	6832208	315	-60	66	V	pending
19YMRC003	667749	6832194	315	-60	60	V	pending
19YMRC004	667795	6832147	477	-60	66	V	pending
19YMRC005	662647	6826262	220	-60	30	Li	pending
19YMRC006	662661	6826274	220	-60	30	Li	pending
19YMRC007	662596	6826333	220	-60	48	Li	pending
19YMRC008	662615	6826346	220	-60	30	Li	pending
19YMRC009	662533	6826376	230	-60	30	Li	pending
19YMRC010	662544	6826390	230	-60	24	Li	pending
19YMRC011	662489	6826398	250	-60	18	Li	pending
19YMRC012	662511	6826400	250	-60	24	Li	pending
19YMRC013	662330	6826363	300	-60	60	Li	pending
19YMRC014	662343	6826356	300	-60	30	Li	pending
19YMRC015	662372	6826433	300	-60	24	Li	pending
19YMRC016	662399	6826415	300	-60	30	Li	pending
19YMRC017	662508	6826437	250	-60	24	Li	pending
19YMRC018	662465	6826460	270	-60	24	Li	pending
19YMRC019	662455	6826511	270	-60	60	Li	pending
19YMRC020	662500	6826506	270	-60	36	Li	pending
19YMRC021	662532	6826620	315	-60	90	Li	pending
19YMRC022	662549	6826601	360	-90	60	Li	pending
19YMRC023	662510	6826577	315	-60	72	Li	pending
19YMRC024	662537	6826545	315	-90	54	Li	pending
19YMRC025	662561	6826648	315	-60	36	Li	pending
19YMRC026	662591	6826617	360	-90	48	Li	pending
19YMRC027	662532	6826731	315	-60	36	Li	pending
19YMRC028	662563	6826706	0	-90	48	Li	pending
19YMRC029	662471	6826711	315	-90	24	Li	pending
19YMRC030	662561	6826760	315	-60	36	Li	pending
19YMRC031	662597	6826735	360	-90	48	Li	pending
19YMRC032	662504	6826859	290	-60	30	Li	pending
19YMRC033	662582	6827018	300	-60	36	Li	pending
19YMRC034	662611	6827001	0	-90	42	Li	pending
19YMRC035	662659	6827099	270	-60	60	Li	pending
19YMRC036	662693	6827102	0	-90	48	Li	pending
19YMRC037	662638	6827184	240	-60	30	Li	pending
19YMRC038	662670	6827201	360	-90	43	Li	pending
19YMRC039	662528	6827360	270	-60	78	Li	pending
19YMRC040	662571	6827357	270	-60	78	Li	pending
19YMRC041	662609	6827354	270	-60	60	Li	pending

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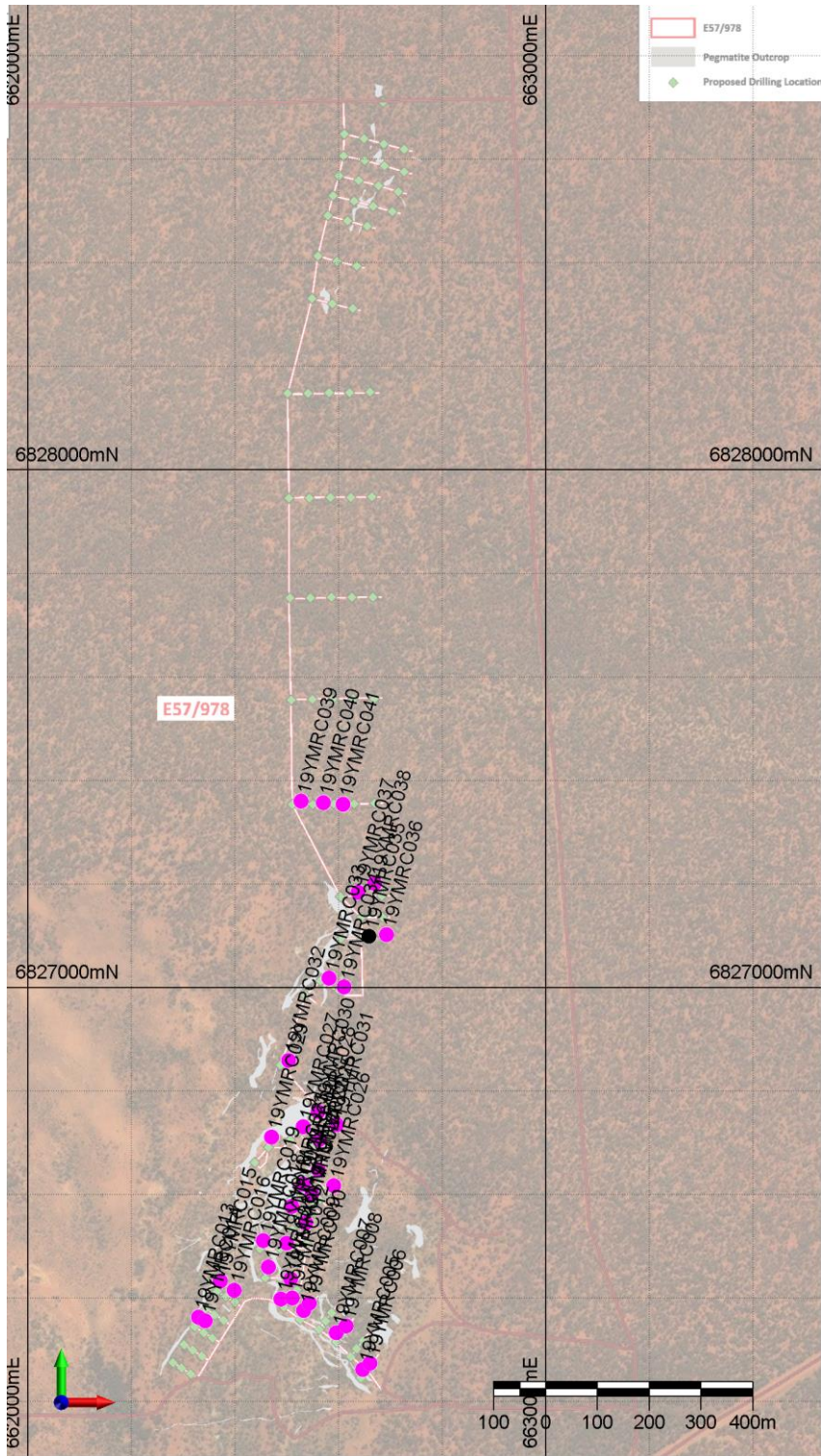


Figure 2: RC Drilling at Youanmi

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JORC Code, 2012 Edition – Table 1 Report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling. Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used. Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> Sampling is by Reverse Circulation drilling, collected every 1m through a cyclone and riffle splitter. No assay results being reported – these are pending release from laboratory. Lithium mineralisation (lepidolite) has been observed in RC drill cuttings.
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<ul style="list-style-type: none"> Reverse Circulation drilling. RC holes in the program have been drilled on a variety of azimuths and dips.
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias 	<ul style="list-style-type: none"> No recovery issues were reported.

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Criteria	JORC Code explanation	Commentary
Logging	<p>may have occurred due to preferential loss/gain of fine/coarse material.</p> <ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> RC drill samples were geologically logged to a level of detail to support future Mineral Resource estimation studies. Data from assay and metallurgical testing are pending at time of release The complete drill holes were logged
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Sampling has been by Reverse Circulation drilling, collected every 1m through a cyclone and riffle splitter.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<ul style="list-style-type: none"> NA - no assay results being reported.

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Criteria	JORC Code explanation	Commentary
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> No independent verification of sampling has been reported. Primary data is captured using industry standard worksheets.
Location of data points	<ul style="list-style-type: none"> Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. Specification of the grid system used. Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> The RC drill hole locations (collar) were located using GPS. Grid systems used were Geodetic datum: GDA 94,; Projection: MGA, Zone 50.
Data spacing and distribution	<ul style="list-style-type: none"> Data spacing for reporting of Exploration Results. Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. Whether sample compositing has been applied. 	<ul style="list-style-type: none"> RC drilling was completed on approximately 80m spaced sections with drill hole spacing of approximately 40m Examination of drilling results will be required to determine if this is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation procedures.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> The dip of the pegmatites is approximately 20-40° to the east. Both the lines of vertical holes and the inclined holes were oriented appropriately at right angles to the stratigraphy.
Sample security	<ul style="list-style-type: none"> The measures taken to ensure sample security. 	<ul style="list-style-type: none"> Industry standard measures taken to ensure sample security.
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of sampling techniques and data. 	<ul style="list-style-type: none"> No audits or review have yet been undertaken.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including 	<ul style="list-style-type: none"> E57/958 held by Diversity Resources Pty Ltd, a private

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Criteria	JORC Code explanation	Commentary
land tenure status	<p><i>agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></p> <ul style="list-style-type: none"> <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i> 	<p>company. Lithium Australia (LIT) has an option over the tenement (LIT ASX announcement: 11 December 2018)</p>
Exploration done by other parties	<ul style="list-style-type: none"> <i>Acknowledgment and appraisal of exploration by other parties.</i> 	<ul style="list-style-type: none"> The tenement area was historically explored by many explorers since 1967. Australian Gold Resources Limited (AGR) explored extensively for vanadium resources within historical tenement E59/419.
Geology	<ul style="list-style-type: none"> <i>Deposit type, geological setting and style of mineralisation.</i> 	<ul style="list-style-type: none"> The project area lies on the northern part of the Youanmi Complex, a layered gabbroic intrusion. The tenement hosts abundant lithium pegmatites intruding layered mafic rocks, with the latter also hosting vanadium-rich magnetite horizons. The pegmatites are strongly fractionated with the dominant lithium mineral being lepidolite (a lithium mica). Initial work on the Project has revealed occurrences of lepidolite-bearing pegmatites in a belt over a strike length of almost 3 km and a width of at least 200 metres. Rock sampling has confirmed lithium values of up to 4.2% Li₂O, anomalous caesium and tantalum values. Within E57/958 there are also vandaniferous units that have been dislocated by a major fault. To the east of the fault they strike east-west with a moderate dip to the south. To the west the units are offset by a number of minor faults; and strike northeast-southwest dipping moderately to the southeast. Oxidised mineralisation extends to between 20m and 50m, with an average depth of 40m. There is minimal overburden.

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Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> Drill hole information is presented in this report. Assay results are pending
Data aggregation methods	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Drill samples were taken as 1m samples. No assay results reported as these are pending.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> The dip of the pegmatites is approximately 20-30° to the east. Both the lines of vertical holes and the inclined holes were oriented appropriately at right angles to the stratigraphy.
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for 	<ul style="list-style-type: none"> Plans are included in this report.

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Criteria	JORC Code explanation	Commentary
	<i>any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i>	
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> No assays reported as these are pending.
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> High quality aeromagnetic data has been acquired
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> LIT intends to carry out further drilling following an assessment of exploration results