Lithium Australia NL

ACN: 126 129 413
ASX: LIT

Level 1
675 Murray St
West Perth WA 6005

PO Box 1088
West Perth WA 6872

Phone +61 (0) 8 6145 0288
Fax +61 (0) 8 9475 0847

info@lithium-au.com
lithium-au.com

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ASX ANNOUNCEMENT

LITHIUM AUSTRALIA IDENTIFIES LITHIUM PEGMATITES AT LAKE JOHNSTON, WESTERN AUSTRALIA

HIGHLIGHTS:

- **Discovery of pegmatites containing lithium, rubidium and caesium.**
- **Rock chip samples up to 3.94% Li_2O**
- **Visible lithium micas (lepidolite and zinnwaldite)**

SUMMARY:

Lithium mineralisation has been identified during reconnaissance exploration within Lithium Australia's Lake Johnston project in Western Australia, 450km east of Perth (Figure 1).

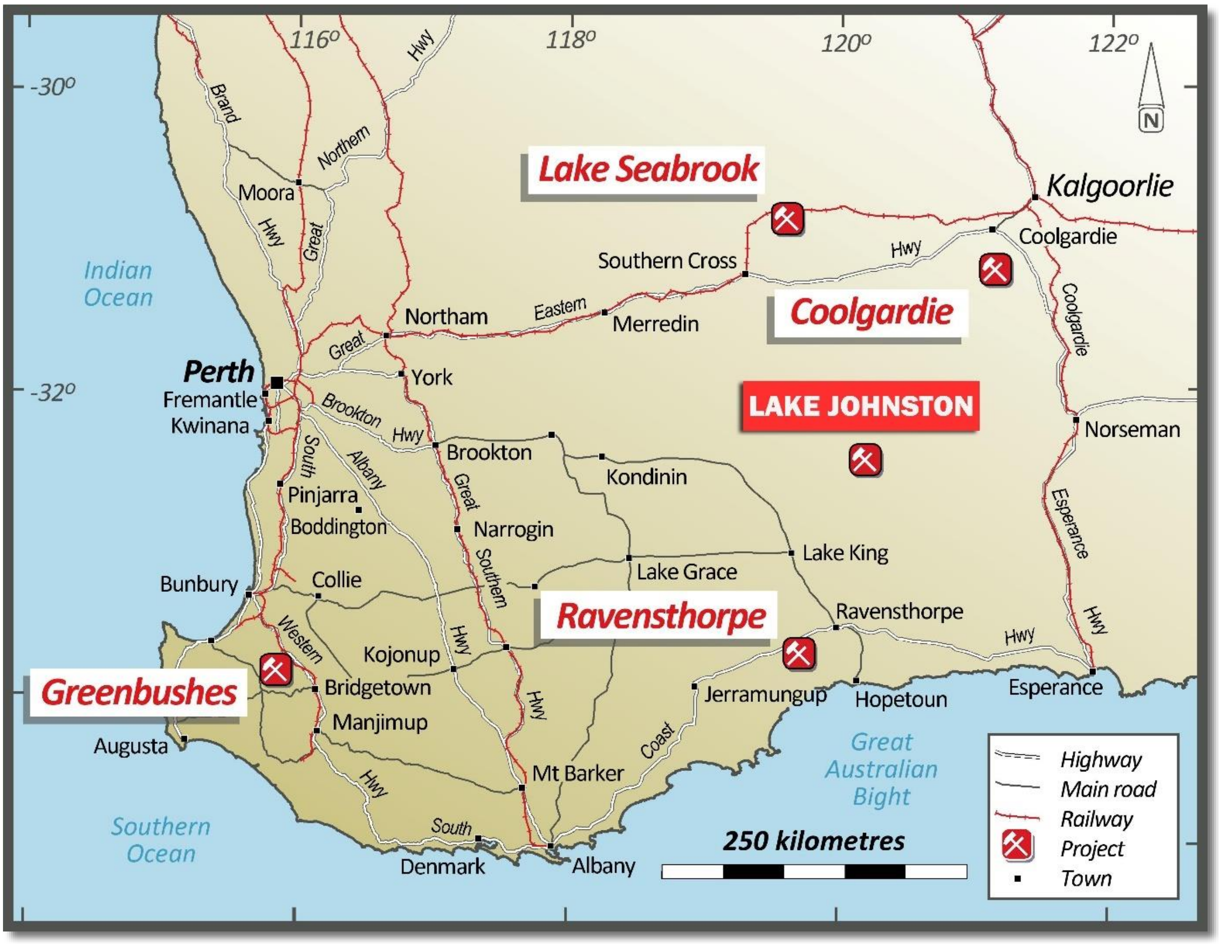

Figure 1 Location of Lithium Australia's Lake Johnston lithium project with respect to other lithium Australia projects.

The lithium occurs within abundant pegmatites which emanate from nearby fertile granites and intrude the adjacent greenstone terrains along brittle failures. The configuration is similar to a number of other Western Australia pegmatite occurrences, including the recently discovered Earl Grey lithium deposit (Kidman Resources ASX announcement, 6 September 2016) which lies approximately 70km to the west of the Lake Johnston pegmatite swarms. Similar discoveries have also been reported in the area by Poseidon Nickel, the location of which is shown in Figure 2.

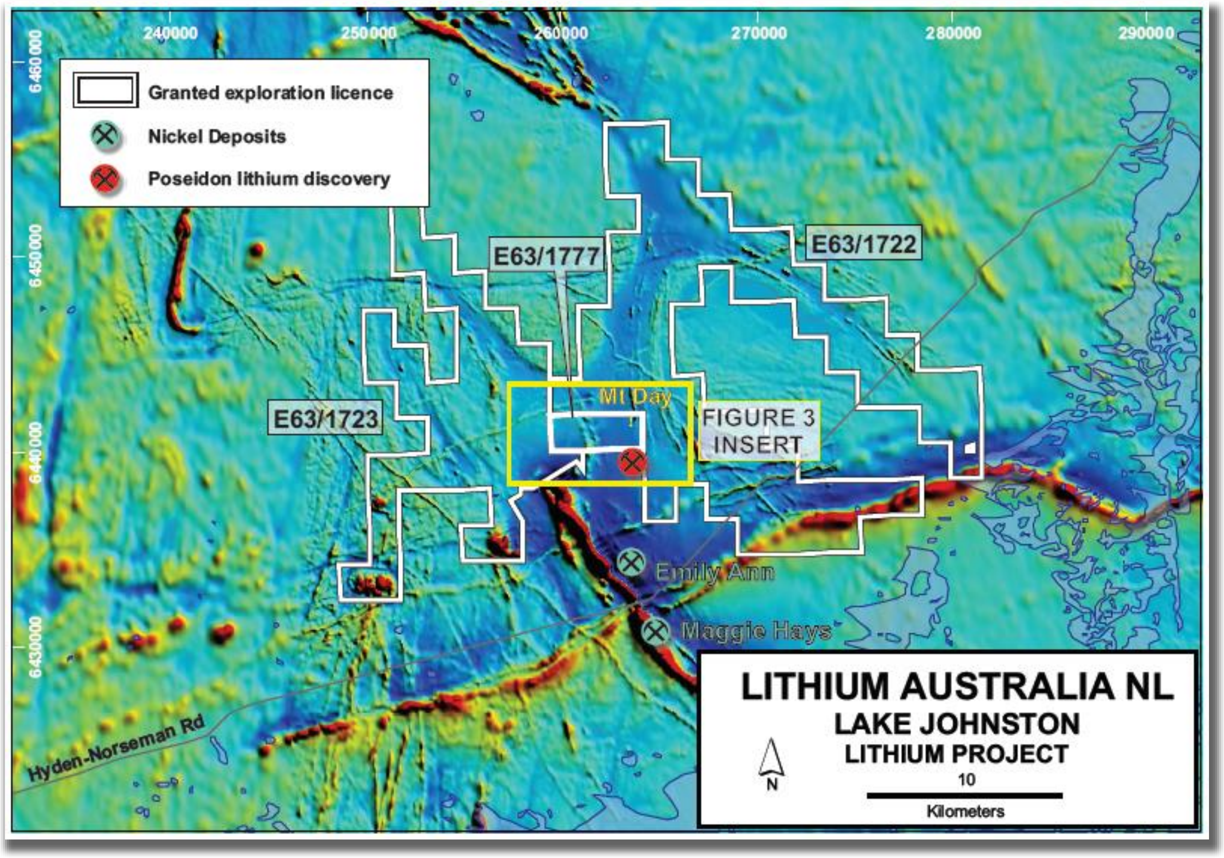

Figure 2 The source granites appear as pale green ovoids surrounded by more magnetic greenstones (deeper blues). The pegmatites occur within the greenstones and have been identifies on E63/1722 and E63/1777.

BACKGROUND:

Lithium Australia NL announced a consolidation of lithium rights at Lake Johnston on 18 October 2016. The consolidation includes lithium rights on two tenements held by Lefroy Exploration Limited (ASX: LEX) and is close to Poseidon Nickel's (ASX: POS) recently announced discoveries (see Figure 3).

RESULTS:

Five lithium prospects, have been identified to date. These are referred to as the Whitten, Bulldog, Boundary, Trackside, and Floyd prospects and the respective locations are shown in Figure 3.

Pegmatites within and in close proximity to E63/1777 have been examined by Lithium Australia. Twenty one rock-chip samples were collected and submitted for assay. Quality control is detailed in the attached 2012 JORC Code Table 1. The pegmatites are lepidolite rich (Figure 4) but also contain a number of other lithium minerals, including zinnwaldite which, in some cases, contains high levels of caesium.

Assay results are attached as Appendix 1, with sample details attached as Appendix 2.

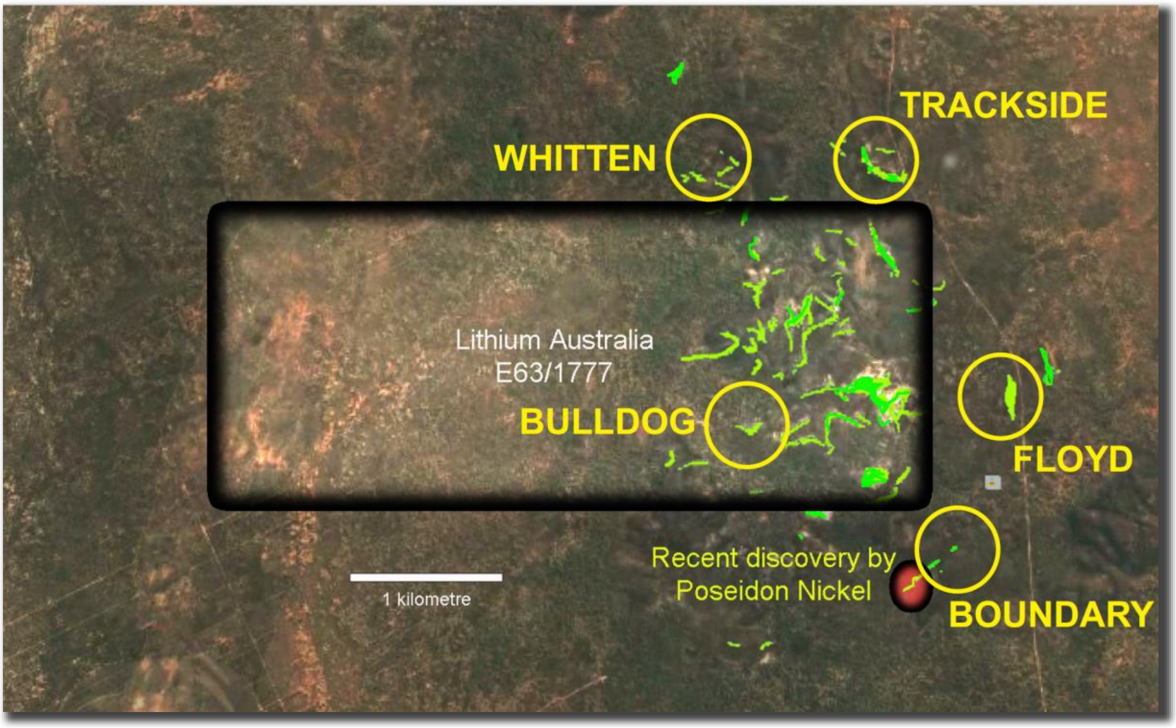

Figure 3 shows pegmatite distribution in and around E63/1777 (an overview of the location is shown in Fig.2).

Figure 4 shows massive lepidolite in outcrop of the Boundary Pegmatite. Assay results of LJR 021, taken from this paegmatite include 3.94% Li_2O, 4.79% Rb_2O) and anomalous Caesium and Tantalum (2985ppm Cs and 191ppm Ta). Massive lepidolite is a common feature of the mineralized pegmatites at Lake Johnston.

Lithium Australia Managing Director Mr Adrian Griffin:

> *"Lake Johnston has the right geological environment to produce abundant lithium pegmatites – it has large, fertile granites, adjacent to country rocks that have the most prospective physical characteristics for pegmatite emplacement. It is not surprising that our initial examination has revealed very prospective lithium pegmatites."*

Adrian Griffin
Managing Director
Mobile +61 (0) 418 927 658
Adrian.Griffin@lithium-au.com

About Lithium Australia

Lithium Australia NL is a dedicated developer of disruptive lithium extraction technologies, and 100% owner of the Sileach™ process for the recovery of lithium from silicates. LIT has strategic alliances with a number of companies, potentially providing access to a diversified lithium mineral inventory. LIT aspires to create the union between resources and the best available technology and to establish a global lithium processing business.

MEDIA CONTACT:
Adrian Griffin Lithium Australia NL 08 6145 0288 | 0418 927 658
Kevin Skinner Field Public Relations 08 8234 9555 | 0414 822 631

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 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 which 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 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.

Mr Peter Spitalny consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. 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 company Managing Director Mr Adrian Griffin.

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Appendix 1: Rock-chip Sample Assay Results

PEGMATITE	SAMPLE I.D.	Li (ppm)	Li_2O (%)*	Rb (ppm)	Cs (ppm)	Be (ppm)	Ta (ppm)
Floyd	LJR001	2210	0.48	13239	1896	40	749
Floyd	LJR002	2470	0.53	11817	1728	10	714
Floyd	LJR003	14070	3.03	23396	5606	20	631
Floyd	LJR018	3420	0.74	8223	1761	158	639
Floyd	LJR019	190	0.04	268	43	27	17
Whitten	LJR004	17840	3.84	41722	7317	25	403
Whitten	LJR005	16840	3.62	35914	8257	50	879
Whitten	LJR006	15510	3.34	36722	6361	21	353
Trackside	LJR007	340	0.07	999	57	7	15
Trackside	LJR008	1990	0.43	417	1881	48874	4
Trackside	LJR009	10870	2.34	15936	1578	35	697
Trackside	LJR010	6440	1.39	373	41	44	7
Trackside	LJR011	18120	3.9	24270	1663	160	152
Trackside	LJR012	11610	2.5	19134	1118	19	100
No Name	LJR013	3990	0.86	15316	782	19	195
No Name	LJR014	1660	0.36	235	609	47740	5
No Name	LJR015	170	0.04	3819	37	35	5
No Name	LJR016	200	0.04	315	11	18	6930
No Name	LJR017	1780	0.38	547	1080	46981	22
Bulldog	LJR020	13030	2.8	38586	8623	108	482
Whitten Boundary	LJR021	18300	3.94	43771	2985	23	191

* Calculated from stated assay results.

APPENDIX 2: Sample Characteristics

PEGMATITE	SAMPLE I.D.	Easting (mE)*	Northing (mN)*	DESCRIPTION	CLASSIFICATION (Based upon interpretation of assay Results)
Floyd	LJR001	264754	6440815	dull grey massive fine-grained material (alt. Petalite?)	v. f-grained lithian muscovite (late-stage replacement unit) P
Floyd	LJR002	264753	6440816	dull pink massive fine-grained material (alt. Petalite?)	v. f-grained lithian muscovite (late-stage replacement unit)
Floyd	LJR003	264753	6440808	massive pink/mauve mica	lepidolite (lithian muscovite & trilithionite)
Floyd	LJR018	264752	6440801	silicous grey micaceous rock; actually about 70% qtz with about 30% fine-grained greyish-violet mica	impure lepidolite (lithian muscovite & trilithionite)
Floyd	LJR019	264757	6440820	intensely weathered white rock (?petalite)	weathered massive albite; possibly late-stage alteration product of petalite
Whitten	LJR004	262666	6442333	massive lilac/lavendar mica	lepidolite (trilithionite)
Whitten	LJR005	262672	6442339	massive lilac/lavendar mica	lepidolite (trilithionite)
Whitten	LJR006	262658	6442330	massive pale greyish lavendar mica with 15% interstitial qtz	impure lepidolite (trilithionite)
Trackside	LJR007	263915	6442387	white weathered rock with flow texture	weathered fine-grained feldspathic layer
Trackside	LJR008	263996	6442358	massive pale blue to white hard siliceous mineral	beryl
Trackside	LJR009	264010	6442330	massive pink mica with 20% interstitial qtz	impure lithian muscovite
Trackside	LJR010	263994	6442344	pink alteration mineral (altered petalite?) with about 50% mix of qtz, fspar, minor mica	late-stage replacement unit; maybe altered petalite
Trackside	LJR011	263995	6442346	massive rosy pink mica	lepidolite (trilithionite)
Trackside	LJR012	264025	6442360	massive silvery grey mica with about 10% qtz	impure zinnwaldite
No Name	LJR013	263868	6441951	very weathered massive dark mica with about 10% interstitial qtz	impure lithian muscovite
No Name	LJR014	263320	6441315	massive pale blue to white hard siliceous mineral	beryl
No Name	LJR015	264083	6440808	white tough fine-grained rock	perthite
No Name	LJR016	263938	6440885	black sub-metallic columnar crystals in grey quartz	tantalo-columbite
No Name	LJR017	263943	6440883	massive pale blue to white hard siliceous mineral	beryl
Bulldog	LJR020	263464	6440617	dark grey weathered massive mica	zinnwaldite
Boundary	LJR021	264275	6439683	massive pink to purple mica	lepidolite (trilithionite)

***** all locations stated as MGA-94, Zone 51 coordinates.

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *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.*	• Specimen rock-chip samples. Samples collected were around 1-3kg and of lepidolite-rich or zinnwaldite-rich rock from pegmatite outcrops. • Samples were selected in order to ascertain the degree of lithium enrichment in the different pegmatites and enable geochemical characterisation of individual pegmatites. As such, the samples are representative of the lithium mineralisation within the lithium-rich zones of the pegmatites but do not represent the composition of the entire pegmatite. The distribution of lithium minerals in pegmatites may be within distinct zones which can be treated selectively. As such, it is appropriate to assess the lithium content of the lithium zones in isolation of the remainder of the pegmatite. • A total of 21 samples were collected by LIT's experienced field geologist and consultant geologist and sent to Nagrom Laboratories (Perth) for analyses. • Laboratory QAQC duplicates and blanks were inserted.
Drilling techniques	• *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).*	• Not applicable

Drill sample recovery	• *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 may have occurred due to preferential loss/gain of fine/coarse material.*	• Not applicable
Logging	• *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.*	• Rock-chip samples are not logged, however basic topography, environment, sample nature and geological, mineralogical and petrographic details are recorded.
Sub-sampling techniques and sample preparation	• *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.*	• Not applicable, no drill core. • All rock-chip samples were dry. • Laboratory standards, splits and repeats were used for quality control. • The sample type and method was of acceptable standard for first pass pegmatite mapping and represents standard industry practice at this stage of investigation.
Quality of assay data and laboratory tests	• *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 (i.e. lack of bias) and precision have been established.*	• Sample preparation is integral to the analysis process as it ensures a representative sample is presented for assay. The preparation process includes sorting, drying, crushing, splitting and pulverising. • Rock Chip samples and soil samples were assayed by Nagrom Laboratories for multi-elements using Peroxide Fusion and ICP analyses for Li, Rb, Cs, Be, Bi and Ta, with XRF analyses for Al, As, Ba, Cl, Fe, K, Mn, Na, Nb, P, Pb, S, Sb, Si, Sn, Sr, W, Zn and Zr. • Laboratory standards, splits and repeats were used for quality control.
Verification of sampling and	• *The verification of significant intersections by either independent or alternative company personnel.*	• Sample results have been checked by company

assaying	• *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.*	personnel (Senior Geologist) and a consultant geologist. • Assays to be reported as Excel xls files and secure pdf files. • Data entry carried out by field personnel thus minimizing transcription or other errors. Careful field documentation procedures and rigorous database validation ensure that field and assay data are merged accurately. • No adjustments are made to assay data.
Location of data points	• *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.*	• Sample locations picked up with hand held Garmin *GPSmap 62sc,* with approximately 3-5m accuracy, which is sufficient for first pass pegmatite mapping. • All locations recorded in MGA 94 Zone 51. • Topographic locations interpreted from GPS pickups (barometric altimeter) and field observations. Adequate for first pass pegmatite mapping.
Data spacing and distribution	• *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.*	• Rock-chip samples were selected by the geologist to assist with identification of the nature of the mineralisation present at each location. No set sample spacing was used and samples were taken based upon geological variation at the location. •Sample compositing was not applied.
Orientation of data in relation to geological structure	• *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.*	• Surface samples of "points" only. Does not provide orientation, width information. Associated structural measurements and interpretation by geologist can assist in understanding geological context.
Sample security	• *The measures taken to ensure sample security.*	• Samples were securely packaged when transported to ensure safe arrival at assay facility.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• None necessary at this stage of the exploration.

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 land tenure status	• *Type, reference name/number, location and ownership including 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.* • *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.*	· The results reported in this announcement is of investigation of pegmatites within granted tenement E63/1722, 100% owned by Lefroy Exploration Ltd, and of pegmatites within granted tenement E63/1777, 100% held by Lithium Australia NL. Lefroy Exploration Ltd has formally granted the rights to all lithium mineralisation that is present within E63/1722 to Lithium Australia NL. The Mt Day Lithium Project is located about 450km east of Perth in WA. · Tenements E63/1722 and E63/1777 are in good standing and no known impediments exist.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	· Prior Li/Ta exploration carried out by Amax Australia Ltd 1980-1981. Some exploration for gold and nickel also completed (Asarco; 1966-1970, Central Pacific; 1970-1972, Australasian Gold Mines; 1992-1998, Bullion Minerals; 2000-2002, Monarch Resources; 2002-2004 and White Cliff Minerals 2009-2016) but not relevant to Lithium Australia's investigation of lithium mineralisation. · Exploration by Amax included rock-chip channel sampling over selected areas of pegmatite outcrop, geological mapping and some shallow auger holes over a drainage channel south of Mt Day.

Geology	• *Deposit type, geological setting and style of mineralisation.*	· Pegmatites intruded mostly mafic rocks but also some intercalated felsic rocks. There are a large number of pegmatites, most of which are gently dipping. · Pegmatites within the tenements include LCT-Complex pegmatites that contain the Li-micas lepidolite and zinnwaldite in core-zones associated with quartz. White to pale blue beryl is present in some pegmatites, including some of the lithium-enriched pegmatites. Some as-yet unconfirmed pink mineral may be altered petalite. No tourmaline minerals or spodumene or amblygonite have been identified so far.
Drill hole Information	• *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:* ○ *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.*	• Not applicable

Data aggregation methods	• *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.*	• Not applicable, rock chip sample results reported as individual surface samples.

Relationship between mineralisation widths and intercept lengths	• *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').*	• Not applicable, rock chip sample results reported as individual surface samples.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for 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.*	• Not Applicable: not drilling results
Balanced reporting	• *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.*	• Results of assays for Li, Rb, Cs Be and Ta of all samples reported in Appendix 1
Other substantive exploration data	• *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.*	• All meaningful & material exploration data has been reported
Further work	• *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.*	• At the time of reporting, the results were still being evaluated but it is envisaged that in the short term further mapping and sampling is warranted to investigate potential additional lithium pegmatites. In the longer term, drilling to test extensions at depth will be required.