

**26 May 2017**

## ASX ANNOUNCEMENT

### LITHIUM AUSTRALIA (ASX: LIT) IDENTIFIES EXTENSIVE MINERALISATION AT RAVENSTHORPE, WESTERN AUSTRALIA

#### HIGHLIGHTS

- The Horseshoe Pegmatite shows strong similarity to nearby Galaxy Resources' (ASX: GXY) Mt Cattlin
- The Pegmatite is flat-lying with a footprint of 800 x 800 metres
- The Pegmatite contains both lepidolite and spodumene
- Costean sampling returned 10 m @ 1.1 % Li<sub>2</sub>O from a zone of lepidolite-spodumene mineralisation
- The lepidolite-rich portions of the Horseshoe Pegmatite add to LIT's lithium mica inventory

#### SUMMARY

The Horseshoe Pegmatite Prospect, part of Lithium Australia's (ASX: LIT) Ravensthorpe Lithium Project is located 500 km southeast of Perth, Western Australia (Figure 1).

The lithium mineralisation is hosted by the Cocanarup pegmatite swarm, which is within the same geological sequence as Galaxy Resources' Mt Cattlin lithium mine located 18 km to the north-east.

A recently excavated costean has revealed lithium mineralisation which includes spodumene, lepidolite and elbaite, all of which can be processed with LIT's 100% owned SiLeach™ process.

The Horseshoe Pegmatite, once thought to be three separate pegmatite bodies, is now confirmed as a single, flat lying pegmatite with surface exposure of approximately 800 x 800 metres (Figure 2). The size of the pegmatite appears to be comparable to the Cattlin Creek Pegmatite currently being mined by Galaxy Resources.

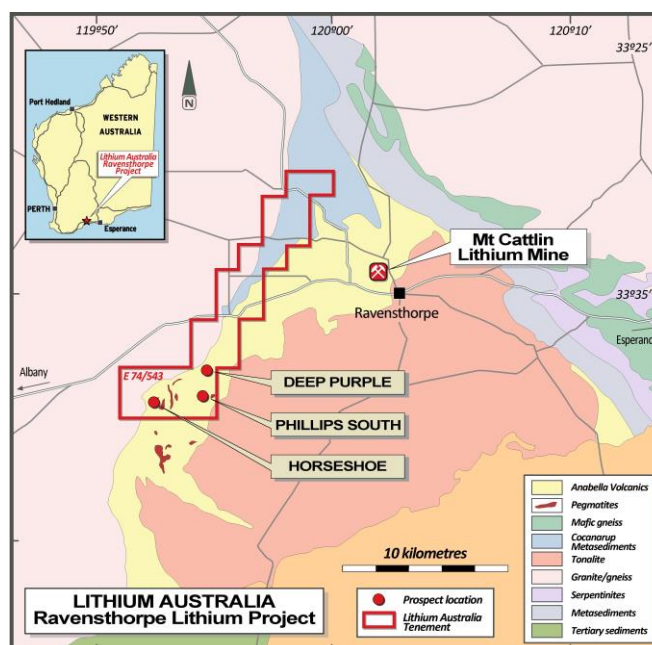


Figure 1 Regional geology of LIT's Ravensthorpe Project

Work to date confirms the widespread lithium enrichment within the Horseshoe Pegmatite and the discovery of spodumene suggests a similar composition to the Cattlin Creek Pegmatite

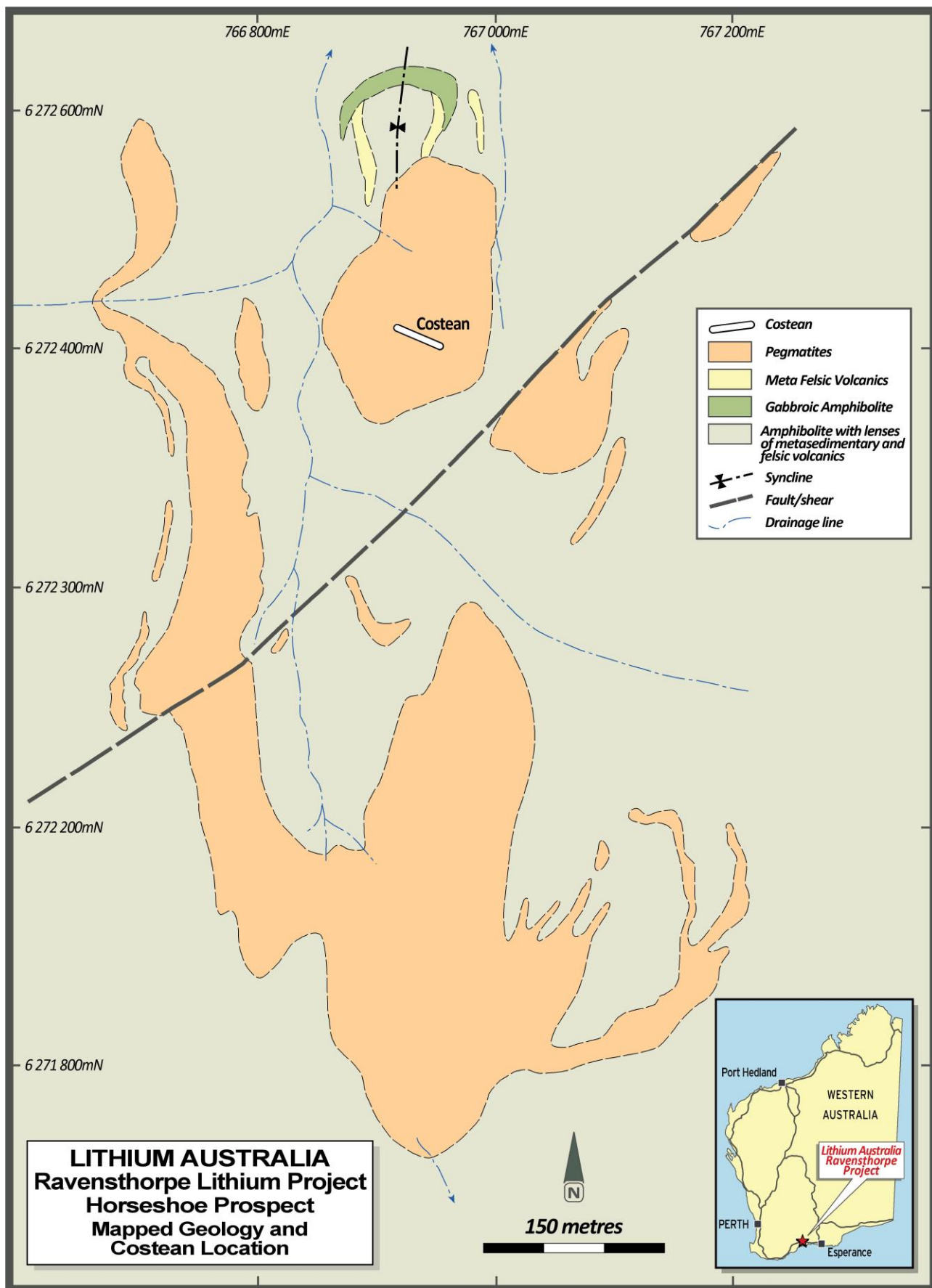


Figure 2: Horseshoe Prospect mapped geology and costean location

## COSTEANING RESULTS

Thirty-six, 1 m composite channel chip samples were taken along the northern face of the costean. Analysis of a comprehensive suite of elements was performed: lithium (Li), rubidium (Rb), caesium (Cs), and tantalum (Ta) were determined by Peroxide Fusion digest followed by an ICP finish and all other elements were determined by fusion followed by XRF analysis.

The western third of the costean is lithium-enriched. Associated with the Li enrichment are variable enrichments of Rb, Cs, bismuth (Bi), beryllium (Be), and Ta. The first 13 m interval, represented by samples CC001 to CC013, is 13 m @ 0.82% Li<sub>2</sub>O, **including 10 m @ 1.1% Li<sub>2</sub>O**. A peak lithium assays of 2.91% Li<sub>2</sub>O corresponds to a 1 m spodumene-lepidolite interval (Figure 3). The main results are contained in Appendix 1 and the 2012 JORC Code Table 1 for the sampling is attached at the end of the exploration report.

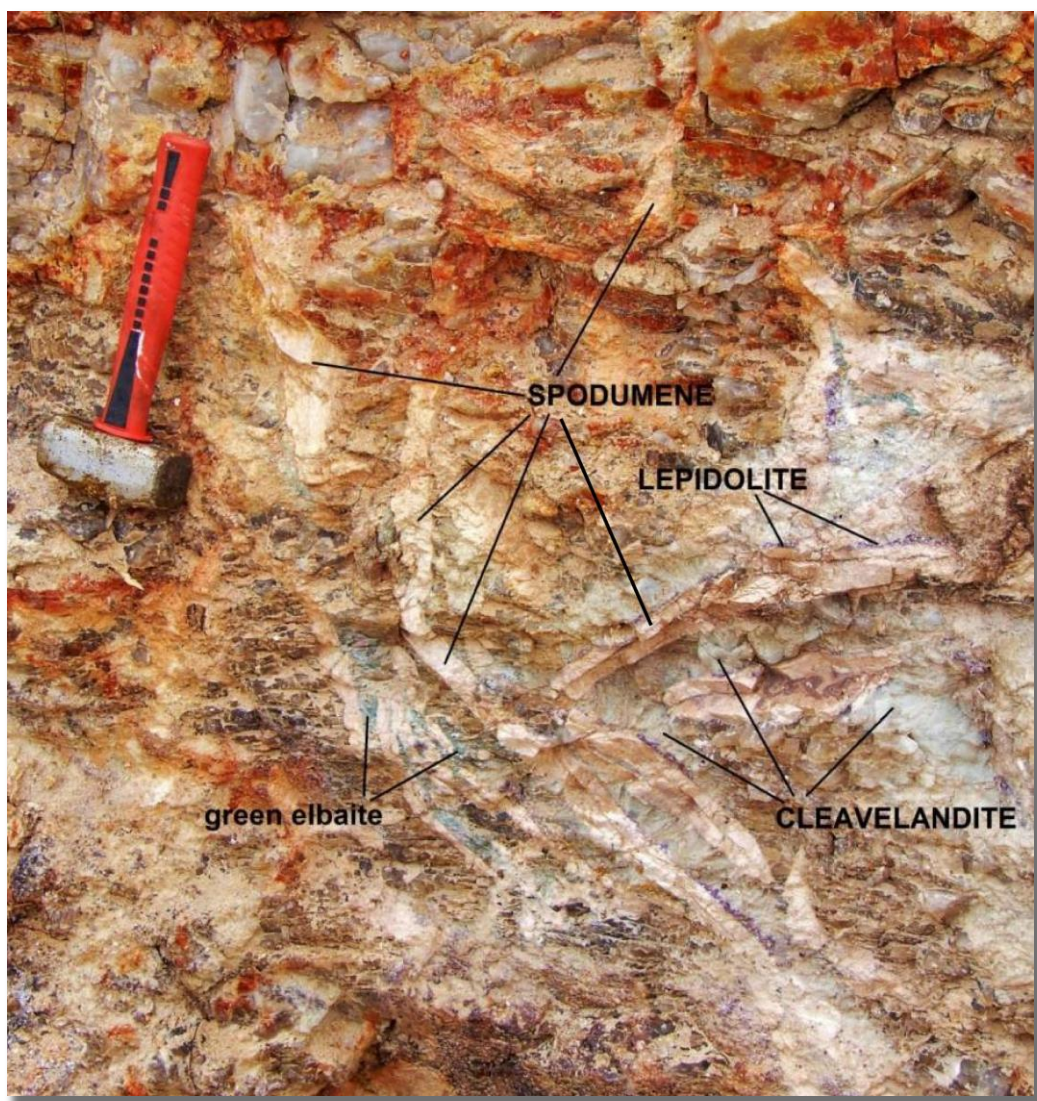


Figure 3: Spodumene and lepidolite mineralization in the Horseshoe Pegmatite, Ravensthorpe, WA.

## **NEXT PHASE OF EXPLORATION**

Drilling is planned for both the Horseshoe and Deep Purple prospects. All access and drill pads were prepared during the costean program.

### **Managing Director, Mr Adrian Griffin said:**

*"Exploration success at Ravensthorpe demonstrates the potential to find more lithium pegmatites, similar in size to those mined nearby at Mt Cattlin. The Ravensthorpe Project hosts numerous lithium pegmatites, and we look forward to commencing drilling some of these in the near future."*

### **Adrian Griffin**

Managing Director

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### **About Lithium Australia NL:**

LIT is a dedicated developer of disruptive lithium extraction technologies. 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:**

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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 Derrick Kettlewell on behalf of Mr Adrian Griffin, Managing Director of Lithium Australia NL. Mr Kettlewell is a Member of the Australasia Institute of Mining and Metallurgy and has sufficient 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 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 Kettlewell 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 the company Managing Director Mr Griffin.



### APPENDIX 1: Costean Assay Results

Sample ID	Sample Interval (m)	Li	Li2O (%)	Cs	Rb	Ta	K	Na	Rock Sample Description
		ICP004		ICP004	ICP004	XRF008	XRF008	XRF008	
		ppm		ppm	ppm	%	%	%	
		10		1	1	0.001	0.001	0.001	
CC001	0-1	1190	0.26	36	1547	<0.001	2.208	0.918	quartz-muscovite
CC002	1-2	860	0.19	97	668	<0.001	0.821	0.903	quartz-feldspar-muscovite
CC003	2-3	450	0.10	16	619	0.003	0.914	0.762	microcline
CC004	3-4	2720	0.59	192	2430	0.005	3.024	0.639	quartz-muscovite
CC005	4-5	3430	0.74	256	2250	0.002	3.367	0.957	quartz-muscovite-lepidolite
CC006	5-6	10390	2.24	983	6440	0.014	5.243	0.485	quartz-lepidolite
CC007	6-7	190	0.04	475	4673	<0.001	10.212	1.762	microcline
CC008	7-8	5660	1.22	574	3385	0.012	2.718	0.255	quartz-lepidolite
CC009	8-9	1370	0.29	69	1795	0.008	2.525	1.298	quartz-muscovite
CC010	9-10	200	0.04	137	3409	<0.001	9.839	2.133	microcline
CC011	10-11	13500	2.91	3365	7415	0.328	5.559	1.387	quartz-lepidolite
CC012	11-12	6470	1.39	26	105	0.025	0.174	0.362	spodumene-cleavelandite-lepidolite-tourmaline
CC013	12-13	3330	0.72	211	2336	0.010	2.147	0.645	quartz-muscovite-lepidolite
CC014	13-14	200	0.04	55	1318	0.002	4.183	1.875	quartz-muscovite
CC015	14-15	40	0.009	34	2220	<0.001	9.156	1.967	quartz-muscovite
CC016	15-16	60	0.013	26	1188	<0.001	5.059	2.017	quartz-muscovite
CC017	16-17	90	0.019	35	1905	<0.001	8.185	2.142	quartz-muscovite
CC018	17-18	40	0.009	21	1434	<0.001	8.041	2.131	graphic quartz-feldspar
CC019	18-19	430	0.093	8	561	<0.001	1.676	2.459	quartz-feldspar-muscovite
CC020	19-20	70	0.015	23	1348	<0.001	7.668	2.038	graphic quartz-feldspar
CC021	20-21	560	0.12	33	977	0.002	4.649	2.014	quartz-feldspar-muscovite-biotite
CC022	21-22	400	0.086	29	280	<0.001	0.817	3.646	quartz-muscovite
CC023	22-23	230	0.050	90	1685	0.002	6.708	2.012	quartz-muscovite
CC024	23-24	310	0.067	87	1229	0.002	5.043	2.272	quartz-muscovite
CC025	24-25	600	0.13	37	615	<0.001	1.815	2.037	graphic quartz-feldspar
CC026	25-26	290	0.062	25	426	<0.001	1.738	2.992	quartz-feldspar-muscovite-biotite
CC027	26-27	90	0.019	57	1284	<0.001	7.604	2.032	graphic quartz-feldspar
CC028	27-28	310	0.067	23	371	0.002	1.322	3.793	quartz-feldspar-muscovite-biotite
CC029	28-29	60	0.013	29	1282	<0.001	7.441	1.911	graphic quartz-feldspar
CC030	29-30	50	0.011	30	1208	0.003	7.176	2.184	graphic quartz-feldspar
CC031	30-31	30	0.006	40	1296	0.002	8.803	2.261	quartz-feldspar-muscovite
CC032	31-32	350	0.075	8	421	0.002	1.530	3.044	quartz-feldspar-muscovite-biotite
CC033	32-33	120	0.026	7	207	<0.001	0.858	4.517	quartz-feldspar-muscovite-biotite
CC034	33-34	40	0.009	22	1238	<0.001	7.755	2.018	graphic quartz-feldspar
CC035	34-35	50	0.011	17	1206	<0.001	7.646	1.850	graphic quartz-feldspar
CC036	35-36	30	0.006	18	1185	<0.001	7.558	1.880	graphic quartz-feldspar
R040	Point at 11.5 m	10870	2.34	15	108	0.007	0.251	0.268	spodumene
R041	Point at 25 m	140	0.030	163	4607	<0.001	10.314	1.654	microcline

# 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	<ul style="list-style-type: none"> <li>• <i>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.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>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.</i></li> </ul>	<p><u>Costean Rock Chip Samples.</u></p> <ul style="list-style-type: none"> <li>• The northern wall of the costean was marked-up into 1 m intervals using a tape measure. A sample line was then marked at approximately waist height along the length of the northern wall of the costean.</li> <li>• Costean rock chip samples (CC001 to CC036) were broken-off the face of the costean using a hammer and chisel and were collected from a horizontal line within the 1 m interval being sampled.</li> <li>• Costean rock chip samples were composite samples, representative of the 1 m interval being sampled and were not biased on mineral species.</li> <li>• Costean rock chip samples were bagged with individual sample numbers to identify the samples location along the costean.</li> <li>• Two rock chip samples (R040 to R041) were taken of specific mineral to allow identification of the mineral sampled.</li> <li>• A total of 36 costean (composite) rock chip and 2 specific mineral rock chip samples were collected by LIT's experienced field geologist and sent to Nagrom Laboratories (Perth) for analysis</li> <li>• Laboratory QAQC duplicates and blanks were inserted.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>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).</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable</li> </ul>
Logging	<ul style="list-style-type: none"> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Rock chip samples are not logged, however basic topography, environment, sample nature and geological, mineralogical, and petrographic details are recorded.</li> </ul>

	<ul style="list-style-type: none"> <li>• Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>• The total length and percentage of the relevant intersections logged.</li> </ul>	
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>• If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>• For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>• Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>• 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.</li> <li>• Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, no drill core.</li> <li>• All rock chip samples were dry.</li> <li>• Laboratory standards, splits and repeats were used for quality control.</li> <li>• The sample type and method was of acceptable standard for first pass pegmatite mapping and represents standard industry practice at this stage of investigation.</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>• The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>• 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.</li> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• All rock chip samples were assayed by Nagrom Laboratories for multi-elements using Peroxide Fusion and ICP analyses for Li, Rb, Cs, Be, and Bi, with XRF analyses for Al, As, Ba, Ca, Cl, Co, Cr, Cu, Fe, K, Mg, Mn, Na, Nb, Ni, P, Pb, S, Sb, Si, Sn, Sr, Ta, Ti, V, W, Zn, and Zr.</li> <li>• Laboratory standards, splits, and repeats were used for quality control.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>• The verification of significant intersections by either independent or alternative company personnel.</li> <li>• The use of twinned holes.</li> <li>• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>• Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>• Sample results have been checked by company personnel (Senior Geologist) and a consultant geologist.</li> <li>• Assays to be reported as Excel xls files and secure pdf files.</li> <li>• 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.</li> <li>• No adjustments are made to assay data.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Specification of the grid system used.</li> <li>• Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>• The eastern end of the costean was located using a handheld Garmin GPSmap 62s. The GPS has an approximately accuracy of 3-5 m. (sufficient for first pass costeaning).</li> </ul>

		<ul style="list-style-type: none"> <li>• The costean location was recorded in MGA 94 Zone 50.</li> <li>• Topographic locations interpreted from GPS pickups (barometric altimeter) and field observations. Adequate for first pass pegmatite mapping and soil sampling.</li> </ul>
<i>Data spacing and distribution</i>	<ul style="list-style-type: none"> <li>• <i>Data spacing for reporting of Exploration Results.</i></li> <li>• <i>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.</i></li> <li>• <i>Whether sample compositing has been applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>• The costean rock chip samples were 1 m composite samples along the northern face of the costean and no bias for specific rock type or mineral assemblages was applied by the geologist.</li> <li>• Two mineral specific rock chips were taken from the northern wall of the costean to identify the mineral. These samples were taken within the 1 m intervals.</li> </ul>
<i>Orientation of data in relation to geological structure</i>	<ul style="list-style-type: none"> <li>• <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i></li> <li>• <i>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.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Costean rock chip samples were composite across measured and marked 1 m intervals.</li> <li>• The mineral specific rock chip samples were biased samples taken from one specific mineral for identification across the same measured and marked 1 m interval.</li> <li>• The sampling above does not provide orientation, width information for specific units or mineral assemblages.</li> <li>• Associated structural measurements and interpretation by geologist can assist in understanding geological context.</li> </ul>
<i>Sample security</i>	<ul style="list-style-type: none"> <li>• <i>The measures taken to ensure sample security.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were securely packaged when transported to ensure safe arrival at assay facility.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li>• <i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>• None necessary at this stage of the exploration.</li> </ul>



## Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>The Ravensthorpe Project reported in this announcement is entirely within E74/543 and 100% owned by Lithium Australia NL (LIT), located 18 km SW of Ravensthorpe in Western Australia.</li> <li>The tenements are in good standing and no known impediments exist.</li> </ul>
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>Prior Li/Ta exploration carried out by Amax Australia Ltd 1980-1994, Ucabs 1996-1999 and Galaxy Resources Ltd 2002-2012.</li> <li>Exploration by Amax included rock-chip channel sampling over selected areas of pegmatite outcrop, geological mapping and 7 RC holes over the Quarry pegmatite.</li> <li>Exploration by Galaxy included soil sampling, rock-chip sampling, geological mapping and airborne aeromagnetics, radiometrics and DT surveys.</li> </ul>
<i>Geology</i>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Pegmatite swarms intruded both the Annabelle Volcanics and Cocanarup greenstones. The pegmatite bodies are extensive and gently dipping, commonly dissected by recent gullying.</li> <li>Pegmatites within the tenements include LCT-Complex pegmatites of the Lepidolite subclass, which commonly contain the Li-micas lepidolite and zinnwaldite in core-zones associated with quartz. Coloured Li-tourmaline (Elbaite), ranging from green to blue and pink occur adjacent to and with lepidolite. Pegmatites of the Spodumene subclass are also present and contain spodumene associated with cleavelandite (albite), quartz and lepidolite or lithian mica.</li> </ul>
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>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"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Not applicable</li> </ul>

	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	
Data aggregation methods	<ul style="list-style-type: none"> <li>• 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.</li> <li>• 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.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, costean and mineral specific rock chip sample results reported as individual surface samples.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• 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').</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable, costean and mineral specific rock chip sample results reported as individual surface samples.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Not Applicable.</li> </ul>
Balanced reporting	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• Results of assays for Li, Cs, Rb, Ta, K, and Na of all samples reported in Appendix 1.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>• 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.</li> </ul>	<ul style="list-style-type: none"> <li>• All meaningful and material exploration data has been reported.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> </ul>