ASX ANNOUNCEMENT 31 January 2017

COMPANY DETAILS

LITHIUM AUSTRALIA NL
ABN: 29 126 129 413
ASX CODE: LIT & LITCE

PRINCIPAL AND REGISTERED OFFICE
Level 1
675 Murray Street
West Perth WA 6005

P +61 8 6145 0288
F +61 8 9475 0847

POSTAL ADDRESS
PO Box 1088
West Perth WA 6872

CORPORATE INFORMATION
(31 January 2017)
258M Ordinary Shares
133M Listed Partly Paid Shares
21M Unlisted Options
27M Performance Rights

BOARD OF DIRECTORS
George Bauk
(Non-Executive Chairman)
Adrian Griffin
(Managing Director)
Bryan Dixon
(Non-Executive Director)

For further information contact:

Lithium Australia NL
Adrian Griffin (MD)

Tel: +61 (08) 6145 0288
Email: info@lithium-au.com
Web: www.lithium-au.com

LITHIUM AUSTRALIA QUARTERLY REPORT FOR DECEMBER 2016: APPLYING ADVANCED TECHNOLOGIES TO CREATE A SUSTAINABLE INDUSTRY

Report for the quarter ending
31 DECEMBER 2016

HIGHLIGHTS

- LIT advised exceptional results in continuous Sileach™ pilot plant run
- LIT and Lefroy Exploration Ltd (ASX: LEX) complete strategic consolidation of Lake Johnston lithium pegmatite field and discover lithium pegmatites with rock chip samples up to 3.94% Li_2O
- LIT completes Shareholder Purchase Plan raising $1.96m before costs
- LIT advises discovery of significant lithium rich clay deposits and preparations underway for a 25-hole drilling program as part of Phase 2 of the Electra JV earn-in
- LIT advises that lithium has been produced from the Sileach™ process
- LIT expands its Greenbushes interest to 100%
- LIT awards Sileach™ large-scale pilot plant design to CPC
- LIT Sileach™ pilot-plant commissioning on Pilbara Minerals Ltd (ASX: PLS) spodumene concentrates completes successfully

SUBSEQUENT EVENTS

- LIT commences testing of Agua Fria lithium samples
- LIT advances recycling plans
- LIT advises that its Sileach™ halogen process produces battery grade lithium carbonate
- LIT, LEX and Poseidon Nickel Ltd (ASX: POS) collaborate on geophysics to define lithium/tantalum pegmatites at Lake Johnston
- LIT pegs new lithium tenement on Kangaroo island

MEDIA CONTACT:

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

SUMMARY

Lithium Australia (ASX: LIT) has been successful in developing its own unique halogen based hydrometallurgical process, the Sileach™ process which allows lithium to be extracted from spodumene, and other silicates, without roasting. This is seen by industry and end users as a significant breakthrough.

LIT continues to assess lithium projects worldwide and is actively reviewing opportunities in Africa, Europe, the Americas and Australia.

LIT plans to improve sustainability of the industry and has launched a recycling division to implement the recovery of lithium and other cathode metals, including cobalt from waste batteries.

THE SILEACH™ PROCESS: A PROCESSING BREAKTHROUGH

LIT has successfully developed a unique hydrometallurgical process, the Sileach™ process, which used halogens to digest spodumene, and recover the lithium as carbonate (the most readily traded lithium product) or hydroxide. Spodumene is currently the primary source of hard-rock lithium production. The Sileach™ process is also readily adaptable to other silicate minerals and has been developed to reduce the cost of producing lithium chemicals from materials that have traditionally been roasted to recover the lithium, with very high energy costs, and recover the lithium from lithium minerals, not exploited in the past as sources of feed for lithium chemicals.

Independent laboratory tests of the Sileach™ process have achieved lithium extractions from alpha spodumene of up to 92% in 4 hours.

Being a key player in the future of the lithium chemical supply chain is not just about producing a concentrate, it is about delivering to the customer what they want which is a lithium chemical product at a low cost. Technology is the key to the success which LIT is developing through its unique Sileach™ technology.

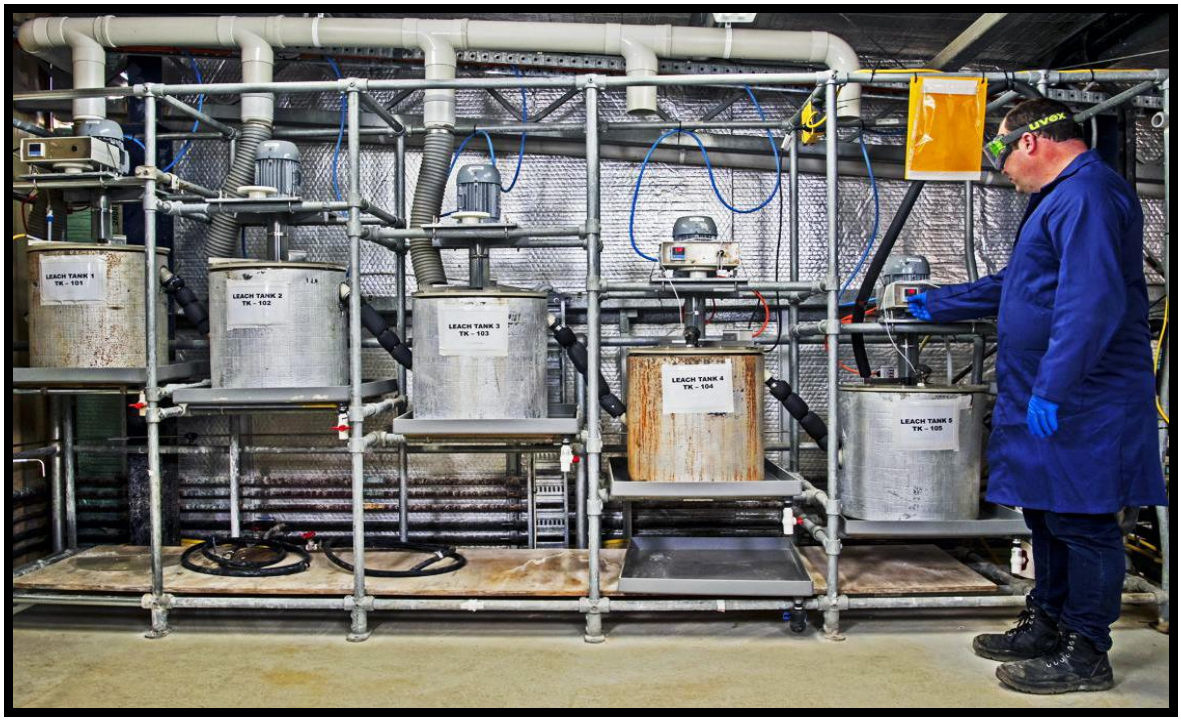


Figure 1 Sileach™ continuous pilot plant operation, ANSTO Minerals, Lucas Heights, NSW

THE OPPORTUNITY

The Sileach™ process has the potential to release the value of stranded lithium silicate deposits – those deposits which have, until now, been quarantined by sub-economic grades.

The Sileach™ process potentially has the ability to transform low-grade spodumene occurrences into viable ore as, due to lower projected operating costs, it is less sensitive to feed grade. This may result in lower cut-off grades for resource calculations, expansion of existing resources without the requirement for further drilling, and greater recovery of metal inventories.

As the lithium is precipitated from solution in the Sileach™ process, all impurities in lithium silicate feed can be rejected during the production of lithium chemicals. Contaminated, or low-grade spodumene concentrates, and other silicates, in which impurity concentrations would otherwise render them unmarketable, may now be considered viable process feed.

PROJECT SPECIFICS

THE PILBARA, WESTERN AUSTRALIA

Of significance is the agreement with Pilbara Minerals Ltd to jointly progress the Sileach™ technology for potential future production of low-cost lithium carbonate in the currently proposed WA processing hub. This may include low-grade spodumene, micas and clays, which in the past may have been sub economic. All of these materials can be processed with the Sileach™ process. The agreement between LIT and Pilbara Minerals is to work together towards commercializing Sileach ™ for application on materials sourced from Pilbara Minerals' giant Pilgangoora deposit located near Port Hedland in Western Australia.



Figure 2 Lithium Australia NL Projects

Note:

- The Goldfield Lithium Alliance is a 50/50 alliance between LIT and Cazaly Resources Ltd (ASX:CAZ) to explore and develop lithium projects within 100 km radius of Kalgoorlie (LIT ASX release 2 May 2016).
- LIT-Pilbara Minerals-Venue Metals: LIT has signed MoUs with Pilbara Minerals Ltd (ASX:PLS) and Venus Metals Corporation (ASX:VMC)

AIRBORNE GEOPHYSICAL OPEN FILE DATA COMPILATION

In November 2016, Southern Geoscience Consultants (SGC) undertook a project to compile all open file geophysics and geological data from the Commonwealth and State Government agencies into a series of GIS data packages covering the following LIT projects (Figure 2):

Bynoe (Northern Territory),
Cape York (Queensland),
Gascoyne (Western Australia),
Greenbushes, (Western Australia),
Lake Johnston-Mt Day, (Western Australia),
Pilbara, (Western Australia),and
Ravensthorpe (Western Australia)

The GIS data package will enable LIT to generate targets for ground geological reconnaissance and sampling. This work has already lead to the acquisition of additional detail airborne magnetics and radiometrics at the Lake Johnston/Mt Day Project around the known and possible extensions of the known lithium-tantalum mineralisation.

LAKE JOHNSTON LITHIUM PEGMATITE FIELD

LIT signed a Rights Acquisition Agreement with Lefroy Exploration Ltd (LEX) covering the Lake Johnston Project in early October 2016 (LIT ASX release 18 October 2016). The agreement secured the lithium rights over two granted LEX exploration licences for LIT and LEX secured gold and nickel rights over LIT's E63/1777.. The project lies 440 kilometres east of Perth.

In October 2016, satellite imagery interpretation and limited geological reconnaissance and rock chip sampling defined abundant pegmatites which emanate from nearby fertile granites which have intruded the Lake Johnston Greenstone Belt, Maggie Hays Formation. LIT defined five lithium prospects; Whitten, Bulldog, Boundary, Trackside, and Floyd (LIT ASX release 25 October 2016). All pegmatites are lepidolite-rich with varying amounts of lithium-bearing zinnwaldite peaking at 3.95% Li_2O and 4.79% Rb_2O. Appendix 1 contains the rock chip assay results and Appendix 2 contains the sampled details. Quality control is detailed in the attached 2012 JORC Code Table 1.

In late December 2016, an infill airborne magnetic and radiometric survey was undertaken over portions of the LIT's Mt Day and LEX Lake Johnstone Project. The survey covered areas of the Lake Johnston Greenstone Belt where Maggie Hays Formation has been intruded by lithium-tantalum bearing pegmatites and was completed to gain a better understanding of the geological and structural setting of the pegmatites.

Previous coverage in these areas was 400 metre line spacing whereas the completed survey was flown at 50 m line spacing, greatly increased the detail and provided clarification of the structural setting of the mineralisation. The detail data has shown that the potassium ring anomalies are coincident with mapped lithium-tantalum bearing pegmatites, multiple potassium anomalies without rock expressions are interpreted to be shallowly buried pegmatites, and deep-seated and cross-cutting faults may represent the 'plumbing system' for the pegmatites (Figure 3). Pegmatite exposures which have been defined through LIT reconnaissance, but do not have any potassium anomalism, are those which are predominantly sub-crop to float rather than outcrop.

The survey was completed in collaboration with neighbor Poseidon Nickel Ltd (ASX: POS) and LEX which holds the gold and nickel rights over E63/1777 while LIT holds the lithium rights over E63/1722 and E63/1723 in a deal completed in October 2016 (LIT ASX release 18 October 2016 and 27 January 2017).

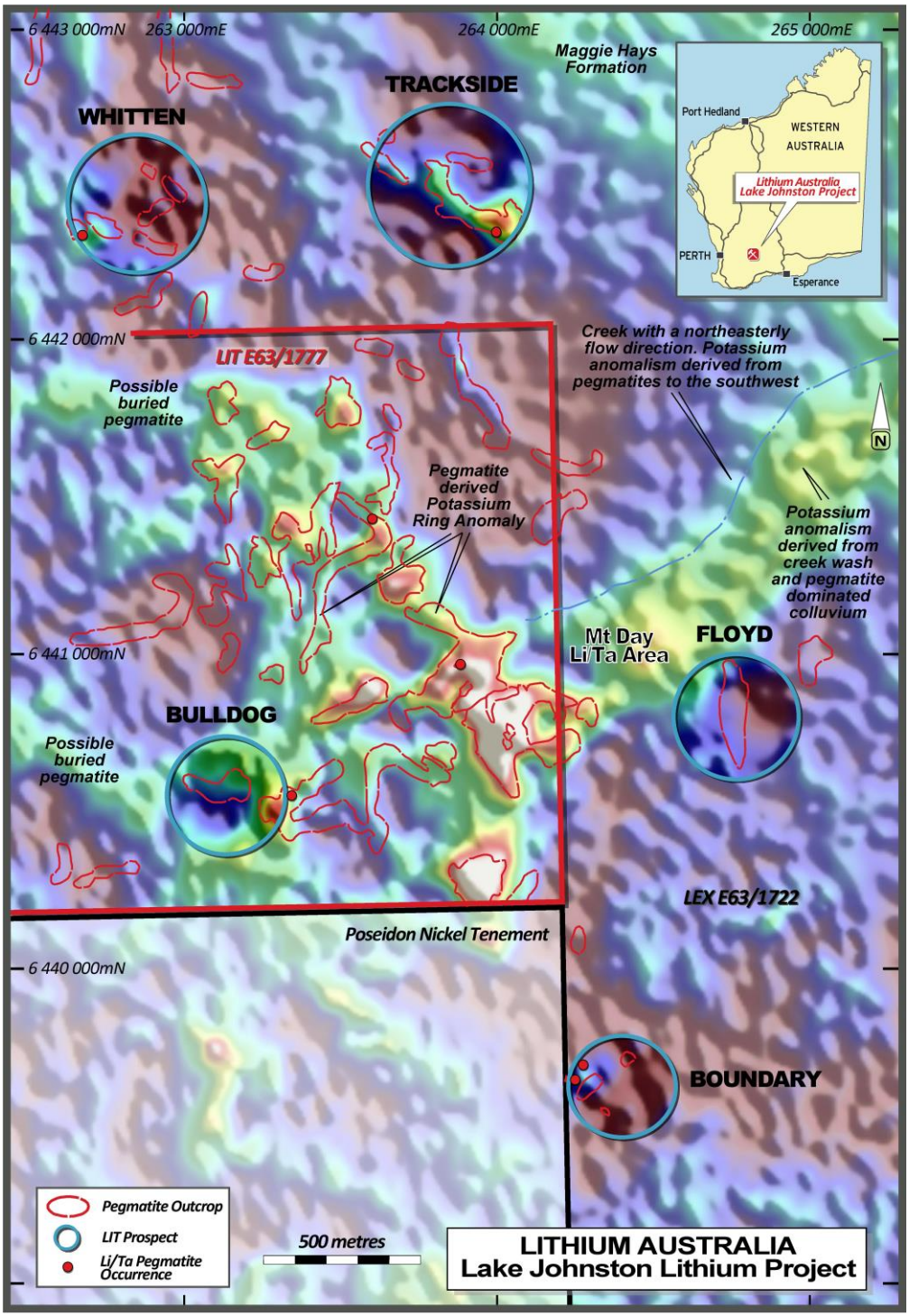


Figure 3 LIT Lake Johnston potassium anomalism, pegmatite outcrops, and lithium prospects

RAVENSTHORPE (LIT 100%)

The project consists of a single Exploration Licence 74/543 covering a 20 kilometre long structural corridor which contains Mt Cattlin lithium and tantalum mining operations from Galaxy Resources Limited. The project lies 420 kilometre southeast of Perth.

The southern extension of E74/543 overlies the Cocanarup Pegmatite Field and work completed by LIT in early 2016 (LIT ASX release 15 February, 4 March, 31 March, and 12 July 2016) defined two prospect areas, Horseshoe and Deep Purple (Figure 4). The pegmatite contains lepidolite and zinnwaldite, with some spodumene also being present at the Deep Purple prospect.

Approval for the Program of Works LIT had submitted to enable the maiden RC drill programs to commence at the Ravensthorpe Project were received in November 2016. An Aboriginal Heritage Survey is being organised for January 2017 with drilling planned to commence early February 2017.

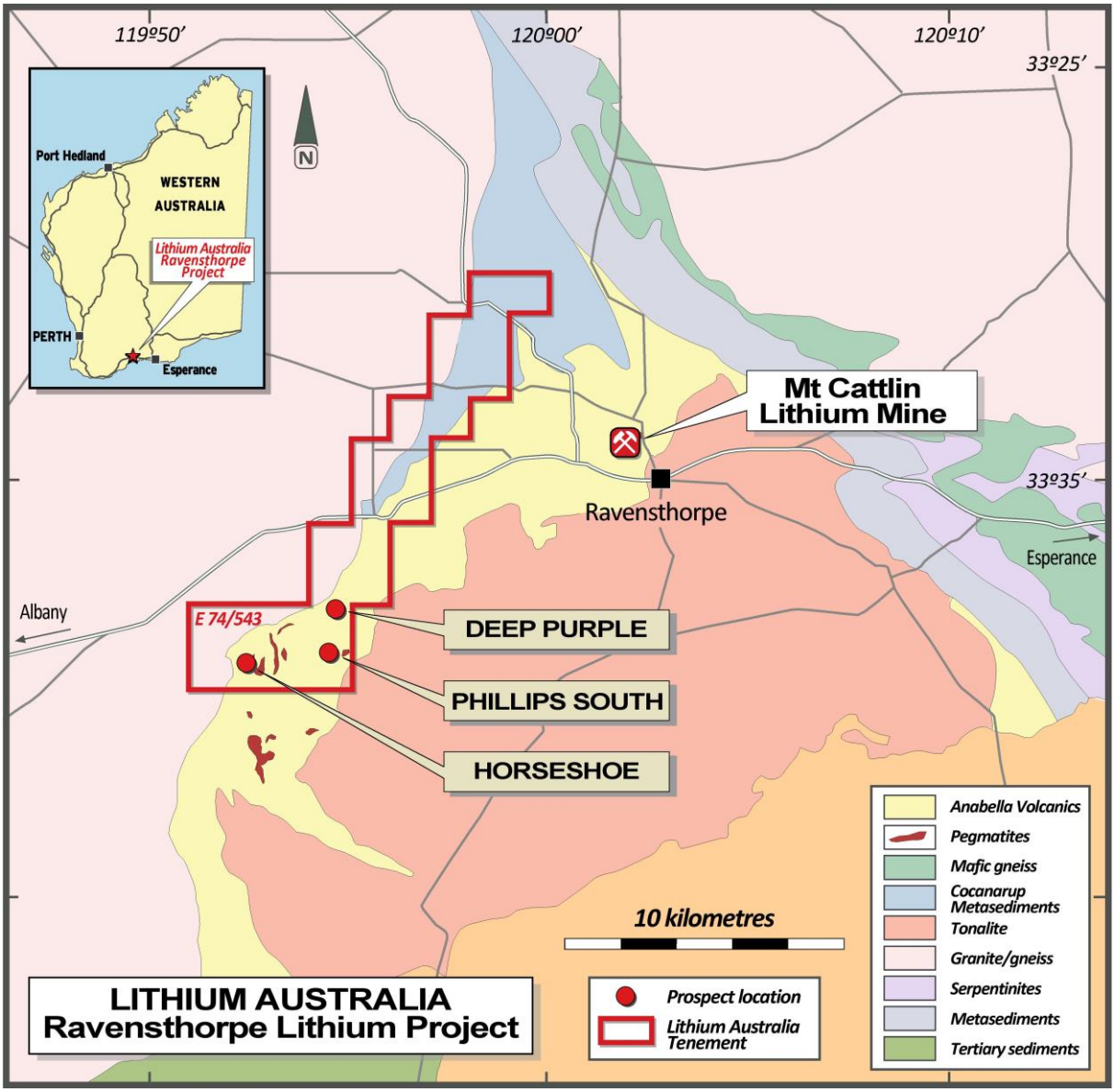


Figure 4 Ravensthorpe Lithium Project showing prospect locations

GREENBUSHES - A premium address (LIT 100%)

During November 2016, LIT consolidated its holding adjacent to the world's largest lithium mine. LIT confirms it now holds 100% equity in the Greenbushes project which consist of four granted exploration licences and an additional five exploration and seven prospecting licence applications. The tenement holding gives access to much of the target structural trend from Donnybrook to Bridgetown (Figure 5).

The Greenbushes Project is 200 kilometres south of Perth, in Western Australia, hosts the world's largest lithium mine which currently produces about 40% of global lithium supply. The area contains abundant pegmatites the emplacement of which appears to be structurally controlled along the Donnybrook-Bridgetown Shear and subsidiary structural discontinuities, many of which also contain pegmatite.

Using the recently acquired open file geophysical and geological data package prepared for LIT by SGC, LIT is redefining the geological and structural setting of the Greenbushes project area with the view to generate a series of priority targets for geological reconnaissance and sampling. This work will be low-impact incorporating real-time lithium assays using laser-induced breakdown spectroscopy (LIBS) and field portable x-ray fluorescence (XRF) to help delineate more prospective structural trends for further work programs.

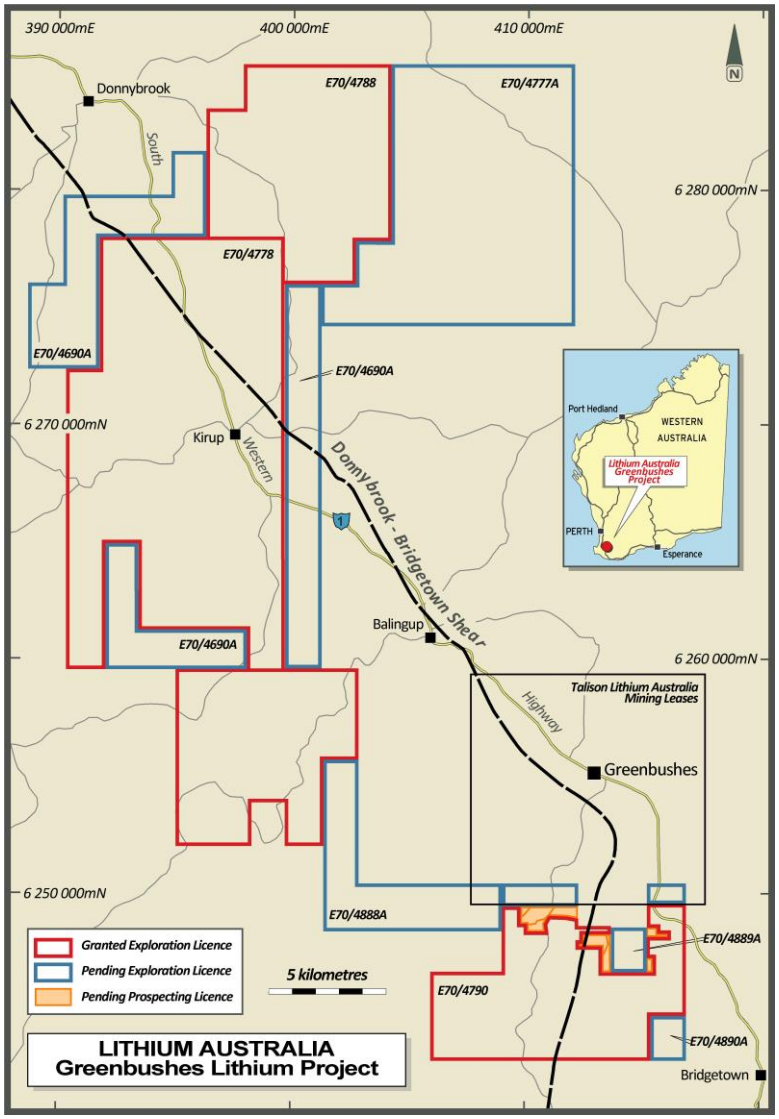


Figure 5 Greenbushes Project Tenure Map

ELECTRA JV (Sonora, Mexico) LIT 25%, AIX 75%

The Electra Project (Tecolote, Tule, and Agua Fria concessions) is a farm-in and JV in which LIT can earn up to 65% of the project from its partner Alix Resources Corporation (TSX-V:AIX) (Figure 6). LIT is currently working towards lifting its 25% equity to 49%.

The exploration target on the Tecolote concession is lithium-bearing, clay-rich horizons similar to the adjoining Buenavista concession owned by Bacanora Minerals Ltd (BCN-TSX:V) and Rare Earth Minerals PLC (REM-LON)(BCN release 6 January 2016).

During October-November 2016, AIX geologists discovered a grey, brown, and white coloured clay-rich sedimentary beds which dip shallowly to the east with a strike length of over 4.5 kilometres. These beds attain widths of over 800 metres and with have an apparent thickness of 20-30 metres. The sedimentary unit is capped with basaltic flows. AIX lithium assays peaked at 1,900 ppm Li. The

Agua Fria concession was applied for to cover this new discovery. This discovery is part of the Electra Joint Venture.

The LIT proposed Electra Project Phase 2 budget was approved in November 2016. This will enable LIT to earn a 49% interest in the project by issuing shares to AIX and expending A$250,000 which includes the drilling program scheduled for a February commencement..

Results from the AIX surface reconnaissance sampling and trenching of October 2016 show that of the 31 assays returned, 10 samples had lithium assays with >1,000 ppm Li, with an average of 1,135 ppm Li. The average of all 31 samples is 783 ppm Li. AIX has advised that additional hand-trenching (+400 m) with continuous trenches proposed up to 80-100 m in width is continuing. The results of the trenching will help to refine the maiden drill program at Agua Fria, now scheduled for February 2017. (LIT ASX release 8 December 2016).

Twenty-four trench samples from Agua Fria were submitted for metallurgical at Kappes Cassiday and Associates in Reno, Nevada (LIT ASX release 13 January 2017).

This technical contents above were approved by Dr. Michel Boily, PGeo, a qualified person as defined by National Instrument 43-101. The properties have been the subject of a National Instrument 43-101 report. Alix Resources is a junior mining exploration company focused on seeking and acquiring world class lithium projects globally. Alix continues to evaluate suitable prospects that fit the mandate of the Company.

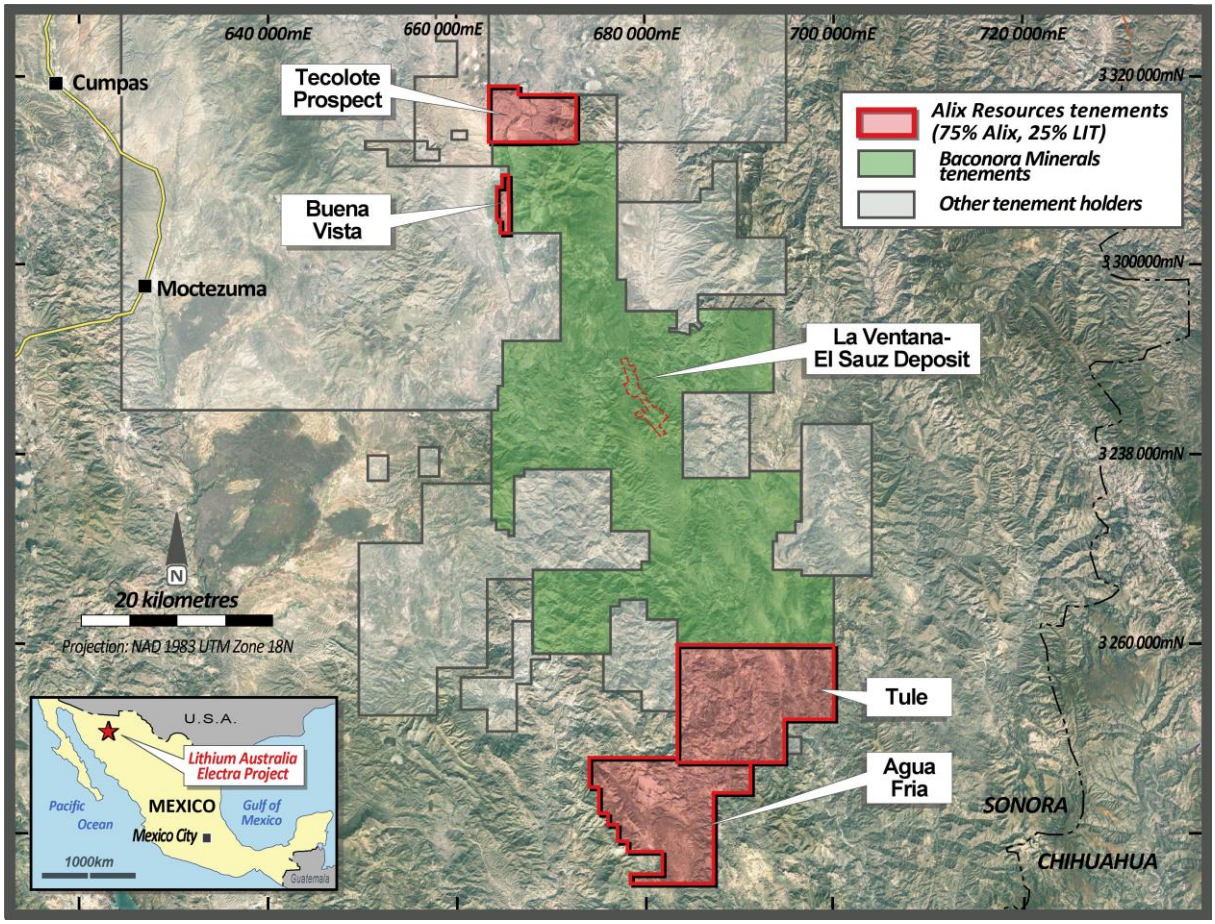


Figure 6: Location of LIT's Electra Project

BYNOE (NORTHERN TERRITORY) (LIT 100%)

LIT has established a foothold in the Bynoe Pegmatite Field, located 50 kilometres south-southwest of Darwin, capital of the Northern Territory, close to infrastructure (LIT ASX release 4 April 2016).

EL30897 lies within the Bynoe Pegmatite Field is part of the wider 200 kilometre long Litchfield Pegmatite Belt which has been intruded by a suite of highly differentiated S-type granites, the probable source of the pegmatites and mineralisation.

Much of the of the previous exploration centred around the tin-tantalum potential of the Leviathan Group pegmatites, with lithium exploration not commencing until the mid- to late-2000s. As this exploration was following on tin-tantalum exploration not all the current tenement area was explored. Recently acquired ASTER images show that these areas have very thin soil cover which lies in underexplored areas (Figure 7).

Statutory Northern Territory Government approvals are being sort to undertake the planned work for 2017. This work will consist of geological reconnaissance of the soil sampling areas followed by detail geological mapping, rock chip and soil sampling programs where warranted.

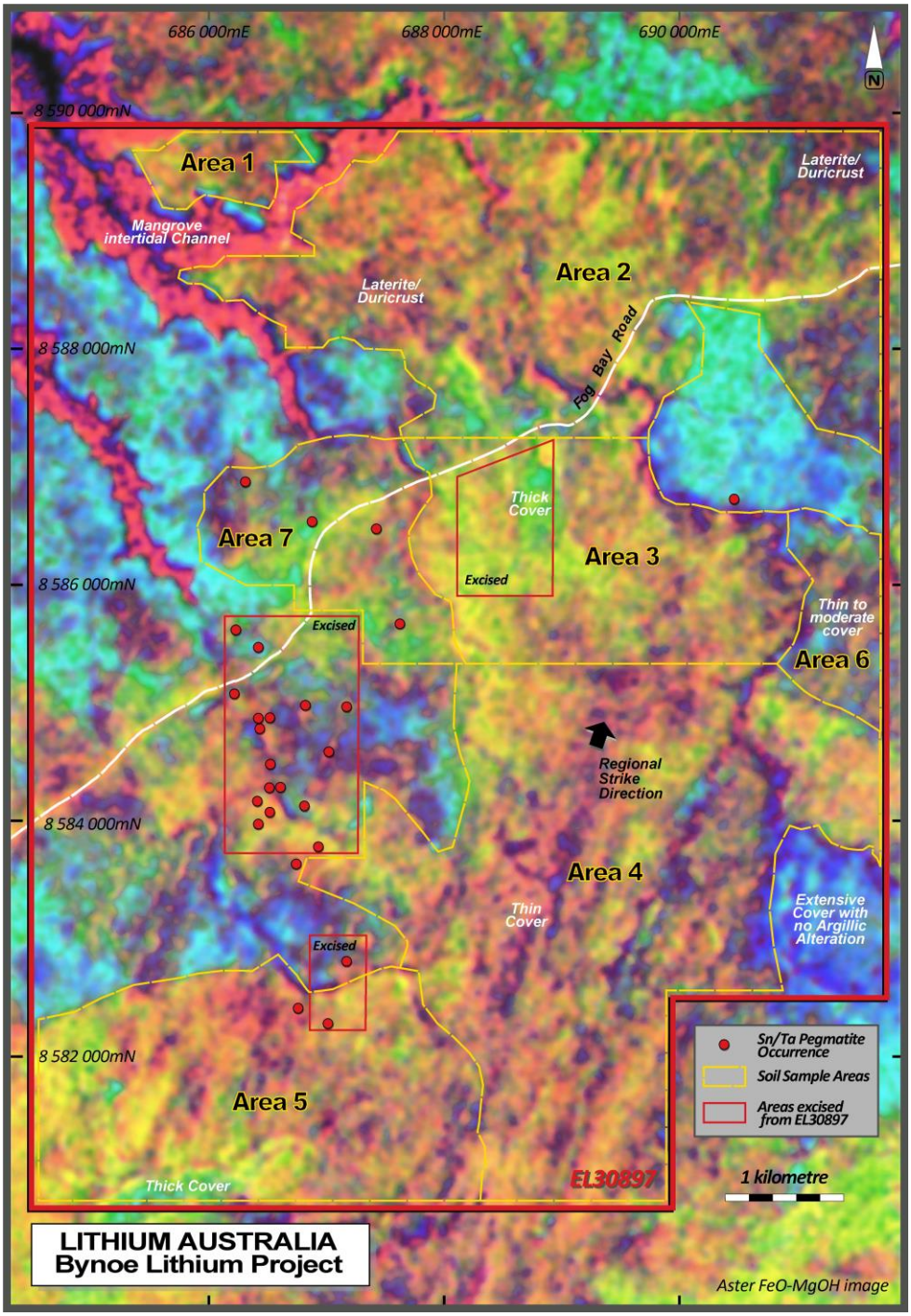


Figure 7: Bynoe Project ASTER FeO-MgOH defined Soil Sample Areas

CAPE YORK (QUEENSLAND) (LIT 100%)

The Cape York Project lies on the Cape York Peninsular Queensland, 1,700 km northwest from Brisbane(LIT ASX release 26 July 2016). Notice to Progress EPM26252 was received on 20 December 2016, with the tenement granted on 19 January 2017. It is expected EPM26255 be granted by the end of January to early February 2017 (Figure 8).

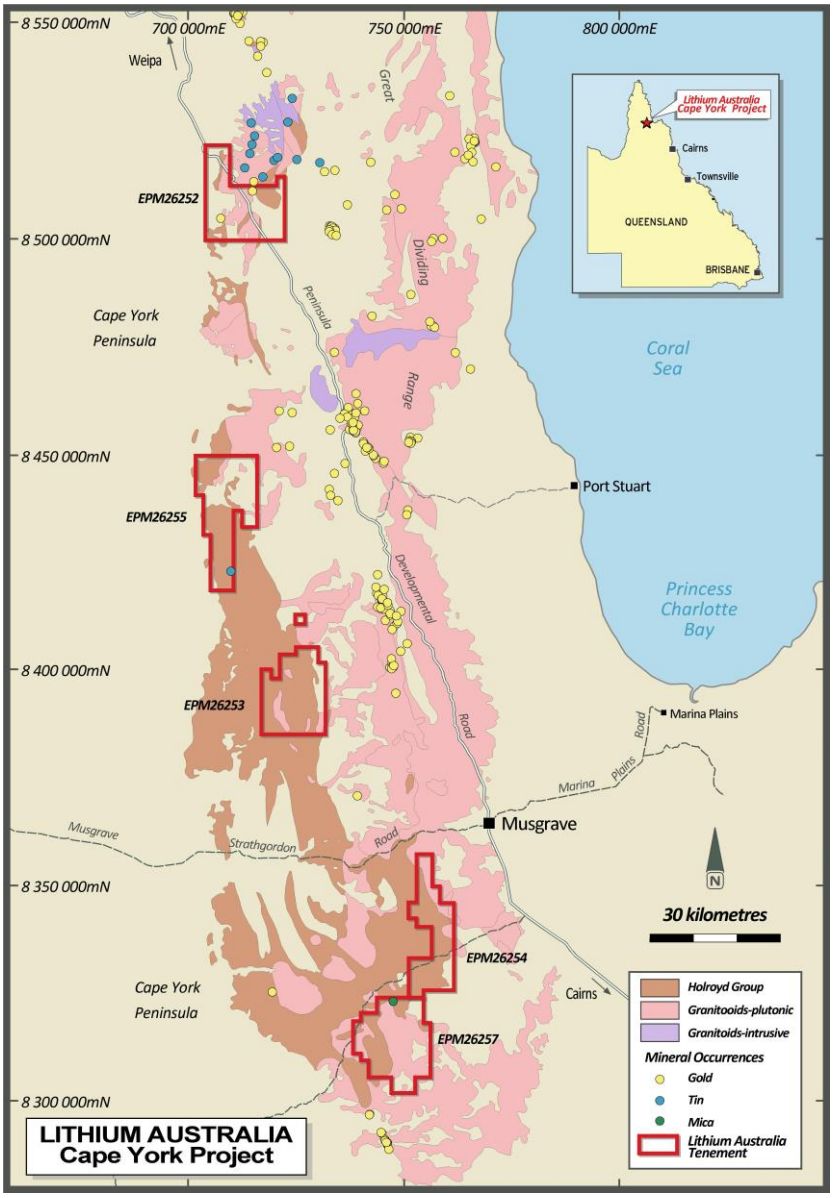


Figure 8: Cape York Project located on the contact between the Holroyd Group and fertile granites

COBALARK (LIT 100%)

The Cobalark Project lies 670 kilometres northeast of Perth. LIT has applied for two exploration licences covering 355 square kilometres.

The tenements cover the Cobalark tantalum prospect and pegmatite outcrops along the Cobalark structural trend (Figure 9). Previous exploration has recorded additional pegmatite outcrops than previously mapped by the Geological Survey of Western Australia. Contact metamorphic affects within the host biotite adamellite suggest greisens have developed along some of the contacts.

Tantalum occurs as fine, disseminated grains in both the pegmatite and ferruginous capping rocks. No lithium exploration has been undertaken over any of the pegmatites within the project area.

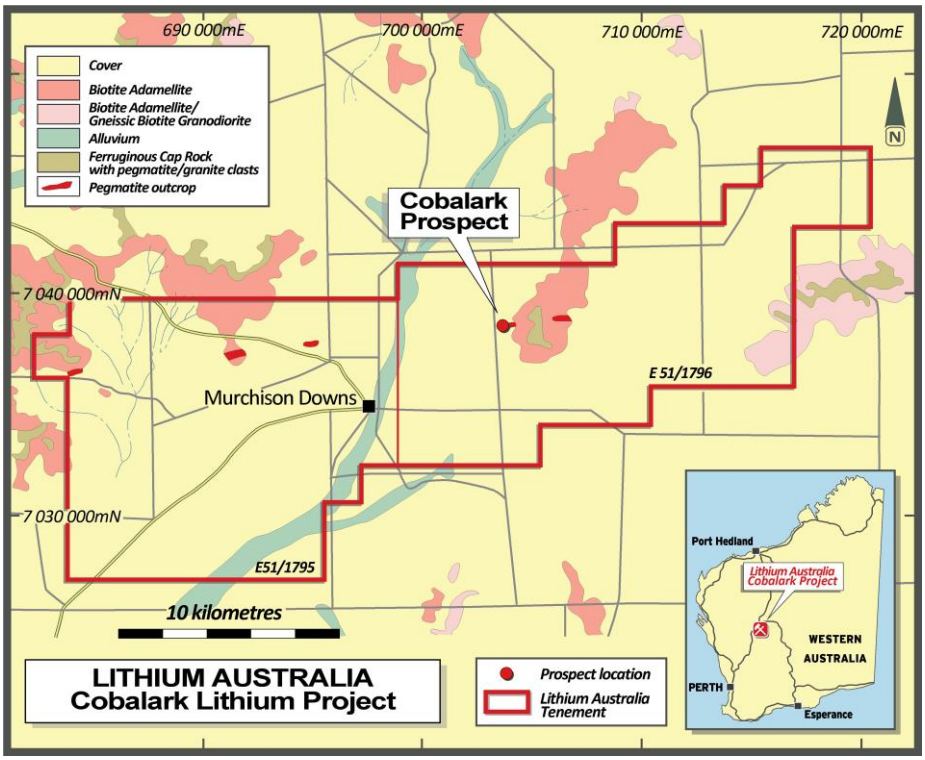


Figure 9 Location of the Cobalark Project

DONNELLY RIVER (LIT 100%)

The Donnelly River Project comprises three exploration licences covering approximately 174 square kilometres of prospective graphite-bearing stratigraphy, 240 kilometres south of Perth. Two of the projects tenements, E70/4824 and E70/4825, are granted.

In May 2016, LIT advised on a divestment of its graphite assets to Black Earth Minerals NL (formerlly Graphite Australia N L), currently a wholly owned subsidiary (LIT ASX release 10 May 2016).

The Donnelly River area has a long history of small scale graphite mining dating back to 1904. The Donnelly River Mine, originally known as Graphite Hill, is within a 120 metre schist zone in metasedimentary gneisses. Grades of up to 30% were defined during exploration in the 1980s.

The project overlies favourable host lithologies of gneisses of predominantly sedimentary in origin (Figure 10). Open file geophysical data clearly show several conductive units within the project area which may represent graphitic horizons. These are considered “walk up” drill targets.

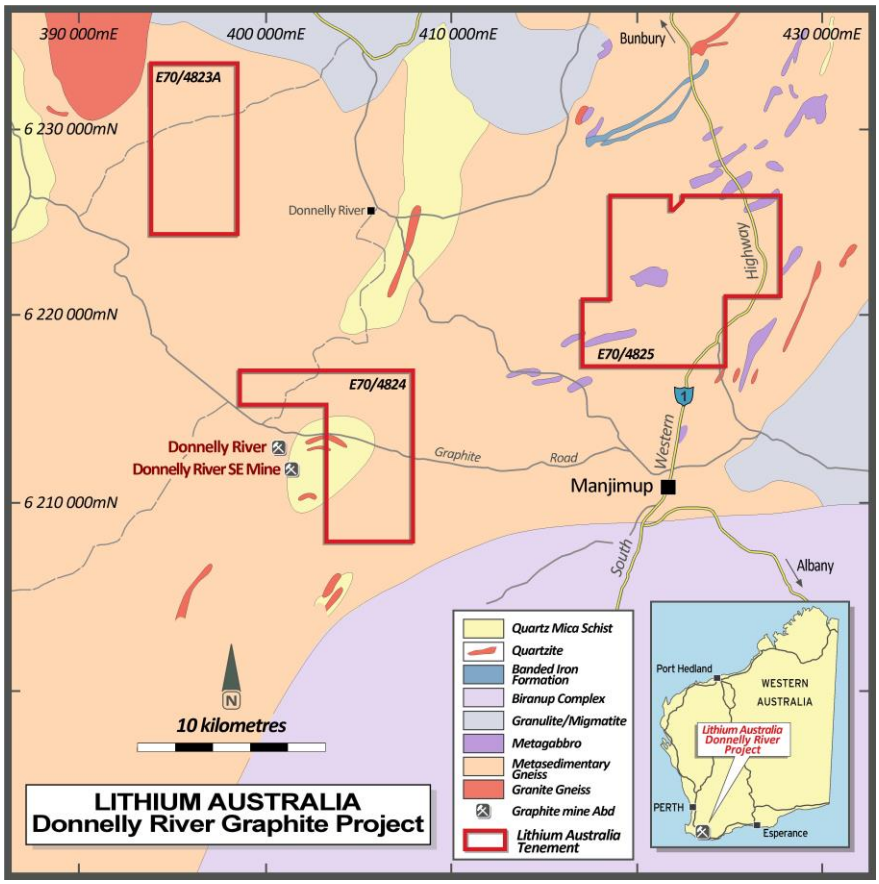


Figure 10 Donnelly River Graphite Project showing Graphite Mines

SEABROOK RARE METALS VENTURE (LIT 80%, Tungsten Mining (ASX:TGN) 20%)

The Seabrook Rare Metals Venture consists of seven exploration licences covering 172 square kilometres, 385 kilometres east-northeast of Perth. Tungsten mineralisation is associated with extensive skarn mineralisation which exhibits strong alkali metal halos, which are similar to the halos around lithium pegmatites identified further south on E77/2279 (Figure 11) (LIT ASX release 4 November 2016.

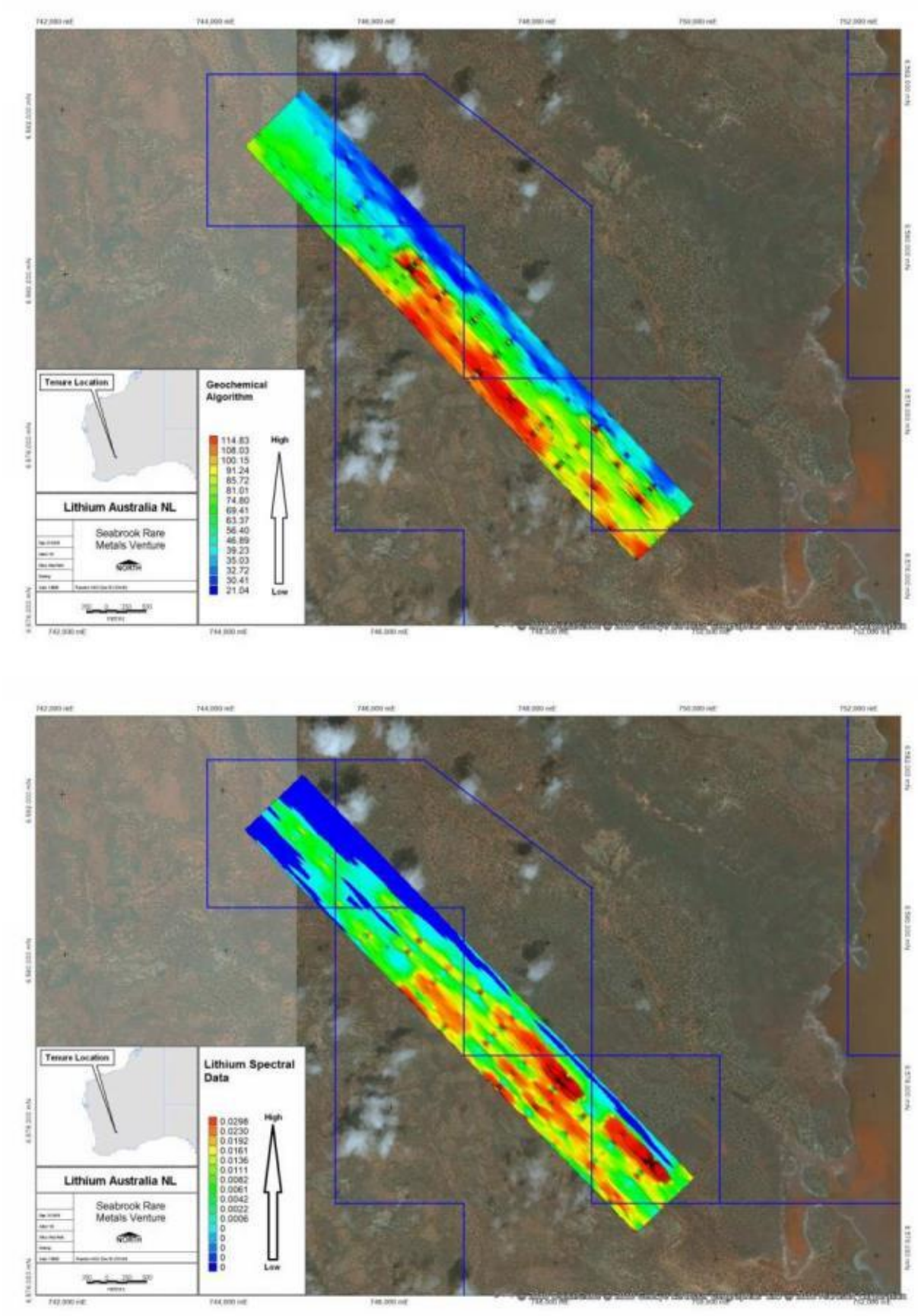


Figure 11 Geochemical Alkali Metal algorithm from XRF analyser data (top)
LIBS semi-quantitative Li% from soil analysed using SciAps Z500 analyser (bottom)

PILGANGOORA

In October and November 2016, LIT completed a hand core drilling and sampling of weathered saprolite and/or fresh bedrock from two rubidium/lithium anomalous areas in the Triple Creek Anomaly within Pilbara Minerals Ltd (ASX: PLS) E45/2232-I (converted into M45/1256 on 16 December 2016).

In 2015, LIT completed a soil geochemistry program and used the SciApps Z500 field-portable LIBS analyser to compare lithium spectral data with rubidium and other pathfinders generated by pXRF. Lithium anomalism from LIBS and rubidium anomalism from pXRF correlated well and produced coincident drill targets.

The 24 core samples derived from 34 holes drilled across the two lithium anomalies failed to define any anomalous lithium in the weathered gneiss and/or rare pegmatitic veins intersected. The source of the lithium and other alkali metals remains unknown.

OTHER OPPORTUNITIES

LIT is exploring further opportunities in tantalum, tungsten, cobalt-manganese, graphite, and rare earth metals with the view of directing both exploration efforts on currently held ground and through possible acquisitions of quality Australian and worldwide properties.

SUBSEQUENT EVENTS

Exploration

Details pf exploration progress and testing of Agua Fria were released to the market on 13 January 2017. This project is adjacent to the world's large lithium clay deposit, Bacanora Minerals' Sonora project.

LIT also made an exploration licence application on Kangaroo Island, South Australia as announced to the ASX on 30 January 2017.

LIT Recycling Plans

As the market for power storage, particularly lithium ion batteries, reaches maturity, recycling will become a necessity. Much of the driving force behind recycling is the value of cathode metals, cobalt in particular. Current recycling does recover most of the base metals but lithium recovery is close to zero. The reason there is such a disparity is simply the preferred processing technology used by the companies undertaking the recycling. This can be resolved with improved processing options.

Lithium Australia will evaluate the logistic chain from "cradle to grave" to determine the deportment of all components of lithium ion batteries and develop a strategy to maximise the recovery of all materials used in the products at the end of their useful life.

ABOUT LITHIUM AUSTRALIA

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.

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 and Mr Derrick Kettlewell on behalf of Mr Adrian Griffin, Managing Director of Lithium Australia NL. Mr Spitalny and Mr Kettlewell are Members of the

Australasian Institute of Mining and Metallurgy and have sufficient experience relevant to the styles of mineralisation under consideration and to the activity which they have undertaken to qualify as a Competent Persons.

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 and Mr Derrick Kettlewell consent to the inclusion in the report of the matters based on their 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.

LISTING RULE 5.3.3 INFORMATION

LIT TENEMENTS	PROJECT	NOTES	DATE
P15/5519	COOLGARDIE	GRANTED	3/02/2011
M15/664	COOLGARDIE	GRANTED	14/09/1993
M15/1809	COOLGARDIE	GRANTED	04/02/2013
P15/5574 S	COOLGARDIE	GRANTED	10/08/2011
P15/5575 S	COOLGARDIE	GRANTED	10/08/2011
P15/5625	COOLGARDIE	GRANTED	9/08/2013
P15/5626	COOLGARDIE	GRANTED	14/12/2011
P15/5629	COOLGARDIE	GRANTED	9/08/2013
P15/5739	COOLGARDIE	GRANTED	17/01/2013
P15/5740	COOLGARDIE	GRANTED	17/01/2013
P15/5741	COOLGARDIE	GRANTED	17/01/2013
P15/5742	COOLGARDIE	GRANTED	17/01/2013
P15/5743	COOLGARDIE	GRANTED	17/01/2013
P15/5749	COOLGARDIE	GRANTED	3/04/2013
E45/2232	PILGANGOORA	GRANTED	17/11/2005
E45/2241	PILGANGOORA	GRANTED	24/04/2002
M45/78	PILGANGOORA	GRANTED	28/11/1984
M45/333	PILGANGOORA	GRANTED	17/06/1988
M45/511	PILGANGOORA	GRANTED	11/09/1991
E09/2191	THOMAS RIVER	GRANTED	29/11/2016
E63/1777	MT DAY	GRANTED	22/03/2016
E66/95	NORTHERN GULLY	GRANTED	18/11/2016
E74/0543	RAVENSTHORPE	GRANTED	24/01/2014
E70/4778	GREENBUSHES	GRANTED	19/04/2016
E70/4788	GREENBUSHES	GRANTED	01/07/2016
E70/4789	GREENBUSHES	GRANTED	01/07/2016
E70/4790	GREENBUSHES	GRANTED	01/07/2016
E70/4811	KAURING 1 GREENHILLS GRAPHITE+	GRANTED	26/08/2016
E70/4812	KAURING 2 GREENHILLS GRAPHITE+	GRANTED	26/08/2016
E70/4824	YANMAH DONNELLY GRAPHITE+	GRANTED	22,09,2016
E77/1853	LAKE SEABROOK	GRANTED	22/09/2011
E77/1854	LAKE SEABROOK	GRANTED	22/09/2011
E77/1855	LAKE SEABROOK	GRANTED	22/09/2011
E77/2021	LAKE SEABROOK	GRANTED	26/06/2012
E77/2022	LAKE SEABROOK	GRANTED	26/06/2012

E77/2035	**LAKE SEABROOK**	**GRANTED**	**5/09/2012**
E77/2279	**LAKE SEABROOK**	**GRANTED**	**27/07/2015**
EL 30897	**ANGERS**	**GRANTED**	**22/03/2016**

Appendix 1: Rock Chip Sample Assay Results

Prospect	Sample ID	Li (ppm)	Li2O (%)*	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
Boundary	LJR021	18300	3.94	43771	2985	23	191

* Calculated from stated assay results.

Appendix 2: Rock Chip Sample Characteristics

Prospect	Sample ID	Easting (m)	Northing (m)	Description	Classification (Based on 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)
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	siliceous grey micaceous rock; 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/lavender mica	lepidolite (trilithionite)
Whitten	LJR005	262672	6442339	massive lilac/lavender mica	lepidolite (trilithionite)
Whitten	LJR006	262658	6442330	massive pale greyish lavender 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
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)
Bulldog	LJR020	263464	6440617	dark grey weathered massive mica	zinnwaldite
Boundary	LJR021	264275	6439683	massive pink to purple mica	lepidolite (trilithionite)

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 assaying	• *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.*	• Sample results have been checked by company 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 *a*pproximately 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.

Appendix 5B

Mining exploration entity and oil and gas exploration entity quarterly report

Introduced 01/07/96 Origin Appendix 8 Amended 01/07/97, 01/07/98, 30/09/01, 01/06/10, 17/12/10, 01/05/13, 01/09/16

Name of entity

Lithium Australia NL

ABN	**Quarter ended ("current quarter")**
21 126 129 413	31 December 2016

Consolidated statement of cash flows		**Current quarter $A'000**	**Year to date (6 months) $A'000**
1.	**Cash flows from operating activities**		
1.1	Receipts from customers	-	-
1.2	Payments for		
	(a) exploration & evaluation	(350)	(623)
	(b) development	-	-
	(c) production	-	-
	(d) staff costs	(343)	(518)
	(e) administration and corporate costs	(508)	(784)
1.3	Dividends received (see note 3)	-	-
1.4	Interest received	9	20
1.5	Interest and other costs of finance paid	-	-
1.6	Income taxes paid	-	-
1.7	Research and development refunds	-	-
1.8	Other (provide details if material)	-	-
1.9	**Net cash from / (used in) operating activities**	**(1,192)**	**(1,905)**

2.	**Cash flows from investing activities**		
2.1	Payments to acquire:		
	(a) property, plant and equipment	(14)	(69)
	(b) tenements (see item 10)	-	-
	(c) investments	(110)	(210)
	(d) other non-current assets	(855)	(1,346)

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
2.2	Proceeds from the disposal of:		
	(a) property, plant and equipment	-	-
	(b) tenements (see item 10)	-	-
	(c) investments	-	-
	(d) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	**Net cash from / (used in) investing activities**	**(979)**	**(1,625)**

3.	**Cash flows from financing activities**		
3.1	Proceeds from issues of shares	2,805	3,832
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	8	(20)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other	-	-
3.10	**Net cash from / (used in) financing activities**	**2,813**	**3,812**

4.	**Net increase / (decrease) in cash and cash equivalents for the period**		
4.1	Cash and cash equivalents at beginning of period	5,397	5,757
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(1,192)	(1,905)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(979)	(1,625)

Consolidated statement of cash flows		Current quarter $A'000	Year to date (6 months) $A'000
4.4	Net cash from / (used in) financing activities (item 3.10 above)	2,813	3,812
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	**Cash and cash equivalents at end of period**	**6,039**	**6,039**

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter $A'000	Previous quarter $A'000
5.1	Bank balances	7	41
5.2	Call deposits	6,032	5,356
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	**Cash and cash equivalents at end of quarter (should equal item 4.6 above)**	**6,039**	**5,397**

6.	Payments to directors of the entity and their associates	Current quarter $A'000
6.1	Aggregate amount of payments to these parties included in item 1.2	197
6.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

Payments to directors and employees for services to the economic entity.

7.	Payments to related entities of the entity and their associates	Current quarter $A'000
7.1	Aggregate amount of payments to these parties included in item 1.2	-
7.2	Aggregate amount of cash flow from loans to these parties included in item 2.3	-

7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

8.	Financing facilities available *Add notes as necessary for an understanding of the position*	Total facility amount at quarter end $A'000	Amount drawn at quarter end $A'000
8.1	Loan facilities	-	-
8.2	Credit standby arrangements	-	-
8.3	Other (Lanstead & LITCE's)	34,328	-

8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.

Lanstead – Sharing Agreement dated 14 January 2016 LITCE's - Current outstanding amounts on LITCE – 25 cent contributing shares

9.	Estimated cash outflows for next quarter	$A'000
9.1	Exploration and evaluation	340
9.2	Development	0
9.3	Production	0
9.4	Staff costs	150
9.5	Administration and corporate costs	170
9.6	Other (provide details if material)	1,490
9.7	**Total estimated cash outflows**	**2,150**

10.	Changes in tenements (items 2.1(b) and 2.2(b) above)	Tenement reference and location	Nature of interest	Interest at beginning of quarter	Interest at end of quarter
10.1	Interests in mining tenements and petroleum tenements lapsed, relinquished or reduced	E45/2232	Tenement surrendered	0%	0%
10.2	Interests in mining tenements and petroleum tenements acquired or increased	E09/2191 E66/95	Tenement granted Tenement granted	0% 0%	100% 100%

Compliance statement

1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
2 This statement gives a true and fair view of the matters disclosed.

Sign here: "Barry Woodhouse" Date: 31 January 2017
(~~Director/~~Company secretary)

Print name: Barry Woodhouse.

Notes

1. The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, AASB 6: Exploration for and Evaluation of Mineral Resources and AASB 107: Statement of Cash Flows apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standards apply to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.