ASX ANNOUNCEMENT

ASX: CXO

20th October 2016

Further High Grade Lithium Intersections
Finniss Lithium Project

HIGHLIGHTS

- **Additional high grade lithium assays have been returned in new results from Core's maiden drilling program at the Finniss Lithium Project**
- **New assay results from the Finniss Lithium Project include:**
  - **40m @ 1.66% Li_2O from 58m (FRC018) at Grants Prospect, including:**
    - **10m @ 2.02% Li_2O from 65m**
    - **5m @ 2.05% Li_2O from 84m**
    - **1m @ 3.23% Li_2O from 85m**
  - **31m @ 1.61% from 68m (FRC017) at Grants Prospect, including:**
    - **4m @ 2.01% from 83m**
  - **19m @ 0.68% Li_2O (FRC014) at Ahoys Prospect**
- **Previous results from Core's maiden drilling program at the Finniss Lithium Project include:**
  - **49m @ 1.78% Li_2O from 71m (FRC007) at Grants Prospect**
  - **34m @ 1.60% Li_2O from 71m (FRC003) at BP33 Prospect**
- **These additional significant spodumene intersections together with the previous high grade results from multiple prospects confirm Core's Finniss Lithium Project as a major new lithium discovery**
- **Results from Core's maiden drilling program will be used to prioritise the appraisal of more than 10 pegmatite prospects within Core's Finniss Lithium Project**
- **Current aggressive drilling program at Finniss will continue until the start of the upcoming wet season, expected in late November**
- **Update on initial diamond core drilling at Finniss expected next week**

Core Exploration Ltd (ASX: CXO) ("Core" or the "Company") is pleased to announce additional high grade lithium drill intersections from the Company's maiden drilling program on the 100%-owned Finniss Lithium Project ("Finniss"), which consisted of 18 RC holes drilled on the Grants, BP33, Ahoy, Hills and Far West prospects. Significant levels of lithium mineralisation as spodumene were intersected at all prospects drilled except for Hills (Table 1 and Figure 3). Best results from this new batch of assays included:

- 40m @ 1.66% Li_2O from 58m (FRC0018) at Grants Prospect, including:
    - 10m @ 2.02% Li_2O from 65m;
    - 5m @ 2.05% Li_2O from 84m;
    - 1m @ 3.23% Li_2O from 85m; and
- 31m @ 1.61% from 68m (FRC0017) at Grants Prospect, including :
    - 4m @ 2.01% from 83m; and
- 19m @ 0.68% Li_2O (FRC014) at Ahoys Prospect.

These new high grade spodumene intersections together with the previously announced high grade intersections from Grants and BP33 prospect, confirms Finniss as a major new discovery of high grade lithium (Table 1 and Figures 1-4).

Core has to date prioritised and has plans to drill more than 10 separate pegmatites prospects across the Finniss Lithium Project, which include the very large Zola Pegmatite and the Ringwood Pegmatite Swarms.

Ongoing Drilling Program at Finniss Lithium Project

Core's current drilling program on other lithium pegmatite targets at Finniss will continue for as long as possible until the start of the Northern Territory wet season which is expected to commence around late November.

The first diamond core drilling on the Finniss Lithium Project is currently underway at BP33 Prospect. The diamond drill rig is then expected to move to Grants next week to follow-up the exciting results at Grants.

Core's substantial Phase 2 exploration and follow-up RC drilling program is expected to commence shortly.

Results from the ongoing drilling program will be released to the market as results become available with an update on the current diamond drilling program expected next week.

Transfer of 100% of EL 29698 to Core

Core is also pleased to confirm that recently acquired tenement EL 29698, which includes each of the recently drilled prospects, has now been transferred and registered to Core. As a result of the transfer, Core is now a 100% owner of all its lithium tenure in the NT.

Background to the Finniss Lithium Project

Core holds the largest lithium tenure position in the NT, including the highest grade lithium drill intersections, the largest historic pegmatite mine and at least another 25 other recorded pegmatites mines in the Northern territory.

The discovery of high grade zones of lithium with the Company's' first drill program at Finniss is very significant for Core given the scale of some of the new pegmatites identified by the Company's current field programs are directly comparable to the scale of pegmatites hosting large lithium resources in Western Australia.

Core's 100%-owned Finniss Lithium Project comprises a large tenement position of 480km^2, has substantial infrastructure advantages being close to grid power, gas and rail infrastructure and within easy trucking distance by sealed road to the multi-user port facility at Darwin Port - Australia's nearest port to Asia.

Core's Managing Director, Stephen Biggins said:

"We are once again extremely pleased with the results of the recent assays. We have only drilled five of a large number of pegmatite prospects within the Finniss Lithium Project, so to have discovered such high grade lithium intersections at both the Grants and BP33 prospects in the first few drill holes exceeded our expectations.

Core's work to date has only scratched the surface of the lithium potential of the Finniss Lithium Project, given the number of pegmatite targets within Core's tenure including the large scale Zola Pegmatite and Ringwood Pegmatite Swarm.

With more than $7m cash at bank and an aggressive drilling program currently underway, Core is well placed to capitalise on the huge potential of the Finniss Lithium Project which we believe has the grade, potential scale and infrastructure to be compared with some of the best lithium projects under development in Australia."

Hole No.	Prospect	East	North		Interval (m)	Li2O(%)	From(m)
FRC017	Grants	693104	8599069		31	1.61	68
				inc	4	2.01	83
FRC018	Grants	693091	8598986		40	1.66	58
				inc	10	2.02	65
					5	2.05	84
					1	3.23	85
FRC010	Far West Cent.	692312	8597985		4	1.14	69
FRC012	Ahoys	692492	8590362		9	0.64	81
FRC014	Ahoys	692920	8589994		19	0.68	89

Table 1. New significant lithium assay results in RC drilling, Finniss Lithium Project NT. Mean grades have been calculated on a 0.4% Li_2O lower cut-off grade with no upper cut-off grade applied, and maximum internal waste of 2.0 metres.

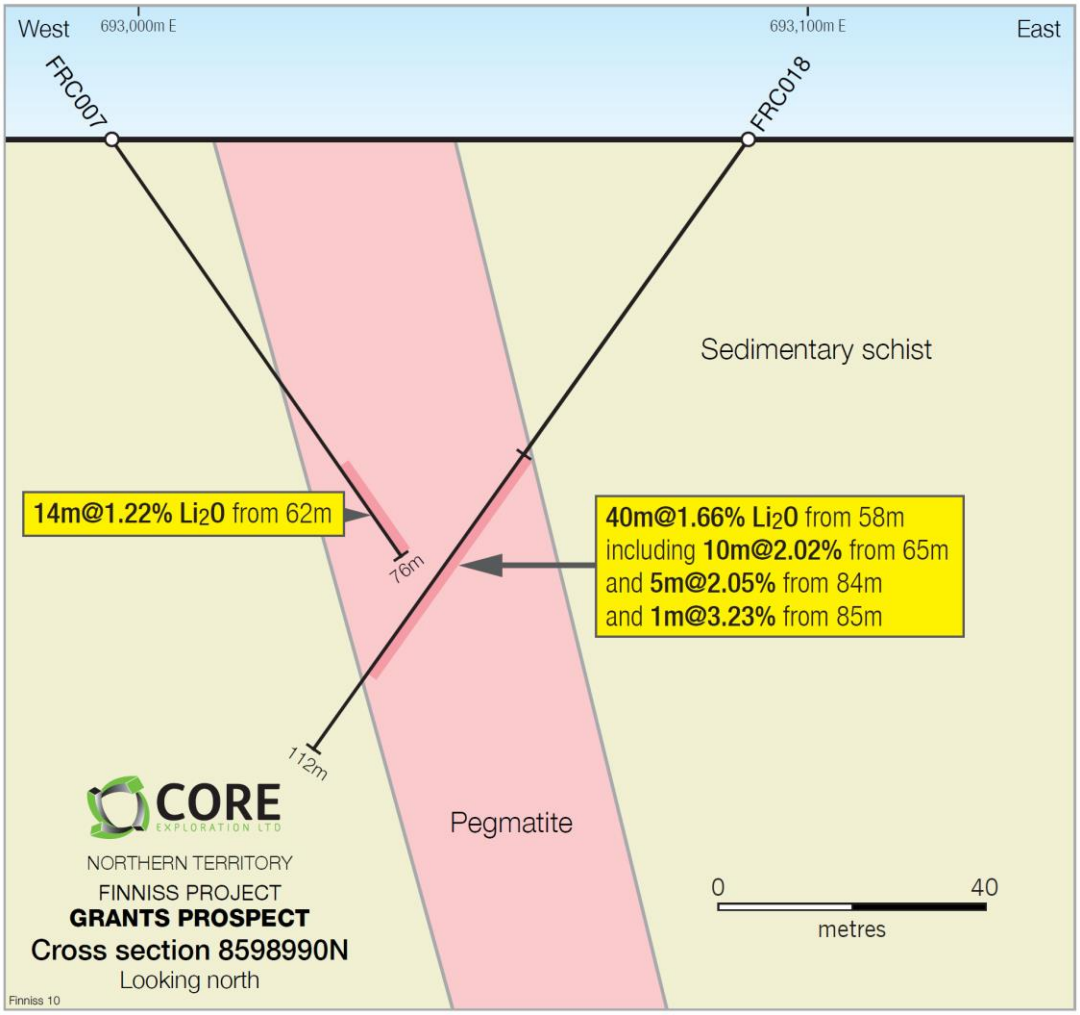


Figure 1. Recent RC Drill Results, Cross Section 8998990N (looking NE), Grants Pegmatite.

New High Grade RC Drill Results at Finniss

Core's maiden drilling program on the Finniss Lithium Project comprised 18 RC holes for a total of 1,815m.

Significant levels of lithium mineralisation as spodumene were intersected at all five prospects drilled except for Hills (Table 1 and Figure 3).

The best new drill result from the last batch of assays is **1.66% Li_2O over 40m**, containing zones of high grade spodumene mineralisation of up to **1m @ 3.23% Li_2O** (drill hole FRC0018) at Grants. Other previously reported holes at Grants also returned zones of high grade lithium up to 49m @ 1.78% Li_2O from 71m (FRC007).

At Grants, all holes hit pegmatite intersections over broad intervals of 30 – 50 metre widths (approximately 20-30m true width), containing high grades of lithium as spodumene mineralisation (Table 1 and Figures 1-2).

The Grants Pegmatite outcrops for over 350m at surface and is consistently intersected in all drill sections and is open to the north and south (Figure 2).

Core has now drilled the first five prospects at Finniss, with very high grade intersections at BP33 and Grants. The Company's future exploration efforts at Finniss will be focused on identifying and appraising pegmatites of an appropriate scale that display similar characteristics to those seen at BP33 and Grants where high grade lithium has been discovered.

For further information please contact:

Stephen Biggins
Managing Director
Core Exploration Ltd
08 7324 2987
info@coreexploration.com.au

The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken 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. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

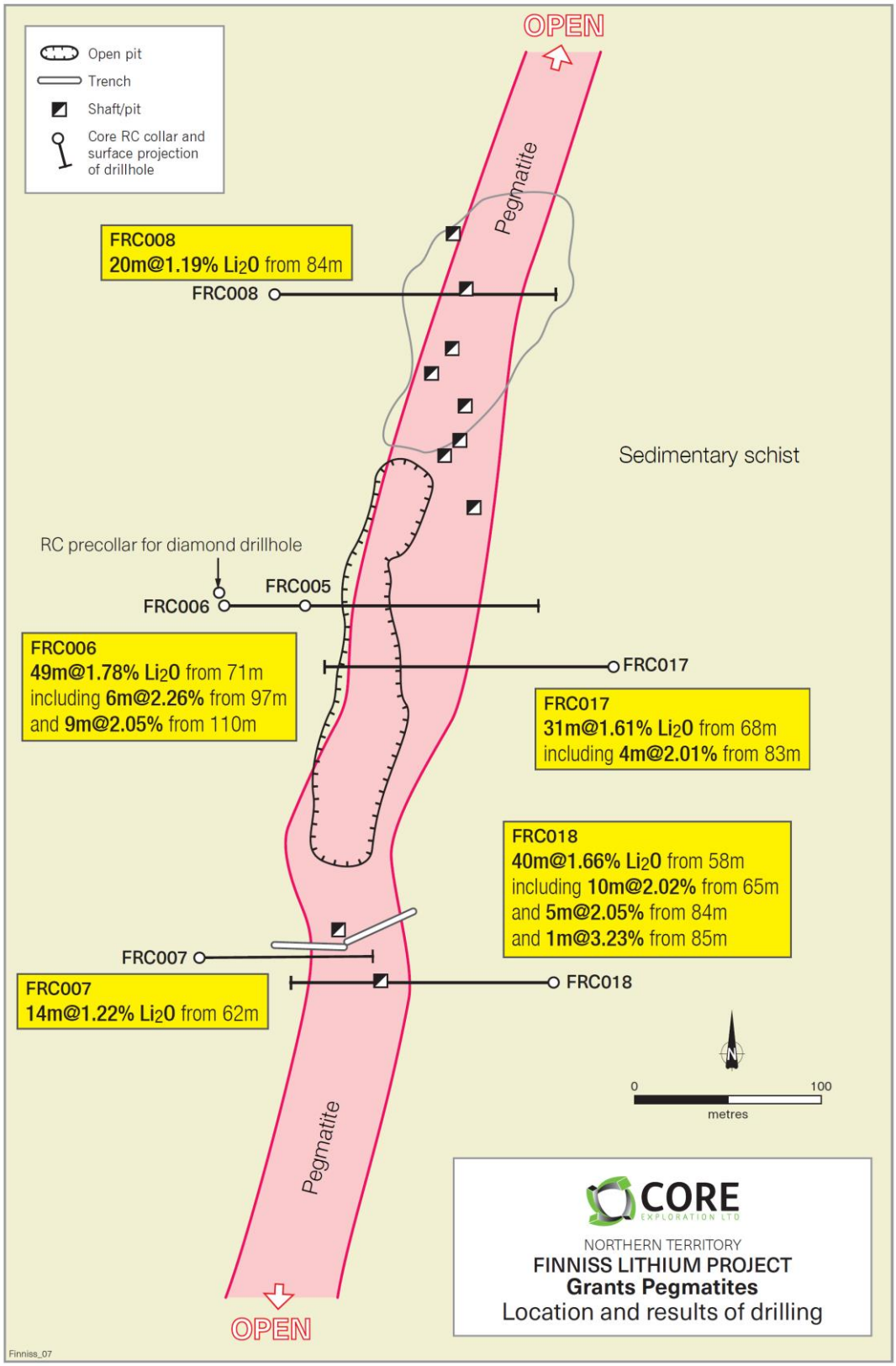


Figure 2. Grants Pegmatite showing Core's RC drilling and historic mining and trenching, Finniss Lithium Project, NT.

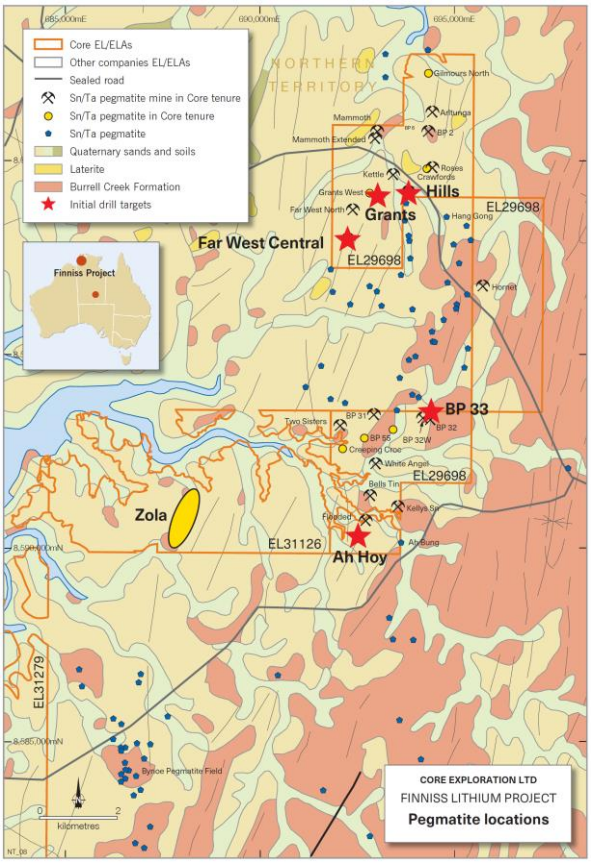


Figure 3. Phase 1 RC drill target locations, Finniss Lithium Project, NT.

BHID	Prospect	GDA94_East	GDA94_North	Elevation	Azimuth_T	Azimuth_M	Dip	TD
FRC001	BP33	694436	8593515	30	125	87	-55	111
FRC002	BP33	694471	8593440	30	303	87	-55	113
FRC003	BP33	694511	8593467	30	305	87	-55	136
FRC004	BP33	694408	8593495	30	125	87	-55	106
FRC005	Grants	693024	8599087	30	90	87	-55	66
FRC006	Grants	693002	8599086	30	90	87	-55	131
FRC007	Grants	692996	8598992	30	90	87	-55	76
FRC008	Grants	693016	8599170	30	90	87	-55	118
FRC009	FWC	692197	8597921	30	90	87	-55	106
FRC010	FWC	692312	8597985	30	270	87	-55	112
FRC011	Ahoys	692386	8590342	30	90	87	-60	100
FRC012	Ahoys	692492	8590362	30	90	87	-60	94
FRC013	Ahoys	692925	8589994	30	90	87	-55	86
FRC014	Ahoys	692920	8589994	30	90	87	-55	108
FRC015	Hills	694369	8599081	30	270	87	-55	51
FRC016	Hills	694362	8599132	30	270	87	-70	113
FRC017	Grants	693104	8599069	30	270	87	-55	112
FRC018	Grants	693091	8598986	30	270	87	-55	112

Table 2. All drill collars Phase 1 RC Drilling Finniss Project.

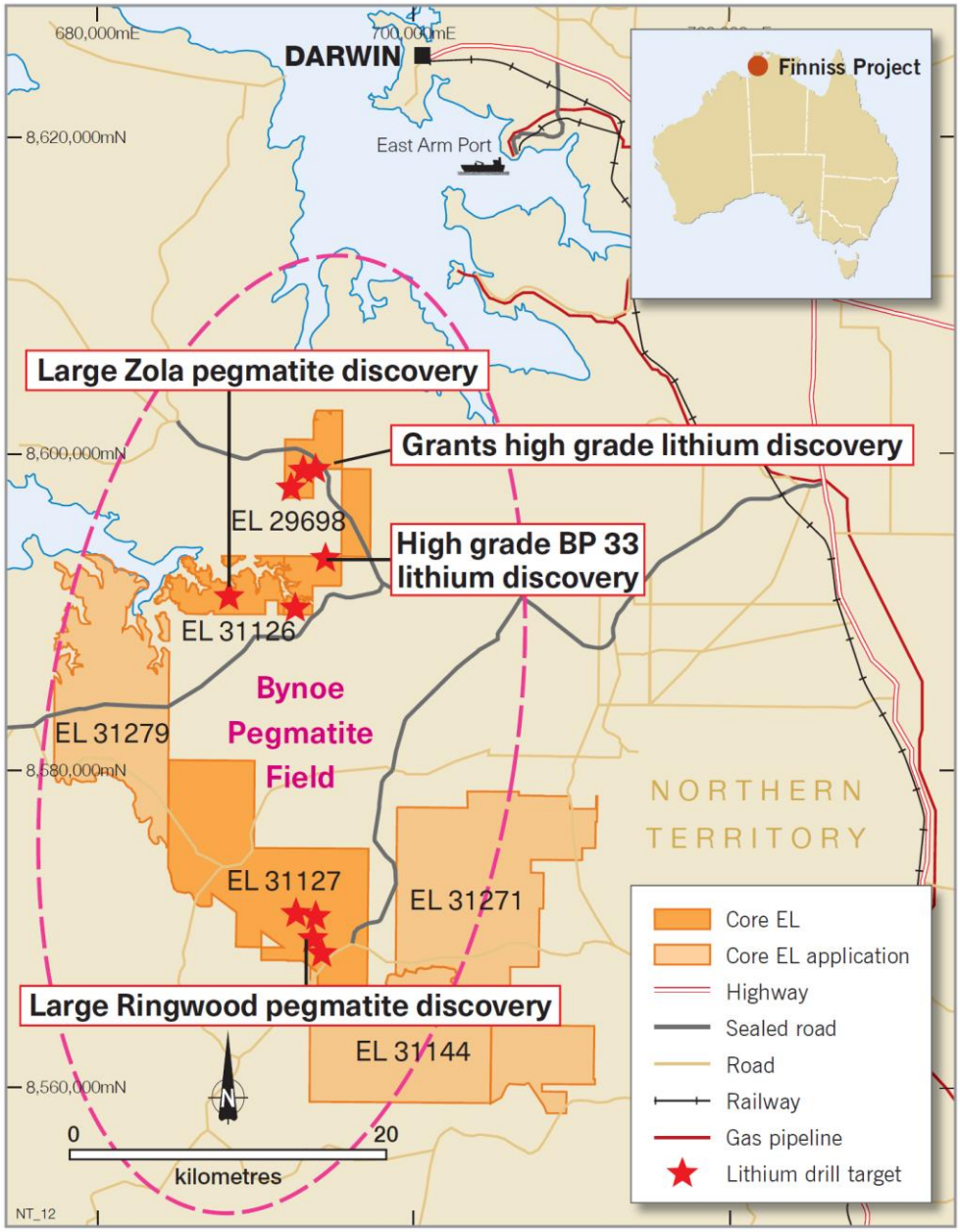


Figure 4. Initial drill target locations, Finniss Lithium Project, NT.

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.*	• Sub surface chip samples have been collected by reverse circulation drilling techniques (see below). • Drill holes are oriented approximately perpendicular to the interpreted strike of the mineralised trend. • Rock samples comprise multiple chips considered to be representative of the horizon or outcrop being sampled. • Samples submitted for assay typically weigh 2-3kg. • Historic sampling and drilling techniques not described in detail. • RC samples are homogenised by cone splitting prior to sampling and are then to be submitted for assay
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).*	• Drilling techniques used at Finniss comprises: • Reverse Circulation (RC) 4 and 7/8 face sampling hammer • RC drilling techniques completed by Greenbushes in 1995 not documented in historic reports.
Drill sample	• *Method of recording and assessing core and chip sample recoveries*	• Sample recoveries are visually estimated and recorded for each

Criteria	JORC Code explanation	Commentary
recovery	*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.*	metre. To date sample recoveries have averaged >95%. • Drill collars are sealed to prevent sample loss and holes are normally drilled dry to prevent poor recoveries and contamination caused by water ingress. Wet intervals are noted in case of unusual result
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.*	• Geology of the RC drill chips is logged on a metre basis with attention to main rock forming minerals within the pegmatite intersections • Pegmatite sections are also checked under UV light for spodumene identification on a metre by metre basis
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*	• Non core samples are collected as 1 metre samples, cone split and then sieved for geological logging. • Assays only for the 1st four drill holes have been received or reported to date.

Criteria	JORC Code explanation	Commentary
	being sampled.	
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 (ie lack of bias) and precision have been established.*	• One in twenty Lithium ore standards are used • One in twenty duplicates are used • One in twenty external laboratory checks have not been sent to date.
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.*	• Core's experienced project geologists are supervised by Core's Exploration Manager. • All field data is manually collected, entered into excel spreadsheets and validated • Hard copies are stored in the local office and electronic data is stored on the server
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.*	• All coordinate information was collected using hand held GPS utilizing GDA 94, Zone 52. • RC holes are to be surveyed by a down hole camera
Data spacing and	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the*	• Varies from prospect to prospect – initial program comprised 1-6 holes into each prospect

Criteria	JORC Code explanation	Commentary
distribution	*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.*	• No compositing has been applied in information in this report.
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.*	• Drilling is typically oriented perpendicular to the interpreted strike of mineralisation
Sample security	• *The measures taken to ensure sample security.*	• Company geologist supervises all sampling and subsequent storage in field.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• None completed

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.*	• Drilling is being conducted on EL 29698 100% owned by Core. • The area being drilled comprises Vacant Crown land • There are no registered heritage sites covering the areas being drilled. • EL 29698 is in good standing with the NT DME Titles Division.

Criteria	JORC Code explanation	Commentary
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• The history of mining in the Bynoe Harbour – Middle Arm area dates back to 1886 when tin was discovered by Mr C Clark. • The records of production for many mines are not complete, and in numerous cases changes have been made to the names of the mines and prospects which tend to confuse the records still further. In many cases the published names of mines cannot be linked to field occurrences. • In the early 1980s the Bynoe Pegmatite field was reactivated during a period of high tantalum prices by Greenbushes Tin which owned and operated the Greenbushes Tin and Tantalite (and later spodumene) Mine in WA. Greenbushes Tin Ltd entered into a JV named the Bynoe Joint Venture with Barbara Mining Corporation, a subsidiary of Bayer AG of Germany. • Greenex (the exploration arm of Greenbushes Tin Ltd) explored the Bynoe pegmatite field between 1980 and 1990 and produced tin and tantalite from its Observation Hill Treatment Plant between 1986 and 1988. • They then tributed the project out to a company named Fieldcorp Pty Ltd who operated it between 1991 and 1995. • Since 1996 the field has been defunct until recently when exploration has begun on ascertaining the lithium prospectivity of the Bynoe pegmatites. • The NT geological Survey undertook a regional appraisal of the field, which was published in 2004 (NTGS Report 16, Frater 2004).
Geology	• *Deposit type, geological setting and style of mineralisation.*	• The tenements sampled cover the northern and southern portions of a swarm of complex zoned rare element pegmatite field, which comprises the 55km long by 10km wide West Arm – Mt Finniss pegmatite belt (Bynoe Pegmatite Field; NTGS Report 16). The main

Criteria	JORC Code explanation	Commentary
		pegmatites in this belt include Mt Finniss, Grants, BP33, Hang Gong and Sandras • The Finniss pegmatites have intruded early Proterozoic shales, siltstones and schists of the Burrell Creek Formation which lies on the northwest margin of the Pine Creek Geosyncline. To the south and west are the granitoid plutons and pegmatitic granite stocks of the Litchfield Complex. The source of the fluids that have formed the intruding pegmatites is generally accepted as being the Two Sisters Granite to the west of the belt, and which probably underlies the entire area at depths of 5-10 km.
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.*	• Refer Table and Figures in report.
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*	• Mean grades have been calculated on a 0.4% Li_2O lower cut-off grade with 4% upper cut-off grade applied, and maximum internal waste of 2.0 metres

Criteria	JORC Code explanation	Commentary
	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.*	
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').*	• The true width is approximately 60- 70% of the reported intersection based on the early interpretation of these being steeply dipping pegmatites
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.*	• See figures in release
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.*	• All intersections have been reported and are considered representative. Refer table of drill hole collars in report. • No assays have yet been received from the laboratory
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.*	• See release details • All meaningful and material data reported
Further work	• *The nature and scale of planned further work (eg tests for lateral*	• RC drill samples are to be submitted to laboratory for chemical assay

Criteria	JORC Code explanation	Commentary
	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.*	• Assay results are expected during October and November 2016 • Follow-up Diamond and RC Drilling based on results