

ASX: CXO Announcement

25 November 2019

New wide spodumene pegmatite drill intersections outside current Mineral Resource at Carlton

Highlights

- Wide intersections¹ of spodumene pegmatite from all completed RC drillholes at Carlton as a result of the recent Mineral Resource growth drilling program at Finniss;
- All pegmatite intersections greater than 30m:
 - 35m Spodumene Pegmatite (NRC151)
 - 34m Spodumene Pegmatite (NRC152)
 - 31m+ Spodumene Pegmatite (NRC154)
 - 36m Spodumene Pegmatite (NRC156)
 - 44m Spodumene Pegmatite (NRC157)
 - 41m Spodumene Pegmatite (NRC158)
- The two deepest holes also intersected a second pegmatite body of up to 25m downhole length, east of the primary body
- Diamond drilling (DDH) tails commencing within the next week
- Potential for Maiden Ore Reserve and Mineral Resource growth at Carlton expected to increase over coming months
- Carlton expected to contribute significantly to an increased mine life at Finniss Lithium Project

¹ Downhole intersections are not true widths owing to oblique nature of drill holes, and true with can only be assessed from sectional views. Refer to figures in announcement.



Advanced Australian lithium developer, Core Lithium Ltd (**Core** or **Company**) (ASX: CXO), is pleased to announce wider than expected spodumene pegmatite intersections from Mineral Resource expansion drilling at its Carlton Prospect, currently being considered for development at the Finniss Lithium Project, located near Darwin in the Northern Territory.

All 6 reverse circulation (**RC**) drillholes that were completed to target depth at the Carlton prospect intersected spodumene pegmatite of downhole width greater than 31m¹. The narrowest intercept of 31m related to a drillhole that was abandoned in pegmatite (due to drilling difficulties).

Visual inspection of RC chips under UV light suggests that spodumene grades are in line with or better than previous drilling at Carlton².

The drilling indicates that the primary pegmatite body at Carlton extends at least a further 100m vertically from previous drilling, and also extends south by an additional 100m (refer Figure 1 and Figure 2).

The deeper drillholes also intersected a second pegmatite body east of the current 'primary' pegmatite (Figure 2). This body does not outcrop at surface and may become more significant at depth, which provides further upside in any potential underground mining scenario.

The >220m strike extent of pegmatite at surface is now mirrored in the subsurface, with true pegmatite width estimated to increase by up to 20% in some sections. Importantly, the pegmatite remains open at depth and to the south and will be easily accessible in an underground mining scenario.

The new drill intercepts strongly support the concept that the Carlton pegmatite is plunging steeply to the south, a feature in common with both the nearby Grants and BP33 orebodies.

During this program, Core drilled 8 deep RC drillholes at Carlton to test the known pegmatite at deeper, down-plunge levels and to the south along strike of the current resource (Table 1). The two holes that failed to reach target depth as a result of groundwater have been prepared for immediate diamond drill hole tails in the coming weeks.

Assay results from the RC program are expected within 3 weeks and, in combination with diamond drilling results from the final two holes, will be used to upgrade the Carlton Mineral Resource.

² Visual estimations of spodumene grade using UV is at best semi-quantitative and only assay results can be used to provide accurate grades.



The new Mineral Resource estimate at Carlton is expected to result in a substantial increase in the size of Inferred and Indicated Mineral Resources and, in parallel to Core's mining studies, add significantly to Ore Reserves and mine life of the Finniss Lithium Project (Figure 3).

HoleID	Primary Pegmatite Body		Secondary Pegmatite Body	
	From (m)	Int Width	From (m)	Int Width
NRC151	217	35		
NRC152	245	34	222	6
NRC153	Not yet intersected		274	12
NRC154	270	31+	225	8
NRC155	Not yet intersected		132	4
NRC156	284	36	171	25
NRC157	197	44	107	6
NRC158	317	41	174	22

Table 1: Recently drilled deep RC holes at Carlton, with main pegmatite intercepts (true width approx. 50-70%).

Core's Managing Director, Stephen Biggins, commented:

"Recent and current drilling at the Finniss Lithium Project is continuing to discover and define more spodumene pegmatite close to port and road infrastructure near Darwin.

"Core is confident in converting these new spodumene pegmatite intersections at Carlton through mining studies into additional Mineral Resources and substantially increase Ore Reserves and mine life over the coming months.

"With the Definitive Feasibility Study complete, approvals near to finalising, additional offtake and project finance advancing, Core remains on track to becoming Australia's next lithium producer."



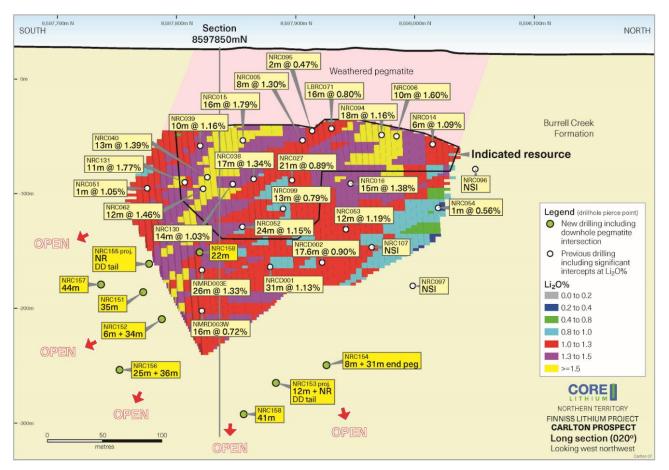


Figure 1: Long section for Carlton showing the current Mineral Resource (coloured by grade and segregated into resource category), showing previous assays and current drilling geology results as mid-pegmatite pierce points

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Page | 4



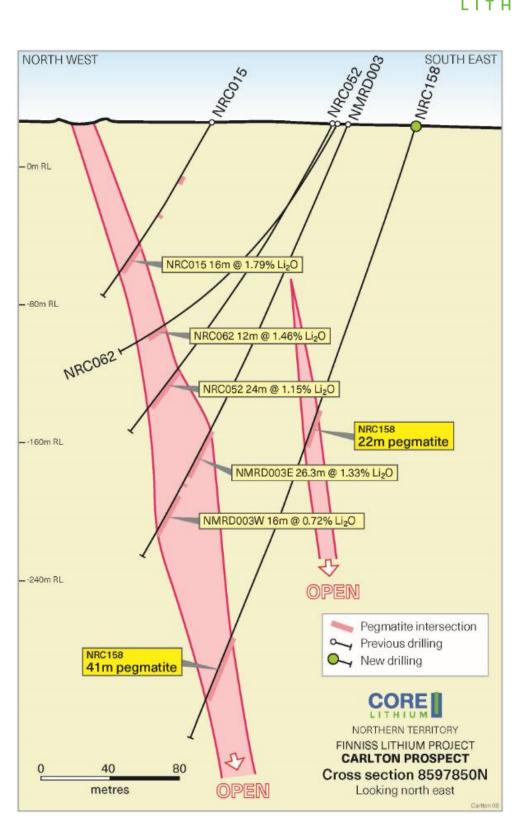


Figure 2: Cross section 8597850N showing pegmatite intersections in previous and current drilling and the interpreted wireframe for the "Primary" and new eastern "Secondary" pegmatite bodies



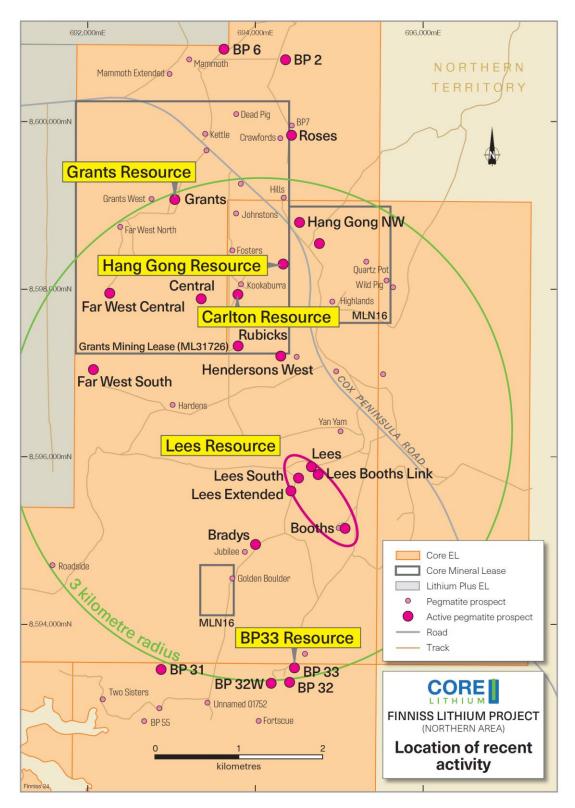


Figure 3: Main prospects in the northern Finniss Project area, showing the close proximity of Carlton and Grants Deposits



About Core

Core is positioned to be Australia's next Lithium Producer, developing one of Australia's most capital efficient and lowest cost spodumene lithium projects located in close proximity to Darwin Port, Australia's closest port to Asia.

Core's 2019 DFS highlights production of 175,000tpa of high-quality lithium concentrate at a C1 Opex of US\$300/t and US\$50M Capex through simple and efficient DMS (gravity) processing of some of Australia's highest-grade lithium resources.

Core is currently working toward increasing resources, reserves and mine-life ahead of project construction and lithium production, subject to financing and regulatory approvals.

The Finniss Lithium Project has arguably the best supporting infrastructure and logistics chain to Asia of any Australian lithium project. The Finniss Lithium Project is within 25km of port, power station, gas, rail and 1 hour by sealed road to workforce accommodated in Darwin and importantly to Darwin Port - Australia's nearest port to Asia.

Core has established an offtake and prepayment agreement and is also in the process of negotiating further agreements with some of Asia's largest lithium consumers and producers.

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Competent Persons Statements

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) an employee of Core Lithium 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. This report includes results that have previously been released under JORC 2012 by Core.

Core confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the Mineral Resource and Ore Reserve estimates in the announcements "Grants Lithium Resource Increased by 42% ahead of DFS" dated 22 October 2018, "Over 50% Increase in BP33 Lithium Resource to Boost DFS" dated 6 November 2018, "Maiden Sandras Mineral Resource Grows Finniss to 6.3Mt" dated 29 November 2018, "Finniss Mineral Resource Grows to 8.6Mt with Hang Gong" dated 31 January 2019, "Upgrade of Mineral Resource at Carlton Grows Finniss Project" dated 12 March 2019, "Finniss Feasibility Study and Maiden Ore Reserve" dated 17 April 2019 and "Initial Resource for Lees Drives Finniss Mineral Resource" dated 6 May 2019 continue to apply and have not materially changed. The Mineral Resources and Ore Reserves underpinning the production target have been prepared by a Competent Person in accordance with the requirements of the JORC code. Core confirms that the Company is not aware of any new information or data that materially affects the information included in this announcement and confirms that all material assumptions underpinning production target and forecast financial information derived from the production target announced on 17 April 2019 as "Finniss Definitive Feasibility Study and Maiden Ore Reserve" continue to apply and have not materially changed.



JORC Code, 2012 Edition – Table 1 Report

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections)

Criteria	JORC Code Explanation	Commentary
Sampling techniques	 Nature and quality of sampling (e.g. 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 (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information. 	 Reverse circulation (RC) drill techniques have been employed for the Core Lithium Ltd ("Core" or "CXO") at Carlton, during late October to early November 2019. A list of the hole IDs and positions can be found in the "Drill hole information" section below. RC drill spoils over all programs were collected into two sub-samples: 1 metre split sample, homogenized and cone split at the cyclone into 12x18 inch calico bags. Weighing 2-5 kg, or 15% of the original sample. 20-40 kg primary sample, which for CXO's drilling was collected in 600x900mm green plastic bags and retained until assays had been returned and deemed reliable for reporting purposes. RC sampling of pegmatite for CXO's assays was done on a 1 metre basis. 1m-sampling continued into the barren wall-zone of the pegmatite and then a 3m composite was collected from the immediately surrounding barren phyllite host rock.
Drilling techniques	• Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. 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 were RC. Drilling was carried out by Bullion Drilling (Barossa Valley, SA; Schram 685 RC with 5.6-inch (143mm) face-sampling bit).
Drill sample recovery	 Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure 	 RC drill recoveries were visually estimated from volume of sample recovered. The majority of sample recoveries reported were dry and above 90% of expected. RC samples were visually checked for recovery, moisture and contamination and



	representative nature of the samples.	notes made in the logs.The rigs splitter was emptied between 1m samples by hammering the cyclone bin
	 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. 	 The figs splitter was emplied between fill samples by namineing the cyclone bill with a mallet. The set-up of the cyclone varied between rigs, but a gate mechanism was used to prevent inter-mingling between metre intervals. The cyclone and splitter were also regularly cleaned by opening the doors, visually checking, and if build-up of material was noted, the equipment cleaned with either compressed air or high-pressure water. This process was in all cases undertaken when the drilling first penetrated the pegmatite mineralization, to ensure no host rock contamination took place. 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 results. Assay results not discussed in this report.
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. 	 Detailed geological logging was carried out on all RC drill holes. Logging recorded lithology, mineralogy, mineralisation, weathering, colour, and other sample features. RC chips are stored in plastic RC chip trays. All holes were logged in full. Pegmatite sections are also checked under a single-beam UV light for spodumene identification on an ad hoc basis. These only provide indicative qualitative information. RC chip trays are photographed and stored on the CXO server.
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. 	 Assay results not discussed in this report, beyond figures showing those reported in earlier announcements.
	• Whether sample sizes are appropriate to the grain size of the material	



	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. 	Assay results not discussed in this report.
	 Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established. 	
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. 	Assay results not discussed in this report.
Location of data points	 Discuss any adjustment to assay data. 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. 	 A hand-held GPS has been used to determine all collar locations at this stage. Collar position audits are regularly undertaken, and no issues have arisen. The grid system is MGA_GDA94, zone 52 for easting, northing and RL. Hole will soon be collected by Differential GPS with precision of 10 cm, so the coordinates in this report can be considered interim. All of the CXO drilled RC hole traces were surveyed by north seeking gyro tool operated by the drillers and the collar is oriented by a line of sight compass and a clinometer. The local topographic surface will be used to generate the final RL of the collars, given the large errors obtained by GPS. The RL of hole is the tables herein are rough estimates only at this stage, but within 2-3m of true RL.
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 	 Drill spacing are approximately 40m along strike and 30-70m vertical, as illustrated in the Long Section. Assay results not discussed in this report, but intervals are generally composited to 1m intervals.



	classifications applied.Whether sample compositing has been 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. 	 Drilling is oriented approximately perpendicular to the interpreted strike of mineralization (pegmatite body) as mapped. Because of the dip of the hole, drill intersections are apparent thicknesses and overall geological context is needed to estimate true thicknesses. Estimates of true thickness for each hole have been tabulated in the announcement to avoid confusion. No sampling bias is believed to have been introduced.
Sample security	• The measures taken to ensure sample security.	Assay results not discussed in this report.
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	• No audits or reviews of the data associated with this drilling have occurred.



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 by CXO took place on EL30015, which is 100% owned by CXO. The area being drilled comprises Vacant Crown land. There are no registered heritage sites covering the areas being drilled. The tenements are in good standing with the NT DPIR Titles Division.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	 The history of mining in the Bynoe area dates back to 1886 when tin was discovered by Mr. C Clark. By 1890 the Leviathan Mine and the Annie Mine were discovered and worked discontinuously until 1902. In 1903 the Hang Gong Wheel of Fortune was found, and 109 tons of tin concentrates were produced in 1905. In 1906, the mine produced 80 tons of concentrates. By 1909 activity was limited to Leviathan and Bells Mona mines in the area with little activity in the period 1907 to 1909. 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.



Criteria	JORC Code explanation	Commentary
Geology	Deposit type, geological setting and style of mineralisation.	 They then tributed the project out to a company named Fieldcorp Pty Ltd who operated it between 1991 and 1995. In 1996, Julia Corp drilled RC holes into representative pegmatites in the field, but like all their predecessors, did not assay for Li. 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). LTR drilled the first deep RC holes at BP33, Hang Gong and Booths in 2016, targeting surface workings dating back to the 1980s. The operators at that time were seeking Tin and Tantalum. CXO subsequently drilled BP33, Grants, Far West, Central, Ah Hoy and several other prospects in 2016. After purchase of the Liontown tenements in 2017, CXO drilled Lees, Booths, Carlton and Hang Gong. The tenements listed above cover the northern and central portion 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 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. Lithium mineralisation has been identified historically as occurring at Bilato's (Picketts) and Saffums 1 (both amblygonite) but more recently LTR and CXO have identified spodumene at numerous other prospects,
Drill hole Information	• A summary of all information material to the understanding of the exploration results including a tabulation of the following	 All holes RC and from Carlton Prospect, EL30015 Coordinates are GDA94 zone 52.



Criteria	JORC Code explanation	Commentary
	 information for all Material drill holes: easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in 	HoleID East North RL Dip Azi TD Primary Target Secondary Target Subordinate Target Recommendations peg peg peg peg peg peg to the list second for the list second s
	metres) of the drill hole collar	Image: NRC151 693890 8597725 25 -68 280 300 217 252 35 Image: NRC152 693920 8597725 25 -70 280 312 245 279 34 222 228 6 58 60 2 Hole complete
	 dip and azimuth of the hole down hole length and interception depth hole length 	NRC153 693925 8597825 20 -75 276 300 Not yet intersected 274 286 12 217 225 8 Requires to DDH tail to intersect primary target.
	 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 	NRC154 693930 8597875 20 -72 276 301 270 301 31+ 225 233 8 Hole abandoned in pegmatite and depending on results of adjacent holes may require DDH tail.
	Person should clearly explain why this is the case.	NRC155 693865 8597740 26 -70 276 162 Not yet intersected 132 136 4 Requires to DDH tail to intersect primary target.
		NRC156 693910 859768 24 -72 276 330 284 320 36 171 196 25 Image: March 100 and 100
		NRC158 693940 8597780 25 -72 270 378 317 358 41 174 196 22 44 47 3 Hole complete
Data aggregation methods	 In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. 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. 	 Assay results not discussed in this report.
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 (e.g. 'down hole length, true width not known'). 	 All holes have been drilled at angles of between 68 - 75° and "lifted" by up to 10 degrees at target depth. The pegmatite dips steeply to the east and therefore the drillholes are oblique in a dip sense. Hole were drilled approximately perpendicular to the strike of the pegmatites as mapped (refer to Table above for azi and dip data). Some holes deviated in azimuth and therefore are marginally oblique in a strike sense.



Criteria	JORC Code explanation	Commentary
		• Based on rough assessment of drill sections, true width represents about 50-70% of the intercept width, as outlined in the drillhole table.
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. 	 Refer to Figures and Tables in the 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 exploration results have been reported.
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 and material data has been reported.
Further work	 The nature and scale of planned further work (e.g. 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. 	 CXO will undertake diamond core drill tails at Carlton in coming weeks. Geology and assay data will be used in the following months to expand and upgrade the Carlton resource