

# ASX: **CXO** Announcement

26 July 2021

## Scoping Study Identifies Value Potential of Lithium Fines

### Highlights

- Core Lithium, in conjunction with consultant Primero Group, has successfully completed a Scoping Study on the potential for lithium fines (LF) to become a saleable by-product from the Finniss Lithium Project
- The Study finds that Core could potentially produce and sell approximately 110,000tpa of LF grading approximately 1.0% Li<sub>2</sub>O, with no incremental mining activities required
- Low incremental capital cost of A\$8.4 million and marginal operating costs for processing, storage, haulage to port and ship loading of US\$21/t of LF
- Core has received non-binding interest from potential offtake partners for LF by-product, with indicative pricing between US\$75-US\$85/t (CFR)
- As a by-product credit, LF production potentially reduces life-of-mine average C1 operating costs by US\$23/t of spodumene concentrate (versus Stage 1 DFS estimate)
- Potential to also reduce tailings stream and waste impact on the environment

**CAUTIONARY STATEMENT**

The Scoping Study referred to in this announcement has been undertaken to determine the potential for the production and sale of a Lithium Fines concentrate from the Finniss Lithium Project. The Scoping Study is a preliminary technical and economic study of the potential viability of the production and sale of a Lithium Fines concentrate from the Finniss Lithium Project based on low level technical and economic assessments (+/- 30% accuracy) that are not sufficient to provide any assurance of an economic development case. A simple desliming and filtration process has been examined within this Scoping Study. Further evaluation work and appropriate studies are required before the sale of Lithium Fines can be included in an economic development case.

Approximately 69% of the life of mine production is from Ore Reserves and 31% is from Inferred Mineral Resources and/or Measured and Indicated Resources that could not be converted to Ore Reserves in the Definitive Feasibility Study, (refer "Stage 1 DFS and Updated Ore Reserves" - ASX: CXO 26/07/2021 and also "Scoping Study Confirms 10 Year Lithium Production" - ASX: CXO 26/07/2021). The Company has concluded it has reasonable grounds for disclosing a Production Target, given that the Scoping Study assumes that in the first period of operation of each of the prospects, an average of 69% of the production is from the Measured or Indicated Resource category. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or that the Production Target or Scoping Study assessment will be realised. As highlighted by the "Scoping Study Confirms 10 Year Lithium Production" - ASX: CXO 26/07/2021, the inclusion of Inferred Resources into the production profile is not a determining factor of the Finniss Lithium Project's economic viability.

The Scoping Study is based on the material assumptions outlined elsewhere in this announcement. While the Company considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

To achieve the potential Lithium Fines production indicated in the Scoping Study, in addition to the capital cost estimate referred to in the "Scoping Study Confirms 10 Year Lithium Production" - ASX: CXO 26/07/2021, funding in the order of A\$8.4 million will likely be required. Investors should note that there is no certainty that the Company will be able to raise funding when needed, however the Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes that it has a reasonable basis to expect it will be able to fund the development of the Lithium Fines project. It is also possible that such funding may only be available on terms that may be dilutive to, or otherwise affect the value of the Company's existing shares.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of this Scoping Study.

Advanced Australian lithium developer Core Lithium Ltd (ASX: CXO) (Core or Company) is pleased to announce the results of a Scoping Study which has identified a potential value improvement opportunity to the Finniss Lithium Project through production and sale of a Lithium Fines (LF) by-product grading approximately 1.0%  $\text{Li}_2\text{O}$ . This is in addition to the "Stage 1 DFS and Updated Ore Reserves" (DFS) and "Scoping Study Confirms 10 Year Lithium Production" (ESS) releases announced earlier today.

Pursuant to the Stage 1 DFS and ESS, the Finniss Project will comprise a low risk, standard open pit and underground mining operation and simple Dense Media Separation (DMS) processing plant, treating 1.0Mtpa of crushed ROM ore, to produce an average of approximately 175ktpa of 5.8%  $\text{Li}_2\text{O}$  spodumene concentrate over a 10-year mine life.

The DMS flowsheet proposed in the Stage 1 DFS also produces a lithium fines content (<0.5mm) grading around 1.0%  $\text{Li}_2\text{O}$ .

Metallurgical test work undertaken to-date indicates that the partial recovery of lithia from this tailings stream is possible efficiently and economically with limited additional processing steps.

Further work is required to better define the impact of mine dilution, the lithia deportment and grade by size fraction, but pending negligible mine dilution presenting to ROM ore and a similar crushed product particle size distribution to the test work sample, Core believes there is an opportunity to produce approximately 110,000 tonnes per annum of LF by-product grading circa 1.0% (w/w)  $\text{Li}_2\text{O}$ .

In the Stage 1 DFS, the lithium fines are assumed to be stored with other tailings. However, in response to a forecast shortage of primary lithium supply and expressions of interest in offtake for the LF by-product, there is a strong opportunity for Core to capture the value of this by-product from existing Ore Reserves and Mineral Resources with no incremental mining cost and minimal incremental processing cost.

The economics of this opportunity are further assisted by the fact that Core's Finniss Project is located within a 1 hour drive of the Port of Darwin, which is Australia's closest port to Asian markets, keeping transport and logistics costs to a minimum.

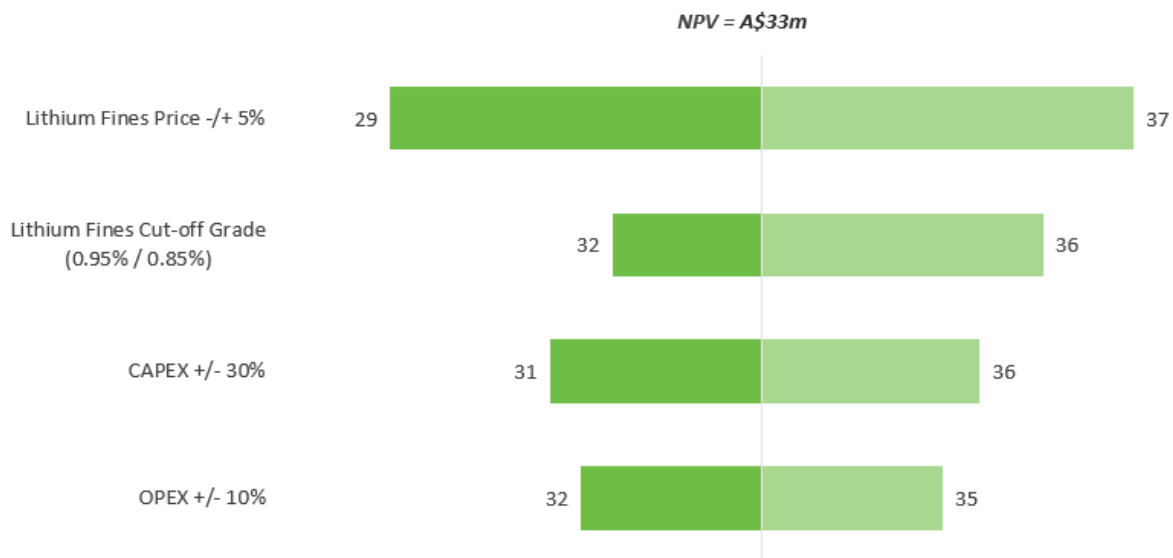
## Lithium Fines Scoping Study Assumptions and Economic Outcomes

Key assumptions and approximate stand-alone economic outcomes of the LF Scoping Study are shown in the table below:

Technical Metrics <sup>6</sup>		Financial Metrics <sup>6</sup>	
First LF Production	CY 2024	Fines Price (FOB) <sup>2</sup>	US\$65/t
Total LF Production	930 kt	C1 Operating Costs <sup>3</sup>	US\$21/t
Ave Annual LF Production	110 ktpa	Initial Capex <sup>5</sup>	A\$8.4m
Product Cut-Off Grade (Li <sub>2</sub> O)	0.90%	Pre-Tax Free Cash Flow <sup>4</sup>	A\$50m
Average LF Grade (Li <sub>2</sub> O)	1.06%	Pre-Tax NPV <sub>8</sub> <sup>4</sup>	A\$33m
Payback Period <sup>1</sup>	< 12 months	Pre-Tax IRR <sup>4</sup>	171%

1. Payback is calculated from sale of first product
2. Pricing based on an assumed price of US\$80/tonne (CFR) for LF product grading 1.0% Li<sub>2</sub>O, with pro-rata adjustments for grade above or below 1.0% Li<sub>2</sub>O (down to cut-off of 0.9% Li<sub>2</sub>O) and assumed sea freight of US\$20/t concentrate.
3. C1 Operating Costs are defined as direct cash operating costs of production FOB, divided by production tonnes. Direct cash operating costs incl. processing, haulage, port logistics, and ship-loading costs. C1 Operating Costs exclude royalties. AUD:USD assumption is 0.70.
4. Free Cash Flow, NPV and IRR as shown here are exclusive of corporate tax and all royalties.
5. Capital works required include a fines handling facility and storage shed. Construction is assumed to commence in Q1 2023 and take 6 months to complete. A 20% capital contingency has been included in the capital estimate.
6. The Technical Metrics and Financial Metrics are estimates that reflect information presented by advisors and consultants and reflect the market conditions at the time of presenting this information.

A sensitivity analysis has been performed for key project assumptions as follows:



As a potential by-product, the LF can also be viewed as reducing the overall unit operating costs of producing 5.8% spodumene concentrate. Based on the assumptions described above, it is estimated that producing and selling LF has the potential to reduce the unit C1 operating costs shown in the Stage 1 DFS by US\$23/tonne of spodumene concentrate.

The potential impact of the Lithium Fines Scoping Study on the economic outcomes of the Stage 1 DFS and ESS also released by Core today are shown in the table below:

Metrics	Stage 1 DFS	Stage 1 DFS + ESS	Stage 1 DFS + ESS + Li Fines Scoping Study
Finniss Project Mine Life	8 years	10 years	10 years
<b>Based on Roskill Price Forecasts (for Spodumene Concentrate)<sup>1</sup></b>			
C1 Operating Costs <sup>2</sup>	US\$364/t	US\$372/t	US\$349/t <sup>3</sup>
AISC <sup>4</sup>	US\$441/t	US\$454/t	US\$434/t <sup>3</sup>
Pre-Tax Free Cash Flow <sup>5</sup>	A\$344m	A\$415m	A\$460m
Pre-Tax NPV <sub>8</sub> <sup>5</sup>	A\$221m	A\$259m	A\$289m
Pre-Tax IRR <sup>5</sup>	53%	56%	59%
<b>Based on Spot Prices (for Spodumene Concentrate) of US\$850/tonne (FOB)</b>			
Pre-Tax NPV <sub>8</sub> <sup>5</sup>	A\$315m	A\$384m	A\$411m <sup>6</sup>
Pre-Tax IRR <sup>5</sup>	76%	79%	81% <sup>5</sup>

1. Commodity Pricing assumptions are derived from Roskill April 2021 forecast. Assumptions include sea freight of US\$20/t concentrate and a pro-rata grade adjustment for 5.8% Li<sub>2</sub>O grade of spodumene concentrate.
2. C1 Operating Costs are defined as direct cash operating costs of production FOB, divided by production tonnes. Direct cash operating costs include processing, haulage, port logistics, and ship-loading costs. C1 Operating Costs exclude royalties. AUD:USD assumption is 0.70.
3. C1 Operating Costs and AISC in this scenario are inclusive of LF by-product credits.
4. AISC are defined as C1 Operating Costs plus royalties and sustaining capital.
5. Free Cash Flow, NPV and IRR shown in this table are exclusive of corporate tax but include royalties.
6. LF prices are unchanged in this scenario relative to the scenario above.

## ESG Impact

Core has the potential to reduce its tailings waste stream and therefore environmental impact by producing and selling the LF by-product, that would otherwise be stored in the Tailing Storage Facility (TSF). Selling by-product materials also potentially increases the useful life of the TSF as currently designed and can leverage from the existing and future infrastructure to be established on site.

## Further Commentary - Test Work and Assumptions

Core has undertaken studies and initial metallurgical test work to confirm the LF by-product represents a future opportunity to increase value from the Project, by desliming and dewatering to produce a material that is saleable and transportable.

Primero Group, acting as an independent consultant to Core, completed a Scoping Study with the aim of understanding the filtration behaviour of the LF material and determining the capital cost and operating cost to +/- 30% accuracy for the additional equipment required to produce and handle this by-product.

The Study determined that the Transportable Moisture Limit (TML) for the LF material to be 14.7% (w/w). Vacuum filtration on a deslimed and flocculated fines sample resulted in final filter cake residual moisture as low as 11.6% (w/w), which is well below the TML.

The capital cost estimate considers a LF handling circuit consisting of the following:

- Desliming hydrocyclone cluster;
- Vacuum belt filter including vacuum pump, filtrate management and filter cake discharge;
- Filter cake conveying;
- Storage shed for filter cake;
- Associated pumps and hoppers; and
- Truck loading and dispatch of LF by-product.

Primero used historic project information, experience with similar plants and applied factors for estimating the capital cost at A\$8.4 million to an accuracy level of +/- 30% (Q4 2019 basis) for the additional equipment required for the LF handling circuit.

The estimate includes a 20% contingency and assumes the Fines handling facility is constructed after the main spodumene concentrator has been built and commissioned.

Primero used other operating cost estimates for recently completed projects for developing the operating cost estimate of A\$13.15 / tonne LF product to an accuracy level of +/- 30%. The estimate does not include contingency, transportation of LF product to the Port of Darwin, pre-production cost or escalation.

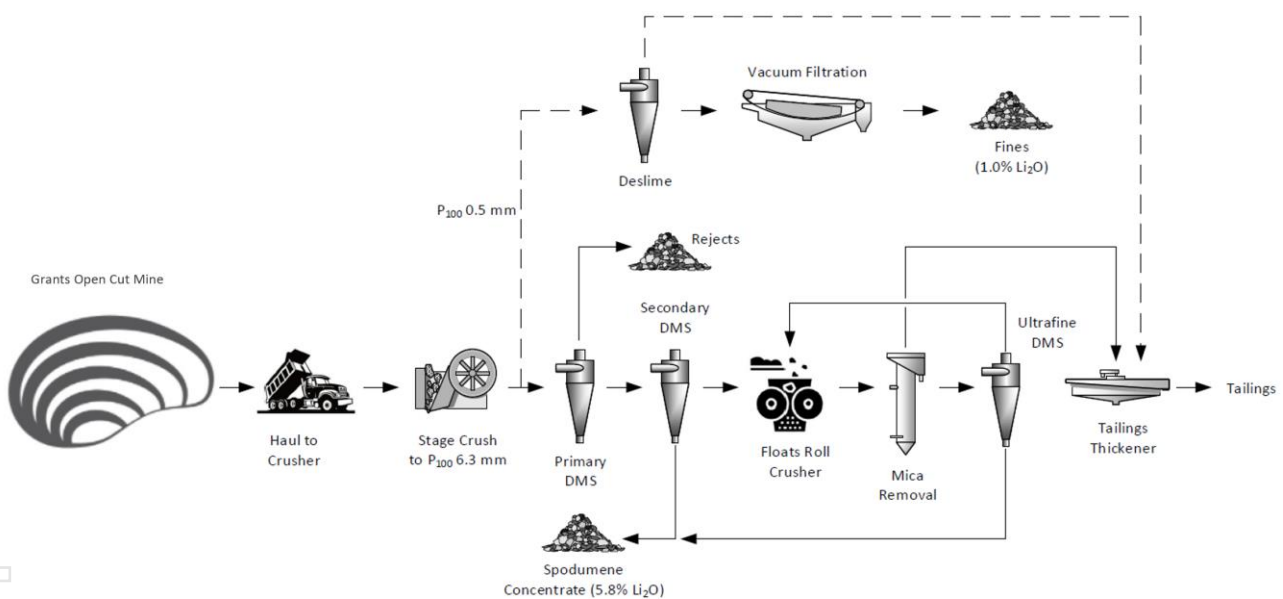
Haulage, port logistics, and ship-loading costs have been estimated by Core at A\$16.62 / tonne LF product, which are consistent with the Stage 1 DFS estimates for the primary spodumene concentrate product.

Total marginal CI operating costs including processing, haulage, port logistics and ship loading for the LF by-product are therefore approximately A\$29.77 / tonne (US\$20.84 / tonne at AUD:USD 0.70).

Conceptually, the LF material (nominally sub 0.5 mm), otherwise rejected to tails from the DMS circuit feed, is deslimed, dewatered by filtration and stored prior to transport.

The desliming stage results in a reduced mass reporting through to the dewatered LF product. The slimes fraction reports to the concentrator tailings thickener prior to long term disposal, while the deslimed fraction is pumped to a vacuum belt filter.

The simplified process flow diagram is shown as the dotted line in Figure 1.



*Figure 1 - Lithium Fines Desliming and Filtration Process Flow*

Preliminary customer engagement has identified a viable market for this by-product. In the context of the growing supply and demand gap for lithium feed in any form, Core has successfully identified several customers who are keen to progress to binding offtake terms, including a fair and transparent pricing mechanism, subject to physical product validation and qualifications. Initial feedback from these parties has been strong, with indicative pricing between US\$75-85/tonne.

This Study should be read in conjunction with "Stage 1 DFS and Updated Ore Reserves" and "Scoping Study Confirms 10 Year Lithium Production" both announced to the ASX earlier today.

This announcement has been approved for release by the Core Lithium Board.

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### About the Finniss Lithium Project

The Finniss Lithium Project is Australia's most advanced new lithium project on the ASX and places Core Lithium at the front of the line of new global lithium production.

Finniss has Federal Government Major Project Status and is also one of the most capital efficient lithium projects in Australia and has arguably the best logistics chain to markets of any Australian lithium project.

The Project lies within 25km of port, power station, gas, rail and one hour by sealed road to workforce accommodated in Darwin and importantly to Darwin Port – Australia's nearest port to Asia.

Lithium is the core element in batteries used to power electric vehicles, and the Finniss Project boasts world-class, high-grade and high-quality lithium suitable for this use and other renewable energy sources.



## Appendix 1 – Material Assumptions

Material Assumption	Commentary
Study status	<p>Capital and operating cost estimates have been completed to Scoping Study level (+/- 30%).</p> <p>The capital cost estimate is based on a preliminary equipment list. Filter selection is based on the results from metallurgical testwork undertaken at GBL Process in Western Australia. Fine sample for the testwork was sourced from a previous program (T2665, dated Oct-19).</p>
Mineral Resources used in the Study	<p>No statement of mineral resources is referenced as the Study scope considers only the potential for processing of Fines from the Finniss lithium concentrator using vacuum filtration.</p>
Revenue assumptions	<p>Commodity Pricing assumptions are derived from Roskill April 2021 forecast. Assumptions include sea freight of US\$20/t concentrate and a pro-rata grade adjustment for 5.8% Li<sub>2</sub>O grade of spodumene concentrate.</p> <p>Pricing is based on an assumed price of US\$80/tonne (CFR) for LF product grading 1.0% Li<sub>2</sub>O, with pro-rata adjustments for grade above or below 1.0% Li<sub>2</sub>O (down to cut-off of 0.9% Li<sub>2</sub>O) and assumed sea freight of US\$20/t concentrate.</p>
Mining factors or assumptions	<p>No mining factors are referenced as the Study scope considers only the potential for processing of Fines from the Finniss lithium concentrator using vacuum filtration. Fines production has not been reported as a function of ore type – breakdown Mineral Resource and Ore Reserve categories. Fines are present in the ROM feed after blasting and are also made by the concentrator. Broadly speaking, approximately 69% of the life of mine production is from Ore Reserves and 31% is from Inferred Mineral Resources and/or Measured and Indicated Resources that could not be converted to Ore Reserves in the DFS. The portion cannot be calculated precisely as fines are produced from blasting, crushing, floats crushing and normal abrasion.</p>
Metallurgical factors or assumptions	<p>The Study uses metallurgical testwork results for the preliminary selection of the filtration equipment. A design factor of 20% has been applied to the nominal</p>

Material Assumption	Commentary
	<p>process flow for selection of other equipment such as conveyors, pumps and hydrocyclones.</p> <p>The desliming hydrocyclone is assumed to cut at P<sub>50</sub> 25 µm while the bulk density of fines is assumed to be 1.8 t/m<sup>3</sup>.</p> <p>Reagent consumption rates have been based on the filtration testwork, flocculant vendor information and Primero database for similar projects.</p>
Marketing and processing assumptions	<p>Core has received non-binding expression of interest and recent pricing guidance from potential customers of US\$75/t-US\$85/t.</p>
Capital costs	<p>The capital cost estimate has been prepared in accordance with the Scoping Study proposal and is based upon Primero's historical project information, similar plants and factored estimates where required. Primero estimated the bare capital cost of the LF by-product handling facility at A\$5.83 million (+/- 30% accuracy, Q4 2019 basis), excluding contingency and escalation, and based on construction works being completed concurrently to the DMS process plant.</p> <p>Supplementing the scoping level work, Primero estimated the additional capital cost for a deferred construction phase of the LF handling circuit at A\$ 1.14 million to cover mobilisation and demobilisation costs of a construction team. This results in a bare capital cost estimate of A\$7.0 million (+/- 30% accuracy, Q4 2019 basis), excluding contingency and escalation.</p> <p>Core have applied a 20% contingency to the capital cost estimate of A\$7.0 million to allow for escalation, and this results in a total LF handling facility capital cost estimate of A\$8.4 million at +/- 30% accuracy level (Q4 2019 basis), on the basis that the Fines handling facility is constructed after the main spodumene concentrator has been built and commissioned.</p>
Operating costs	<p>All costs are presented in AUD are current for the 4th Quarter 2019. The estimates for items within Primero scope are based on an order of magnitude of historic and recently completed projects Primero have worked on and have an accuracy of +/- 30%.</p> <p>The operating cost estimate calculation utilised a value of 37 cents per kWh based upon similar contracting</p>

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Material Assumption	Commentary
	<p>power arrangements in the region, and on the basis of diesel power generation. Power consumption and costs are determined based on calculated plant utilisation and expected to be operated on circa 70% load factor in operation.</p> <p>Fuel costs have been based on a retail diesel price of A\$ 1.20 /L. The fuel consumption for the FEL is derived from the number of operating hours and average benchmark data for the specific FEL.</p> <p>Labour unit costs have been taken from Primero database for similar projects. It is assumed that the fines handling facility will require a process operator and a loader operator for each shift. Roster is based upon 8/6 days rostered on/off. The operating cost estimate excludes travel &amp; accommodation costs for operational personnel.</p> <p>Process plant maintenance costs have been factored from the capital cost estimate for similar sized plants, using factors from the Primero database.</p> <p>Haulage, port logistics, and ship-loading costs have been estimated by Core at A\$16.62 / tonne LF product, which are consistent with the Stage 1 DFS estimates for the primary spodumene concentrate product.</p>
Lithia price	<p>Commodity Pricing assumptions are derived from Roskill April 2021 forecast. Assumptions include sea freight of US\$20/t concentrate and a pro-rata grade adjustment for 5.8% Li<sub>2</sub>O grade of spodumene concentrate.</p> <p>Pricing is based on an assumed price of US\$80/tonne (CFR) for LF product grading 1.0% Li<sub>2</sub>O, with pro-rata adjustments for grade above or below 1.0% Li<sub>2</sub>O (down to cut-off of 0.9% Li<sub>2</sub>O) and assumed sea freight of US\$20/t concentrate.</p>
Mining Costs	<p>No mining costs are referenced as the Study scope considers only the potential for processing of Fines from the Finnis lithium concentrator using vacuum filtration.</p>
Economic Assumptions	<p>Core has prepared the economic analysis and assessment, as presented in this announcement based on information included by Primero.</p>

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Material Assumption	Commentary
	A discount rate of 8% has been used for financial modelling. This number was selected as a generic cost of capital and is considered as a sensible discount rate for funding the project in the Northern Territory. The discount rate is consistent with that used in the DFS. The Study outcome has been tested for key financial inputs, including the discount rate.
Infrastructure	Additional infrastructure is required including access roads and drainage. A storage shed for filtered fines is included in the capex cost estimate. A power study has not been completed.
Geotechnical assumptions	No geotechnical assumptions are referenced as the Study scope considers only the potential for processing of Fines from the Finniss lithium concentrator using vacuum filtration.
Cut-off parameters	No mining cut-off are referenced as the Study scope considers only the potential for processing of Fines from the Finniss lithium concentrator using vacuum filtration.
Environmental	It is assumed for the purposes of the Study that there are no significant environmental impediments caused by the Fines handling facility.
Community and social	It is assumed for the purposes of the Study that there are no community or social issue caused by the Fines handling facility.
Legal and permitting	The Fines handling facility will be located on a granted mining tenement with no known native title factors which would impede development or affect economics. It is assumed for the purpose of this Study that there are no significant permitting impediments anticipated for the project.  There are no other known legal impediments anticipated for the project
Schedule and project timing	The next stage of project development commences with a number of options studies that will be fed into a Pre-feasibility Study. When that is completed a timeframe for development and production will be finalised and communicated.
Audits and reviews	The Study was reviewed internally by Core personnel.

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### Competent Persons Statements

The information in this announcement that relates to LF by-product metallurgical test work data for the Finnis Lithium Project has been reviewed by Simon O'Leary who is a Member of the Australasian Institute of Mining and Metallurgy. Mr O'Leary is an employee of Primero Group Ltd and has sufficient experience relevant to the style of processing response and types 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 O'Leary consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. This announcement includes results that have previously been released under JORC 2012 by Core.

The estimated Ore Reserves and Mineral Resources underpinning the production target have been prepared by competent persons in accordance with the requirements of the JORC code as cross referenced in this announcement.

The information included in this announcement has been obtained from "Finniss Lithium Resource increased by over 50%" dated 15 June 2020, "Stage 1 DFS and Updated Ore Reserves" dated 26 July 2021 and "Scoping Study Confirms 10 Year Lithium Production" dated 26 July 2021 and Core confirms that all material assumptions underpinning the production target and forecast financial information derived from the production target continue to apply and have not materially changed.

Core confirms that it is not aware of any new information or data that materially affects the information included in this announcement (as cross referenced in the body of this announcement) and that all material assumptions and technical parameters underpinning the Mineral Resources and Ore Reserves continue to apply and have not materially changed.

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## 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	<ul style="list-style-type: none"> <li>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.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>Metallurgical results reported herein relate to materials sourced from previous testwork undertaken at Nagrom Laboratories in Western Australia and comprises about 30 kg of P<sub>100</sub>0.5 mm sample. The sample was produced from screening testwork by Nagrom during the Oct-19 Spodumene Testwork program. The sample was composited and sub-split at Nagrom with preliminary assessment of the proportion of fines and magnetic fractions. The composite sample source consists of 100% BP33.</li> <li>Nagrom prepared sub-samples for GBL Process in Western Australia for filtration testwork and TUNRA in New South Wales for Transportable Moisture Limit determination.</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>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).</li> </ul>	<ul style="list-style-type: none"> <li>No drilling being reported – Metallurgical results.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure</li> </ul>	<ul style="list-style-type: none"> <li>No drilling being reported – Metallurgical results.</li> </ul>

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.

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.

- No drilling being reported – Metallurgical results.

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.

- No drilling being reported – Metallurgical results.

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 (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels

- No drilling being reported – Metallurgical results.

	of accuracy (i.e. lack of bias) and precision have been established.	
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Senior technical personnel have visually inspected and verified the metallurgical test results.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling being reported – Metallurgical results.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>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.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling being reported – Metallurgical results.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>No drilling being reported – Metallurgical results.</li> </ul>
Sample security	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate sample security was undertaken by Nagrom, TUNRA and GBL.</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>No audits or reviews of the data associated with this work has occurred.</li> </ul>



## 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	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>The Project is within EL29698 and EL30015, which are 100% owned by CXO.</li> <li>The BP33 resource lies across the boundary of EL29698 and EL30015, both of which are 100% owned by CXO.</li> <li>The area being drilled comprises Vacant Crown land.</li> <li>There are no registered heritage sites covering the areas being drilled.</li> <li>The tenements are in good standing with the NT DPIR Titles Division.</li> </ul>
Exploration done by other parties	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>The history of mining in the Bynoe area dates back to 1886 when tin was discovered by Mr. C Clark.</li> <li>By 1890 the Leviathan Mine and the Annie Mine were discovered and worked discontinuously until 1902.</li> <li>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.</li> <li>By 1909 activity was limited to Leviathan and Bells Mona mines in the area with little activity in the period 1907 to 1909.</li> <li>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.</li> <li>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.</li> <li>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.</li> </ul>

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Criteria	JORC Code explanation	Commentary
Geology	<ul style="list-style-type: none"> <li>• Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>• They then tributed the project out to a company named Fieldcorp Pty Ltd who operated it between 1991 and 1995.</li> <li>• In 1996, Julia Corp drilled RC holes into representative pegmatites in the field, but like all their predecessors, did not assay for Li.</li> <li>• Since 1996 the field has been defunct until recently when exploration has begun on ascertaining the lithium prospectivity of the Bynoe pegmatites.</li> <li>• The NT geological Survey undertook a regional appraisal of the field, which was published in 2004 (NTGS Report 16, Frater 2004).</li> <li>• 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.</li> <li>• CXO subsequently drilled BP33, Grants, Far West, Central, Ah Hoy and several other prospects in 2016.</li> <li>• After purchase of the Liontown tenements in 2017, CXO drilled Lees, Booths, Carlton and Hang Gong.</li> <li>• 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</li> <li>• 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.</li> <li>• 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, including Grants, BP33, Booths, Lees, Hang Gong, Ah Hoy, Far West Central and Sandras.</li> </ul>

Criteria	JORC Code explanation	Commentary
Drill hole Information	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:               <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling being reported – Metallurgical results.</li> </ul>
Data aggregation methods	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Metallurgical results reported herein relate to materials sourced from previous testwork undertaken at Nagrom Laboratories in Western Australia and comprises about 30 kg of P100 0.5 mm sample. The sample was produced from screening testwork by Nagrom during the Oct-19 Spodumene Testwork program. The sample was composited and sub-split at Nagrom with preliminary assessment of the proportion of fines and magnetic fractions. The composite sample source consists of 100% BP33.</li> <li>• Nagrom prepared sub-samples for GBL Process in Western Australia for filtration testwork and TUNRA in New South Wales for Transportable Moisture Limit determination.</li> </ul>
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. ‘down hole length, true width not known’).</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling being reported – Metallurgical results.</li> </ul>
Diagrams	<ul style="list-style-type: none"> <li>• Appropriate maps and sections (with scales) and tabulations of</li> </ul>	<ul style="list-style-type: none"> <li>• No drilling being reported – Metallurgical results.</li> </ul>

Criteria	JORC Code explanation	Commentary
	<p>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.</p>	
Balanced reporting	<ul style="list-style-type: none"> <li>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>All meaningful and material data has been reported.</li> </ul>
Other substantive exploration data	<ul style="list-style-type: none"> <li>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>All meaningful and material data has been reported.</li> </ul>
Further work	<ul style="list-style-type: none"> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>CXO is currently considering these results.</li> </ul>

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