ASX:**CXO** Announcement

23 April 2021

NT Lithium Exploration Breakthrough

Highlights

- NT Government and Core co-funded geophysical survey has successfully defined lithium pegmatite distribution at Finniss
- Gravity geophysics is an effective exploration technique and potential gamechanger for targeting spodumene pegmatites at regional scale in the NT
- Newly identified 20km long "Grants Belt" of lithium rich pegmatites - that includes Grants, BP33, Carlton Lees and Booths - stretches south to include Core's new acquisition at Leviathan and north to new Kings Table target area
- Detailed gravity is also prospective as a tool for direct targeting new lithium pegmatites
- Detailed follow-up gravity surveys to commence alongside 2021 drilling campaigns
- Core is finalising drill contracts and preparing for a massive 2021/22 exploration and resource drilling campaign expected to commence in May
- Core well-funded with new acquisition in place and drill rigs lined up to commence resource push

Advanced Australian lithium developer Core Lithium Ltd (ASX: CXO) (Core or Company) is pleased to announce new geophysical surveys have successfully shown a strong correlation with lithium pegmatite distribution within Company's wholly owned Finniss Lithium Project, located near Darwin in the Northern Territory. Gravity geophysics is now considered an important tool for mapping lithium rich pegmatites within the Finnis pegmatite field.

The Finniss Gravity Survey was co-funded by the Northern Territory Government with survey data collected over a 500x500m and 500x1000m grid of gravity stations through the majority of Core's Finniss tenements.

The survey has identified a major NNE-trending gravity high and potential lithium-pegmatite corridor that extends from the King Table Group in the north to the Leviathan Group in the south and includes the lithium-rich Observation Hill Group (main prospect: Grants, BP33, Carlton, Hang Gong and others - Figure 1).

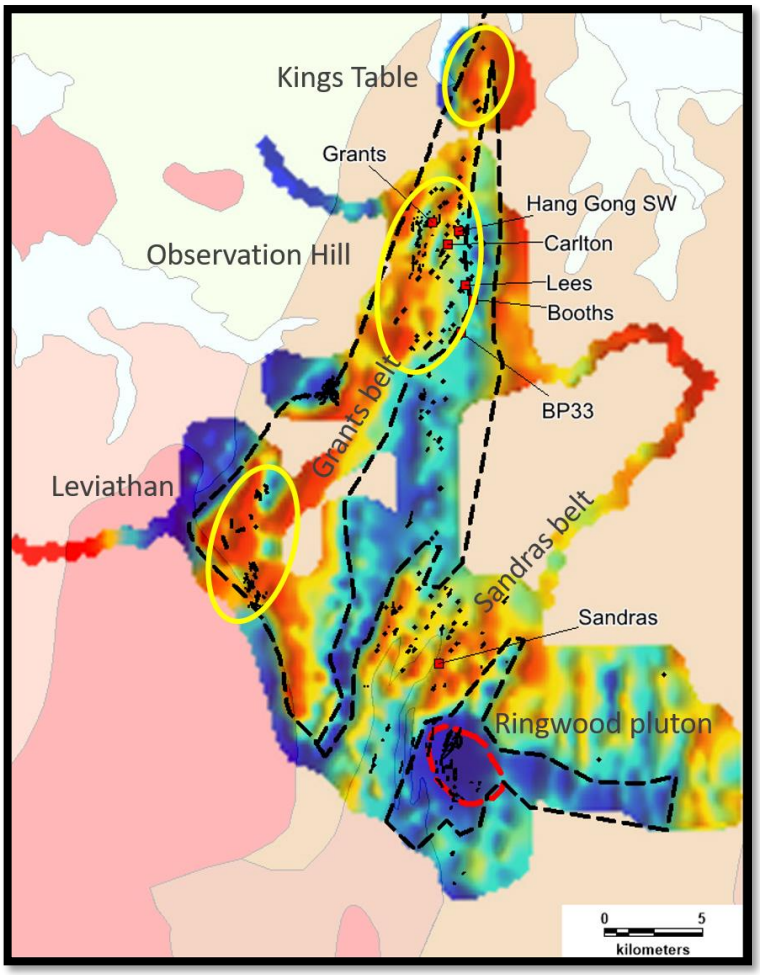

Figure 1. Residual Gravity Image, Finniss Lithium Project.

Pleasingly, there is no reason to believe that these known lithium pegmatite groups are unique clusters. Rather, it is more likely that the currently defined distribution of pegmatites identified to date in this belt are due to large tracts of

prospective ground between Grants and Leviathan, which are covered by laterite or soil cover that have not been effectively explored yet.

Core's new gravity survey has demonstrated that the gravity methodology is a valuable tool for pegmatite exploration in the NT.

The survey shows that the most important lithium-bearing pegmatites are largely constrained to the gravity highs, at the fertility "sweet spot" above its granite source, where it is believed the thermal gradient favours precipitation and preservation of lithium minerals.

Interpretation of Core's detailed gravity survey Grants has shown gravity as a direct targeting tool for spodumene pegmatites at Finniss as well (Figure 2).

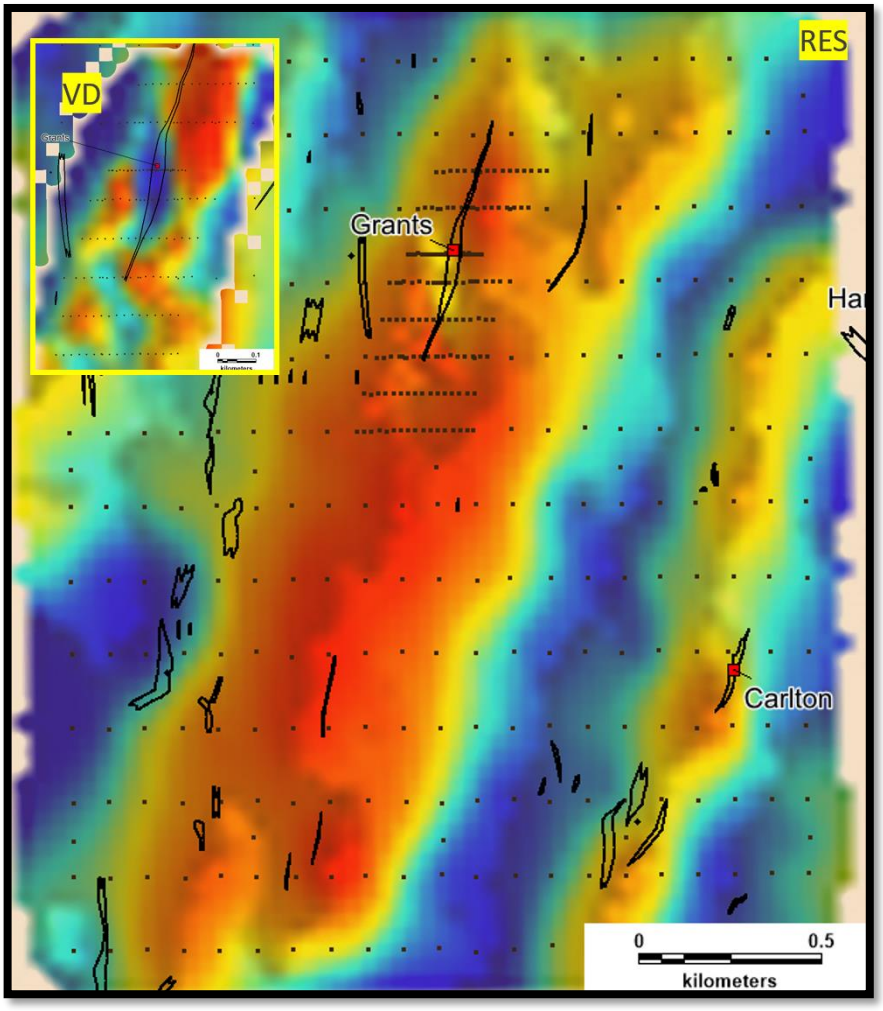

Figure 2. Detailed Residual and 1VD (inset) Gravity Images at Grants.

Core will commence follow-up detailed gravity surveys this quarter at Finniss over key target areas, which have the potential to directly identify pegmatite drill targets and focus Core's upcoming exploration and drilling campaigns and alongside the Company's major resource expansion drilling programs.

The Company is in the process of finalising drilling contracts and is planning to mobilise field crews in coming weeks ahead of commencing a huge exploration and resource push this year.

Managing Director Mr Stephen Biggins commented:

"This new gravity survey, cooperatively co-funded with the NT Government, has shown to be a real gamechanger for lithium exploration in the NT.

"The Finniss Gravity Survey has identified new key target areas and we planning follow-up gravity surveys alongside our huge lithium exploration and resource drilling push starting in May.

"In parallel with anticipated resource growth from the Project, Core is finalising key commercial and financial Project milestones to enable the Company to reach FID next Quarter."

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 projects on the ASX and places Core Lithium at the front of the line of new global lithium production.

The Project has Federal Government Major Project Status Finniss 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.

Finniss 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.

Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Dr David Rawlings (BSc(Hons)Geol, PhD) 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". Dr Rawlings consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. Core confirms that it is not aware of any new information or data that materially affects the previously released results included in this announcement.

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.*	• Daishsat Geodetic Surveyors successfully carried out a precision ground gravity survey in 2020 for Core Lithium Ltd with a total of 1,433 new gravity stations surveyed in the Finniss Project area. The Finniss Gravity Survey involved the ground collection of a 500x500m or 500x1000m grid of gravity stations through the majority of Core's landholding • Scintrex CG-5 Autograv gravity meters were used for gravity data acquisition and base station control. Leica GX1230 differential GNSS receivers were used for gravity station positional acquisition. Gravity and GNSS data were acquired using Daishsat ATV (DATV), walking and vehicle methods. 3 DATV's were onsite which allowed up to 3 gravity crews to operate simultaneously, and combining members where walking was required.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Not applicable as drilling was not undertaken.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and*	• Not applicable as drilling was not undertaken.

Criteria	JORC Code explanation	Commentary
	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.*	• Not applicable as drilling was not undertaken.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Not applicable as drilling was not undertaken.
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.*	• Not applicable as drilling was not undertaken.

Criteria	JORC Code explanation	Commentary
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.*	• Gravity observation accuracy (SD) 0.021 mGal
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.*	• Height observation accuracy (SD) 0.063 m
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• 500x500m or 500x1000m grid
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.*	• Not applicable as drilling was not undertaken.
Sample security	• *The measures taken to ensure sample security.*	• Not applicable as drilling was not undertaken.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Not applicable as drilling was not undertaken.

Section 2 Reporting of Exploration Results

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

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• The survey was conducted on EL29698, EL29699, EL30015, EL 31126, EL30012, EL 31127, EL 31271, EL31279 • There are no registered heritage sites covering the areas sampled. • All tenements are in good standing with the NT DME Titles Division.
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. • 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, but it was exhausted and closed down the following year after a total of 189 tons of concentrates had been won. • By 1909 activity was limited to Leviathan and Bells Mona mines in the area with little activity in the period 1907 to 1909. • Renewed activities in 1925 coincided with the granting of exclusive prospecting licences over an area of 26 square miles in the Bynoe Harbour – West Arm section but once again nothing eventuated. • 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.

Criteria	JORC Code explanation	Commentary
		• 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. • In 1996, Julia Corp drilled RC holes into representative pegmatites in the field, but like all of 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). • Core drilled BP33, Grants, Far West, Central, Ah Hoy and a number of other prospects in 2016. • After purchase of the Liontown tenements in 2017, Core drilled Lees, Booths, Carlton and Hang Gong. • In subsequent years approximately 50 prospects have been drilled to one degree or another by Core. • Core has now drilled several deposits to a detailed level, allowing them to be estimated as a Mineral Resource, and in some cases a Reserve. Core has completed a Definitive Feasibility Study (DFS) and obtained Government approvals to mine the Grants deposit and is currently seeking approvals for BP33. A revised DFS is underway.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• 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 and Cullen Batholith. 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. In more recent times, Core has re-mapped part of the southern area as South Alligator Group, based on geophysics and drilling data that suggests reduced

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		rocktypes. A concealed pluton has also been interpreted at Ringwood on the basis of geophysics, large pegmatites and a localised metamorphic aureole.

Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*
	  ○ *easting and northing of the drill hole collar*
	  ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar*
	  ○ *dip and azimuth of the hole*
	  ○ *down hole length and interception depth*
	  ○ *hole length.*
	• *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*
		• Not applicable as drilling was not undertaken.

Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Not applicable as drilling was not undertaken.
Relationship between mineralisation widths and	• *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*	• Not applicable as drilling was not undertaken.

Criteria	JORC Code explanation	Commentary
intercept lengths	*known').*	
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.*	• Not applicable as drilling was not undertaken.
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
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Follow-up gravity surveys, exploration and drilling programs