

19 July 2018
ASX CODE: CXO
Speculative Buy
Capital Structure

Sector	Mining
Share Price	A\$0.046
Fully Paid Ordinary Shares (m)	633.6
Performance Rights (m)	11.8
Options (ex 7.0c, exp 30/09/19) (m)	1.5
Options (ex 8.0c, exp 21/06/19) (m)	58.1
Market Capitalisation (undil) (m)	A\$29.1
Share Price Year High-Low	A\$0.105-0.034
Approx. Cash	A\$6.3m

Directors & Management

Greg English	Non-Executive Chairman
Stephen Biggins	Non-Executive Director
Heath Hellewell	Non-Executive Director
Blair Duncan	GM—Project Development
David Rawlings	Exploration Manager
Jarek Kopias	Chief Financial Officer

Major Shareholders

None disclosed

Analyst

Rob Brierley +61 8 6380 9200



Core Exploration Limited

High grade lithium developer

Core Exploration Limited (“CXO” or “the Company”) is rapidly progressing its flagship Finniss Lithium Project to a development decision by year-end, leveraging off the Project’s proximity to the Darwin Port and the relatively high-grade nature of the deposit. We think that the strategy makes good sense, as CXO is attempting to capture the lithium price opportunity that exists due to the burgeoning demand for chemical- or battery-grade lithium carbonate and/or hydroxide and the time lag before a meaningful supply response by major producers satisfies this demand.

Finniss Project PFS delivers robust outcomes

- Published results from a recently completed Pre-Feasibility Study (PFS) illustrate a financially robust, albeit small-scale and short-life, operation based solely on the Grants deposit. Based on an assumed average 5% spodumene concentrate price of US\$649/t FOB, a pre-tax Net Present Value (NPV) of \$140m, Internal Rate of Return of 142% and capital payback of slightly less than 12 months is calculated from the PFS on the currently defined 26-month life of mine.
- The capital expenditure estimate for project start-up of A\$53.5m is relatively low, with the major components being \$20.0m for the construction of a Dense Media Separation (DMS) Plant and \$24.4m for mining pre-strip. A previously executed Offtake Agreement and Prepayment Agreement with a wholly owned subsidiary of one of China’s largest lithium producers, Sichuan Yahua Industrial Group Co., Ltd (**Yahua**), provides for a US\$20 million prepayment to be used by CXO for the development of the Grants deposit and to be offset by future product deliveries. Given that the offtake is for only around 55-60% of planned production, CXO has the opportunity to enter into an additional offtake that will contribute a similar quantum of prepayment, which could be sufficient to fund a vast majority of the required initial capex.
- Operating cost estimates are reasonable at A\$372/t of concentrate (US\$279/t) including royalties, with the benefits of the Project’s proximity to Darwin (grid power, skilled residential labour pool, export shipping facilities) and the simple planned processing route of DMS-only, being partially offset by the high strip ratio of the planned mining operation (ca13.8).

Action and Recommendation

- RM Research** initiates coverage with a Speculative Buy recommendation. Currently, CXO trades at 4.6 cents per share, which implies a market capitalisation of \$29m and an Enterprise Value (EV) of ca.\$23m. Given that the Finniss Project initial development has a modest capital expenditure requirement, the Company has sufficient funds to complete the Definitive Feasibility Study and the PFS was based on what we believe are realistic product price assumptions, we believe that CXO should trade in a range of 25%-50% of the Net Present Value derived by the PFS. This implies a value of \$35m-69m, which is 50%-300% higher than the current EV. Our price target is set at 6.5 cents per share (which implies a market capitalisation of \$42m).
- Additional to the valuation upside of capturing an attractive price for lithium carbonate, CXO also has potential blue sky through the addition of ore feed from the nearby, highly promising BP33 deposit. BP33 is located only around 4km from Grants and is also a single 30-40m wide pegmatite ore body with similar mineralogy and grade profile to Grants. Our analysis suggests that BP33 could add a further 24 months of mine-life and lift the project NPV by a further ca.\$100m.

PFS was centred entirely on the Grants deposit

PFS suggests payback of <12 months and open pit optimisations suggest 84% of ore mined is from Indicated Resource

The Finnis Project is slated for a 1Mtpa of ore operation producing a 5% spodumene concentrate using Dense Media Separation processing

FINNISS PROJECT PRE-FEASIBILITY STUDY (PFS)

Results from the PFS were published on 25 June 2018. The study looked at an initial development of the Finnis Project near Darwin in the Northern Territory centred entirely on the Grants Deposit.

The Grants Deposit occurs within the area of Mining Licence ML(A) 31726 (the Project area). The ML(A) covers 750 Ha (7.5 km²), within which 117 Ha will be disturbed for development and operation of the mine. The Project area is located entirely on and surrounded by undeveloped vacant Crown land, which is currently only used for mining exploration.

Mineral Resource Estimate for the Grants Deposit - 4 May 2018 – 0.75% Li ₂ O cut-off				
	Oxidation	Tonnes	Li ₂ O %	Li ₂ O Contained Metal (t)
Inferred	Fresh	900,000	1.4	13,000
Indicated	Fresh	1,130,000	1.5	17,000
Total		2,030,000	1.5	30,000

Figure 1: Grants Deposit Mineral Resource Estimate (Source: Core Exploration)

Whittle open pit optimisation runs were conducted using the total mineral resource at Grants, which included the Inferred Material. The project has a payback period of less than 12 month and, in that timeframe, less than 16% of the material contributing to the schedule is Inferred Resource material.

The optimisation runs were used to develop a two-stage open pit design. The stage statistics are contained in Figure 2 below:

Pit	Inferred			Indicated			
	Waste bcm	Ore bcm	Ore t	% Li ₂ O %	Ore bcm	Ore t	% Li ₂ O %
Stage 1	2,762,547	8,383	23,137	1.451	164,649	454,430	1.519
			5%			95%	
Stage 2	6,158,215	231,534	639,026	1.428	239,742	661,687	1.501
			49%			51%	
Total	8,920,762	239,917	662,163	1.429	404,391	1,116,117	1.509
			37%			63%	

Figure 2: Two-stage Pit Optimisation on the Grants Deposit (Source: Core Exploration)

Planned Configuration of Operations

The Grants Project is to be a spodumene concentrate operation, initially scaled at 1Mtpa of plant throughput.

The mined ore is taken to the ROM stockpile where it is crushed and screened to produce a 6.3 mm product. This product is wet screened to remove 'fines' which are thickened and sent to the Tailings Storage Facility (TSF).

DMS-only processing means no chemicals used and inert product and waste streams

Product to be trucked just 88km to world-class Darwin

Capex estimate is \$53.5m including \$3.8m of contingency and \$24.4m of mining pre-strip

The remaining material following removal of fines is the feed stock for the DMS circuit. The DMS processing involves taking the crushed ore and separating the material into two streams using a water-based circuit and specific gravity of approximately 2.7 to achieve separation. The “sinks” are the beneficiated product containing concentrated lithium oxide (Li₂O) which is stockpiled and sent to Darwin Port for shipment. The “floats” from the DMS are earmarked to be sent to a rejects stockpile for potential future flotation processing.

The tailings produced from the planned DMS processing operation are likely to be a mix of fine-grained solids extracted during feed stock preparation and water used in the recovery process. One of the key benefits of the DMS-only processing route is that there are no chemicals used in the preparation of the feed stock and thus both the product and waste streams are chemically and biologically inert.

The DMS product will be loaded into road trains for transport to the East Arm Wharf area of the Darwin Port. The proposed trucking route will be along existing public roads for a total travel distance of around 88km.

Each road train is planned to have a 95-tonne capacity. It is estimated that ten road train movements per day will be required to meet nameplate production, which we consider to be far from disruptive to current traffic flows.

Capital Cost Estimate

The capital costs to establish a DMS operation at Grants derived from the PFS are outlined below:

Capital	Estimate – A\$	Comparative Quality Level
Mobilisation	\$ 1,943,039	Referenced
Site Establishment	\$ 562,350	Referenced
Groundwater Management	\$ 55,200	Referenced
Mine Development (Clear & grub)	\$ 996,418	Referenced
Demobilisation	\$ 947,999	Referenced
Rehabilitation	\$ 584,200	Referenced
DMS Plant	\$ 20,045,938	Factorised, single price check
TSF	\$ 1,725,000	Approximated
Sustaining Capital	\$ 2,300,000	Approximated
Pre-production Capital	\$ 24,389,708	Referenced
Total (including contingencies of \$3.8 million)	\$ 53,549,851	

Figure 3: Capital Cost Estimate for Finniss Project (Source: Core Exploration PFS)

The capital costs are derived from multiple contractor database sources. A 15% contingency factor was applied to all capital cost items other than pre-production capital (being the pre-strip mining). The pre-production capital costs represent the activity costs up until the month prior to first revenue.

Operating costs are comprised of 56% mining, 19% processing, 17% royalties and 5% port and road haulage.

Operating cost estimates suggest healthy operating margins of ca.57%.

5% spodumene concentrate price deck illustrates price moderation as new supply comes on stream.

RM Research model correlates well with CXO model.

Our NPV is calculated at \$138.1m.

Our price target is 6.5 cents, which is equivalent to a market cap of \$42m.

Operating Cost Estimate

The estimated operating costs for a DMS operation at Grants were derived from multiple service provider database sources and are outlined below:

Operating	Unit Costs	Comparative Quality Level
Mining Costs		
Mining Costs - Contractor	\$ 186.17	Estimated
Mining Costs - Owner	\$ 22.53	Preliminary
Sub-total	\$ 208.70	
Processing	\$ 71.19	Factorised
Hauling	\$ 11.47	Estimated
General & Administration	\$ 8.00	Estimated
Port Costs	\$ 7.50	Known
Total Unit Operating Cost	A\$ 306.86 / t conc. US\$ 230.15 / t conc.	
Royalties	A\$ 64.86	Estimated
Total Unit Operating Costs (inc Royalties)	A\$ 371.72 / t conc. US\$ 278.79 / t conc.	
Operating Margin		
At US\$649/t sale price	A\$ 493.02 / t conc. US\$ 369.77 / t conc.	
	57.0%	
At US\$895/t sale price	A\$ 796.97 / t conc. US\$ 597.73 / t conc.	
	66.8%	

Figure 4: Operating cost estimates from Grants (Source: Core Exploration PFS)

Valuation

We have built our own financial model using the inputs from the PFS and the same price deck for 5% spodumene concentrate as used by CXO and outlined below:

	H1CY19	H2CY19	H1CY20	H2CY20	H1CY21	H2CY21	H1CY22	H2CY22	H1CY23	H2CY23
Assumed FX rate (A\$:US\$)	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75	0.75
Price (US\$/t of 5% conc, FOB)	740	740	658	658	630	630	571	571	600	600

We have calculated an NPV of \$138.1m, slightly less than the \$140m published in the PFS. We have attributed this minor discrepancy to timing and rounding differences. We have captured the mining pre-strip in the line item in figure 5 titled "Mining" rather than "Capex".

	H1CY19	H2CY19	H1CY20	H2CY20	H1CY21	H2CY21	H1CY22	TOTALS
Revenue (A\$m)	0.00	14.80	97.38	97.38	93.24	43.73		346.54
Royalty	0.00	0.00	-1.11	-7.30	-7.30	-6.99	-3.28	-25.99
Mining	-13.76	-28.44	-26.83	-11.74	-2.72	0.00		-83.49
Processing	0.00	-1.36	-8.00	-8.16	-8.16	-2.77		-28.45
Haulage	0.00	-0.17	-1.27	-1.27	-1.27	-0.60		-4.59
G & A	0.00	-0.75	-0.75	-0.75	-0.75	-0.20		-3.20
Port	0.00	-0.11	-0.83	-0.83	-0.83	-0.39		-3.00
Operating Margin	-13.76	-16.04	58.59	67.33	72.20	32.79	-3.28	197.82
Capex	-8.55	-12.97	-4.5	-0.7	-0.7	-1.15	-0.58	-29.15
Operating Cashflow (pretax)	-22.31	-29.01	54.09	66.63	71.50	31.64	-3.86	
Net Present Value	\$138.08							
Cumulative Cashflow	-22.31	-51.32	2.77	69.40	140.90	172.53	168.67	

Figure 5: Finnis Project Financial Model based on PFS outcomes (Source: RM Research)

Currently, CXO trades at 4.6 cents per share, which implies a market capitalisation of \$29m and an Enterprise Value (EV) of \$23m. Given that the Finnis Project initial development has a modest capital expenditure requirement, the Company has sufficient funds to complete the Definitive Feasibility Study and the PFS was based on what we consider as realistic product price assumptions, we believe that CXO should trade in a range of 25%-50% of the PFS net present value. This implies a value of \$35-69m, which is 50-300% higher than the current EV. Our price target is set at 6.5 cents per share (which implies a market capitalisation of \$42m).

The NT EPA decision means that CXO must lodge a full NOI including an EIS and an advanced closure plan.

Planned timeline for grant of all Project permits and approvals is 10 months targeting April 2019.

CXO has already entered into a binding offtake agreement with one of China's largest lithium producers.

Approvals & Project Timeline

A critical timeline for Project implementation is Environmental approvals/permitting. In May 2018, the Northern Territory Environmental Protection Authority (NTEPA) decided that a full Project Notice of Intent (NOI) was required including an Environmental Impact Statement (EIS) with an advanced closure plan.

The NT EPA has identified the following five environmental factors that may be impacted by the Proposal that need to be addressed in the EIS:

1. Terrestrial flora and fauna.
2. Terrestrial environmental quality.
3. Hydrological processes.
4. Inland water environmental quality.
5. Social, economic and cultural surroundings.

The approvals process for the Project involves progressing through two Northern Territory government departments: The NT Environment Protection Authority and the NT Department of Primary Industry and Resources. The interaction between the two departments will be critical in CXO obtaining the necessary approvals on the schedule outlined in Figure 6 below:

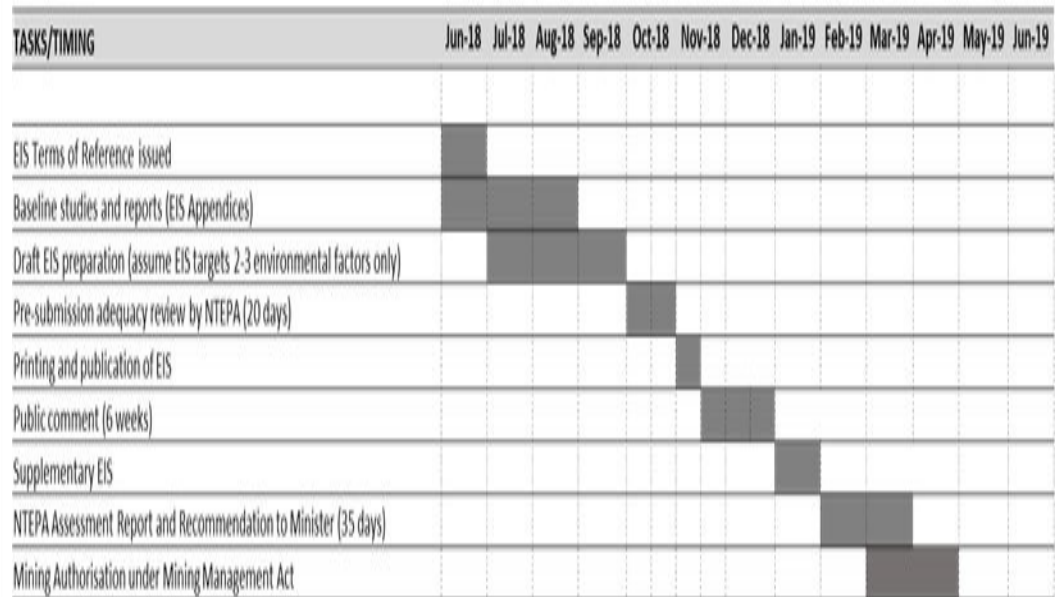


Figure 6: Timeline for Obtaining Statutory Project Approvals (Source: Core Exploration)

Offtake and Prepayment Agreement

Sichuan Yahua Industrial Group Co., Ltd. is one of China's largest lithium producers.

In December 2017, CXO signed a Binding Offtake Agreement and Prepayment Agreement with Yahua International Investment and Development Co. Ltd, a wholly owned subsidiary of Shenzhen stock exchange listed Sichuan Yahua Industrial Group Co., Ltd (Yahua).

The Offtake Agreement is for the supply of 1 million dry metric tonnes of direct shipping lithium ore ("DSO") or concentrate equivalent from the Mineral Lease that contains the Grants Deposit and EL 29698 (which contains the existing Inferred Resource hosted by the BP33 Deposit).

Offtake agreement with Yahua also includes first right of refusal for additional product offtake.....

.....Yahua can provide a US\$20m prepayment to assist with funding initial project capex.

The Finniss Project is located very near to Darwin in a well identified spodumene pegmatite field.

Pegmatites in the area are classified as LCT-type.

Surface exploration is difficult due to a deep weathering profile

The Offtake Agreement provides for attractive pricing linked to the market for 6% lithium concentrate price and subject to a price floor and ceiling. It is expected that the Offtake Agreement will account for a large proportion (we estimate 55-60%) of Grants production over the life of mine, underpinning the Project's production profile.

The Offtake Agreement also includes Yahua having a first right of refusal over DSO offtake produced from Grants and surrounding EL 29698 up to the greater of 500,000 tonnes of DSO or 25% of the forecast production for any calendar year.

Pursuant to the Prepayment Agreement that has been executed with Yahua, subject to the satisfaction of various conditions precedent, Yahua has agreed to provide a US\$20 million prepayment to be used by CXO for the development of Grants. The prepayment will be offset through the delivery of either DSO or Li₂O concentrate production from the Finniss Lithium Project.

The Company has commenced discussions with companies based in China, US, Europe, Korea and Japan for further offtake arrangements. CXO is working on a plan to fund a large component of the capital cost through the application of prepayments, debt financing and equity with potential offtake partners. This strategy should play out in parallel with the Feasibility Study.

Geology

The Grants Lithium Resource defined comprises 2.03Mt at 1.5% Li₂O and is one of the highest grade spodumene resources in Australia. Grants is located within CXO's large ground holding over one of Australia's significant spodumene pegmatite fields near Darwin in the Northern Territory.

There are several historic tin/tantalum pegmatite mine sites in the surrounding area near Grants; the closest sites are located 1.5 km to the west and south-west of the project area. These sites have visible ground disturbance and pit lakes.

The pegmatites in the region are classified as LCT (Lithium-Caesium-Tantalum) type and are believed to have been derived from the Two Sisters Granite, which outcrops to the west and are predominantly hosted within the early Proterozoic metasedimentary lithologies of the Burrell Creek Formation. The region is also covered by thin areas of laterite and is subject to deep weathering, thus making surface exploration difficult. This extensive depth of weathering leads to high strip ratios but when fresh pegmatite is intersected the transition is very sharp and the hangwall and footwall contacts are well defined.

Fresh pegmatite at Grants is composed of coarse spodumene, quartz, albite, microcline and muscovite (in decreasing order of abundance). Spodumene, a lithium bearing pyroxene (LiAl(SiO₃)₂), is the predominant lithium bearing phase and displays a diagnostic red-pink UV fluorescence. The pegmatite is not strongly zoned, apart from a thin (1-2m) quartz-mica-albite wall facies. Overall, the lithium content throughout the pegmatite is remarkably consistent.

Initial metallurgical test work on samples from the Grants Deposit suggests that a coarse spodumene concentrate can be produced by DMS

Crush size to produce a marketable product is 100% passing 6.3mm.

The PFS considered production of a 5% concentrate from a single stage DMS.

Feasibility study work will look at optimising concentrate grade and overall recovery.

Metallurgy

An initial metallurgical test work program for Grants occurred in 2017 and a full metallurgical test work program supporting the Feasibility Study is currently underway. Results of the test work conducted thus far, point to the following flowsheet being used:

- Feed preparation by conventional tertiary crushing circuit followed by fines removal.
- Coarse spodumene concentrate generated by Dense Medium Separation (DMS) with middlings stream stockpiled for possible future recovery through other methods such as flotation.
- The low mica content of the spodumene ore at Grants (<2%), means that the use of a reflux classifier to remove mica has limited benefit. Further assessment will continue in the Feasibility Study test work program.
- Thickening of tailings for disposal.

The test work has shown that grinding of fines and DMS middlings stream and recovery of contained spodumene by froth flotation is feasible however the cost of the flotation infrastructure is not justified by the current short mine life based on the mining of the Grants deposit alone. This material is to be stockpiled and is considered a future scale opportunity.

Mineralogical investigations indicated that the crush size required to produce a concentrate of between 5.0% & 6.0% Li₂O is approximately 100% minus 6.3mm.

Metallurgical testwork shows that CXO can produce high quality spodumene concentrates up to 6% Li₂O with acceptable recoveries through a simple DMS processing circuit. This is a significant benefit, particularly given the high capex requirements of a large flotation circuit as required to process many spodumene ores in Western Australia.

Grants	2018		2018		2017	
	DMS with RC		HLS		HLS	
	-6.3mm +0.3mm		-6.3mm +0.5mm		-6.3mm +0.5mm	
	Concentrate Grade	Overall Recovery	Concentrate Grade	Overall Recovery	Concentrate Grade	Overall Recovery
	% Li ₂ O	%	% Li ₂ O	%	% Li ₂ O	%
Test work Results	4.9%	77.54%	4.86%	81.64%	4.70%	77.80%
Interpolated Results						
Target Grade	5.0%	76.06%				
Target Grade	5.5%	64.55%				

Figure 7: Summary of Dense Media Separation test work on Grants deposit material (Source: Core Exploration)

The East Arm Wharf at Darwin Port is an established facility with bulk product export capacity.

CXO has already entered into a Heads of Agreement with the Darwin Port.

Darwin Port is the nearest Australian port to key customers in China.

Darwin Port

The East Arm Wharf (Darwin Port or “EAW”) is a multi-user facility with 4 berths spaced along 865 metres of quay line. Berths 1 and 3 are primarily used for general cargo, containers, motor vehicles and livestock.

Berth 2 is used for bulk ore exports and has a rail mounted dry bulk ship loader. Dry bulk imports, such as slag and gypsum, can be handled at any EAW berth. Berth 4 is primarily used for bulk liquids and has a dedicated bulk liquids transfer facility.

A stockpile lease agreement is to be negotiated with the Darwin Port after the Company established a Heads of Agreement (**HOA**) with the Darwin Port in March 2017. The lease will house all the projects concentrate management infrastructure. Cargo handling activities are undertaken by either of the two existing stevedore service providers.

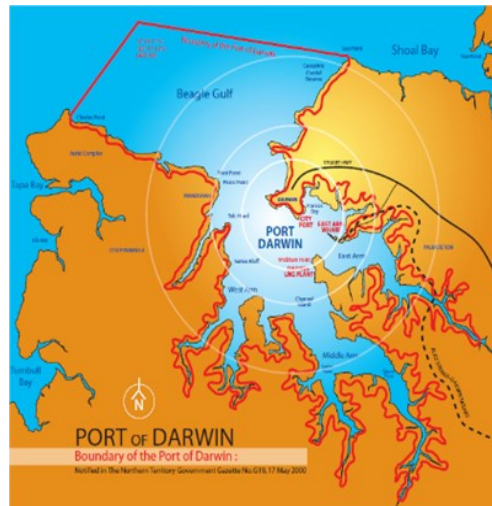


Figure 8: Boundary of the Port of Darwin (Source: Core Exploration)



Figure 9: Proximity of Darwin to major trading ports (Source: Core Exploration)



Figure 10: Aerial view of East Arm Wharf facility at Darwin Port (Source: Core Exploration)

CXO has a prospective exploration package adjacent to Grants with the most advanced being the BP33 Deposit.

The BP33 Deposit is open to the south adjacent to a 75m wide intercept grading 1.68% Li₂O.

BP33 displays similar geological and metallurgical

Upside Potential

The biggest potential upside, other than from lithium concentrate price leverage, is an increase in mine life of the Finniss Project. The most advanced deposit is BP33, which is located some 4km from Grants. A Maiden Mineral Resource estimate for the BP33 Lithium Deposit was published in May 2018 (Figure 11):

Mineral Resource Estimate - BP33 Deposit			
Resource Category	Tonnes	Li ₂ O %	Contained Li ₂ O (t)
Inferred	1,420,000	1.4	20,000
Total	1,420,000	1.4	20,000

Figure 11: Mineral Resource Estimate for BP33 Lithium Deposit (0.75% Li₂O Cut-off)

The potential to expand the BP33 Mineral Resource is considered high as the resource is open to the south and south-west in a 300m long target area between pegmatites identified at surface at BP32 Prospect and BP32W Prospect. The existing resource currently extends only 20m south of the most recent drill intersection of 75m @ 1.68% Li₂O. CXO is currently conducting additional resource drilling focussed on increasing the scale and confidence level of BP33.

The BP33 JORC Report notes that fresh pegmatite at BP33 is similar in character and grade to Grants and is also composed of coarse spodumene, quartz, albite, microcline and muscovite (in decreasing abundance).

BP33 is a single, 30-40m wide pegmatite ore body that has a flat grade-tonnage curve (just like Grants) at a 1.4%-1.5% Li₂O grade. As with Grants, a high 0.75% Li₂O cut-off grade results in no significant reduction in the contained tonnes, demonstrating the consistent high-grade nature of the Mineral Resource.

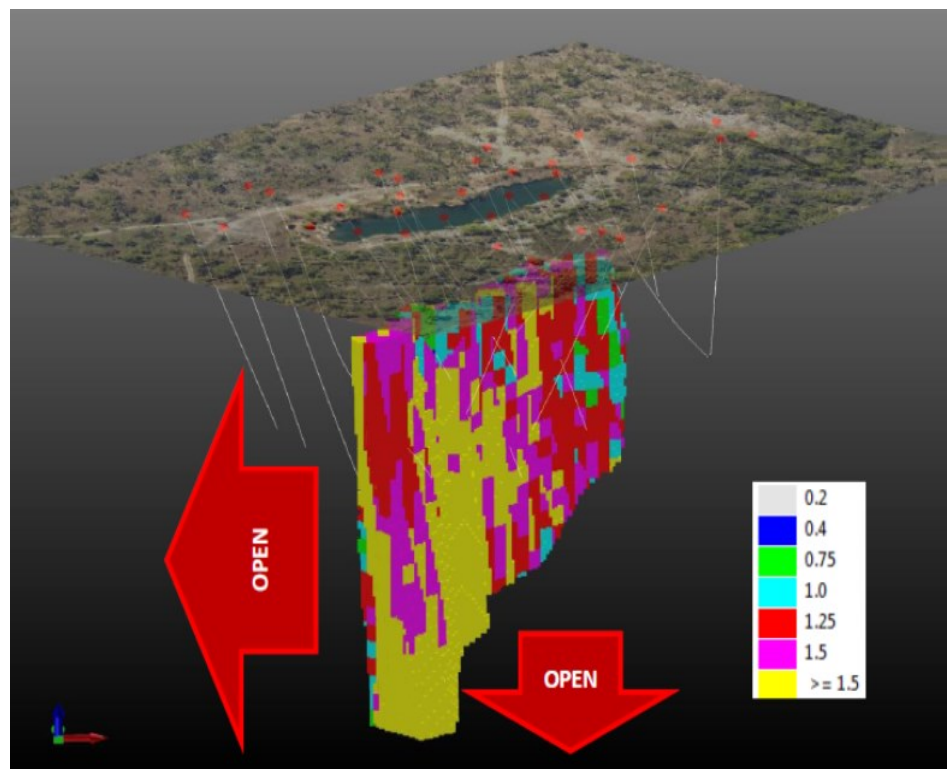


Figure 12: Lithium Grade (% Li₂O) of BP33 Resource, Finniss Lithium Project

Similarity between Grants and BP33 should mean consistent processing and metallurgical performance

We believe that mine life could extend from 26 to 50 months if BP33 proves up as expected....

...and this could add ca.\$100m to the Project NPV.

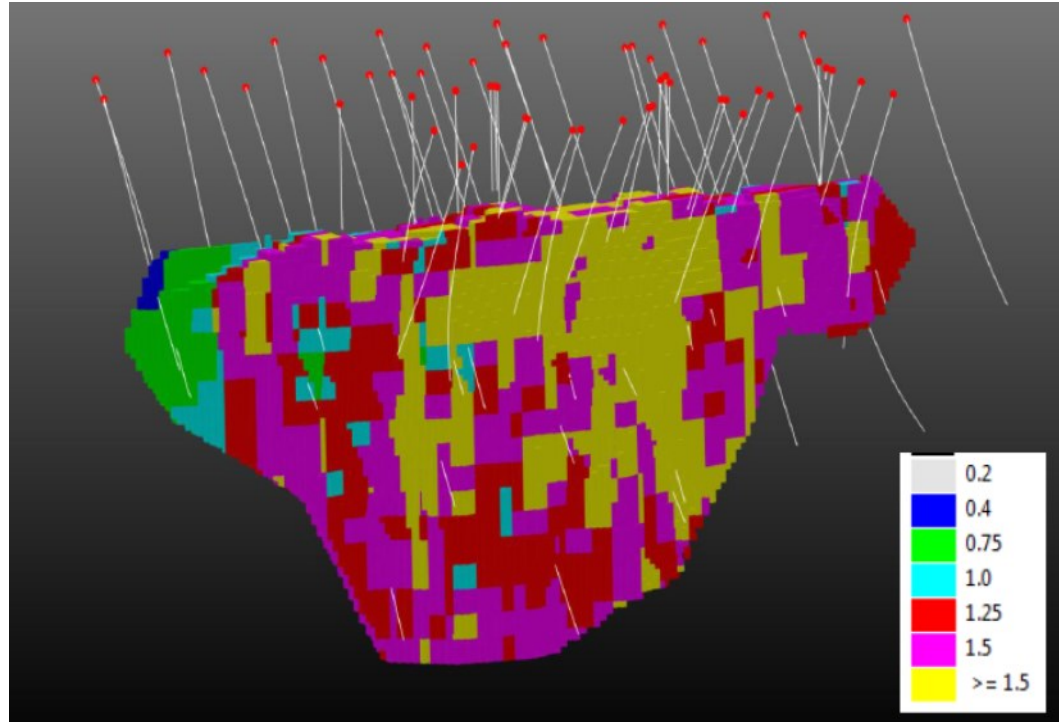


Figure 13: Lithium Grade (% Li₂O) of Grants Resource, Finniss Lithium Project
(Source: Core Exploration)

The overwhelming similarity in geological, mineralogical and chemical characteristics between Grants and BP33 suggest that both these orebodies have the potential to be processed successfully through the same DMS processing facility.

Therefore, the potential development of BP33 should not require additional plant and equipment capex to produce concentrate like Grants.

We have run a scenario in our financial model, where the mine life is extended by 24 months to 50 months. Despite assuming a slightly lower ore grade (1.40% versus 1.48% Li₂O) and a further reduction in life-of-mine average lithium concentrate price from US\$649 to US\$620/t, the project NPV is boosted by 77% to A\$243m, thereby adding \$105m of value.

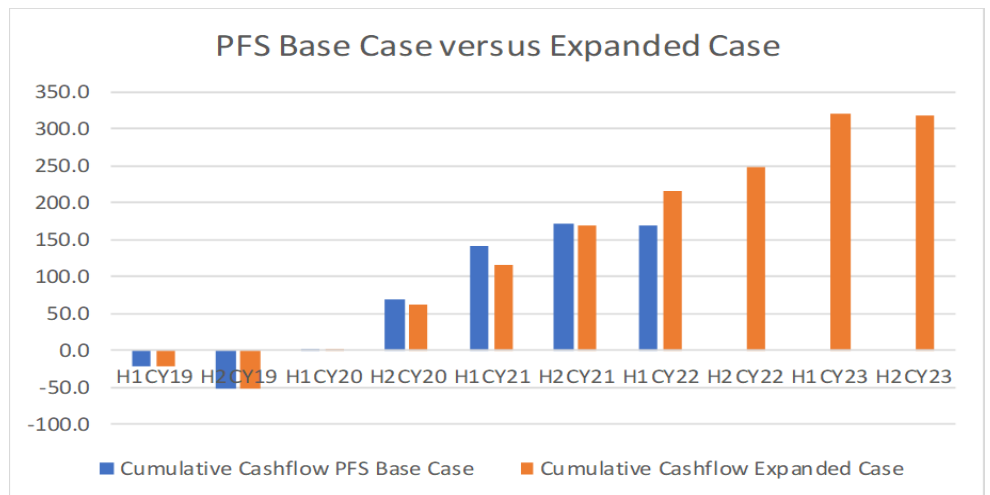


Figure 14: Cumulative Cashflow for BFS Base Case and RMR Expanded Case Scenario
(Source: RM Research)

40km of drilling planned for the remainder of 2018 and into 2019.

CXO's closest peers are Altura Mining and Tawana Resources.

CXO's PFS results compare well with those from Bald Hill and Pilgangoora Stage 2.

The Grants Deposit is amenable to extraction at a cost that favourably compares with its peer group.

CXO is planning to drill test the many prospective pegmatites on its 500km² of granted tenure within the Finniss Project with over 40,000m of drilling (DD/RC/RAB) planned during 2018 and into 2019. We believe that a target total Resource of 7Mt is achievable within a 12-18 month timeframe, which may be sufficient to extend mine life to ca. 6 years.

Peer Comparison

We have looked at a number of similar operations and compared capex and opex parameters. We believe there is a close comparison between CXO's Finniss Project and the Bald Hill Project owned 50% by Tawana Resources (TAW). We have also compared the results from the Pilgangoora Stage 2 feasibility results recently published by Altura Mining (AJM).

Company/Project	CXO (Grants)	TAW (Bald Hill)	AJM (Pilg Stage 2)
Date of Study	25-Jun-18	11-Jul-17	30-Apr-18
Type of Study	PFS	PFS	DFS
Life of mine (months)	26	43	156
Strip ratio (w:o)	13.8	9.0	3.0
Plant Feed Rate (Mtpa)	1.00	1.20	1.54
Average grade (% Li ₂ O)	1.48	1.18	1.04
Average recovery (%)	76.1	65.8	80.0
Targeted spodumene concentrate grade (% Li ₂ O)	5	6	6
Processing Plant Capex (\$m)	20.0	27.0	95.8
Additional Capex (\$m)	33.5	37.3	23.1
LOM Opex exc royalties (A\$/t of conc, FOB)	307	641	324
LOM Opex after byproduct credits	307	508	324
Mining Costs (A\$/t of conc)	209	374	115
Processing costs (A\$/t of conc)	71	110	130
Haulage & Port (A\$/t of conc)	19	51	37

Figure 15: Comparison of select Project key parameters
(Source: RM Research, Core Exploration, Altura Mining, Tawana Resources)

We make the following observations:

1. CXO is targeting increased mine life through BP33 exploration/development
2. Grants orebody is steeply dipping and under cover meaning high strip ratio
3. Grants ore grade is relatively high
4. Grants targeted conc. grade is lower, hence higher assumed recovery than Bald Hill
5. Pilgangoora processing includes flotation circuit and is therefore more capital intensive
6. Grants has the lowest LOM operating costs due predominantly to its low haulage and port costs and competitive unit processing costs because of the simple DMS-only route, offset by high mining costs because of high strip ratio. (Note that Bald Hill mining and processing costs are before by-product credits.)

AJM and TAW trade at market values significantly higher than CXO.

From a company valuation perspective, both AJM and TAW are in production and thus deserve a healthy premium to CXO. This is due to the fact that both companies have sunk significant capex and are also enjoying the prevailing spodumene concentrate prices which are perceived by most to be elevated. Note that TAW currently owns 50% of Bald Hill and is in the process of merging with Alliance Mineral Assets, the owner of the remaining interest in the project.

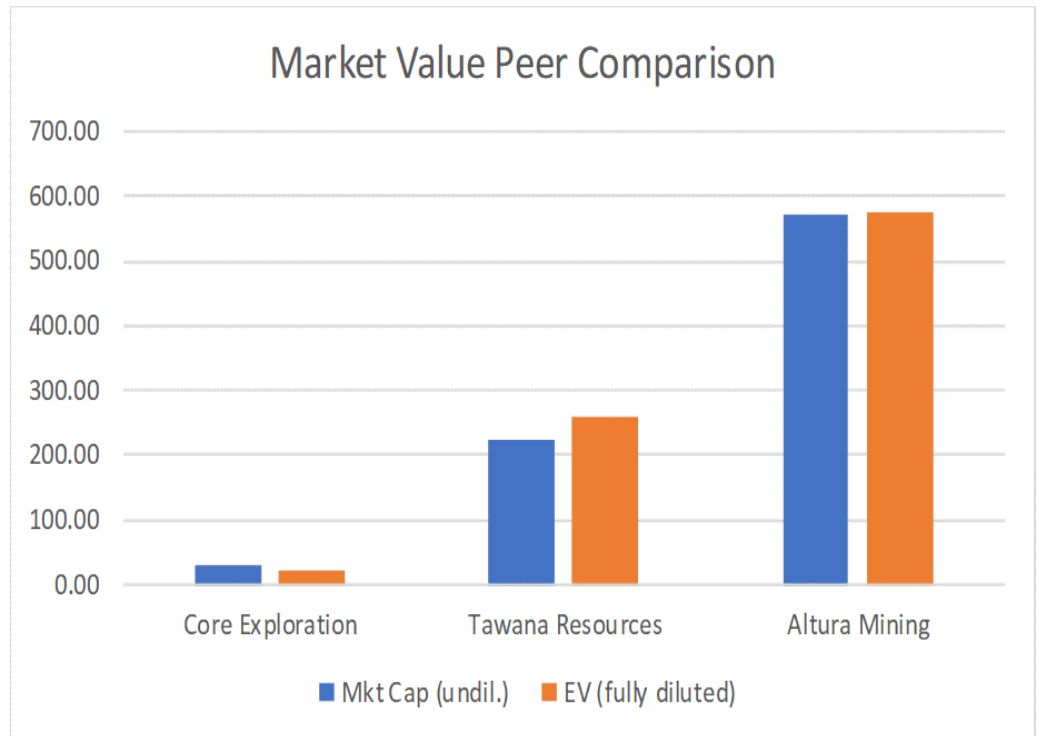


Figure 16: Comparison of Market Capitalisations and estimated Enterprise Values of Core Exploration and selected peers (Source: ASX lodgements from Core Exploration, Altura Mining and Tawana Resources; RM Research)

Board of Directors and Executive Team

STEPHEN BIGGINS

Managing Director (appointed 10 September 2010)

MBA, BSc (Hons) Geol, MAusIMM

Stephen has 25 years' experience as a geologist and as an executive in both the mining industry in Australia and internationally. He has applied his Honours Degree in Geology and MBA as the founding Managing Director of several ASX-listed companies.

Stephen led the Company to the acquisition, discovery and definition of the first lithium Resources in the Northern Territory at the Finniss Project, which contain some of the highest-grade lithium deposits in Australia.

Stephen previously served as founding director of Southern Gold (ASX: SAU) from 2005 to 2010 and led the acquisition and discovery of the Cannon Gold Mine in Western Australia, which is currently in production. Stephen was also a founding Director of Investigator Resources Ltd (ASX: IVR) which has discovered a high-grade Paris Silver Resource in South Australia on its founding projects.

Managing Director, Stephen Biggins, is well credentialed.

Chairman, Greg English, is an experienced mining engineer and lawyer

GREG ENGLISH

Non-Executive Chairman (appointed 10 September 2010)

B.E. (Hons) Mining, LLB

Greg is a qualified mining engineer and lawyer with over 20 years' experience in multi-commodity projects throughout Australasia. Greg is a partner of Piper Alderman Lawyers and specialises in mining, commercial and securities law. He is also a qualified mining engineer, with experience on a wide variety of mining projects. Greg is also a director of ASX-listed companies Archer Exploration and Leigh Creek Energy.

Greg's experience in the mining industry, particularly in capital raising, tenement acquisition, project management and business development, and his industry knowledge and business relationships, enables Core to manage and develop its existing tenement portfolio and to identify and secure other high-quality exploration assets.

HEATH HELLEWELL

Non-Executive Director (appointed 15 September 2014)

BSc (Hons) MAIG

Heath is an exploration geologist with over 20 years of experience in gold, base metals and diamond exploration predominantly in Australia and West Africa.

Heath has previously held senior exploration positions with a number of successful mining and exploration groups including DeBeers Australia and Resolute Mining. Heath joined Independence Group in 2000 prior to the Company's IPO and was part of the team that identified and acquired the Tropicana project area, eventually leading to the discovery of the Tropicana and Havana gold deposits.

More recently, Heath was the co-founding Executive Director of Doray Minerals, where he was responsible for the Company's exploration and new business activities. Following the discovery of the Andy Well gold deposits, Doray Minerals was named "Gold Explorer of the Year" in 2011 by The Gold Mining Journal and in 2014 Heath was the co-winner of the prestigious "Prospector of the Year" award, presented by the Association of Mining and Exploration Companies.

BLAIR DUNCAN

General Manager – Project Development (appointed 14 August 2017)

Bachelor of Engineering (Mining), MBA

Blair is a degree-qualified mining engineer which he earned from the University of Wollongong and has a Master of Business Administration earned from Charles Sturt University.

Blair's extensive mining background has been gained in the commodities of coal, gold, copper, nickel, vanadium, iron ore and lithium.

He has held senior operations management and executive C-suite roles with significant business unit responsibility in open pit and underground mines, gold CIL /CIP processing plants, nickel concentrators, heap leach operations, copper SXEW cathode production facilities and Iron ore developments.

Blair has successfully managed a number of significant greenfield and brownfield developments during his career. His Australian mining experience has included significant time spent in NSW, WA, NT and SA. His international mining experience has included extensive mining business travel throughout Brazil, North America and China.

As General Manager—Project Development, Blair Duncan will be a key member in the team that will look to bring Finnis into production.

Experienced exploration manager with vast NT experience.

DAVID RAWLINGS

Exploration Manager (appointed 21 March 2016)

BSc Hons, PhD

David has significant experience in regional synthesis and resource assessment emanating from regional mapping for the Northern Territory Geological Survey, focused on the greater McArthur Basin. He has also had ten years of experience leading exploration and resource discovery/definition in both hard-rock and soft-rock uranium systems in central and northern Australia, having worked for Cameco and Toro Energy. In more recent times, David has worked as a consultant to a myriad of companies, covering a diversity of commodities, even unconventional oil and gas. He has acted as Core's Exploration Manager since early 2016, leading to the discovery of lithium in the Bynoe pegmatite field and defining prospects and resources at the Finniss Project.

JAREK KOPIAS

Chief Financial Officer (appointed 21 June 2011)

BCom, CPA, AGIA, ACIS

Jarek is a qualified Certified Practising Accountant who has worked extensively in the resources sector in various corporate and mine site roles. He holds a Bachelor of Commerce Degree, is a chartered secretary and a member of the Institute of Certified Practising Accountants in Australia.

Registered Offices

Perth

Level 1, 1205 Hay St
West Perth WA 6005

PO Box 154
West Perth WA 6872

Email / Website

info@rmresearch.com.au
www.rmresearch.com.au

Phone: +61 8 6380 9200

Fax: +61 8 6380 9299

RM Research Recommendation Categories

Care has been taken to define the level of risk to return associated with a particular company. Our recommendation ranking system is as follows:

Buy	Companies with 'Buy' recommendations have been cash flow positive for some time and have a moderate to low risk profile. We expect these to outperform the broader market.
Speculative Buy	We forecast strong earnings growth or value creation that may achieve a return well above that of the broader market. These companies also carry a higher than normal level of risk.
Hold	A sound well managed company that may achieve market performance or less, perhaps due to an overvalued share price, broader sector issues, or internal challenges.
Sell	Risk is high and upside low or very difficult to determine. We expect a strong underperformance relative to the market and see better opportunities elsewhere.

Disclaimer / Disclosure

This report was produced by RM Research Pty Ltd, which is a Corporate Authorised Representative (343456) of RM Capital Pty Ltd (Licence no. 221938). RM Research Pty Ltd has made every effort to ensure that the information and material contained in this report is accurate and correct and has been obtained from reliable sources. However, no representation is made about the accuracy or completeness of the information and material and it should not be relied upon as a substitute for the exercise of independent judgment. Except to the extent required by law, RM Research Pty Ltd does not accept any liability, including negligence, for any loss or damage arising from the use of, or reliance on, the material contained in this report. This report is for information purposes only and is not intended as an offer or solicitation with respect to the sale or purchase of any securities. The securities recommended by RM Research carry no guarantee with respect to return of capital or the market value of those securities. There are general risks associated with any investment in securities. Investors should be aware that these risks might result in loss of income and capital invested. Neither RM Research nor any of its associates guarantees the repayment of capital.

WARNING: This report is intended to provide general financial product advice only. It has been prepared without having regarded to or taking into account any particular investor's objectives, financial situation and/or needs. Accordingly, no recipients should rely on any recommendation (whether express or implied) contained in this document without obtaining specific advice from their advisers. All investors should therefore consider the appropriateness of the advice, in light of their own objectives, financial situation and/or needs, before acting on the advice. Where applicable, investors should obtain a copy of and consider the product disclosure statement for that product (if any) before making any decision.

DISCLOSURE: RM Research Pty Ltd and/or its directors, associates, employees or representatives may not effect a transaction upon its or their own account in the investments referred to in this report or any related investment until the expiry of 24 hours after the report has been published. Additionally, RM Research Pty Ltd may have, within the previous twelve months, provided advice or financial services to the companies mentioned in this report. As at the date of this report, the directors, associates, employees, representatives or Authorised Representatives of RM Research Pty Ltd and RM Capital Pty Ltd may hold shares in this Company.