



25th June 2018

Finniss Pre-Feasibility Study Points to Low-Cost Lithium Operation Generating Significant Surplus Cashflow

Highlights

- Initial development of Grants lithium deposit generates NPV₁₀ of A\$140 million (pre-tax) with an IRR (pre-tax) of 142% at average LOM concentrate price of US\$649/t (FOB) over LOM;
- NPV₁₀ increases to A\$246 million (pre-tax) and IRR (pre-tax) increases to 202% using US\$895/t (FOB) concentrate price (current spot price);
- Project generates A\$346 million in revenue and over A\$168 million in free cashflow (pre-tax), driving rapid payback period of less than 12 months;
- Initial operational mine life of 26 months, producing a high-quality spodumene concentrate of 5.0% Li₂O;
- 1Mtpa DMS processing plant, producing 225,000tpa¹ concentrate grading 5.0% Li₂O at nameplate capacity;
- Low capital cost of A\$53.5 million (including contingencies of 15%);
- Operating costs of less than US\$279/t concentrate (A\$372/t), including royalties, generates a robust operating margin of more than US\$370/t on low case pricing assumptions;
- Simple DMS plant design will allow for rapid construction timetable;
- Approximately 50% of the total development capital cost expected to be met with US\$20 million pre-payment commitment by Core's largest shareholder and major Chinese lithium producer Yahua Group;
- Financing discussions advanced with strategic financiers, including global offtake companies;
- Significant potential to enhance Finniss Project mine life and economics through the later integration of the nearby BP33 deposit, and discovery of additional deposits at Finniss; and
- CXO Board approves commencement of Feasibility Study, with target completion date of late 2018, and ultimate objective to propel Core into the ranks of ASX lithium producers in 2019.

¹. There is a low level of geological confidence associated with the 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 itself will be realised.





Emerging Northern Territory lithium producer, Core Exploration Ltd (ASX: CXO) (Core or the Company) is pleased to announce the release of its Pre-Feasibility Study (PFS) for the Grants Lithium Deposit, a key component of the Company's wholly-owned Finniss Lithium Project, located near Darwin in the Northern Territory.

Executive Summary

Core has taken a major step forward in its goal to become a major Australian lithium producer through the delivery of this PFS, which seeks to unlock a new lithium province near Darwin in the Northern Territory.

Core's development of the Finniss Lithium Project is initially centred on production from the high-grade Grants deposit as an open pit mining operation, and construction of a simple 1Mtpa Dense Media Separation (**DMS**) process plant that will produce a high quality 5% spodumene concentrate for export.

The high grade of Grants, when coupled with proximity to infrastructure, low capital and operating costs, results in a development capable of delivering A\$168 million (pre-tax) in free cash generation over a period of only 26 months. This strong cash surplus will ensure Core is well placed with a first-mover advantage in this exciting new lithium province and lays solid foundations for the building of a long-term lithium production hub.

Existing road infrastructure will provide access for daily road train movements of concentrate product to the Darwin Port for shipment which is located 88km from the Project area. The Project also has other substantial infrastructure advantages, including being close to grid-power, gas and rail infrastructure and being less than a 1-hour drive from the skills, trades, workshops and services in suburban Darwin.

Key PFS Outputs

The PFS clearly demonstrates the Finniss Project economics to be compelling, with globally competitive cash costs that result in high operating margins and rapid capital payback. Key outputs include:

Key M easure	1Mtpa DMS Plant
Project revenue	A\$346 million
LOM EBITDA	A\$168 million
Pre-production capital	A\$53.5 million (incl. 15% contingency)
Average operating cost over LOM	US\$279/t (including royalties) (A\$372/t)
Initial life of mine	26 months (Grants deposit only)
Concentrate production over LOM	400,083 tonnes grading 5% Li ₂ O
	A\$140 million
NPV ₁₀ (pre-tax)	A\$246 million at US\$895/t (FOB) (A\$1,193/t) concentrate price
	142%
IRR (pre-tax)	202% at US\$895/t (FOB) concentrate price
Payback period	12 months

Table 1 - Key PFS Outputs

Unless otherwise stated, all figures above assume a life of mine concentrate sales price of US\$649/t (FOB) concentrate, and a USD/AUD exchange rate of 0.75.





The PFS confirms Grants as a financially viable operation, with A\$346 million in revenue (pre-tax) to be generated over the 26-month life-of-mine, at a strong operating margin of 57% based on average life of mine sale price of US\$649/t (FOB) (A\$865/t at 75 cent exchange rate) concentrate, and up to 67% operating margin in the event sales prices closer to the current spot price of US\$895/t (FOB) concentrate can be achieved. These strong operating margins provide for a rapid payback period of less than 12 months.

The strong free cash generation from Stage 1 of the Finniss Project development, mining only the Grants deposit initially, is expected to enable Core to be self-funding on future development opportunities within the Finniss Project, including any future development of the nearby BP33 deposit, which has potential to more than double the mine life of the Finniss Project. In addition to the BP33 Mineral Resource, there are a number of additional advanced pegmatite targets within the Finniss Project containing known high-grade lithium intercepts that require follow up drilling. The results from this follow up drilling will provide additional line of sight to organic growth opportunities.

The simple process flowsheet for Grants is based on the construction of a new 1Mtpa Dense Media Separation (DMS) plant, resulting in a relatively low capital cost estimate, and reduced commissioning risk relative to some peer spodumene concentrate operations that require additional capital costs associated with flotation circuits.

Core's Managing Director, Stephen Biggins, commented:

"The results of the Pre-Feasibility Study are highly encouraging and puts the Finniss Project on track to become the Northern Territory's first producing lithium mine.

"The PFS confirms Grants as a simple but high value operation, with minimal spend required on infrastructure thanks to its simple mineralogy and location near Darwin Port.

"With the successful PFS under our belt, we will now look to complete a Definitive Feasibility Study on Grants before the end of the year, while also progressing our development initiatives at the adjacent BP33 deposit, which has considerable potential to further enhance the robustness of the Finniss Project.

"On behalf of the board, I would like to thank everyone involved in this process for their support and for their hard work to-date. We look forward to further progressing Grants into production in 2019."

Next Steps

Based on the positive outcomes of the PFS, the Core Board has resolved to immediately progress to a Definitive Feasibility Study on Grants (Feasibility Study). The Feasibility Study is expected to be delivered later in 2018, allowing for a development decision in early 2019 and rapid transition to construction and production status during 2019 as a result of the simple, low technical risk operation.

Completion of the PFS now paves the way for the Company to advance its offtake and financing discussions, and project permitting to ensure Core is positioned to commence development and construction in 2019 and be delivering spodumene concentrate to customers by the end of CY 2019.

In parallel with the Definitive Feasibility Study, permitting, offtake and financing discussions, Core will maintain an aggressive regional exploration campaign focused on growing the resource base of the Finniss Project to support a long-life mining operation.





Figure 1 - Aerial view of Darwin, the Port of Darwin and the Grants Lithium development

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Important and Cautionary Notes

Cautionary Statement:

The PFS results are based upon the updated Grants Mineral Resource of 8 May 2018 (ASX announcement 8 May 2018). The Mineral Resource contains Indicated and Inferred Mineral Resources (see Table 5 in section 3.1 below – 37% Inferred Mineral Resources and 63% Indicated Mineral Resources) and does not contain any material in the Measured classification. Whilst there is sufficient Indicated Mineral Resources to complete the production schedule during the 12-month payback period, there is a reliance on Inferred Mineral Resources for the full PFS schedule. There is a low level of geological confidence associated with the 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 itself will be realised.

The Inferred Mineral Resource is not the determining factor in determining the viability of the Finniss Project as the Inferred Mineral Resource represents only 14% of the production during the 12 month pay-back period. The PFS has targeted a well-defined mineralised pegmatite envelope where it is considered that there are reasonable grounds for the conversion of Inferred to Indicated or Measured Resource status. Which will then reasonably allow the production target to be achieved in both the grade and size which has been outlined in this PFS. This PFS development option considers the Grants Mineral Resource alone. The PFS does not rely upon additional Mineral Resources from the company's other prospects. Further drilling in 2018 is expected to improve the classification of all of the company's Mineral Resources.

Competent Person Statements:

Core confirms that it is not aware of any new information or data that materially affects the information included in this announcement and that all material assumptions and technical parameters underpinning the Mineral Resource estimates in the announcements "Grants Lithium Resource Upgrade" dated 8 May 2018 and "Maiden Resource Estimate at BP33" dated 23 May 2018 continue to apply and have not materially changed. The Mineral Resources underpinning the production target have been prepared by a Competent Person in accordance with the requirements of the JORC code.

Core confirms that it is not aware of any new information or data that materially affects the Exploration Results included in this announcement as cross referenced in the body of this announcement.

Forward-looking Statements:

This release contains "forward-looking information" that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the pre-feasibility and feasibility studies, the Company's business strategy, plan, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, Mineral Resources, results of exploration and relations expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely',' believe', 'estimate', 'expect','intend','may','would','could','should','scheduled','will','plan','forecast','evolve' and similar expressions. Persons reading this news release are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual



results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.

Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to general business, economic, competitive, political and social uncertainties; the actual results of current exploration activities; conclusions of economic evaluations; changes in project parameters as plans continue to be refined; future prices of scandium and other metals; possible variations of ore grade or recovery rates; failure of plant, equipment or processes to operate as anticipated; accident, labour disputes and other risks of the mining industry; and delays in obtaining governmental approvals or financing or in the completion of development or construction activities. This list is not exhaustive of the factors that may affect our forward-looking information. These and other factors should be considered carefully, and readers should not place undue reliance on such forward-looking information.

The Company disclaims any intent or obligations to or revise any forward-looking statements whether as a result of new information, estimates, or options, future events or results or otherwise, unless required to do so by law. Statements regarding plans with respect to the Company's mineral properties may contain forward-looking statements in relation to future matters that can be only made where the Company has a reasonable basis for making those statements.

Currency:

Unless otherwise stated, all cashflows are in Australian dollars, are undiscounted and are not subject to inflation/escalation factors, and all years are calendar years.

Accuracy:

The PFS has been prepared to an overall level of accuracy of approximately -15% to +25%.





PFS– Key Project Statistics

Table 2 - Key Project Statistics

Project Statistics	<u>Units</u>	<u>DMS</u>
Mining - Mining Method / LOM	months	Conventional Open Pit / 26 Months
Total Mined	bcm	9,565,068
Waste Mined	bcm	8,920,762
Ore Mined	bcm / t / % Li ₂ O	644,306 / 1,778,283 / 1.48%
Strip Ratio	W:O	13.8 : 1
Processing - Engineered DMS Plant		
Feed	t	1,778,283
Li ₂ O Head Grade	%	1.48%
Recovery	%	76%
DMS Output	t	400,083
Li ₂ O Bene. Grade	%	5.0%
Nameplate Capacity	tpa	225,000
Road Haulage – T's / Payload / Trucks per day	t/t/#	400,083 / 95 / 10
Shipping - Shipped	t	400,083
Nominal Vessel Size & Shipping Frequency	Т/#	15,000 to 25,000 t / 1 per month
Financials - Exchange Rate	US:AU	0.75
Price (average price over LOM)	\$/t	US\$649 / t of 5.0% conc.
Revenue	AU\$M	\$346
Royalties	AU\$M	\$28.95
Total Capital Costs – (incl. pre-production)	AU\$M	\$53.55 (incl. 15% contingency) Includes \$24.39 pre-strip costs
Operating Costs – per t concentrate (inc Royalty)	US\$t conc. AU\$/t conc.	\$279 \$372
Cashflow - Total generated / Peak outflow	AU\$M	\$168 / \$49
Project Valuation - NPV ₁₀ (pre-tax)	AU\$M	\$140 (US\$649/t (FOB) sales price) \$246 (US\$895/t (FOB) sales price)

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1 Grants Lithium Project

A conventional approach to open pit mining is proposed.

The Grants Lithium Project, located near Darwin in the Northern Territory, is one of the highest grade spodumene resources in Australia, containing a Mineral Resource of 2.03Mt @ 1.5% Li₂O.

The high-grade Grants lithium deposit is supported by one of the best logistics chain to China of any Australian lithium project. Focused drilling and metallurgical studies at the deposit have defined an orebody with the potential to produce high-grade lithium products that suit commercial end users.

Results from this PFS have highlighted the strongly positive outcomes for the potential development of Grants, suggesting a strong case for a standalone 1Mtpa Dense Media Separation (**DMS**) concentrate production and export operation.

The Project has substantial infrastructure advantages; being close to a population centre capable of providing the labour for the Project and within easy trucking distance by sealed road to the East Arm Port – Australia's nearest port to Asia.

The Project development will occur within the area of ML(A) 31726 (the Project area). The ML(A) covers 750ha, within which 117ha will be disturbed for development and operation of the mine.

The key components of the Project are summarised below:

- Mining of the high-grade spodumene pegmatite deposit using simple open pit drill and blast mining methods over a life of mine of approximately two years;
- Transfer of the spodumene pegmatite ore to a Run of Mine (**ROM**) pad located adjacent to the open pit;
- Water-based DMS to produce a high quality spodumene (lithium) concentrate product; and
- Transport of the lithium concentrate product to Darwin Port by sealed public road for overseas export.





Figure 2 - Schematic view of proposed project layout

Mineral Resource 2

The Grants Lithium Mineral Resource estimated at 2.0Mt at 1.5% Li₂O is one of the highest grade spodumene resources in Australia. Grants is located within Core's 100% owned Finnis Lithium Project which consists of a large ground holding over one of Australia's significant spodumene pegmatite fields near Darwin in the Northern Territory (Finniss Lithium Project). Core has an excellent geoscientific dataset and a well-resourced exploration team focused on further discoveries.

2.1 Geology

The first discovery of tin-tantalum pegmatites in the Northern Territory was near Mount Shoobridge in 1882 and was followed soon after by the discovery of tin (and tantalum) on the Cox Peninsula at Leviathan Creek (Bynoe Pegmatite Field) in 1886. However, it was not until mid-2016 that the Bynoe Pegmatite Field's (BPF) potential as a world-class lithium district was recognised.

There are several historic tin/tantalum pegmatite mine sites in the area surrounding Grants; the closest sites are located 1.5 km to the west and south-west of the project area.

The BPF pegmatites are classified as LCT (Lithium-Caesium-Tantalum) type and are believed to have been derived from the 1845 Ma S-Type Two Sisters Granite, which outcrops to the west of the BPF and are predominantly hosted

Grants Lithium Project General Site Layout





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.

Fresh pegmatite at Grants is composed of coarse spodumene, quartz, albite, microcline and mica. Spodumene, a lithium bearing pyroxene (LiAl(SiO₃)₂), is the predominant lithium bearing phase and displays a diagnostic red-pink UV florescence. 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.

The depth of weathering is quite extensive, but the transition from oxidised pegmatite to fresh pegmatite is very sharp and easily determined from the interpretations associated with AC, RC and DD logging. As Lithium is depleted from oxidised pegmatite during the weathering process, lithium assays provide a good indicator as to the location of the top of fresh rock (TOFR).

The geological interpretation is considered robust due to the simple nature of the mineralisation. The mineralisation is hosted within the pegmatite. The locations of the hanging wall and footwall of the pegmatite intrusion are well understood with drilling which penetrates both contacts.

The proposed Project is located within Mining Licence ML(A) 31726 (the Project area). The ML(A) covers 750 ha, within which approximately 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 and the main land-use in the region is mining exploration.

2.2 Resource

Drilling by Core between 2016-2018 at the Grants Lithium Deposit for the current Mineral Resource Estimate totalled 54 drill holes for 6,668m, comprising 36 reverse circulation (RC) drill holes, 14 DD drill holes. Holes were drilled at angles of between 55° and 60° either due east or west with a small proportion drilled vertically.

Dr Graeme McDonald (BSc PhD MAusIMM) was contracted by Core to undertake the Mineral Resource Estimate for the Grants Lithium Deposit. The estimate was derived from cross-sectional geological interpretation, generation of a 3D geological interpretation from the interpreted cross sections, creation of domain interpretations for lithium mineralisation, the development of a block model of the deposit and a geostatistical analysis of the data and estimated lithium grades.





Figure 3 - Relationship between Mineral Resources and Ore Reserves

Areas within the model that have drill spacing of better than 25m by 30m, and where the confidence in the estimation is considered high have been classified as Indicated Mineral Resources. Areas that have a wider drill spacing or a spacing of greater than 25m by 30m but with lower levels of confidence in the estimation or potential impact of modifying factors have been classified as Inferred Mineral Resources. No areas of in-situ Mineral Resource satisfied the requirements to be classified as Measured Mineral Resources.



"The Grants Lithium Resource is one of the highest grade undeveloped lithium deposits in Australia"

Figure 4 - Finniss Project Pegmatite





All lithium assays are reported as ppm and converted to Li₂O using a conversion factor of 2.1528 and expressed as a percentage. Typically, where intercepted by drilling the pegmatite carries economic lithium grade and is extremely homogeneous, with the exception of relatively thin contact zones. A single mineralised domain within the pegmatite was created based on a 0.3% Li₂O lower grade threshold. The boundaries of the domain often coincided with the pegmatite contacts and there was very little to no internal dilution.

The mineralised domain was identified on each section based on a nominal minimum downhole width of 2m and a maximum internal dilution of 3m while trying to honour geological controls and maintain continuity. A wireframe was created by joining sectional strings together and successfully validated for open sections, intersecting triangles and invalid connections. The result is a single mineralised domain that together with weathering and geological information can be used for sample and block model flagging.

A deposit wide top of fresh rock surface, was developed based on a section by section interpretation made using available drill hole data to determine the boundary between oxidised and fresh pegmatite. This information was then used to constrain the upper surface of the mineralised domain.

Assay values from within the mineralised domain were analysed via histogram and probability plots and no significant outlying sample results were identified. As a result, a top cut has not been applied.

The results of the Mineral Resource Estimate are provided in the table below. The Mineral Resources are reported at a cut-off grade of 0.75% Li₂O (refer to ASX announcement 8 May 2018).

Mineral Resource Estimate for the Grants Deposit - 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			

Table 3 - Grants Deposit Mineral Resources





3 Mining and Scheduling

The currently anticipated Life of Mine (LOM) based on the existing potentially economic Mineral Resource is 26 months.

Contract mining services are proposed for the mining operation. Mining is expected to be straightforward conventional open pit mining utilising standard drill and blast and conventional excavator and truck fleet. There is very little groundwater and geotechnical conditions are not problematic.

Mining will occur in two phases:

- **Pre-strip**: Months 1-4 Removal of oxide waste and oxidised pegmatite waste.
- **Operation**: Months 8-20 Mining of the pegmatite ore body and adjacent 'fresh' waste, and processing/transport of product.



Table 4 - Plan view of the proposed open pit at Grants





3.1 Scheduling



Figure 5 - Proposed material movement schedule for Grants development

Approximately 20cm of topsoil will be removed and stockpiled for later use in rehabilitation of the site. Storm water control will be managed through the construction of a flood diversion bund. An erosion and sedimentation control plan) developed by a certified expert erosion and sedimentation control will be implemented for the site.

Drilling and blasting mining methods will be used. All material (ore and waste) will require blasting, excepting the oxidised pegmatite waste, which is assumed to be free digging. Once blasted, excavators and trucks will be used to remove the material from the pit. Two excavators will be utilised to remove the overburden, then a single excavator will continue once the ore has been intercepted.

The pit will have a 25m wide dual lane ramp from the surface down to 130m below ground level, where it will reduce to a single lane for the remaining 70m of depth down to the pit floor. The final depth of the current designed pit is 200m. The excavators will load the waste/ore into 100t class dump trucks. The waste will be transported directly to the waste rock dump (WRD) and the ore to the run of mine (ROM) pad for crushing and screening.

Based on previous resource estimations the conversion rate from Inferred Mineral Resource to Indicated Mineral Resource is very high. Due to the high rate of conversion, Whittle optimisation runs were conducted using the total Mineral Resource at Grants. That is, Inferred Mineral Resource material was not excluded. Less than 15% of the material contributing to the current schedule in the Project's first year is Inferred Mineral Resource.





Based on the current economic evaluation the Project has a payback period of less than 12 months.

The various optimisation runs were used to develop a two-stage open pit design. The stage statistics are contained in the table below.

Pit		Inferred Mineral Resource			Indicated Mir	eral Resource	
	Waste	Ore	Ore	% Li2O	Ore	Ore	% Li ₂ O
	bcm	bcm	t	%	bcm	t	%
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%	

 Table 5 - Staged development for Grants, showing material movements and grade

A PFS production target and schedule was then developed. The schedule is shown below illustrating the proportion of Inferred Mineral Resource contributing to the plan on a quarterly basis.



PFS Production Target & Schedule						
	<u>Measured</u> <u>Mineral</u> <u>Resource</u>	Indicated Mineral Resource	Inferred Mineral Resource	<u>Total</u>	<u>(Li₂O%)</u>	<u>% Inferred</u> <u>Mineral</u> <u>Resource</u>
	t	t	t	t	%	%
Q1	-	-	-	-	-	-
Q2	-	218,183	22,566	240,749	1.49%	9%
Q3	-	399,367	29,704	429,071	1.51%	7%
Q4	-	153,821	68,599	222,420	1.41%	31%
Q5	-	299,789	49,258	349,047	1.49%	14%
Q6	-	43,009	209,658	252,667	1.52%	83%
Q7	-	-	284,329	284,329	1.43%	100%
	-					
	-	1,114,169	664,114	1,778,283	1.48%	37%





4 Ore Processing and Production

Mining will be focused on delivering sustainable ore quantities to the ROM pad. Crushing and screening or processing of the delivered ROM ore will produce product ready for haulage to the Port of Darwin. The task levels at these stages are planned to be as follows:

Table 7 - Task levels of capacity at various stages of development

ROM Pad	PRODUCT	PORT
Average	Average	Average
299,769 tonnes	6,685 tonnes	2,500 tonnes
Maximum	Maximum	Maximum
472,429 tonnes	12,500 tonnes	12,500 tonnes



Figure 6 - Ore Mining Schedule

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DMS Annual Schedule

Table 8 - Annual schedule

		Yr 1	Yr 2	Yr 3	Total
Mining	<u>Units</u>				
Total Mined	bcm	8,051,966	1,513,102		9,565,068
Waste Mined	bcm	7,728,690	1,192,072		8,920,762
Ore Mined	bcm	323,276	321,030		644,306
Ore Mined	t's	892,240	886,043		1,778,283
Ore Grade	(Li ₂ O%)	1.48%	1.48%		1.48%
Processing					
Mine Ore Crush & Screen	t's	585,000	1,020,000	173,283	1,778,283
Grade	(Li ₂ O%)	1.49%	1.48%	1.46%	1.48%
Recovery	%	76.06	76.06	76.06	76.06
DMS Output (concentrate)	t's	132,313	229,171	38,599	400,083
Grade	(Li₂O%)	5.00%	5.00%	5.00%	5.00%
Haulage					
Product Hauled	t's	125,000	230,000	45,083	400,083
Hauled Grade	(Li ₂ O%)	5.00%	5.00%	5.00%	5.00%
Run Rate	Mtpa	0.125	0.230	0.045	0.25
<u>Shipped</u>					
Ore Shipped	t's	125,000	230,000	45,083	400,083
Shipped Grade	(Li ₂ O%)	5.00%	5.00%	5.00%	5.00%
# of ships	#	7	12	2	21
Run Rate	Mtpa	0.125	0.230	0.045	0.25

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5 Processing

5.1 Metallurgical Results

An initial metallurgical test work program for Grants was undertaken in 2017 and a full metallurgical test work program in support of the proposed Feasibility Study is currently underway. At the time of compiling this PFS, preliminary results from the Feasibility Study test work program were available. As a result of the test work conducted to date, the following flowsheet is proposed:

- 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 and throwaway tail.
- Because of the low mica content of the spodumene ore (<3%), the use of a reflux classifier has demonstrated limited mica removal benefit. However, this continues to be assessed in the Feasibility Study test work program.
- Thickening of tailings for disposal.

The test work completed to date has shown that grinding of fines and DMS middlings stream and recovery of contained spodumene by froth flotation is feasible however the additional 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 up-scaling opportunity.

5.2 Summary of Results

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

The 2017 test work program prepared a composite sample from three HQ $\frac{1}{2}$ core diamond hole samples. The composite assayed 1.76% Li₂O, 0.85% Fe₂O₃ and 73.8% SiO₂.

The current PFS test work program is focussing on a composite sample from an additional five HQ $\frac{1}{2}$ core diamond hole samples. This composite assayed 1.60% Li₂O, 0.37% Fe₂O₃ and 73.2% SiO₂.

Metallurgical test work completed to date shows that Core can produce high quality spodumene concentrates up to 6% Li₂O with acceptable recoveries through a simple, low capital cost DMS processing circuit, therefore avoiding the very high capex requirements of a large flotation circuit.





This PFS considers the production of 5.0% Li₂O concentrate based on recoveries through a single stage DMS circuit. Core is currently conducting metallurgical test work to assess further optimisation of recoveries from 5% to 6% Li₂O grade spodumene concentrates.

The various test work results are summarised in the table below. Interpolations for the DMS streams are included for a 5.0% concentrate and a 5.5% concentrate.



Table 9 - Summary of DMS test work results

5.3 Flow Sheet Development

The Grants Project is to be a spodumene concentrate operation, initially scaled at 1Mpta.

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 tailings storage facility (**TSF**).

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 density streams – a 'sink' and 'float' – 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 stockpile will be sent to the rejects stockpile for future flotation processing or disposed of in the TSF.

The process tailings would be a mix of fine-grained solids (typically silt sized) extracted during feed stock preparation and water used in the recovery process. There are no chemicals used in the process and thus no introduced



chemicals contained within the tailings. As such the tailings like the pegmatite (granite) are chemically and biologically inert.



Figure 7 - Schematic plan showing TSF development within WRD

The WRD can be designed to incorporate three compartmentalised TSFs (Figure 7 above). This integrated method of disposing of tailings within the WRD has been determined to be the preferred method for tailings management.

The construction of the WRD will include creating a base and outer annulus to create a lining from the clay heavy overburden waste. The volume of tailings produced from the 1.0Mtpa Project is expected to be 275,000m³. Each TSF has been designed to have a floor area of 5.5ha (55,000m²) and a height of 5m (the WRD is designed to be 25m high allowing for base and capping of the TSF if required).

The size of each TSF cell is designed to accommodate the maximum tailings which could be produced in each year, though it is not expected that each of the TSF cells will be required. Compartmentalised TSF cells allows for the first to be drying while the second is being constructed/filled. Tailings will be thickened prior to being transported to the TSF.

The Process Design Criteria assumed for the DMS circuit appears in Table 10 - Key process plant metrics.





DESCRIPTION	<u>UNITS</u>	<u>Values</u>
CRUSHING PLANT - CONTRACTOR		
Throughput	Mtpa	1,000,000
Head Grade	% Li₂O	1.50%
Operation	wk/yr	52
Shifts Per Week (2 shifts/day x 6 days/week)	shift/wk	12
Hours Per Shift	hr/shift	12
Availability	%	75%
Utilisation	hr/y	5,616
Crushing Throughput (nominal)	tphr	178
Crush Size (nominal)	mm	6.3
FEED PREPARATION / DMS CIRCUITS		
Throughput	Mtpa	1,000,000
Operation	wk/yr	52
Shifts Per Week (2 shifts/day x 7 days/week)	shift/wk	14
Hours Per Shift	hr/shift	12
Availability	%	85%
Utilisation	hr/y	7,426
DMS Throughput (nominal)	tpa	135
SPODUMENE PRODUCTION		
Fines Screen Aperture	mm	0.5
Mass to fines	% Feed	20%
DMS Separation Density	sg	2.7
DMS Sinks Mass Yield	% DMS Feed	36%
Final Shipping Concentrate	Ktpa	225,000
Li Recovery to Concentrate (overall)	%	75%
Final Concentrate Grade	% Li₂O	5.0%
Fines production (to TSF or other storage)	Ktpa	200,000
Fines Grade	% Li ₂ O	1.47%
SERVICES		
Installed Power (excluding contract crushing plant)	kW	1,650
Average Load (excluding contract crushing plant)	kW	1,120
Make Up Process Water (with Tails Thickener)	m³pd	950

Table 10 - Key process plant metrics





6 Infrastructure, Transport and Services

6.1 Darwin Infrastructure



Figure 8 - Aerial view of Darwin, the Port of Darwin and the Grants Lithium development

The Grants Lithium Project is in proximity to Darwin allowing access to key operational infrastructure. The Project is located within:

- 0.5km of sealed road connecting to Darwin Port
- 4km of 400,000kl Process Water Dam
- 15km of 310MW Gas Fired Power Station
- 20km of Zoned Industrial Park
- 25km of Port Darwin (88km by road)
- 1hrs drive from Darwin Airport and City





The development and operation of the Project is supported by a superior logistics chain to China, being within 25km of Darwin Port - Australia's nearest port to China.

The Project also has other significant infrastructure advantages, these include being close to sealed roads, grid power, gas and rail infrastructure and being less than a 1-hour drive from the skills, trades, workshops and services in suburban Darwin.



6.2 Project Water Balance

Figure 9 - Schematic of water system requirements

Observation Hill Dam

The Observation Hill Dam is a man-made dam that has supported historical tin mining activities in the region. It has an estimated capacity of over 400,000kl.

On the basis that pit dewatering requirements are yet to be fully determined and dust suppression may not be required during the wet season, 4 water use scenarios were considered.





Table 11 - Water use scenarios considered for water balance modelling

Wate	use scenario	Water use from OHD
1.	All water is extracted from Observation Hill Dam (OHD)	2.02 MLd ⁻¹
2.	Volume extracted from OHD discounts return from Pit Dewatering	1.2 MLd ⁻¹
3.	All water is extracted from OHD but no dust suppression in wet	1.07 MLd ⁻¹ in wet, 2.02 MLd ⁻¹ in dry
4.	Volume extracted from OHD discounts return from Pit Dewatering and no dust suppression in wet	0.64 MLd ⁻¹ in wet, 1.2 MLd ⁻¹ in dry

The Project may potentially require supplementary water supply in additional the Observation Hill Dam. Preliminary investigations have established that a number of feasible supplementary sources are available within the immediate Project area and Project water requirements and the ultimate water solution will be fully resolved as part the Feasibility Study.

6.3 Concentrate Product Haulage



Figure 10 - Google image showing proposed transport route from project to the Port of Darwin





The DMS product will be loaded into road trains for transport to Darwin Port (**East Arm** or **EAW**). The proposed trucking route will be along Cox Peninsula Road, through to the Stuart Highway, along the Stuart Highway to Tiger Brennan Drive and then Berrimah Road, to the East Arm Port.

Total travel distance to the East Arm Wharf for Route 1 is calculated to be 88.31km.

Each road train has a 95-tonne capacity. It is estimated that ten (10) road train movements per day will be required at nameplate production rates.



Figure 11 - Transport route - key intersection turning movements



Figure 12 - Typical road train configuration





6.4 Darwin Port

Darwin Port (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 can be handled at any EAW berth. Berth 4 is primarily used for bulk liquids and has a dedicated bulk liquids transfer facility.

The continuous length of wharf facilitates provides flexibility in berth allocations to visiting ships.

Heavy lift operations can also occur at EAW through consultation with Darwin Port.

A stockpile lease agreement is to be negotiated with the Darwin Port. The lease area will house all the projects concentrate management infrastructure.

Cargo handling activities are undertaken by either of the two stevedore service providers operating at EAW, LINX Stevedoring and QUBE Ports. Cargo transfers are commonly performed by mobile harbour cranes operated by the stevedores.

EAW has a rail mounted bulk minerals ship loader with a maximum capacity of 2,000t per hour. Bulk minerals are transferred from rail wagons to the stockpile areas using a dedicated rail dump and conveyor systems or dumped directly from road trains. The minerals are transported by truck from the stockpiles to the ship loader truck dump for loading onto bulk carriers.

It is the only port between Townsville and Fremantle with full access to multi-modal transport services. Darwin Port provides world class pilotage and harbour control systems and a seamless supply chain capable of handling containers and general cargo, bulk liquids, bulk materials, live exports and heavy lift oversized cargoes.

Core established a Heads of Agreement (HOA) with the Darwin Port in March of 2017.





Figure 13 - Boundary of the Port of Darwin





Figure 14 - Proximity of Darwin to major trading port.



Figure 15 - East Arm Port



Figure 16 - Berth 2 bulk berth (ship docked)





7 Capital Cost Estimation

The capital costs to establish a DMS operation are listed below.

Table 12 - Capital cost summary

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	

The capital costs are derived from multiple contractor sources. The key plant and sustaining capital costs are estimated by Wave International.

A 15% contingency factor was applied to all capital cost items noted above, except for pre-production capital (being the pre-strip mining). This resulted in a total contingency of A\$3.8 million, which is factored into the total of A\$53.5 million tables above. Core considers the plant capital cost estimates to be based on suitably conservative assumptions.

The pre-production capital costs represent the pre-strip mining activity costs up until the month prior to first revenue.

Excluding pre-production capital, the capital costs for DMS represents A\$16.40/t of ore mined and represents A\$72.89/concentrate tonne sold.





8 Operating Cost Estimation

The operating costs for a DMS operation are detailed below.

Table 13 - Summary of operating costs

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
	A\$ 306.86 / t conc.	
Total Unit Operating Cost	US\$ 230.15 / t conc.	
Royalties	A\$ 64.86	Estimated
	A\$ 371.72 / t conc.	
Total Unit Operating Costs (inc Royalties)	US\$ 278.79 / t conc.	
Operating Margin (pre tax)		
At US\$649/t (FOB) sale price	A\$ 493.02 / t conc.	
	US\$ 369.77 / t conc.	
	57.0%	
At US\$895/t (FOB) sale price	A\$ 796.97 / t conc. US\$ 597.73/ t conc.	
	66.8%	

The operating costs are derived from multiple contractor database sources. The key operating costs for the DMS plant were estimated by Wave International.



Figure 17 - Operating Costs pie chart





9 **Project Valuation**

The key price assumptions are as follows.

Table 14 - Key price assumptions (USD/tonne 5% concentrate)

5.0% Concentrate					
<u>US\$/t (FOB)</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>Spot</u>
Price 1 ²	\$684	\$590	\$611	\$598	\$895
Price 2 ³	\$740	\$658	\$630	\$571	\$895
Spot ⁴	\$895	\$895	\$895	\$895	\$895

Table 15 - NPV and IRR for project using different price assumptions for 5.0% concentrate pricing

DMS - Engineered Plant		<u>NPV</u>	IRR	<u>Multiple over DSO</u>
Price 1	AU\$M	\$119	124%	2.3
Price 2	AU\$M	\$140	142%	2.7
Spot	AU\$M	\$246	202%	4.7
DSO	AU\$M	\$52	113%	

DMS V DSO

For the above pricing assumptions, the NPV for the various price assumptions are shown in the table to the left. Using the average price deck (Price 2), the NPV for the DMS option is 2.7 times higher than that for direct shipping ore (DSO).

² Based on Altura Mining price forecasts, (ref ASX announcement 30 April 2018)

³ Based on Canaccord Genuity broker price forecasts, 16 April 2018

⁴ Asia Metal Weekly Lithium Market Summary 28 May – 1 Jun 2018





Cost & Revenue Sensitivity

Table 16 - Sensitivity of NPV to changes in operating costs and revenue

<u>Costs</u>							
	<u>-20%</u>	<u>-10%</u>	<u>0%</u>	<u>+10%</u>	<u>+20%</u>		
NPV -DMS (pre tax)	\$173m	\$156m	\$140m	\$124m	\$107m		
<u>Revenue</u>							
	<u>-20%</u>	<u>-10%</u>	<u>0%</u>	<u>+10%</u>	<u>+20%</u>		
NPV -DMS (pre tax)	\$79m	\$110m	\$140m	\$170m	\$201m		

Cost sensitivities are applied to all costs Capital & Operating. Favourable is negative & unfavourable is positive.

The table above is illustrated below.



Figure 18 - Cost and revenue sensitivities (pre tax)

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Cumulative cash flow for the proposed DSO operation appears below.

Figure 19 - Cumulative cash flow generation (pre tax)

10 Environment and Approvals Timeline

10.1 Environment

The Northern Territory Environmental Protection Authority (**NTEPA**) decision on the Project Notice of Intent (**NOI**) was received in May 2018. The Statement of Reasons for the decision is located on the NTEPA's website. The Project needs to complete an Environmental Impact Statement (**EIS**).

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 potential impacts of rehabilitation and closure on the above factors were also identified. As a consequence, and advanced closure plan needs to be developed for the Project and submitted with the EIS.





11 Approvals & Project Timeline

The approvals process for the Project involves progressing through two Northern Territory government departments. The interaction between the two departments is illustrated below.



Figure 20 - Comparison of NT EPA and DPIR processes

The EIS & Authorisation tasks are scheduled to be complete in Q2 CY 2019.

TASKS/TIMING	Jun-18	Jul-18	Aug-18	Sep-18	Oct-18	Nov-18	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19
EIS Terms of Reference issued													
Baseline studies and reports (EIS Appendices)													
Draft EIS preparation (assume EIS targets 2-3 environmental factors only)													
Pre-submission adequacy review by NTEPA (20 days)													
Printing and publication of EIS													
Public comment (6 weeks)													
Supplementary EIS													
NTEPA Assessment Report and Recommendation to Minister (35 days)													
Mining Authorisation under Mining Management Act													







12 Offtake & Prepayment

Yahua Offtake Agreement

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

On December 1, 2017, Core 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 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 Project and EL 29698.

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 of Grants production over the life of mine, underpinning its production profile and providing great confidence to Core to fast-track development of the mine.

The Offtake Agreement represents significant value for the Company in early stage project revenues over the term of the contract. As part of the Offtake Agreement, Core has granted Yahua 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. The Offtake Agreement ends on the earlier of Core having supplied 1Mt of DSO.

Yahua Prepayment Agreement

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 Core to be used for the development of Grants. The prepayment will be offset by Core through the delivery of either DSO or Li₂O concentrate production from the Finniss Lithium Project or cash payment.

Further offtake discussions

The Company has initiated and received considerable attention from global lithium players interested in securing lithium concentrate offtake. This includes companies based in China, US, Europe, Korea and Japan. The Company is developing a strategy to significantly fund a large component of the capital cost through the application of prepayments, debt financing and equity with potential offtake partners. This strategy will be explored during the Feasibility Study.





13 Project Growth

Potential Development of BP33

A maiden Mineral Resource estimate for the BP33 Lithium Project, nearby to Grants, increases the overall Mineral Resource inventory of the Finniss Lithium Project by 70% to 3.45 million tonnes @ 1.4% Li₂O. The current Mineral Resource estimate for BP33, comprises an Inferred Mineral Resource of 1.4Mt at 1.40% Li₂O, this Mineral Resource was excluded from the LOM schedule for the Grants project PFS.

BP33 Resource Growth Potential High

The potential to expand the Maiden BP33 Mineral Resource is considered high as the Mineral Resource is currently extended only 20m south of the most recent drill intersection of 75m @ 1.68% Li₂O (refer ASX announcement 11 April 2018) at the southern end of BP33.

The BP33 Mineral 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.

At the time of this PFS, Core is currently conducting additional resource drilling focussed on increasing the scale and confidence level of the Maiden Mineral Resource at BP33.

Why BP33 is similar to Grants

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 mica.





Figure 22 - Visual comparison of spodumene pegmatites at BP33 (left) with Grants (right).

BP33 is a single, 30-40m wide pegmatite ore body that has a flat grade-tonnage curve 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.

The Company's experience at Grants saw a high level of conversion of Mineral Resources from Inferred Mineral Resource to Indicated Mineral Resource. The early definition of the mineralised pegmatite envelope has supported





this high level of conversion. Figure 23 - Visual comparison of spodumene pegmatites at BP33 illustrates the similarly early definition of the mineralised pegmatite envelope at BP33.

Core expects that its current drilling activities at BP33 will advance the BP33 Mineral Resource to a level that will see the Feasibility Study, approved by Core's board because of this PFS, expanded to include BP33 as a significant contributor.

Mineral Resource Summary - Finniss Lithium Project						
Mineral Resource Category	Tonnes	Li ₂ O %	Contained Li ₂ O (t)			
Grants Indicated	1,130,000	1.5	17,000			
Grants Inferred	900,000	1.4	13,000			
BP33 Inferred	1,420,000	1.4	20,000			
Total	3,450,000	1.4	50,000			

Table 17 - Finniss Project - Total Mineral Resources (0.75% Li₂O cut-off)

Finniss Lithium Project: Mineral Resource Growth and Exploration

Core believes there is significant potential to grow Finniss Project Mineral Resources as BP33 and Grants are only two of the many lithium rich pegmatites identified within Core's large 500km2 of granted tenure at Finniss. Results to date have confirmed that ore grade lithium mineralisation is widespread within the Finniss Project, highlighting the prospectively of the tenements, with numerous highly prospective pegmatites yet to be drill tested.

Drilling is planned in 2018 and 2019 aimed at substantially growing the Mineral Resource base to underpin a potential long-life lithium mining and production operation beyond the initial planned development of Grants.

Over 40,000m of drilling (DD/RC/RAB) planned during 2018 and into 2019 to target resource growth and exploration within the Finniss Lithium Project.

Sandras Spodumene Pegmatite

Assay results from multiple drill intersections that confirm the potential of the 100%-owned Sandras Prospect to host a high-grade spodumene pegmatite. These results from the first drilling program undertaken at Sandras by Core demonstrate the potential for pegmatites other than BP33 and Grants within the Finniss Projects to have significant spodumene grades and thicknesses.

Sandras is located on adjacent tenements to those that host the Grants Lithium Resource and BP33 spodumene pegmatite near Darwin (Please refer to figure on opening page).

Recent assay results from Sandras include 27m @ 1.45% Li₂O from 195m in SRC006 including 7m @ 2.13% Li₂O from 201m, 38m @ 1.08% Li₂O from 94m in SRC002 including 8m @ 1.86% Li₂O from 95m and 19m @ 1.28% Li₂O from 106m in SRC008 including 5m @ 1.89% Li₂O from 111m. The very high-grade intervals of 7m @ 2.13% Li₂O at Sandras are consistent with those at Grants and BP33 (CXO announcement 19 December 2017).







Figure 23 - Drill cross-section showing RC drilling results at Sandras

Other Prospects

Core's 2017 exploration identified a significant number of spodumene pegmatites up to 20m true width within the Finniss Project.

Drill assay results include:

- 47m @ 1.6% Li₂O from 62m in FRC030 at Far West Prospect (CXO announcement 16 Dec 2016)
- 12m @ 1.2% Li₂O from 67m in FRC074 at Ahoys Prospect (CXO announcement 7 Feb 2016)
- 10m @ 1.6% Li₂O from 83m in NRC006 at Carlton prospect (CXO announcement 5 Feb 2018)

14 Conclusions

This PFS recommends that the Definitive Feasibility Study proceed.





15 Pre-Feasibility Study Contributors

Table 8 - PFS Contributors

Factors	Element	Contribution	Contributors to the Factors
	Geology	Mineralisation: type, grade, uniformity. Geologic structure, rock types. Possible genesis.	
			Core Exploration Limited
	Geometry	Size, shape & attitude, continuity & depth.	Mining Plus Pty Ltd
Information on Deposit			Northern Territory Geological Survey
information on Deposit	Geography	Location: proximity to population centres. Topography, access, climatic conditions, surface conditions: vegetation, stream diversion. Political boundaries.	Complete Tenement Management
			Dr Graeme McDonald
	Exploration	Historic: district & property. Sampling & assaying. Future potential.	
	Mineralogy	Properties of ore, Ore hardness	Core Exploration Limited
	Alternative Processes	Types & stages of extraction process. Degree of processing and flowsheet establishment. Production profile.	Como Engineers
Processing Methods			
	Production Quality vs Specification	Developing the line balance.	Wave International
	Recoveries & Product Quality	Estimate effects of variations in ore type or head grade	Nagrom

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Factors	Element	Contribution	Contributors to the Factors
	Plant Layout	Capital requirements, space requirements & proximity to deposit	Flanagan Consulting Pty Ltd
	Markets	Toll treatment terms vs own plant expected price levels & trends. Hedging arrangements	
			Core Exploration Limited
	Transportation	Property access. Product transport: distance, methods & costs.	Mining Plus Pty Ltd
			Piper Alderman
	Utilities	Electric power: availability, location, ownership, right of way, costs. Gas.	Ward Keller
	<u>_</u>	_	Pendragon Environmental Pty Ltd
	Land, Water & Mineral Rights	Ownership: surface mineral, water, acquisition & bonds. General site layout. Potable & processing water supply.	Darwin Port Authority
	<u>_</u>	_	<u>Yahua</u>
Economics	Labour	Availability, rates & trends. Local/district labour history. Structure & strength. Personnel transport arrangements & costs.	Wave International
			Flanagan Consulting Pty Ltd
	Physical Controls	Strength of ore, waste & relative. Uniformity: mineralisation, blending requirements. Continuity: mineralisation. Geology Structure. Geometry.	EcOz Pty Ltd
	Selectivity	Dilution & ore recovery estimates. Waste mining and disposal	Innicon Pty Ltd
			Proactive Mining Solutions
	Preproduction Requirements	Preproduction development, refurbishment, layouts, design & capital requirements.	True North Strategic Communication

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Factors	Element	Contribution	Contributors to the Factors
	Production Requirements	Relative production. Continuing development: methods, quantity, time requirements. Labour & equipment requirements.	GHD Pty Ltd
	Preproduction	Preproduction development. Decline refurbishment. Camp construction.	
			Core Exploration Limited
Capital Cost Estimates	Mining	Site preparations, mine buildings, mine equipment, erection costs & replacement schedule.	Wave International
			Mining Plus
	Mill	Site preparations, mill buildings, mill equipment, erection costs & replacement schedule. TSF. Engineering & contingency fees.	
	Mining	Labour, maintenance & contract rates.	
			Core Exploration Limited
Ou sustin a Casta	Milling	Labour, maintenance & contract rates.	Wave International
Operating Costs			Mining Plus
	Administration	Overhead charges, Fly In Fly Out and Accommodation fees.	Proactive Mining Solutions
			Marsh & McLennan
Financial Analysis	Analysis, Sensitivities & Risks	Risk management, Production and Financial sensitivities	