



ASX ANNOUNCEMENT | 30 April 2018

## STAGE 2 DEFINITIVE FEASIBILITY STUDY AT PILGANGOORA DELIVERS OUTSTANDING RESULTS

KEY FINDINGS OF THE STUDY:

- ***Definitive Feasibility Study to duplicate Stage 1 processing plant and produce 440,000 tpa of 6% Spodumene concentrate delivers positive results***
- ***Robust economic outcomes include a post-tax NPV <sup>(1)</sup> of A\$834M, an IRR of 63% and a 2.3 year pay back***
- ***Life of Mine (LOM) revenue set to be A\$4.377B with LOM EBITDA <sup>(2)</sup> of A\$2.473B over an estimated mine life of 13 years***
- ***Stage 2 project significantly de-risked by having all major statutory approvals, key personnel and contractors in place to commence production***
- ***First product from expansion expected 18 months after Final Investment Decision***
- ***Significant upside still likely with Altura's 16,000ha of exploration tenements surrounding Pilgangoora***

Altura Mining Limited (ASX: AJM) ("Altura" or the "Company") is pleased to announce the results of the Stage 2 Definitive Feasibility Study (DFS) completed on its 100% owned Pilgangoora Lithium Project in Western Australia's Pilbara region.

The DFS demonstrates that expanding output would be an extremely robust opportunity that would add significant project value over a short period of time. The potential expansion of the project comes as the global lithium market continues to remain strong.

The Stage 2 DFS has included the substantial growth in the Mineral Resource and Ore Reserve estimate inventory that Altura has realised over the past eighteen months since the Stage 1 study completion. The Stage 2 DFS was able to incorporate lessons learnt from the nearly completed Stage 1 project to position Altura in effectively meeting the growing global demand for lithium.

Altura Mining Limited ABN 39 093 391 774

Altura has significantly de-risked the execution of the Stage 2 project by already having all major statutory approvals in place, having all product for the first three years already accounted for through existing offtake agreements and having the personnel and contractors already in place to commence construction.

Managing Director of Altura, Mr James Brown said that the recently completed DFS was an excellent result for both the Company and shareholders.

*“The swift completion of the Stage 2 DFS has provided excellent outcomes and provides the platform to move Altura into a strong global supply position. The DFS team has been able to utilise the knowledge from Stage 1 and effectively provide opportunities to capitalise on that experience. The Company focus remains on commissioning Stage 1 as planned which will allow for a formal investment decision to move to Stage 2 reaching total nameplate production of 440,000 tpa in early 2020.”*

## KEY RESULTS AND ASSUMPTIONS

The expansion of Altura’s Pilgangoora Lithium Operation, known as the ‘Stage 2 Project’ will result in the production of 440,000 tpa of 6% Li<sub>2</sub>O spodumene concentrate for a total revenue of **A\$4.377B**. As with Stage 1, the project demonstrates excellent financial returns with a payback period of just over 2 years and an **IRR of 63%**. See Table 1 below for key results and assumptions.

Table 1 – Altura Pilgangoora Stage 2 Key Results

Description	Units	Results
Average Annual Ore Feed to Plant (LOM)	Mtpa	3.08
Total Ore Mined	Mt	34.21
Annual Spodumene Concentrate Production (6% Li <sub>2</sub> O)	tonnes	440,000
Life of Mine (LOM)	years	13
Total Spodumene Concentrate Produced	Mt	4.75
LOM Strip Ratio	waste:ore	3:1
Spodumene Concentrate Average Market Price <sup>(3)</sup>	US\$/wmt	690
Capital Cost Estimate <sup>(5)</sup>	A\$M	118
Total Revenue	A\$M	4377
Project EBITDA <sup>(2)</sup>	A\$M	2473
Total Cash Cost FOB / tonne product <sup>(4)</sup>	A\$	324
Net Present Value (NPV) <sup>(1)</sup>	A\$M	834.6
Internal Rate of Return (IRR)	%	62.6
Discount Rate	%	10
Project payback period	years	2.3
Exchange Rate	AUD:USD	0.7500

1. Net Present Value (NPV) is post-tax nominal basis, at a 10% nominal discount rate

2. EBITDA is listed on a real basis

3. Price based on FOB forecast equivalent - refer to Market and Pricing section

4. Total Cash Cost FOB / tonne product are defined as all cash costs to free on board, excluding royalties, interest, tax and depreciation

5. Excluding sustaining capital

## STAGE 2 DFS SCOPE – BUILT ON THE IMPRESSIVE STAGE 1 PROGRESSION TOWARDS PRODUCTION

Significant progress on the construction of Stage 1 project has been made since the completion of the Stage 1 DFS (see ASX release on 26 September 2016) and this formed the foundation upon which the Stage 2 DFS was conducted.

Notable progress which will provide a strong footing for Stage 2 includes the following:

- The purchase of a 320-man camp within a 20-minute drive of the mine
- Commenced construction on Stage 1 in April 2017
- Mining Proposal approved
- Agreements in place with Town of Port Hedland and Shire of East Pilbara covering necessary road infrastructure upgrades
- Major equipment installed or being installed, pieces such as HPGR, Crushing and Screening Plant and Ball Mill
- NRW selected as the mining contractor
- Mining of waste for construction and stockpiling of ore has taken place
- QUBE selected for transport and logistics for the product

The scope of the Stage 2 DFS was therefore developed as:

- Market analysis
- Hydrogeology investigations and studies
- Geotechnical investigations and studies (civil)
  - For the new plant location
  - Earthworks required for plant location
  - Expanded Tailings Storage Facility (TSF)
- Approvals and land tenure management
- Open pit optimisation, mine design and planning
  - Test the optimality of the pit design
  - Increased requirement for waste dump storage
  - Increased plant throughput ore and waste schedule
- Fixed Plant design
  - Changes required for new plant location
  - Assess alternate crusher suppliers/design
  - ROM Pad design to allow for new ROM wall and crusher
  - Assess alternate coarse ore stockpile design
- Preliminary design of non-process infrastructure, services and utilities including the TSF
- HR and operations management
- Risk analysis
- Capital cost estimation (+/- 10%)
- Operating cost estimation (+/- 10%)

- Preliminary project schedule
- Financial evaluations and analysis
- Forward work plan
- Third Party consultations including JV partners, third party mining companies, government departments and authorities, pastoralists and native title claim groups.

## ORE RESERVE AND MINERAL RESOURCE ESTIMATES

Since publication of the Stage 1 DFS in September 2016 there have been two upgrades to the Ore Reserves and Resources estimates at Pilgangoora, in January and October 2017. These were based on drilling programs conducted by the Altura resource extension and exploration team. The latest Mineral Resource and Ore Reserve for the project was published in October 2017 in compliance with JORC 2012 and is detailed in table 2 below (see ASX announcement on 24 October 2017).

Table 2 – Altura Pilgangoora Mineral Resource (0.43% Li<sub>2</sub>O Cut-off Grade) – October 2017

JORC Category	Cut-off Li <sub>2</sub> O%	Tonnes (Mt)	Li <sub>2</sub> O%	Fe <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O Tonnes
Measured	0.43%	8.5	1.12	2.16	96,000
Indicated	0.43%	35.5	0.97	1.98	345,000
Measured & Indicated	0.43%	44.0	1.00	2.01	441,000
Inferred	0.43%	3.5	0.84	2.15	-

Cube Consulting Pty Ltd (Cube), in Perth, Western Australia was commissioned by Altura to complete a revised geological wireframe model and resource estimation based upon all drilling data completed within the Pilgangoora lithium deposit up to and including July 2017.

This revised Mineral Resource estimate is in line with Industry best practice standards and robust geostatistics and reported according to the guidelines set by the JORC Code, 2012 Edition. Altura had previously released a Mineral Resource estimate completed by Cube (see ASX Release on 30 January 2017).

Cube was also commissioned by Altura to complete a revised ore reserve estimation. The revised Ore Reserve Estimate for Altura's 100% owned Pilgangoora Lithium Project totals **34.2Mt at 1.04% Li<sub>2</sub>O** and is classified as a Proved and Probable Ore Reserve estimate (see ASX announcement on 24 October 2017). This is detailed in Table 3 below.

Table 3 – Altura Pilgangoora Ore Reserve Estimate (0.43% Li<sub>2</sub>O Cut-off Grade) – October 2017

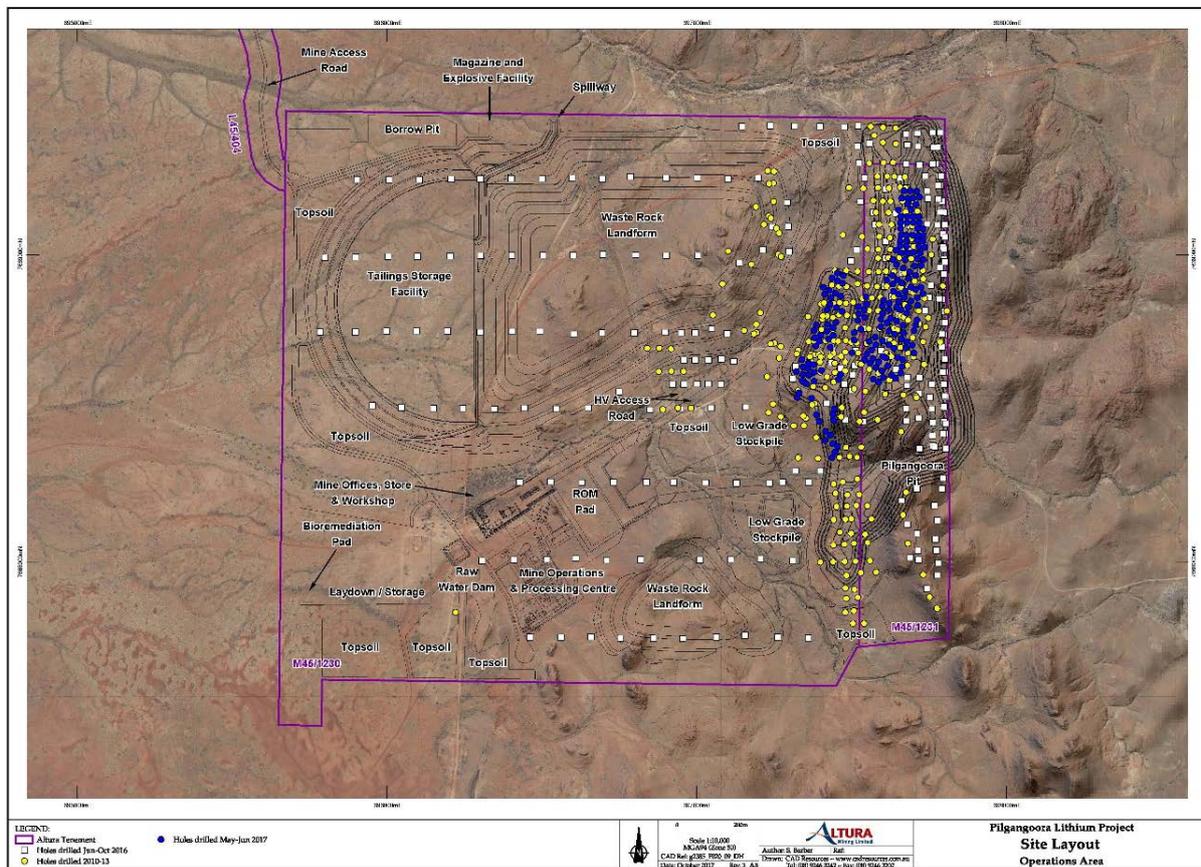
JORC Category	Cut-off Li <sub>2</sub> O%	Tonnes (Mt)	Li <sub>2</sub> O%	Fe <sub>2</sub> O <sub>3</sub>	Li <sub>2</sub> O Tonnes	Production Target %
Proved	0.43%	8.1	1.14	2.16	92,000	23.7%
Probable	0.43%	26.1	1.01	2.16	264,600	76.3%
<b>Total</b>	<b>0.43%</b>	<b>34.2</b>	<b>1.04</b>	<b>2.16</b>	<b>356,600</b>	<b>100.0%</b>

Cube carried out open pit optimisation on the Measured and Indicated Resource material within the proposed open pit. Slope design criteria, mining dilution, ore loss and processing recoveries were applied in the pit optimisation process together with mining, processing, transport and sales cost estimates, and revenue projections to form the basis for pit designs and subsequent mining and processing schedules. Figure 1 outlines the proposed Site Layout in relation to the completed drill holes.

As with the previous Ore Reserve estimate (see ASX Release on 30 January 2017), it is assumed in this latest Ore Reserve that mining may take place on the adjacent Pilbara Minerals tenement to the East to facilitate accessing of deeper Ore Reserves on the Altura tenement.

There is clear and reasonable expectation that mining across the tenement will be able to take place. The mining on the Pilbara Minerals side of the tenement boundary has been dealt with on a conservative basis in the estimation of these Ore Reserves, in that all mining costs are assumed to be paid by Altura. Furthermore, no economic value has been allocated to potential Ore Reserves on the Pilbara Minerals tenement, which are therefore also excluded from the reporting of the Ore Reserves.

Figure 1 – Site layout overlaid by previous and recent (blue) drill holes



There is significant potential to increase the mineral resource and ore reserve estimates by way of resource extension drilling and further exploration drilling on Altura’s wide portfolio of highly prospective exploration tenements in the Pilgangoora region.

Altura holds approximately 16,000ha of exploration tenements in the Pilgangoora region in addition to the mining tenements on which the Pilgangoora mine is located.

In March 2018 a resource extension drilling program was completed in the Southern Ridge area of the pit that yielded extremely pleasing results, which is expected to lead to a Mineral Resource and Ore Reserve estimate update in May 2018 (see ASX announcement on 10 April 2018).

## MINING PROCESS

Mining will be undertaken by conventional bulk mining methods utilising EX2500 hydraulic excavators, CAT785 dump trucks and drill and blast delivering ore to a ROM stockpile. Ore will be trucked directly from the blasted faces to the ROM stockpile and fed to the primary crusher using a Front-End Loader (FEL). There has been allowance made for blending from the ROM and external stockpiles. The mining operation is 12-hour shifts with crews working day shift and night shift once Stage 2 operations begin to ramp up.

The pits will be mined using 3m flitches for ore and waste. This height gives reasonable production efficiency while keeping dilution to a minimum. In waste, the flitch height could be increased to improve efficiency within the limits of the equipment size. Table 4 details the design parameters that have been used for the Pilgangoora pit designs.

Table 4 – Altura Pilgangoora Pit Design Parameters

Parameter	Unit	Amount
Bench Height	m	6
Batter Angle	Degrees	75
Stack Height	m	12
Stack Berm Width	m	10
Inter-ramp Angle (IRA)	Degrees	42.25
Geotechnical Catch berm interval	m	80
Catchment Berm Width	m	15
Ramp Width	m	24

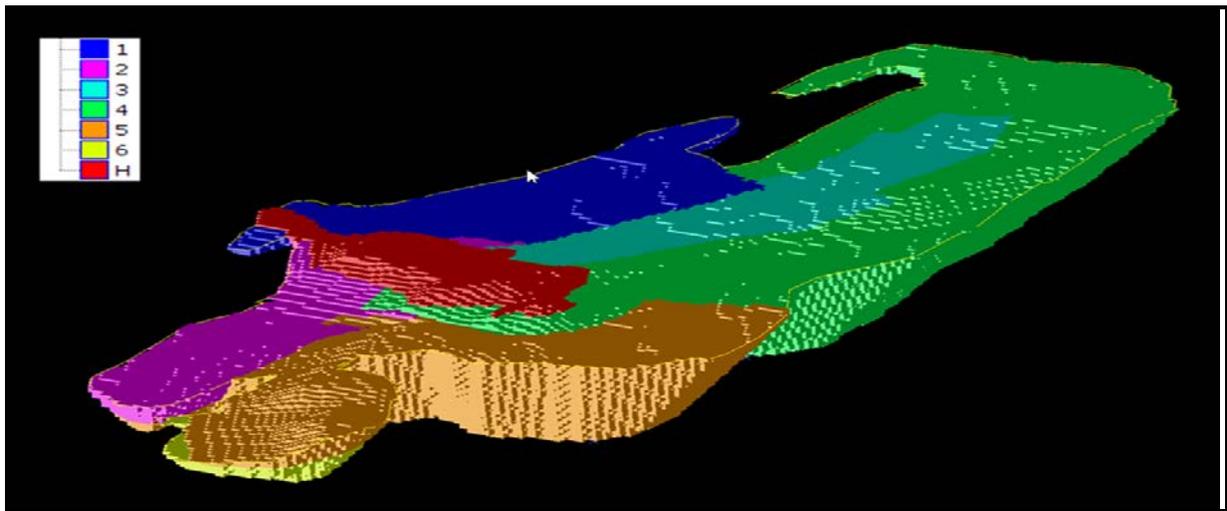
All haul roads used by mine equipment need to accommodate a Caterpillar 785, 130t dump trucks. The main ramps with an overall width of 3.5-4 times the truck width using a 10% gradient. This allows for safe passing of trucks inclusive of wall side drainage and pit side bunding. For the benches at the pit bottom (up to 40 metres overall height), a single lane ramp running width of 2.0 times the truck width was adopted at 10% gradient to reflect the lower traffic intensity on this section of the ramp and to minimise waste development.

All mine waste rock will be dumped external to the pit. Waste rock dumps have been designed to allow the LOM waste volumes.

Within the open pit, water will be managed via ditching on benches and through sumps in the pit floor. The actual drain requirements will be assessed during operations based on the performance of the dewatering system as the requirements are likely to vary with mine depth. Flooding of the lower operating bench following rainfall will be removed via a pumping system to either turkey's nests for use in dust suppression or to the overall site raw water storage system.

A total of 6 mining stages plus a Hilltop stage were developed for the mining sequence within the final pit.

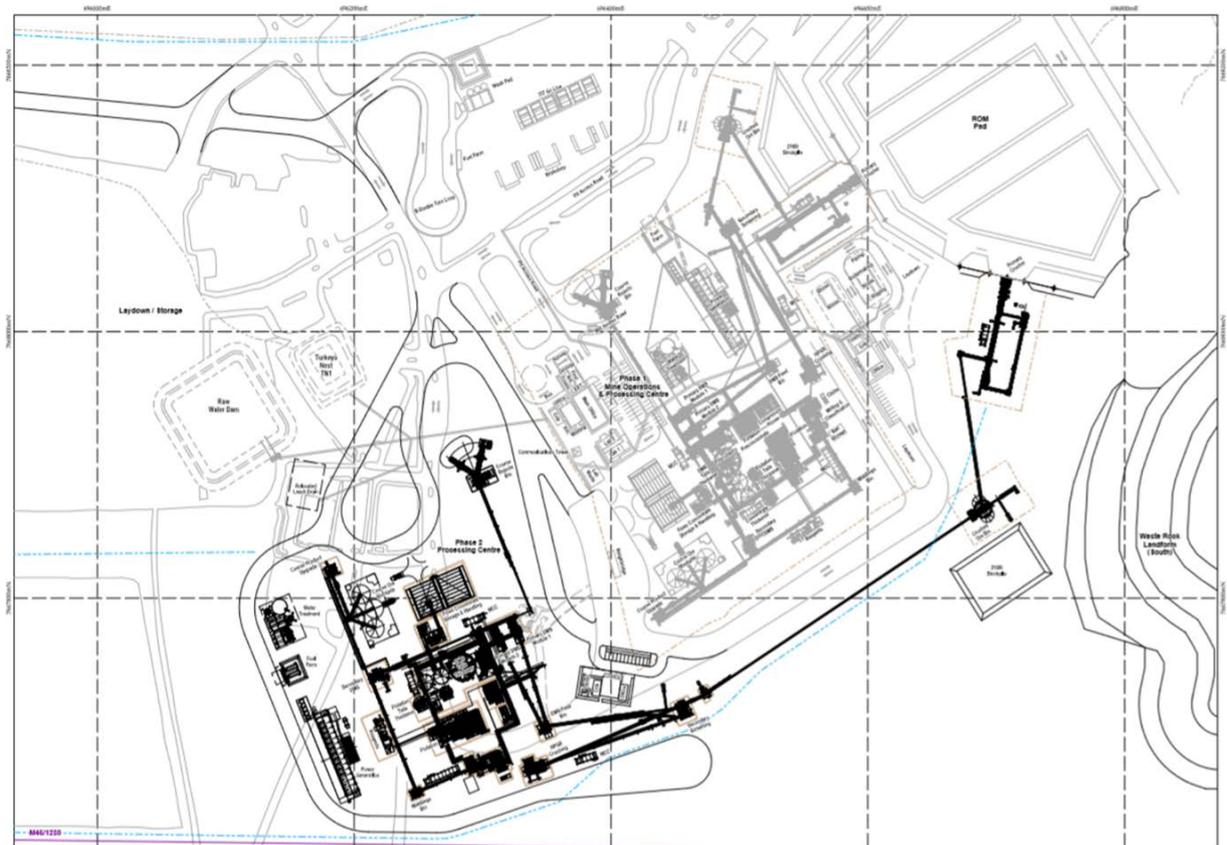
Figure 2 – Altura Pilgangoora Mining Stages 1 to 6



## PROCESS PLANT

The Stage 2 Processing plant is a duplicate of the Stage 1 plant with some minor exceptions to suit the topography and existing infrastructure that will be utilised. Otherwise all is as per the Stage 1 plant to reduce the need for redesign. The Stage 2 Plant is shown in bold, to the South West of the Stage 1 plant in Figure 3 below.

Figure 3 – Altura Pilgangoora Stage 2 Process Plant Layout



The process design for the Stage 2 Plant is as per Stage 1 and its main components are outlined below:

- Two-stage crushing and dry screening circuit
- HPGR tertiary crushing and wet screening plant to produce a 6 x 1mm crushed product size and -1mm fines stream
- Mica removal on both the above streams prior to processing
- Dense Media Separation (DMS) on the coarse 6 x 1mm fraction producing a coarse spodumene product
- Milling and flotation circuit to produce an on-grade fine spodumene product
- Magnetic separation to separately remove iron contamination from the coarse and fine concentrate

Run of Mine (ROM) ore will be delivered by haul trucks and dumped on the ROM pad. Provision has been made for numerous ROM stockpiles at different grades, to allow feed blending to optimise plant performance.

The Stage 2 processing plant is designed to process an anticipated 1.54Mtpa of mined pegmatite ore. The ore is crushed to 28mm through a closed crushing circuit utilising a primary jaw crusher, secondary cone crusher and dry vibrating screen. The -28mm material is stockpiled to delink the crushing circuit from the remainder of the plant. The ore is then crushed with High Pressure Grinding Rolls (HPGR) to reduce the particle size to -6mm and wet screened to a 6x1mm DMS feed and -1mm fines fraction.

Mica is removed from the DMS feed via classification prior to a two stage DMS plant producing a high density on-grade spodumene product, medium density middlings and low density rejects streams. The -1mm fines from the HPGR is subject to further classification to remove mica prior to further processing.

Middlings from the DMS and pre-concentrated fines report to a closed-circuit ball mill to reduce the particle size to a P80 of 106µm. The milled ore is de-slimes removing the -20µm fines before reporting to the flotation circuit. A rougher cleaner and recleaner circuit upgrades the fines to an on-grade +6% Li<sub>2</sub>O concentrate.

The flotation concentrate is subject to high intensity magnetic separation to reduce iron levels in the concentrate. The fine concentrate is dewatered and stockpiled for blending with the coarse concentrate before shipping. Figure 4 shows a high-level process flow through the plant.



Figure 5 – Altura Pilgangoora Life of Mine Tonnes Mines of Ore and Waste

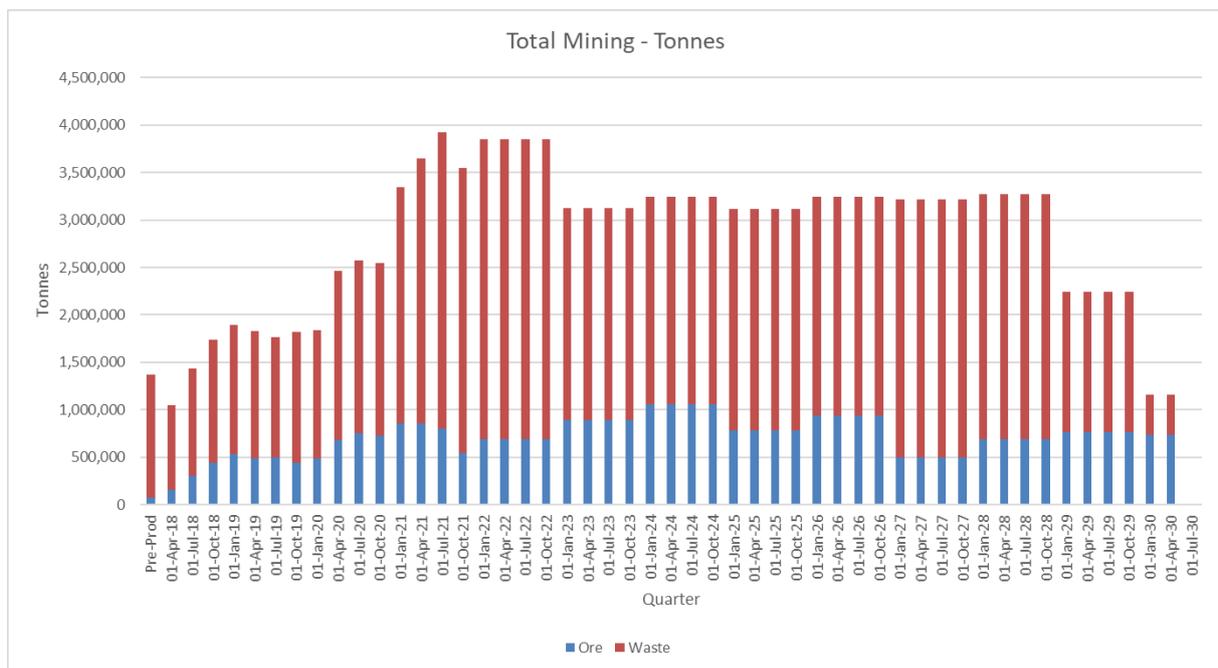
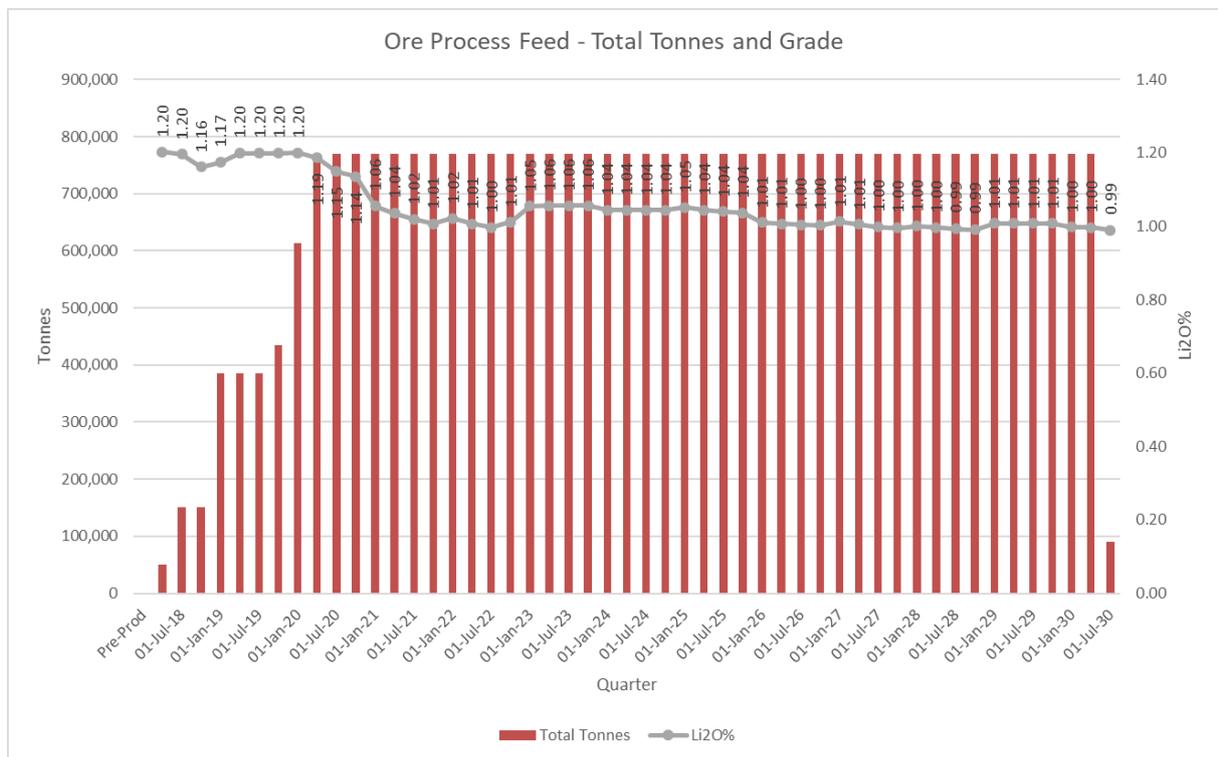


Figure 6 – Altura Pilgangoora Ore Process Feed



## NON-PROCESS INFRASTRUCTURE

The majority of Non-Process Infrastructure (NPI) required for Stage 2 has already been installed as part of Stage 1 and in some cases simply requires some upgrades. A summary of the NPI required for Stage 2 includes:

### Mine Support Infrastructure

- Mine Operations Centre (MOC) – completed
- Crib Rooms and Ablutions – completed
- First aid facility and Ambulance bay – completed
- Fixed Plant Workshop – completed
- Laboratory – completed
- Communications infrastructure – completed
- Power Generation – new plant to be constructed for Stage 2
- Fuel storage and dispensing – new storage for Stage 2 plant
- Potable and waste water treatment – new facility for Stage 2
- Light vehicle (LV) parking and bus parking – completed

### Roads

- Mine site access road from Wodgina Access Road to mine lease – part of Stage 1
- Wodgina Access road upgrade – part of Stage 1

### Water Infrastructure

- Supply and installation of bore headwork's, pumps, piping and generators
- Bore monitoring equipment
- Turkeys nests

### Accommodation

Altura purchased its site accommodation from Roy Hill Holdings (RHH) Rail Camp 2, which is located near the intersection between the Wodgina Access Road and the Great Northern Highway. The mine is a 20-minute drive east from the camp.

At the time of purchase, the camp consisted of 328 rooms and central facilities sized for an expansion to 500 rooms. There are 80 x 4 Single Person Quarters (SPQ) modules, and 4 x 2 SPQ modules. The camp facilities include laundries, dry and wet mess, 175kl RO plant, waste water treatment plant, power plant, gym, recreation room, first aid room, administration and retail centre and ice rooms.

As part of Stage 1 an additional 40 rooms and 1 laundry were installed, taking the total rooms currently available to 368. To facilitate Stage 2 expansion an extra 132 rooms will be required in the existing camp.



## TRANSPORT AND LOGISTICS

Qube Bulk is contracted to provide transport for product from stockpiles at the mine to side of ship (Free on Board) of a bulk carrier vessel located at the multiuser port facility in Port Hedland.

The Qube logistics chain is:

- 1) Double combination road trains will be loaded by front end loader (FEL) from the product stockpile with 66t of product. An onsite weighbridge or Loadright on the FEL will verify payloads are within permit limits.
- 2) The double combination will travel to a storage shed in Wedgefield and side tip into a stockpile in the shed. The route is shown in Figure 8.
- 3) On arrival of a prescribed vessel at port, FELs will load product from the stockpile in the shed into Rotaboxes. Each Rotabox has a capacity of 25t.
- 4) Triple combination road trains will take the Rotaboxes to port, via the route shown in Figure 9 are then removed from the trailers and loaded on to Mafi trailers. The trailers transport the Rotaboxes onto the berth which are then picked up by a mobile harbour crane or ship crane, and tipped into the hold.

Figure 8 – Haulage Route – Pilgangoora to Storage Shed

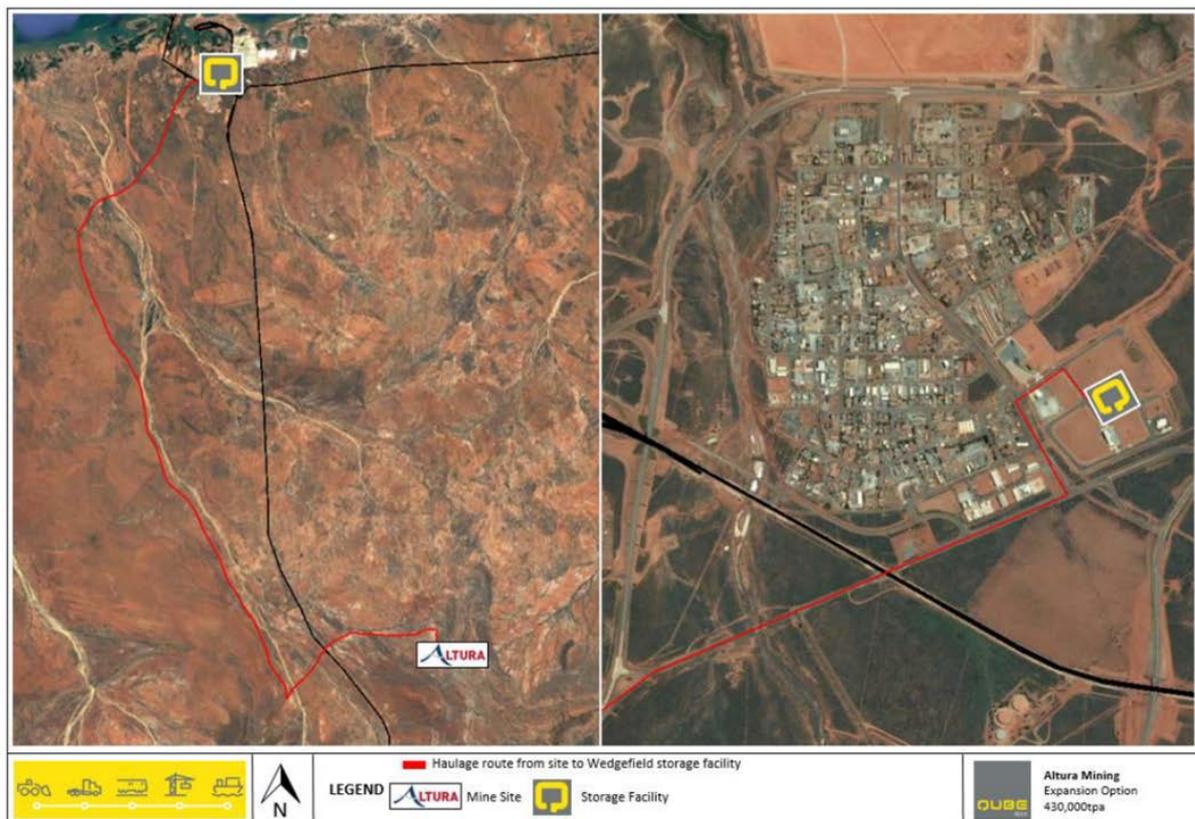


Figure 9 – Haulage Route – Storage Shed to Port



## CAPITAL COST

The capital cost required to double the output of the process plant is estimated at A\$118 million. This capital cost estimate excludes any contingencies and sustaining capital. The estimating methods that have been used are based on actual costs for the same equipment that was used in Stage 1, with allowances for inflation applied, as well as quotations for new items of equipment where they were not previously purchased in Stage 1.

A summary of the capital expenditure distribution is shown in Table 5 below.

Table 5 – Altura Pilgangoora Stage 2 Capital Costs

No	Description	Cost (AUD \$M)
1	Process Plant Supply and Install	95.80
2	Non- Process General Infrastructure	8.12
3	Owners Costs – Construction (Accommodation, flights, fuel etc)	6.82
4	Owners Costs – General (Staff costs/Freight/Insurances etc)	8.20
	<b>CAPEX TOTAL</b>	<b>118.94</b>

The capital cost estimates are presented in Australian dollars with a base date of July 2018 and they carry an expected accuracy range of  $\pm 10\%$ . The estimate excludes contingencies, escalation and sustaining capital.

## OPERATING COST

The Stage 2 C1 Operating Cash Cost is estimated at **A\$323.96 / tonne product**.

Table 6 – Altura Pilgangoora Stage 2 Operating Costs/Tonne product

Description	Cost (AUD \$)/Tonne
Mining Costs	114.50
Processing Costs	130.37
Haulage and Port	36.53
Other Mine Site Costs	25.21
Native Title	8.84
Mining Overheads	8.51
<b>C1 CASH COST</b>	<b>323.96</b>

C1 Cash Cost is defined as all cash costs to free on board, excluding royalties, interest, tax and depreciation.

The operating strategy that has been adopted as a basis of this estimate is as follows:

- 1) A mining contractor provides drill, blast, load and haul services to the run of mine (ROM) pad. The mining contractor will provide all services to extract ore and waste material using conventional open cut mining method via a mining activities contract. Haul trucks will stockpile ore on the ROM, low grade ore to low grade stockpile and waste to the waste rock dump. The mining operator will feed ore to the processing plant with a FEL from the ROM.
- 2) The Stage 2 process plant is owner operated at an anticipated feed rate of 1.54Mtpa to produce 6% Spodumene concentrate at approximately 220ktpa in addition to the 1.54Mtpa from the Stage 1 plant. The process operation will include stacking of fines and coarse spodumene in preparation for FEL loadout for road haulage to the port. A third party build own operate laboratory, including costs for labour and equipment required to process metallurgical samples taken in the plant, is included in the processing cost.
- 3) A logistic contractor shall undertake product loadout, road haulage from the mine, storage and ship loading operations.
- 4) A Company owned accommodation camp is operated by a third-party services provider who will provide all accommodation, messing and maintenance related services.
- 5) The Company will provide all operations management and technical services for operations and mine planning, grade control and mine surveying to support and coordinate the Project's operations.

## MARKETING AND PRICING

The Altura Pilgangoora Lithium Project has utilised a 6% Li<sub>2</sub>O weighted average price of USD\$690.4/wmt FOB (real) basis. The total revenue for the life of mine is A\$4,377M (real) with a calculated weighted average price of A\$920.5/wmt FOB (real).

The pricing forecasts were averaged from published reports within the last 6 months from 7 independent market sources which included banks, brokers, research houses and other financial institutions. These are shown in Table 7 below.

Table 7 – Price Prediction USD \$ / tonne 6% Li2O Product

Source	Date	2018	2019	2020	2021	2022	2023	2024	2025	LT
Source 1	27-Mar-18	946	944	925	946	970	994	1,019	1,044	1,044
Source 2	26-Mar-18	977	998	915	876	622	638	654	670	670
Source 3	01-Mar-18	885	818	679						
Source 4	26-Feb-18	969	835	648	572	615	644	673	707	707
Source 5	29-Jan-18	865	901	820						
Source 6	23-Jan-18	967	739	789	819	847				
Source 7	05-Nov-17	920	834	740	761	748	810	810	842	842
<b>Average</b>	<b>USD/t nominal</b>	<b>933</b>	<b>867</b>	<b>788</b>	<b>795</b>	<b>760</b>	<b>771</b>	<b>789</b>	<b>816</b>	<b>816</b>
<b>Average</b>	<b>USD/t real</b>	<b>910</b>	<b>825</b>	<b>732</b>	<b>720</b>	<b>672</b>	<b>665</b>	<b>664</b>	<b>670</b>	<b>670</b>

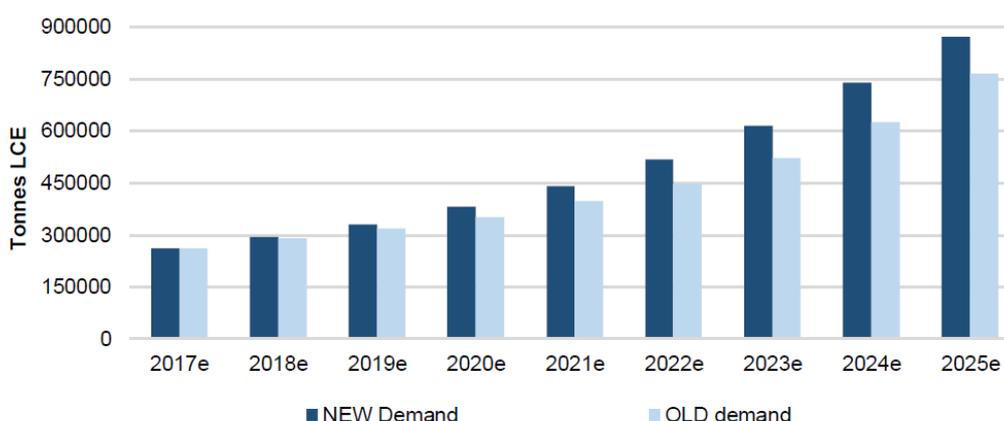
Note: LT = Long Term

Estimates of the current and future demands for lithium vary due to the general opacity of the world lithium market and the lack of a spot pricing system. Despite this there are several reputable sources that provide demand forecasts out to 2025 and these have been used to compile the average pricing forecast for this report.

The consensus amongst these sources is that between 2010 and 2015 world Lithium demand experienced a Compound Annual Growth Rate (CAGR) of between 6% - 7% however with the recent rapid acceleration in EV battery technology and hence EV take up, the expected CAGR of Lithium products between 2018 to 2025 is expected to be in the order of 15%, based on a 10% Electric Vehicle penetration rate of 10% by 2025.

Canaccord recently updated their Lithium demand forecasts based on new research as in Figure 10 below.

Figure 10 – Canaccord Lithium demand forecast 2017 - 2025



Source: ev-volumes.com, Canaccord Genuity estimates

## FINANCIAL SENSITIVITIES

Financial Sensitivity Analyses covering a number of scenarios have been completed on the project.

The key sensitivities and inputs examined were:

- Operating costs (OPEX)
- Capital costs (CAPEX)
- Revenue based on Spodumene Concentrate Price (6% Li<sub>2</sub>O)

The results of the sensitivity analyses are detailed in Table 8 with all amounts shown in A\$M. The key outcome is the sensitivity to revenue (spodumene ore price) which is greater than both OPEX and CAPEX. Open pit mining operations such as Altura's Pilgangoora are generally more sensitive to fluctuations in ore price therefore the result is not unusual.

The upside however is that the project is very robust in regards to OPEX and CAPEX providing a long term stable platform in order to deliver strong cashflows and shareholder returns. This is also consistent with the Stage 1 sensitivity analysis previously conducted.

Table 8 – Stage 2 Financial Sensitivity to Capex, Opex and Price

OPEX Sensitivity	Pre-Tax real Discount Rate and Incremental NPV Impact (A\$M)		
	8%	10%	12%
-15%	1,343	1,177	1,036
-10%	1,300	1,139	1,002
-5%	1,257	1,100	968
0%	1,214	1,062	933
+5%	1,171	1,024	899
+10%	1,127	986	865
+15%	1,084	947	831
CAPEX Sensitivity	Pre-Tax real Discount Rate and NPV Variance (A\$M)		
	8%	10%	12%
-15%	1,232	1,079	950
-10%	1,226	1,074	944
-5%	1,220	1,068	939
0%	1,214	1,062	933
+5%	1,208	1,056	928
+10%	1,202	1,051	922
+15%	1,196	1,045	917
ORE PRICE Sensitivity	Pre-Tax real Discount Rate and NPV Variance (A\$M)		
	8%	10%	12%
-15%	862	749	652
-10%	979	853	746
-5%	1,096	958	840
0%	1,214	1,062	933
+5%	1,331	1,167	1,027
+10%	1,448	1,271	1,121
+15%	1,565	1,376	1,214

## PROJECT SCHEDULE AND TIMELINE

The Stage 2 project schedule that was developed during the DFS shows that it will be approximately 18 months from final investment decision to first production at Pilgangoora.

The main activities are shown in Table 9 below and this assumes that a final investment decision will be made by the Board only once the process plant in Stage 1 has been verified during commissioning.

Table 9 – Stage 2 Key Schedule Activities

Description	Date
<b>Definitive Feasibility Study</b>	
DFS Work	12/04/18
Stage 2 Early Works Approved	23/04/18
Stage 1 Plant - Performance Verified	30/07/18
<b>DMP Approvals</b>	8/10/18
<b>Engineering</b>	3/08/18
<b>Contracts and Procurement</b>	
<b>Long Lead Time Equipment</b>	
Ball Mill - Order Placed	10/08/18
HPGR - Order Placed	10/08/18
Crushing and Screening Plant - Order Placed	10/08/18
Pumps - Order Placed	24/08/18
DMS Modules - Order Placed	17/09/18
Conveyors - Order Placed	17/09/18
Miscellaneous Equipment - Orders Placed	15/10/18
<b>Construction Contract - Tendering</b>	21/09/18
<b>Construction Contract - Supply and Install - Orders Placed</b>	21/09/18
<b>Construction</b>	
<b>Process Plant Installation</b>	
Steelwork and Platework Supply and Delivery	22/03/19
Civil, Bulk Earthworks	19/11/18
Civil Construction	17/06/19
SMPP Installation	4/11/19
EC&I Installation	18/11/19
<b>Power Plant Installation</b>	24/06/19
<b>Commissioning (Complete)</b>	13/01/20

## PROJECT FUNDING

Altura has a number of options available to fund the Stage 2 Project.

These include the following:

- Internally generated cash flow from Stage 1 operations
- Further debt funding
- Pre-payments on Stage 2 production
- Equity capital

Altura emphasises that no decisions on funding have been made by the Board during the Stage 2 DFS.

Altura will however take advantage of the strong demand for Lithium products globally and secure its offtake as it did during Stage 1 of the project.

## COMPETENT PERSONS STATEMENTS

The information in this report that relates to the Mineral Resource for the Pilgangoora lithium deposit is based on information compiled by Mr Stephen Barber. Mr Barber is a Member of the Australasian Institute of Mining and Metallurgy. Mr Barber is the Senior Resource Geologist at Altura Mining Limited and has sufficient experience that is relevant to the style of mineralisation under consideration and to the activity of mineral resource estimation to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Barber consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the Ore Reserve for the Pilgangoora lithium deposit is based on information compiled by Mr Quinton de Klerk. Mr de Klerk is a Fellow of the Australasian Institute for Mining and Metallurgy. Mr de Klerk is a Director and Principal Consultant of Cube Consulting Pty Ltd and has sufficient experience that is relevant to the activity of ore reserve estimation to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr de Klerk consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the ASX announcement on 24 October 2017. Further, all material assumptions and technical parameters underpinning the mineral resource and ore reserve estimates in that announcement continue to apply and have not materially changed.

### **About Altura Mining Limited (ASX: AJM)**

*Altura is building a leading position in the independent supply of lithium raw materials, with a world-class Altura Lithium Project at Pilgangoora to become Australia's next major hard rock lithium product supplier in 2018. Altura has an experienced in-house team focussed on delivering the Altura Lithium Project into production. The project is the most advanced stage, near-term producing lithium project; coupled with solid offtake partners and a market providing substantial growth opportunities to ensure positive shareholder returns.*

For further information, please visit [www.alturamining.com](http://www.alturamining.com) or phone:

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## FORWARD LOOKING STATEMENT

The information contained within this announcement may contain references to forecasts, estimates, assumptions and other forward looking statements. The company believes that its expectations, estimates and forecast outcomes are based on reasonable assumptions, it can give no assurance that they will be achieved. These assumptions maybe affected by a variety of variables and changes in the base assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to vary materially from those expressed herein. Investors should make and rely upon their own investigations before deciding on whether to acquire or deal in the Company's securities.