PILBARA MINERALS
LIMITED

Pilgangoora Lithium-Tantalum Project

ASX: PLS

The world's leading lithium development project

January 2017

Disclaimer and Competent Person's Statement

Forward Looking Statement Disclaimer

- This presentation may contain some references to forecasts, estimates, assumptions and other forward-looking statements. Although 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. They may be affected by a variety of variables and changes in underlying assumptions that are subject to risk factors associated with the nature of the business, which could cause actual results to differ materially from those expressed herein. All references to dollars ($) and cents in this announcement are to Australian currency, unless otherwise stated.
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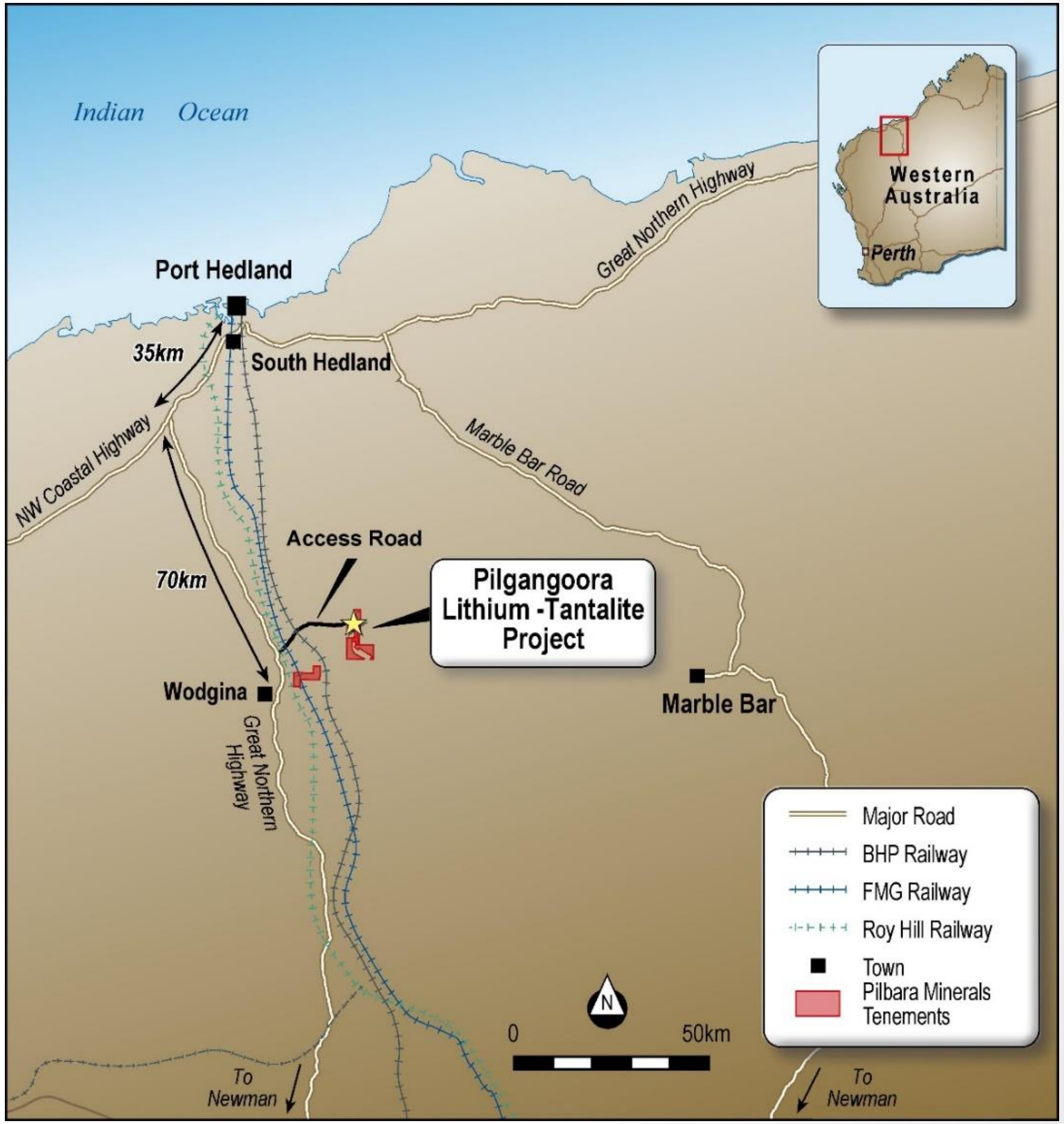
Competent Person Statements

- The Company confirms it is not aware of any new information or data that materially affects the information included in the 25th of January, 2017 Pilgangoora Mineral Resource Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 25th of January, 2017.
- The Company confirms it is not aware of any new information or data that materially affects the information included in the 22nd of August , 2016 Pilgangoora Ore Reserve Estimate and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 22nd of August 2016.

Developing a World-Class, Long-Life Lithium Mining Centre

- Pilgangoora Project located 120km south of Port Hedland in WA's Pilbara region
- Reserve location offers strategic advantages for infrastructure access, mining approvals and lower cost of operations
- High quality DFS demonstrates economic potential of one of the world's leading lithium development projects:
  - *Strong technical fundamentals and very low forecast cash operating costs*
  - *High margin project set to deliver outstanding cash-flows and returns*
  - *Initial mine life of 36 years based on updated reserve, with significant further growth potential*
- 2Mtpa Pilgangoora execution project underway
- 4Mtpa expansion option, PFS complete
  - *Outstanding economic returns*

A robust, long-life project in a Tier-1 mining jurisdiction

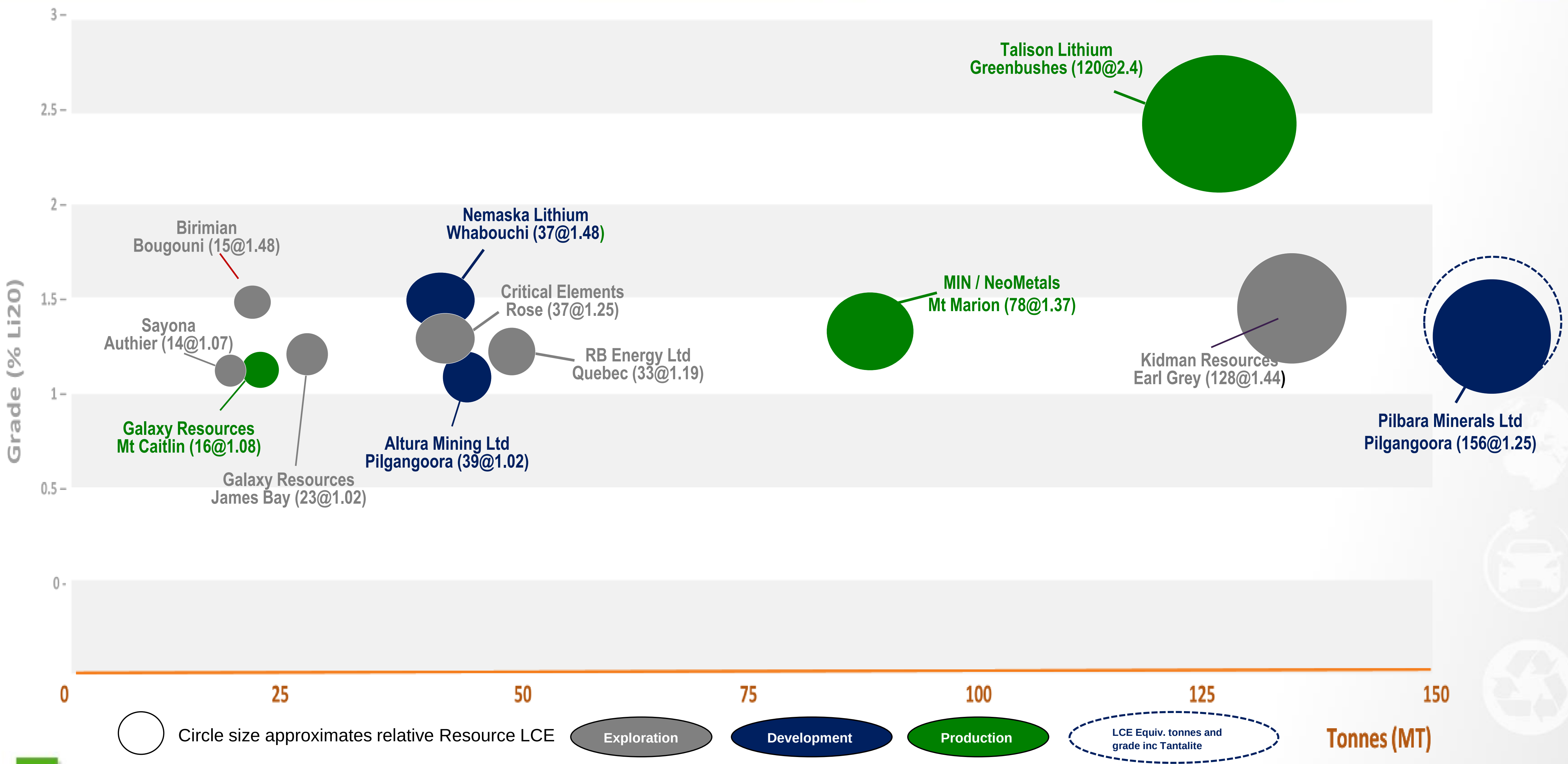


Corporate Summary

Pilbara Minerals Share price – as at 23 January, 2017

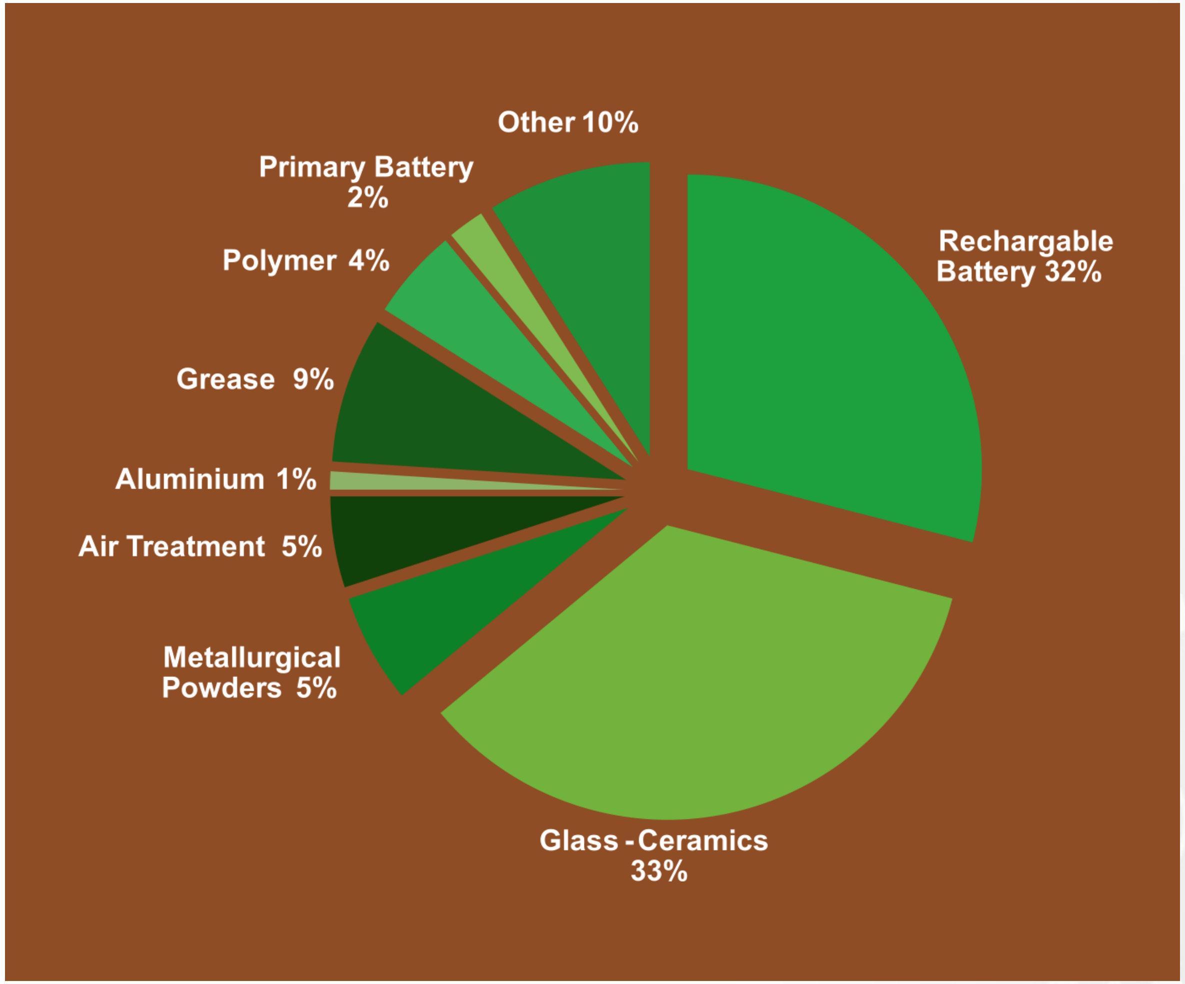
Capital Structure	ASX: PLS		
Shares on issue	**1260 million**	Top 20 shareholders	**Approximately 37%**
Unlisted Options	**117 million**	Cash at 30/12/2016	**≈$80 million**
Market capitalisation	**$687 million @ 54.5¢**	Debt	**Nil**
Enterprise Value	**$607 million**	3 month average daily volume	**14.4 m**

Pilgangoora – A Globally Significant Hard Rock Lithium Resource



Global Lithium Markets *Surging Demand – Tight Supply*

- Pilgangoora spodumene concentrates meet the metallurgical specifications of the entire range of lithium products
- Cornerstone off-take agreement with General Lithium
- Innovative Run-of-Mine ore offtake agreement with Shandong Ruifu, from July 2017
- Further offtake under negotiation, with substantial future production expansion capacity available
- All off-take partners have substantial expansion plans to meet anticipated demand for transport electrification
- Increased production of chemical lithium products restrained by lack of mine supply



SOURCE:ROSKILL 2015 Demand Data

Pilgangoora spodumene concentrate meets the specifications of the entire lithium market

China Market Overview – 2015 Snapshot (LCE)

Imports +72kt

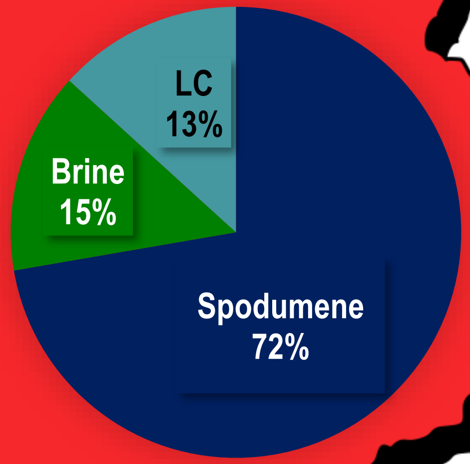
- Spodumene (55kt) *
- Brine (6kt)
- Lithium Carbonate

*416ktpa 6% Spodumene
(inc. 25-40kt for technical applications)*

Domestic Production +10kt

Local Production:
- Brine (6kt)
- Spodumene (5kt)

+70kt China Net Consumption



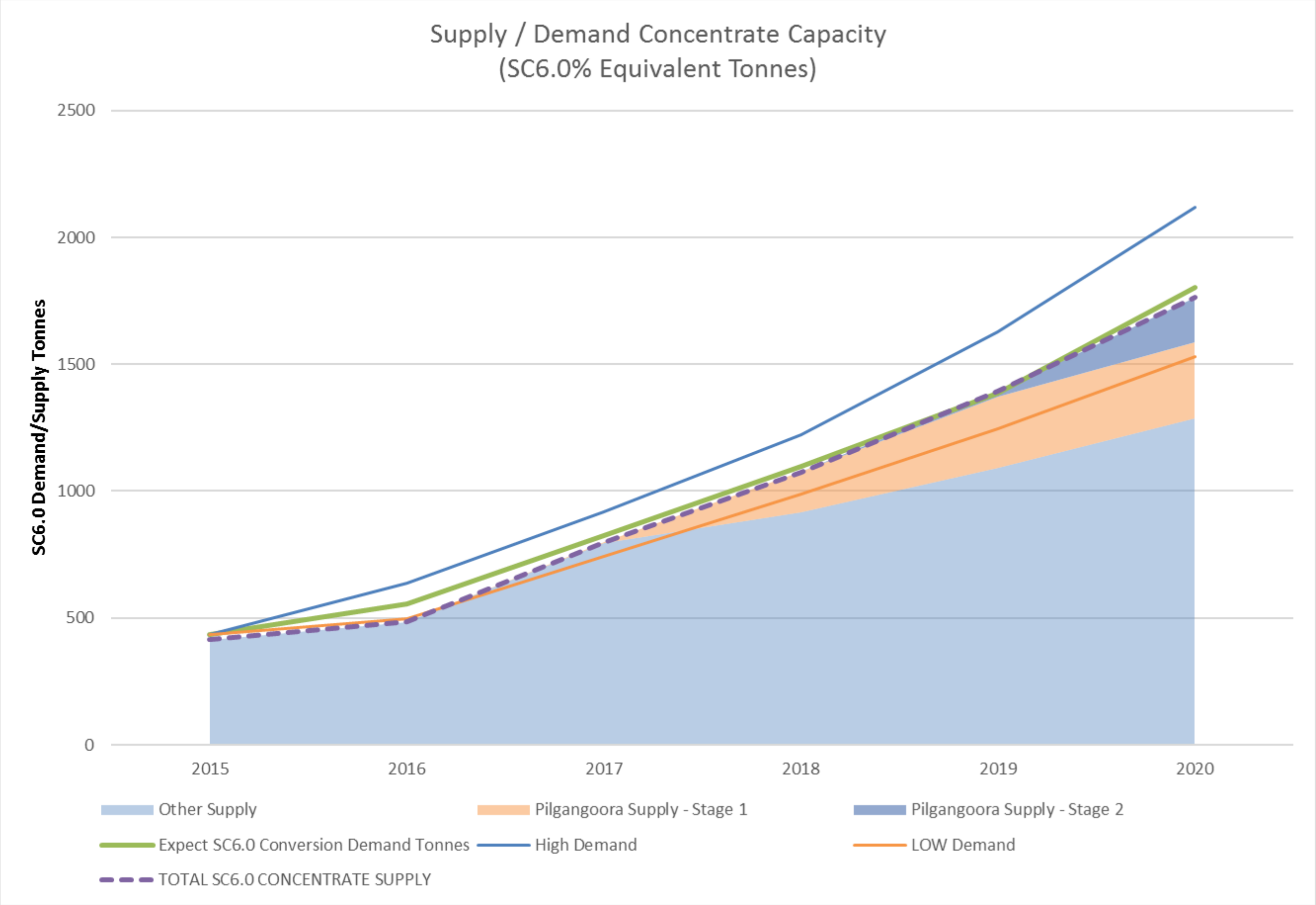
Exports -12kt

- Lithium Carbonate (2kt)
- Lithium Hydroxide

China market heavily reliant on imported spodumene concentrates to grow raw material supply base

China – A Lithium Consumption Powerhouse

- Broad Central Government policy position towards 'New Energy'
  - *Domestic carbonate pricing took-off coincidentally with acceleration in EV, Electric Bus sales*
- Significant expansion through entire lithium-ion supply chain, including major chemical conversion capacity expansion (spodumene to Li_2CO_3 & LiOH) over coming 5 years
- E-Bike / electrification mobility phenomenon
  - *30 Million E Bikes produced annually in China, converting to Li ion batteries*
- Broad transport electrification
  - *Targeting 5M new energy vehicles by 2020*

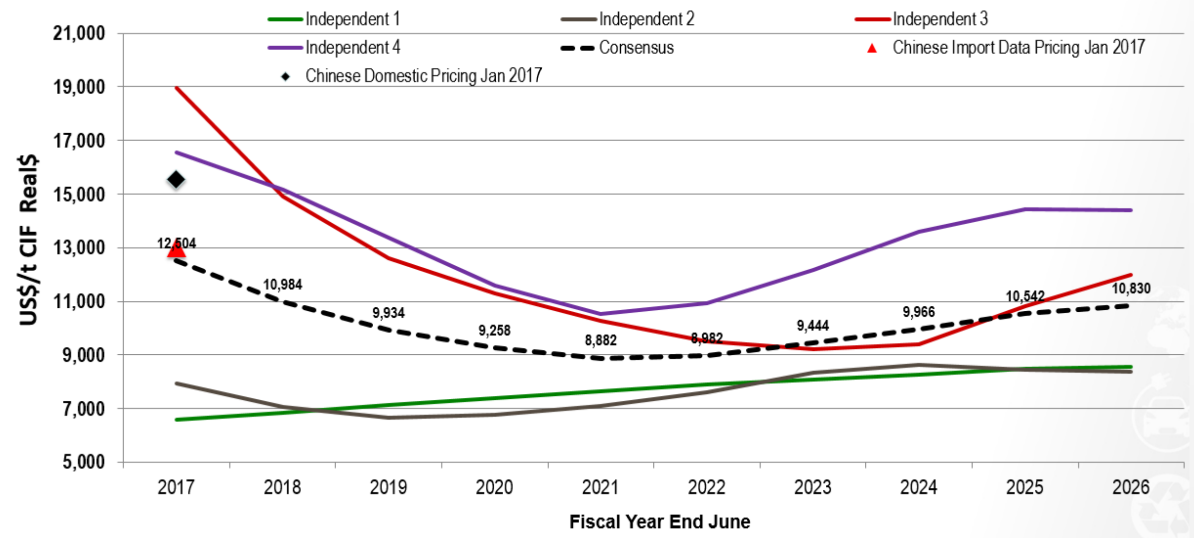


SOURCE: Pilbara Minerals Conversion Market Analysis Aug 2016

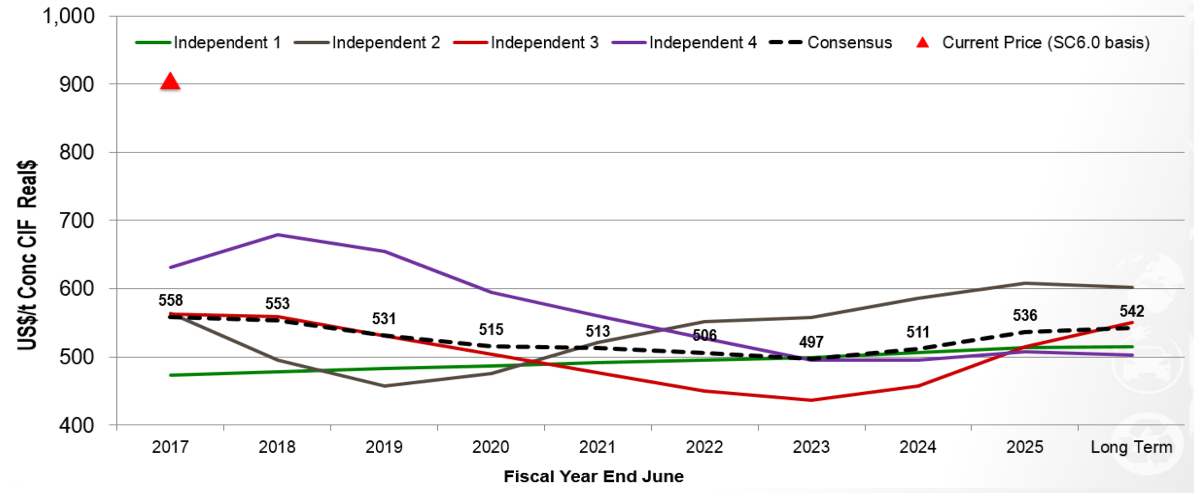
Pricing, Outlook

- Forecast price deck derived from basket of independent economic and bank/broker models
  - *China domestic pricing, import pricing and spodumene import pricing models*
- Expectation that domestic battery grade carbonate pricing and import pricing will converge over time
- General Lithium spodumene offtake price based on relativity to the combined Chinese domestic and import pricing outcomes
- Remaining concentrate priced against the consensus spodumene price forecast
- Mt Cattlin - 2017 spodumene price US$905/t FOB Esperance (SC6.0 basis)
- Robust margins from the Pilgangoora project

Price forecast – Battery-grade Lithium Carbonate



Price forecast – SC6.0 Chemical-grade Spodumene



Albemarle Chile Royalty Regime

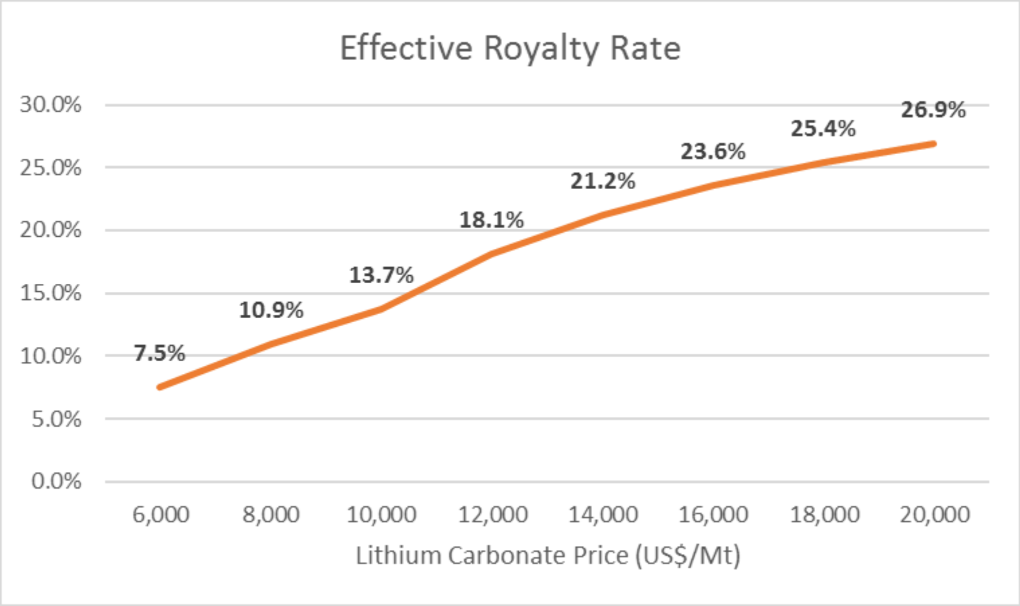
In January 2017, Albemarle, under agreement to expand lithium production in Chile, agreed to a new progressive government commission on Lithium Sold.

The commission is applicable to every tonne of product sold from Chile.

Will have a significant impact to their lithium carbonate equivalent cost base.

		Incremental Commision Paid (US$/Mt LCE)		
Sales Price (US$/Mt LCE)	**Progressive Commision Rate**	**Example Price $8,000**	**Example Price $10,000**	**Example Price $12,000**
$0-$4,000	6.8%	272	272	272
$4,001 - $5,000	8.0%	80	80	80
$5,001 - $6,000	10.0%	100	100	100
$6,001 - $7,000	17.0%	170	170	170
$7,001 - $10,000	25.0%	250	750	750
>$10,000	40.0%	0	0	800
Total Commission		**872**	**1,372**	**2,172**
Effective Rate		***10.9%***	***13.7%***	***18.1%***

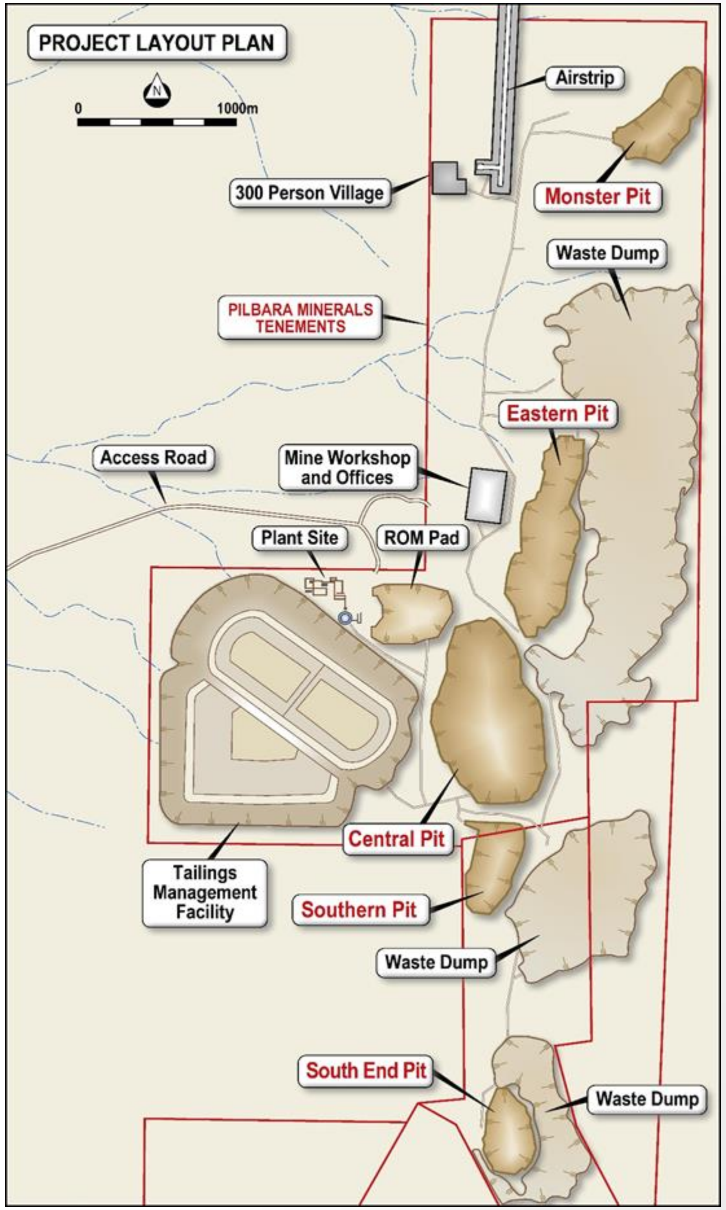
SOURCE: Albemarle Announcement, Jan 2017



Project Highlights *Outstanding project economics driven by very low cost of operations*

DFS OUTCOMES, 2Mtpa Process Capacity Base Case

- Average annual production of approximately 314ktpa of 6% spodumene concentrates (44ktpa of Lithium Carbonate Equivalent or LCE) and 321,000lbs pa of tantalite
- LOM revenues of A$9.2Bln (real) generating LOM after tax cash flows of A$2.6Bln
- EBITDA over first 5 years of operations of approximately A$136M per annum (real); LOM EBITDA average of A$121M per annum
- DFS based on assumed life-of-mine average spodumene price of US$537/t CFR derived from basket of independent forecasters/brokers/banks. Current spot price +US$650/tonne CFR (SC6.0)
- *Operating cash costs*[1] per tonne of spodumene concentrate (SC6.0)
  - *First 15 years, US$196/tonne CFR*
  - *Life-of-Mine, US$207/t CFR; generating healthy margins at assumed prices*
- Project payback in ~2.7 years
- Project NPV[2]$_{10\%}$ of A$709M and IRR of 38% (DFS Reserve basis)
- Project capital estimate of A$214M (accuracy of ±15%)



1. Cash operating costs include all mining, processing, transport, port, shipping/freight and site based general and administration costs, allocation of corporate administration/overhead costs, net of Ta2O5 by-product credits, but excludes state private royalties and native title costs.
2. Net Present Values (NPV) are presented on a nominal basis.

Pilgangoora 2Mtpa DFS Complete *Project execution underway*

Stage 1 Resource Growth

Stage 2 PFS (2Mtpa) Complete

Stage 3 DFS (2Mtpa) Complete

Stage 4 Project Execution

Resource Estimation
- JORC Inferred /Indicated completed
- 130Mt Resource
- Further resource growth expected
- Massive pegmatite system on Pilbara's tenure presents outstanding opportunities for further resource and reserve growth
- Key global strategic resource

Project Definition
- Maiden reserve, 29.5Mt @ 1.31% Li_2O, 134ppm Ta_2O_5 tantalite
- Outstanding project economics
- Low cost hard-rock Spodumene production
- Further reserve growth expected, growing mine-life

Detailed Design and Project Planning
- Updated reserve of 69.8Mt @ 1.26% Li_2O, 132ppm Ta_2O_5; long mine-life,
- Plant process and design optimisation
- Product specification and bulk samples to customers
- Tailings design
- Opex &Capex updates
- Updated financial models

Project Execution – from December 2016
- Native Title Agreement ✓
- Mining Leases granted ✓
- Plant EPC Contract Tender/Award ✓
- Other construction and operating contracts
- Financing
- Statutory mine approvals
- Decision to mine
- Construction
- Commissioning

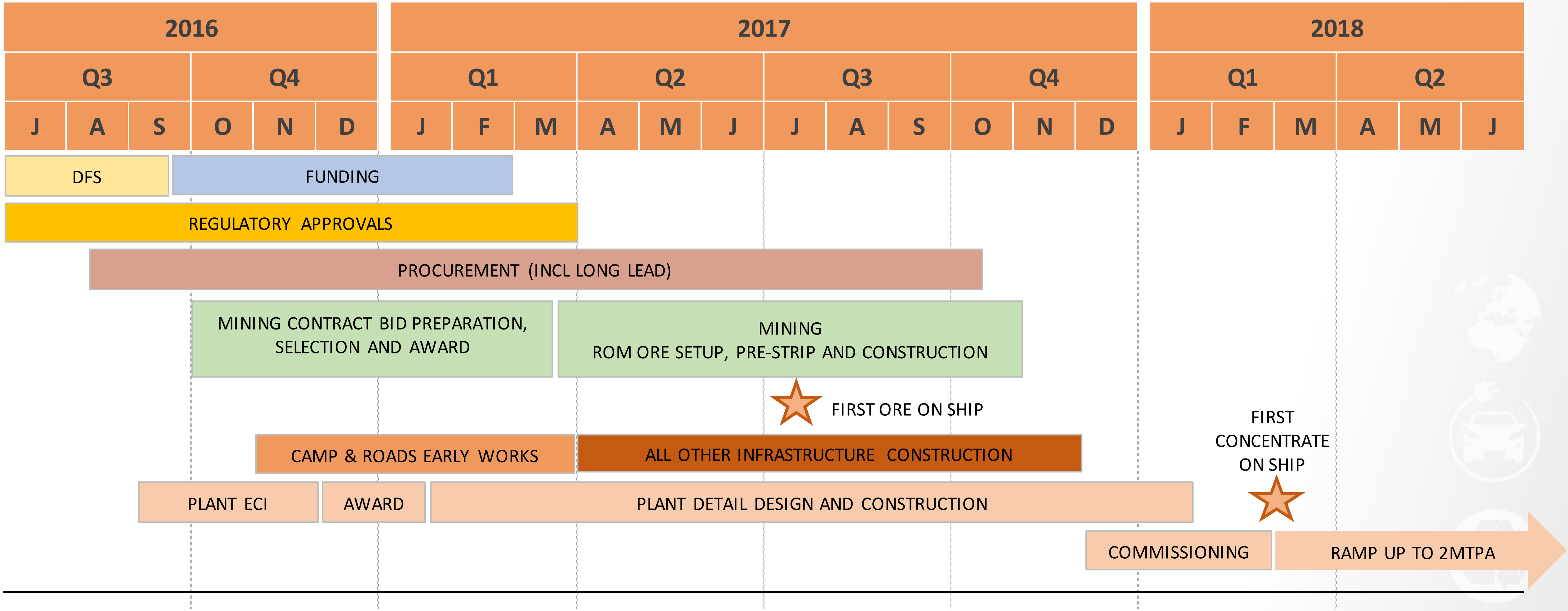
RCR

PRIMERO

MINNOVO

A Rapid Pathway to Financing, Development and Production

PILGANGOORA PROJECT DELIVERY SCHEDULE



Pilgangoora Project Status

Current Status

- Project Mgt resources established
- Bulk earthworks substantially completed for Stage 1 of the Camp (initial 60 Rooms)
- Commenced upgrade works to the East West Access Road and Signage erected
- Road access agreements executed with Roy Hill & BHPB
- Mining Proposal submitted
- Native Vegetation clearing permit submitted
- Awarded Process Plant Design and Construct Contract
- Awarded Stage 1 Camp Relocation
- Over $30M in current procurement commitments

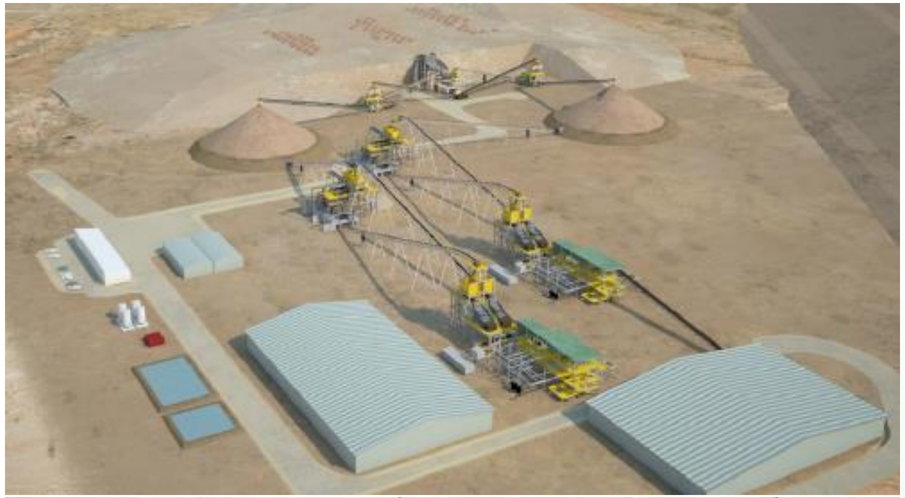
3 Month Look Ahead*

- Completion of process plant design / fix price
- Complete the construction of stage 1 Camp;
- Finalise the mobilisation processes for the Project Works;
- Award Mining Contract and non-process packages (communications, admin buildings, final road contracts etc.)
- Mining proposal and ground disturbance approvals finalised
- Site establishment for Major Construction.

* Subject to project regulatory approvals progress, financing and the final investment decision of Pilbara Minerals Board.

4Mtpa Expansion Option – PFS Complete *Outstanding economic returns*

- Modest incremental capital to expand to 4Mtpa, A$128M
- LOM Average annual production of approximately 564ktpa of 6% spodumene concentrates inclusive of technical grade product (75ktpa LCE); 579,000lbs of tantalite
- LOM cash operating costs[1] further reduced to US$180/t CFR demonstrating economies of scale
- Projected annual average EBITDA increases to A$245M from A$121M
- Forecast Net Present Value (NPV[2]$_{10\%,}$ post-tax) of A$1,165M; Project payback of 3.1 yrs (on cumulative capital)
- Expansion project subject to further feasibility, market analysis and Pilbara Board approval
- Highlights the scale and cost-competitiveness of Pilgangoora's future production



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Summary *Key investment takeaways*

- Emerging low-cost Australian strategic metals producer
- One of the largest lithium resources and high grade (inc. of Tantalum) relative to ASX-listed peers
- Outstanding project economics demonstrated by DFS , with expansion options
- Rapid pathway to financing and production
- Ideally placed to capitalize on robust market outlook and demand

Downstream processing initiatives/partnerships to leverage quality of Pilgangoora resource

Developing a globally significant new Australian lithium business

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Board of Directors

Tony Kiernan
Non-Executive Chairman

Highly experienced public company director and former solicitor with over 30 years professional experience. Currently Chairman and a non-executive director of several ASX-listed resource companies

Steve Scudamore
Non-Executive Director

Highly experienced public company director. His career includes more than three decades with senior roles in Australia, London and PNG

Robert G Adamson
Non-Executive Director

Geologist with over 40 years experience, served in technical, managerial and board positions with several publicly-listed exploration and mining companies in Australia, South Africa, New Zealand, South Korea, Canada and the Philippines

Neil Biddle
Non-Executive Director

Geologist and Corporate Member of the AusIMM with over 30 years professional and management experience in the global exploration and mining industry. Since 1987, Mr. Biddle has served as Managing Director and Exploration Manager of several ASX-listed companies

Ken Brinsden
MD and CEO

Mining Engineer with over 20 years experience including mine management, production and green-fields project development. Previously MD at Atlas Iron Ltd contributing to its growth from junior explorer to significant Pilbara iron ore producer

John Young
Technical Director

Geologist and Corporate Member of the AusIMM with over 25 years experience in the global exploration and mining industry. Ten years direct experience managing tantalite, tungsten and molybdenite projects

Highly experienced Board and management team with strong experience in exploration, mining and corporate management

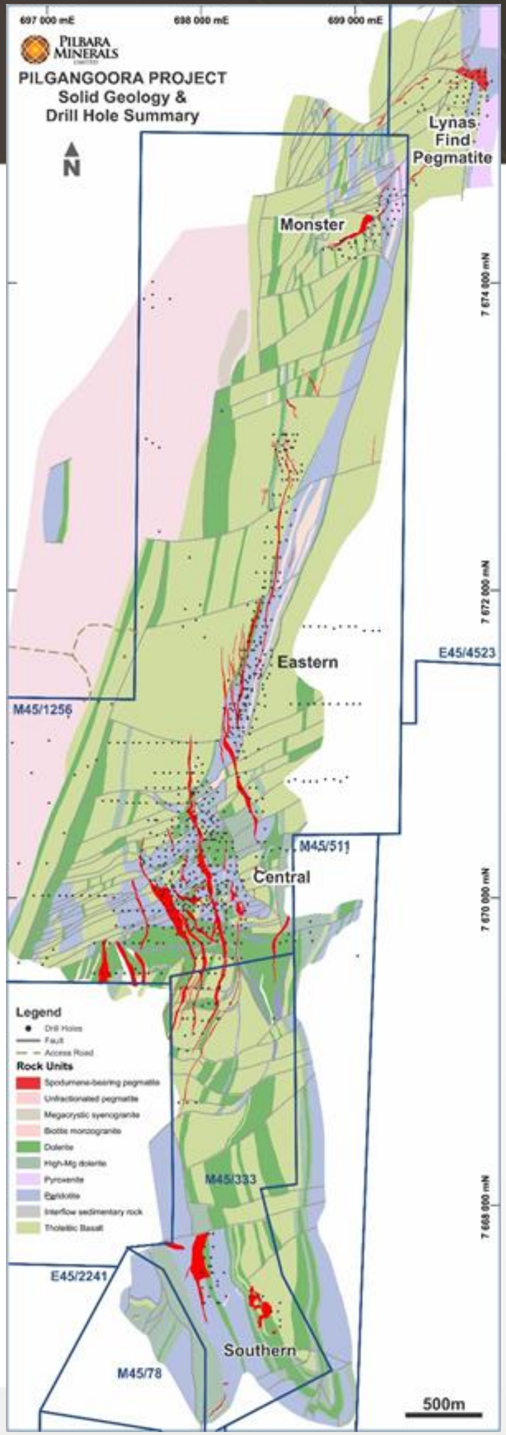
Resources & Reserves

Resources:

Category	Tonnage (Mt)	Li_2O (%)	Ta_2O_5 (ppm)	Fe_2O_3 (%)	Li_2O (T)	Ta_2O_5 (Mlbs)
Measured	17.6	1.39	151	0.44	244,000	5.9
Indicated	77.7	1.31	125	0.58	1,017,000	21.5
Inferred	61.1	1.13	125	0.71	691,000	16.8
Total	**156.3**	**1.25**	**128**	**0.61**	**1,952,000**	**44.2**

Reserves:

Category	Tonnage (Mt)	Li_2O (%)	Ta_2O_5 (ppm)	Fe_2O_3 (%)	Li_2O (T)	Ta_2O_5 (Mlbs)
Proven	17.5	1.31	143	0.94	230,000	5.5
Probable	52.6	1.25	128	1.07	653,000	14.8
Total	**69.8**	**1.26**	**132**	**1.04**	**883,000**	**20.3**

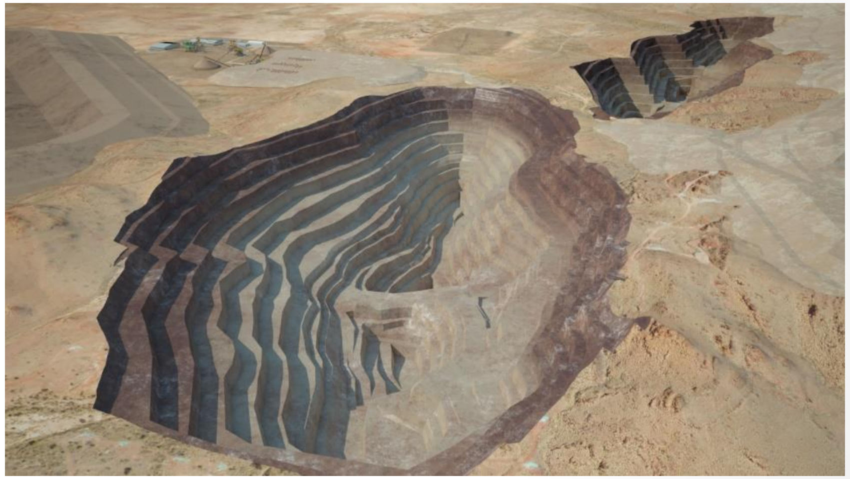


Pilbara Minerals – Overview

- 100% ownership of the world-class Pilgangoora Lithium-Tantalum Project in WA's Pilbara region
- Significant lithium-tantalum reserve, with major exploration upside
- One of the largest spodumene-tantalite resources in the world, with excellent recovery characteristics
- DFS confirms technical and financial viability of 2Mtpa Pilgangoora development
  - *Reduced cash operating costs[1] over first 15 years: US$196/t CFR real (SC6.0 concentrate); LOM cash operating costs[1] of US$207/t CFR real*
  - *36-yr mine life, NPV[2]$_{10\%}$ A$709M after A$214M capex; rapid payback (~2.7 yrs)*
- PFS demonstrates scale and compelling economics of 4Mtpa expansion case
- Cornerstone off-take partner, General Lithium Corporation, China
- Advancing rapidly to production to take advantage of robust market opportunity:
  - *Construction commenced from December 2016*
  - *Targeting commissioning from December 2017*

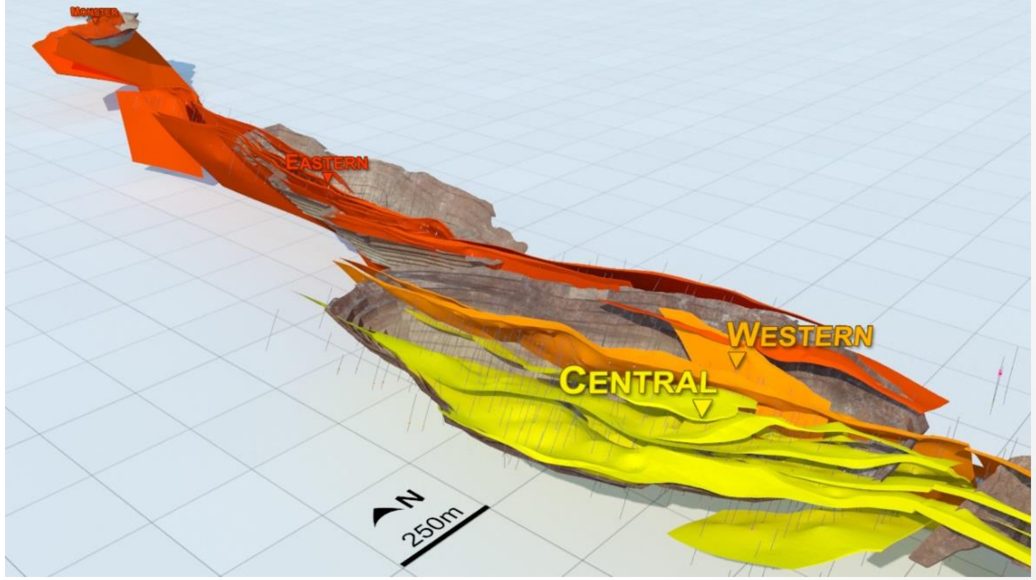
1. Cash operating costs include all mining, processing, transport, port, shipping/freight, site based general and administration costs, and corporate administration/overhead costs allocation, are net of Ta_2O_5 by-product credits, but excludes state and private royalties and native title costs.
2. Net Present Values (NPV) are presented on a nominal basis.

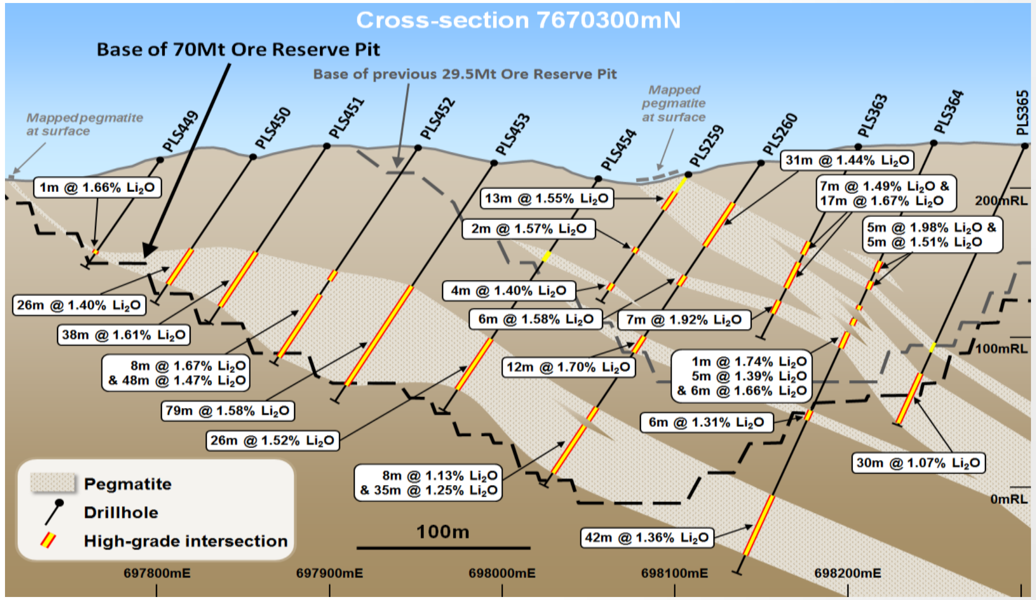
An emerging, low-cost producer of lithium and tantalum at Pilgangoora



Pilgangoora – Mining *A straightforward open pit mining proposition*

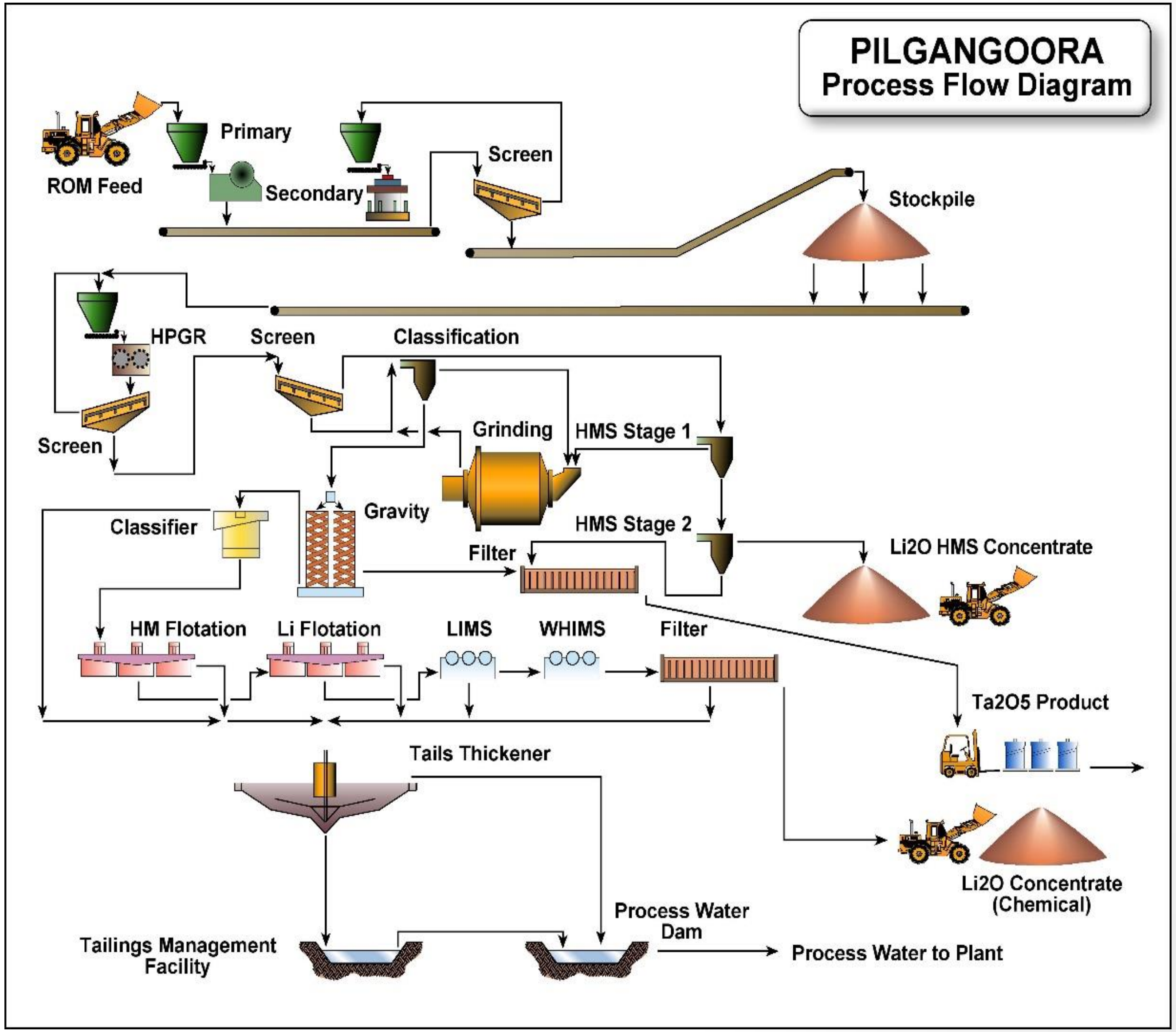
- Updated Measured, Indicated and Inferred Resource of 156.3Mt @ 1.25% Li_2O and 128ppm Ta_2O_5 containing 1,950,000 tonnes Li_2O, and including 44Mlbs Ta_2O_5
- Ore Reserve of 69.8Mt @ 1.26% Li_2O and 132ppm Ta_2O_5
- Conventional open pit mining proposed, 100 tonne mining fleet
- 2Mt ore feed per annum, 36 yr mine life (base case)
- Reserve, LOM strip ratio of 4.1:1 (waste: ore tonnes)
- Attractive contractor mining rates available in the current market
- Mining targeted to commence, Q2 2017





Pilgangoora – Processing *Improved Lithia and Tantalite Recovery*

- 2-stage heavy media separation
- Gravity separation, tantalite recovery
  - *Improved Tantalite recovery, concentrate grade and pricing outcomes*
- Grinding leading to oxide flotation
- Low/High intensity magnetic separation
  - *High grade chemical spodumene concentrate (SC6.0 specification)*
  - *High grade tantalite concentrate (30% Ta_2O_5)*



Lithium Raw Materials – Battery Supply Chain

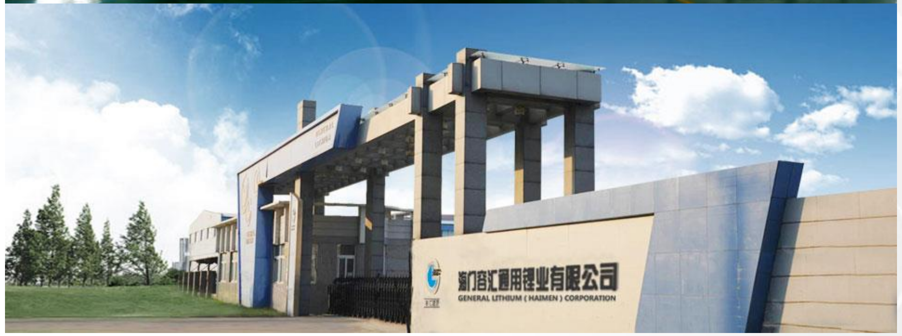
Future Value Added Products
Pilbara and General Lithium

Spodumene Mine	Lithium Carbonate/Hydroxide Producer	Upgraders & Component Mixers	Cathode & Electrolyte Producers	Battery Producer	E Transport Grid Storage Grid Stabilisation
PILBARA MINERALS LIMITED	GENERAL LITHIUM & PILBARA MINERALS				

Downstream value-added products provide an opportunity to leverage the quality of the Pilgangoora resource

General Lithium – a major producer of lithium chemicals in China

- Listed on NEEQ, Beijing, Code No: 837358
- Currently produces 8,000tpa of Lithium Carbonate (LC) & 2,000tpa of High Purity LC 4N (99.99%)
- Soon to commission 5,000tpa of Lithium Iron Phosphate (LFP), Li battery cathode powder material in Qinghai Province
- Expansions continuing to add another 16,000tpa of Lithium Hydroxide (LiOH) & LC conversion capacity in Jiangxi Province
- One of the top quality producers of Battery Grade LC in China, with established sales to a broad list of major Chinese Li battery cathode powder manufacturers
- General Lithium to provide the designs, technical expertise and operate proposed JV chemical plant, subject to scoping study and further feasibility work



General Lithium Corporation

Downstream Chemical Processing

- Strategy is to develop partnerships with key lithium chemicals industry participants
- Access to technology, operating expertise and intellectual property
- Shortcut to Pilbara's participation in downstream lithium chemicals market, supporting the Company's future growth
- Diversifies Pilgangoora product export destinations beyond China
- Potential to become a key quality carbonate and/or hydroxide supplier to markets both in China and ex-China
- Pilgangoora's significant resource scale, grade and pre-eminent location could support multiple chemical facilities
- Lithium Australia arrangement to facilitate continued SiLeach testwork on Pilgangoora samples, potential for future Port Hedland facility

Global Motor Vehicle Lithium Demand

- Tesla Model 3 to be released in 2017, retail price of US$36,000, 400,000 orders already and growing
- Mercedes Benz releasing 12 new models of EVs in 2017
- BMW i3 Series due for release 2017 in direct competition with Tesla Series 3
- Audi, Volkswagen major EV model expansion in 2017-2018

- China, Japan and Korean Government policy strongly supports EVs with large rebates, zero sales tax and free licensing
- Toyota will cease using lead acid batteries from 2017 with 100% adoption of Li ion batteries in all models
- Japanese and Korean car makers anticipated to announce major adoption of EVs by 2020
- 1 million EVs in Korea by 2020

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Developing a globally significant new Australian lithium project