Pilgangoora Lithium-Tantalite Project

The world’s leading lithium development project

Investor Presentation, April 2016

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Pilbara Minerals – Overview

► 100% ownership of the world-class Pilgangoora Lithium-Tantalite Project in WA’s Pilbara region
► World-class lithium-tantalum reserve with significant upside
► Second largest spodumene-tantalite resource in the world
► Recently completed PFS confirms technical and financial viability of 2Mtpa Pilgangoora development
► Eight product off-take MOU’s signed with leading chemical and technical grade customers for 100% of forecast production
► Advancing rapidly to production to take advantage of robust market opportunity:
  ► Targeting construction from December 2016
  ► Targeting commissioning December 2017
► Tabba Tabba to be indefinitely suspended

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

**Pilbara Minerals Shareprice – as at 4 April 2016**

**Capital Structure**

<table>
<thead>
<tr>
<th></th>
<th>ASX: PLS</th>
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<tbody>
<tr>
<td>Shares on issue</td>
<td>856.3 million</td>
</tr>
<tr>
<td>Convertible notes (proforma)</td>
<td>2.25 million @ $1.00 each</td>
</tr>
<tr>
<td>Unlisted Options</td>
<td>48.8 million</td>
</tr>
<tr>
<td>Market capitalisation</td>
<td>$385 million @ 45¢</td>
</tr>
<tr>
<td>Top 20 shareholders</td>
<td>29%</td>
</tr>
<tr>
<td>Board &amp; Management</td>
<td>10%</td>
</tr>
<tr>
<td>Cash at 01/04/2016</td>
<td>$11.8 million</td>
</tr>
<tr>
<td>3 month average daily volume</td>
<td>5.8m</td>
</tr>
</tbody>
</table>
Developing a World-Class 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 PFS demonstrates economic potential of one of the world’s best hard rock 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 15 years based on current reserve with significant growth potential**

► DFS underway completion Q3 2016, supported by a further substantial drill program in progress

A robust, long-life project in a Tier-1 mining jurisdiction
Pilgangoora – A globally significant Lithium Reserve

Capital Raising – Ensuring Project Delivery and Market Presence

► Timeline to delivery of the Pilgangoora project:
  ► Secure long-lead items
  ► Taking advantage of current resources downturn and timely completion of the Pilgangoora Definitive Feasibility Study
  ► Early works on ground

► Adding value to resource / reserve
  ► Accelerate resource infill and reserve growth
  ► Additional resource growth

► Balance sheet strength
  ► Progress Offtake / marketing
  ► Project funding
PFS Highlights *Technically and financially robust long-life project*

- 2Mtpa mining and on-site processing
- Forecast annual production of approximately 330ktpa of 6% spodumene concentrates (48ktpa of Lithium Carbonate Equivalent or LCE) and 274,000lbs pa of tantalite
- Maiden Ore Reserve of 29.5Mt @ 1.31% Li$_2$O and 134ppm Ta$_2$O$_5$
- Initial 15-year mine life, with further growth expected from the 15,000m drilling campaign currently underway

Plant commissioning from 4th quarter, 2017
PFS Highlights Outstanding project economics driven by very low cost of operations

- Life-of-mine operating cash costs\(^1\) of only USD$205/tonne of spodumene concentrate FOB (including by-product credits for \(\text{Ta}_2\text{O}_5\) production)

- EBITDA over first 5 years of operations of approximately A$120M per annum

- PFS based on assumed life-of-mine average spodumene price of US$456/t FOB – current spot price +US$600/tonne CFR

- Project payback in ~2 years

- Project NPV of A$407M (10% discount rate, post-tax) and IRR of 44% (PFS Reserve basis)

- Project capital estimate of A$184M (±25%)

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\(^1\) Cash costs include all production costs, corporate and admin
Robust PFS: >50% EBITDA margins & 44% IRR based on:
- average spodumene price of US$456/t FOB
- 29.5mt reserve for mine life of 15 years (at 2mtpa)

We see significant upside potential in several areas:
- Current spodumene price is US$600/t (margins would be >60%)
- DFS targeting mining inventory of 53.9mt (of 80mt resource\(^1\))
  - Which could increase the mine life to circa 30 years
  - Suggests potential to assess expansion to 3mtpa
- Potential to produce high-value low-iron spodumene

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\(^1\) Exploration Target is 100-110mt @ 1.2-1.5% LiO\(_2\) with a 15,000m drill programme underway
Peer Comparison – Resource Tonnage and Grade

Talison Lithium Greenbushes

NeoMets Mt Marion
Nemaska Exploration Whabouchi - Canada
Pilbara Minerals Ltd Exploration Target (2016)

Galaxy Resources Mt Caitlin
Altura Mining Ltd Pilgangoora

RB Energy Ltd Quebec - Canada
Pilbara Minerals Ltd Pilgangoora

Grade (% Li2O)

Tonnes (MT)
Pilangoora DFS Underway

Resource Estimation
- JORC Inferred /Indicated completed
- 80Mt Resource
- Further resource growth expected

Project Definition
- Maiden reserve, 29.5Mt @ 1.35% Li₂O, 134ppm Ta₂O₅ tantalite
- Outstanding project economics
- Very low cost hard-rock Spodumene production
- Further reserve growth expected, growing mine-life

Detailed Design and Project Planning
- Targeting >25yr mine life
- Plant process and design optimisation
- Product specification and bulk samples to customers
- Tailings design
- OPEX
- CAPEX
- Updated financial models

Finance / Permitting – December 2016
- Decision to mine
Pilgangoora spodumene concentrates meet the metallurgical specifications of the entire range of lithium products.

Over 100% of projected lithium oxide production subject to MOU’s with major off-take partners in China, Japan, Americas and Europe.

All off-take partners have substantial expansion plans to meet anticipated demand for EV’s.

Increased production of chemical lithium products restrained by lack of mine supply.

Pilgangoora spodumene concentrate meets the specifications of the entire lithium market.
Strong Demand Outlook

Lithium-ion batteries driving demand
- 20%+ annual growth since 2000
- Currently 30% of global market

Electric Vehicles and E-Bikes
- Currently 3% of global lithium market
- Accelerated growth expected from 2015

Conventional applications
- Currently 70% of global market
- Glass & ceramics typically use technical-grade concentrate

Large format batteries for electricity grid stabilization and home power storage……
Potentially significant future demand growth

SOURCE: ROSKILL, Jan16
Motor Vehicle Lithium Demand

- Tesla Series 3 to be released in 2017, retail price of US$36,000
- Chinese car manufacturers targeting sub $20K EV’s by 2017
- Mercedes Benz releasing 12 new models of EV’s in 2017
- BMW i3 Series due for release 2017 in direct competition with Tesla Series 3.
- Audi and Volkswagen also entering the EV market in 2017-2018
- 30 Million E Bikes produced annually in China, gradually converting to Li ion batteries.

- China, Japan and Korean Government policy strongly supports EV’s with large rebates, zero sales tax and free licensing.
- Lead-acid batteries now subject to export tax out of China.
- 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 EV’s by 2020
- announce major adoption of EV’s by 2020
- adoption of EV’s by 2020
Summary Key investment takeaways

Emerging low-cost Australian strategic metals producer

Largest lithium resource and highest grade relative to ASX-listed peers

Outstanding project economics demonstrated by PFS

Rapid pathway to financing and production

Ideally placed to capitalize on robust market outlook and demand
Developing a globally significant new Australian lithium project

March 2016 – PFS Release
Highly experienced Board and management team with strong experience in exploration, mining and corporate management
Highly experienced Board and management team with strong experience in exploration, mining and corporate management.
Pilangoora – Mining *A straightforward open pit mining proposition*

- Conventional open pit mining proposed, 100-tonne mining fleet
- 2Mt ore feed per annum
- LOM strip ratio of 3.5:1, waste: ore tonnes
- Strip ratio over first 5 years 2.87:1
- Both owner-mining and contractor mining scenarios to be considered in DFS
- Attractive contractor mining rates available in the current market
- Mining targeted to commence, Q3 2017
Pilangoora – Processing 2Mtpa ore feed with flowsheet to produce 3 product streams
A Rapid Pathway to Financing and Development

### PILGANGOORA PROJECT SCHEDULE

Financial model is based upon the following assumptions with regards to schedule:

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<th>2016</th>
<th>2017</th>
<th>2018</th>
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- **PFS** (2016 Q4)
- **FS** (2017 Q3)

- **Environ Studies**
- **Approvals & Licensing Docs**
- **Regulatory Approvals**
- **Funding**
- **Mining Contractor-Selection**
- **Award**
- **Site Prep, Mobilisation, Mining Commences**
- **Engineering**
- **Procurement**
- **Construction**
- **Services**
- **Commissioning**

* Announce to Market
Market Outlook

Price forecasts – Chemical-grade spodumene

- Conservative pricing based on Roskill forecast data
  - Latest public contract price +USD$600/t CFR
  - Indicative of very tight supply
- Very strong leverage within the project to improved pricing outcomes. USD$600/t (FOB) delivers;
  - First 5 years EBITDA average grows to over $200Mpa
  - NPV$_{10}$ A$710M
  - IRR 68%
- Pricing to further improve with the introduction of Technical Grade product to the DFS analysis
## Pilgangoora Project Resource and Reserve Tables

### Pilgangoora Resource Table

<table>
<thead>
<tr>
<th>Category</th>
<th>Tonnage (Mt)</th>
<th>Ta₂O₅ (ppm)</th>
<th>Li₂O (%)</th>
<th>Ta₂O₅ (T)</th>
<th>Ta₂O₅ (Mlbs)</th>
<th>Li₂O (T)</th>
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<tbody>
<tr>
<td>Indicated</td>
<td>Ta₂O₅</td>
<td>17.9</td>
<td>182</td>
<td>3,255</td>
<td>7.2</td>
<td>469,400</td>
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<td></td>
<td>Li₂O</td>
<td>35.7</td>
<td>1.31</td>
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<td>538,600</td>
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<tr>
<td>Inferred</td>
<td>Ta₂O₅</td>
<td>24.3</td>
<td>205</td>
<td>4,995</td>
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<td></td>
<td>Li₂O</td>
<td>44.5</td>
<td>1.21</td>
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<tr>
<td>TOTAL</td>
<td>Ta₂O₅</td>
<td>42.39</td>
<td>195</td>
<td>8,250</td>
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<td></td>
<td>Li₂O</td>
<td>80.2</td>
<td>1.268</td>
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<td>1,008,000</td>
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### Pilgangoora Reserve Table

<table>
<thead>
<tr>
<th>Category</th>
<th>Tonnage (Mt)</th>
<th>Li₂O (%)</th>
<th>Ta₂O₅ (ppm)</th>
<th>Fe₂O₃ (%)</th>
<th>Li₂O (T)</th>
<th>Ta₂O₅ (T)</th>
<th>Ta₂O₅ (Mlbs)</th>
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<td>Proven</td>
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<tr>
<td>Probable</td>
<td>29.5</td>
<td>1.31</td>
<td>134</td>
<td>1.18</td>
<td>298,000</td>
<td>1,856</td>
<td>4.09</td>
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<tr>
<td>TOTAL</td>
<td>29.5</td>
<td>1.31</td>
<td>134</td>
<td>1.18</td>
<td>298,000</td>
<td>1,856</td>
<td>4.09</td>
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