

Pilgangoora: a world class lithium and tantalum project



Ken Brinsden, Managing Director/CEO
March Quarterly Results Call
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ASX: PLS

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Competent Persons Statements

The Company confirms it is not aware of any new information or data that materially affects the information included in the 17 September 2018 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 17 September 2018.

The Company confirms it is not aware of any new information or data that materially affects the information included in the 17 September 2018 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 17 September 2018.

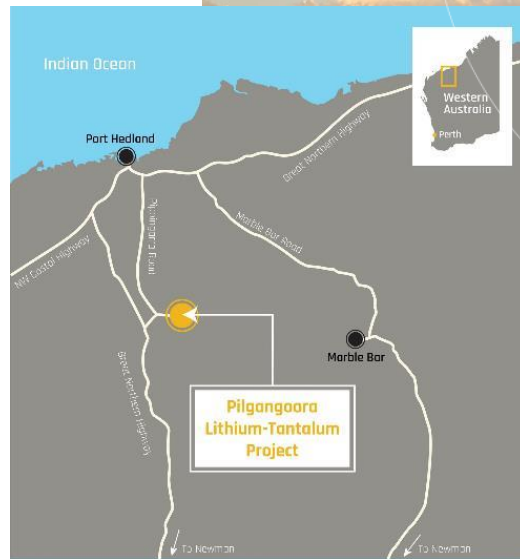
The Company confirms it is not aware of any new information or data that materially affects the information included in the 16 October 2018 Pilgangoora Exploration Target* and that all material assumptions and technical parameters underpinning the estimate continue to apply and have not materially changed when referring to its resource announcement made on 16 October 2018.

* **Note to Exploration Target:** The potential quantities and grades of the Exploration Target are conceptual in nature and there has been insufficient exploration to date to define a Mineral Resource. It is not certain that further exploration will result in the estimation of a Mineral Resource.

Highlights March Quarter 2019

Pilgangoora Lithium-Tantalum Project: from first drill hole to production in under four years

- Declaration of commercial production 1 April 2019
- Quarterly sales:
 - 38,562dmt of spodumene concentrate (SC6.0)
 - 30,356lbs tantalite concentrate (+5% Ta₂O₅)
- Steady production growth - 52,196dmt of spodumene concentrate (despite weather impacts)
- Improving lithia recovery trend
- Positive Stage 3 Scoping Study results released for proposed expansion to 7.5Mtpa
- Partnering process commenced to consider Stage 3 offtake, chemical facility development and sale of minority project-level interest (20-49%)
- Board exercises option to participate in POSCO JV for 40ktpa chemical conversion facility subject to due diligence and financing (FID due Jun Qtr 2019)
- Receipt of A\$50M equity from Ganfeng Lithium



Production and sales

Consistent production and customer sales for the March Quarter

Production and sales

	Units	Q3 FY18	Q4 FY18	Q1 FY19	Q2 FY19	Q3 FY19
Direct Shipping Ore (DSO) sold	<i>wmt</i>	-	145,974	205,766	0 ²	0 ²
Spodumene concentrate produced	<i>dmt</i>	-	-	11,015	47,859	52,196
Spodumene concentrate sold	<i>dmt</i>	-	-	0	46,598 ¹	38,562
Tantalite concentrate produced	<i>lb</i>	-	-	22,151	56,663	33,374
Tantalite concentrate sold	<i>lb</i>	-	-	7,378 ¹	27,821	30,356 ³

¹ Concentrates have been adjusted following final results.

² The DSO program was suspended in Q2 FY19.

³ Sales estimates pending final assays results.

Stocks

	Units	Q1 FY19	Q2 FY19	Q3 FY19
ROM stockpile	<i>dmt</i>	N/A ¹	487,292 ³	520,606
Coarse ore stockpile	<i>dmt</i>	N/A ¹	82,430	96,139
Spodumene concentrate stocks	<i>dmt</i>	17,677 ²	17,266 ²	30,900 ²
Tantalite concentrate product stocks	<i>lb</i>	14,774 ⁴	43,616 ⁴	46,634

¹ No previous reporting for period due to completion of build and commissioning phase.

² Includes low-spec stocks produced during initial commissioning phase which are expected to be sold over time..

³ Prior quarter results have been adjusted to reflect the re-classification of certain ore tonnes to mineralised waste.

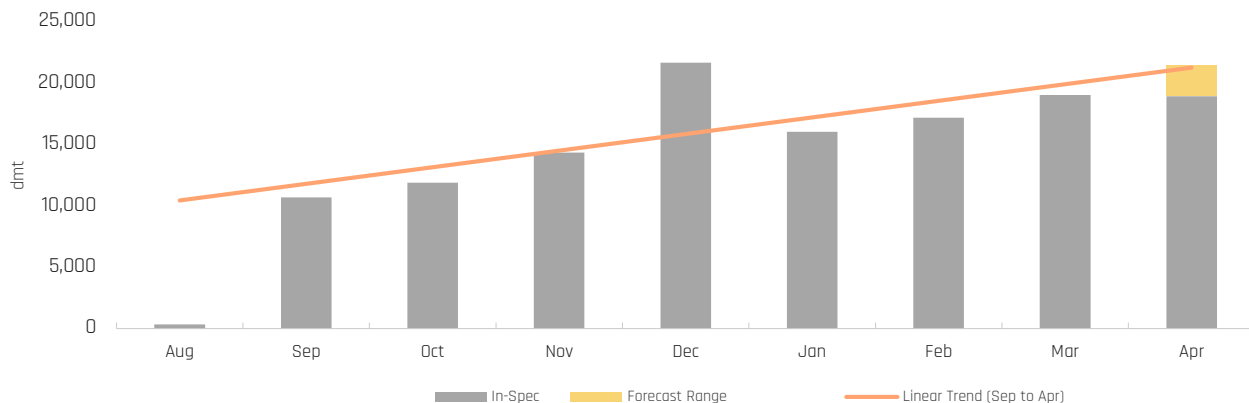
⁴ Concentrates adjusted following final sales results.



Production trend

Steady increase in spodumene concentrate production as processing plant is further optimised for lithia recovery and throughput

Spodumene concentrate production (dmt)



¹ April production is unreconciled production to 27 April 2019, with an estimate of expected production to April 2019 month end.

- Forecast April production estimate of 20–22kt (dmt, SC6.0 basis) driven by improving lithia recovery trend
- Adjustments to the Pilgangoora plant are delivering planned recovery improvements:
 - March 26 to April 18 recovery (unreconciled) of 63% (SC6.0 basis), representing approx. 85% of design (75% lithia recovery)
 - 9th April to 18th April recovery (unreconciled) of 65% (SC6.0 basis)

- A total of 52,196 dmt (dry metric tonnes, SC6.0 basis) spodumene concentrate produced during the March Quarter

Corporate update

Declaration of commercial production, option exercised to participate in POSCO downstream JV and receipt of customer equity funding underpins a strong quarter.

Commercial production declared following sustained performance across:

- Production – steady and trending towards design capacity
- Feed-rate – achieved plant design of 270t per operating hour
- Product quality – achieved, meeting customer specification
- Recovery rates – average achieved were stable, albeit below planned

Proposed 30% JV with POSCO

- Board exercised option to participate in JV subject to final due diligence, financing and final JV terms
- Final investment decision June Qtr 2019

Cash balance

- \$103.9M cash in bank as of 31 March 2019
- Receipt of A\$50M equity from Ganfeng Lithium and A\$36M from product sales

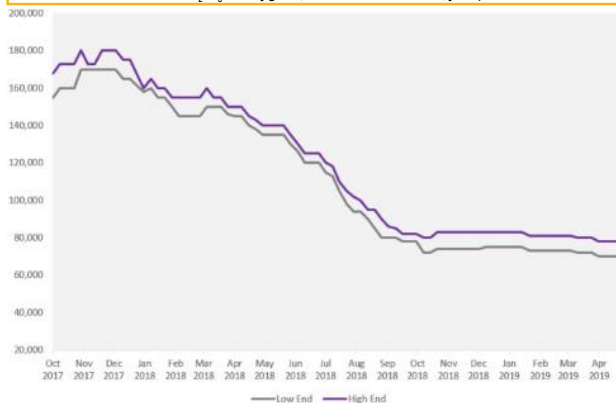


Global lithium chemicals pricing

Source: FastMarkets MB, Friday April 26 2019

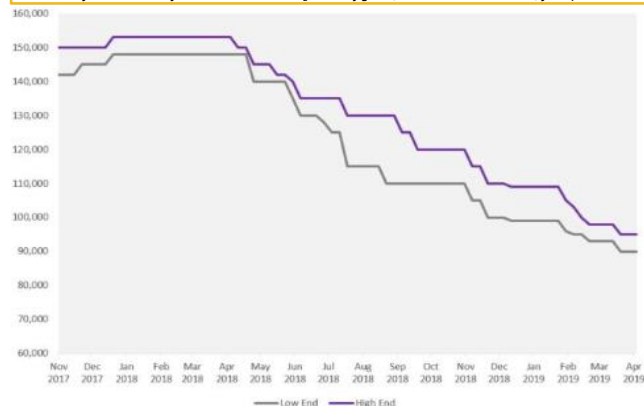
Lithium carbonate ex-works domestic China

Lithium carbonate min 99.5% Li_2CO_3 battery grade, ex-works domestic China, yuan per tonne



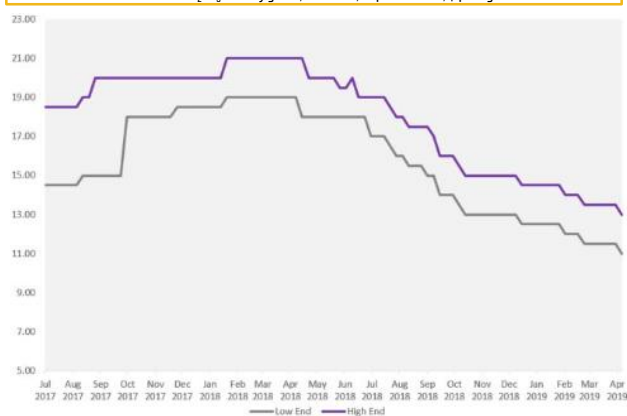
Lithium hydroxide ex-works China

Lithium hydroxide monohydrate min 56.5% $\text{LiOH}\cdot\text{H}_2\text{O}$ battery grade, ex-works domestic China, yuan per tonne



Lithium carbonate cif China, Japan and Korea

Lithium carbonate min 99.5% Li_2CO_3 battery grade, CIF China, Japan & Korea, \$ per kg



Lithium hydroxide cif China, Japan and Korea

Lithium hydroxide monohydrate min 56.5% $\text{LiOH}\cdot\text{H}_2\text{O}$ battery grade, CIF China, Japan & Korea, \$ per kg



China domestic pricing continues to stabilise, relative to 2018 outcomes

Ex-China pricing has remained relatively strong, particularly in the hydroxide segment

Stage 3 partnering process

Partners to be considered for Stage 3 offtake, chemical plant and project expansion

**Potential sale of
minority project
level interest
20 - 49%**

**Support funding
package Stage 2
and 3 expansion**

**Stage 3 offtake
and further
diversification
downstream**








**Fully integrated
lithium raw
materials and
chemicals supplier**

Exceptional growth opportunity

A clear expansion pathway to meet customer growth requirements

STAGE 1: 2MTPA		STAGE 2: 5MTPA		STAGE 3: UP TO 7.5MTPA	
STAGE:	Operations	STAGE:	DFS and FID complete	STAGE:	Proposed
STATUS:	Production and shipments	STATUS:	Financing underway	STATUS:	Scoping study complete PFS initiated
PRODUCTION:	330,000tpa ~6% spodumene concentrate 321,000lbspa +5% and tantalite concentrate	PRODUCTION:	800-850,000tpa~6% spodumene concentrate 800,000lbspa +5% tantalite concentrate	PRODUCTION:	up to 1.2Mtpa ~6% spodumene concentrate 1,100,000lbspa +5% tantalite concentrate
OFFTAKE:	Stage 1 and 2 spodumene concentrate 100% under agreement	OFFTAKE:	Stage 1 and 2 spodumene concentrate 100% under agreement	OFFTAKE:	Partnering process underway Proposed chemical conversion plant

What sets us apart?

1		World class lithium resource	The Pilgangoora Project is one of the premier hard-rock lithium-tantalum resources globally (by size and grade) where there is both spodumene concentrate offtake and a joint venture position available, with Tantalite by-product credits.
2		Low cost operation	Forecast LOM cash cost of US\$291/t ¹ (net of tantalum by-products) with the Pilgangoora Project's cost position benefiting from high grade, scalable mining operations, low strip ratio and tantalum by-products.
3		Quality product and customers	Pilbara Minerals has secured long-term offtake arrangements with world-class customers to support Stage 1 and Stage 2 production and has consistently delivered high quality products to market that meet customer requirements.
4		Clear expansion pathway	A three-phased growth strategy that includes expansion to 7.5Mtpa processing capacity (1.2Mtpa spodumene concentrate), development of a lithium hydroxide conversion facility and exploration target set to drive mine life extension.
5		Proven operator	Pilbara Minerals has a highly experienced management team who have led the Pilgangoora Project from first drill hole to production in under 4 years and successfully met high quality 6% battery grade product requirements.
6		Exploration upside	Pilbara Minerals plans to extend the mine life of the Pilgangoora Project through Resource conversion and further discoveries from its 50 - 90Mt of exploration targets which include potential near-surface tonnes.
7		Diversification into downstream processing	Through its joint venture with POSCO and the evaluation of a proposed secondary lithium chemical conversion facility in either Australia or overseas, Pilbara Minerals is positioned to expand its operations into the high-value lithium chemical market.

1. Metrics based upon Pilbara Minerals' Stage 3 Scoping Study, constrained by JORC Reserves of 108Mt



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