



Pilbara Minerals On Track for First Spodumene Concentrate Shipment as Ramp-up Delivers

Ramp-up of Stage 1 concentrator continues to deliver outstanding plant performance with exceptional product quality achieved

HIGHLIGHTS

- Strong production throughput achieved for both coarse and fines circuits.
- Exceptional product quality being achieved.
- Over 5,000t >6% lithia and <1.4% Fe₂O₃ ready for ship-loading from ≈ 20 September.
- Offtake partner General Lithium advises that conversion of Pilgangoora concentrates achieves Battery Grade Lithium Carbonate.
- First tantalite concentrate delivery of ≈ 40 tonnes to GAM complete.

Australian lithium producer, Pilbara Minerals Limited (ASX: PLS) (Pilbara Minerals or the Company) is pleased to advise that it is on track for its first shipment of spodumene concentrate from its 100%-owned Pilgangoora Lithium-Tantalum project this month after making further strong progress with the production ramp-up.

The Pilgangoora Stage 1 concentrator is achieving strong production throughput for both coarse and fines circuits. Combined tonnages are averaging above 500t/day which are in alignment with the planned throughput levels expected at this point of ramp-up. Both circuits are achieving exceptional product quality, confirming the ability of the Pilgangoora Project to deliver a premium quality product to world markets.

Spodumene concentrate recovery at the Pilgangoora Project's concentrator is achieved through Dense Media Separation (DMS) of the ore to a coarse concentrate, followed by fines flotation to recover the remaining spodumene. Both circuits are now load commissioned and contributing to the production of saleable product.

Plant run-rates have continued to increase and have been achieving design capacity input tonnes (of approximately 270 tonnes per hour) over a 24-hour period, through the combined coarse and fines concentrate production circuits. These results demonstrate the effectiveness of Pilbara Minerals thorough test work, engineering, process flow design and equipment selection. Ongoing processing operations will now focus on increasing plant utilisation towards the targeted 85% of available time.

Product specifications for both fines and coarse spodumene concentrates have been further refined with improving overall stability in the processing plant operations. Typical product specifications being achieved currently are greater than 6% Li₂O and typically <1.0% Fe₂O₃. Both coarse and fines circuits have demonstrated the capacity to deliver very high grade lithia production (in some cases >7% Li₂O) and very low iron in concentrate (as low as 0.4% Fe₂O₃), following further optimisation through the commissioning, testing and ramp-up cycle.

The Company is on track to deliver a minimum of 5,000 tonnes of spodumene concentrate ready for ship-loading in Port Hedland from approximately 20 September, with the focus now on growing production and stockpiling concentrate (both on site and in Port Hedland) for subsequent shipments to Pilbara Minerals' premier customer group.

As part of ongoing product testing with one of its key off-take partners, General Lithium, Pilbara Mineral's spodumene concentrate has been tested at their research laboratory in China (aligned to their conversion process)

and readily produced Battery Grade lithium carbonate. The final product in the test (which is representative of the proportion of both coarse and fines spodumene production at the Pilgangoora project) has been qualified and passed the relevant industry standard.

Further details regarding the quality of the lithium carbonate produced can be found in the Certificate of Analysis in Attachment 1.

General Lithium is a highly experienced, long-standing and reputable supplier to the lithium-ion battery industry with sales to some of the largest cathode materials and electrolyte manufacturers in China. With most of their sales in the 'Battery Grade' category or otherwise 'ultra-high purity' lithium carbonate supply, General Lithium are well placed to assess the performance of spodumene concentrates in the chemical conversion process. Further, General Lithium has the technology for the direct conversion of spodumene into lithium hydroxide. Its new lithium hydroxide plant, with planned production of 16,000 tonnes (LCE basis), is currently being commissioned and once complete will be one of the most modern and fully automated plants in China.

Pilbara Minerals is also pleased to report that the first shipment of tantalite concentrate (of approximately 40 tonnes under the Mine Gate Offtake Agreement for primary concentrate sales) has been completed to Global Advanced Metals (GAM).

GAM is one of the world's largest vertically integrated processors of tantalite concentrates to produce high purity tantalum powders and metals for the global capacitor manufacturers, and for various other applications.

Pilbara Minerals' Managing Director and CEO, Ken Brinsden, said the Company was continuing to make excellent progress with the growth in quality production at the Pilgangoora Project.

"We have some fantastic talent at Pilbara Minerals and with the production results and product quality we are achieving, it is clearly on display. From the significant orebody knowledge underwriting the Ore Reserve in the ground, to mining, blending and now plant performance we have always been focused on quality outcomes.

"The strong results now being achieved also reflect the significant investments we made, including our decision to invest upfront in both a coarse and fines processing circuit, as well as in high-quality equipment selection. Together this will help ensure that the Pilgangoora Project becomes one of the lowest cost producers globally in the long term," Mr Brinsden said.



Fig 1: Spodumene concentrate (left hand side) and tantalite concentrate truck loading (right hand side)

“Our methodical and systematic approach has been recognised by our premier customer group and tested through due-diligence and extensive product analysis.

“The cumulative result of all this hard work is that we are now delivering a quality product, both at site and through testwork in the conversion process - exactly in line with our expectations. This is a milestone month for Pilbara Minerals as we commence the first deliveries of both spodumene and tantalite to our long term offtake partners,” Mr Brinsden added.

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Forward looking statements and important notice

This announcement 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.

Investors should make and rely upon their own enquiries before deciding to acquire or deal in the Company's securities.



ATTACHMENT 1

江苏容汇通用锂业股份有限公司

General Lithium (Jiangsu) Corporation

质检证书

Certificate of Analysis

产品名称: 电池级碳酸锂 执行标准: YS/T 582-2013
CAS No.: 554-13-2 产品等级: 一级品
原料: Pilbara Minerals 电话: 0513-82658598
产品重量: 85g 传真: 0513-82658590
分析日期: 2018年4月25日 地址: 江苏省海门市三厂工业园区大庆路42号

Table with 5 columns: Analysis Item, Results, Control Quantity, Method, and Test Method. Rows include Li2CO3, K, Na, Ca, Mg, Zn, Cu, Pb, Mn, Ni, Fe, Al, Si, Cl-, SO4^2-, H2O, Iso. in HCL, magnetic impurity, and Particle Size.

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