



ASX / MEDIA ANNOUNCEMENT

FRIDAY 25 JUNE 2021

PILBARA MINERALS' BOARD APPROVES STAGED RESTART AT NGUNGAJU PLANT

PILBARA MINERALS GEARS UP TO INCREASE LITHIUM PRODUCTION IN RESPONSE TO STRONG DEMAND CONDITIONS AND IS EXPECTING TO SHIP RECORD TONNES DURING JUNE 2021 QUARTER

KEY POINTS

- Ngungaju Operation (formally Altura Lithium Operation) set for a staged restart during the December Quarter 2021, targeting annual full production capacity of 180,000 to 200,000 dry metric tonnes (dmt) by the middle of calendar year 2022.
- Once fully ramped up, the aggregate production capacity of the combined Pilgangoora Project is targeting 560,000 to 580,000 dmt¹ pa.
- Engineering studies and re-start planning largely confirm prior capital investment estimates at the time of acquisition, with approximately \$39M to be invested in plant modifications and operational readiness over approximately the next 12 months.
- Restart costs to be funded from existing cash. Further funding support likely available through a restructure of the existing debt facility, should favourable terms and conditions be available.
- Spodumene concentrate tonnes shipped for the June 2021 Quarter expected to be ~96,000 dmt, exceeding guidance of 75 - 90,000 dmt.
- Finalisation of POSCO Downstream Joint Venture (DSJV) documentation (including due diligence) targeted for July 2021, with Pilbara Minerals final investment decision to follow shortly thereafter.
- BMX Digital Sales Platform development now complete and ready for implementation, with the first cargo auction scheduled to take place during July 2021.
- Customers and other interested parties in the BMX Sales Platform are encouraged to register their interest at sales@pilbaraminerals.com.au.

Australian lithium producer, Pilbara Minerals Limited (**Pilbara Minerals or the Company:** ASX: PLS), is pleased to report that it has taken further significant steps towards growing spodumene concentrate production at its 100%-owned Pilgangoora Project located in Western Australia.

Following the Board's approval of the staged restart of the Ngungaju Plant, it is expected these operations will recommence during the December Quarter 2021, with annual production to be ramped up to approximately 180,000 to 200,000 dmt by mid calendar year 2022. This will see the combined annual production capacity of the Pilgangoora Project increase to 560,000 to 580,000 dmt¹.

¹ This assumes the Pilgan Plant production capacity increases to 380ktpa (dmt) following implementation of improvement projects. Refer to March Quarterly Report released to ASX dated 21 April 2021.



This represents a key milestone for Pilbara Minerals as it works towards maximising the value of its strategic and well-timed acquisition of the former Altura Lithium Operations. The restart will expand production capacity, increase the scale of operations and provide production flexibility as the Company looks to satisfy rapidly growing market demand. The integration of the two processing facilities (Pilgan and Ngungaju) and enlarged resource and pit inventories should provide significant operational synergies, enabling the Company to realise cost efficiencies across the operation over time.

The estimated restart cost of \$39M (inclusive of plant modifications and operational readiness activities) is consistent with the Company's original valuation at the time of acquisition and are proposed to be incurred over approximately the next 12 months. The Company is likely to fund the cost of the re-start from existing cash, although consideration will be given to funding support via the potential restructure of the existing syndicated debt facility, provided favourable terms and conditions can be achieved.

Capital development expenditure is largely focussed on Ngungaju plant modifications that support the adoption of Pilbara Minerals' Pilgan Plant flotation regime. Pilgan Plant now has a well-established track record of recovery performance through the combination of grind optimisation, process controls, free-iron removal, high intensity conditioning pre-flotation and optimised flotation reagent adoption. The majority of these optimisations and process learnings will now be deployed on the Ngungaju facility to materially re-rate its overall lithia recovery performance as compared to its prior operation.

Elsewhere, further investment will be applied to improve the crushing and materials handling aspects of the operation.

JUNE QUARTER SHIPMENTS AND FY22 OPERATING CASH COSTS

Pilbara Minerals is pleased to report that record spodumene concentrate shipments of approximately ~96,000 dmt should be achieved for the June 21 Quarter, supported by strong quarterly production and the stock positions established at the end of the March Quarter 2021. Sales are expected to be approximately 109kt (dry) as a result of tonnes loaded on a vessel late in the March Quarter departing in early April.

Further details will be provided on release of the June 2021 Quarterly Activities Report on or before the end of July 2021.

As highlighted in the March 21 Quarterly Report, a higher mining strip ratio will be required over the next 12-24 months to access sufficient ore to support higher plant throughput and is required as the Company emerges from the prior period of moderated production. When combined with the impact of higher sea freight rates, higher unit costs associated with restarting and ramping up the Ngungaju Plant and the stronger AUD:USD exchange rate, this is likely to result in an increase in unit cash operating costs² for FY22.

The cash operating cost of the combined Pilgangoora Operation for the 2022 financial year (FY22) is expected to be in the range of A\$525-A\$575/dmt (CIF China) or approximately US\$395-430/dmt at an AUD:USD exchange rate of 0.75. Beyond CY22,

² Cash operating costs include mining, processing, transport, state and private royalties, native title costs, port, shipping/freight and site based general and administration costs and are net of Ta2O5 by-product credits. Cash operating costs are calculated on an incurred basis (including accruals) and include inventory movements.



costs are expected to trend lower with the realisation of expected synergies and improved economies of scale from the combined operations following the ramp up of the Ngungaju Operation, as well as strip ratios and freight costs returning to more normal levels.

Detailed FY22 guidance in respect of production, cost and shipped tonnes will be provided coincident with the presentation of the 2021 financial year annual results in the second half of August 2021.

POSCO DOWNSTREAM JV

During the June 21 Quarter, Pilbara Minerals has completed further due diligence on the proposed POSCO DSJV and its lithium hydroxide conversion facility located in Gwangyang, South Korea. Significant positive progress has been achieved in the negotiation of formal documentation, which was supported by a POSCO representative coming to Perth during the Quarter.

Completion of negotiations and documentation is currently targeted for the end of July 2021 with Board approvals to follow shortly thereafter. Final agreed terms of the DSJV, inclusive of any variations to the original binding term sheet dated August 2019, will be provided to the market once finalised.

As previously advised to the market, POSCO's Board has already approved the development of the South Korean chemical conversion facility as it expands its participation in battery materials, with this plant to be supplied with spodumene concentrate from the Pilgangoora Operation. Pilbara Minerals participation in the DSJV with POSCO will support its strategy to diversify both its customer base and suite of products.

BMX SALES TRADING PLATFORM IMPLEMENTATION

As previously advised, Pilbara Minerals will introduce a new digital trading and sales platform for its uncommitted spodumene concentrate production. The Battery Minerals Exchange (**BMX**) platform is intended to provide Pilbara Minerals with a further avenue for sales growth, offering interested parties the ability to access current and future unallocated spodumene concentrate product from the Company's operations including from the Ngungaju Plant following its recommencement.

The BMX platform is now ready for implementation with many interested groups having already registered. Pilbara Mineral's intention is to grow the available production (including the potential for the sale of multiple cargos in a single auction over forward physical contracts), that will facilitate access to spodumene for those that may not have visibility to available spodumene supply.

Any additional interested parties should register their interest via email at sales@pilbaraminerals.com.au for further details, including the means by which the platform can be accessed.

In summarising Pilbara Minerals' current position, Managing Director and CEO Ken Brinsden said that the Company was uniquely positioned to capture emerging demand in the spodumene market, being one of very few operations globally with open offtake and expansion capacity to support the significant increase in chemical conversion



capacity already developed and emerging.

"The well-timed acquisition of the Altura Lithium Operations provides Pilbara Minerals with available spodumene concentrate at the same time the market is expected to grow rapidly to deal with the mass global adoption of lithium-ion battery technology for use in clean energy applications.

"While production costs will likely be slightly elevated during FY22, we remain confident in both Pilgangoora's pre-eminent position as an important global lithium raw materials supply base and the trend towards lower cost in the coming years as the Ngungaju Plant restarts, normalises and production settles at a higher rate.

"As a team we worked extremely hard to defend our business during what was a difficult period in the market over the last couple of years and we have now emerged much stronger for it. The combination of unallocated spodumene offtake, burgeoning demand and a sophisticated sales channel in the BMX platform makes for a potent combination at Pilgangoora".

Release authorised by Ken Brinsden, Pilbara Minerals Limited's Managing Director.

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MORE INFORMATION

ABOUT PILBARA MINERALS

Pilbara Minerals is the leading ASX-listed pure-play lithium company, owning 100% of the world's largest, independent hard-rock lithium operation. Located in Western Australia's resource-rich Pilbara region, the Pilgangoora Project and Operation produces a spodumene and tantalite concentrate. The significant scale and quality of the operation has attracted a consortium of high quality, global partners including Ganfeng Lithium, General Lithium, Great Wall Motor Company, POSCO, CATL and Yibin Tianyi.

While it continues to deliver a low-cost, quality spodumene to market, Pilbara Minerals is pursuing a growth and diversification strategy to become a sustainable, low-cost lithium producer and fully integrated lithium raw materials and chemicals supplier in the years to come. Through execution of this strategy, Pilbara Minerals is positioned to become a major player in the rapidly growing lithium supply chain, underpinned by increasing demand for clean energy technologies such as electric vehicles and energy storage as the world pursues a sustainable energy future.

FORWARD LOOKING STATEMENTS

Statements contained in this document, including but not limited to those regarding the possible or assumed future costs, projected timeframes, production, performance, dividends, returns, revenue, exchange rates, potential growth of Pilbara Minerals, the timing and amount of synergies, the future strategies, results and outlook of the combined Pilgangoora Project, industry growth, commodity or price forecasts, or other projections and any estimated company earnings are or may be forward looking statements. Forward-looking statements can generally be identified by the use of words such as 'project', 'foresee', 'plan', 'expect', 'aim', 'intend', 'anticipate', 'believe', 'estimate', 'may', 'should', 'will' or similar expressions. Forward looking



statements including all statements in this announcement regarding the outcomes of preliminary and definitive feasibility studies, projections, guidance on future earnings and estimates are provided as a general guide only and should not be relied upon as an indication or guarantee of future performance. These statements relate to future events and expectations and as such involve known and unknown risks and significant uncertainties, many of which are outside the control of Pilbara Minerals. Actual results, performance, actions and developments of Pilbara Minerals may differ materially from those expressed or implied by the forward-looking statements in this document. Such forward-looking statements speak only as of the date of this document. There can be no assurance that actual outcomes will not differ materially from these statements. To the maximum extent permitted by law, Pilbara Minerals and any of its affiliates and their directors, officers, employees, agents, associates and advisers: disclaim any obligations or undertaking to release any updates or revisions to the information in this document to reflect any change in expectations or assumptions; do not make any representation or warranty, express or implied, as to the accuracy, reliability or completeness of the information in this document, or likelihood of fulfilment of any forward-looking statement or any event or results expressed or implied in any forward-looking statement; and disclaim all responsibility and liability for these forward-looking statements (including, without limitation, liability for negligence). Nothing in this document will under any circumstances create an implication that there has been no change in the affairs of Pilbara Minerals since the date of this document.

INFORMATION REGARDING PRODUCTION CAPACITY (PILGAN PLANT AND THE NGUNGAJU PLANT)

Information in this announcement regarding production capacity of the combined Pilgangoora Project (Pilgan Plant and the Ngungaju Plant) are underpinned by the Company's existing Ore Reserves that have been prepared by a Competent Person in accordance with the JORC Code (2012 Edition) and were released by the Company to ASX on 17 September 2018 (Pilgangoora Reserve and Resource Upgrade) and as updated in the Company's 30 June 2020 Annual Report. The relevant proportions of proven Ore Reserves and probable Ore Reserves are 17% proven Ore Reserves and 83% probable Ore Reserves. The Company confirms it is not aware of any new information or data that materially affects the information included in that release or report and that all material assumptions and technical parameters underpinning the Ore Reserves estimates continue to apply and have not materially changed.

Pilbara Minerals is undertaking a review of the JORC Mineral Resource previously stated in the ASX Announcement by Altura Mining Limited dated 9 October 2019 and will aim to release an update to the market in the September Quarter 2021

All references to dollars (\$) and cents in this announcement are to Australian currency, unless otherwise stated.