

**Pilbara
Minerals**

...Powering a sustainable energy future

ASX / MEDIA ANNOUNCEMENT

28 JANUARY 2021

DECEMBER 2020 QUARTERLY ACTIVITIES REPORT

RECORD SPODUMENE SHIPMENTS ACHIEVED AS MARKET CONDITIONS CONTINUE TO IMPROVE AND PILBARA MINERALS SECURES ITS POSITION AS THE WORLD'S LARGEST INDEPENDENT HARD-ROCK LITHIUM OPERATION

KEY POINTS

PRODUCTION AND SALES

- 62% increase in sales from previous quarter delivers record quarterly spodumene concentrate shipments of 70,609 dry metric tonnes (**dmt**) (September Quarter 2020: 43,630 dmt), exceeding sales guidance.
- Production of 63,712 dmt of spodumene concentrate (September Quarter 2020: 62,404 dmt).
- Tantalite concentrate sales totalled 18,541 lbs (September Quarter 2020: 25,222 lbs).
- Unit cash operating cost¹ of US\$351/dmt CIF China (September Quarter 2020: US\$355/dmt).

LITHIUM MARKET

- Improved spodumene concentrate demand conditions evident both from within Pilbara Minerals' existing customer group and from other market enquiries.
- Material uplift in lithium chemicals pricing within China towards the end of December 2020 and into 2021, with Platts China Domestic Battery Grade lithium carbonate pricing up over 60% in late January 2021 from its lows in August 2020.

CORPORATE

- Acquisition of Altura Lithium Project via the execution of a Share Sale Agreement during the Quarter to acquire all the shares in Altura Lithium Operations Pty Ltd for US\$175M in upfront and deferred consideration.
- Acquisition funded through a \$240M equity raising, which was successfully completed on 14 January 2021.
- Settlement of Altura Lithium Operations Pty Ltd acquisition occurred on 20 January 2021.
- Temporary royalty relief assistance secured from the Western Australian Government in respect of spodumene concentrate sales.

1. Cash operating cost includes 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.

OPERATIONS OVERVIEW

During the December Quarter 2020 (**the Quarter**), Pilbara Minerals Limited (**Pilbara Minerals or the Company**) further increased activity at site to support growth in customer demand. Mining volumes and plant production increased as the Company continued to work closely with its customers to match inventory and production volumes to sales demand.

Key operational achievements at the Pilgangoora Lithium-Tantalum Project (**Pilgangoora Project**) during the Quarter included:

- 62% increase in sales of spodumene concentrate, with four shipments (six cargoes) totalling 70,609 dmt (compared to 43,630 dmt for the September Quarter 2020), exceeding sales guidance of 55,000 to 70,000 dmt; and
- total production of 63,712 dmt of spodumene concentrate (62,404 dmt produced in September Quarter 2020).

During the Quarter, a planned major process plant shutdown took place (nominally 10 days downtime), lowering total plant run-time and spodumene production and resulting in spodumene concentrate stocks on hand reducing to 30,911 dmt at Quarter end (refer Table 3).

The volumes for mining, ore processed, shipments and concentrate stocks for the Quarter are shown in Tables 1, 2 and 3 below.

Table 1: Total ore mined and processed

	Units	Q3 FY20	Q4 FY20	Q1 FY21	Q2 FY21
Ore mined	wmt	4,954	438,070	372,468	466,121
Waste mined	wmt	21,775	213,621	338,461	612,147
Total material mined	wmt	26,729	651,691	710,930	1,078,268
Ore processed	dmt	137,407	199,961	360,227	381,973

1.1 MINING COMMENTARY

Mining activities increased during the Quarter to support higher customer demand.

Total material mined was 1,078,268 wet metric tonne (**wmt**) from Central Pit. Of this, a total of 466,121 wmt of ore was mined at 1.46% Li₂O. Waste movement will begin to increase in the coming quarters to support further mine development, ore access and construction works associated with lifting the existing tailings storage facility.

As previously reported, mined head-grades continue to be slightly elevated when compared to the average life-of-mine head grade (being 1.25% Li₂O). This is consistent with the original mine development plan, which contemplated presenting a slightly higher lithia head grade in the first 3-5 years of mining.

1.2 PROCESSING COMMENTARY

During the Quarter, process plant run-time was aligned to meet required sales after allowing for a planned major maintenance shutdown in October 2020. The planned shutdown occurred over 10 days (inclusive of plant start-up and shutdown) and included (but was not limited to) major annual routine maintenance, HPGR tyre changes and ball mill re-line.

A total of 63,712 dmt of spodumene concentrate was produced during the Quarter, the largest quarterly production volume since Q4 FY2019 (SC6.0 basis) (refer Table 2).

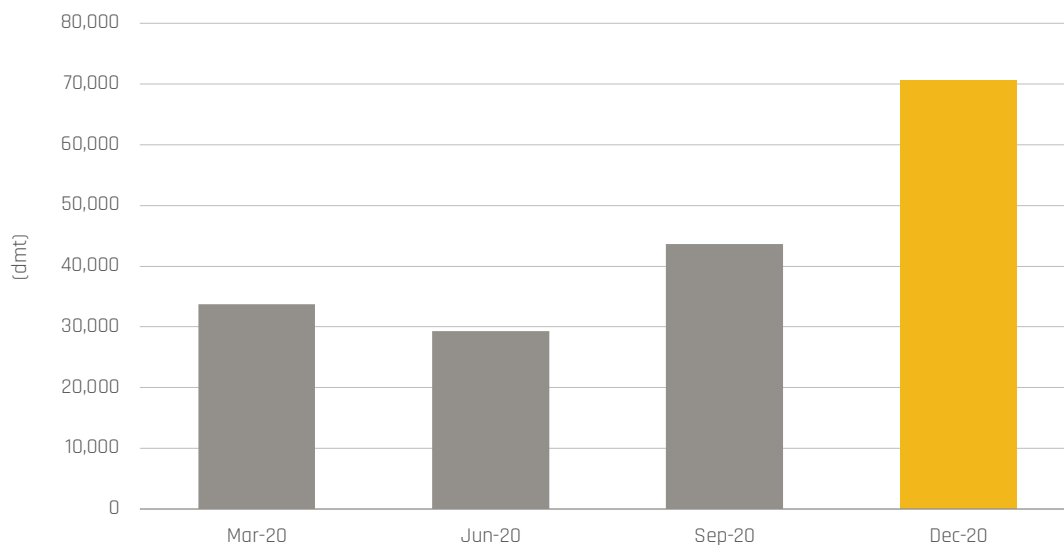


The Company also chose to conduct a strategic 6-day process plant throughput trial during the Quarter to identify bottlenecks for the upcoming process plant improvement project works (described further in the “Project Development” section below).

1.3 SHIPMENTS AND SALES

A record total of 70,609 dmt of spodumene concentrate was sold and shipped (SC6.0 basis) during the Quarter.

Figure 1: Quarterly spodumene concentrate shipments (dmt)



The Quarter saw an improvement in lithium market conditions. Pilbara Minerals is anticipating that these conditions will continue and forecasts sales for the March Quarter 2021 to be in the range of 67,000 to 77,000 dmt of spodumene concentrate.

During the Quarter, tantalite concentrate sales totalled 18,541 lbs (provisional sales, pending final reconciliation and assay results).

Table 2: Production and shipments

	Units	Q3 FY20	Q4 FY20	Q1 FY21	Q2 FY21
Spodumene concentrate produced	dmt	20,251	34,484	62,404	63,712
Spodumene concentrate shipped	dmt	33,729	29,312	43,630	70,609
Tantalite concentrate produced	lbs	3,600	23,404	32,881	28,456
Tantalite concentrate shipped	lbs	33,970	23,232	25,222	18,541

Table 3: Stocks position

	Units	Q3 2020	Q4 FY20	Q1 FY21	Q2 FY21
Spodumene concentrate stocks	dmt	11,286	17,978	36,303	30,911¹
Tantalite concentrate stocks	lbs	18,379	18,551	26,210	36,124

¹ Closing balance includes minor reconciliation adjustments of +1,504 dmt during the Quarter.

1.4 HEALTH AND SAFETY

There were no recordable safety incidents during the Quarter.



Managing the health and safety of Pilbara Minerals' people and contractors, while maintaining business continuity, is paramount as the Company manages the coronavirus (**COVID-19**) pandemic.

The risk of COVID-19 community transmission for Western Australia continued to remain low during the Quarter. Given how quickly the situation can change, the Company still maintains a high level of vigilance in respect of COVID-19, with control measures such as pre-flight health screening and increased sanitation and cleaning across site remaining in place. The Company continues to work on second wave planning to ensure it is prepared, should it need to respond. A large part of Pilbara Minerals' preparation for such an event is regular engagement with government, industry and the community.

During the Quarter, Company did not experience any material impacts to its operations from COVID-19.

2. MARKET COMMENTARY

The Quarter saw an encouraging increase in spodumene concentrate demand from customers and an improvement in lithium chemicals pricing in China. This trend has continued into the 2021 calendar year (**CY21**), signalling that a recovery in the market is well-underway.

The improvement in demand conditions for spodumene concentrate resulted in a record number of tonnes shipped during the Quarter to Pilbara Minerals' existing customer group, as well as an increase in direct product supply enquiries.

Towards the end of the Quarter and into 2021, a material uplift in lithium chemicals pricing has been seen within China, with Platts China Domestic Battery Grade lithium carbonate pricing up over 60% to date from its lows in August 2020.

Independent price reporting agencies including FastMarkets, Platts and Asian Metals were reporting spodumene concentrate pricing in the range of US\$400-430 (SC6.0, CIF basis) as at the end of December 2020.

There is a widespread expectation within the industry that the improvement in demand and lithium chemicals pricing will begin to flow through to the price for spodumene concentrate (albeit slightly lagging the lithium chemicals price) in the first half of CY21.

On 29 December 2020, in response to continued strong growth in China's electric vehicle (**EV**) industry, Pilbara Minerals' major shareholder, Contemporary Amperex Technology (**CATL**), China's largest automotive lithium-ion battery maker, announced that it would invest up to RMB 39 billion (US\$6B) in lithium-ion battery production projects in China to meet the expected increase in demand.

Commenting on CATL's move, Chinese investment bank CICC said that CATL's cumulative announced investment in capacity construction in 2020 totalled RMB 73 billion (US\$11 billion) – more than its historical investment total.

The expansion of battery suppliers can be considered a leading indicator for electric vehicle demand, with positive long-term implications for the demand outlook for high-quality raw materials such as spodumene concentrate. The growth in the electric vehicle market was evident in the 2020 calendar year with over 2.6M electric vehicles sold across two of the world's major markets, with Europe selling almost as many electric vehicles as China. Forecasts currently predict that China electric vehicle sales will rise by approximately 40% in CY21, with Western Europe sales in CY21 expected to account for around 15% of the region's entire automobile market.



3. PROJECT DEVELOPMENT

3.1 SPODUMENE CONCENTRATE PRODUCTION EXPANSION

The scale of the combined mineral resources at Pilgangoora (being both Pilbara Minerals' and the newly acquired Altura lithium assets) means there is ample opportunity for the Company to be flexible when considering the timing of existing production capacity coming to market and more generally executing production expansion initiatives. Pilbara Minerals will however only provide additional capacity (whether in the short, medium or longer term) once there is clear evidence of improved customer demand and price outcomes that collectively provide confidence to invest in any expanded production capacity.

Following the acquisition of the Altura Project, Pilbara Minerals is now focussing on a comprehensive evaluation of its combined lithium operations, including the realisation of identified tangible synergies. Part of this evaluation will be to consider the best pathway and timing to recommence operations at the Altura Project.

It is expected that the additional processing capacity from the newly acquired Altura Project will provide the first major step-up in spodumene concentrate production capacity for Pilbara Minerals' existing and new customers. Timing for the restart is however subject to both an engineering assessment of the facilities (underway) and the Company's evaluation of market demand and price conditions (as described above).

Pilbara Minerals expects to provide an update to the market on the Altura asset evaluation by the end of the March Quarter 2021.

In parallel, to improve plant performance and address increasing customer demand, Pilbara Minerals intends to execute a series of process plant improvement works on its current Stage 1 Pilgangoora processing plant. These process plant improvements are expected to unlock an additional 10-15% (~30-50ktpa) of production capacity.

The Company has allocated approximately \$22M to progress these improvement works during the current half of CY21, with commissioning expected in the September Quarter 2021. This modest capital expenditure is expected to increase plant operating time and throughput, lower final product moisture and further manage product recovery performance.

Pilbara Minerals also continues to progress feasibility studies for further incremental expansions of its existing Pilgangoora plant to a total of 5Mtpa of ore processing capacity. The Company estimates the next phase of the incremental Stage 2 expansion capacity would be capable of being delivered within approximately nine months following a financial investment decision, the timing of which will also ultimately be determined by positive market conditions and strong demand from customers.

4. EXPLORATION AND GEOLOGY

Exploration activities for the Quarter included regional project assessments and reverse circulation grade control drilling.

4.1 PILGANGOORA PROJECT (PILBARA MINERALS 100%)

A short reverse circulation grade control drilling program was carried out during the Quarter. The program, which included a total of 67 holes for 1,328 metres, largely focused on the footwall domain within the Central Pit area at the Pilgangoora Project. Samples were sent to Nagrom Laboratories in Perth for multi-element analysis.



4.2 REGIONAL PROJECTS (PILBARA MINERALS 100%)

Pilbara Minerals is continuing with desktop studies on regional tenements for gold and base metals.

4.3 MT FRANCISCO JV (PILBARA MINERALS LIMITED 51%, ATLAS IRON 49%)

No exploration work was undertaken at Mt Francisco during the Quarter.

5. CORPORATE

5.1 ACQUISITION OF ALTURA PROJECT

Following a formal sale process undertaken by the Receiver and Manager of Altura Mining Limited and Altura Lithium Operations Pty Ltd (**ALO**), Pilbara Minerals entered into a Share Sale Agreement during the Quarter with Altura Mining Limited (Receivers and Managers Appointed and Administrators Appointed) for the acquisition of all of the shares in ALO, the entity which owns 100% of Altura's Pilgangoora Lithium Project (**Altura Project**), for US\$175M¹.

To fund the acquisition of ALO, Pilbara Minerals commenced a \$240M equity raising during the Quarter, which was fully underwritten by AustralianSuper Pty Ltd in its capacity as trustee for AustralianSuper (**AustralianSuper**) and Resource Capital Fund VII L.P (**RCF**) (refer to ASX Announcement 28 October 2020). The \$240M equity raising comprised a private placement to AustralianSuper and RCF and an institutional and retail entitlements issue, the last of which was successfully completed by 14 January 2021 (refer ASX Announcement 14 and 20 January 2021).

Subsequently, on 20 January 2021, the acquisition of ALO was successfully completed (refer ASX Announcement 20 January 2021).

For further details regarding the acquisition and equity raising, refer to ASX Announcement: Investor Presentation for Equity Raising 14 December 2020 on the ASX website.

5.2 ADJUSTMENT IN EXERCISE PRICE OF UNLISTED OPTIONS

In accordance with ASX Listing Rule 6.22.2 and the terms of the Company's unlisted options currently on issue, the exercise price of those options was required to be adjusted following completion of the recently closed pro rata entitlements offer.

The exercise prices for each class of unlisted options on issue have accordingly been reduced by \$0.0515 per option.

5.3 TEMPORARY STATE ROYALTY RELIEF

During the Quarter, the Western Australian Government granted Pilbara Minerals temporary royalty relief assistance.

From 1 October 2020, Pilbara Minerals will receive a temporary and repayable 50% royalty rebate on spodumene concentrate sold from its Pilgangoora Project. Currently spodumene producers are required to pay a 5% state royalty based on revenue received (F.O.B. basis) from spodumene concentrate sales.

This assistance will be available for the 12 month period commencing 1 October 2020, provided the

¹ Comprises upfront cash consideration of US\$155M and ~69 million Pilbara Minerals' shares in deferred consideration which had an implied minimum value of US\$20 million at the time of signing the Implementation Agreement announced on 28 October 2020. Refer to ASX Announcement dated 1 December 2020 for further information.



average price received for spodumene concentrate sales is equal to or lower than US\$550 per tonne for a given quarter.

At the conclusion of the 12 month assistance period, Pilbara Minerals will be required to repay the rebate in full over the following two-year period.

5.4 POSCO DOWNSTREAM JOINT VENTURE

During the Quarter, POSCO continued to undertake further technical evaluations on the design of the proposed 40,000 tpa LCE (lithium carbonate equivalent) chemical conversion facility in South Korea prior to progressing the downstream joint venture (**JV**) with Pilbara Minerals. Both companies remain committed to the JV, however its progression and timing is dependent on market conditions, POSCO concluding this work and the completion of due diligence, formal documents and a final investment decision from both companies.

Based on recent feedback received from POSCO, the Company expects to make further progress in respect of its JV discussions with POSCO over the coming quarters.

Notably during the Quarter, POSCO announced its intention to raise 1 trillion South Korean Won (**KRW**) (~US\$906 million) to support a KRW690 billion investment to expand POSCO Chemical's Gwangyang plant, KRW160 billion to secure raw materials such as lithium and graphite and KRW150 billion to build its cathode facility in Europe to meet rising demand for electric vehicles. Such initiatives are in support of POSCO's ambition to become a world leading battery materials supplier globally.

5.5 FINANCIAL RESULTS FROM OPERATIONS

During the Quarter, the Company shipped 70,609 dmt of spodumene concentrate. This represents a 62% increase in sales in comparison to the September Quarter 2020. The average SC6.0 market reference price remained weak during the Quarter and consistent with lower pricing for the September 2020 Quarter.

A unit cash operating cost of US\$351/dmt (CIF China) was achieved for the Quarter, being A\$481/dmt at a quarterly average AUD:USD exchange rate of 0.7304 (September Quarter: US\$355/dmt; A\$497/dmt at average quarterly AUD:USD exchange rate of 0.7152). The positive effect of record sales was offset by additional maintenance costs incurred completing the major plant shutdown during the Quarter, as well as the strengthening Australian dollar. Pilbara Minerals continues to target a unit cash operating costs of US\$320-350/dmt (CIF China, AUD:USD exchange rate of 0.72) when the processing plant is operating at steady-state production.

5.6 CASH BALANCE

Pilbara Minerals closed the Quarter with a cash balance of \$248.0M (30 September 2020: \$85.7M) having received \$173.6M (net of fees) for the placement and institutional components of the \$240M equity raising associated with the Altura Project acquisition, with the balance of the equity raising completed on 14 January 2021. In addition, a \$5.8M positive cashflow was received from operations, \$1.9M in interest was paid under the new debt facility established in September 2020 (September Quarter 2020 interest payment: \$4.2M) and a \$5.9M unrealised foreign exchange loss was recognised following a revaluation of the Company's USD denominated cash balances at quarter end, as a result of a strengthening in the AUD:USD exchange rate.

During the Quarter, Pilbara Minerals received:

- proceeds of \$173.6M (net of fees) following completion of the equity placement to AustralianSuper and RCF and the Institutional Entitlement Offer from eligible shareholders; and



- proceeds of \$35.8M from customer sales.

Major cash outflows and movements during the Quarter included:

- \$30.0M on operating costs at the Pilgangoora Project;
- \$0.5M on capital costs;
- \$1.9M in interest and financing payments, largely associated with the USD senior secured finance facility;
- \$2.6M on payroll, administration and corporate costs;
- \$2.1M on exploration and evaluation work and feasibility studies in relation to the Pilgangoora Project and Altura Project acquisition;
- \$1.6M on transaction costs associated with re-financing the Nordic bond in September 2020;
- \$2.5M related to a short-term loan provided to the Receivers of Altura Lithium Operations Pty Ltd as part of the Altura Project acquisition. This money was repaid in full during January 2021; and
- \$5.9M in unrealised foreign exchange losses following revaluation of the Company's USD denominated cash balances, and reflective of a significant strengthening in the AUD:USD exchange rate during the Quarter (from 0.7108 at 30 September 2020 to 0.7702 at 31 December 2020). The Company had established significant USD denominated cash reserves ahead of paying the consideration of US\$155M in January 2021 for the acquisition of the Altura Project.

The US\$15M Working Capital Facility remains undrawn.

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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.

INFORMATION REGARDING THE ALTURA PROJECT

The information regarding the Altura Project in this announcement and any announcements referred to including information relating to production, recoveries, mineral resources and reserves estimates, life of mine plans has been sourced using publicly available information and has not been independently verified by the Company. The Company has undertaken only limited due diligence in relation to the Altura Project and may not be aware of all the material information, assumptions, facts and circumstances. Accordingly, the Company does not, subject to the Corporations Act, make any representation or warranty, express or implied, as to the accuracy or completeness of this information. While the Company has conducted due diligence on the proposed transaction, the Altura Lithium Project and Altura Lithium Operations Pty Ltd, Pilbara Minerals is unable to verify the accuracy or completeness of the information provided, and there is no assurance that this due diligence was conclusive and that all material issues and risks in relation to the proposed transaction and the Altura Lithium Project have been identified. Receipt of new, additional or updated information, assumptions or modifying factors may change production targets, recoveries, mineral resource and reserves estimates, life of mine plans and other forward-looking statements concerning the Altura Project in this announcement. To the extent that this information is incomplete, incorrect, inaccurate or misleading, there is a risk that the profitability and future results of the operations of Pilbara Minerals following the transaction may differ (including in a materially adverse way) from Pilbara Minerals' expectations as reflected in this document, or that additional liabilities may emerge.

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.

NO NEW INFORMATION STATEMENT

Information relating to the Company's Pilgangoora Project in respect of current Mineral Resource and Ore Reserve estimates, production targets and forecast information derived from the production targets (including information relating to the proposed expansions of the Pilgangoora Project), is extracted from the ASX announcement dated 3 August 2018 entitled "Outstanding DFS Results Support Pilgangoora Expansion", the ASX announcement dated 17 September 2018 entitled



“Pilgangoora Reserve and Resource Upgrade”, the ASX announcement dated 27 August 2019 entitled “Update on Partnering Process and Revised Stage 2” and as updated in the 30 June 2020 Annual Report. Pilbara Minerals confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the resource and reserve estimates, production targets and forecast financial information derived from the production targets in the announcements continue to apply and have not materially changed. Pilbara Minerals confirms that the form and context in which the competent persons’ findings are presented in this report have not been materially modified from the original market announcements.

The scoping and other technical studies in respect of the incremental Stage 2 expansion have been undertaken to determine the potential viability of the expansion and to reach a decision to proceed with more definitive studies. Each scoping study has been prepared to an accuracy level of $\pm 30\%$. Each scoping and technical study is based on low-level technical and economic assessments and is insufficient to provide assurance of an economic development case at this stage or provide certainty that the conclusions of the studies will be realised. The results of the studies should not be considered a profit forecast or production forecast.