

19 April 2024

# MARCH 2024 QUARTERLY ACTIVITIES REPORT

## Summary Operational and Financial Metrics

	Units	Dec Q FY24	Mar Q FY24	(%)	YTD FY24
<b>Production</b>	k dmt	176.0	<b>179.0</b>	2	499.2
<b>Sales</b>	k dmt	159.9	<b>165.1</b>	3	471.4
<b>Realised price<sup>1</sup></b>	US\$/dmt	1,113 <sup>2</sup>	<b>804<sup>3</sup></b>	(28)	1,343
<b>Revenue</b>	A\$M	264	<b>192</b>	(27)	950
<b>Unit operating cost (FOB)<sup>4,5</sup></b>	A\$/dmt	639	<b>675</b>	6	685
	\$US/dmt	416	444	7	448
<b>Unit operating cost (CIF)<sup>5,6</sup></b>	A\$/dmt	805	<b>789</b>	(2)	861
	US\$/dmt	523	519	(1)	564
<b>Cash balance</b>	A\$B	2.1	<b>1.8</b>	(17)	1.8

## HIGHLIGHTS

- Solid operational performance with production volume of 179.0 thousand (**k**) dry metric tonnes (**dmt**) of spodumene concentrate in the three-month period ended 31 March 2024 (**March Quarter**) with the P680 Primary Rejection Facility achieving nameplate production capacity in the second half of the Quarter.
- Average estimated realised price was US\$804/dmt<sup>3</sup> (CIF China) on a SC5.3 basis in the Quarter.
- Relative to the December Quarter 2023 (**prior Quarter**), prices stabilised and then increased toward the end of the March Quarter. The pre-auction sale of 5k dmt at US\$1,106/dmt SC5.5 in March reflects the ongoing demand and positive pricing for unallocated production volume.
- Revenue declined 27% to \$192M compared to the prior Quarter, reflecting a 28% decline in average realised price partly offset by a 3% increase in sales volume.
- Unit operating cost (FOB) of \$675/dmt increased by 6% compared to the December Quarter primarily driven by the deployment of temporary mobile ore sorting equipment. A temporary mobile ore sorter was deployed for the benefit of supplemental ore and to bring forward optimisation learnings in support of the ramp-up of the permanent P680 crushing and ore sorting facility.
- Unit operating cost (FOB) of \$675/dmt in the March Quarter is lower than \$691/dmt for the half year ended 31 December 2023 demonstrating the trend of improved unit operating cost performance during FY24. Excluding the cost of the temporary mobile ore sorting equipment, unit operating cost (FOB) for the March Quarter would have been ~\$625/dmt.
- March set a new monthly production record with over 80k dmt produced at a unit operating cost (FOB) of less than \$625/dmt. This month of peak performance was underpinned by the continuous operation of P680 and its expanded production capacity with no shutdowns, higher ore lithium head grade and higher lithium recoveries due to operational improvements including the

temporary mobile ore sorters. Performance in the first half of the Quarter was impacted by weather events and ore supply challenges that are now resolved.

- Strong balance sheet position with March Quarter end cash balance of \$1.8B. Cash reduced by \$362M in the March Quarter due to lower pricing and continued capital expenditure for P680 and P1000 Expansion Projects. Both Projects remain on schedule and on budget.
- Expansion and extension of offtake agreements with Ganfeng and Chengxin. New offtake agreement signed with Yahua allocating medium-term volumes while preserving long-term optionality.
- Binding term sheet signed with Ganfeng to complete a joint feasibility study on a potential downstream conversion plant.

## 1. SUSTAINABILITY

### 1.1 Health and Safety

Pilbara Minerals Limited (**Pilbara Minerals, Company** or the **Group**) reported six recordable injuries during the March Quarter with the rolling 12-month Total Recordable Injury Frequency Rate (**TRIFR**) increasing to 3.73 from 3.35 in the prior Quarter. In response to these injuries, targeted campaigns have been initiated in addition to the ongoing safety programs underway.

Quality safety interactions<sup>7</sup> achieved for the March Quarter equated to 1.5 completed per 1,000 hours worked, trending above target of 1.0.

### 1.2 Community

Pilbara Minerals has committed to six new multi-year partnerships in the 2024 financial year (**FY24**), increasing from four held in FY23, taking the total number of multi-year community partnerships to ten. In the March Quarter Pilbara Minerals signed an agreement with Foodbank WA to deliver a new program, Nom! Schools. The program will be delivered to 40 schools across Perth, the Pilbara, Geraldton, and Bunbury.

## 2. OPERATIONS AND SALES

### 2.1 Production

In the March Quarter, spodumene concentrate production volumes increased by 2% to 179.0k dmt compared to 176.0k dmt in the prior Quarter. Production faced challenges early in the Quarter due to adverse weather events and ore supply challenges. These impacts were rectified with record production rates being achieved in the month of March.

March set a new monthly production record with over 80k dmt produced at a unit operating cost (FOB) of less than \$625/dmt. This peak monthly performance was underpinned by the continuous operation of P680 at its expanded production capacity with no shutdowns, higher ore lithium head grade and higher lithium recoveries due to operational improvements including the mobile ore sorters. The Company is temporarily utilising mobile ore sorters to supplement ore feed and to gather in-field intelligence on the utilisation and optimisation of ore sorting technology on mine ore feed ahead of the commencement of commissioning of the P680 crushing and ore sorting facility in the June Quarter.

Pilbara Minerals recorded total material mined (**TMM**) of 9,297k wet metric tonnes (**wmt**) compared to 9,585k wmt in the prior Quarter with mining rates in line with plan.

Lithium processing recoveries for the March Quarter were 65.3% compared to 65.9% in the prior Quarter. Recoveries were impacted earlier in the Quarter principally due to changes in mineralogy as a function of ore supplied from the mine. Ore feed transitioned to consistent mineralogy sources in the later half of the Quarter delivering improved lithium recoveries through both processing plants.

## 2.2 Sales

Sales volume totalled 165.1k dmt of spodumene concentrate in the March Quarter with the average grade of product shipped being ~SC5.3% Li<sub>2</sub>O.

March Quarter sales were lower than production volume reflecting the timing of shipments. Two shipments were made during the first half of April totalling 25.9k dmt. The Company continues to see ongoing customer demand for its product and is not stockpiling production volume.

Sales of tantalite concentrate in the March Quarter totalled approximately 12,327 lbs<sup>8</sup>.

During the Quarter, Pilbara Minerals executed amendments to existing offtake agreements with Ganfeng Lithium Group Co. Ltd (**Ganfeng**) and Chengxin Lithium Group (**Chengxin**), and a new offtake agreement with Sichuan Yahua Industrial Group Co. Ltd (**Yahua**), for the supply of spodumene concentrate for three calendar years (CY24, CY25 and CY26). All three customers are leading lithium chemicals companies with strong connections across the lithium supply chain including key customers such as Tesla, BYD, LG Chem, CATL and Hyundai.

These agreements are a continuation of Pilbara Minerals' strategy to commit volumes under offtake agreements with leading global lithium producers in the medium term while exploring long-term downstream opportunities.

Pilbara Minerals also scheduled a digital auction on the Battery Material Exchange (**BMX**) in the Quarter and accepted a pre-auction offer of US\$1,106 on SC5.5 CIF China basis equating to an approximate price of US\$1,200/dmt on a SC6.0 CIF China equivalent basis. For any future unallocated production volumes, the Company will continuously review a variety of sales avenues including offtake contracts, closed tenders, auctions and other commercial opportunities to maximise value creation for our shareholders.

## 2.3 Unit Operating Costs

Unit operating costs on a FOB basis (excluding freight and royalties) increased by 6% to \$675/dmt compared to the prior Quarter with higher production costs largely driven by the deployment of mobile ore sorters partly offset by an increase in sales volumes. Excluding the cost of temporary mobile ore sorting equipment, unit operating cost (FOB) for the March Quarter would have been ~\$625/dmt.

Unit operating cost (FOB) of \$675/dmt in the March Quarter is lower than \$691/dmt for the half year ended 31 December 2023 demonstrating the trend of improved unit operating cost performance during FY24. Unit operating costs on a CIF basis were 2% lower at \$789/dmt due primarily to a decrease in royalty costs as a result of a 28% decline in realised prices Quarter on Quarter.

## 2.4 Pricing

The estimated realised sales price for spodumene concentrate in the March Quarter was US\$804/dmt<sup>3</sup> (CIF China and based on ~SC5.3% product grade) down 28% on the prior Quarter. On an SC6.0 equivalent basis, the average estimated sales price for spodumene concentrate was US\$927/dmt (CIF China). During the Quarter, average pricing was lowest in January and increased month on month in February and March. The pre-auction sale of 5k dmt at US\$1,106/dmt SC5.5 in March reflects the ongoing demand and positive pricing for unallocated production volume.

## 3. PROJECT DEVELOPMENT

### 3.1 P680 Project

Construction works were progressed during the March Quarter for the remaining scope of the P680 Project, being the crushing and ore sorting facility. This remains on schedule and budget. Following the successful completion of commissioning of the Primary Rejection Facility in the December Quarter the

facility achieved nameplate production in the March Quarter.

### **Crushing and Ore Sorting Facility**

Structural, mechanical, piping, electrical and instrumentation installation works have progressed on site for the crushing and ore sorting facility. Installation of the ore sorting units has also occurred.

Steel fabrication has progressed to plan with deliveries to the Pilgangoora Operation. Installation of structural steel and mechanical equipment continued throughout the Quarter.

Commissioning of the new Crushing and Ore Sorting Facility remains on target to commence in the June Quarter FY24 with ramp-up scheduled during the September Quarter FY25.

### **3.2 P1000 Project**

The P1000 Project, which will increase annual nameplate production run rate to approximately 1Mtpa<sup>9</sup>, continues to progress to schedule and budget with first ore targeted for the March Quarter FY25.

Project construction highlights for the March Quarter include:

- bulk earthworks, detailed design and remaining engineering deliverables completed;
- concrete construction and underground services progressed throughout the Quarter with completion forecast in the June Quarter FY24; and
- steel fabrication and modularising progressed with the first shipment due to arrive in Port Hedland in April 2024.

### **3.3 Mid-Stream Demonstration Plant Project**

The Mid-Stream Demonstration Plant Project (**Demonstration Plant Project**) continued to progress to schedule and budget with detailed design, and the long-lead items progressed during the Quarter.

The Demonstration Plant Project aims to validate the benefits of producing a valued-added enriched lithium product using Calix's patented electric kiln technology. The processing path being explored has the potential to reduce transport volumes, transport costs and carbon emission intensity (if powered by renewable energy).

The Demonstration Plant Project is on schedule to achieve first lithium salt production in the June Quarter FY25.

### **3.4 Downstream Joint Venture with POSCO**

During the March Quarter commissioning activities were completed and the ramp up of production commenced for Train 1, and major construction works continued for Train 2 at the POSCO Pilbara Lithium Solution Co Ltd (**PPLS**) 43 ktpa Lithium Hydroxide Monohydrate (**LHM**) Chemical Facility (**Chemical Facility**) in Gwangyang, South Korea.

The completion of commissioning, and commencement of the ramp up of production of Train 1 represented another significant milestone for Pilbara Minerals in its strategy to participate in downstream lithium chemicals production. Small volumes of uncertified LHM were produced during the Quarter as part of commissioning with the ramp-up to full capacity estimated within 12 - 18 months.

Battery chemicals produced by chemical converters need to be certified by lithium cathode customers, typically over a 6 to 12 month period, and before commercial quantities can be purchased. PPLS will sell uncertified lithium hydroxide to other chemical converters and trading companies until PPLS product has been certified.

Construction works for Train 2 included erecting steel structures, and installation of equipment and piping. Commissioning is still expected to commence during the second half of CY24.



**Figure 1:** The PPLS LHM facility as at 12 April 2024.

### 3.5 Beyond P1000

The pre-feasibility study to explore further expansion of spodumene concentrate production capacity beyond 1 Mtpa at the Pilgangoora Operation was progressed during the March Quarter and is on schedule to be released in the June Quarter FY24.

### 3.6 Joint Downstream Partnering Study

Pilbara Minerals and Ganfeng signed a binding term sheet in the March Quarter agreeing to complete a joint Feasibility Study for a potential downstream conversion facility to produce lithium chemicals.

The agreement with Ganfeng is the outcome of a partnering process in which Pilbara Minerals engaged with a wide range of potential partners globally that included battery manufacturers, cathode producers, original equipment manufacturers and lithium chemical converters. Ganfeng was selected based on their proven expertise, best-in-class conversion intellectual property, their ability to maximise economics, their Tier 1 customer base and strong alignment with Pilbara Minerals on maximising commercial outcomes and achieving ESG objectives.

The Feasibility Study will consider a conversion plant with capacity to produce ~32 ktpa lithium carbonate equivalent (**LCE**) of lithium chemicals (hydroxide and/or carbonate) along with a potential intermediate lithium chemical facility in Australia, leveraging Ganfeng's extensive experience as a lithium chemical converter.

The Feasibility Study will consider the operating costs, capital costs, fiscal incentives, and overall economics of a potential lithium chemicals plant in various jurisdictions together with a qualitative assessment of other relevant factors including ESG, permitting timeline and supply chain logistics. Location assessment will focus on an agreed list of countries, including Australia, to explore greater geographical diversification in the battery chemicals supply chain.

The outcomes of the Feasibility Study are expected in the March Quarter FY25, which creates an option

for Pilbara Minerals and Ganfeng to progress to a FID for the chemicals JV thereafter.

## **4. EXPLORATION AND GEOLOGY**

### **4.1 Pilgangoora and Regional**

Resource development drilling continued during the Quarter, targeting the depth extensions of pegmatite domains to the north-west of the Central pit with two reverse circulation rigs completing a total of 4,584m. A diamond drill rig is scheduled to commence in late April with the drilling program to continue through to the end of CY24 and a resource upgrade expected in CY25.

Regional exploration activities, including surface geochemistry and water exploration, were also undertaken during the Quarter with a total of 19 holes for 2,184m completed. Production water bore drilling is scheduled to commence in the June Quarter.

## **5. CORPORATE**

### **5.1 Cash**

The Company retains a very strong balance sheet position with an ending cash balance of \$1.8B as at 31 March 2024. Cash declined by \$362M in the March Quarter driven primarily by lower receipts from customers due to pricing adjustments on the prior Quarter's shipments and continued capital investment on the P680 and P1000 Projects.

If prices remain stable over time, there will be no material impact from final price adjustments. March Quarter was unusual in that it was impacted by sharply declining prices in December Quarter that have since stabilised. Receipts from customers for March Quarter shipments of \$225M were offset by pricing adjustments from shipments prior to March Quarter of -\$218M, resulting in receipts from customers of \$7M.

Excluding pricing adjustments on shipments prior to March 2024 Quarter, cash margin from operations (defined as receipts from customers less payments for operating costs) would have been \$72M in the March Quarter. This demonstrates positive cash margin from the Group's operations at the lower average estimated realised price of US\$804<sup>3</sup>/dmt in the Quarter.

Investment activities saw total capex spend of \$170M in the March Quarter. This included growth capital expenditure related to the P680 and P1000 Projects of ~\$110M, new projects and enhancements of ~\$29M, capitalised mine development costs of ~\$31M and sustaining capex of ~\$19M<sup>10</sup>. Finally, the March Quarter saw cash flows from financing activities and foreign exchange impacts of -\$1M.

### **5.2 Board changes**

During the March Quarter, Pilbara Minerals Non-Executive Chairman, Mr Anthony Kiernan AM, retired from the Board with Ms Kathleen Conlon assuming the role of Non-Executive Chairman of Pilbara Minerals.

### **5.3 Quarterly Investor, Analyst and Media Webcast**

Access the quarterly investor, analyst and media webcast today at 7.00am (AWST) / 9.00am (AEST):

- Retail shareholders and investors – [webcast link](#)
- Analysts, brokers, fund managers and media – [teleconference link](#)

*Release authorised by Dale Henderson, Pilbara Minerals Limited's Managing Director and CEO.*

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## About Pilbara Minerals

Pilbara Minerals is the leading ASX-listed 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 Operation produces spodumene and tantalite concentrates. The significant scale and quality of the operation has attracted a consortium of high quality, global partners including POSCO, Ganfeng, Chengxin, Yahua, Yibin Tianyi and General Lithium.

## Important Information

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.

Guidance as to production, unit costs and capital expenditure is based on assumptions, budgets and estimates existing at the time of assessment which may change over time impacting the accuracy of those estimates. These estimates are developed in the context of an uncertain operating environment including in respect of inflationary macroeconomic conditions, incomplete engineering and uncertainties surrounding the risks associated with mining and project development including the construction, commissioning and ramp up of P680 and P1000 which may delay or impact production and have a flow on effect on sales. Actual results may therefore vary significantly depending on these risks and the timing required to address them. All information is provided as an indicative guide to assist sophisticated investors with modelling of the Company. It should not be relied upon as a predictor of future performance.

Information in this announcement regarding production targets and expansions in nameplate capacity of the Pilgan Plant in respect of the P680 and P1000 projects 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 24 August 2023. The relevant proportions of proven Ore Reserves and probable Ore Reserves are 9% proved Ore Reserves and 91% 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.

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

## Appendix

### Physicals summary

Total Ore Mined and Processed	UNITS	Mar Q FY23	Jun Q FY23	Sep Q FY24	Dec Q FY24	Mar Q FY24	YTD FY24
Ore mined	wmt	1,225,563	1,271,150	1,411,017	1,618,748	<b>1,535,521</b>	4,565,286
Waste material	wmt	6,572,687	7,311,878	7,741,062	7,965,907	<b>7,761,304</b>	23,468,273
Total material mined	wmt	7,798,250	8,583,028	9,152,078	9,584,655	<b>9,296,825</b>	28,033,558
Average Li <sub>2</sub> O grade mined	%	1.4%	1.3%	1.3%	1.4%	<b>1.4%</b>	1.3%
Ore processed	dmt	846,949	893,500	852,148	982,028	<b>995,326</b>	2,829,502

Total Production and Shipments	UNITS	Mar Q FY23	Jun Q FY23	Sep Q FY24	Dec Q FY24	Mar Q FY24	YTD FY24
Spodumene concentrate produced	dmt	148,131	162,761	144,184	175,969	<b>179,006</b>	499,159
Spodumene concentrate shipped	dmt	144,312	176,314	146,354	159,897	<b>165,121</b>	471,371
Tantalite concentrate produced	lb	8,575	7,224	8,496	15,392	<b>48,292</b>	72,180
Tantalite concentrate shipped	lb	(920) <sup>11</sup>	-	-	19,128	<b>12,327<sup>12</sup></b>	31,455
Spodumene concentrate grade produced	%	5.3%	5.2%	5.2%	5.2%	<b>5.2%</b>	5.2%
Lithia recoveries	%	66.4%	69.6%	66.6%	65.9%	<b>65.3%</b>	65.9%



## End notes

<sup>1</sup> The table below shows the SC6.0 CIF China equivalent price, adjusted pro-rata for an assumed SC6.0 lithia content, compared to the estimated realised price (CIF China) in each period with corresponding lithia content.

	Units	Dec Q FY24	Mar Q FY24	(%)
<b>SC6.0 CIF China</b>	US\$/t	1,280	927	<b>(28)</b>
<b>Realised Price CIF China</b>	US\$/t	1,113	804	<b>(28)</b>
<b>Lithia Content</b>	%	~5.2%	~5.3%	<b>0.1</b>

<sup>2</sup> Final realised price for the December Quarter FY24 was \$US\$1,091/dmt (CIF China) on a SC5.2 basis. On an SC6.0 equivalent basis, the average final realised sales price was US\$1,256/dmt (CIF China).

<sup>3</sup> Average estimated realised price for ~5.3% Li<sub>2</sub>O grade (SC5.3 CIF China) as at 8 April 2024. This includes approximately 62k dmt shipped in March which reflects reference pricing data up to 8 April 2024, and is subject to final adjustment to take into account reference pricing data up to approximately mid-May. The final adjusted price may be higher or lower than the estimated realised price based on future price movements.

<sup>4</sup> Unit operating cost (FOB Port Hedland excluding freight and royalties) includes mining, processing, transport, port charges, and site based general and administration costs and is net of any tantalite by-product credits. It is calculated on an incurred basis (including accruals), and includes inventory movements, and credits for capitalised deferred mine waste development cost, and it excludes depreciation of fixed assets and right of use leases, and amortisation of deferred stripping.

<sup>5</sup> FX rate used to convert \$A/dmt Unit Operating cost (FOB) and Unit Operating cost (CIF) for the March Quarter was 0.6581 vs 0.6505 for the December Quarter.

<sup>6</sup> Unit operating cost (CIF China) includes the unit operating costs (FOB Port Hedland excluding freight and royalties) plus freight and royalty costs. Royalty costs include a 5% state government royalty on the FOB selling price, a 1% native title royalty on the FOB selling price, and a 5% private royalty on the FOB selling price which is only applied to a part of the resource/reserve acquired following the Altura Lithium Operation acquisition.

<sup>7</sup> Quality safety interactions are a measure of leadership safety conversations and provide a lead indicator for the promotion of a strong safety culture.

<sup>8</sup> Tantalite sales include adjustments relating to the December Quarter and are subject to further final adjustment.

<sup>9</sup> Based on 5.7% lithia concentrate grade. Actual production achieved in any year will depend on the actual concentrate grade and mined grade and is variable over the mine plan. Refer to ASX release "P1000 Project Final Investment Decision" dated 29 March 2023 for further details and supporting information.

<sup>10</sup> The expenditure categories do not sum up to the noted capex spend in the Quarter due to timing of cash outflows vs recognition of capital additions on the balance sheet.

<sup>11</sup> This is an adjustment on the March 2023 Quarter's total shipped quantity. No tantalite was shipped in the March 2023 Quarter, the June 2023 Quarter or the September 2023 Quarter.

<sup>12</sup> Tantalite sales are subject to final adjustment.