

HIGHLIGHTS

- Record HMC processed at the Picton Mineral Separation Plant of 29,266t (+28% over prior quarter) giving record total quarterly saleable production of 20,850t (+33% over prior quarter)
- Record L88 production of 10,150t L88 (+24%), higher L70 production of 6,094t (+67%), and higher zircon concentrate production of 4,606t (+21%)
- Quarterly product sales increased 85% to near-record of 18,759t, comprising 7,500t L88, 6,500t L70 and 4,759t zircon concentrate. Sales receipts of \$11.6M
- Strong start to June quarter: 5,500t L70 and 4,500t L88 shipped in early April
- Transition to eastern mining location completed and 24 hour mining operations resumed in February
- New Mine Field Unit (MFU) successfully commissioned at eastern location
- Expanded L88 sales agreement signed with major offtake customer in April
- Keysbrook operating cash flow positive \$2.8M
- Mineral sands market conditions continuing to strengthen

During the March Quarter 2017, MZI's primary focus remained on completing the operational transformation and ramp-up at the Company's Keysbrook Operations.

Production and sales data for the March Quarter are detailed in Table 1 on page 2 of this report.

Comment

MZI Interim Managing Director Steve Ward said: *"The March quarter was a transformational period for MZI, during which critical steps to debottleneck the Keysbrook site were completed with the shift to the eastern mining location and successful commissioning of a new more robust and reliable integrated Mine Field Unit. These two important steps enabled the resumption of 24-7 mining operations and vitally, enabled consistent and reliable feed to the Keysbrook Wet Concentrator Plant."*

"Notably - and despite slightly lower production of Heavy Mineral Concentrate prior to the commissioning of the new MFU in March - record HMC was processed at Picton delivering record saleable production of 20,850t of all products, including record production of our most valuable product, L88. We can now focus on fine-tuning and continuous improvement at both Keysbrook and Picton to see just how hard we can push both facilities to achieve optimum performance."

The improving overall performance and careful management of costs and cash resulted in a pleasing return to positive operational cash flow."

"Furthermore, our expanded sales agreement to supply our major leucoxene customer Chemours with significantly more L88 highlights the steadily improving market outlook for mineral sands, including higher value products such as Keysbrook leucoxene."

Together with the ongoing operational improvement at Keysbrook, this puts MZI in a strong position for the rest of 2017 and beyond."

CORPORATE

MZI finished the March 2017 quarter with \$6.2M in cash and undrawn guarantee facilities of \$6.7M.

In March 2017¹, MZI announced its financial results for the six months ended 31 December 2016.

During the quarter, good progress was made with respect to the recruitment of a permanent managing director, including interviews of shortlisted candidates.

The Company also continued discussions with landowners in the ore reserve footprint in relation to land access or strategic property purchases to support future production plans including potential expansion opportunities.

Total issued capital at 31 March 2017 was 213,960,745 ordinary shares with a further 6,762,500 unlisted options with varying exercise prices and maturity dates. In January 3.5M shares were issued to RCF in lieu of interest payments.

OPERATIONS

Production

The primary focus of activity during the March quarter was progressing the operational transformation and ramp-up at the Keysbrook Operations. Production and sales statistics are detailed in Table 1 below.

Table 1: Keysbrook Production and Sales

Production	Unit	Mar-Qtr 2016	Jun-Qtr 2016	Sep-Qtr 2016	Dec-Qtr 2016	Mar-Qtr 2017	Total FY2016-17
Ore Mined	dt	886,357	1,017,474	1,037,963	966,406	922,100	2,926,469
Ore Processed	dt	847,995	937,957	957,581	895,435	824,877	2,677,893
Mined Grade	% HM	2.58	2.47	2.53	2.73	2.85	2.70
WCP Availability	%	83.5	82.9	82.3	74.5	75.5	77.4
MSP Availability	%	85.7	93.4	90.9	95.5	92.9	93.1
HMC Production (WCP)	dt	19,566	22,636	24,218	24,744	21,984	70,986
HMC Processed (MSP)	dt	24,055	20,140	21,161	22,932	29,266	73,359
L70	dt	6,349	3,475	2,985	3,640	6,094	12,719
L88	dt	4,943	3,779	6,748	8,194	10,150	25,092
Zircon Concentrate	dt	4,888	3,572	3,645	3,802	4,606	12,053
Total Products	dt	16,270	10,826	13,378	15,636	20,850	49,864
Sales							
L70	dt	6,825	7,000	-	-	6,500	6,500
L88	dt	-	8,250	6,850	6,243	7,500	20,593
Zircon Concentrate	dt	4,572	3,770	3,211	3,923	4,759	11,893
Total	dt	11,397	19,020	10,061	10,166	18,759	38,896

In summary, there was continued further significant improvement in operational performance with a number of records achieved:

¹ Refer ASX release dated 9 March 2017

QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 31 MARCH 2017



- Record quarterly HMC processed at the Picton MSP of 29,266 tonnes
- Record quarterly saleable production of 20,850 tonnes (all products), an increase of 33% over the preceding quarter:
 - Record L88 production of 10,150 tonnes, up 24% compared with the prior quarter
 - L70 production increased 67% to 6,094 tonnes compared with the prior quarter
 - Zircon concentrate production increased 21% to 4,606 tonnes compared with the prior quarter

Mining volumes were marginally lower (4%) at 922,100 tonnes compared with the prior quarter, reflecting reduced production prior to the commencement of operations in the eastern mining location in early February, at which time 24 hour mining activity was able to resume. The mined grade for the quarter was 2.85% heavy minerals compared with 2.73% in the previous quarter. Mining volumes did not constrain overall production and were consistent with overall HMC production levels achieved.

Importantly, the commissioning of the new more robust and reliable MFU at the eastern mining location in the second half of March is delivering significant operational efficiencies, notably through reduced haulage distances, reduced maintenance downtime and costs, elimination of supplementary mobile feeder equipment requirements, and reduced noise footprint.

Ore processed decreased by approximately 8% to 824,877 tonnes, reflecting downtime at the original MFU prior to the commissioning of the new MFU on 22 March. Since its commissioning, the new MFU has demonstrated excellent reliability and significantly improved throughput rates.

Overall WCP performance in the quarter remained strong, achieving robust HMC production rates of approximately 240 tonnes per day during the first two months of the quarter, despite ongoing maintenance downtime at the original MFU prior to commissioning of the new unit in March. Commissioning of the new MFU subsequently enabled stabilisation of HMC production at levels close to design. Quarterly HMC production consequently totalled 21,984 tonnes, only 11% lower than the record volumes achieved in the prior quarter.

With consistent feed now able to be maintained to the WCP, the Company's continuous improvement program provides strong potential to continue to increase HMC production and in doing so, build saleable production from the Picton Mineral Separation Plant.

This upside was evident in a record performance by the Picton MSP during the March quarter. The total volume of HMC processed rose 28% from the prior quarter to a record 29,266 tonnes, resulting in a 33% increase in saleable total production to a record 20,850 tonnes. Production of L88, the Company's most valuable product, rose 24% to a record 10,150 tonnes, while quarter-on-quarter production of L70 rose 67% to 6,094 tonnes and zircon concentrate production increased 21% to 4,606 tonnes.

Keysbrook

Sales

Quarterly product sales increased by approximately 85% to 18,759 tonnes, reflective of the strong production performance at the MSP. This was the second highest level of quarterly sales, marginally lower than the record 19,020 tonnes shipped in the June 2016 quarter. Sales comprised 7,500 tonnes of L88, 6,500 tonnes of L70 and 4,759 tonnes of zircon concentrate.

Congestion at Bunbury Port delayed an additional 5,500 tonne shipment of L70 previously scheduled to depart in March by approximately one week to 2 April 2017. The resultant strong start to the current quarter continued with a further shipment totalling 4,500 tonnes of L88 in mid-April.

Sales revenue booked in the quarter totalled \$9.0M, with cash received from sales in the quarter totalling \$11.6M (prior quarter sales revenue \$7.0M, cash receipts \$7.5M).

Subsequent to the end of the quarter in April 2017², the Company announced it had signed a Letter of Agreement to expand its existing offtake agreement with its major leucoxene customer Chemours to supply an additional 50,000 tonnes of L88 spread over the next three years, retrospectively commencing from the start of March 2017. This is in addition to the customer's standing commitment to purchase 25,000t of L88 per annum.

Mineral Sands Market

Mineral sands products such as rutile and leucoxene contain titanium dioxide (TiO₂), which is primarily used in the manufacture of titanium pigments (pigment) for paints, plastics, paper, inks and coatings. TiO₂ is also used to produce titanium metal which is most commonly associated with aerospace and other specialist applications. TiO₂ is also used as a high temperature fluxing agent in welding electrodes. Zircon is a major component in ceramics used to manufacture tiles and bathroom furniture and is also used in specialty chemicals, precision castings, zirconium metal and special refractories. Consequently, the mineral sands market is closely aligned with global economic growth and urbanisation.

The mineral sands market showed further signs of improvement during the March quarter as the outlook for pigment continues to remain positive as a result of the improving global economy. Pigment producers are now experiencing strong demand, which is depleting inventory and placing upward pressure on pigment prices.

Importantly, Chinese producers which in part are the 'industry swing suppliers' have ramped up production in response to increasing demand and continue to be very aggressive announcing price increases. This is resulting in sulphate pigment prices matching or in some cases exceeding chloride pigment prices. Demand for sulphate ilmenite has been extremely strong due to this resurgence of sulphate pigment production in China. Sulphate ilmenite prices have risen markedly due to tightness of supply. There is now also considerable effort in China to expand chloride pigment capacity which will further increase the demand for high grade chloride feedstock such as leucoxene.

The major Western pigment producers, who are predominately chloride pigment based, have also announced significant price increases in response to stronger demand. These chloride pigment producers are expected to increase production by either restarting idled capacity or utilising higher grade feedstock to increase yield, which will be positive for existing feedstock producers.

In light of the positive pigment market conditions there has been some upward movement in pricing for high grade chloride pigment feedstock such as leucoxene, but not to the scale or extent of sulphate ilmenite. It is expected that the continuing buoyant pigment market will lead to further price increases for chloride pigment feedstocks.

The outlook for zircon remains mixed with growth in demand being reported in western economies while Chinese demand is still relatively subdued pending a strong recovery in the building and construction sector. However, sentiment remains positive for increased prices as supply becomes more constrained due to lower zircon production. There is a wide range of zircon prices due to variation in grade, but overall the market seems to have accepted a ~ \$50 pmt. price increase in the March quarter with further upside expected in Q2 as zircon producers have continued to limit production to ensure the market is not oversupplied.

² Refer ASX release dated 18 April 2017.

Health, Safety and Environment

There was one Lost Time Injury during the reporting period, and the Company-wide rolling 12-month Total Recordable Injury Frequency Rate (per 1 million hours worked) was 23.0 at the close of the period. Proactive reporting of potential hazards by employees continued during the period, providing a strong platform for the reduction of the risk of harm, damage or loss.

During the March Quarter, the Company continued to systematically implement noise monitoring, management and abatement initiatives at Keysbrook to further understand and improve its noise footprint. Reductions in noise emissions were achieved with the commissioning of the new MFU within a purpose built noise bund, and the re-commencement of night time mining in the eastern location was successfully managed. The Company has continued to work with regulatory authorities to progress the review of approval conditions relating to noise that was agreed to in December 2016. Consultation with stakeholders was maintained, with a specific focus relating to noise emissions being initiated during the quarter.

Numerous performance and compliance reports were submitted to regulatory authorities in fulfilment of approval requirements.

Preparation for the 2017 rehabilitation season progressed. Mined areas have been returned to natural surface levels and soil sampling undertaken to determine the optimum treatments for re-establishment of productive farmland.

Community

Community engagement activities continued for the quarter which included project updates in relation to the eastern mine move and installation of the MFU. Several community sponsorship commitments were granted.

Geology and Regional Exploration

Activities for the quarter were focused on estimation of the updated resource for the Keysbrook Project, completion of which is anticipated in the June quarter.

For further details, please contact:

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QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 31 MARCH 2017



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QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 31 MARCH 2017



SCHEDULE OF TENEMENTS AS AT 31 MARCH 2017

Tenement	Location	Status	Registered Holder	Interest at 31/03/2017
E70/2407	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/2610	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/2673	Pinjarra, WA	Application	MZI Resources Ltd	100%
E70/4628	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4723	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4725	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4764	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4765	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4766	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4767	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4768	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
E70/4925	Pinjarra, WA	Application	Keysbrook Leucoxene Pty Ltd	100%
EL23862	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
EL24329	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
EL24851	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
EL25457	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25458	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25459	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25460	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL25461	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL26421	Anson Bay, NT	Application	MZI Resources Ltd	100%
EL29800	Croker Island, NT	Application	MZI Resources Ltd	100%
EL29839	Arnhem Land, NT	Application	MZI Resources Ltd	100%
EL30924	Tiwi Islands, NT	Application	MZI Resources Ltd	100%
ML24510	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
ML24511	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
ML27438	Tiwi Islands, NT	Granted	MZI Resources Ltd	100%
P70/1662	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1663	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1676	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1677	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1678	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1679	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1680	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1682	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1683	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1684	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%
P70/1685	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty Ltd	100%