QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 30 SEPTEMBER 2018

HIGHLIGHTS

- Steady-state, 5.25Mtpa production performance achieved, resulting in a robust increase in Heavy Mineral Concentrate output to a record 32,995t.
- Best quarterly sales figure of 24,856t underpinned by steady saleable production rate of 18,152t.
- Unit costs for HMC production down 19% quarter on quarter.
- Several projects underway to address technical challenges associated with achieving nameplate L88 recovery in the current processing circuit.
- Short-term RCF and RMB funding arrangements restructured.
- Discussions in progress to identify potential sources of funding for ongoing L88 projects along with options to restructure debt arrangements post 2018.
- Refinance process on hold pending discussions with key stakeholders and development of improvement initiatives.
- Post upgrade focus on business structure and cost reduction initiatives.
- Positive underlying outlook for both rutile and zircon products but some near-term turbulence in supply-demand balance due to global trade volatility.

OVERVIEW

During the quarter, MZI continued to consolidate operational upgrades at the Company's Keysbrook and Picton Operations, designed to increase saleable production, improve margins and reduce product unit costs.

Through these endeavours, production of Heavy Mineral Concentrate ("HMC") at the Wet Concentrator Plant ("WCP") increased by 38% quarter on quarter to a record 32,995t.

Whilst this milestone is noteworthy, it has to be tempered by the fact that substantial efforts at both the WCP and Mineral Separation Plant ("MSP") have yet to deliver sustained L88 recovery levels above the long-run historic average of approximately 60% and 68% respectively. This is an important issue for the ongoing business as L88 recovery is a key driver of value for MZI, accounting for approximately two thirds of total revenue. Saleable production remained steady at 18,152t, reflecting the allocation of processing days during the quarter at the Picton MSP.

Quarterly sales rose 48.6% to a record 24,856t of saleable product, comprising 10,164t of L88, 8,809t of L70, and 5,883t of zircon concentrate, reflecting customer shipping schedules, product stocks remaining at the end of June and production in the September quarter. Operational performance is discussed in greater detail in the Operations section of this report.

The Company's financial position was assisted by the increase in quarterly sales revenues and a Research and Development refund. A restructuring late in the quarter of funding arrangements with senior debt provider RMB and major shareholder Resource Capital Funds VI LP ("RCF") was undertaken to further assist with the short-term funding needs of the business. MZI also continues to progress discussions with a range of parties including RMB and RCF with regards to the Company's necessary future funding requirements beyond the end of 2018.

Whilst increased throughput and process improvements were achieved as a result of the successful implementation of the 5.25Mtpa Operating Plan, there remain significant concerns over the ability of the current processing circuits to deliver the L88 recovery performance set when the project was developed. After extensive test work and analysis carried out over the past four months, the primary reason for the under-recovery has been attributed to highly variable physical characteristics related to the L88 particles in the orebody and the effectiveness of certain equipment to deal with this element within the current flowsheet configuration.

This test work has further galvanised the view that in order to achieve a step change in L88 recovery levels, a different approach needs to be taken to overcome the limitations and restrictions of the current flowsheet design. This conclusion has resulted in the development of alternative flowsheet options to improve L88 recovery and saleable production and these alternatives are currently being carefully considered and evaluated by MZI.

In parallel with these initiatives, the Company continues to benefit from positive market conditions for both rutile and zircon products.

CORPORATE

MZI finished the quarter with $9.9M in cash. Total issued capital at 30 September 2018 was 258,673,480 ordinary shares and 2,800,000 unlisted options at an exercise price of $0.65 and maturing on 1 December 2019. After the end of the period 9,362,419 shares were issued to RCF in lieu of interest payments, increasing RCF's shareholding in MZI to 55.81%.

During September, the Company received a refund of $9.4M for past Research and Development expenditure incurred in 2015-2016. The Company released its Annual Financial Report on 25 September 2018, reporting a net loss of $35.4M for the year ended 30 June 2018.

Late in the quarter, MZI successfully restructured its near-term funding arrangements with RMB and RCF (refer ASX release dated 28 September 2018). RMB agreed to defer until March 2019, Senior Debt Principal Repayments, together totalling US$4M and originally scheduled for payment in September 2018 and in December 2018 respectively, subject to further conditions referred to below. No fees are payable by MZI for this change.

The deferred payments are payable together with the March 2019 quarter principal repayment of US$2M and will accrue interest at a rate of 14% per annum. If MZI does not achieve 95% of its quarterly saleable production and/or revenue targets in this period, it will incur additional charges, effectively increasing the annualised interest rate for the deferred component to 20%. MZI achieved the targets for the September quarter.

In tandem with these revised arrangements, RCF agreed to defer its quarterly royalty payments for the same period as the RMB deferrals. In addition, RCF has waived the performance conditions pertaining to drawdown of the US$4M in funds remaining available to MZI under Tranche B of the RCF Term Loan (refer ASX announcement dated 29 March 2018). The waiver is consistent with that provided in July when MZI drew an initial US$3.5M under Tranche B (refer ASX release dated 13 July 2018). MZI currently expects to draw the remaining US$4M from Tranche B for working capital purposes in late 2018.

As noted in the Overview, MZI continues to progress discussions with both RMB and RCF with regards to further restructuring of its existing funding arrangements, to align the Company's requirements beyond the end of 2018 with current operational capability. In addition to RMB and RCF, the Company has also approached other interested parties in order to identify potential sources of capital that could be used to fund the L88 project initiatives outlined above.

As stated in the Annual Financial Report, RCF's US$21M convertible note facility matures in late May 2019, convertible to equity or payable in cash at RCF's election. RCF is required to provide three months' notice should it decide not to convert to equity.

After the end of the quarter, MZI received notice from a major customer that it was unable to continue the past practice of prepayment for shipments. Reasons cited included the volatile global trade situation and a tightening of credit within the banking system in China. This is likely to give rise to a further reduction of MZI's working capital position towards the end of the year.

SALES

Sales in the quarter totalled a record 24,856t, 48.6% higher than in the preceding quarter. Sales comprised 10,164t of L88, 8,809t of L70, and 5,883t of zircon concentrate, reflecting customer shipping schedules, sales from product stocks remaining at the end of June and production in the September quarter.

Sales revenue booked for the quarter totalled $18.1M while sale proceeds received by the end of September totalled $14.7M (prior quarter sales revenue $11.9M and cash receipts $3.5M), resulting in a blended average realised price (all products) of $727/dmt ($711/dmt in the prior quarter).

C1 unit cash costs for final product averaged $805/dmt (from $743/dmt in the June quarter) while total, all-in cash costs, averaged $1,106/dmt ($1,020/dmt in the prior quarter). Unit costs for HMC production were $304/dmt on a C1 basis, an improvement of 19% over the prior quarter's result of $373/dmt.

The timing of sales proceeds, together with expenditure on processing optimisation in the quarter resulted in negative operating cashflow for Keysbrook Operations of approximately $1.5M, compared with negative cashflow of approximately $11.1M in the prior quarter. Considering all capital expenditure, corporate expenses, net financing cashflow and the R&D refund, the business overall recorded positive cashflow of $2.7M for the quarter.

Based on the current performance outlook, MZI expects total production to be in the order of 80,000t – 90,000t of saleable products in FY 2019.

OPERATIONS

Production and sales statistics for the September quarter are detailed in Table 1.

Table 1: Keysbrook Production and Shipments

Production	Unit	Sept-17 Qtr	Jun-18 Qtr	Sept-18 Qtr	Sept-18 Qtr vs Jun-18 Qtr
Ore Mined	dt	970,458	1,205,111	1,338,986	11.6%
Ore Processed	dt	851,311	1,005,387	1,345,833	33.9%
Mined Grade	% HM	3.20	2.41	2.88	19.5%
WCP Runtime	%	87.7	88.4	92.0	4.0%
MSP Runtime	%	93.6	93.7	97.4	3.9%
HMC Production (WCP)	dt	26,669	23,979	32,995	37.6%
HMC Processed (MSP)	dt	29,119	23,895	27,063	13.2%
L70	dt	8,988	4,865	6,320	29.9%
L88	dt	7,295	7,824	6,818	-12.9%
Zircon Concentrate	dt	5,693	5,308	5,014	-5.5%
Total Products	dt	21,976	17,998	18,152	0.1%
Shipments					
L70	dt	-	4,606	8,809	91.3%
L88	dt	7,000	7,647	10,164	32.9%
Zircon Concentrate	dt	5,735	4,478	5,883	31.4%
Total	dt	12,735	16,731	24,856	48.6%

Keysbrook Operations

Mining operations at Keysbrook continued to perform strongly in the September quarter. Mining volumes increased by 11% to over 1.3Mt of ore, with mining and MFU feed rates matching WCP feed requirements. Average ore grade of 2.88% HM was approximately 19% higher than in the preceding quarter, as mining moved into higher grade areas in line with the mine plan. Mining and MFU throughput rates regularly exceeded those required to meet the 5.25Mtpa Operating Plan when conditions and WCP performance allowed.

As previously indicated in the June Quarterly Activities Report, works to deliver the extensive upgrades associated with the 5.25Mtpa Operating Plan were completed in mid-June, approximately three months later than originally scheduled.

Notwithstanding inclement winter weather which impacted operations during July and August, Keysbrook achieved record HMC production in the quarter of 32,995t, an increase of 37.6% from the preceding quarter.

HM recovery improved more modestly to 68.7% with further improvements being restricted by an increase in coarse feed material and overloading issues in the mids-spiral circuits. L88 recovery at the WCP increased from 56% to 58% quarter on quarter, remaining well below the original project target level of 71%.

Further adjustment to throughput rates, increased focus on feed blend and installation of more effective Derrick screens with smaller apertures at the WCP, were subsequently implemented to try to improve recovery. Whilst early indications are that these changes have had a positive impact, achieving sustainable, higher recovery levels remains an ongoing challenge.

MFU and Co-Disposal performances have continued to improve from the benchmarks achieved at the end of the June quarter. In addition, and in step with the mine plan, preparations are well advanced for the scheduled move to a new MFU location (MFU3) in late 2018 which will quickly result in reduced operating costs due to reduced truck requirements, shorter ore haulage distances and reduced slurry/tails pumping requirements.

Picton Operations

Saleable production remained steady at 18,152t, reflecting 40 processing days at the Picton MSP and the lower quality of the HMC feed grade from the WCP. Saleable production comprised 6,320t of L70, an increase of 29.9% from the prior quarter, 6,818t of L88 and, 5,014t of zircon concentrate. L88 and zircon concentrate numbers were 12.9% and 5.5% lower quarter on quarter respectively, largely as a result of an unfavourable change to mineral assemblage and grade composition in the HMC treated.

Major upgrades at Picton completed since the start of 2018, notably to the dryer and gas train, enabled a significant uplift in MSP throughput in the quarter. Initial feed rates of approximately 32tph were achieved in the July run but this had to be dialled back to an average of 29tph in the August-September MSP run, to try to counter the effects of higher quartz content and lower HMC quality in evidence during this campaign.

Total saleable production for the quarter was steady with the prior quarter but below the level targeted under the 5.25Mtpa Operating Plan. The L88 recovery in the July run was 68% whilst the level reduced to 65% over the August and September run as various challenges were experienced due to the HMC quality issues mentioned above. The current underlying target for L88 recovery at the MSP is 72%. L70 recovery was recorded at an average of 104% over the period whilst zircon was 84%. Actions and future options to improve performance in this area are discussed in greater detail in the next section of this report.

Continuous Improvement Initiatives

MZI commenced modification works on its Keysbrook processing facilities and Picton MSP in December 2017. These works were undertaken to grow MZI's ore throughput capacity from approximately 4Mtpa to 5.25Mtpa in order to reduce unit costs and improve operating margins across the business.

With all the upgrades in place and the business operating successfully at the higher production level, it is evident that whilst substantial operating improvements have been achieved, MZI must now focus on resolving the long-standing issues with L88 recovery within the current processing design.

Concurrently with this process, the Company is also looking in a broader sense, at further ways to improve operational cost and performance efficiency in all aspects of the business.

Keysbrook Initiatives

The upgrade plan at Keysbrook was based on four key elements: the installation of a new trommel unit ahead of the WCP plant to remove organic material and better regulate feed to the WCP; fitting a larger aperture screen deck at the Mining Field Unit ("MFU") to allow increased processing rates; reconfiguring the WCP to cope with the targeted 5.25Mtpa mining rate; and transitioning from the separate disposal of clay "slimes" and sand "tailings" to a Co-Disposal operation.

WCP throughput has increased significantly over the year, from an average of just 270kt/month in the March quarter to over 390kt/month in the September period, when HMC production totaled a record 32,995t. This has delivered a substantial progressive reduction in HMC unit costs over the year. HMC site unit cash production costs for the month of September were approximately 40% lower than in the month of January. Another key factor to this performance has been the significantly improved WCP reliability, which reached the planned target of 92% in the September quarter.

As noted previously, HM recovery overall has also improved from pre-upgrade levels since May, and averaged just below 69% in the quarter, compared with 66% in the preceding quarter. HMC grade averaged 80% for the September quarter, but has risen in a steady trend from 79% in May to 82% in September despite the higher throughput rates.

Overall, performance has improved considerably with regards to virtually all operational aspects at Keysbrook with the notable exception of L88 recovery at the WCP. While L88 recovery improved marginally quarter on quarter, from 56% to 58% despite the increased throughput rates, the plant has yet to get close to the original nameplate recovery target of 71%. L70 and zircon recovery have remained broadly consistent with expectations. It is evident that attainment of better L88 recovery levels is a key driver of value in the business as L88 accounts for approximately two thirds of revenue.

Findings from recent MZI research projects now indicate that L88 recovery issues stem from overloading within the mids-spirals section of the WCP. Under current conditions these circuits are unable to effectively separate the finer L88 particles in the ore from the surrounding mass of larger, but similar density, quartz particles. This situation appears to be compounded by variation in the feed material, notably with regards to coarseness and slimes content, resulting in higher levels of this L88 fraction being lost to tails.

As already noted, a range of additional short-term modifications have been enacted to mitigate this issue, including increased focus on ore blending to achieve a more consistent feed, as well the installation of more effective Derrick screens with smaller apertures at the WCP. Furthermore, a number of controlled trials have recently been conducted in order to define the best load-recovery factors within each stage of the spiral plant, with the aim of running the plant at the best economic setting between these two variables.

Whilst these trials are still being assessed, the preliminary findings suggest that in its existing configuration and current throughput rates, only modest improvements are likely to be achieved above the prevailing and long-run average of approximately 60% L88 recovery at the WCP.

Consequently, MZI is currently working with industry experts in this field to assess potential options for more substantial modifications to the WCP to achieve a step change in L88 recovery. All these options are currently being carefully considered and evaluated by MZI.

In other operational areas, site management is already well advanced on the imminent move to the new MFU3 location, with this move forecast to generate substantial operating cost benefits compared to the current configuration.

Picton Initiatives

The Picton MSP has continued to achieve an improved level of performance following the major upgrades, primarily to the dryer and gas train, completed since the start of 2018.

In addition to the significant lift in throughput capacity achieved (up to 32tph), the upgrades have also enabled significantly improved reliability, as demonstrated by the 97.6% runtime attained in the September quarter, and compared with average runtime of less than 93% in the 2017-18 financial year.

However, as already noted, L88 recovery is still below the 72% target of the 5.25Mtpa Operating Plan and well short of the 90% product recovery originally targeted in the Development stages of the project.

In view of these factors considerable research work has been completed to identify and evaluate additional opportunities to increase L88 recovery at Picton, with a particular focus on the zircon circuit.

Zircon Upgrade Project

Working with metallurgical experts METS Engineering over the past four months, has identified the potential to recover L88 material currently being "lost" to zircon concentrate, as well as the opportunity to increase the revenue generated from production of a higher purity zircon product. In recent months, the zircon concentrate product has contained up to 25% L88, compared with approximately 10% in the original project forecasts.

Results from the initial concept metallurgical test work have been very encouraging and identified a path to produce both a high-quality zircon product as well as the option to recover almost all the L88 currently reporting to the zircon concentrate, where it is largely unrecoverable and for which MZI receives limited revenue benefit. Achieving both these objectives also promises significant freight cost savings by eliminating large quantities of quartz/silica from the final zircon product that has no value.

This study is well advanced and subject to further approvals, could move forward to equipment trials at Picton in early 2019. This will then clearly define the parameters necessary to unlock substantial long-term value through a full-scale, project implementation.

Near-Term and Future Funding Needs and Debt Restructuring Requirements

As indicated above, ongoing optimisation and study work into further modifications and options to deliver a step change in L88 production and other potential enhancements, will require detailed cost and engineering assessments. These initiatives will require additional funding support, and this has to be considered in the context of current operational performance and working capital requirements.

In light of this outlook, MZI is currently working on a range of financial plans and strategies to lay the foundations that will allow the improvement initiatives to be vigorously pursued.

MZI continues to progress discussions with both RMB and RCF, along with several other potentially interested third parties, and will provide further updates on these discussions as they progress. In the interim, the broader program to undertake a restructure of MZI's balance sheet will be deferred until the conclusion of these discussions and the completion of the cost and engineering assessments into the improvement initiatives.

Mineral Sands Market

TiO_2 feedstock prices have remained firm due to continued strong demand from pigment producers who are continuing to operate at full capacity. However, uncertainty associated with the global trade situation has contributed to prices for pigment starting to level off due to softening demand and the rebuilding of inventory. China is currently exporting record amounts of sulphate pigment as plants increase production after modifying their operations to meet more stringent environmental standards. Coupled with weakening domestic demand, this appears to be creating some pressure in Europe as the supply chain starts to build inventory. The quality of Chinese pigment is constantly improving allowing paint makers to amend formulations and build inventory to move away from spot purchases that have driven the tight supply. Overall the outlook for pigment remains positive on the back of a healthy US economy but regional impacts will become more apparent as a result of current global trade uncertainty and increasing trends towards nationalism.

Rutile prices have maintained upward momentum as demand continues to exceed supply, particularly in welding and titanium metal applications. Prices for other feedstocks such as chloride slag and synthetic rutile have continued to increase due to recent tightening in the supply of chloride feedstock.

Zircon prices remain steady at this time due to controlled supply by the major producers and increased trader activity. The new Iluka benchmark price of US$1,580pmt to apply until the end of March 2019 appears to have been accepted by the market with prices settling around this level. The Chinese zircon market is stable, but the outlook is subdued due to uncertainty in the economy. Zircon markets outside China (particularly Europe and India) are still very positive due to supply allocation now having a regional impact. Overall the outlook for zircon remains positive due to the fundamental shortage of supply.

Health, Safety and Environment

The Company suffered its first Lost Time Injury (“LTI”) in 18 months in July, resulting in a rolling 12-month Lost Time Injury Frequency Rate (“LTIFR”) of 3.9 per million hours worked at the end of the quarter. The rolling 12-month Total Recordable Injury Frequency Rate (“TRIFR”) (per 1 million hours worked) declined to 15.5 at the end of September, compared with 16.0 at the end of June 2018. Proactive reporting of potential hazards by employees and contractors continued during the period, ensuring a strong platform for the ongoing reduction in the risk of harm, damage or loss.

Extensive environmental monitoring was maintained during the quarter, and a number of reports were submitted to government agencies in compliance with regulatory requirements. Engagement continued with regulators regarding noise management for future operations. Approximately 35ha of pasture rehabilitation was completed, with a further 150ha seeded with a cover crop as a dust suppression measure, which will also facilitate the completion of rehabilitation on these areas in 2019. A trial translocation of 200 grass trees, which are generally recognised as very difficult to move, has demonstrated a high success rate to date.

Community

Community engagement efforts continued in the quarter and included a major partnership announcement with the newly formed Pinjarra Community Men’s Shed, which was seeking financial assistance to construct a new shed to be located in Pinjarra. After meeting with the group, the Company identified an unused stable located on MZI land which, after inspection by the Men’s Shed Committee as to its suitability, was gifted to the group for relocation to Shire of Murray-owned land in Pinjarra. This represented a notable example of community, local government and MZI working together for the benefit of neighbouring communities.

Geology and Regional Exploration

Activities during the September 2018 quarter continued to support ongoing operations and mine planning activities at the Keysbrook Operation. Following the drill programme undertaken in early 2018, Ore Reserves and Mineral Resources were updated as at 30 June 2018 and as detailed in the 2018 Annual Report released on 22 October 2018. The new resource model is being used for budget and life of mine planning purposes. Planning is underway for an exploration drilling programme in early 2019 which will focus on closed spaced drilling at Keysbrook for grade control purposes, and resource definition drilling within E70/2407.

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About MZI

MZI Resources Ltd (ASX: MZI) is a mineral sands company based in Perth, Western Australia, focused on the high value minerals of zircon, rutile and leucoxene. MZI owns and operates the Keysbrook Mineral Sands Project, located 70km south of Perth which commenced operations in late 2015. At Keysbrook, mineral sands are mined and processed to produce Heavy Mineral Concentrate ("HMC") which is processed into final products under a toll treating arrangement with Doral Mineral Sands Pty Ltd at the Picton Mineral Separation Plant ("MSP") near Bunbury. The Keysbrook mine hosts a unique zircon / leucoxene rich ore body with total Ore Reserves equivalent to approximately 10 years of mine life and total Mineral Resources equivalent to over 25 years of production.

SCHEDULE OF TENEMENTS AS AT 30 SEPTEMBER 2018

Tenement	Location	Status	Registered Holder	Interest at 30/09/2018
E70/2407	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%
E70/5054	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%
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%