

HIGHLIGHTS

- Keysbrook Project progresses ahead of schedule and commences production post quarter
- Capital raising initiated to repay RCF Bridge Facilities
- MZI increases Keysbrook Mineral Resources by 68%
- Preliminary test work demonstrates potential to increase HM recovery

The September quarter was very significant and successful for the Company and its wholly owned subsidiary Keysbrook Leucoxene Pty Ltd (KLPL) with good progress during the quarter and several key milestones achieved subsequent to the end of the September 2015 quarter:

- The Keysbrook Project progressed with first production at the Wet Concentration Plant (WCP) post the end of the quarter, three weeks ahead of schedule;
- The Company initiated a substantial capital raising of approximately \$45m, including a share purchase plan to enable repayment of the drawn RCF Bridge Facilities and provide the Company with working capital;
- Production of heavy mineral concentrate from Keysbrook is on track to commence at Doral's Picton Mineral Separation Plant in November 2015;
- Discussions with customers commenced to complete MZI's first product sales from Keysbrook prior to the end of 2015, significantly earlier than the scheduled date of first quarter 2016;
- Total Mineral Resources at Keysbrook increased by 68% as a result of the exploration drilling undertaken earlier in the year, and
- Preliminary test work confirmed the potential to significantly improve L88 recoveries.

CORPORATE

MZI finished the September 2015 quarter in a strong financial position with \$14.0 million in cash and undrawn cash and guarantee facilities of \$22.2 million.

Total issued capital at 30 September 2015 was 79,030,111 ordinary shares with a further 8,304,833 unlisted options with varying exercise prices and maturity dates.

Subsequent to the end of the quarter on 27 October 2015, the Company announced a Placement and Share Purchase Plan to jointly raise up to \$45 million to retire the RCF Bridge Facilities and provide working capital. The Placement comprises the issue of 106,837,381 ordinary fully paid shares in the Company at an issue price of \$0.40 to sophisticated investors and clients of Argonaut Securities Pty Ltd and Bell Potter Securities Limited and to the Company's major shareholder, Resource Capital Fund VI L.P.

The Placement will be completed in 3 tranches and is subject to shareholder approval in respect of tranche 2 at the Company's AGM in November and in respect of tranche 3 at a special meeting of shareholders to be held in January 2016.

In addition to the Placement, the Company announced a Share Purchase Plan to enable shareholders to participate at the same price as the Placement and to raise up to \$2 million.

DEVELOPMENT

Keysbrook Project

The Keysbrook Project is being constructed under EPC arrangements with GR Engineering Ltd and Transmin Pty Ltd.

Construction progress during the quarter focussed on advancing the installation of mechanical, electrical and piping items, with early commissioning activities commencing by the end of the quarter. Overall project progress by the end of September 2015 was 92.5% complete and was on schedule and within budget. Subsequent to the end of the period in October 2015, MZI announced the project was tracking ahead of schedule, with production of final products expected to commence in November. Consequently, the Company commenced discussions to bring first sales forward to late 2015.

Keysbrook Mine Site

Key progress at the Keysbrook mine site included:

- All long lead equipment delivered to site;
- GR Engineering essentially completed all mechanical, electrical and piping installations at the Wet Concentration Plant (WCP). By the end of the quarter the focus had shifted to early commissioning activities;
- Road upgrade works to Hopeland Road and Lakes Road were completed;
- Site administration offices, the heavy vehicle workshop, fuel bay and weighbridge were all essentially completed;
- Western Power completed the installation of an 18km underground power line to the site from Pinjarra and the Keysbrook site was energised; and
- Transmin has mobilised to site, with the majority of the Mining Feed Unit (MFU) on site and assembly underway by the end of September 2015.

In addition, MZI's new mining fleet was delivered to site by early August 2015 and was successfully commissioned. Subsequent to the end of the period, in October 2015, the Company announced continuous mining had commenced and commissioning of the WCP had begun.



Extension to the Doral Mineral Sands owned mineral separation plant

Key progress at the mineral separation plant included:

- All long lead equipment delivered to site;
- GR Engineering essentially completed all mechanical, electrical and piping installations;
- A shutdown was completed in August where the majority of items from the annex were tied into the existing processing facility;
- By the end of the quarter the focus had shifted to early commissioning activities; and
- Western Power completed the installation of a new transformer and the site was energised.

Mineral Sands Market

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

The mineral sands market remained soft during the September quarter, reflecting volatility in global commodity and equity markets, which continue to impact business confidence. However, there is a growing sentiment that the mineral sands market cycle is near the bottom as the impact of capacity closures starts to affect supply and inventory. Prices for all products appear to be holding, supporting a more positive outlook.

The US economy has remained relatively strong which augers well for the 2016 painting season. While demand for paint was strong in 2015, an excess of pigment inventory dampened consumption, and further delayed an expected rise in feedstock price. However, demand for chloride pigment is expected to remain strong and ultimately put upward pressure on high-TiO₂ feedstock such as rutile and leucoxene. Economic growth in the US and Europe is still expected to continue to remain positive throughout the remainder of 2015 and into 2016, supporting overall pigment demand.

Weakness in the Chinese economy has been driving negative sentiment in the zircon market, however some early signs of improvement in housing prices in major cities may help rebuild confidence and stimulate other parts of the economy. In the meantime zircon prices have remained steady as larger zircon producers continue to manage their production.

Metallurgy and Operations Planning

Recruitment of the operations team was completed during the period. A total of sixty people are employed at the Keysbrook site. Safety and skills training was substantially progressed during the period and ahead of schedule in readiness for the commissioning and operations scheduled to take place during the December quarter.

Delivery of the mining fleet took place during the period and pre-mining activities including preparation of the clay solar drying dams, preparation of the first sand waste void, clearing and pre-mining of the first ore were either completed or substantially progressed and ahead of schedule.

The administration office, weighbridge, dewatering system and earthmoving equipment workshop were commissioned during the period.

Contracts for the supply of earthmoving equipment maintenance and electricity supply were executed during the period. Other key service or materials supply agreements were either completed or substantially progressed in line with schedule requirements.

The WCP leucoxene recovery improvement test program was progressed during the period with encouraging results demonstrated. The initial stages of this test work indicate a potential improvement of at least 2.4% in heavy mineral recovery and more significantly, a 5% improvement in high value L88 recovery from the current forecast of 71% to 76% through the addition of an extra stage of spirals. Further work on HM and L88 recovery improvements will continue in the December quarter.

Health, Safety and Environment

No Lost Time Injuries occurred at the Company's operations during the period. No statutory non-compliances occurred at the Company's operations during the reporting period.

An application for an Environmental Licence for the Keysbrook Project under Part V of the Environmental Protection Act 1986 (WA), was submitted to the Department of Environment Regulation. The Licence is expected to be issued in the next quarter.

Reporting under the Keysbrook Projects' Works Approval continued during the quarter including the submission of Monitoring Plans and monitoring summaries.

Community

Throughout August/September the Company commissioned a Community Perception Study, undertaken by independent research agency, Ipsos Australia. A total of 401 residents in and around the Keysbrook project were surveyed, together with 15 stakeholders as part of the qualitative process. The results will be published on the MZI website in early November and circulated to interested parties.

Communications to key stakeholders continued, with an emphasis on the commencement of full-time operations and the provision of an after-hours contact number for nearest neighbours. A Community Briefing for the Operations Phase was held at the Keysbrook Hall on 8 October with approximately 18 people attending. This was significantly less than the Construction Phase briefing held in early 2015.

The Keysbrook CCG made a number of community partnership commitments in the quarter. These included: the Serpentine PCYC for the provision of youth soccer shirts, the Serpentine Jarrahdale Food and Farm Alliance for the purchase of marquees to be used for field days, sponsorship of the Peel Cycling Event and the Serpentine Jarrahdale Community Resource Centre for its annual Community Spirit Christmas party.



Photo Credit: Peel District Cycling Club

Tiwi Islands

No significant exploration activity occurred during the September 2015 quarter.

All remaining mining plant and equipment has been removed from Lethbridge during the quarter. Re-usable equipment such as polyethylene pipe was taken to Keysbrook with the remainder scrapped in Darwin. The accommodation camp has been donated by MZI to the Tiwi College and is planned to be relocated to the college by the end of 2015.

EXPLORATION

Updating of the Resource Estimate for Keysbrook was completed in early August 2015, resulting in an increase of 11.4 million tonnes (Mt) to 90.3Mt. A new deposit was also identified in Yangedi, located to the west of Keysbrook, with an additional 51.1Mt of Inferred Resource. The global resource for the Keysbrook Project area increased 68% to 155Mt. Importantly the mineral assemblage of the expanded resource remains leucoxene and zircon with no lower grade ilmenite.

Additional details regarding the resource are contained in the ASX announcement dated 7 August 2015. The resource report for the Resource Estimate was progressing and is due for completion during the upcoming quarter. Table 1 below shows these changes in the global resource inventory for the Keysbrook Project during the quarter resulting from the updated resource estimate

Table 1. Keysbrook Project Resource Estimate

Category	30 September 2015						
	Tonnes (Mt)	Total Heavy Mineral (%)	Heavy Mineral (kt)	Clay Fines (-45um) %	L70%	L88%	Zircon%
Keysbrook Deposit							
Measured	63.9	2.2	1400	8.1	26.1	50.1	13.6
Indicated	15.6	2.2	350	10.2	28	46.1	14.7
Inferred	10.8	2.4	260	11.9	26.4	48.7	14.3
Total	90.3	2.2	2010	8.9	26.5	49.2	13.9
Yangedi Deposit							
Inferred	51.1	1.5	790	12.1	61.2	20	10.8
Total	51.1	1.5	790	12.1	61.2	20	10.8
Railway Deposit							
Indicated	13.6	2.2	305	11	-	-	-
Total	13.6	2.2	305	11	-	-	-
Keysbrook Project Global Resource							
	155	2.0	3105	10.1			

QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 30 SEPTEMBER 2015



As a result of the significant upgrade to the resource inventory at Keysbrook and identification of a different mineralised horizon at Yangedi, an extensive area of ground was acquired by the Company during the quarter to allow exploration for similar-styled deposits. Compilation and interrogation of historical data within these new areas commenced during the quarter with analysis ongoing.

Analysis and interpretation of assemblage samples was commenced during the quarter in order to identify opportunities for favourable mineral assemblages in areas outside the current mine plan. This comprised analysis of zones laterally and vertically outside the mine plan. Analysis and interpretation is pending.

The focus of geological personnel changed during the quarter to providing support for mining at Keysbrook.

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QUARTERLY ACTIVITIES REPORT

FOR THE PERIOD ENDING 30 SEPTEMBER 2015



SCHEDULE OF TENEMENTS AS AT 30 SEPTEMBER 2015

Tenement	Location	Status	Registered Holder	Interest at quarter end
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	Application	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4725	Pinjarra, WA	Granted	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4764	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4765	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4766	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4767	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
E70/4768	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1662	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1663	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1676	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1677	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1678	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1679	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1680	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1682	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1683	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1684	Pinjarra, WA	Application	Keysbrook Leucoxene Pty. Ltd.	100%
P70/1685	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%