ASX ANNOUNCEMENT

7 August 2015

MZI increases Keysbrook Mineral Resources by 68%

- Global Mineral Resource increased by 68%, from 92 million tonnes to 155 million tonnes
- Now over 3 million tonnes of contained Heavy Minerals
- Keysbrook Deposit alone increased to more than 2 million tonnes of contained Heavy Minerals
- Three deposits exhibit open extensions to existing mineralisation
- Based on the Mineral Resource estimate, the potential project life for Keysbrook is more than 30 years at scheduled annual production rates

MZI Resources Ltd (ASX:MZI) is pleased to announce the results of the exploration program conducted in the first half of this year (refer ASX releases of 29 January 2015,16 April 2015 and 29 May 2015). The program, completed in tandem with a grade control drilling program, sought to capture the exploration upside indentified by the Company in the region. This program was conducted in parallel with the commencement of construction of the Keysbrook mine.

The program has been highly successful and has resulted in:

- a significant increase in Mineral Resources at the flagship Keysbrook Deposit, from 79 million tonnes to 90 million tonnes, containing 2.0 million tonnes of Heavy Minerals;
- a re-estimation of the grade and assemblage of the Keysbrook Deposit showing a higher L88 component than originally expected (increased from 46% of the Heavy Mineral assemblage to 49.2%);
- the discovery of the Yangedi Deposit to the immediate west of Keysbrook, with a current Mineral Resource of 51 million tonnes; and
- increased prospectivity of the Railway Deposit to the immediate south of Keysbrook.

Importantly, the exploration program has not closed off mineralisation at any of the three deposits, indicating further exploration potential which the Company will investigate in future programs.

The increase in Mineral Resources in the Keysbrook area indicates a potential project life of more than 30 years based on current planned production rates, subject to landowner access agreements, environmental and planning approvals.

COMPANY DIRECTORS

Mal Randall
Non-Executive Chairman

Trevor Matthews
Managing Director

Maree Arnason
Non-Executive Director

Rodney Baxter
Non-Executive Director

Stephen Ward
Non-Executive Director

Nathan Wong
Non-Executive Director

SENIOR MANAGEMENT

Mike Ferraro
Chief Operating Officer

Peter Gazzard
Technical Director

John Traicos
Legal Manager/Company Secretary

John Westdorp
Chief Financial Officer

Jamie Wright
Chief Development Officer

CONTACT DETAILS

Principal & Registered Office
Level 2, 100 Royal Street
East Perth
Western Australia 6004

Website
www.mzi.com.au

Email
admin@mzi.com.au

Phone
+61(8) 9328 9800

Fax
+61(8) 9328 9911

ABN: 52 077 221 722

ASX CODE: MZI

An updated Ore Reserve for the Keysbrook Deposit is planned for completion in the final quarter of 2015, prior to the commencement of production. The Keysbrook Project currently has an Ore Reserve life of 5.5 years reflecting existing land access agreements and approvals (refer ASX release dated 1 March 2013).

The following figure shows the location of the Mineral Resources:

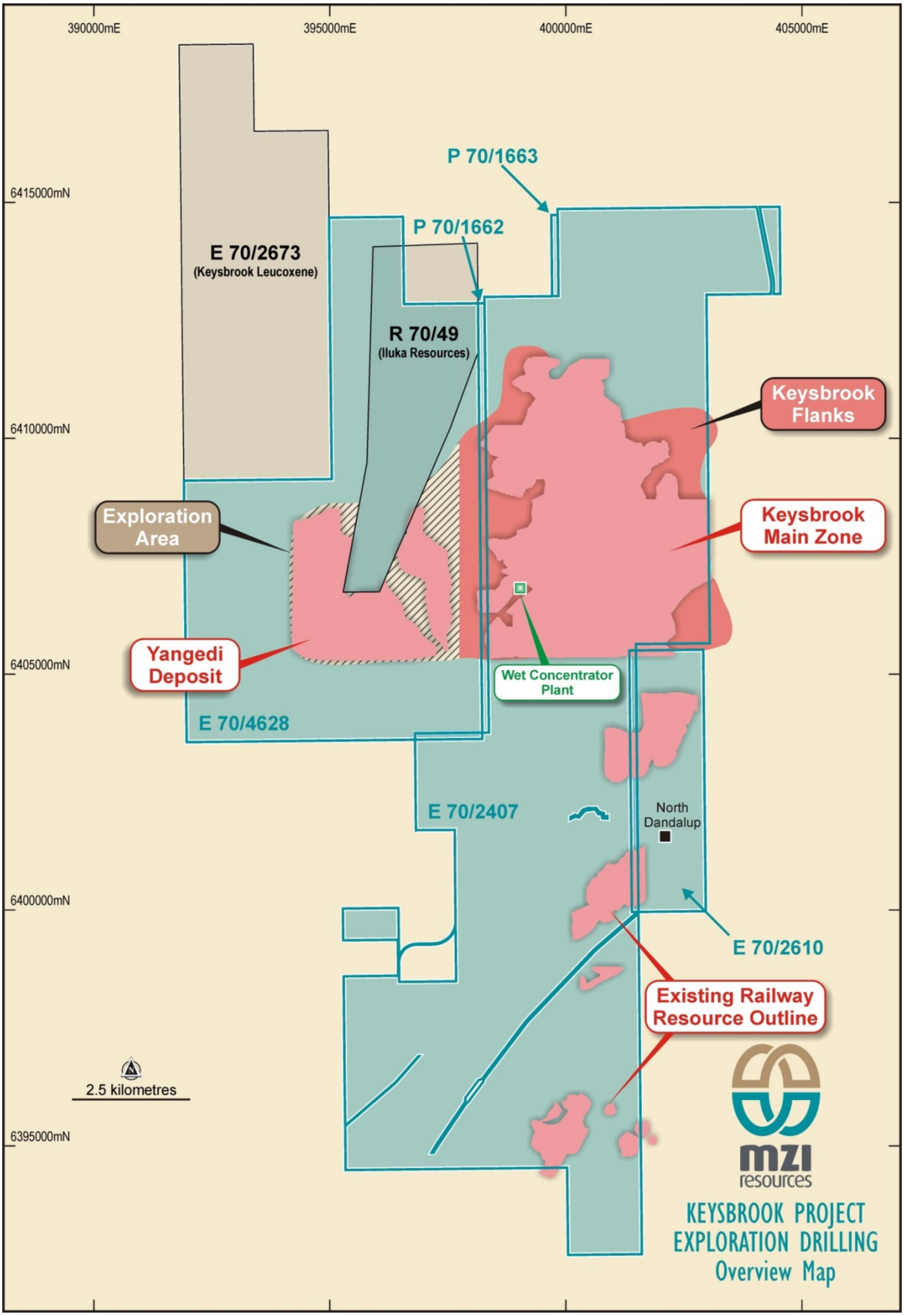

Figure 1 - Location of the Keysbrook, Yangedi and Railway Deposits

Keysbrook Deposit

The Keysbrook Deposit now contains 90.3 million tonnes at 2.2% Heavy Minerals. The deposit comprises a north-south trending main zone of higher grade and greater thickness, flanked on either side by a zone of thinner mineralisation and lower grade (Keysbrook Flanks).

As part of the 2015 exploration program, the Company re-estimated the mineral assemblage, which indicated a higher L88 component (from 46% of the Heavy Mineral assemblage to 49.2%). L88 is the Company's key product and an increase of this nature implies a higher potential revenue per product tonne than previously assumed.

The Keysbrook Deposit remains open both to the north and south.

Yangedi Deposit

The Yangedi Deposit, located to the immediate west of the Keysbrook Deposit, is a new discovery with a Mineral Resource of 51.1 million tonnes at 1.5% Heavy Minerals, open in all directions. The deposit is in a slightly different geological setting than the Keysbrook Deposit and contains a mineral assemblage more aligned to the L70 product. While the grade is lower, the location relative to the wet concentrator plant means it is highly prospective as a future production source either during or post the completion of mining of the Keysbrook Deposit.

The following figure shows the Keysbrook and Yangedi Deposits in more detail:

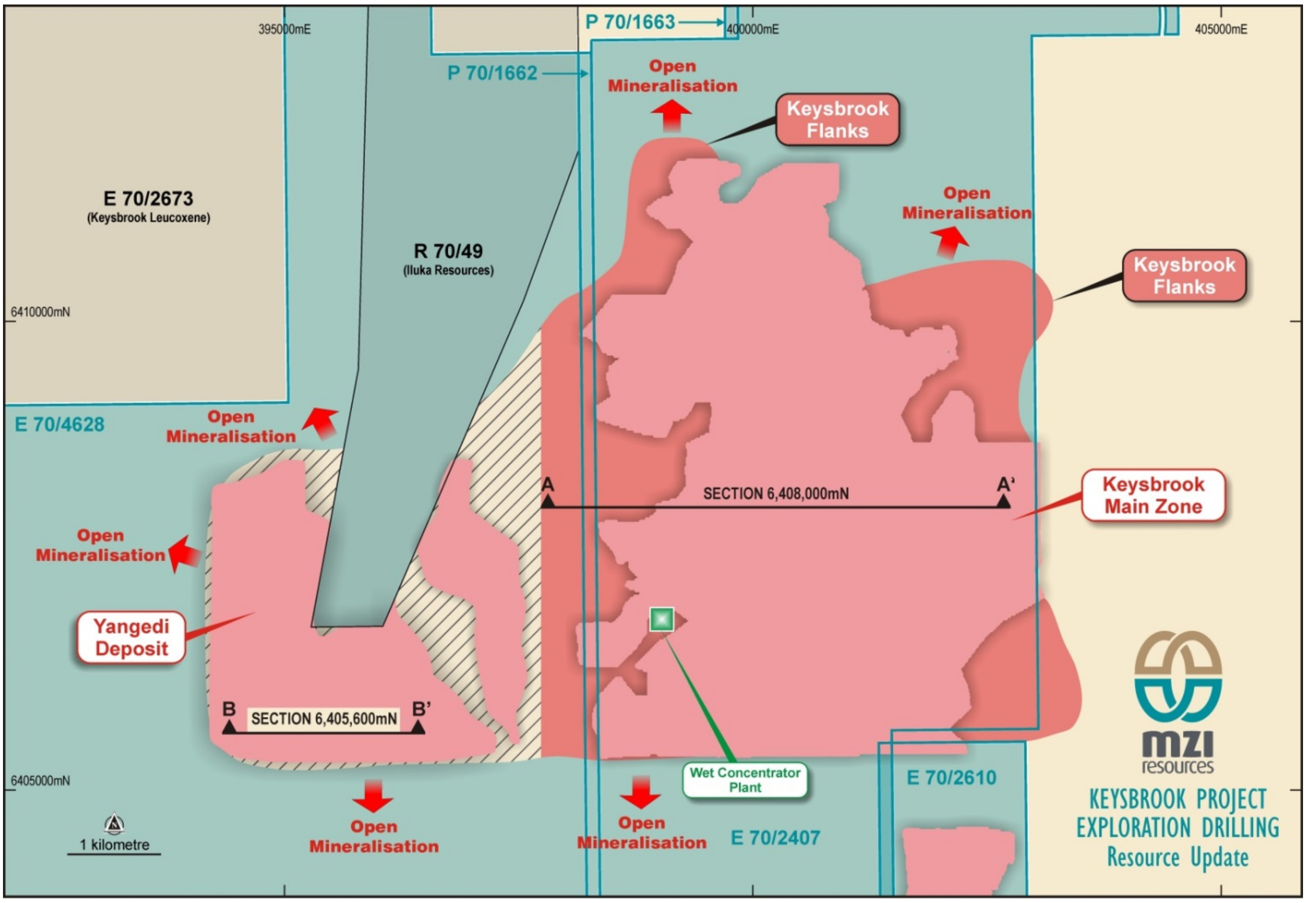

Figure 2 - Location of the Keysbrook and Yangedi Deposits

Railway Deposit

The Railway Deposit comprises an existing Mineral Resource (JORC 2004) of 13.6 million tonnes at 2.2% Heavy Minerals. The exploration program was successful in tracing mineralisation further west than originally expected. The end of the drilling season in the area meant that the Company was not able to follow up with sufficient drilling to update the Railway Mineral Resource.

The Railway Deposit remains an exciting prospect for future programs with significant promise to further increase the size of the Keysbrook Project.

Mineral Resources

The results achieved are the culmination of an extensive exploration program undertaken during the first half of 2015 which comprised 1,550 aircore holes, 12,000 sample analyses and 100 metallurgical test samples.

The updated Mineral Resource estimate reinforces the robust nature of the mineralisation of the area currently within the mine plan in respect of Total Heavy Mineral (THM) grade, mineral assemblage and geometry.

Table 1 (below) provides an estimate of the Keysbrook Project Global Mineral Resource comprising all three deposits – the Keysbrook Deposit, the Yangedi Deposit and the Railway Deposit.

Table 1: Keysbrook Project Global Mineral Resource statement

Category	Tonnes (Mt)	Total Heavy Mineral (%)	Heavy Mineral (kt)	Clay Fines (-45um)%
Measured	63.9	2.2	1,400	8.1
Indicated	29.2	2.2	655	10.5
Inferred	61.9	1.6	1,050	12.0
Total	**155.0**	**2.0**	**3,105**	**10.1**

Table 2 (below) provides a breakdown of the Mineral Resources by category within each of the three deposits and includes the proportions of L88, L70 and Zircon within the Keysbrook and Yangedi Deposits.

Table 2: Keysbrook Project Component Resource Statement

Category	Tonnes (Mt)	Total Heavy Mineral (%)	Heavy Mineral (kt)	Clay Fines (-45um) %	L70 %	L88 %	Zircon %
Keysbrook Deposit							
Measured	63.9	2.2	1,400	8.1	26.1	50.1	13.6
Indicated	15.6	2.2	350	10.2	28.0	46.1	14.7
Inferred	10.8	2.4	260	11.9	26.4	48.7	14.3
Total	**90.3**	**2.2**	**2,010**	**8.9**	**26.5**	**49.2**	**13.9**
Yangedi Deposit							
Inferred	51.1	1.5	790	12.1	61.2	20.0	10.8
Total	**51.1**	**1.5**	**790**	**12.1**	**61.2**	**20.0**	**10.8**
Railway Deposit							
Indicated	13.6	2.2	305	11.0	-	-	-
Total	**13.6**	**2.2**	**305**	**11.0**	**-**	**-**	**-**

Notes relevant to Tables 1 and 2:

1. Reported above a cut-off grade of 1% HM and below a cut-off of 20 % clay fines.
2. Stratigraphic units reported within the Mineral Resource are Yoganup Sand and Guildford Clay for Keysbrook, Bassendean Sand for Yangedi and Yoganup Sand for Railway.
3. Keysbrook Project resource is classified and reported in accordance with the guidelines of JORC Code 2012. Railway Deposit resource is classified and reported in accordance with the guidelines of JORC Code 2004.
4. HM is within the +45um to -2mm size fraction and reported as a percentage of the total material.
5. L70%, L88% and Zircon% are the proportion of the total HM.
6. The terms L70 and L88 refer to MZI products. L70 comprises minerals with an average titanium dioxide content of between 65% and 85% and L88 comprises minerals with an average titanium dioxide content between 85% and 95%.
7. Inconsistencies in totals are due to rounding.

Cross sections through the western and eastern areas of the deposit illustrate the continuity of grade across the resource, as well as the geological continuity and potential for further extensions to the resource.

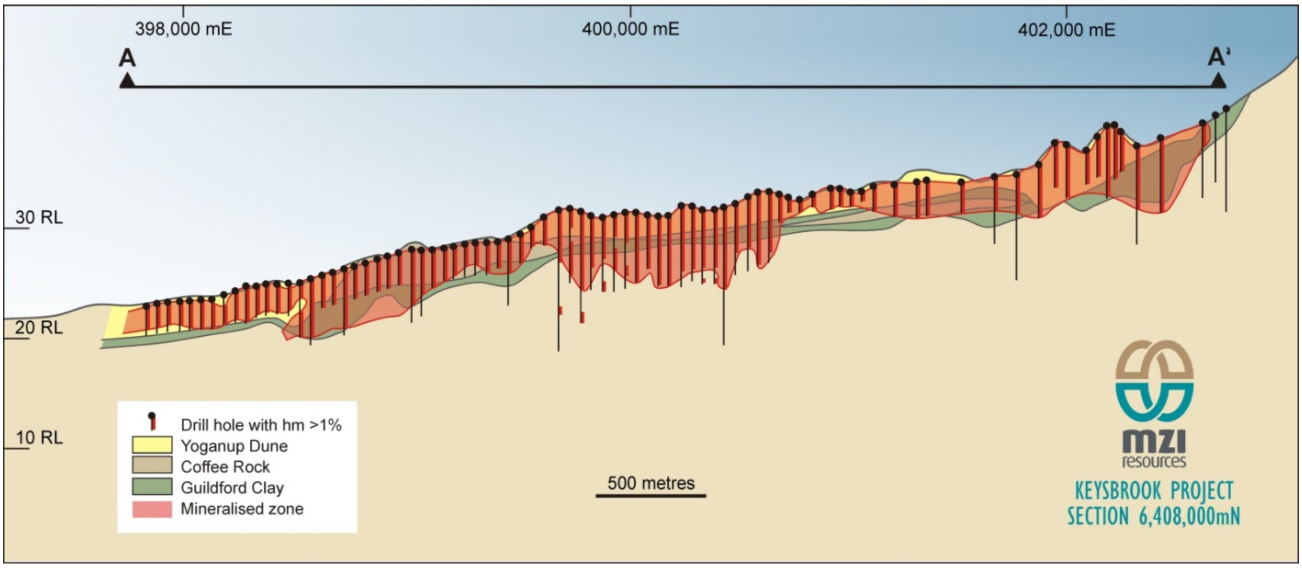

Figure 3 – Section A-A' across Keysbrook Main Zone and Keysbrook Flanks

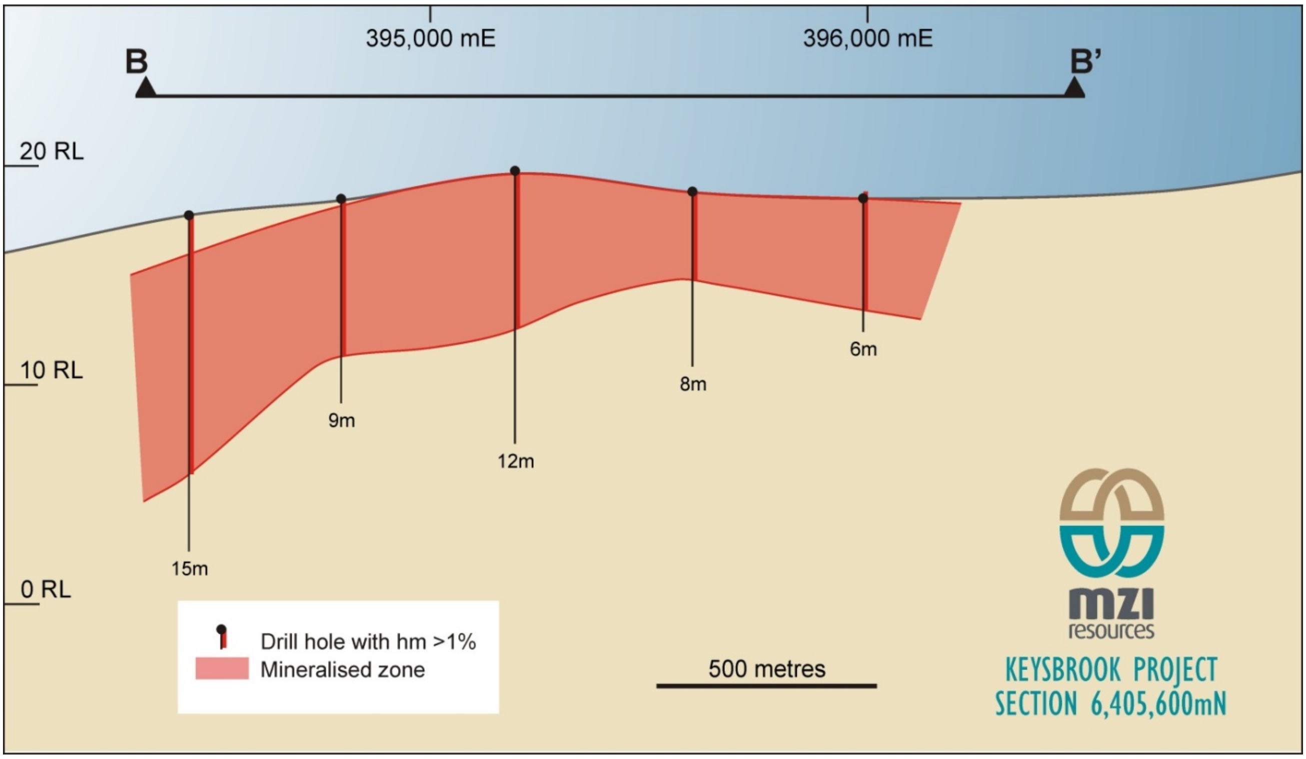

Figure 4 – Section B-B' across the Yangedi Deposit

Further Potential

Further potential exists laterally where the extent of mineralisation has not been tested. Potential also exists at depth in the upper portions of the Guildford Clay where clay characterisation work is to be completed to determine the processibility of the various mineralised units directly beneath the sand units, which could provide "quick-win" tonnes to be incorporated into the current mine plan with no need for additional approvals. Work is continuing on assessing both components of this additional potential.

Comment

MZI Managing Director Trevor Matthews said: “The significant uplift in resources further strengthens our confidence that the Keysbrook Project has the potential to support the expansion of annual production in combination with becoming a multi-decade producer of high value mineral sands products.”

“Total resources in the broader Keysbrook area already indicate the potential to extend the project life beyond 30 years at currently planned production rates. Importantly, mineralisation remains open in virtually all directions, and we fully expect to continue adding to our resource base in the years ahead.

“With construction at Keysbrook progressing on schedule towards production in December 2015, MZI is well on the way to establishing itself as one of the world’s highest-margin producers of high value mineral sands products.”

MZI plans to produce in excess of 95,000 tonnes of leucoxene and zircon products annually at the Keysbrook Project, located approximately 70 kilometres south of Perth in Western Australia.

For further details please contact:

Trevor Matthews
Managing Director

+61 8 9328 9800

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Competent Person’s Statement –Mineral Resources

The information in this report which relates to Mineral Resources is based upon information compiled by Mrs Christine Standing (in relation to the Keysbrook Project) who is a Member of the Australasian Institute of Mining. Mrs Standing is an employee of Optiro Pty Ltd and has sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mrs Standing consents to the inclusion in the report of a summary based upon her information in the form and context in which it appears

Competent Person’s Statement –Mineral Resources

The information in this report which relates to Mineral Resources is based upon information compiled Mr John Baxter (in relation to the Railway Deposit) who is a Member of the Australasian Institute of Geoscientists. Mr Baxter is a Consulting Geologist with sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2004 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Baxter consents to the inclusion in the report of a summary based upon his information in the form and context in which it appears.

JORC Code, 2012 Edition – Table 1 report template

Section 1 - Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	• All samples analysed individually for THM, clay (-45um) and oversize (+2mm) • Sample collection (2003-2008): samples collected into buckets from cyclone then placed into calico bags. • Sample collection (2010): samples from auger tipped onto mat on ground then collected into calico bags. • Sample collection (2012) – samples collected in a calico bags via a rotary splitter attached to the bottom of the cyclone. • Sample collection (2015) - samples collected in sample bucket, thoroughly homogenised by hand and placed into 2kg calico bags. Initial intent to pass through rotary splitter, however damp nature of some samples and splitter design resulted in extensive contamination issues, so splitter was removed. • Sample Analysis (March 2004): Western Geochem Labs. OS>2mm, SL -45um. TBE analysis on -2mm +45um. • Sample Analysis (August 2004): Western Geochem Labs or Dunelabs. Western Geochem Labs screen +3.3mm, -45um wet screen; OS screen +2mm. TBE analysis on -2mm +45um. Dunelabs screen -3.3mm fraction at 0.7mm, weigh. Screen -0.7mm fraction at -45um. TBE analysis on -0.7mm + 45um fraction. • Sample analysis (2006): Western Geochem Labs -45um wet screen; OS screen +2mm. TBE analysis on -2mm +45um. • Sample Analysis (2007-2015): Diamantina Laboratories. Samples dried, rotary split to 100g then deslimed (no TSPP). Material was screened at -45um and +2mm and placed into TBE with an SG of 2.95g/cc for heavy media separation. Cleaned with acetone, then dried, weighed and calculations compiled.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• 2003, March 2004: Wallis Edson 3000 Versadrill truck mounted aircore rig • August 2004, 2006: Orbit drilling Mantis 100 4WD mounted aircore rig • 2007, 2008: OnDrill Mantis 100 Canter mounted aircore rig • 2010: Hand auger. • 2012-2015: Drilling completed using Arrinooka Drilling utilising a Hydco RAB50 truck-mounted drilling rig. • All aircore drilling completed with NQ sized (3½") Aircore rods.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Sample quality recorded during drilling. • All observations logged into spreadsheet based system at the drill site.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Logging of rock types, quality, hardness, washability and grain size undertaken in field. Panned estimate of clay fines, oversize and heavy mineral also completed. Photography not taken. All intervals logged.

Criteria	JORC Code explanation	Commentary
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• 2003-2008: samples collected via a rotary splitter into calico bags. • 2010: auger samples not subsampled – complete 1m sample placed in calico bag for analysis. • 2012: samples collected via a rotary splitter into calico bags. • 2015: • Samples collected in sample bucket, thoroughly homogenised by hand and placed into 2kg calico bags. Initial intent to pass through rotary splitter, however damp nature of drilling and design resulted in extensive contamination issues, so splitter was removed. • Duplicate samples taken at a rate of 1 in 25. Samples taken as a second 2kg grab from homogenised bucket of sample. • Refer to sample preparation and analysis technique above. • Results from duplicate sampling show good correlation.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Heavy media separation using Tetrabromylethane - appropriate method. • 2015: • Twin holes drilled at 1 in 20 ratio. • Standards inserted at a rate of 1 in 25 samples. • Blanks inserted at rate of 1 in 50 samples. • Duplicate samples taken at a rate of 1 in 25 samples.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• A program of twin holes was completed in 2013 to test 5% of each historical program drilled up to 2012, using the push probe drilling method. This program was used to identify potential bias in the aircore method used during any of the programs. No bias was identified. • 2015: • Twin holes drilled at 1 in 20 ratio. • Data stored in Micromine logging files and backed up via Email nightly. • Compilation of analysis with geological interpretation into a single working sheet was undertaken by an MZI Geologist, with problems identified and rectified prior to inclusion in resource.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Approximately 90% of the drillholes in the resource estimate have been located via RTK DGPS, with an accuracy of 0.1m lateral and 0.25m vertical • Approximately 10% of the drillholes have been located via handheld GPS in MGA94. • Topographic coverage: accurate LIDAR data was captured with 0.5m vertical contour intervals with a 0.3m accuracy.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Drill spacing used for the resource estimate ranges from 50m by 25m to 400m by 200m. • Individual 0.5m samples collected over areas where grade control drilling has been undertaken. Individual 1m samples taken for all other drilling
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• Mineralisation is flat lying. All holes are vertical and perpendicular to geology and mineralisation and no bias will have been incurred
Sample security	• *The measures taken to ensure sample security.*	• Samples stored on locked property whilst awaiting dispatch for analysis. Samples stored in analytical laboratory sample preparation shed
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Due diligence was undertaken on all work undertaken prior to 2015 as part of the funding requirements for the project. This included twinning of existing aircore drilling with push

Criteria	JORC Code explanation	Commentary
		probe to determine any biases present, of which there were none. • Program-specific reviews have been undertaken internally and in conjunction with the Competent Person during the update of the resource estimate

Section 2 - Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• Exploration Licence numbers E70/2407 and E70/4628 are relevant to this report, as are Prospecting Licences P70/1662 and P70/1663. These tenements are held 100% by Keysbrook Leucoxene Pty. Ltd, a wholly owned subsidiary of MZI Resources Ltd. • It is understood by MZI that all licences are located on pre-1899 fee simple, freehold land
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	• Exploration was undertaken during the period 2006-2008 by Iluka Resources as part of tenement E70/2495. This data was not used for the resource estimate
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Geologically the deposit comprises Bassendean and Yoganup Sand Formation sediments. This is composed of localised sand dunes, overlying a basal zone of sand. These mineralised units overly the clay-rich Guildford Formation. • Mineralisation is dispersed throughout the sand units.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* o *easting and northing of the drill hole collar* o *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* o *dip and azimuth of the hole* o *down hole length and interception depth* o *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Not relevant – mineral resource defined. Exploration results are not being reported for the Mineral Resource area.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• Exploration results are not being reported for the Mineral Resource area.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Flat-lying mineralisation intersected by vertical drillholes.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Refer to ASX release
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading*	• Exploration results are not being reported for the Mineral Resource area.

Criteria	JORC Code explanation	Commentary
	reporting of Exploration Results.	
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Assemblage data disclosed in the report has been generated from samples outlined in the ASX release dated 20 January 2015. The process of generating these results is as follows: • Compositing of TBE sink material to form single sample. • Processing of composite via CARPCO magnet to split sample into magnetic components (Mag 1-4 & Non-Mag). • XRF analysis of each component to ascertain concentration of relevant elements • Post processing of XRF results via proprietary algorithm to determine proportion of products. • A second process, QEMSCAN, was used for 11 samples within the resource estimate.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Land access agreement discussions. • Aircore drilling in order to define the mineralisation laterally and at depth across the lease area.

Section 3 - Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	• Direct computer field entry of data, assays imported from Excel spreadsheets, validation and storage within MZI Micromine database. Historical data imported from Optiro Access database.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	• The competent person has visited site and has been associated with the Keysbrook Project for four years.
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	• The geological confidence in the resource is high for the main ore zone (Yoganup Dune) east of Hopeland Road due to the history of the project and density of exploration data. The cut-off between the Yoganup Dune and the underlying laterite or Guildford Clay was defined from the geology logging and assay results. The geological confidence in the Bassendean Dune ore zone to the west of Hopeland Road is lower, primarily due to it being a new zone with a lower density of data. • Hard boundaries were used to define the different geological domains. • Continuity of grade and geology of the dune sand material is controlled primarily by proximity to the main dune system and the presence of dune sand material. Continuity of the underlying laterite layer is controlled primarily by the water table (both current and historic) and the thickness of the overlying dune sequence which can result in varying degrees of formation of the laterite unit.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	• The mineralisation has been shown from drilling and assemblage studies to extend for approximately 13km north/south and 6km east/west within the Keysbrook area (refer Figure 1). Mineralisation is from surface to a maximum of 20m below surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.*	• Micromine resource estimation software was used to create a geological model and define the mineralisation envelopes. A series of geological domains was used to constrain the mineralisation estimates. • Wireframes were checked in cross section, long section and plan against the geological interpretation and assay results.

Criteria	JORC Code explanation	Commentary
	• *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	• Induration (coffee rock or laterisation) was identified from oversize assays and geological logging and wireframed as a domain for exclusion from the resource estimate. • Samples were composited to 1m maximum and in the grade control area to 0.5m to ensure compositing was consistent with the most common drilling intervals. • The influence of extreme THM and slimes sample distribution outliers was reduced by top-cutting. The top cut level was determined using a combination of top cut analysis tools including grade histograms, log probability plots and the coefficient of variation. • Kriging neighbourhood analysis was performed in order to determine the block size, sample numbers and discretisation. • THM mineralisation continuity at Keysbrook was interpreted from variogram analyses to have an along strike range of 3,200m and an across strike range of 850m within the upper sand layer and along strike range of 3,500m and an across strike range of 800m within the lower sand unit. • THM continuity at Yangedi was interpreted from variogram analyses to have an along strike range of 500m and an across strike range of 400m. • Grade estimation was into parent blocks of 25mE by 50mN on 1m benches. • Estimation was carried out using ordinary kriging at the parent block scale. Three estimation passes were used for all domains; the first search was based upon the variogram ranges for each domain in the three principal directions; the second search was the same as the initial search with reduced sample numbers required for estimation. The third search was three times the initial search. The majority of blocks (93%) were estimated in the first pass. • The THM and slimes (clay fines) estimated block model grades were visually validated against the input drillhole data and comparisons were carried out against the declustered drillhole data and by northing, easting and elevation slices.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	• All grade reports and calculated tonnages are on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	• Minimum mining grade has been defined as 1.0% THM
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	• Minimum mining width is 0.5m. • Minimum THM grade is 1.0%. • Maximum laterite is 15%. • Maximum clay fines is 20%. • Open pit mining method.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	• Mineral assemblage data within the mineral resource estimate has been sourced from four different assemblage programs undertaken since 2011. • The 2011 and 2012 programs were taken as individual test pits at varying locations throughout the resource area. • The 2013b program was a composite program based on the approved mine plan at the time. This resulted in 23 quarterly samples. • The 2015 program was a combination of composite samples based on the currently approved mine plan, spatial composites in areas outside the current mine plan, individual hole composites and individual downhole samples. This varying approach was undertaken to acquire data over different scales throughout the resource. • Analysis of all programs was undertaken by passing the heavy mineral through a Carpco magnetic separator to split the material into components based on magnetic susceptibility. • All relevant components form the magnetic separation were analysed by XRF to

Criteria	JORC Code explanation	Commentary
		determine the content of elements of relevance for calculation of the mineralogy based on assumptions made from previous test programs and results from previous grain counting studies. Mineralogy was then calculated within a spreadsheet by the Technical Director. • Parts of the 2015 sample program were also analysed using QEMSCAN.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	• All waste materials are returned to the mining void. • Environmental exclusion zones are excluded from the reported resource.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	• Three phases of test work have been completed over the Keysbrook Project since 2006, using volume displacement and troxlar nuclear density gauge methods. This has determined that a global bulk density of 1.6g/cc is valid for the resource estimate.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	• The THM Mineral Resources have been classified as Measured, Indicated and Inferred on the basis of confidence in geological and grade continuity using the drilling density, geological model, modeled grade continuity and conditional bias measures (kriging efficiency). • The classification considers all available data and quality of the estimate and reflects the Competent Person's view of the deposits.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	• The geological interpretation, estimation parameters and validation of the resource models were peer reviewed by the Competent Person.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	• The assigned classification of Measured, Indicated and Inferred reflects the Competent Person's assessment of the accuracy and confidence levels in the Mineral Resource estimate. • The confidence levels reflect production volumes on a monthly basis.