



Mount Gibson Iron Limited

ABN 87 008 670 817



Level 1, 2 Kings Park Road
West Perth 6005, Western Australia
PO Box 55, West Perth WA 6872
Telephone: 61-8-9426-7500
Facsimile: 61-8-9485 2305
E-mail: admin@mgx.com.au

ASX ANNOUNCEMENT

ASX Code: **MGX**

9 September 2024

Mineral Resources and Ore Reserves Statement as at 30 June 2024

- Mount Gibson Iron Limited (**Mount Gibson** or the **Company**) reports its Mineral Resources and Ore Reserves estimates as at 30 June 2024. All Mineral Resources and Ore Reserves are located at the Company's **Koolan Island** high grade iron ore operation.
- **Total Mineral Resources of 19.1 dry metric tonnes (Mt) grading 62.8% Fe** within the Koolan Island Main deposit and associated satellite deposits (2023: 41.5 Mt at 63.3% Fe).
- **Total Ore Reserves of 7.2 Mt at 65.1% Fe** (2023: 12.4 Mt at 65.2% Fe), confirming Koolan Island's status as **Australia's highest grade direct shipping hematite iron ore operation**, and underpinning high grade production over its remaining 2-3 year mine life.
- The changes in Mineral Resources and Ore Reserves estimates from the prior year reflect mining depletion, stockpile drawdowns, the declassification of resource material considered unlikely to be economically viable during the remaining mine life, and modelling adjustments to reflect discrete mineralisation boundary changes identified during mining.
- Mineral Resources are reported inclusive of Ore Reserves, and all tonnages are stated as dry metric tonnages. For the estimation of wet metric tonnages, an average moisture content of approximately 4% is typically applied.

Summary

This statement details the Mineral Resources and Ore Reserves estimates of Mount Gibson as at 30 June 2024 in accordance with the JORC Code (2012 Edition) and ASX Listing Rules. All Mineral Resources and Ore Reserves are located at Koolan Island, and all Ore Reserves are contained within the Main Deposit, as detailed below.

Total Mineral Resources are estimated at **19.1 Mt of iron ore at an average grade of 62.8% Fe** (30 June 2023: 41.5 Mt at 63.3% Fe), including **8.7 Mt grading 65.9% Fe** within the Main Deposit.

Total Ore Reserves are estimated at **7.2 Mt at an average grade of 65.1% Fe** (30 June 2023: 12.4 Mt at 65.2% Fe), all within the Main Deposit.

Measured Resources and Proved Reserves include mined and processed ore stockpiles totalling 0.6 Mt at an average grade of 59.7% Fe as at 30 June 2024, compared with 1.2 Mt grading 63.3% Fe at the end of the prior financial year.

Material Change in Koolan Island Mineral Resources and Ore Reserves

A material change occurred during the year resulting from the removal of Mineral Resources located outside the final design of the Main Pit which are now considered unlikely to be economically viable based on the anticipated final pit boundaries.

Main Deposit Resources were reduced by a total of 21.8 Mt to 8.7 Mt grading 65.9% Fe, compared with 30.5 Mt grading 64.3% Fe in the prior year. This reduction reflected the declassification of Mineral Resources considered unlikely to be economically viable at this stage of the mine life (17.0 Mt), as well as mining depletion in the last year, stockpile drawdowns and modelling adjustments for discrete mineralisation boundary changes identified during mining (together totalling 4.8 Mt).

The derecognition of Mineral Resources on the basis they are considered unlikely to be economically viable reflects the impact of a combination of factors, including iron ore pricing and geotechnical considerations associated with potential extensions and cutbacks to the Main Pit, which would involve presently uneconomic waste-to-ore strip ratios, to access material beyond anticipated mining in accordance with the final pit design limits.

Ore Reserves were reduced by approximately 5.2 Mt during the year reflecting mining depletion totalling 3.8 Mt and minor pit design changes, stockpile drawdowns and adjustments to reflect discrete mineralisation boundary changes identified during mining, which together totalled 1.4 Mt.

The entire reduction in Mineral Resources and Ore Reserves occurred within the Main Deposit. No changes occurred with respect to the Mineral Resources estimates for the Acacia East and Mangrove satellite deposits on Koolan Island.

Other Disclosures

Mount Gibson confirms that all other material assumptions and technical parameters underpinning the Mineral Resource and Ore Reserve estimates continue to apply and have not materially changed. Historical production experience and reconciliations have provided confidence in the estimation methodology and results, with depletion from mining being in balance with production outputs.

Mount Gibson has maintained consistency and not changed sampling methods, sub-sampling techniques or sample assay analyses, drill and data spacing, estimation methodology, cut-off grade, or mining and metallurgical methods in any material way.

All of Mount Gibson's Mineral Resources and Ore Reserves estimates are reported in compliance with the JORC Code (2012 Edition) and the ASX Listing Rules. Mineral Resources are reported inclusive of Ore Reserves and all tonnages have been estimated as dry metric tonnages. For the estimation of wet metric tonnages, an average moisture content of approximately 4% is typically applied.

Refer to the table on the following page for details of the Mineral Resources and Ore Reserves estimates, and for Competent Person disclosures.

Authorised by:
Peter Kerr
Chief Executive Officer
Mount Gibson Iron Limited
+61-8-9426-7500

For further information:
John Phaceas
Manager Investor & External Relations
+61-8-9426-7500
+61-(0)411-449-621

Mineral Resources and Ore Reserves Statement as at 30 June 2024

Total Group Mineral Resources and Ore Reserves at 30 June 2024					
	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Mineral Resources, above 50% Fe (includes Mined Ore Stockpiles)					
Measured	2.2	60.6	12.53	0.40	0.009
Indicated	12.2	64.4	6.58	0.52	0.017
Inferred	4.7	59.6	13.54	0.40	0.017
Total at 30 June 2024	19.1	62.8	8.96	0.48	0.016
<i>Total at 30 June 2023</i>	<i>41.5</i>	<i>63.3</i>	<i>8.24</i>	<i>0.58</i>	<i>0.013</i>
Ore Reserves, above 50% Fe (includes Mined Ore Stockpiles)					
Proved	0.6	59.7	12.64	0.83	0.011
Probable	6.7	65.6	4.71	0.74	0.014
Total at 30 June 2024	7.2	65.1	5.32	0.74	0.013
<i>Total at 30 June 2023</i>	<i>12.4</i>	<i>65.2</i>	<i>5.15</i>	<i>0.79</i>	<i>0.014</i>
<i>Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry metric tonnages. Mineral Resources and Ore Reserves are reported inclusive of mined Ore stockpiles at Koolan Island.</i>					

Competent Persons and Responsibilities

Mineral Resources:

The information in this report relating to Mineral Resources is based on information compiled by Ms Elizabeth Haren, a Competent Person who is a Fellow and Chartered Professional of the Australasian Institute of Mining and Metallurgy and member of the Australian Institute of Geoscientists. Ms Haren is employed by Haren Consulting and a consultant to Mount Gibson Iron Limited. Ms Haren has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Ms Haren consents to the inclusion in this report of the matters based on her information in the form and context in which it appears.

Ore Reserves:

The information in this report relating to Ore Reserves is based on information compiled by Brett Morey, a member of the Australasian Institute of Mining and Metallurgy. Mr Morey is a full-time employee of Mount Gibson Iron Limited and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being 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'. Mr Morey consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mineral Resources and Ore Reserves Explanatory Notes

KOOLAN ISLAND

Total Koolan Island Mineral Resources and Ore Reserves as at 30 June 2024 are as follows:

Koolan Island					
	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Mineral Resources, above 50% Fe					
Measured	2.2	60.6	12.53	0.40	0.009
Indicated	12.2	64.4	6.58	0.52	0.017
Inferred	4.7	59.6	13.54	0.40	0.017
Total as at 30 June 2024	19.1	62.8	8.96	0.48	0.016
Total as at 30 June 2023	41.5	63.3	8.21	0.59	0.013
Ore Reserves, above 50% Fe					
Proved	0.6	59.7	12.64	0.83	0.011
Probable	6.7	65.6	4.71	0.74	0.014
Total as at 30 June 2024	7.2	65.1	5.32	0.74	0.013
Total as at 30 June 2023	12.4	65.2	5.14	0.79	0.014
<i>Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages. Stockpiles are incorporated in the Measured Resources and Proved Reserves.</i>					

- The Mineral Resource estimate comprises the Main Deposit, Ore Stockpiles (including mined material and processed material) and two satellite deposits, Acacia East and Mangrove, each of which is separately tabulated below. The Ore Reserve estimate comprises the Main Deposit and Ore Stockpiles.
- The Mineral Resource at Koolan Island has been depleted by approximately 22.4 Mt since 30 June 2023 comprising the following:
 - (a) Depletion of 5.4 Mt through a combination of mining, stockpile drawdowns and adjustments to reflect discrete mineralisation boundary changes identified during mining; and
 - (b) Declassification of a significant portion of the Mineral Resource (17.0 Mt) as these tonnages are no longer considered to satisfy the reporting standard as having reasonable prospects for eventual economic extraction within the remaining mine life of the operation.
- The Ore Reserve at Koolan Island was depleted by approximately 5.2 Mt since 30 June 2023, comprising mining depletion of 3.8 Mt as well as 1.4 Mt related to minor pit design changes, stockpile drawdowns and adjustments to reflect discrete mineralisation boundary changes identified during mining.

Main Deposit

Main					
	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Mineral Resources, above 50% Fe					
Measured	0.9	60.9	12.37	0.33	0.007
Indicated	7.7	66.5	3.69	0.54	0.013
Inferred	0.1	63.9	7.48	0.66	0.019
Total as at 30 June 2024	8.7	65.9	4.63	0.52	0.013
Total as at 30 June 2023	30.5	64.3	6.84	0.63	0.012
Ore Reserves, above 50% Fe					
Probable	6.7	65.6	4.71	0.74	0.014
Total as at 30 June 2024	6.7	65.6	4.71	0.74	0.014
Total as at 30 June 2023	11.2	65.4	4.79	0.78	0.014
<i>Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages. Stockpiles are incorporated in the Measured Resources and Proved Reserves.</i>					

- The Mineral Resource estimate for the Main Deposit has been depleted by approximately 21.8 Mt since 30 June 2023. As noted above, a significant portion of the Mineral Resource estimate has now been declassified as the affected tonnages no longer satisfy the reporting standard as having reasonable prospects for eventual economic extraction within the remaining mine life.
- The Ore Reserve at the Main Deposit was depleted by approximately 4.5 Mt since 30 June 2023.
- The reporting of the Mineral Resource and Ore Reserve estimates for the Main Deposit is in compliance with the JORC Code (2012 Edition) and the ASX Listing Rules. A summary of the JORC Code (2012 Edition) Table 1 for Koolan Island Main Deposit is attached in Appendix 1.

Ore Stockpiles

Ore Stockpiles					
	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Mineral Resources, above 50% Fe					
Measured	0.6	59.7	12.66	0.83	0.011
Total as at 30 June 2024	0.6	59.7	12.66	0.83	0.011
Total as at 30 June 2023	1.2	63.4	7.21	0.93	0.013
Ore Reserves, above 50% Fe					
Proved	0.6	59.7	12.66	0.83	0.011
Total as at 30 June 2024	0.6	59.7	12.66	0.83	0.011
Total as at 30 June 2023	1.2	63.4	7.21	0.93	0.013
<i>Discrepancies may appear due to rounding. Mineral Resources are reported inclusive of Ore Reserves. All tonnages have been estimated as dry tonnages. Stockpiles are incorporated in the Measured Resources and Proved Reserves.</i>					

- The Ore Stockpile Mineral Resource and Ore Reserve estimates have been depleted by approximately 0.6 Mt since 30 June 2023.
- The reporting of the Ore Stockpile Mineral Resource and Ore Reserve is in compliance with the JORC Code (2012 Edition) and ASX Listing Rules.

Acacia East Deposit

Acacia East					
	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Mineral Resources, above 50% Fe					
Measured	0.7	60.9	12.63	0.15	0.008
Indicated	2.4	61.5	11.62	0.23	0.010
Inferred	3.4	60.0	13.70	0.19	0.010
Total as at 30 June 2024	6.6	60.6	12.80	0.20	0.009
Total as at 30 June 2023	6.6	60.6	12.80	0.20	0.009
<i>Discrepancies may appear due to rounding. All tonnages have been estimated as dry tonnages.</i>					

- The Mineral Resource at the Koolan Island Acacia East Deposit has not changed since 30 June 2023.
- The reporting of the Mineral Resource of the Acacia East Deposit is in compliance with the JORC Code (2012 Edition) and the ASX Listing Rules. A summary of the JORC Code (2012 Edition) Table 1 for the Acacia East Deposit is attached in Appendix 2.

Mangrove Deposit

Mangrove					
	Tonnes millions	Fe %	SiO ₂ %	Al ₂ O ₃ %	P %
Mineral Resources, above 50% Fe					
Indicated	2.1	59.9	11.36	0.80	0.039
Inferred	1.2	58.2	13.70	0.97	0.038
Total as at 30 June 2024	3.3	59.3	12.21	0.86	0.039
Total as at 30 June 2023	3.3	59.3	12.21	0.86	0.039
<i>Discrepancies may appear due to rounding. All tonnages have been estimated as dry tonnages.</i>					

- The Mineral Resource at the Koolan Island Mangrove Deposit has not changed since 30 June 2023.
- The reporting of the Mineral Resource of the Mangrove Deposit is in compliance with the JORC Code (2012 Edition) and the ASX Listing Rules. A summary of the JORC Code (2012 Edition) Table 1 for the Mangrove Deposit is attached in Appendix 3.

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APPENDIX 1 – Koolan Island, Main Deposit

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<p>All of the data used for resource estimation is based on the logging and sampling of RC and diamond core drilling.</p> <p>Percussion samples were composited over 2m intervals.</p> <p>Diamond samples were taken at 1m intervals.</p> <p>Reverse Circulation samples were taken over 1m intervals. Historical sampling (pre 1993) is of lower quality and where any ambiguity exists is excluded from the database for estimation.</p>
Drilling techniques	<p>Historic BHP Limited (BHP) drill hole data from 1957 to 1986 was mostly percussion drilled. BHP drilled 1 diamond hole, 25 RC holes with diamond tails, 44 RC holes and an adit. The BHP data makes up 26% of the total database.</p> <p>Aztec Resources Limited (Aztec) drilled 32 reverse circulation holes which make up 10% of the database.</p> <p>Mount Gibson Iron Limited (Mount Gibson) has drilled 255 reverse circulation drill holes and four diamond holes since 2007. The Mount Gibson holes make up the majority of the database.</p>
Drill sample recovery	<p>Geologist or driller records sample recovery during drilling. No issues were detected.</p> <p>Standard drilling techniques were adequate for sample recovery.</p> <p>No relationship between sample recovery and grade has been demonstrated. No bias to material size has been demonstrated.</p>
Logging	<p>All drill holes have been geologically logged appropriately to the mineralisation style to support Mineral Resource estimation with logging subsequently confirmed through mining.</p> <p>The total length of drill holes is 49,834.5m with approximately 98% of the drill holes logged.</p>
Sub-sampling techniques and sample preparation	<p>Samples are received and prepared at the SGS run Koolan Island laboratory as 2 to 5 kg RC chip samples. They are dried for 12 hours at 105°C, crushed to <2mm and split and reduced using rotary sampling devices to 300 grams. The 300 gram sample is pulverised to 75µm, from which an aliquot is taken for XRF and LOI analysis.</p> <p>Sample preparation from historical drilling prior to 1993 by BHP is not clearly understood, however this makes up 26% of the drill database, and less than 10% of sample and assay data used for the remaining Mineral Resource.</p>
Quality of assay data and laboratory tests	<p>The nature, quality and appropriateness of the sample preparation techniques employed by Mount Gibson are to industry standard.</p> <p>Most BHP holes were shallow and the areas have since been mined out. No QA/QC information is available for these holes. Comparison between BHP holes and Aztec holes in 2005 showed there is good agreement between both datasets for Fe, and QA/QC data supports the accuracy of the Aztec data across the assay suite. While the BHP SiO₂ and Al₂O₃ data differs, there is no good reason to doubt its quality given that the company was able to operate and successfully meet sales contracts.</p> <p>Aztec holes had field duplicates, lab duplicates and site made standards as QA checks. Results were of acceptable quality.</p> <p>Mount Gibson uses certified reference material as a standard, along with field and laboratory duplicates. Mount Gibson's QA/QC procedures and results are of acceptable quality.</p>
Verification of sampling and assaying	<p>No external verification was completed.</p> <p>Historical BHP data was twinned by Aztec RC holes and found to be acceptable</p> <p>Drill hole data found to be spurious was excluded from the database</p> <p>Adjustments to data were made where required after data validation processes.</p>
Location of data points	<p>Survey control of hole locations have been established through the mine survey department, while detailed down hole surveys of accessible holes have been conducted by contractors, Surtron.</p>

Criteria	Commentary
	<p>Koolan Island Mine Grid (KIMG) is aligned consistent with average strike trends of the mineralisation at most of the known deposits, and the Main deposit in particular. The marked variants from this are the Eastern and Mullet limbs. All directional references in the Mineral Resources reports are according to the KIMG, which is rotated +30.18° relative to the Map Grid of Australia (MGA94_51).</p> <p>Topographic and survey control has been undertaken by either the mine-based survey team, or contract survey companies and is considered high quality.</p>
Data spacing and distribution	<p>The data spacing is approximately 50m along the strike of the mineralisation.</p> <p>The data spacing and distribution is more than adequate to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classifications applied.</p>
Orientation of data in relation to geological structure	<p>The orientation of the mineralisation is well defined and drill holes were oriented to intersect mineralisation at an appropriate angle.</p>
Sample security	<p>Sample security was not considered a significant risk to the project. No specific measures have been taken by Mount Gibson to ensure sample security.</p>
Audits or reviews	<p>A formal audit of BHP drilling and survey data was carried out by Snowden Mining consultants in 2004. The historical BHP and Aztec data is of moderate quality as inferred by nearby Mount Gibson drill holes confirming broadly the extent and tenor of Fe mineralisation. Most historical data is in mined out areas and has little influence on remaining Mineral Resources. Ongoing reconciliations have not to date indicated an urgent need for external audits of the resource database. An audit of the Koolan Island mineral laboratory was conducted in May 2014 by an external group with no material concerns or problems identified.</p>

Section 2 Reporting of Exploration Results

(Criteria listed in section 1, and where relevant, in sections 3 and 4, also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<p>Main Mineral Resource is located on Mining Lease M04/417-I held by Koolan Iron Ore Pty Ltd (KIO), a 100% owned subsidiary of Mount Gibson. The mining tenement is granted under the Western Australian Mining Act, 1978. KIO has a native title and heritage agreement with the Dambimangari Native title group.</p>
Exploration done by other parties	<p>Exploration has been conducted in the area of the Main resource since 1922, with active exploration (and mining) by BHP from 1957 to 1993, Aztec from 2004 to 2006 and Mount Gibson from 2006 to 2012.</p>
Geology	<p>The mineralised zone is an overturned enriched haematitic sandstone horizon within the Yampi Sandstone Member unconformably overlying the Elgee Siltstone. It is between 12 and 30 metres thick, and dips 55 to 80° to the south.</p>
Drill hole Information	<p>As outlined in Drilling techniques of Section 1, there are more than 300 drill holes at or around the Main Deposit dating back to 1957 forming the basis for the Mineral Resource estimate outlined in Section 3. Material drill results for Main pit have previously been announced to the market as required under the reporting requirements of the ASX Listing Rules. All material exploration results relevant to the Main area have been considered in establishing the Mineral Resource discussed in section 3.</p>
Data aggregation methods	<p>Not Applicable - No exploration results or drill hole intercepts are discussed in this ASX announcement.</p>
Relationship between mineralisation	<p>No exploration results or drill hole intercepts are discussed in this ASX announcement, however as the deposit has been mined for a number of years the true mineralisation widths are well known and understood.</p>

Criteria	Commentary
<i>widths and intercept lengths</i>	
<i>Diagrams</i>	Cross Sections, long sections and photos of the geology, mineralisation and mineral resource have been released in previous ASX announcements.
<i>Balanced reporting</i>	Not Applicable - No exploration results or drill hole intercepts are discussed in this ASX announcement.
<i>Other substantive exploration data</i>	Not Applicable - No exploration results or drill hole intercepts are discussed in this ASX announcement.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in sections 2 and 4, also apply to this section.)

Criteria	Commentary
<i>Database integrity</i>	<p>Data extracted from the database for Mineral Resource estimation purposes is run through general checks to ensure data validity. The database is maintained by Mount Gibson Iron Limited with automated validation and extraction processes in place.</p> <p>Checks on data include sensible ranges of values for attributes, drill hole collars matching topography and within expected limits, overlapping sample intervals, depths, azimuths, dips and co-ordinates for consistency. Any inconsistent information is either modified or excluded from use in the estimation.</p> <p>Further checks are completed during the importing of the data into the mine planning software prior to modelling and estimation.</p>
<i>Site visits</i>	Elizabeth Haren, the Competent Person for Mineral Resources, has made several visits to Koolan Island. Elizabeth Haren is employed by Haren Consulting and a consultant to Mount Gibson.
<i>Geological interpretation</i>	<p>There is an extremely high degree of confidence with the mineralisation interpretation. The mineralisation and geology are very consistent and have been proven by historical and current mining on Koolan Island.</p> <p>Interpretation used in the Mineral Resource estimate uses the drill holes and grade control data exclusively.</p> <p>There are limited alternative interpretations possible for the mineralisation which would have a minimal impact on the Mineral Resource.</p> <p>The mineralisation is in the Yampi Sandstone directly above the unconformity of the Elgee Siltstone.</p> <p>The continuity of grade and geology is well defined.</p>
<i>Dimensions</i>	The Main deposit mineralisation is approximately 2,000 m in length and is currently modelled to approximately 215 m in depth below mean sea level. Mineralisation continues and extends beyond this depth however further infill drilling is required to define this area with confidence. The resource is open at depth.
<i>Estimation and modelling techniques</i>	<p>Ordinary Kriging of a suite of Iron Ore elements (Fe, SiO₂, Al₂O₃, LOI, P, S, CaO, MnO, MgO, Na₂O, TiO) was completed using CAE Studio software. Minor domains of limited extent and information were estimated using Inverse Distance.</p> <p>Waste material was estimated where enough quality data was present however the majority of waste material is assigned default grades. The Mineral Resource for Main deposit has been updated to reflect ore zone and internal waste boundaries identified whilst mining during 2023.</p> <p>While the mineralisation tends to be planar in most cases, care was taken to ensure orientation changes were honoured by the sample search and estimation orientation regimes. Estimation parameter selection was guided by the results of mining reconciliation.</p>

Criteria	Commentary
	<p>No assumptions were made regarding recovery of by-products.</p> <p>A full suite of Iron Ore elements was estimated.</p> <p>Block sizes used are 25 mE, 6 mN and 8 mRL. The bulk of the drilling data is at a nominal 25 m x 25 m spacing at the western end of the deposit and increases to nominally 50 m x 50 m in the eastern end.</p> <p>No local estimation or SMU correction has been undertaken.</p> <p>Correlations between elements were considered and while co-kriging was not implemented, using similar estimation parameters for correlated elements allows some reproduction of correlations.</p> <p>All estimation was completed within mineralisation units using “hard” boundaries.</p> <p>In general, most element distributions did not have extreme outliers therefore minimal top-cutting was used. Where top-cutting occurred, this was done prior to sample compositing.</p> <p>Validation was completed by checking the global averages of composites versus model from each domain, by creating trend plots of composites versus model from each domain and by visual validation of grade trends in the model to ensure they honoured the input data.</p>
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	<p>The 50% Fe cut-off is determined by the combined grade-tonnage characteristics as the minimum iron grade and/or maximum contaminant grades which will allow production to maintain contract-specified qualities for Ore products as currently occurring at Koolan Island.</p> <p>A cut-off study was completed by Coffey International Ltd (mining consultants) supporting the choice of 50% Fe as the cut-off.</p>
Mining factors or assumptions	The mining factors assumed correlate directly to recent operations at Koolan Island.
Metallurgical factors or assumptions	The metallurgical factors assumed correlate directly to recent operations at Koolan Island.
Environmental factors or assumptions	Environmental factors are already considered as part of the recent mining operations at Koolan Island.
Bulk density	<p>Surtron down hole survey data has been used to measure densities on all deposits at Koolan Island.</p> <p>In all cases the Surtron data confirms the positive relationship between Fe and density.</p> <p>Regression formulas have been used to assign densities with respect to Fe estimates. In 2013, review of reconciliation information between production and the Mineral Resource estimate led to a review of bulk density. On this basis the regression was modified to reflect higher densities for the 2013 Mineral resource. This method was reviewed and continued for subsequent Mineral Resource estimations.</p>
Classification	<p>The basis for the classification of the Mineral Resource has included:</p> <ul style="list-style-type: none"> • Quality and reliability of raw data; • Confidence in the geological interpretation; • Number, spacing and orientation of intercepts in each mineralised zone; • Confidence concerning the known limits of mining; • Knowledge of grade and density continuities gained from observations and; • Geostatistical analyses. <p>This information was used to code blocks meeting confidence criteria such as which estimation pass it was estimated in and the kriging variance of a block to define Measured, Indicated and Inferred material.</p>

Criteria	Commentary
Audits or reviews	The Mineral Resource estimates are reviewed internally within Mount Gibson on a three levelled assessment structure. Periodic updates are completed when new information and understanding is required to be reflected in the Mineral Resource.
Discussion of relative accuracy/confidence	The block model grade estimates were validated against the drill hole composites to ensure that the model reflects the input data. Monthly, quarterly and annual reconciliations are conducted, assessed and reported. The Koolan Island Mineral Resource models are provided as a basis for long term planning and mine design and are not necessarily sufficient for shorter term planning and scheduling.

Section 4 Estimation and Reporting of Ore Reserves

(Criteria listed in section 1, and where relevant in sections 2 and 3, also apply to this section.)

Criteria	Commentary
Mineral Resource estimate for conversion to Ore Reserves	The Mineral Resource estimate utilised for the conversion to Ore Reserves is the estimate presented above. It has been prepared by Elizabeth Haren, a consultant to Mount Gibson and a Fellow of the AusIMM with sufficient relevant experience to qualify as a Competent Person. The Mineral Resource is reported inclusive of Ore Reserves.
Site visits	Brett Morey, Chief Geologist with Mount Gibson worked at Koolan Island for four years from 2012 to 2016 and in the corporate office since 2016.
Study status	A detailed and practical mine plan was developed within the previously established Main Pit. The Main Pit was optimised using Whittle software. Conventional open pit mining is planned to continue as per previous operations using hydraulic excavators and dump trucks. Standard modifying factors used for open pit mining were applied.
Cut-off parameters	A cut-off grade of 50% Fe was used. This cut-off grade reflects current mining practice, blending, and product sales. A cut-off grade study was undertaken in 2014 which supports the use of the 50% cut off used in this statement. Mount Gibson uses the definition of marginal cut-off grade as follows: “material that would produce a more positive cash flow if processed than when treated as waste in the process of mining towards the defined pit limits. It applies to material that will be mined or stockpiled in the process of gaining access to economic material.”
Mining factors or assumptions	The deposit has been mined by conventional open pit mining methods, utilising industry standard practices of drilling, blasting, and load and haul using hydraulic backhoe excavators. The overburden waste has been removed by large size excavators with bulk mining method. Where required medium size excavators have been used for selective mining of ore. Known mining parameters from Main pit were used in the optimisation and pit design. A review of the geotechnical parameters was completed by Mount Gibson Iron Limited technical staff in 2019 which resulted in an increased slope angle in the hangingwall rock units. The revised design parameters were validated by Mining One Consultants before being adopted in the Life of Mine pit design. Localised geotechnical conditions have resulted in minor pit design changes during 2023. Modelling of mining dilution in three dimensions is by the digital application of a dilution skin around the ore in the Mineral Resource model. Metallurgical parameters are then added to the diluted model. The final diluted mining block model is used directly for pit optimisation and scheduling, without the further application of global factors. Ore Reserves are reported directly from the diluted mining block model, with consideration of grade, topography and pit design.

Criteria	Commentary
	<p>Inferred Mineral Resources do not form part of the Ore Reserves.</p> <p>Mine infrastructure is well established following 14 years of mining operations.</p> <p>The physical width and therefore depth of Main Pit is constrained by the final hanging wall pit limit relative to the position of the seawall.</p>
Metallurgical factors or assumptions	<p>Ore from the Main deposit is crushed and screened at the existing Koolan Island process plant.</p> <p>Metallurgical characteristics of Main Pit ore are known from fourteen years of recent actual production data, and 30 years of historical mining and crushing operations prior to 1993.</p>
Environmental	<p>All statutory and regulatory approvals have been received for mining, occupational health and safety, environmental, and native title rights.</p>
Infrastructure	<p>Existing site infrastructure in place includes haul roads, pumping, crusher plant, stockpile areas, port, offices, workshop, warehouse, camp, water supply, airstrip, power generation, barge landing and associated facilities.</p>
Costs	<p>All costs for mining, processing and shipping were derived from the operating mine and existing contracts.</p> <p>Royalties currently paid to the State Government were included in cost modelling.</p> <p>Penalties and premiums currently applying to impurities levels in product sales to customers were included in cost modelling.</p>
Revenue factors	<p>Ore Reserves were calculated based on Mount Gibson financial modelling. Financial assumptions used in cost modelling are derived from the operating mine and existing contracts and include:</p> <ul style="list-style-type: none"> • forecast consensus Pilbara FOB benchmark iron ore contract prices • impurity penalties • freight • currency exchange rates • royalties
Market assessment	<p>Mount Gibson has customer contracts in place for all of Koolan Island's production volume.</p> <p>Koolan Island product is a very high quality ore that is sought after by customers.</p> <p>Crushed and screened products were sold to these customers in previous years.</p>
Economic	<p>The LOM financial model has demonstrated that Main pit will generate significant NPV. The NPV is most sensitive to iron ore price and foreign exchange rate variations, but has the benefit of a high Fe grade of 65.1%, and a relative low (by historical standards) remaining life average strip ratio of 1.9:1 Waste:Ore.</p>
Social	<p>The Koolan Island mine has operated continuously under Mount Gibson management since 2006. Mount Gibson enjoys a good relationship with the Traditional Owners and local mainland communities.</p>
Other	<p>Major risks identified are:</p> <p>Seawall. Independent experts were engaged throughout the design process to review the seawall design to mitigate the risk of seawall failure and inundation of Main Pit. Ongoing external consultant peer reviews are completed monthly to assess the ongoing performance of the seawall.</p> <p>Footwall. Extensive geotechnical studies have been conducted, with established factors of safety of the footwall and a ground support plan established.</p> <p>Water ingress from high rainfall events and cyclones is a short-term risk. Strategies are in place to control this risk, including implementation of a high capacity pumping system.</p> <p>Iron ore price variation and foreign exchange rates.</p>
Classification	<p>In-pit Measured and Indicated Mineral Resources have been converted to Proved and Probable Ore Reserves. Ex-pit ROM and crushed ore stockpiles are included in the Proved Ore reserves.</p> <p>Ore Reserves do not include Inferred Mineral Resources.</p> <p>Mr Brett Morey is satisfied that the stated Proved and Probable Ore Reserves accurately reflect the outcome of</p>

Criteria	Commentary
	mine planning and the input of economic parameters into optimisation studies.
<i>Audits or reviews</i>	<p>The project parameters and outcomes have been internally reviewed and approved by Mount Gibson executive management.</p> <p>Periodic updates are completed when new information and understanding is required to be reflected in the Ore Reserve.</p>
<i>Discussion of relative accuracy/confidence</i>	<p>All parameters are well defined from the existing mining operation.</p> <p>Monthly and annual reconciliations are conducted, assessed and reported. Historical reconciliation data indicates that the factors used to convert from Mineral Resource to Ore Reserve are robust.</p>

APPENDIX 2 – Koolan Island, Acacia East Deposit

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<p>All of the data used for resource estimation is based on the logging and sampling of RC and diamond core drilling.</p> <p>Percussion samples were composited over 2m intervals.</p> <p>Diamond samples were taken at 1m intervals.</p> <p>Reverse Circulation samples were taken over 1m intervals. Historical sampling (pre 1993) is of lower quality and where any ambiguity exists, samples and assays are excluded from the database for estimation.</p>
Drilling techniques	<p>31 historic BHP drill holes from 1961 to 1986 were percussion drilled. BHP drilled 1 diamond hole in 1959. The BHP data make up 14% of the total database. 50 reverse circulation drillholes were completed by Aztec in 2004 & 2005, and 136 reverse circulation holes completed by Mount Gibson Iron Limited from 2007 to 2012.</p>
Drill sample recovery	<p>Geologists or drillers recorded sample recovery during drilling. No issues were detected.</p> <p>Standard drilling techniques were adequate for sample recovery.</p> <p>No relationship between sample recovery and grade has been demonstrated. No bias to material size has been demonstrated.</p>
Logging	<p>All drill holes have been geologically logged appropriately to the mineralisation style to support Mineral Resource estimation.</p> <p>Some diamond core has been photographed.</p> <p>The total length of drill holes is 21,544.78m with approximately 98% of the drill holes logged.</p>
Sub-sampling techniques and sample preparation	<p>Samples are received and prepared at the SGS run Koolan Island laboratory as 2 to 5 kg RC chip samples. They are dried for 12 hours at 105°C, crushed to <2mm and split and reduced using riffle splitters or rotary sampling devices to 300 grams. The 300 gram sample is pulverised to 75µm, from which an aliquot is taken for XRF and LOI analysis.</p> <p>Sample preparation from historical drilling prior to 1993 by BHP is not clearly understood, however this makes up 14% of the drill database, and less than 8% of sample and assay data used for the remaining Mineral Resource.</p>
Quality of assay data and laboratory tests	<p>Most BHP holes were shallow and the areas have since been mined out. No QAQC information is available for these holes. Comparison between BHP holes and Aztec holes in 2005 showed there is good agreement between both datasets for Fe, and QAQC data supports the accuracy of the Aztec data across the assay suite. While the BHP SiO₂ and Al₂O₃ data differs, there is no good reason to doubt its quality given that the company was able to operate and successfully meet sales contracts.</p> <p>Aztec Resources Ltd holes had field duplicates, lab duplicates and site made standards as QA checks. Results were of acceptable quality.</p> <p>Mount Gibson uses certified reference material as a standard, along with field and laboratory duplicates. Mount Gibson QAQC procedures and results are of acceptable quality.</p>
Verification of sampling and assaying	<p>No external verification was completed.</p> <p>Historical BHP data was twinned by Aztec RC holes and found to be acceptable</p> <p>Drill hole data found to be spurious was excluded from the database</p> <p>Adjustments to data were made where required after data validation processes.</p>
Location of data points	<p>Survey control of hole locations has been established through the mine survey department, while detailed down hole surveys of accessible holes have been conducted by contractors Surtron.</p> <p>Koolan Island Mine Grid (KIMG) which is aligned consistent with average strike trends of the mineralisation at most of the known deposits and the Main deposit in particular. The marked variants from this are the Eastern and</p>

Criteria	Commentary
	<p>Mullet limbs. All directional references in this report are according to the KIMG, which is rotated +30.18° relative to the Map Grid of Australia (MGA94_51).</p> <p>Topographic and survey control has been undertaken by either the mine-based survey team, or contract survey companies.</p> <p>The data spacing is approximately 25m along the strike of the mineralisation.</p>
Data spacing and distribution	<p>The data spacing and distribution is more than adequate to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classifications applied.</p> <p>Percussion samples were composited over 2m intervals.</p>
Orientation of data in relation to geological structure	<p>The orientation of the mineralisation is well defined and drill holes were oriented to intersect mineralisation at an appropriate angle.</p>
Sample security	<p>Sample security was not considered a significant risk to the project. No specific measures have been taken by Mount Gibson to ensure sample security.</p>
Audits or reviews	<p>A formal audit of BHP drilling and survey data was conducted by Snowden Mining consultants in 2004. The historical BHP and Aztec data is of moderate quality as inferred by nearby Mount Gibson drill holes confirming broadly the extent and tenor of Fe mineralisation. Most historical data is in mined out areas and has little influence on remaining Mineral Resources. An audit of the Koolan mineral laboratory was conducted in May 2014 by an external group with no material concerns or problems identified.</p>

Section 2 Reporting of Exploration Results

(Criteria listed in section 1, and where relevant, in sections 3 and 4, also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<p>The Acacia East Mineral Resource is located on Mining Lease M04/416-I held by KIO, a 100% owned subsidiary of Mount Gibson. The mining tenement is granted under the Western Australian Mining Act, 1978. KIO has a native title and heritage agreement with the Dambimangari Native title group</p>
Exploration done by other parties	<p>Exploration has been conducted in the area of the Acacia East resource since 1959, with active exploration by BHP from 1959 to 1993, Aztec from 2004 to 2006 and Mount Gibson from 2006 to 2012.</p>
Geology	<p>The mineralised zone is an enriched haematitic sandstone horizon within the Yampi Sandstone member unconformably overlying the Elgee Siltstone. It is between 8 and 20 metres thick, and dips 45 to 60o to the south.</p>
Drill hole information	<p>As outlined in Drilling techniques of Section 1, there are 237 drillholes at the Acacia East resource dating back to 1959, forming the basis for the Mineral Resource estimate outlined in Section 3. Material drill results for Acacia East have previously been announced to the market as required under the reporting requirements of the ASX Listing Rules. All material exploration results relevant to the Acacia area have been considered in establishing the Mineral Resource discussed in section 3. Going forward any new exploration results that result in a material change to existing Mineral Resource in section 3 will be updated under the normal transitioning to JORC 2012.</p>
Data aggregation methods	<p>Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.</p>
Relationship between mineralisation widths and	<p>Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.</p>

Criteria	Commentary
<i>intercept lengths</i>	
<i>Diagrams</i>	No exploration results or drillhole intercepts are discussed in this ASX announcement. Cross Sections, long sections and photos of the geology, mineralisation and mineral resource have been released in previous ASX reports.
<i>Balanced reporting</i>	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
<i>Other substantive exploration data</i>	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
<i>Further work</i>	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in sections 2 and 4, also apply to this section.)

Criteria	Commentary
<i>Database integrity</i>	<p>Data extracted from the database for Mineral Resource estimation purposes is run through general checks to ensure data is valid. The database is maintained by Mount Gibson Iron Limited with automated extraction processes in place.</p> <p>Checks on data include sensible ranges of values for attributes, drill hole collars matching topography and with expected limits, overlapping sample intervals, depths, azimuths, dips and co-ordinates for consistency. Any inconsistent information is either modified or excluded from use in the estimation.</p> <p>Further checks are completed during the importing of the data into the mine planning software prior to modelling and estimation.</p>
<i>Site visits</i>	Elizabeth Haren, the Competent Person for the Acacia East Mineral Resource, has made several visits to Acacia East at Koolan Island.
<i>Geological interpretation</i>	<p>There is an extremely high degree of confidence with the mineralisation interpretation. The mineralisation and geology are very consistent and have been proven by historical and current mining on Koolan Island.</p> <p>Interpretation used in the Mineral Resource estimate uses the drill holes exclusively.</p> <p>There are limited alternative interpretations possible for the mineralisation which would have a minimal impact on the Mineral Resource.</p> <p>The mineralisation is generally between two geological units.</p> <p>The continuity of grade and geology is very good.</p>
<i>Dimensions</i>	The Acacia East mineralisation is approximately 1,500m in length and is modelled to approximately 300 m in depth.
<i>Estimation and modelling techniques</i>	<p>Ordinary Kriging of a suite of Iron Ore elements (Fe, SiO₂, Al₂O₃, LOI, P, S, CaO, MnO, MgO, Na₂O, TiO) was completed using CAE Studio software. Minor domains of limited extent and information were estimated using Inverse Distance.</p> <p>Waste material was estimated where enough quality data was present however the majority of waste material is assigned default grades.</p>

Criteria	Commentary
	<p>While the mineralisation tends to be planar in most cases, care was taken to ensure orientation changes were honoured by the sample search and estimation orientation regimes. Estimation parameter selection was guided by the results of mining reconciliation.</p> <p>No assumptions were made regarding recovery of by-products.</p> <p>A full suite of Iron Ore elements were estimated.</p> <p>Block sizes used are 12.5 mE, 8 mN and 6 mRL. The bulk of the drilling data is on 50mE spaced sections or closer.</p> <p>No local estimation or SMU correction has been undertaken.</p> <p>Correlations between elements were considered and while co-kriging was not implemented, using similar estimation parameters for correlated elements allows some reproduction of correlations.</p> <p>All estimation was completed within mineralisation units using “hard” boundaries.</p> <p>In general, most element distributions did not have extreme outliers therefore minimal top-cutting was used. Where top-cutting occurred, this was done prior to sample compositing.</p> <p>Validation was completed by checking the global averages of composites versus model from each domain by creating trend plots of composites versus model from each domain and by visual validation of grade trends in the model to ensure they honoured the input data.</p>
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The 50% Fe cut-off is determined by the combined grade-tonnage characteristics as the minimum iron grade and/or maximum contaminant grades which will allow production to maintain contract-specified qualities for Lump and Fines products as currently occurring at Koolan Island.
Mining factors or assumptions	The mining factors are assumed to correlate directly to the current operation at Koolan Island.
Metallurgical factors or assumptions	The metallurgical factors are assumed to correlate directly to current operation at Koolan Island.
Environmental factors or assumptions	Environmental factors are already considered as part of the current mining operations at Koolan Island.
Bulk density	<p>Surtron down hole survey data has been used to measure densities on all deposits at Koolan Island.</p> <p>In all cases the Surtron data confirms the positive relationship between Fe and density.</p> <p>Regression formulas have been used to assign densities with respect to Fe estimates.</p>
Classification	<p>The basis for the classification of the Mineral Resource has included:</p> <ul style="list-style-type: none"> • Quality and reliability of raw data; • Confidence in the geological interpretation; • Number, spacing and orientation of intercepts in each mineralised zone; • Confidence concerning the known limits of mining; • Knowledge of grade and density continuities gained from observations and; • Geostatistical analyses. <p>This information was used to guide digitising of strings around defined classification areas in either long section or plan, depending on the orientation of the mineralisation. The strings were then used to flag the classification to the model.</p>
Audits or reviews	The Mineral Resource estimates are reviewed internally within Mount Gibson on a three levelled assessment structure. Periodic updates are completed when new information and understanding is required to be reflected in the Mineral Resource.

Criteria	Commentary
<i>Discussion of relative accuracy/confidence</i>	<p>The Koolan Island Mineral Resource models are provided as a basis for long term planning and mine design, and are not necessarily sufficient for shorter term planning and scheduling. The block model grade estimates were validated against the drillhole composites to ensure that the model reflects the input data.</p> <p>Monthly, quarterly and annual reconciliations are conducted, assessed and reported.</p>

APPENDIX 3 – Koolan Island, Mangrove Deposit

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	<p>All of the data used for the Mineral Resource estimation is based on the logging and sampling of RC and diamond core drilling.</p> <p>Percussion samples were composited over 2m intervals. Diamond samples were taken at 1m intervals. Reverse Circulation samples were taken over 1m intervals. Historical sampling is of lower quality and where any ambiguity exists is excluded from the database for estimation.</p>
Drilling techniques	<p>9 percussion drilled holes and 44 reverse circulation holes were used for estimation.</p>
Drill sample recovery	<p>Geologist or driller records show sample recovery during drilling. No issues were detected.</p> <p>Standard drilling techniques were adequate for sample recovery.</p> <p>No relationship between sample recovery and grade has been demonstrated. No bias to material size has been demonstrated.</p>
Logging	<p>All drill holes have been geologically logged appropriately to the mineralisation style to support Mineral Resource estimation with logging subsequently confirmed through mining.</p>
Sub-sampling techniques and sample preparation	<p>Samples are received and prepared at the SGS run Koolan Island lab as 2 to 5 kg RC chip samples. They are dried for 12 hours at 105°C, crushed to <2mm and split and reduced using riffle splitters or rotary sampling devices to 300 grams. The 300 gram sample is pulverised to 75µm, from which an aliquot is taken for XRF and LOI analysis.</p>
Quality of assay data and laboratory tests	<p>The nature, quality and appropriateness of the sample preparation techniques employed by Mount Gibson are to industry standard.</p> <p>Most BHP holes were shallow and the areas have since been mined out. No QA/QC information is available for these holes. Comparison between BHP holes and Aztec holes in 2005 showed there is good agreement between both datasets for Fe, and QA/QC data supports the accuracy of the Aztec data across the assay suite. While the BHP SiO₂ and Al₂O₃ data differs, there is no good reason to doubt its quality given that the company was able to operate and successfully meet sales contracts.</p> <p>Aztec holes had field duplicates, lab duplicates and site made standards as QA checks. Results were of acceptable quality.</p> <p>Mount Gibson uses certified reference material as a standard, along with field and laboratory duplicates. Mount Gibson QA/QC procedures and results are of acceptable quality.</p>
Verification of sampling and assaying	<p>No external verification was completed.</p> <p>Historical BHP data was twinned by Aztec RC holes and found to be acceptable</p> <p>Drill hole data found to be spurious was excluded from the database</p> <p>Adjustments to data were made where required after data validation processes.</p>
Location of data points	<p>Survey control of hole locations have been established through the mine survey department, while detailed down hole surveys of accessible holes have been conducted by contractors Surtron.</p> <p>Koolan Island Mine Grid (KIMG) is aligned consistent with average strike trends of the mineralisation at most of the known deposits and the Main deposit in particular. The marked variants from this are the Eastern and Mullet limbs. All directional references in the Mineral Resources reports are according to the KIMG, which is rotated +30.18° relative to the Map Grid of Australia (MGA94_51).</p> <p>Topographic and survey control has been undertaken by either the mine-based survey team, or contract survey companies and is considered high quality.</p>

Criteria	Commentary
Data spacing and distribution	<p>The data spacing is approximately 50m along the strike of the mineralisation.</p> <p>The data spacing and distribution is more than adequate to establish the degree of geological and grade continuity appropriate for the Mineral Resource estimation and classifications applied.</p> <p>Percussion samples were composited over 2m intervals.</p>
Orientation of data in relation to geological structure	<p>The orientation of the mineralisation is well defined and drill holes were oriented to intersect mineralisation at an appropriate angle.</p>
Sample security	<p>Sample security was not considered a significant risk to the project. No specific measures have been taken by Mount Gibson Iron Limited to ensure sample security.</p>
Audits or reviews	<p>A formal audit of BHP drilling and survey data was conducted by Snowden Mining consultants in 2004. The historical BHP and Aztec data is generally of moderate quality as inferred by nearby Mount Gibson drill holes confirming broadly the extent and tenor of Fe mineralisation. Most historical data is in mined out areas and has little influence on remaining Mineral Resources. An audit of the Koolan mineral laboratory was conducted in May 2014 by an external group with no material concerns or problems identified.</p>

Section 2 Reporting of Exploration Results

(Criteria listed in section 1, and where relevant, in sections 3 and 4, also apply to this section.)

Criteria	Commentary
Mineral tenement and land tenure status	<p>The Mangrove Mineral Resource is located on Mining Lease M04/417-I held by KIO, a 100% owned subsidiary of Mount Gibson. The mining tenement is granted under the Western Australian Mining Act, 1978. KIO has a native title and heritage agreement with the Dambimangari Native title group</p>
Exploration done by other parties	<p>Exploration has been conducted in the area of the Mangrove resource since 1955, with active exploration by BHP from 1957 to 1993, Aztec from 2004 to 2006 and Mount Gibson from 2006 to 2012.</p>
Geology	<p>The mineralised zone is an enriched haematitic sandstone horizon within the Yampi Sandstone Member unconformably overlying the Elgee Siltstone. It is between 12 and 30 metres thick. The mineralised unit is overturned and dips from 80° to the south in the west, twisting to right way up and 80° to the North in the east.</p>
Drill hole information	<p>As outlined in Drilling techniques of Section 1, there are 9 percussion drill holes and 44 reverse circulation drill holes at Mangrove, which form the basis for the Mineral Resource estimate outlined in Section 3. Material drill results for Mangrove have previously been announced to the market as required under the reporting requirements of the ASX Listing Rules. All material exploration results relevant to the Mangrove area have been considered in establishing the Mineral Resource discussed in section 3. Going forward any new exploration results that result in a material change to existing Mineral Resource in section 3 will be updated under the normal transitioning to JORC 2012.</p>
Data aggregation methods	<p>Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.</p>
Relationship between mineralisation widths and intercept lengths	<p>Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.</p>

Criteria	Commentary
Diagrams	No exploration results or drillhole intercepts are discussed in this ASX announcement. Cross Sections, long sections and photos of the geology, mineralisation and mineral resource have been released in previous ASX reports.
Balanced reporting	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Other substantive exploration data	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.
Further work	Not Applicable - No exploration results or drillhole intercepts are discussed in this ASX announcement.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in sections 2 and 4, also apply to this section.)

Criteria	Commentary
Database integrity	<p>Data extracted from the database for Mineral Resource estimation purposes is run through general checks to ensure data is valid. The database is maintained by Mount Gibson with automated extraction processes in place.</p> <p>Checks on data include sensible ranges of values for attributes, drillhole collars matching topography and with expected limits, overlapping sample intervals, depths, azimuths, dips and co-ordinates for consistency. Any inconsistent information is either modified or excluded from use in estimation.</p>
Site visits	Elizabeth Haren, the Competent Person for Mineral Resources, has made several visits to Koolan Island.
Geological interpretation	<p>There is an extremely high degree of confidence with the mineralisation interpretation. The mineralisation and geology is very consistent and has been proven by historical and current mining on Koolan Island.</p> <p>Interpretation uses the drill holes exclusively.</p> <p>There are limited alternative interpretations possible for the mineralisation which would have a minimal impact on the Mineral Resource.</p> <p>The mineralisation is generally between two geological units.</p> <p>The continuity of grade and geology is very good.</p>
Dimensions	The Mangrove mineralisation is approximately 1,000m in length and is modelled to approximately 250 m in depth.
Estimation and modelling techniques	<p>Ordinary Kriging of a suite of Iron Ore elements (Fe, SiO₂, Al₂O₃, LOI, P, S, CaO, MnO, MgO, Na₂O, TiO) was completed using CAE Studio software. Minor domains of limited extent and information were estimated using Inverse Distance.</p> <p>Waste material was estimated where enough quality data was present however the majority of waste material is assigned default grades.</p> <p>While the mineralisation tends to be planar in most cases, care was taken to ensure orientation changes were honoured by the sample search and estimation orientation regimes. Estimation parameter selection was guided by the results of mining reconciliation.</p> <p>No assumptions were made regarding recovery of by-products.</p> <p>A full suite of Iron Ore elements were estimated.</p>

Criteria	Commentary
	<p>Block sizes used are 12.5 mE, 8 mN and 6 mRL. The bulk of the drilling data is on 50mE spaced sections or closer.</p> <p>No local estimation or SMU correction has been undertaken.</p> <p>Correlations between elements were considered and while co-kriging was not implemented, using similar estimation parameters for correlated elements allows some reproduction of correlations.</p> <p>All estimation was completed within mineralisation units using “hard” boundaries.</p> <p>In general, most element distributions did not have extreme outliers therefore minimal top-cutting was used. Where top-cutting occurred, this was done prior to sample compositing.</p> <p>Validation was completed by checking the global averages of composites versus model from each domain, by creating trend plots of composites versus model from each domain and by visual validation of grade trends in the model to ensure they honoured the input data.</p>
Moisture	All tonnages have been estimated as dry tonnages.
Cut-off parameters	The 50%Fe cut-off is determined by the combined grade-tonnage characteristics as the minimum iron grade and/or maximum contaminant grades which will allow production to maintain contract-specified qualities for Lump and Fines products as currently occurring at Koolan Island.
Mining factors or assumptions	The mining factors are assumed to correlate directly to current operations at Koolan Island.
Metallurgical factors or assumptions	The metallurgical factors are assumed to correlate directly to current operations at Koolan Island.
Environmental factors or assumptions	Environmental factors are already considered as part of the current mining operations at Koolan Island.
Bulk density	<p>Surtron down hole survey data has been used to measure densities on all deposits at Koolan Island.</p> <p>In all cases the Surtron data confirms the positive relationship between Fe and density.</p> <p>Regression formulas have been used to assign densities with respect to Fe estimates.</p>
Classification	<p>The basis for the classification of the Mineral Resource has included:</p> <ul style="list-style-type: none"> • Quality and reliability of raw data; • Confidence in the geological interpretation; • Number, spacing and orientation of intercepts in each mineralised zone; • Confidence concerning the known limits of mining; • Knowledge of grade and density continuities gained from observations and; • Geostatistical analyses. <p>This information was used to guide digitising of strings around defined classification areas in either long section or plan, depending on the orientation of the mineralisation. The strings were then used to flag the classification to the model.</p>
Audits or reviews	<p>The Mineral Resource estimates are reviewed internally within Mount Gibson.</p> <p>Periodic updates are completed when new information and understanding is required to be reflected in the Mineral Resource.</p>
Discussion of relative accuracy/confidence	The block model grade estimates were validated against the drill hole composites to ensure that the model reflects the input data. The Koolan Island Mineral Resource models are provided as a basis for long term planning and mine design, and are not necessarily sufficient for shorter term planning and scheduling.