22 September 2023

Mineral Resources and Ore Reserves update

Mineral Resources Limited (**ASX: MIN**) (**MinRes** or the **Company**) is pleased to provide updated Mineral Resources and Ore Reserves statements (100% basis) for its Mt Marion and Wodgina lithium deposits and a maiden Mineral Resources and Ore Reserves (100% basis) for its Ken's Bore iron ore deposit as of 30 June 2023.

Mt Marion and Wodgina, located in Western Australia's Goldfields and Pilbara regions respectively, are world-class hard rock lithium mines that produce high-quality spodumene concentrate.

The Ken's Bore iron ore deposit, located in the West Pilbara region of Western Australia, is one of several deposits that underpin the Onslow Iron project being developed by MinRes in partnership with the Red Hill Iron Ore Joint Venture.

Highlights

- Mt Marion Ore Reserve of 35.7Mt at 1.42% Li_2O, representing a significant 107% increase from June 2022[1]
- Mt Marion Mineral Resources of 64.8Mt at 1.42% Li_2O, up 26% from June 2022
- Wodgina Ore Reserve of 164.6Mt at 1.15% Li_2O, up 12% from June 2022
- Wodgina Mineral Resources of 217.4Mt at 1.15% Li_2O, down 16% from June 2022
- Maiden Ken's Bore Ore Reserve of 207Mt at 58.1% Fe
- Maiden Ken's Bore Mineral Resources of 394Mt at 56.4% Fe

Mineral Resources and Ore Reserves estimates are in accordance with the ASX listing rules and the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC 2012).

The Mt Marion figures are solely based on an open pit scenario. As a result, pending further deep drilling success, there is additional opportunity to incorporate underground Ore Reserves.

As of June 2023, lithium Ore Reserves were estimated at an assumed spodumene concentrate price of US$1,639 per tonne (6% Li_2O concentrate). Ken's Bore Ore Reserve was calculated using an assumed iron ore Platts 62% index price of US$80 per tonne.

MinRes Managing Director Chris Ellison said:

"This update confirms the quality of MinRes' lithium and iron ore assets, which are some of the best in the world.

"Across Mt Marion and Wodgina, our lithium reserves now total more than 200 million tonnes, while successful drilling at Mt Marion has confirmed it has a longer life and excellent potential for underground mining.

"Our maiden Ore Reserve and Mineral Resources at Ken's Bore underpins the transformational Onslow Iron Project currently under construction, and together with the other Joint Venture resources will see MinRes deliver low-cost, quality iron ore for decades to come."

[1] ASX announcement dated 7 October 2022 *Lithium Mineral Resources and Reserve Update*

MT MARION ORE RESERVE STATEMENT AS AT 30 JUNE 2023

The Mt Marion Lithium Project is owned and operated by Mt Marion Lithium Pty Ltd, which is owned 50% by MinRes and 50% by Ganfeng Lithium Group Co., Ltd (**Ganfeng**).

HIGHLIGHTS

- Significant increase in Ore Reserve from 17.2Mt to 35.7Mt.
- Increase comes from both extensions to the Mineral Resources and improved confidence within existing pits following successful drilling campaigns.

This Mt Marion Ore Reserve estimate is compiled as at 30 June 2023 and based on the Mineral Resources.

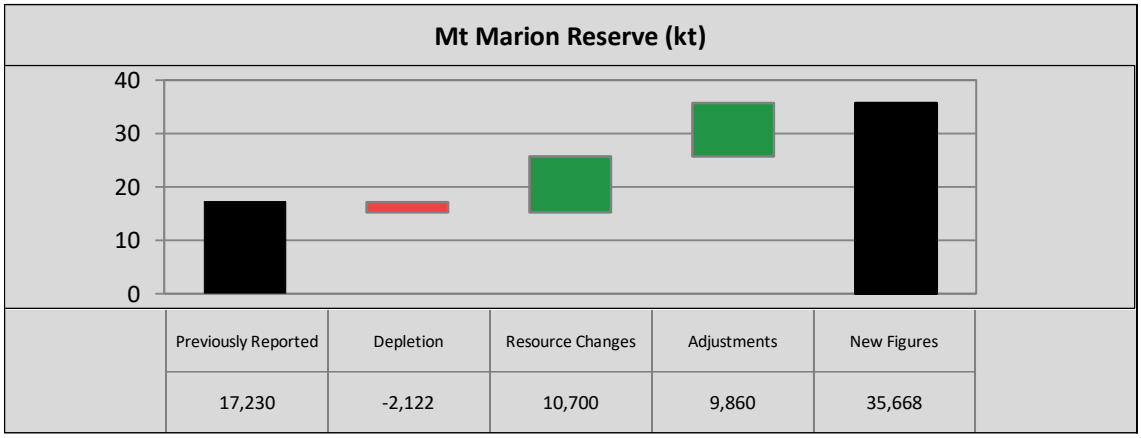


Figure 1: Mt Marion Ore Reserve model changes since previously reported

All tonnages reported on a dry basis. Note that small discrepancies may occur due to rounding

Iron Mineralisation			Proved Reserves		Probable Reserves		Total Reserves	
Deposit	**Type**	**Cut-off (Li_2O %)**	**Tonnes (Mt)**	**Li_2O (%)**	**Tonnes (Mt)**	**Li_2O (%)**	**Tonnes (Mt)**	**Li_2O (%)**
Mt Marion	Open Pit	0.75	-	-	35.4	1.42	35.4	1.42
Stockpiles – ROM, Yard & Port	Stockpile	N/A	0.1	1.31	-	-	0.1	1.31
Stockpiles – Contact Ore	Stockpile	N/A	0.2	1.24	-	-	0.2	1.24
		Sub Total	**0.3**	**1.27**	**35.4**	**1.42**	**35.7**	**1.42**

Table 1: Mt Marion Ore Reserve as at 30 June 2023

In accordance with ASX Listing Rule 5.9.1, below is a fair and balanced representation of the information contained in the separate report prepared in accordance with ASX Listing Rule 5.9.2 (Appendix 1), including a summary of all information material to understanding the reported estimates of ore reserves in relation to the following matters:

- The material assumptions used in preparation of this Ore Reserve:
  - Mt Marion is an active mining operation that has been producing since 2017. The conversion of Mineral Resources to Ore Reserves is based on current and forecast on-going production and operating costs on the assumption that there is no material change to mining, processing or logistics processes.
  - The pit optimisation was conducted using consensus long term spodumene pricing and US$/AU$ exchange rates.
  - Financial modelling completed shows that the project is economically viable under these updated assumptions and is resilient to reasonable variations to them. In the opinion of the Competent Person, cost assumptions and modifying factors applied in the process of estimating Ore Reserves are reasonable.

- The criteria used for classification, including the classification of the Mineral Resources on which the Ore Reserves are based, and the confidence in the modifying factors applied:
  - The Ore Reserves have been classified based on their Mineral Resource classification within the pit design, with only Indicated Mineral Resources converted to Probable Ore Reserves.
  - Geological and processing reconciliation performance supports the classification.

  - The total inventory contained on ore stockpiles has been surveyed and hence deemed of Measured accuracy and has been converted to a Proved Reserve.

- The mining method selected and other mining assumptions, including mining recovery factors and mining dilution factors:
  - Current mining is by use of conventional drill, blast, load and haul open pit methods.
  - Mine designs comprise detailed pit designs for the Life-of-Mine plan. Operational waste dump and short-term stockpile designs are in place with conceptual designs for the later phases of stockpiling and waste dump expansion. The deposit was optimised using Whittle Optimisation software and the optimisation study was completed in 2023 internally by MinRes' mine planning team.
  - Detailed pit and stage designs were completed based on the selected optimisation pit shell.
  - An overall slope for oxide and fresh rock types of 39°and 45° respectively has been used for optimisation based on geotechnical investigation and design with reconciled slope performance.
  - Dilution and ore loss has been modelled by a combination of:
    - Regularisation of the geological resource model using a selective mining unit of 5.0m (length) by 5.0m (width) by 5m (depth)
    - Geometrical assignment of dilution and ore loss by manipulation of pegmatite wireframes
    - Ore recovery factors based on historical performance.
  - A minimum mining width of 35m has been used in the pit designs.
  - Final pit designs are based on Indicated and Inferred Resource. A sensitivity has been conducted to confirm that no material tonnes of Reserve are carried by the presence of Inferred Resources in the pit shell.

- The processing method selected and other processing assumptions, including the recovery factors applied and the allowances made for deleterious elements:
  - Ore is processed on site to produce spodumene concentrates that are transported to Esperance for export.
  - Beneficiation of the ore includes crushing and dense medium separation; processes that generate concentrate products and waste tailings streams. Metallurgical performance data from 6 years of production has been used to support the Ore Reserve estimate.
  - Treatment and processing costs have been estimated based on current crushing and processing operations.
  - The lithium processing recovery model is calibrated to historical performance.

- The basis for cut-off grades(s) or quality parameters applied:
  - The cut-off grade is determined from an assessment of plant performance at varying feed grades, model reconciliation, and economic analysis.

- The procedure used in the preparation of the Ore Reserve is as follows:
  - Preparation of a mining model from the resource model considering all modifying factors.
  - Compilation of economic and production assumptions
  - Open pit optimisation using Whittle 4X software
  - Sensitivity analysis, pit shell and phase selection
  - Detailed open pit stage designs compliant with the geotechnical design criteria
  - Mine scheduling
  - Development of an economic model

- Material modifying factors, including the status of environmental approvals, mining tenements and approvals, other government factors and infrastructure requirements for selected mining methods and for transportation to market:
  - All required external approvals and licenses are in place for the current and near-term mining and processing operation at Mt Marion. Approvals have not yet been completely obtained for all of the future pits however work is underway to obtain these approvals with no risks identified for delivery within the required timeframe.
  - Surface water and groundwater assessments and management plans are in place for all existing approved activities.
  - Granted Mining Lease tenure and pre-1899 Crown Grant lands (Hampton Lease Area Location 53) all held by Reed Industrial Minerals.
  - All Infrastructure requirements are in place for the current mining and processing operations at Mt Marion.
  - Government and third-party royalties have been included in the economic evaluation.

GOVERNANCE STATEMENT

All estimates are internally peer reviewed on a technical basis prior to public release. All public released are also vetted by the Resources and Reserves Steering Committee (RRSC) of the Company before release.

External review of estimates is completed on a periodic basis (period deemed as appropriate by the RRSC) by experienced technical consultants who meet the JORC Code criteria for Competent Persons having sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which they are undertaking.

COMPETENT PERSONS STATEMENT

The information in this Statement that relates to the Ore Reserve Estimate is based on and fairly represents information compiled by Marek Wydmanski working under the supervision of John Kirk. Mr Wydmanski is Senior Mining Engineer and a full-time employee of Mineral Resources Limited. He is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Kirk is General Manager Long Term Planning and a full-time employee of Mineral Resources Limited. He is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM).

John Kirk and Marek Wydmanski have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which is undertaken to qualify as a Competent Person as defined in the JORC Code.

MT MARION MINERAL RESOURCE STATEMENT AS AT 30 JUNE 2023

The Mt Marion Lithium Project is owned and operated by Mt Marion Lithium Pty Ltd which is owned 50% by MinRes and 50% by Ganfeng.

HIGHLIGHTS

- Improved understanding of geological controls on mineralisation continuity.
- Open pit resources constrained within a combined set of life-of-mine pit shells.
- Indicative potential for underground mining, with underground resources reported assuming a minimum mining width of 10m, and 10% ore loss.

Mt Marion's Indicated & Inferred Mineral Resources are reported as 64.8Mt at 1.4% Li_2O (Figure 2 and Table 2). This has resulted in a change since the previous statement reported previously in 2022 (ASX: MIN Lithium Mineral Resources and Reserve Update, 7 October 2022).

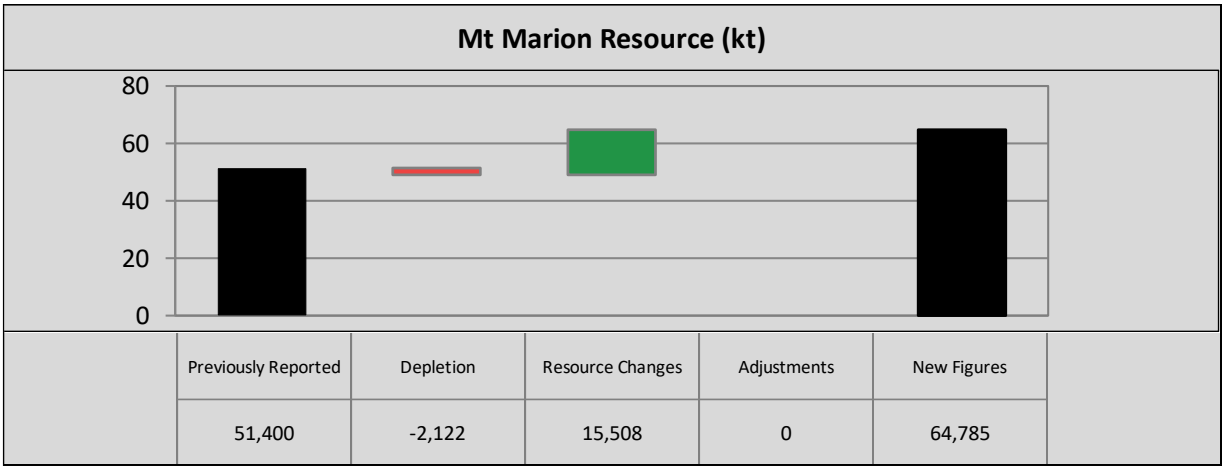


Figure 2: Mt Marion Mineral Resources model changes since previously reported

The Indicated & Inferred Mineral Resources as at 30 June 2023 includes the following changes:

- Depletions completed to the end-of-month mining surface for 30 June 2023
- Updated estimate using exploration drilling data acquired up to 31 March 2023.

The 30 June 2023 Mineral Resources estimate is reported above a cut-off grade of 0.5% Li_2O. The global in-situ resource is summarised in Table 2.

Commodity: Lithium								
Category	**Tonnes (Mt)**	**Li_2O (%)**	**Fe (%)**	**MgO (%)**	**SiO_2 (%)**	**Al_2O_3 (%)**	**CaO (%)**	**Density**
Mt Marion Open Pit								
Indicated	41.9	1.43	0.89	0.75	72.64	15.70	0.47	2.72
Inferred	13.4	1.35	0.85	0.43	73.04	15.73	0.53	2.72
Sub Total	55.3	1.41	0.88	0.67	72.73	15.71	0.49	2.72
Mt Marion Underground								
Indicated	0.5	1.52	0.85	0.94	72.62	15.59	0.44	2.72
Inferred	9.0	1.52	0.85	0.94	72.62	15.59	0.44	2.72
Sub Total	9.5	1.52	0.85	0.94	72.62	15.59	0.44	2.72
Total Mt Marion								
Total Indicated	**42.4**	**1.43**	**0.89**	**0.75**	**72.64**	**15.70**	**0.47**	**2.72**
Total Inferred	**22.4**	**1.42**	**0.85**	**0.63**	**72.87**	**15.67**	**0.49**	**2.72**
Grand Total	**64.8**	**1.42**	**0.88**	**0.71**	**72.72**	**15.69**	**0.48**	**2.72**

Table 2: Mt Marion Mineral Resources as at 30 June 2023 reported above 0.5% Li cut-off, and depleted for mining up to 30 June 2023

In accordance with ASX Listing Rule 5.8.1, the following summary of all information material to understanding the reported estimates of Mineral Resources in relation to the following matters is provided:

GEOLOGY AND INTERPRETATION

- The Mt Marion lithium mineralisation is hosted within a number of sub-parallel, northeast to northwest trending pegmatite intrusive bodies which dip at between 10° and 30° to the west.
- Geological interpretation was carried out using implicit modelling in Leapfrog Software. The pegmatite domains were assigned using lithology logging in combination with SiO_2 (>65%) and MgO (<1.5%) analyte grades to pinpoint the pegmatite-waste boundary in each drill hole.
- The interpreted feeder zone forms a part of the Mt Marion Inferred underground Mineral Resource. An average grade and assumed density were assigned to blocks in the lowest portion on the basis of geological continuity.

<u>Sampling and sub-sampling techniques</u>

- Reverse circulation (RC) drill holes were sampled at 1m intervals through the pegmatite. Waste was sampled at 6m intervals.
- PQ3 and HQ3 drill core was collected for metallurgy and density test work, and
- PQ3 and NQ3 drill core used for geochemical resource definition and sampled at 1m intervals.

<u>Drilling techniques</u>

- RC drilling using face sampling hammers and cyclones comprised 98% of all drill meters.
- Diamond drilling comprises ~5% of all drill meters. Hole diameters were PQ3 and HQ3, with NQ3 diamond tails on the end of RC drill holes to reach the deeper parts of the orebody.

<u>The criteria used for classification</u>

- Whittle shell optimisation and life of mine modelling confirm the reasonable prospect for eventual economic extraction. the estimate is reported within a combined set of life-of-mine pit shells life-of-mine pits.
- Classification was based on a combination of geological continuity, data quality, drill hole spacing, modelling technique, and estimation derived properties including search strategy, number of informing data points and distance of data points from blocks.
- Indicated Mineral resources criteria:
  - Mineralisation with good geological continuity.
  - Defined by drilling on a 40m E x 40m N grid or better and supported by acceptable down the hole survey control.
  - Nominally limited to an extrapolation distance of 20 m from the nearest informing composite data point.
  - A final interpreted wireframe envelope, smoothing for practical considerations for mineability, was used to classify blocks as Indicated.

- Inferred Mineral resources criteria:
  - Mineralisation continuity in these blocks is implied by the geological continuity but not verified as it is based on data that cannot be spatially located with confidence due to lack of down the hole survey control.
  - Nominally limited to a down dip extrapolation distance of 60 m from the nearest informing drill hole.
  - The interpreted wireframe envelope used to classify blocks as Inferred was also smoothed for practical considerations for mineability.
  - A final interpreted wireframe envelope, smoothing for practical considerations for mineability, was used to classify blocks as Inferred.

Sample analysis method

- The assay procedure for lithium content (% Li_2O) was either peroxide fusion digest with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) finish, or a four-acid digest with Atomic Absorption Spectrometry (AAS) finish.
- Whole rock analysis of an additional 16 elements was completed by fused disc x-ray fluorescence (XRF), with the total loss on ignition (LOI) content determined by thermogravimetric analysis.

Estimation methodology

- 1m composites were used for the estimation.
- Ordinary kriging (OK) was used to estimate Li_2O, and inverse distance squared (ID2) was used for Al_2O_3, CaO, Fe, K_2O, MgO, MnO, Na_2O, P, S, SiO_2, Ta_2O_5, TiO_2, and LOI. Multiple passes of estimation were run to fill blocks.
- Averaged density estimates by lithology were derived from density measurements from drill cores and pit floor grab samples, for mineralised and non-mineralised material.
- Weathering surfaces were used to classify for fully oxidized, partially oxidized and fresh within each lithology.

Cut-off grade(s) including the basis for the selected cut-off grade(s)

- The estimates were reported above a 0.5 % Li_2O cut-off. This cut-off defines an appropriate tonnage and grade that can be extracted once Ore Reserves are estimated, using an open pit mining technique as is currently employed at Mt Marion.

Please note that disclosure in accordance with Appendix 5A of the ASX Listing Rules (the JORC Code 2012 edition – Section 1 (Sampling Techniques and Data), Section 2 (Reporting of Exploration Results) and Section 3 (Estimation and Reporting of Mineral Resources) is presented in Appendix 2.

GOVERNANCE STATEMENT

All estimates are internally peer reviewed on a technical basis prior to public release. All public released are also vetted by the Resources and Reserves Steering Committee (RRSC) of the Company before release.

External review of estimates is completed on an annual basis (period deemed as appropriate by the RRSC) by experienced technical consultants who meet the JORC criteria for Competent Persons for having sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which s/he is undertaking.

COMPETENT PERSONS STATEMENT

The information in this Statement that relates to the Mineral Resource Estimate is based on and fairly represents information compiled by Mr Ashok Doorgapershad and Ms Ivy Chen.

Mr Doorgapershad and Ms Chen are respectively General Manager of Exploration and Geology, and Manager of Orebody Knowledge and operational support and full-time employees of Mineral Resources Limited. They are both Fellows of the Australasian Institute of Mining and Metallurgy (FAusIMM).

Mr Doorgapershad and Ms Chen have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the JORC Code.

WODGINA – ORE RESERVE STATEMENT AS AT 30 JUNE 2023

HIGHLIGHTS

- Total Wodgina Ore Reserve increased from 147.0Mt at 1.20% Li_2O to 164.6Mt at 1.15% Li_2O.
- The increase comes primarily from the inclusion of historically produced tailings (from Tantalum production) as a Reserve following successful treatment trials.

This Wodgina Ore Reserve estimate is compiled as at 30 June 2023 and is based on the Mineral Resources (as at June 2023).

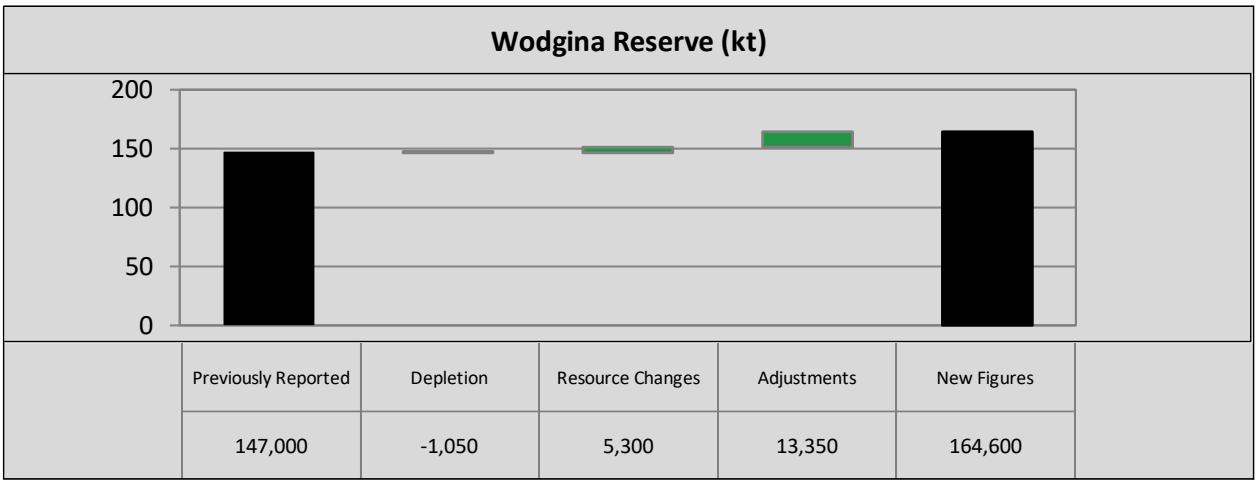


Figure 3: Wodgina Ore Reserve model changes since previously reported

All tonnages reported on a dry basis. Note that small discrepancies may occur due to rounding.

Iron Mineralisation			Proved Reserves		Probable Reserves		Total Reserves	
Deposit	**Type**	**Cut-off (Li_2O %)**	**Tonnes (Mt)**	**Li_2O (%)**	**Tonnes (Mt)**	**Li_2O (%)**	**Tonnes (Mt)**	**Li_2O (%)**
Wodgina Pit	Open Pit	0.5	-	-	148.3	1.17	148.3	1.17
Stockpiles – ROM, Yard & Port	Stockpile	N/A	0.4	1.22	-	-	0.4	1.22
Stockpiles – Historic Tailings	Stockpile	0.5	-	-	16.0	0.99	16.0	0.99
		Total	**0.4**	**1.22**	**164.3**	**1.15**	**164.6**	**1.15**

Table 3: Wodgina Ore Reserve as at 30 June 2023

In accordance with ASX Listing Rule 5.9.1, below is a fair and balanced representation of the information contained in the separate report prepared in accordance with ASX Listing Rule 5.9.2, including a summary of all information material to understanding the reported estimates of ore reserves in relation to the following matters:

- The material assumptions used in preparation of this Ore Reserve statement:
  - Wodgina is an active mining operation. The conversion of Mineral Resources to Ore Reserves is based on current and forecast on-going production and operating cost.
  - The pit optimisation was conducted using consensus long term spodumene pricing and US$/AU$ exchange rates.
  - Financial modelling completed shows that the project is economically viable under current assumptions and is resilient to reasonable variations to them. In the opinion of the Competent Person, cost assumptions and modifying factors applied in the process of estimating Ore Reserves are reasonable.

- The criteria used for classification, including the classification of the Mineral Resources on which the Ore Reserves are based, and the confidence in the modifying factors applied:
  - The Ore Reserves have been classified based on their Mineral Resource classification within the pit design, with only Indicated Mineral Resources converted to Probable Ore Reserves.
  - Geological and processing reconciliation performance supports the classification.

- The total inventory contained on ore stockpiles has been surveyed and hence deemed of Measured accuracy and has been converted to a Proved Reserve.

- The mining method selected and other mining assumptions, including mining recovery factors and mining dilution factors:
  - Current mining is by use of conventional drill, blast, load and haul open pit methods.
  - Mine designs comprise of detailed pit designs for the Life-of-Mine plan. Operational waste dump and short-term stockpile designs are in place with conceptual designs for the later phases of stockpiling and waste dump expansion.
  - The deposit was optimised using Whittle Optimisation software.
  - Indicated and Inferred Mineral Resource categories were used in the Whittle Optimisation process. The risk to Reserves by the inclusion of inferred material in the optimisation has been deemed low given only 2% of the processed inventory is classified as Inferred.
  - An IRA of between 32° (east wall) and 43° (all other walls) has been used for optimisation based on geotechnical investigation and design with reconciled slope performance.
  - Dilution and ore loss has been modelled by a combination of:
    - Regularisation of the geological resource model using a selective mining unit of 5.0m (length) by 5.0m (width) by 2.5m (depth)
    - Geometrical assignment of dilution and ore loss by manipulation of pegmatite wireframes
    - Ore recovery factors based on historical performance.
  - A minimum mining width of 35m has been used in the pit designs.

- The processing method selected and other processing assumptions, including the recovery factors applied and the allowances made for deleterious elements:
  - The processing plant consists of:
    - A three-stage crushing circuit – primary crushing, secondary crushing, high-pressure grinding rolls.
    - A modular wet processing plant – three parallel trains each processing 1.9Mtpa of crushed feed. Addition of a fourth train is currently under study.
    - Grinding, de-sliming and iron removal stages.
    - A conventional spodumene flotation circuit.
  - Concentrate is filtered to ~10% moisture for transport to Port Hedland for shipping.

- The basis for cut-off grades(s) or quality parameters applied:
  - The cut-off grade (0.5%) is determined from an assessment of plant performance at varying feed grades, model reconciliation for various feed types, and economic analysis.

- The procedure used in the preparation of the Ore Reserve is as follows:
  - Preparation of a mining model from the resource model considering all modifying factors.
  - Compilation of economic and production assumptions.
  - Open pit optimisation using Whittle 4X software.
  - Sensitivity analysis, pit shell and phase selection.
  - Detailed open pit stage designs compliant with the geotechnical design criteria.
  - Mine scheduling.
  - Development of an economic model.

- Material modifying factors, including the status of environmental approvals, mining tenements and approvals, other government factors and infrastructure requirements for selected mining methods and for transportation to market:
  - All infrastructure requirements are in place for the current mining and processing operations at Wodgina.
  - All required environmental approvals are in place for the current Wodgina mine, spodumene processing plant, power station, tailings storage facilities, village and other non-process infrastructure.
  - Waste rock characterisation studies have been completed and indicate there is Potentially Acid Forming (PAF) material. Any PAF found is managed according to the approved plan.
  - Additional approvals for expansion of mining and tailings activities are currently being sought.
  - Government and third-party royalties have been included in the costs.

Please note that disclosure in accordance with Appendix 5A of the ASX Listing Rules (the JORC Code 2012 edition – Table 1 – Section 4 (Estimation and Reporting of Ore Reserves) is presented in Appendix 3.

GOVERNANCE STATEMENT
All estimates are internally peer reviewed on a technical basis prior to public release. All public released are also vetted by the Resources and Reserves Steering Committee (RRSC) of the Company before release.

External review of estimates is completed on an annual basis (period deemed as appropriate by the RRSC) by experienced technical consultants who meet the JORC Code criteria for Competent Persons having sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which they are undertaking.

COMPETENT PERSONS STATEMENT
The information in this Statement that relates to the Ore Reserve Estimate is based on and fairly represents information compiled by Marek Wydmanski working under the supervision of John Kirk. Mr Wydmanksi is Senior Mining Engineer and a full-time employee of Mineral Resources Limited. He is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Mr Kirk is General Manager Long Term Planning and a full-time employee of Mineral Resources Limited. He is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM).

Mr Kirk and Mr Wydmanski have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which is undertaken to qualify as a Competent Person as defined in the JORC Code.

WODGINA MINERAL RESOURCE STATEMENT AS AT 30 JUNE 2023

The Wodgina Project is held as a joint venture between Albemarle Wodgina Pty Ltd and Wodgina Lithium Pty Ltd, with the ownership structure being 50% Albemarle Corporation (Albemarle) and 50% MinRes. The operating joint venture entity is known as MARBL.

HIGHLIGHTS
- Improved understanding of geological controls on mineralisation continuity.
- Open pit resources constrained within a life-of-mine pit shell.
- Underground resources reported assuming minimum mining width and ore loss constraints.

The Wodgina combined Indicated & Inferred Mineral Resources are reported as 217.4Mt at 1.2% Li_2O (Figure 4 and Table 4). This has resulted in a change since the previous statement reported previously in 2022 (ASX:MIN Lithium Mineral Resources and Reserve Update, 7 October 2022).

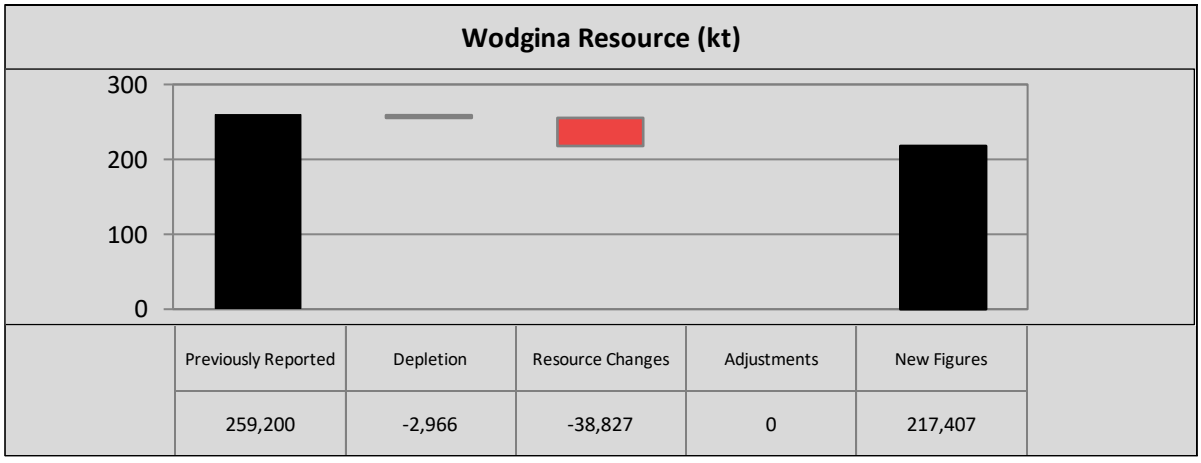


Figure 4: Wodgina Mineral Resources modal changes since previously reported

The Indicated and Inferred Mineral Resources as at 30 June 2023 includes the following changes:
- Mining depletions completed to 30 June 2023
- Updated estimate using exploration drilling data acquired up to 6 January 2023.

The 30 June 2023 Mineral Resources estimate is reported above a cut-off grade of 0.5% Li_2O. The global in-situ resource is summarised in Table 4.

Commodity: Lithium									
Category	**Tonnes (Mt)**	**Li_2O (%)**	**Fe (%)**	**MgO (%)**	**SiO_2 (%)**	**Al_2O_3 (%)**	**CaO (%)**	**TA_2O_5 (%)**	**Density**
Wodgina Pit									
Indicated	155.6	1.18	1.88	0.30	71.90	15.43	0.41	0.02	2.76
Inferred	8.6	1.36	1.22	0.14	72.98	15.72	0.32	0.01	2.74
Sub Total Pit	164.2	1.19	1.85	0.30	71.96	15.45	0.40	0.02	2.76
Wodgina Conceptual Underground *									
Indicated	6.8	0.90	1.80	0.30	71.90	15.50	0.70	0.01	2.70
Inferred	24.4	1.20	1.10	0.20	73.10	15.60	0.60	0.01	2.70
Sub Total UG	31.2	1.10	1.30	0.20	72.80	15.60	0.60	0.01	2.70
Tailings Storage Facility (TSF), reported above 0 cut-off									
Indicated	19.6	1.02	4.94	0.66	67.76	14.66	0.66	0.02	1.70
Inferred	2.4	0.43	6.77	1.49	63.36	14.93	0.77	0.02	1.70
Sub Total TSF	22.0	0.96	5.14	0.75	67.29	14.69	0.67	0.02	1.70
Total Wodgina Mineral Combined Resources									
Total Indicated	**182.1**	**1.15**	**2.21**	**0.34**	**71.45**	**15.35**	**0.44**	**0.02**	**2.65**
Total Inferred	**35.3**	**1.19**	**1.51**	**0.27**	**72.42**	**15.58**	**0.54**	**0.01**	**2.64**
Combined Total	**217.4**	**1.15**	**2.10**	**0.33**	**71.61**	**15.39**	**0.46**	**0.02**	**2.65**

* Assumes nominal minimum mining width of 10m, and 10% ore loss

Table 4: Wodgina Mineral Resources as at 30 June 2023 reported above 0.5% Li (TSF reported above 0%) cut-off, and depleted for mining up to 30 June 2023

In accordance with ASX Listing Rule 5.8.1, the following summary of all information material to understanding the reported estimates of Mineral Resources in relation to the following matters is provided:

GEOLOGY AND INTERPRETATION

- The pegmatites are hosted in a bedded sulphur rich meta-sedimentary package which is defined using drill hole logging and regional mapping.
- Lithium in the pegmatites occurs in long grey and white spodumene crystals within medium grained pegmatites comprising primarily quartz, feldspar, spodumene and muscovite.
- Typically, the spodumene crystals are orientated orthogonal to the pegmatite contacts. Some zoning of the pegmatites parallel to the contacts is observed, with higher concentrations of spodumene occurring close to the upper contact.
- Geochemical analysis of the pegmatites indicates the upper pegmatites have higher concentrations of tin and tantalum and volatile elements such as cesium and rubidium, indicating high fractionation.
- Geological interpretation was carried out using Leapfrog implicit modelling for the upper and intermediate domains The basal domains were created using numeric modelling with assigned trend and dip based on the overall trend of the upper domains.
- The pegmatite domains were assigned using lithology logging in combination with SiO_2 and MgO analyte grades to pinpoint the pegmatite-waste boundary in each drill hole.
- Oxidation surfaces were constructed using geological weathering codes.

<u>Sampling and sub-sampling techniques</u>

- Reverse circulation (RC) drill holes were sampled at 1m intervals through the pegmatite.
- Waste was sampled at 6m intervals.
- Sub-samples through the pegmatite were generated using a cone-splitter. Sub-samples through the waste were generated from scoop samples of ground residue sample spoils.

- PQ3 and HQ3 drill core was collected for metallurgy and density test work, with PQ3 and NQ3 drill core used for geochemical resource definition.

Drilling techniques
- RC drilling with face sampling hammers and cyclones comprised 78% of all drill meters.
- Diamond drilling comprised ~3% of all drill meters Diamond drilling was run from surface in the form of PQ3 and HQ3, with NQ3 diamond tails on the end of RC drill holes to reach the deeper parts of the orebody beyond RC drill rig capabilities.

The criteria used for classification
- Whittle shell optimisation and life of mine modelling on the basis of the 2018 model confirmed the reasonable prospects for eventual economic extraction. All material within the pit was considered to be Mineral Resource.
- Classification criteria included geological continuity, data quality, drill hole spacing, modelling technique, and estimation derived properties including search strategy, number of informing data points and distance of data points from blocks.
- Indicated Mineral resources criteria:
  - Mineralisation with good geological continuity.
  - Defined by drilling on a 60m E x 60m N grid or better and supported by acceptable down the hole survey control.
  - Nominally limited to an extrapolation distance of 30 m from the nearest informing composite data point.
  - A final interpreted wireframe envelope, smoothing for practical considerations for mineability, was used to classify blocks as Indicated.
- Inferred Mineral resources criteria:
  - Mineralisation continuity in these blocks is implied by the geological continuity but not verified as it is based on data that cannot be spatially located with confidence due to lack of down the hole survey control.
  - Nominally limited to a down dip extrapolation distance of 60 m from the nearest informing drill hole.
  - A final interpreted wireframe envelope, smoothing for practical considerations for mineability, was used to classify blocks as Inferred.

Sample analysis method
- The assay procedure for lithium content (% Li_2O) was either peroxide fusion digest with Inductively Coupled Plasma Mass Spectrometry (ICP-MS) finish, or a four-acid digest with Atomic Absorption Spectrometry (AAS) finish.
- Whole rock analysis of an additional 16 elements was completed by fused disc x-ray fluorescence (XRF), with the total loss on ignition (LOI) content determined by thermogravimetric analysis.

Estimation methodology
- 1m composites were used for the estimation.
- Ordinary kriging (OK) was used to estimate Li_2O, and inverse distance squared (ID2) was used for Al_2O_3, CaO, Cs, Fe, K_2O, MgO, MnO, Na_2O, Nb_2O_5, P, Rb, S, SiO_2, Sn, SO_3, Ta_2O_5, TiO_2, WO_3 and LOI. Multiple passes of estimation were run to fill blocks.
- Averaged density estimates by lithology were derived from density measurements from drill cores and pit floor grab samples, for mineralised and non-mineralised material.
- Weathering surfaces were used to classify for fully oxidized, partially oxidized and fresh within each lithology.

Cut-off grade(s) including the basis for the selected cut-off grade(s)
- A cut-off grade of 0.5% Li_2O has been used for the stated Mineral Resource estimate, the applied cut-off grade is in line with the lowest grade of spodumene bearing pegmatite that is considered acceptable for processing.
- A similar cut-off has been assumed for underground mining.

Mining and metallurgical methods and parameters, and other material modifying factors considered to date
- Mining at Wodgina is currently via an open pit. Dilution from blast movement and during digging is anticipated.
- Consideration has been given to portions of this estimate being mined at depth using underground mining methods. A 10m minimum mining width and 19% ore loss are assumed.
- Metallurgical recovery based on current plant performance have been assumed.

Please note that disclosure in accordance with Appendix 5A of the ASX Listing Rules (the JORC Code 2012 edition – Section 1 (Sampling Techniques and Data), Section 2 (Reporting of Exploration Results) and Section 3 (Estimation and Reporting of Mineral Resources) is presented in Appendix 4.

GOVERNANCE STATEMENT
All estimates are internally peer reviewed on a technical basis prior to public release. All public released are also vetted by the Resources and Reserves Steering Committee (RRSC) of the Company before release.

External review of estimates is completed on an annual basis (period deemed as appropriate by the RRSC) by experienced technical consultants who meet the JORC criteria for Competent Persons for having sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which s/he is undertaking.

COMPETENT PERSONS STATEMENT
The information in this Statement that relates to the Mineral Resource Estimate is based on and fairly represents information compiled by Mr Ashok Doorgapershad and Ms Ivy Chen.

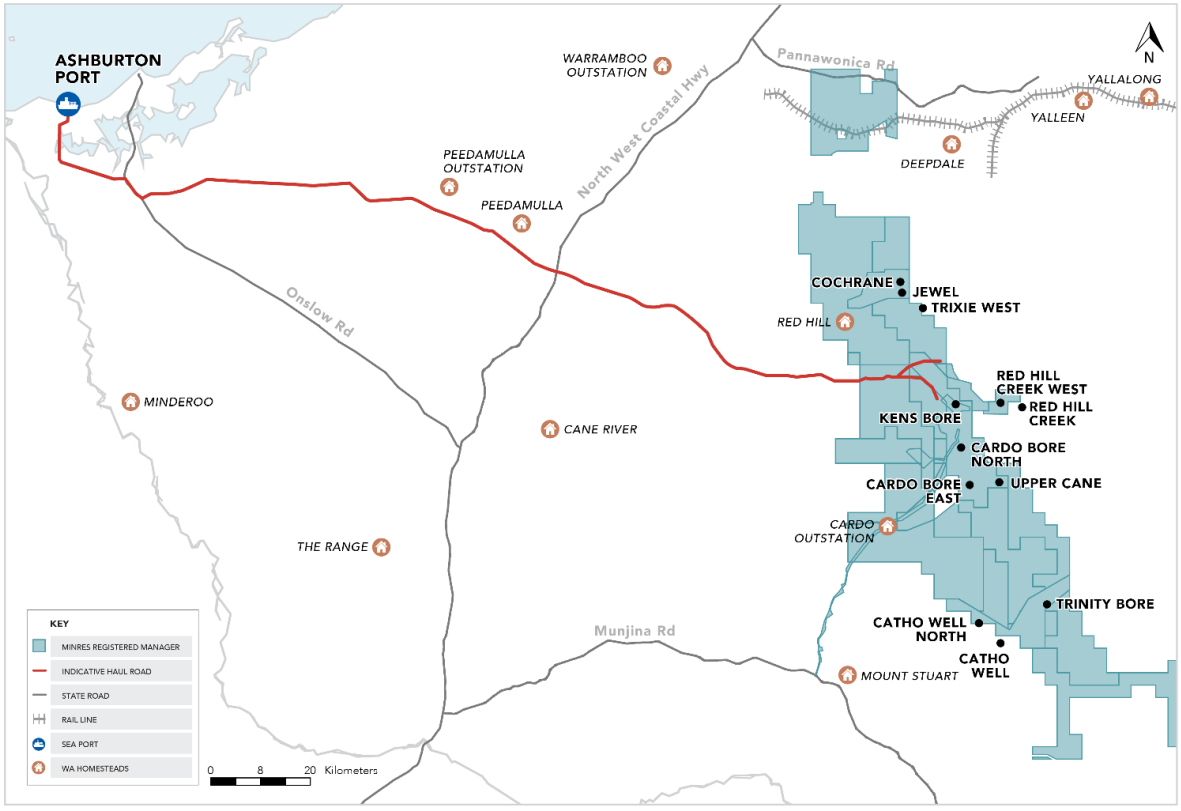
Mr Doorgapershad and Ms Chen are respectively General Manager of Exploration and Geology, and Manager of Orebody Knowledge and operational support and full-time employees of Mineral Resources Limited. They are both Fellows of the Australasian Institute of Mining and Metallurgy (FAusIMM).

Mr Doorgapershad and Ms Chen have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the JORC Code.

KEN'S BORE MAIDEN ORE RESERVE STATEMENT

The Ken's Bore Deposit (**Ken's Bore**) is one of several deposits owned by the Red Hill Iron Ore Joint Venture that will underpin the Onslow Iron Project (**OIP**) in the West Pilbara region of Western Australia. Refer to map 1 below. The Ken's Bore Ore Reserve Estimate is reported on a 100% project basis.

HIGHLIGHTS
- Maiden Ore Reserve statement for Ken's Bore for OIP.
- Major and substantial contributor to the OIP production over the project life.



Map 1: Red Hill Iron Ore Joint Venture tenements

This Ken's Bore Ore Reserve estimate is compiled as at 30 June 2023 and based on the Mineral Resource estimate (as at 30 June 2023).

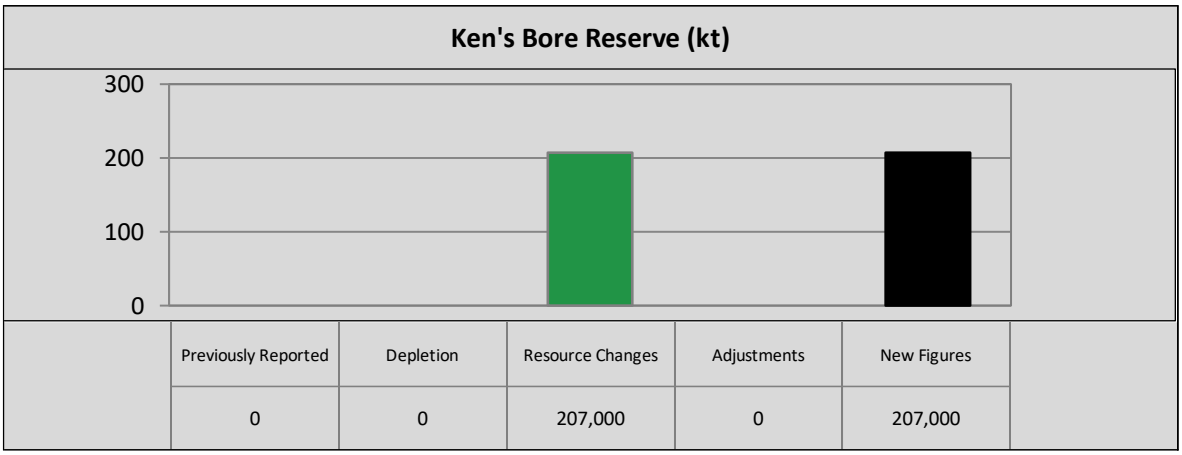


Figure 5: Ken's Bore Ore Reserve model changes since previously reported

All tonnages reported are on a dry product basis post processing at a 54% Fe cut-off. Note the small discrepancies may occur due rounding.

Commodity: Iron Mineralisation						
Category	**Tonnes (Mt)**	**Fe (%)**	**SiO_2 (%)**	**Al_2O_3 (%)**	**P (%)**	**LOI (%)**
Proved	-	-	-	-	-	-
Probable	207	58.14	4.91	3.43	0.073	7.97
Total	**207**	**58.14**	**4.91**	**3.43**	**0.073**	**7.97**

Table 5: Ken's Bore Ore Reserve as at 30 June 2023

In accordance with ASX Listing Rule 5.9.1, below is a fair and balanced representation of the information contained in the separate report prepared in accordance with ASX Listing Rule 5.9.2 (Appendix 5) including a summary of all information material to understanding the reported estimates of ore reserves in relation to the following matters:

- The Ore Reserve of 207Mt at 58.14% Fe is based on:
  - The Ken's Bore Mineral Resources as at 30 June 2023 of 394Mt at 56.4% Fe using a nominal cut-off grade of 50% Fe.
  - Onslow Iron Feasibility Study, March 2022
  - Updated integrated life of Mine Plan (LOM) includes supporting inventory from the deposits currently in the OIP, which include:
    - Cardo Bore East
    - Cardo Bore North
    - Cochrane
    - Jewel
    - Red Hill Creek West
    - Upper Cane
    - Catho Well North
    - Trinity Bore
  - Regulatory approval for below water table (BWT) mining, Heritage Clearance and mining outside of the Primary approval boundary will be obtained over the life of the project.
  - Cost and Revenue assumptions from the contractual agreements and existing MinRes sites in addition to the MinRes view on consensus pricing, exchange rate, product discounts and premia, seaborn freight rates, and fuel price.

- The Ore Reserve estimate is completed on the basis of the Measured and Indicated material classification as contained in the Mineral Resource estimate. The inferred material is treated as waste in the integrated reserve mine schedule. Modifying factors have not been applied on the basis of the Resource Classification.

- The Ken's Bore deposit is currently planned to be mined by a conventional open pit utilising hydraulic excavators and rigid body dump trucks operating on 8m to 12m benches. Each bench will be mined using a 4m flitch. The equipment to be used in Ken's Bore will consist of Hitachi EX3600 excavators and Hitachi EH4000 dump trucks.

- Ore loss and dilution has been addressed with the re-blocking of the resource model to 10m (x) x 10m (y) x 4m (z). The SMU size is considered adequate for the fleet planned to be used in the Ken's Bore deposit.

- To correctly model fleet requirements and thus cost estimates moisture assumptions have been applied to the above and below water table material of 6.8% and 10.2% respectively.

- The operation is designed on the basis of a 30Mdmtpa direct ship ore (DSO) operation producing a fines only product. A process recovery of 100% is assumed for all deposits. The material flowsheet consists of primary, secondary, and tertiary crushing and screening. The ROM pad is designed for both direct tip and rehandle of both mine trucks and road trains.

- Crusher feed moisture is a calculated weighted average of above and below water table feed from the mine. The product moisture is a fixed value of 8.8% and is 10% higher (relative) than the design dust extinction moisture (DEM) of 8.0%.

- It is assumed all below water table material will be processed through the dry plant. To minimise adverse material handleability:
  - dewatering through in pit-bores is planned ahead of mining, and
  - limiting the amount of below water table feed to 35%.

- A maximum below water table feed percentage was calculated on obtaining the design % DEM Target of 8%.

- A life-of-mine product off-take agreement is in place with Baosteel Resources Australia to purchase between 50% and 75% of the MinRes volume entitlement.

- Discounts to benchmark prices have been applied on the basis of three product types with the LOM weighted average product discount of 18.6%.

- The discount assumptions are based on the following assumptions:
  - Our competitors' product quality remains unchanged.
  - The Chinese steel industry continues to produce predominantly by the blast furnace route.
  - No major macroeconomic and geopolitical upheavals.
  - All tonnages reported as the Mineral Reserve Estimate are on a dry product basis post processing. This was determined by the use of an industry standard scheduling software designed to maximise NPV within the mining inventory and constraints set. This mine schedule is a subset of the LOM schedule and contains all available deposits with the classification of Measured and Indicated only, with the Fe cut-offs as determined in the LOM.

- The modifying factors used in the determination of mining inventory are:
  - The creation of a mining model generated from the Mineral Resource model by regularisation to the selective mining unit (SMU) of 10m (x) x 10m (y) x 4m (z). The mining model larger block size is to replicate the expected mining dilution and recovery expected with the selected mining fleet.
  - The pit design for Ken's Bore is used to constrain the mining model for evaluation in the mine scheduling software (mining inventory). The pit design is based on the results of the pit optimisation process that incorporates, wall angle assumptions, revenue and cost assumptions to create geometric guidance for the pit design. This design includes Measured, Indicated and Inferred resource categories.
  - Mining Fe cut-off grade as determined by the LOM, which included the full inventory set and provides guidance to the operational plans.

- The Project as of the end of June 2023 is currently under construction with all major approvals granted. Clearing of the mine footprint has commenced and mining is due to commence September 2023. The LOM considers the construction timeline and the ramp up of the operation. In addition, an approvals schedule has been used to

constrain the schedule and start dates of future stage extensions and subsequent deposits based on the technical work, consultation time required for Heritage and Native Title, and expected regulator assessment timeframes.

- Further approvals will be sought with the submission of a Mining Proposal under the Mining Act for below water table mining. Primary Approval under the EP Act (S38) for changes to the mine pit footprint will be sought once technical work is completed and consultation with the Robe River Kuruma (RRK) people has been undertaken.

- Heritage surveys and consultation (both archaeological & ethnographic) have been undertaken with the full involvement of the registered Native Title Party – RRK people. Approval is being sought as required for those heritage sites potentially impacted by mining, with the first 2-year mine plan footprint being free of heritage constraints. Agreement from the RRK group to support clearing of heritage constraints for the portion of Ken's Bore within the Primary Approval Boundary has been reached, and further S18 clearances under the Aboriginal Heritage Act will remove constraints from later mining stages in advance of areas being required. For those areas of Ken's Bore outside of the Primary Approval Boundary, further negotiations are required.

COMPETENT PERSON'S STATEMENT

The information in this Statement that relates to the Ore Reserve Estimate is based on and fairly represents information compiled by Mr Guy Davies working under the supervision of Ms Stephanie Raiseborough. Mr Davies is the Principal Strategic Planning Engineer and a full-time employee of Mineral Resources Limited. He is a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM). Ms Stephanie Raiseborough is the Manager Mine Planning and a full-time employee of Mineral Resources Limited. She is a Fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM).

Subsidiary and Primary Competent Person/s have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which he/she is undertaking to qualify as a Competent Person as defined in the JORC Code.

KEN'S BORE MINERAL RESOURCE STATEMENT AS AT 30 JUNE 2023

The Ken's Bore deposit is owned through an unincorporated joint venture between Mineral Resources Limited (MinRes), who will manage the project, and partners Baowu, AMCI and POSCO.

HIGHLIGHTS

- Maiden Resource release for Ken's Bore.
- Improved understanding of geological controls on mineralisation continuity, based on drilling completed by MinRes in 2022 and 2023.
- Reclassification and re-reporting of a legacy portion of the model to the northern end of the deposit.

The Ken's Bore Indicated & Inferred Mineral Resources are reported as 394Mt at 56.4% Fe (Figure 6 and Table 6), this is Mineral Resources Limited's maiden estimate for Ken's Bore and includes a legacy potion of the model to the north of the main area of the deposit which was estimated in 2015 to a Pre-feasibility level for that time.

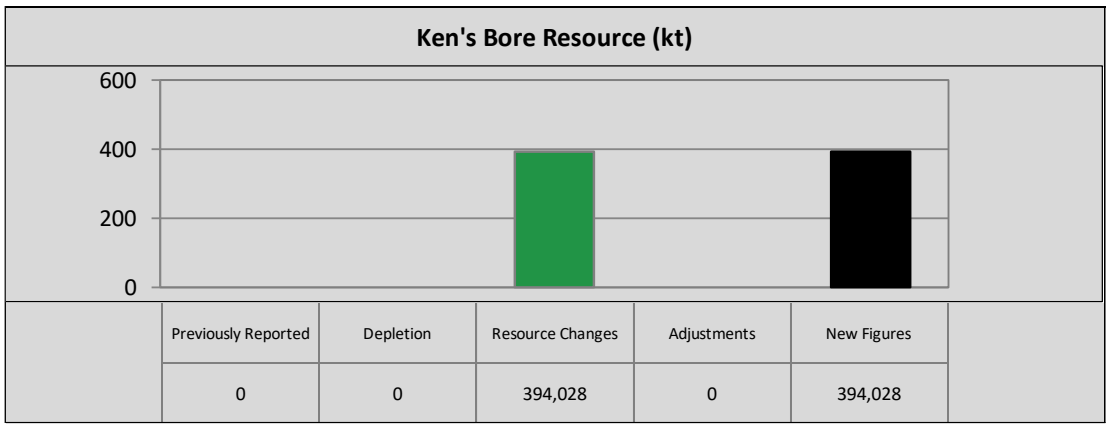


Figure 6: Ken's Bore Mineral Resources modal changes

As no additional drilling was done in this area, the legacy portion of the model was not re-estimated but has instead been reviewed and reclassified considering the reinterpreted geological controls in the main portion of the deposit

which was drilled more recently. The estimate was completed using exploration drilling data acquired up to 15 April 2023.

The estimate is reported constrained within a life-of-mine optimised pit shell to demonstrate reasonable prospects for eventual economic extraction. As no mining of any mineralisation has occurred, depletion of the estimate was not necessary.

The 30 June 2023 Mineral Resource estimate is reported above a cut-off grade of 50% Fe. The global in-situ resource is summarised in Table 6.

Commodity: Iron Ore							
Category	**Tonnes (Mt)**	**Fe (%)**	**SiO_2 (%)**	**Al_2O_3 (%)**	**P (%)**	**LOI (%)**	**Density**
Indicated	246	57.98	4.96	3.46	0.07	8.11	2.76
Inferred	148	53.83	8.22	4.72	0.08	9.34	2.61
Total	**394**	**56.42**	**6.18**	**3.93**	**0.07**	**8.57**	**2.70**

Table 6: Ken's Bore Mineral Resources as at 30 June 2023 reported above 50% Fe cut-off, within an optimised life-of mine pit shell.

In accordance with ASX Listing Rule 5.8.1, the following summary of all information material to understanding the reported estimates in relation to the following matters is provided as well as details in Appendix 6:

GEOLOGY AND INTERPRETATION

- The Ken's Bore Project iron ore mineralisation occurs as a secondary Channel Iron Deposit (CID) also known as Robe Pisolites. The deposit straddles the western edge of the Hamersley Basin in the Pilbara Craton.
- The CID occurs as a partly dismembered, topographically inverted palaeochannel deposit preserved along major palaeodrainage lines with an area of approximately 9.9km2.
- The Robe Pisolite is dominantly a clast-supported conglomerate composed of iron-rich detrital material that has undergone variable amounts of weathering. The conglomerate varies in the proportion of clasts to matrix, and in clast composition. The pisolite typically contains concretions of goethite-hematite and fossilised wood cemented with iron oxide.
- Weathering and alteration within the CID impart a characteristic, traceable vertical zonation. These horizons are the uppermost hard cap zone, followed by a mottled clay horizon, a zone of enriched higher-grade ore (due to elevated hematite content), a zone of mixed or denatured ore and an extensive mottled clay zone which exists at the base of the CID.
- An area 6.3km2 was interpreted and estimated based on drilling completed by Mineral Resources Limited in 2022 and 2023.
- Iron mineralisation at Ken's Bore consists of a series of lenses and pods with the mineralisation defined by three distinct zones.
    - Goethitic (semi) hard cap occurs at the interface between the alluvial/immature detritals/clayey cover. This unit is relatively thin (~6m thick) and not always laterally continuous.
    - The primary ore body is hard and competent CID (~19m thick) and typically occurs below the hard cap and clayey zones. CID here is generally very well preserved and more hematitic than goethitic.
    - The basal mixed CID zone occurs almost exclusively below the hard primary ore zone. It is thickest in the middle of the channel and tapers out towards the flanks of the channel (~ 6m thick).

<u>Sampling and sub-sampling techniques</u>

- Reverse circulation (RC) drill holes were sampled at 2m intervals.
- Diamond drill core sampling was conducted at 2m intervals, and where necessary with shorter lengths to lithological contacts, but no intervals shorter than 20cm.
- Approximately 87,270m drilling comprising 1596 RC holes, 37 diamond drill holes, 4 mud-rotary holes, 64 water bore holes, 3 winzes and 2 open holes were used for the estimate.
- Historical drilling which predated MinRes acquiring management of the project in 2022, RC samples were collected every 2m, and pre-2007 every 1m down hole directly from the cyclone after passing through a three -tier riffle splitter or cone mounted splitter mounted on the rig.

Drilling techniques

- RC drilling was conducted using a 5.5-inch face sampling hammer.
- Diamond drilling used a HQ3 and PQ3 drill bit/core size.
- All diamond drilling was completed using triple tube methodology.

The criteria used for resource classification

- The resource classification for this deposit was influenced by the density of data acquired, drill grid spacing, grade continuity, mineralised geometry, estimation parameters (slope and kriging efficiency) and QA/QC on data points and hole location.
- Indicated Resource criteria
  - Mineralisation with good geological continuity and is defined by drilling on a 50mE x 50mN grid or better and supported by acceptable data quality.
  - Estimation quality and geometric variability were also used as criteria to define Indicated Resource, limited to primary mineralisation domain TP with less grade variability.
  - The indicated resource is limited to an extrapolation distance of 20m from the nearest informing composite data point.
  - A final interpreted wireframe envelope smoothing for practical considerations for mineability was used to classify blocks as Indicated within the TP unit.
  - Legacy blocks in the model were downgraded from Measured to Indicated category in the TP unit.
- Inferred Resource criteria
  - Mineralisation with assumed reasonably good geological continuity based on drill hole data that are wider than 50mE x 50mN.
  - Limited to mineralisation domain with relatively high-grade variability HYT, HYD and TPM.
  - All remaining legacy blocks that were not within the TP unit were considered Inferred.

Sample analysis method

- MIN assaying of samples taken in 2022 and 2023 was carried out at the ALS Lab in Perth using XRF for the following analytes: Fe, SiO_2, Al_2O_3, TiO_2, CaO, Mn, P, S, MgO, K_2O and 14 other trace elements. Thermogravimetric Analysis (TGA) was used for loss on ignition at three temperature ranges LOI650-1000, LOI425-650 and LOI110-425. Total LOI was calculated from the three ranges and merged with the LOI_1000 data from the historic assays.
- Duplicates for all campaigns were inserted at a rate of 1 in 20 samples and show acceptable precision, Standards were inserted on every 25th bag.
- QAQC for the 2022 and 2023 MinRes drilling campaign at Ken's Bore was completed internally, and reviewed externally by CS2 Consulting, this process is currently underway and to date no fatal flaws have been found.,
- Historical RC samples were assayed at SGS Laboratories in Perth. The samples were analysed by X-Ray Fluorescence Spectrometry (XRF) for Fe, SiO_2, Al_2O_3, TiO_2, CaO, Mn, P, S, MgO, K_2O and 14 other trace elements. In addition, LOI (Loss On Ignition) was determined by TGA at temperatures of (0-400°C, 400-650°C and 0-1000°C) (LOI400, LOI650 and LOI1000).
- Historical drilling programs inserted certified reference material (CRM) at a frequency of 1 in 50 samples. The laboratory also included CRM's and lab duplicates as checks.
- QAQC on all pre 2022 drilling was audited externally by Optiro and Geostats. Audit results indicated an acceptable level of accuracy and precision for geological modelling and estimation.

Estimation methodology

- 2m composites were used for the estimate.
- Block model parent cells were 25m x 25m x 4m, and sub blocks are 5m x 5m x 1m. The block model was created on the GDA (94) Zone 50 grid.
- All mineralised domains were estimated using a hard boundary between domains.
- Ordinary kriging was used to estimate Fe, SiO_2, Al_2O_3, P, S, LOI, TiO_2, CaO, MgO, MN, NaO for mineralisation domains: HYT, HYD, TP and TPM, and Fe, SiO_2, Al_2O_3, P, S, LOI, TiO_2, CaO, MgO, Mn were estimated in waste domains DIW, CLA, TPB, CON, BAS, ALL also using ordinary kriging. NaO was estimated in the waste domains using inverse distance square (ID2).
- No cuts or grade caps were applied to any of the variables estimated.
- Up to three passes of estimation were used. The first pass was approximately one third of the variogram range and subsequent passes increased the search distance by a third each time.
- Density data was estimated into the model using 125 holes, which was all the available density data up to December 2022. A total of 2618 composite samples were used. Any un-estimated blocks were assigned a density value by script based on lithology.

Cut-off grade(s) including the basis for the selected cut-off grade(s)

- A cut-off grade of 50% Fe was selected for reporting.
- This cut-off defines an appropriate tonnage and grade that can be extracted once Ore Reserves are estimated, using an open pit mining technique which is currently planned for Ken's Bore.

Mining and metallurgical methods and parameters, and other material modifying factors considered to date

- Mining at Ken's Bore is via an open pit. Dilution from blast movement and during digging is anticipated.
- Recovery has been assumed possible based on the Feasibility Study competed by MinRes in March 2022.

GOVERNANCE STATEMENT

All estimates are internally peer reviewed on a technical basis prior to public release. All public released are also vetted by the Resources and Reserves Steering Committee of the Company before release.

External review of estimates is completed on an annual basis (period deemed as appropriate by the RRSC) by experienced technical consultants who meet the JORC criteria for Competent Persons for having sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which s/he is undertaking.

COMPETENT PERSONS STATEMENT

The information in this Statement that relates to the Mineral Resource Estimate is based on and fairly represents information compiled by Mr Ashok Doorgapershad and Ms Ivy Chen.

Mr Doorgapershad and Ms Chen are respectively General Manager of Exploration and Geology, and Manager of Orebody Knowledge and operational support and full-time employees of Mineral Resources Limited. They are both Fellows of the Australasian Institute of Mining and Metallurgy (FAusIMM).

Mr Doorgapershad and Ms Chen have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the JORC Code.

FORWARD LOOKING STATEMENT

This ASX announcement may contain forward looking statements that are subject to risk factors associated with iron ore exploration, mining and production businesses. It is believed that the expectations reflected in these statements are reasonable but they may be affected by a variety of variables and changes in underlying assumptions which could cause actual results or trends to differ materially, including but not limited to price fluctuations, actual demand, currency fluctuations, drilling and production results, Reserve estimations, loss of market, industry competition, environmental risks, physical risks, legislative, fiscal and regulatory changes, economic and financial market conditions in various countries and regions, political risks, project delay or advancement, approvals and cost estimates.

Forward-looking statements, including projections, forecasts and estimates, are provided as a general guide only and should not be relied on as an indication or guarantee of future performance and involve known and unknown risks, uncertainties and other factors, many of which are outside the control of Mineral Resource Ltd. Past performance is not necessarily a guide to future performance and no representation or warranty is made as to the likelihood of achievement or reasonableness of any forward-looking statements or other forecast.

ENDS

This announcement dated 22 September 2023 has been authorised for release to the ASX by Mark Wilson, Chief Financial Officer and Company Secretary. For further information, please contact:

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About Mineral Resources

Mineral Resources Limited (ASX: MIN) (MinRes) is a leading diversified resources company, with extensive operations in lithium, iron ore, energy and mining services across Western Australia. With a focus on people and innovation, MinRes has become one of the ASX's best-performing companies since listing in 2006. For more information, visit **www.mineralresources.com.au.**

APPENDIX 1: MT MARION JORC COMPLIANT LITHIUM ORE RESERVES

The following information is provided in accordance with Table 1 of Appendix 5A of the JORC Code 2012 – Section 4 (Estimation and Reporting of Ore Reserves).

Section 1 (Sampling Techniques and Data), Section 2 (Reporting of Exploration Results) and Section 3 (Estimation and Reporting) is not being reported in this document.

Table 1 - Section 4 – Estimation and Reporting of Ore Reserves – Mt Marion

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Mt Marion Ore Reserves are based on the corresponding Mt Marion Mineral Resource as announced in the Mineral Resource Statement – Mt Marion Mineral Resource Statement dated 7/10/2023. • The Mineral Resource estimate is not additional to the Ore Reserve estimate. The Ore Reserve estimate is a sub-set of the Mineral Resource estimate.
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 is Mr Marek Wydmanski (MAusIMM) a full-time employee of MinRes working under the direction of Mr John Kirk (MAusIMM), a full-time employee of MinRes. • Mr Kirk has visited the site and confirmed the assumptions used for estimation of the Ore Reserves.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Mt Marion is an active mining operation. The conversion of Mineral Resources to Ore Reserves is based on current and forecast on-going production and operating cost. • Financial modelling completed shows that the project is economically viable under current assumptions. In the opinion of the Competent Person, cost assumptions and modifying factors applied in the process of estimating Ore Reserves are reasonable.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• A cut-off of 0.75% Li_2O has been used to achieve required plant feed grades. The cut-off grade is determined from an assessment of plant performance at varying feed grades, model reconciliation, and economic analysis.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit	• Current mining is by use of conventional drill and blast, haul truck and excavator open pit methods. • Mine designs comprise detailed pit designs for the Life-of-Mine plan. Operational waste dump and short-term stockpile designs are in place with conceptual designs for the later phases of stockpiling and waste dump expansion. • The deposit was optimised using Whittle Optimisation software and the optimisation study was completed in 2023 internally by MinRes mine planning team. • A long-term consensus Li_2O price of USD1,639 per tonne (6% Li_2O concentrate) was used in defining pit shells for analysis. • Detailed pit and stage designs were completed based on the selected optimisation pit shell and its revenue factor runs. • An overall slope for oxide and fresh rock types of 39°and 45° respectively has been used for optimisation as estimated from geotechnical design and historic slope performance. • Dilution and ore loss has been modelled by regularisation of

Criteria	JORC Code Explanation	Commentary
	and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	the geological resource model using a selective mining unit of 5.0m (length) by 5.0m (width) by 5m (depth) and ore recovery factor with the cut-off grade applied after regularisation. Additionally there is a geometric assignment of dilution defined by manipulation of the pegmatite wireframes to determine a contact zone • A minimum mining width of 35m has been used in the pit designs. • Final pit designs are based on Indicated and Inferred Resource. • Inferred Mineral Resources present in the optimised pit (10.8Mt at 1.33% Li_2O) and are included in the mine schedules. No Inferred Mineral Resources have been reported in the Ore Reserves. The risk of use of inferred ore in the mine plan has been assessed by separate optimisation (with respect to the potential impact on Ore Reserves) and determined to be negligible. Infrastructure required to support the current mining method is already in place.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	• Ore is processed on site to produce spodumene concentrates that are transported to Esperance for export. • Beneficiation of the ore includes crushing, selective ore sorting and dense medium separation; processes that generate concentrate products and waste tailings streams. • Metallurgical process data from 6 years of production has been used to support the Ore Reserve estimate.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• All required external approvals and licenses are in place for the current and near term mining and processing operation at Mt Marion. Approvals have not yet been completely obtained for all of the future pits however work is underway to obtain these approvals with no risks identified for delivery within the required timeframe. • A small volume of Potentially Acid Forming waste and Potentially Fibrous Materials are known to occur onsite. These are managed under approved Management Plans. • Surface water and groundwater assessments and management plans are in place for all existing approved activities.

Criteria	JORC Code Explanation	Commentary
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	• All process and non-process infrastructure requirements are in place for the current ore and waste mining operations at Mt Marion.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• Capital requirements have been estimated through the MinRes group's internal specialist engineering capability. • Operating costs are based on current actual costs and include fixed and variable for crushing, processing, maintenance, mining, ore haulage, labour, administration, accommodation, railing and shipping. • Transportation costs are based on in-place third party contracts. • Government and third-party royalties have been included in the costs. • The cost estimates are in AUD with the exchange rate sourced internally from MinRes corporate projections.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• A long-term consensus Li_2O price of USD1,639 per tonne (6% Li_2O concentrate) was used. • Consensus exchange rate of 0.73 AUD:USD was used for optimisation. • Concentrate pricing is adjusted for Li_2O variation against the 6% price used. • There are no third-party treatment costs.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Market forecasts for both supply and demand have been obtained from respected third-party analysts, showing robust long-term demand for spodumene. • MinRes has been producing and exporting lithium concentrates for over 6 years and has developed internal capability in technical and commercial marketing. • Product from the mine is either purchased or toll treated by the 50% equity partner Ganfeng Lithium Co. noting the MinRes has the right to independently market its share of production.

Criteria	JORC Code Explanation	Commentary
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• The economic analysis was conducted based on the cost and revenue assumptions discussed above and on production forecasts made in long, medium and short-term plans. Many of these are based on actual performance data obtained over multiple years of operation. • Pit designs are based on Whittle optimisation shells with revenue factors significantly less than 1. The pits are therefore resilient to changes in revenue. • Sensitivity analysis to cost assumptions likewise indicates that the project is not sensitive to reasonable variations in cost inputs.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• MinRes has not identified or encountered any obstruction to gaining licence to operate. • The Company has close working relationships with the local communities (traditional owners, pastoralists, town councils, etc) established from having operated on the site since 2017.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: o Any identified material naturally occurring risks. o The status of material legal agreements and marketing arrangements. o The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• This is a mature operation with infrastructure, approvals, licenses and agreements in place as well as an established operating history.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The open pit does not contain any Measured Resource due to the onerous density of drilling required to achieve this in a spodumene pegmatite orebody. As such there is no Proved Reserve within the pit and no Probable Ore derived from Measured Resource. • The total inventory contained on ore stockpiles has been deemed of measured accuracy and has been converted to a Proved Reserve. • This classification appropriately reflects the Competent Person's view.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• There have been no external audits or reviews of the Ore Reserve estimates.

Criteria	JORC Code Explanation	Commentary
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• The Ore Reserve estimate is prepared within the Guidelines of the 2012 JORC code. The relative confidence of the estimates contained fall within the criteria of Proved and Probable reserves. • Factors other than revenue/price and cost factors that may affect the global tonnages and grade estimates include: the geological interpretation; ore recovery and mining dilution estimates; and processing performance. • Reconciliation of the current mining model against recent production recovers > 100% of tonnes. • No other assessments of the relative accuracy or confidence limits of the Ore Reserve have been undertaken.

APPENDIX 2: MT MARION LITHIUM: JORC (2012) TABLE 1 ASSESSMENT CRITERIA

Section 1 - Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	The bulk of the data used for resource estimation was derived from the logging and sampling of reverse circulation drilling (approximately 98% of the data). Reverse circulation (RC) samples were collected at 1m intervals within the logged pegmatite using a static cone splitter mounted below the cyclone. RC samples were split using a static cone splitter with approximately 2kg to 3kg samples collected. Sample bags were pre-numbered. Samples were collected in line with the Reed Resources Limited Sampling techniques used for drilling at Mt Marion, and the Mineral Resources Limited RC Logging and Sampling Procedure (MINRES-TS-PRO-0003). Reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 100-200g charge for assay. Metallurgy designated diamond core was marked up to 1m down hole intervals from which 3 kg was pulverised to produce a 100-200g charge for assay. Sampling techniques are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Drilling techniques	The vast majority (~98% of drilled metres) of drilling was completed using vertical RC holes with a face sampling bit. Water injection was used for the 2015-2022 drill programs on account of the presence of fibrous materials in the surrounding ultramafic host rocks. Some diamond core drilling (NQ, HQ3 and PQ3 diameter core) was undertaken to collect samples for metallurgical/geotechnical test work. Additionally, diamond tails were drilled at Area 2W in the deep feeder zone. Historical drilling completed in the 1970s accounts for less than 1% of the drilled metres, with the remainder drilled by Reed Resources Ltd (Reed) and Reed Industrial Minerals Pty Ltd (RIM) in 2009 to 2011 and Mineral Resources Limited (MinRes) in 2015 to 2022. Drilling techniques are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Drill sample recovery	FC recovery was estimated for 76 RC drill holes during the 2011 drilling campaign at the Area 4 deposit by weighing the residue bags, with an average recovery of 95% (with a range of 86% up to 100% recovery). Core recovery from the 2015 and 2016 diamond drilling averages 98%, with a standard deviation of 15% recovery. Sample recovery was visually estimated for the 2015 to 2022 RC drilling programs.
	Maximum sample recovery and the representative nature of the samples was ensured by backing the hammer off the drill face at the end of each drill meter to allow rock chip samples time to clear the sampling system, levelling the sampling system using a spirit level, and cleaning out the sampling system at the end of each hole and when hung up with clay-like material. No relationship was observed between sample recovery and grade. Drilling techniques are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Logging	Logging was qualitative in nature. Core and chip tray photography was completed. The majority of waste and pegmatite mineralisation intervals were logged. Some of the pre-2015 drilling does not have any geological logging. The logging is considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Sub-sampling techniques and sample preparation	Diamond drillholes, were sampled using quarter core (2009 to 2011) or half core (2016 Area 2W diamond tails) samples, cut with a diamond saw. Pre-2009 non-core samples within and adjacent to the pegmatite were split using a riffle splitter. Post-2009 non-core samples within and adjacent to the pegmatite were split using a cone splitter. Non-core samples in the waste were scoop sampled from ground spoils into 6m composites. Pre-2015 non-core samples were drilled dry. Post-2015 non-core samples were drilled wet. Laboratory sample preparation conducted at Genalysis, ALS, SGS and the site lab at Mt Marion follow very similar processes comprising: ○ Drying at 105°c

Criteria	Commentary
	○ Crush to a nominal top size of 6.3mm ○ Pulverising to 80% to 85% passing 75µm Approximate 200 g subsample collected from pulp using a rotary divider (Genalysis, ALS, SGS & Mt Marion laboratory) or by scooping (Nagrom). Before 2015, single field duplicates were taken from each drill hole. After 2015, field duplicates were taken at every 20th sample. Field duplicates were not collected for core samples. Field duplicates were analysed for precision and accuracy using scatter plots. As expected, precision improved as duplicates and repeats were taken further along the preparation process due to the sample becoming more homogenised with each advancing stage of preparation. Field duplicates had a low to moderate level of precision, lab duplicates had a moderate to high level of precision, and lab repeats had a high level of precision. No grade bias was observed. Minor sampling errors was observed in the field data, however there was no grade bias was evident. Possible factors impacting sampling error included spodumene crystal size relative to sample size and the orientation of drilling to bedding structure/crystal alignment. Overall, the sample sizes are considered reasonable and representative of the mineralisation based on the style of mineralisation (spodumene-bearing pegmatite), the thickness and consistency of intersections and the drilling methodology. The sub-sampling techniques and sample preparation are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Quality of assay data and laboratory tests	No QAQC of historical drilling, however, this comprises less than 1% of drilled metres and is not considered material. Pulps from 2009 – 2011 samples were forwarded to the Genalysis laboratory in Perth, Western Australia for analysis. Samples from the 2015 – 2016 drilling were prepared and analysed at the Nagrom laboratory in Perth, Western Australia. Samples from the MinRes (Exploration) 2018 – 2022 drilling were prepared and analysed at the Mt Marion laboratory on Site and at the ALS and Nagrom laboratories in Perth, Western Australia. Samples from the MinRes (Mining) 2019 – 2022 drilling were prepared and analysed at the Mt Marion laboratory and SGS Kalgoorlie laboratory. Li_20 determined by four-acid digest with AAS finish for 2009 – 2011 data and by peroxide fusion digest with ICP finish for the MinRes (Exploration and Mining) 2015 – 2022 samples. MinRes Exploration samples were analysed using XRF for the following analytes: Al_2O_3, CaO, Cr_2O_3, Fe, K_2O, MgO, MnO, Na_2O, Nb, P, SiO_2, SO_3, Ta and TiO_2. Loss on ignition (LOI) at 1000°C measured by thermogravimetric analysis (TGA). In-house pulp standards were generated by Gannet Holdings Ltd from Mt Marion material. The standards were not certified, with the standard results assessed by RIM in 2009 – 2011 against the raw average of the round robin assays. 2009 – 2011 drilling: Quality control samples, including field duplicates and uncertified standards, were inserted in each sample batch. One uncertified standard was inserted every 20 samples along with one field duplicate sample per drillhole. A total of 230 field duplicates were collected. 2015 – 2022 MinRes (EXPL) drilling: Quality control samples, including field duplicates and uncertified standards, were inserted in each sample batch. One uncertified standard was inserted every 25 samples and one field duplicate every 20 samples. 2019 – 2021 MinRes (Mining) drilling: Quality control samples, including field duplicates and standards were inserted in each sample batch. One standard was inserted every 50 samples and one field duplicate every 50 samples. Analysis was carried out using Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Atomic Absorption Spectrometry (AAS), x-ray fluorescence (XRF), and thermogravimetric analysis. Results show reasonable accuracy and precision was achieved during sampling, sample preparation and assaying. The in-house standards used from 2009 – 2016 do not have a certified expected value or standard deviation and only provide an indicative assessment of the analytical accuracy. Early-stage bowl splits and pulps processed at the Mt Marion laboratory during the 2019-2020 drill programs were sent to the Nagrom Laboratory in Perth, Western Australia to carry out an external laboratory check. No precision or grade bias issues were identified.

Criteria	Commentary
	The quality of assay data and laboratory tests are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Verification of sampling and assaying	Inspection of diamond core photographs and RC chip trays was used as a means of independently verifying significant intersections. Ten early-stage RC drill holes have been twinned by later RC drill holes. Analysis of the twinned holes shows reasonable grade reproduction between the two drilling programs. Logging was completed electronically using Tough Books directly at the drill rig. Code validation was set-up to ensure that only valid codes could be entered. Drill hole detail along with sampling information was entered and validated using Acquire and again using Micromine prior to estimation. Values below the analytical detection limit were replaced with half the detection limit value. Due to the different generations of data some assay conversions from ppm to percent were made (by dividing by 10,000). Additionally, in some cases conversion from Li to Li_2O, from Fe_2O_3 to Fe, from P_2O_5 to P, From SO_3 to S, and from Ta to Ta_2O_5 was required. No other adjustments have been made to the assay data.
Location of data points	The location of the drill hole collars from 2009 onwards have been accurately surveyed by a contractor or mine site surveyor using real time kinematic (RTK) GPS devices with a nominal accuracy of 20mm horizontally and 30mm vertically. Approximately 87% of the drill holes are vertical of which less than 10% are downhole surveyed. For the angled drill holes 25% are downhole surveyed. The majority of the drill holes at the Mt Marion project are relatively shallow with 76% of the drill holes less than 100m and 83% less than 130m in depth. Downhole deviation is not considered to be a major risk with respect to the resource in the shallower areas of the deposits where drill hole depth is less than 100 however deviation becomes more significant in the deeper holes, and this is reflected in the classification of the deeper portions of the estimate as lower confidence area. A LIDAR topographic survey based on 1 m contours, completed in 2015 by AAM Group is available across the tenement package. The topographic surface is validated by the drill hole collar surveys. The grid is based on the MGA94 Zone 51 grid system. The accuracy of data points is considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Data spacing and distribution	The drilling was completed along a set of east-west trending sections. The drill sections are oriented northeast-southwest for Area 6. The resource definition drill spacing ranges from 30m to 40m apart (in the along strike and down dip directions) for the majority of the deposit. The Hamptons tenement area and northern portions of Central Pit area are drilled to a nominal spacing of 80m along strike and 40m across strike. The MinRes Mining team has closed the drill spacing to 20m along strike and 20m across strike in parts of the North and Central pit areas. Grade control infill drilling is concentrated in the northern half of North Pit and drill spacing ranges from 7.5 – 15m apart. Historically 1m composites were used within the pegmatite and 6m in the surrounding host rocks. In recent drilling, 1m composite samples are used within the pegmatite and host rocks. The section spacing is considered sufficient to establish the degree of geological and grade continuity necessary to support the resource classifications that were applied.
Orientation of data in relation to geological structure	The vast majority of the drilling is vertical, to target sub-horizontal pegmatite sills. Angled drill holes have been used to target sub-vertical pegmatite dykes. The location and orientation of the majority of the Mt Marion drilling is appropriate given the strike and morphology of the lithium pegmatite mineralisation. Angled drill holes have been used to target the sub-vertical feeder zone at Area 2W. The orientation of data in relation to geological structure is considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Sample security	No specific measures have been taken to ensure sample security. Once received at the laboratory, samples were compared by the laboratory to the sample dispatch documents. Sample security is not considered to pose a major risk to the integrity of the assay data used in the Mineral Resource estimate.
Audits or reviews	Snowden Group carried out an independent review of the drilling, sampling and assaying protocols, and the assay database, for the Mt Marion project for the 2016 Mineral Resource estimate. No critical issues were found.

Criteria	Commentary
	The May 2022 estimate was reviewed by RPM Global, and no critical issue were identified. MinRes has carried out an internal review of the drilling, sampling and assaying protocols, and the assay database, for the Mt Marion project for the 2023 Mineral Resource estimate. No critical issues were found.

Section 2 - Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	Granted Mining Leases M15/717, M15/999 and M15/1000. Leases granted to Reed Industrial Minerals Pty Ltd (RIM), which is a joint venture between Mineral Resources Limited (50%) and Ganfeng Lithium Group Co., Ltd (50%). The northern portion of project occurs on Hampton Area Location 53, which is owned by Metals X Limited. RIM has agreed to lease the lithium mining rights over a portion of Hampton Area Location 53, adjoining the Mt Marion project. The agreement allows RIM to explore and develop the lithium project within the agreed portion of Hampton Area Location 53. For details, refer to Neometals Ltd announcement dated 7 July 2015 entitled "Completion of transaction with Metals X". The tenements are in good standing with no known impediments.
Exploration done by other parties	Initial drilling at Mt Marion was completed by Western Mining Corporation in the 1970s. WMC drilling accounts for 0.5% of the total exploration drill meters. Further drilling was carried out by Reed Resources and later by RIM between 2009 and 2011 for a total of 17.3% of the total exploration drill meters. All remaining drilling has been carried out by MinRes between 2015 and 2023.
Geology	The Mt Marion lithium mineralisation is hosted within a number of sub-parallel, northeast to northwest trending pegmatite intrusive bodies which dip at between 10° and 30° to the west. Individual pegmatites vary in strike length from approximately 300m to 1,500 and average 15m to 20m in thickness, but vary locally from less than 2m to up to 35m thick. The pegmatites intrude the mafic volcanic host rocks of the surrounding greenstone belt. Large intervals of spodumene-bearing pegmatite in the southwest intersected during the 2016 and 2020 drilling are interpreted to be part of a sub-vertical, northeast striking feeder zone. The feeder zone is interpreted to be around 40m to 70m wide, extending approximately 400m along strike and down to over 400m below surface, and is open at depth. The lithium occurs as 5cm to 30cm long grey-white spodumene crystals within medium grained pegmatites comprising primarily of quartz, feldspar, spodumene and muscovite. The spodumene crystals are broadly oriented orthogonal to the pegmatite contacts. Some zoning of the pegmatites parallel to the contacts is observed, with higher concentrations of spodumene occurring close to the upper contact.
Drill hole Information	A Mineral Resource estimate has been completed; no exploration results are reported.
Data aggregation methods	Data was aggregated based on mineralisation domain. Grade for Li_2O were weight averaged based on sample interval length. No grade cutting has been applied. Grades in each respective mineralisation domain were weight averaged based on sample interval length. No metal equivalent values are being reported.
Relationship between mineralisation widths and intercept lengths	The drilling direction is roughly perpendicular to the strike and dip of the mineralisation, with vertical (-90°) drill hole angles used to define the sub-horizontal pegmatite sills, and inclined drill holes (-60°) used to define the sub-vertical pegmatite dyke. Intercepts are close to true-width.
Diagrams	See main report for maps and sections.
Balanced reporting	Reporting of exploration results are interval weight averaged across each mineralisation domain. However, a Mineral Resource estimate has been completed, no exploration results are reported.
Other substantive exploration data	No other material exploration data to report.
Further work	Both exploration and mine development drilling are ongoing across the project. Planned exploration work includes RC and Diamond drill programs to increase the Mineral Resource confidence and support more detailed mine planning and optimization work in the pit, and improve the definition of the underground potential of the Mt Marion deposits.

Criteria	Commentary
	Diamond drilling is planned to extend geotechnical investigations to support more detailed mine design and metallurgical test work which will inform and improve yield parameters through the processing plant. The purpose of the RC grade control drill program is to support short term mine-planning. Further discussion relating to possible extensions are discussed in Section 10 relating to Resource Classification

Section 3 - Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	MinRes stores all of the Mt Marion drilling information in an AcQuire database. The database is managed by Mineral Resources Ltd. No significant flaws were identified.
Site visits	MinRes General Manager Ashok Doorgapershad, Orebody Knowledge Manager Ivy Chen Principal Resource Geologist, Leonard Mafurutu, Principal Modelling Geologist, Victoria Peterson have visited the Mt Marion project on several occasions during the first half 2023. The site visits included inspection of the grade control drill rig, face, and floor exposures of pegmatites in the North Pit. The site visits also included a review of collar pickup, logging, sampling and assay selection procedures, downhole survey methodology, and sample chain of custody.
Geological interpretation	The local geology is reasonably well understood as a result of work undertaken by MinRes. Lithium mineralisation occurs as spodumene crystals which are hosted within quartz-feldspar-muscovite pegmatites. Outcrops and exposure of the in-pit pegmatite confirms the validity of the geological interpretation based on the drilling in the shallower parts of the deposit. The geological data used to construct the geological model includes logging of RC/diamond core drilling and associated geochemical assays, aerial photogrammetry, regional surface mapping and aerial magnetic geophysical data. Down hole surveys carried out on a small number of the deeper vertical drill holes around the 2W feeder zone have demonstrated that drill path deviation from plan increases with depth. The deviation may impact the true depth and width of the interpreted intersections in the deeper parts of the pegmatite, potentially lifting and thinning pegmatite in these areas. Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised envelopes in terms of the reported classified resources. The spodumene-bearing pegmatites were interpreted and wireframed in section based largely on the geological logging of pegmatite intersections, along with geochemistry (e.g. Li_2O, Fe and MgO content). The pegmatite intersections are easily identified in the drilling. Pegmatite mineralisation was modelled, along with the surrounding host rock domains. Pegmatites with the Areas 5, 7 and 8 were modelled based on geological logs in conjunction with MgO and Fe assay threshold values below 2% and a Li_2O threshold value above 0%. Pegmatites within the Areas 1, 2, 2W, 4 and 6 have been clipped to exclude peripheral zones of spodumene bearing samples where the MgO assay threshold values exceed 1.5% or the Li_2O threshold value is below 0.5%. Samples falling outside these parameters have been re-designated as waste rock, with Li_2O values grade capped to 0.2%. The MgO threshold is designed to exclude pegmatite bearing samples on the edges of these lenses which are diluted with MgO rich waste rock. The pegmatites have been clipped so that only clean spodumene bearing ore which is amenable to beneficiation is classified as a Resource for mine planning purposes. Lateritic weathering and hydration zone were investigated for impact on grade and geology. The impact was considered negligible. No lithium speciation has been observed in the deposit. Spodumene is the only lithium mineral present. Grade zonation by depth in the sub-horizontal pegmatites has been addressed using a maximum number of samples per drill hole during estimation and domain unfolding (dynamic anisotropy). The geological interpretation is considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Dimensions	The Mt Marion lithium mineralisation is hosted within a number of sub-parallel, northeast to northwest trending pegmatite intrusive bodies which dip at between 10° and 30° to the west. Individual pegmatites vary in strike length from approximately 300m to 1,500 m and average 15m in thickness, but vary locally from less than 2m to up to 35m thick. The pegmatite sills are currently defined to a depth of up to 300m below surface. The

Criteria	Commentary
	feeder zone is interpreted to be around 40m to 60m wide, extending approximately 500m along strike and down to 380m below surface while remaining open at depth.
Estimation and modelling techniques	Estimation of Li_2O was carried out using ordinary block kriging, an inverse distance squared check estimate was ls completed for Li_2O. Estimation of Al_2O_3, CaO, Fe, K_2O, MgO, MnO, Na_2O, P, S, SiO_2, Ta_2O_5, TiO_2 and LOI1000 was carried out using inverse distance squared weighting. Top-cuts were reviewed and were not considered to be necessary. Dynamic anisotropy was used to adjust the search ellipse and variogram orientation based on the local dip and dip direction of the geological interpretation. The block model was constructed using a parent block size of 15mE by 15mN by 5mRL based an assessment of grade continuity, and pragmatic considerations for mineability. The search ellipse orientation and radius were based on the results of the Li_2O grade continuity analysis, with the same search neighbourhood parameters used for all analytes to maintain the metal balance and correlations between analytes. The interpolation was carried out in three search passes, with each subsequent pass having more extended criteria. The first pass search radius was based on the variogram total sill for each respective domain. The second pass search radius was expanded to 1.5 times the variogram range and the third pass radii were 3 times the variogram ranges. Where the interpolation failed to populate blocks with grades by the second search pass, then those blocks were given a default grade equivalent to the domain average. Pegmatite mineralisation was modelled, along with the surrounding host rock domains. The OK Li_2O estimates were validated against inverse distance squared estimates for each pegmatite lens. Check estimates confirmed the primary OK results. No by-products are present or modelled. Along with Li_2O, Al_2O_3, CaO, Fe, K_2O, MgO, MnO, Na_2O, P, S, SiO_2, Ta_2O_5, TiO_2 and LOI have been estimated into the pegmatite lenses and the waste rock domains. Block dimensions are 15mE by 15mN by 5mRL with sub-cells to 5mE by 5mN by 1mRL. The block size was based on half the nominal drillhole spacing along with an assessment of grade continuity. The search ellipse orientation and radius were based on the results of the Li_2O grade continuity analysis, with the same search neighbourhood parameters used for all analytes to maintain the metal balance and correlations between analytes. Correlation between variables is low. No assumptions were made. The geological interpretation in conjunction with geochemistry was used to define the mineralisation domain. The mineralisation domain was used to constrain composite data and model blocks during the resource estimation process. No grade capping was applied, as analysis indicated that it was not necessary. Validation of the final Resource has been carried out in a number of ways, including: drillhole section comparison, and swath plot validation. All modes of validation have produced acceptable results. The estimation and modelling techniques applied are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Moisture	Tonnages were estimated on a dry basis.
Cut-off parameters	A cut-off grade of 0.5% Li_2O has been used for the stated Mineral Resource estimate. MinRes mines the pegmatite lenses to the ore / mineralised waste contact. The ore is selectively divided into parcels based on a series of cut-off grades. The current lowest acceptable ore material grade is set at 0.75% Li_2O. Material below this grade is considered semi-barren and is only stockpiled where there has been minimal waste rock contamination during the blasting and mining process. This material may be used as blending material over the life of the mining operation. The sensitivity of the Mineral Resource to the reporting cut-off grade is minimal at cut-off grades below 0.5%, The cut-off parameters applied are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Mining factors or assumptions	Mining method is open pit. Dilution from blast movement and during digging is expected.

Criteria	Commentary
	The mining assumptions applied are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Metallurgical factors or assumptions	To date, all encountered mineralisation across the project area occurs as spodumene. 3% and a 5% spodumene concentrate are produced on site by the Mt Marion processing plant via a combination of gravity separation, dense media separation and flotation. Metallurgical recovery properties are not being modelled or reported as part of the Resource estimation. There is a life-of-mine offtake agreement in place with Ganfeng Lithium Group Co., Ltd to outright purchase or toll-convert the Mt Marion spodumene concentrate to produce lithium hydroxide. The metallurgical assumptions applied are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Environmental factors or assumptions	Mining waste is considered to be non-acid forming ("NAF") and formed waste dumps will conform to WA standards. In the case of fibre mitigation, MinRes uses industry standard procedures. No environmental factors have been identified that would stop further development at the Mt Marion site.
Bulk density	Bulk density measurements have been completed by the Genalysis laboratory and the Nagrom laboratory using exploration drill core. Between 2010 and 2018, a total of 96 pieces of diamond core were tested using the Archimedes principle. 10cm pieces of core were collected from both the pegmatite and waste rock domains and divided into weathering profile. Core was measured using uncoated, wax-coated, and cling wrap techniques. The wax-coated method was chosen to best represent the dry bulk density of the rocks in the project area. Density values are based on data collected up to April 2020. Density data is comprised of a total of 517 blasted rock pegmatite samples and 730 waste rock samples collected by the mining team an tested using the wax-coated technique. The weathering profile in the project area is shallow with fresh rock occurring close to surface. Both the pegmatite and waste rocks in the project area are devoid of vugs and have low porosity. The majority of rocks are above the water table and have low moisture contents. For these reasons the wax-coated technique for measuring the bulk density for bulk material is considered appropriate. Based on the available bulk density data, bulk density values have been applied to the model blocks as follows: - oxidised pegmatite: 2.60 t/m^3 - transitional pegmatite: 2.70 t/m^3 - fresh pegmatite: 2.72 t t/m^3 - oxidised mafic: 2.20 t/m^3 - transitional mafic: 2.60 t/m^3 - fresh mafic: 2.80 t/m^3 - oxidised ultramafic: 2.40 t/m^3 - transitional ultramafic: 2.70 t/m^3 - fresh ultramafic: 2.90 t/m^3 The bulk density assumptions are considered by the Competent Person to be appropriate for the style of mineralisation and fit for the purpose of supporting the estimation of Mineral Resources and Ore Reserves.
Classification	The Mineral Resource has been classified where it is contained within pit constraints that are based on long term pricing assumptions. Remaining mineralisation has been left as unclassified. Indicated and Inferred Resources were classified using the following criteria: o Indicated resource – mineralisation with good geological continuity and defined by drilling on a 40me x 40mn grid or better and supported by acceptable down the hole survey control. the indicated resource is nominally limited to an extrapolation distance of 20m from the nearest informing composite data point. the interpreted wireframe envelope used to classify blocks as indicated was also smoothed for practical considerations for mineability. o Inferred resource – mineralisation continuity was assumed on the basis of geological continuity, based on data that cannot be spatially located with confidence due to lack of down the hole survey control. the inferred resource is nominally limited to a down dip extrapolation distance of 60 m from the nearest informing drill hole. the interpreted wireframe envelope used to classify blocks as inferred was also smoothed for practical considerations for mineability. Appropriate account has been taken of all relevant factors (i.e. relative confidence, in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and

Criteria	Commentary
	distribution of the data). The classification categorisation applied to the estimate appropriately reflects the Competent Person's view of the deposit.
Audits or reviews	The Mineral Resource estimate has been internally reviewed and compared to the preceding May and October 2022 estimates. The estimate is robust with no fatal flaws identified.
Discussion of relative accuracy/ confidence	The Mineral Resource has been validated both globally and locally against the input composite data using sections, swath plots and averages by domain. The reported Resource is a global estimate, a reconciliation with production data spanning January 2022 to June 2023 is underway and the results will be added to this Mineral Resource estimate update as an addendum.

APPENDIX 3: WODGINA JORC COMPLIANT LITHIUM ORE RESERVES

The following information is provided in accordance with table 1 of appendix 5a of the JORC code 2012 – section 4 (estimation and reporting of ore reserves).

Section 1 (sampling techniques and data), section 2 (reporting of exploration results) and section 3 (estimation and reporting) is not being reported in this document.

Table 1 - Section 4 – Estimation and Reporting of Ore Reserves – Wodgina

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• Wodgina Ore Reserves are based on the corresponding Wodgina Mineral Resource as announced in the Mineral Resource Statement – Wodgina Mineral Resource Statement. The Mineral Resource estimate is reported inclusive of the Ore Reserve.
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 is Mr Marek Wydmanski (MAusIMM) a full-time employee of MinRes. • Mr Wydmanski has visited the site and confirmed the assumptions used for estimation of the Ore Reserves.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• Wodgina is an active mining operation. The conversion of Mineral Resources to Ore Reserves is based on current and forecast on-going production and operating assumptions and cost. • Financial modelling completed shows that the project is economically viable under current assumptions. In the opinion of the Competent Person, cost assumptions and modifying factors applied in the process of estimating Ore Reserves are reasonable.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• A cut-off grade of 0.5% Li_2O has been used to achieve required plant feed grades. The cut-off grade is determined from an assessment of plant performance at varying feed grades, model reconciliation, and economic analysis.
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit	• Current and future proposed mining is by use of conventional drill, blast, load and haul open pit methods. • Mine designs comprise of detailed pit designs for the Life-of-Mine plan. Operational waste dump and short-term stockpile designs are in place with conceptual designs for the later phases of stockpiling and waste dump expansion. • The deposit was optimised using Whittle Optimisation software. • Indicated and Inferred Mineral Resource categories were used in the Whittle Optimisation process. The risk to Reserves by the inclusion of inferred material in the optimisation has been assessed and is deemed low (only 2% of in-pit scheduled inventory is Inferred). • An Inter Ramp Angle of between 32° (east wall) and 43° (all other walls) has been used for optimisation/design based on a geotechnical investigation & design validated by historic slope performance.

Criteria	JORC Code Explanation	Commentary
	and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	• Dilution and ore loss has been modelled by regularisation of the geological resource model using a selective mining unit of 5.0m (length) by 5.0m (width) by 2.5m (depth) with the cut-off grade applied after regularisation. Additionally, there is a geometric assignment of dilution defined by manipulation of the pegmatite wireframes to determine a contact zone. • A minimum mining width of 35m has been used in the pit designs. • A 0.5% Li_2O cut-off has been applied in the optimisation and generation of the pit shells. • A long-term consensus Li_2O price of USD1,639 per tonne (6% Li_2O concentrate) was used in defining pit shells for analysis. • The RF0.7 shell has been selected as the basis for the pit design. • Inferred Mineral Resources are present in the optimised pit (3.7Mt at 1.15% Li_2O) and are included in the mine schedules. The majority of the Inferred Resources are scheduled >15 years from commencement of mining and hence represent a low level of risk to the plan. No Inferred Mineral Resources have been reported in the Ore Reserves. • All infrastructure required for mining and processing activities are in place.

Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.
	• Whether the metallurgical process is well-tested technology or novel in nature.
	• The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied.
	• Any assumptions or allowances made for deleterious elements.
	• The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.
	• For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?
		• The Wodgina processing plant was constructed during 2018/2019 and placed in care and maintenance following commissioning of the first of three trains. The plant was restarted in 2022 and all three trains are now operational. Addition of a fourth train is currently under study. Each train is capable of processing 1.9Mtpa of feed.
		• The plant design was based on representative metallurgical tests on samples from core and the historical Tantalum pit. There is an ongoing program of geo-metallurgical drilling and testing to inform future planning.
		• The processing plant consists of:
		  ○ A three-stage crushing circuit – primary crushing, secondary crushing, high-pressure grinding rollers (HPGRs).
		  ○ A modular wet processing plant –parallel trains each processing 1.9Mtpa of feed.
		  ○ Grinding, de-sliming and iron removal stages.
		  ○ A conventional spodumene flotation circuit.
		  ○ Concentrate is filtered to ~10% moisture for transport to Port Hedland for shipping via the public berths.

Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• All required environmental approvals are in place for the current operation, including process plant, power station and tailings storage facility. • Waste rock characterisation studies have been completed and indicates some waste rock contains Potentially Acid Forming (PAF) material. Waste characterisation is undertaken as part of ongoing operations and any PAF found is managed according to the approved plan. • Additional approvals for expansion of mining and tailings

Criteria	JORC Code Explanation	Commentary
		activities are currently being sought.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.	• Processing and non-process infrastructure to support the full nameplate production capacity is in place. • This includes: o Crushing and concentrator plant o Concentrate storage o Workshops, administration and stores buildings o Water supply and purification infrastructure o 65MW Power station o 750 room accommodation facility o Airstrip capable of landing jet aircraft.
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• Operating costs are based on current actual costs and include fixed and variable estimates for crushing, maintenance, mining, ore haulage, labour, administration, accommodation, and shipping. • Sustaining capital requirements have been estimated through the MinRes group's internal specialist engineering capability. • Transportation costs are based on in-place third party contracts. • Government and third-party royalties have been included in the costs.
Revenue factors	• The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	• A long-term consensus Li_2O price of USD1,639 per tonne (6% Li_2O concentrate) was used. • Consensus exchange rate of 0.73 AUD:USD was used for optimisation. • Concentrate pricing is adjusted for Li_2O variation against the 6% price used. • Consensus exchange rate values are used. • There are no third-party treatment costs.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• Market forecasts for both supply and demand have been obtained from respected third-party analysts, showing robust long-term demand for spodumene. • MinRes has been producing and exporting lithium concentrates for over 6 years and has developed internal capability in technical and commercial marketing.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and	• The economic analysis was conducted based on the cost and revenue assumptions discussed above and on production forecasts made in long, medium and short-term

Criteria	JORC Code Explanation	Commentary
	confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	plans. Many of these are based on actual performance data obtained over multiple years of operation. • Pit optimisation was complete using the Whittle 4X software. The final pit design is based on the 0.7 Revenue Factor shell making the Reserve implicitly resilient to changes in revenue. • Sensitivity analysis to cost assumptions likewise indicates that the project is not sensitive to reasonable variations in cost inputs.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• The Wodgina Minesite is in a remote location on the lands of the Karriyarra people. • The site has been an active mining area for over a century with legacy pits, waste landforms and infrastructure from this activity. • Current Mining and processing activities occurs on areas that have been surveyed for archaeological and ethnographic importance and modifications made to plans as required. • Surveys for life extension areas are currently underway. • The Wodgina site has also commenced the self-assessment process ahead of obtaining IRMA certification which covers a broad range of community & social issues.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• Identified risks to the Ore Reserve include the following: ○ Required approvals are in place to facilitate current operations. Further approvals are required to enable the Life of Mine plan however MinRes has a procedural right to obtain these approvals and does not anticipate unresolvable issues.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• The open pit does not contain any Measured Resource due to the onerous density of drilling required to achieve this in a spodumene pegmatite orebody. As such there is no Proved Reserve within the pit and no Probable Ore derived from Measured Resource. • The total inventory contained on ore stockpiles has been deemed of measured accuracy and has been converted to a Proved Reserve. • This classification appropriately reflects the Competent Person's view.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• This Ore Reserve has not been external audited however previous Ore Reserve estimates have been externally

Criteria	JORC Code Explanation	Commentary
		audited with no significant findings. • MinRes has also had the Resource and Reserve Reporting Process externally audited with non-material findings reported back to the Resource & Reserve Steering Committee.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	• Factors other than revenue/price and cost factors that may affect the global tonnages and grade estimates include: the geological interpretation; ore recovery and mining dilution estimates; and processing performance. • Reconciliation data since recommencement of mining offers preliminary insights as to model performance (not all geological units have been mined) and appropriate factors have been applied on the basis of these results. • No other assessments of the relative accuracy or confidence limits of the Ore Reserve have been undertaken.

APPENDIX 4: WODGINA LITHIUM: JORC (2012) TABLE 1 ASSESSMENT CRITERIA

Section 1 - Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Samples have been derived from RC drill hole pulps stored from previous drilling campaigns. Historic RC chip samples were collected at 1m intervals and split with a riffle splitter prior to 2008. RC samples were split with a cone splitter after 2008, to produce a sub-sample of 3-5kg for analysis. Samples have also been collected from the MinRes drilling campaigns conducted between July 2016 and October 2022. RC – Rig mounted cone splitter used, with samples falling through an inverted cone splitter, splitting the sample in 90/10 ratio. 10% off-split retained in a calico bag. 90% split residue stored on ground. All pegmatite intercepts sampled at 1m intervals plus 2m of adjacent waste sent for lab analysis. Deposits have been sampled by RC drilling.
Drilling techniques	A total of 2175 drillholes were used for interpretation of the geology and 2009 drillholes used for resource estimation. 43,684 out of 211,418 samples (20%) have been assayed for Lithium. Majority of Lithium data is in the basal sills (Stg 2, 3 and UG). RC drilling was carried out using a face sampling hammer and a 142mm diameter bit. Blast hole drilling was carried out with Atlas Copco BH rigs using a 140mm diameter bit.
Drill sample recovery	Sample recoveries for historic RC and diamond drilling are recorded on original logs but are not available in a digital format. Historic sample recoveries are near 100% in the pegmatite, sample loss mainly occurs in shear zones and occasionally on contacts. Most loss is recorded at the start of holes, near collars. MinRes recoveries are almost all logged as 80%. There is a low probability of preferential loss of sample having an effect on the grade of pegmatites. RC – Approximate recoveries are recorded as a percentage based on visual and weight estimates of the sample. Percussion – Approximate recoveries are not recorded. There is no known relationship between sample recovery and grade.
Logging	All historic holes (diamond & RC) are geologically logged in as much detail as possible. Main rock type is logged and then a secondary rock type if present such as on contacts, mineralisation and any alteration as well as accessory minerals are logged in detail. MinRes holes are logged for lithology, colour, mineralogy, grain size, texture, alteration, weathering and hardness. Oxidation surfaces and weathering are logged. Diamond holes were orientated and core logged for geotechnical qualities. Chip samples have been logged by qualified Geologists to a level of detail sufficient to support a MRE, mining studies and metallurgical studies. Logging is qualitative and quantitative. RC – logging was carried out on a metre-by-metre basis and at the time of drilling. All intervals were logged. Percussion – blast hole logging was carried out on a hole-by-hole basis using visual controls and geochemical analysis to split the lithology into pegmatite and waste.
Sub-sampling techniques and sample preparation	Historic RC chip samples are collected at 1m intervals and split with a riffle splitter prior to 2008. RC samples were split with a cone splitter after 2008, to separate a sub-sample of 3-5kg for analysis. Occasionally the sample was <1kg but generally at near surface positions. When moist or wet ground conditions were experienced in historic drilling, the cyclone was washed out between each sample and run further to ensure no inter-sample contamination. The rig had a dust collection system that involved the injection of water into the sample pipe before the sample reached the cyclone. This water injection prevented fines being lost out of the top of the cyclone. This system was employed to minimise dust fines being released into the atmosphere in the work area and to minimise the possibility of the sample being positively biased by the loss of the lighter minerals such as quartz, feldspar, and mica, thus effectively concentrating the heavier ore minerals such as tantalite. RC – Cyclone mounted cone splitter used. RC chips were dried at 100C. All samples below approximately 4kg were totally pulverised in LM5's to nominally 85% passing a 75µm screen. The few samples generated above 4kg were crushed to <6mm and riffle split first prior to pulverization. The measures taken to ensure the RC sampling is representative of the in-situ material collected included the insertion of a duplicate sample at an incidence of 1 in 20. Commercially prepared certified reference materials (CRM) were inserted amongst the drill samples.

Criteria	Commentary
	For RC samples, no formal heterogeneity study has been carried out or nomographed. An informal analysis suggests that the sampling protocols currently in use are appropriate to the mineralisation encountered and should provide representative results. As such sample sizes are considered appropriate. For the BH percussion drilling samples of 3-5kg were collected for testing. The measures taken to ensure the BH percussion sampling is representative of the in-situ material collected included the insertion of a duplicate sample with each sample submission.
Quality of assay data and laboratory tests	The original RC pulps were subject to stringent QAQC and laboratory preparation procedures and are considered reliable for the purposes for which they are being used. QAQC protocols used for the RC drill samples included the insertion of one of three types of CRMs at an incidence of 1 in 36, and the repeat analysis of field duplicate samples at an incidence of 1 in 20. Lab protocols included duplicate analysis at an incidence of 1 in 20 and pulp repeat analysis at an incidence of 1 in 20. Li_2O has been assayed by ICP005 at Nagrom Laboratories. No handheld analytical instruments were used in the field. The level of accuracy and precision of the assay determination is considered to be sufficient to form the basis for the resource estimation and is reflected in the Resource classification. QAQC data is assessed on import into the database and reported as a single set and by drill program.
Verification of sampling and assaying	Significant intersections not verified. Some twinned holes were originally drilled, but there are no twins available for the current Li_2O assays. Primary data was made available in a validated access database that had been previously used for a JORC 2012 compliant MRE. Sample data is stored using a customised access database using semi-automated or automated data entry. Hard copies of primary data stay in the field during the exploration campaign. To be brought back to the Perth office post campaign for storage. No adjustments were made to the assay data.
Location of data points	Historic collar locations were surveyed by a real-time differential GPS which achieves an accuracy of ± 0.01m. All down-hole survey data was converted to Wodgina Mine Grid and corrected for magnetic declination. For the 2016, 2017 and 2018 RC drilling, all except for a few collapsed holes were gyro surveyed to compare the data. Gyro-derived data was recorded at the surface and 5m intervals down-hole to the end of the hole. North seeking (NS) gyros were used to survey both vertical and inclined drill holes. Ultimately, the NS gyro-surveyed data was accepted as the most-accurate of the down-hole surveys and this data was adopted into the database to project the drill hole strings. For earlier (pre-2008) RC drilling programs down-hole surveying took place using a single shot Eastman down-hole camera, equipped with a "high-dip" compass for all vertical holes. For diamond holes survey shots were taken every 20m and at the end of hole. The RC holes had camera shots taken at either 40m or 50m intervals, as well as the end of hole. All camera shots were taken inside the 6m stainless steel starter rod. Collar positions were recorded using a handheld GPS. Post-drilling collar positions were recorded using a Differential GPS. The grid system is MGA Zone 51 (GDA94) for horizontal data and AHD (based on AusGeoid09) for vertical data. All data used in the estimation was in MGA94; elevation is standardised to AHD. Topographic control is from Digital Elevation Contours (DEM) 2016 based on 1m contour data.
Data spacing and distribution	Drilling for the historic data at the Cassiterite pit is generally on a 25m-by-25m grid, with some infill holes drilled as close as 10m by 10m. Drill spacing for the new infill data to test for Li_2O is typically 25m x 25m in Cassiterite pit, There was a 200m gap between the two areas with no Li_2O data. The recent MinRes drill program has in-filled the area of missing assays to approximately 50m x 50m. RC holes at Cassiterite NE are generally based on 40m x 40m drill spacing. The data spacing and distribution is sufficient to establish geological and or grade continuity appropriate for future mineral resource and classifications to be applied. RC samples are composited to 1m through the mineralisation and two metres either side. 89% of the assays are 1m in length; 1m composites have been calculated for resource estimation.
Orientation of data in relation	More than half the historic holes are drilled vertical and the rest varies between -50° and -80°, drilled to the east and west. The mineralised pegmatites are predominantly interpreted to be a series of flat to shallow west and east dipping lenses (on the Wodgina local grid). Holes have been orientated accordingly to intersect the mineralised pegmatites perpendicular where possible. A set of near vertical pegmatites

Criteria	Commentary
to geological structure	interpreted in the western margin of the deposit have been less optimally drilled and the classification reflects this. The orientation of sampling is designed to be perpendicular to the main mineralisation trends where possible. MinRes holes are predominantly drilled at -60° or -90° so as to intersect the local pegmatites at approximately right angles. The orientation achieves unbiased sampling of all possible mineralisation and the extent to which this is known.
Sample security	Sample security is not considered an issue. RC – All samples are bagged in numbered calico bags, grouped into larger tied polyweave bags, and placed in a large bulka bag with a sample submission sheet. The bulka bags are transported via freight truck to Perth, with consignment note and receipted by external laboratory (NAGROM). All sample submissions are documented and all assays are returned via email. Sample pulp splits are stored in MinRes facilities. The historic RC samples were sourced on site from storage containers.
Audits or reviews	Sampling procedures have been reviewed as part of the current MinRes process and are considered adequate by the Competent Person. All recent sample data has been reviewed internally by MinRes Geologists. No external audits have been carried out on the sample data.

Section 2 - Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The drilling is located on M45/50-I and M45/365-I held in the name of Wodgina Lithium a 100% subsidiary of MinRes. M45/50-I is not up for renewal until 2026 and M45/365-I is not up for renewal until 2030. The tenements were previously wholly owned by Global Advanced Metals Wodgina Pty Ltd (formerly Talison Wodgina Pty Ltd). Wodgina is located wholly within Mining Licence M45/50, M45/353, M45/383 & M45/887. The tenements are within the Karriyarra native title claim and are subject to the Land Use Agreement dated March 2001 between the Karriyarra People and Gwalia Tantalum Ltd (now Global Advanced Metals & superseded by Wodgina Lithium). The tenements are in good standing with no known impediments.
Exploration done by other parties	The original proponent of the project, Pan West Tantalum Pty Ltd, began mining and processing tantalite ore at Wodgina in August 1989, from the Wodgina open pit. Drilling at Mt Cassiterite has been carried out by a number of different drilling contractors and by a variety of different methods over the years. Drilling carried out by the Pan West JV included 3,825m of air track; 1,145m of RC drilling and 204m of diamond drilling. Since Sons of Gwalia Ltd purchased the project in 1995, six development-drilling programs have been completed at Mt Cassiterite. The first, in 1996, involved a track mounted RC rig completing a 3,464m drilling program, a resource extension program during 1998-99 comprised 17,586m of RC drilling and 2,225m of diamond drilling, a further resource extension program in 2001 comprised 18,694m of RC drilling, A RC infill-drilling program in Mt Tinstone area was commenced in February 2002 and totalled 5,432m, further resource drilling was conducted in 2002/03 consisting of 12,805m of RC drilling, as a result of this program, an infill-drilling program was carried out which targeted the East Ridge mining area, which totalled 2,948m. Additional resource drilling, completed in March 2004, consisted of 3,866m RC drilling and later infill-drilled for a total of 12,930m. MinRes has carried out RC drilling of 294 holes between September 2016 and August 2018 for a total of 75,797m. A total of 34,042 assays from the 2016-2018 program were available for use in the MRE. All exploration during the current reporting period was carried out by MinRes.
Geology	The 3600-2800Ma North Pilbara basement terrane consists of a series of ovoid multiphase granitoid-gneiss domes bordered by sinuous synformal to monoclinal greenstone belts. The Wodgina Greenstone Belt is a north to northeast plunging synclinal structure 25km long and 5km wide, preserved as a roof pendant separating the Yule and Carlindi granitoid complexes. It is composed principally of interlayered mafic and ultramafic schists and amphibolite, with subordinate komatiite, clastic sediments, BIF and chert. The komatiitic and metasedimentary units within the Wodgina area are tentatively correlated to the Kunagunarrina and Leilira Formations respectively.

Criteria	Commentary
	Archean volcanic activity and sedimentation was followed by the intrusion of Archean granitic batholiths with consequent deformation and metamorphism of the sequence. Late-stage granitic intrusions resulted in the emplacement of simple and complex pegmatite sills and barren quartz veins. The Wodgina pegmatite district contains a number of prospective pegmatite groups, including the Wodgina Deposit. The Wodgina lithium mineralisation is hosted within a number of sub-parallel, sub-horizontal, northeast trending pegmatite intrusive bodies with a dip t between 5° to 30° to the west-southwest. At this time individual pegmatites vary in strike length from approximately 200m to 400m. The thinner near surface pegmatites vary from 10m to 30m in thickness but vary locally from less than 2m to up to 35m thick. The massive basal pegmatite varies from 120m to 200m thick. The pegmatites intrude the mafic volcanic and metasedimentary host rocks of the surrounding greenstone belt. The lithium in the Cassiterite Pit and shallower pegmatites occurs as 10 - 30cm long grey-white spodumene crystals within medium grained pegmatites comprising primarily of quartz, feldspar, spodumene and muscovite. Typically, the spodumene crystals are oriented orthogonal to the pegmatite contacts. Some zoning of the pegmatites parallel to the contacts is observed, with higher concentrations of spodumene occurring close to the upper contact. In the massive basal pegmatite, the spodumene is distributed within fine-grained quartz, feldspar, spodumene and muscovite matrix.
Drill hole Information	The assets of the Wodgina Tantalum Project have been held in a private equity entity since August 2007. As a result, exploration results for the Wodgina Project have not been made public since that time. The assets of the Wodgina Tantalum Project have been held in a private equity entity since August 2007. As a result, exploration results for the Wodgina Project have not been made public since that time.
Data aggregation methods	Reported exploration results are uncut. Reported aggregate Li_2O intercepts based on geological intervals of continuous pegmatite greater than or equal to 2m. Reported aggregate Li_2O intercept grades are a weighted average based on assay interval length.
Relationship between mineralisation widths and intercept lengths	Apparent thickness as down hole length is reported.
Diagrams	Not applicable.
Balanced reporting	All holes related to the Wodgina drilling program are reported here.
Other substantive exploration data	No other meaningful data to report.
Further work	Exploration drilling is ongoing. As part of the main document.

Section 3 - Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	The historic database has been previously validated for a JORC 2012 compliant MRE. The database has also been reviewed and validated using Micromine software. Raw assay files provided digitally by the laboratory have been used and imported. The MinRes drilling data has been captured using MinRes' standardised database procedures. No database issues have been noted.
Site visits	The Competent Person visited site on 28-29 March 2022, and reviewed geology in the Cassiterite Pit, RC drilling, sampling and excavations in the TSF3 area. The site visit also included a review of collar pickup, logging, sampling and assay selection procedures, downhole survey methodology, and the sample chain of custody. Discussions were had with the on-site geologists regarding observed lithologies through the feeder zone and their interpretation of the geology. Not applicable.

Criteria	Commentary
Geological interpretation	Confidence in the geological interpretation is considered to be moderately high, outcrop is exposed in open pit floors and walls and drilling data at a spacing of 25m x 25m, which provides sufficient information to define the mineralised pegmatite lenses. The structural controls on the pegmatites are relatively complex resulting in folded and faulted outcomes, which prevent a high level of certainty. This is most apparent to the west where vertical pegmatites are interpreted, without appropriately orientated drilling. Uncertainty related to the identification of the mineralisation has been simplified by the assumption that all mineralisation is contained within pegmatite – a readily identified rock contrasting strongly with the surrounding host rocks.
Dimensions	Pegmatite three dimensional wireframes have been created using an unfolded indicator modelling methodology. Comparison with previous manual interpretations shows a good correlation. The pegmatite lenses have been interpreted to a maximum depth of the drillholes. The Li_2O area of the resource consists of three main areas of the Cassiterite deposit, respectively Upper Lenses, Vein Lenses and Basal Lenses.
Estimation and modelling techniques	All geological modelling has been carried out in Leapfrog. All Resource estimation has been carried out in Vulcan. A conventional rotated, sub-celled block model framework has been set up. Cell sizes are based on approximately half to one quarter the nominal drill hole spacing. (5m East x 10m North x 2.5m RL). Sub-cells are 1m East, 1m North and 0.5m RL to provide a detailed representation of the pegmatites. Block model grade estimates have been generated using Ordinary Kriging interpolation. Search and sample number parameters have been set up following variography and Kriging Neighbourhood Analysis. Estimation is carried out in three passes, with a first search of 80m x 80m x 40m, a second search of 120m x 120m x 60m and a final pass of 300m x 300m x 150m. Primary estimation is carried out on Li_2O%. Estimation is limited to material coded as pegmatite. Estimation is carried out applying the Local Varying Anisotropy in Vulcan. Block model validation has been carried out by several methods, including: ○ Drill Hole Plan and Section Review ○ Model versus Data Statistics by Domain ○ Easting, northing and RL swathe plots No top cut has been used to mitigate the effect of a small number of high-grade outliers. All validation methods have produced acceptable results
Moisture	Tonnages are estimated on a dry basis.
Cut-off parameters	Economic analysis is not available as yet, so the resource has been reported at a range of cut-offs.
Mining factors or assumptions	Mining is by conventional open pit. No mining factors have been applied to the resource model. As the pegmatite lenses interpolated for Li_2O have relatively limited vertical extent no lower limit has been placed on the likelihood of extraction.
Metallurgical factors or assumptions	Metallurgical recovery was assumed, and has been supported by recovery in the pro.
Environmental factors or assumptions	The Wodgina Project is an active mining area and has a history of mining. No environmental assumptions have been made or considered as part of this estimate.
Bulk density	Dry Bulk density of the rock types within the estimated area has been assigned based on the division of rock type and weathering condition. The source data was the conclusions of the May 2006 Study by Arthur and MacDonald. In this study specific gravity determinations were obtained for over 200 different samples. These results were compared

Criteria	Commentary
	to core bulk density measurements and values used historically. The conclusion derived a table of recommended bulk density values to be used in future resource modelling work. A value of 1.8gm/cm3 has been assigned to unconsolidated fill within the pits. A review of MinRes down hole geophysical logging data has resulted in a density of 2.80 being applied to pegmatites in the Top Dump area and 2.73 in the Cassiterite Pit area.
Classification	The mineral resource has been classified in the Indicated and Inferred categories, in accordance with the 2012 Australasian Code for Reporting of Mineral Resources and Ore Reserves (JORC Code). A range of criteria has been considered in determining this classification including: ○ Geological and grade continuity ○ Data quality ○ Drill hole spacing ○ Modelling technique and kriging output parameters The Competent Person agrees with this classification of the resource.
Audits or reviews	No audits have been carried out; internal reviews have been carried out by MinRes staff.
Discussion of relative accuracy/ confidence	The risk assessment review which has been carried out on the Wodgina Pegmatites Li_2O Resource Estimate is qualitative in nature and based on the general approach used by resource estimation practitioners and consultants to indicate in relative terms the level of risk or uncertainty that may exist with respect to resource estimation which have cumulative effects on project outcomes. The reported Resource is a global estimate. Relative levels of risk have been assessed as generally low occasionally tending towards moderate with respect to certain aspects of the estimation.

APPENDIX 5: KEN'S BORE JORC COMPLIANT IRON ORE RESERVES

The information in Appendix 5 has been prepared in accordance with Appendix 5A of the ASX Listing Rules (the JORC Code 2012 edition – Section 1 (Sampling Techniques and Data), Section 2 (Reporting of Exploration Results) and Section 3 (Estimation and Reporting of Mineral Resources), Section 4 (Estimation and Reporting of Ore Reserves).

Table 1 - Section 4 - Estimation and Reporting of Ore Reserves – Ken's Bore Deposit
(Criteria listed in section 1, and where relevant in section 2 and 3, also apply to this section)

Criteria	JORC Code Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve. • Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	• The Ken's Bore Deposit (Ken's Bore) is part of the Red Hill Iron Ore Joint Venture (RHIOJV) and will be developed as the Onslow Iron Project (OIP). • The Ken's Bore Ore Reserves are based on the corresponding Ken's Bore Mineral Resource as announced in the Mineral Resource Statement – Ken's Bore Deposit Ore Mineral Resource Statement. The Ore Reserve estimate is a sub-set of the Mineral Resource estimate.
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 is satisfied that the descriptions of the planned infrastructure and locality provided by MinRes along with the surveyed 3D topography are sufficient information to provide the Reserve Estimate.
Study status	• The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. • The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	• MinRes has undertaken a Feasibility Study in 2022 to support and facilitate the final investment decision to approve the Onslow Iron Project. • MinRes has updated the integrated life of mine (LOM) plan utilising Measured, Indicated and Inferred Mineral Resource categories for the updated Mineral Resource, technical inputs, approvals constraints, revenue and cost assumptions. • A detailed integrated budget plan has been completed for the first two years of the operation, incorporating the production ramp up of the fixed and mobile fleet as part of operations readiness and internal MinRes budgetary process.
Cut-off parameters	• The basis of the cut-off grade(s) or quality parameters applied.	• A fixed cut-off of 54% Fe has been used to define the Ore Reserve Estimate. • The cut-off grade has been selected on the basis of achieving product specifications suitable for marketing in the integrated life of mine plan (LOM) plan using variable cut-off grades. • The integrated LOM includes material in the resource category of Measured, Indicated and Inferred and the supporting inventory from the deposits currently in the RHIOJV, which includes: - Cardo Bore East

Criteria	JORC Code Explanation	Commentary
		- Cardo Bore North - Cochrane - Jewel - Red Hill Creek West - Upper Cane - Trinity Bore
Mining factors or assumptions	• The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). • The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc. • The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling. • The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate). • The mining dilution factors used. • The mining recovery factors used. • Any minimum mining widths used. • The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. • The infrastructure requirements of the selected mining methods.	• General Method for Conversion of Mineral Resources to Reserves o Ore loss and dilution is addressed with the re-blocking of the resource model a selective mining unit size is considered adequate for the fleet planned to be used in the deposit. o Pit optimisation of the mining model using Whittle 4X Optimisation software including Measured, Indicated and Inferred Resource categories and using input net price, cost, cut-off grade, ore-recovery, mining width and overall pit wall angle assumptions. o Detailed pit and stage designs completed based on the selected Whittle 4X Optimisation pit shell results. The pit designs were used to constrain the mining model for evaluation in the mine scheduling software (Minemax Scheduler). o Fe cut-off determined in the LOM base case schedule which included the full inventory set of Measured, Indicated and Inferred with all deposits included in the RHIOJV to achieve marketing product specifications. o Scheduling of the Ken's Bore Measured and Indicated inventory to achieve marketing product specifications including additional supporting Measured and Indicated Inventory from deposits included in the RHIOJV with the aim to maximise net present value (NPV) using pre-determined LOM base case cut-off grades from schedule. o Reporting of inventory above 54%Fe cut-off by Mineral Resource category fed through the process plant. • Mining Method o The Ken's Bore deposit is currently planned to be mined by conventional hydraulic excavator and rigid trucks operating on 8m to 12m benches. Each bench will be mined using a 4m flitch. o The equipment to be used in Ken's Bore will consist of Hitachi EX3600 excavators and Hitachi EH4000 dump trucks. Drill units are a mixture of Epiroc D65 rigs for development work and Catapillar MD6250 rotary drill for production holes. o The selection of mining equipment will allow for flexibility to double bench, increase blasting bench heights or alternatively reduce flitch heights to a minimum of 3m dependent on the orebody geometry. o The selected mining equipment is considered appropriate for the orebody geometry and required production rates and is similar to other Pilbara iron ore mines. o Both surface waste dumps and in pit waste dumping will be used to dispose of the waste generated from the pit. • Geotechnical Assumptions o The pit slope parameters are based on the geotechnical study completed by AMC consultants as part of the West Pilbara Feasibility Study, "West Pilbara Feasibility Study –

Criteria	JORC Code Explanation	Commentary
		Geotechnical Analysis, API Management Pty Ltd, AMC Project 214065B ,7 July 2015". ○ Inter ramp angles vary from 54 degrees for above water table and between 34-39 below water table. • Grade Control and preproduction drilling Assumptions ○ Ongoing Exploration drilling with a nominal drill spacing of 50 x50 will continue to de-risk the long term plans. This program will include geotech and metallurgical diamond holes as required. ○ Grade control will be completed prior to mining using blast hole sampling and/or dedicated reverse circulation grade control drill rigs ahead of the mining front. • Mining Dilution and Recovery ○ Ore loss and dilution has been addressed with the re-blocking of the sub-blocked resource model to 10m (x) x 10m (y) x 4m (z). The SMU size is considered adequate for the fleet planned to be used in the Ken's Bore deposit. • Minimum Mining Widths ○ Minimum mining widths have been incorporated into pit designs and stages consistent with current mining equipment operating parameters. ○ Minimum mining widths have not been included in the optimisation. ○ The minimum mining width for the pit access roads are based on the MinRes Mine Road Design Standard. ○ The minimum pit floor width is ~50m. ○ The pit floor is generally the width of the CID channel and tight mining areas are only encountered at the very base of the pit in good-bye cuts. • Treatment of Inferred Material ○ Final pit designs are based on Measured, Indicated and Inferred classifications. ○ All Inferred material contained within the detailed pit designs has been treated as waste in the mine schedule used to report the estimated Mining Reserve. ○ No Inferred Mineral Resources are included in the Ore Reserve Statement. ○ 29.1Mt at 57.8% Fe of Inferred Mineral Resource will be mined from Ken's Bore. • Infrastructure Requirements ○ The MinRes 2022 Feasibility Study considered the infrastructure requirements associated with the mining operation. ○ Mine designs consist of detailed Life of Mine pit, waste dump, roads, surface water diversion bunds, and stockpile designs. ○ The processing and infrastructure is located adjacent to the Ken's Bore Pit and will include extensive non-processing infrastructure to support the mining activities as outlined in the MinRes 2022 Feasibility Study.
Metallurgical factors or assumptions	• The metallurgical process proposed and the appropriateness of	• Ore processing at Ken's Bore consists of conventional dry crushing and screening to produce Direct Ship Ore ("DSO")

Criteria	JORC Code Explanation	Commentary
	that process to the style of mineralisation. • Whether the metallurgical process is well-tested technology or novel in nature. • The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. • Any assumptions or allowances made for deleterious elements. • The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole. • For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?	fines only product. • The material flowsheet consists of primary, secondary, and tertiary crushing and screening. • The proposed metallurgical process is well tested and proven at other MinRes operations. • The deleterious element grades in the Ore Reserves have been estimated based on the reported Mineral Resources and blended to deliver a product within acceptable limits. • A process recovery of 100 % is assumed for Ken's Bore given the ore processing flowsheet. • Crusher feed moisture is a calculated weighted average of above and below water table feed from the mine. • The product moisture is a fixed value of 8.8% and is 10% higher (relative) than the design 8.0% DEM value. • All below water table material will be processed through the dry plant. • To minimise adverse material handleability: o dewatering through in pit-bores is planned ahead of mining, and o the amount of below water table feed has been limited to 35%, equivalent to the design DEM. • The process flow sheet and metallurgical assumptions are based on MinRes' in house expertise.
Environmental	• The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	• Seasonal baseline studies have been undertaken across the Project study area to support approvals. • These studies have informed a baseline for a detailed Environmental Impact Assessment (EIA). • Ministerial statement 1027 extension of time has been approved covering the mine – now Ministerial Statement 1203. • The haul road and associated infrastructure was referred in October 2021 for approval under both the Commonwealth's Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) - EPBC 2021-9064 and Western Australia's Environmental Protection Act 1986 (EP Act) – Ministerial Statement 1204. • These Primary Approvals have been granted and facilitate required activities for the mining areas, haul road and port. • Waste rock characterisation studies indicate low potential for potentially acid forming (PAF) as outlined in the MinRes 2022 Feasibility Study, and formed the basis for the approved mining proposal over the Ken's Bore deposit and associated infrastructure.
Infrastructure	• The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation	• The OIP is a greenfields site and all infrastructure required to operate the project will be constructed as outlined in the MinRes 2022 Feasibility Study. • The processing and infrastructure will consist of a MinRes NextGen crushing and screening facility, product stockyard, and

Criteria	JORC Code Explanation	Commentary
	(particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	truck load out facility capable of 30Mdmtpa production rate. • The processing and infrastructure are located adjacent to the Ken's Bore Pit and will include extensive non-processing infrastructure to support the activities as highlighted below: o Aerodrome o Accommodation Facility o Non-process infrastructure to support the central processing facility (CPF) in addition to the Ken's Bore mine and satellite mines o Power generation and other utilities o A dedicated private 150 km haul road links the Ken's Bore CPF to the unloading facility at the Port of Ashburton. MinRes will operate a fleet of 320 tonne jumbo road trains and 20,000 tonne transhippers from the Port of Ashburton to match the 30Mdmtpa production rate from the CPF. o Infrastructure located within the Port of Ashburton includes road train unloading, product storage sheds, product load out wharf and utilities. o Infrastructure located within the township of Onslow includes: - Road train repair and maintenance facilities - Onslow resort accommodation - Local housing accommodation
Costs	• The derivation of, or assumptions made, regarding projected capital costs in the study. • The methodology used to estimate operating costs. • Allowances made for the content of deleterious elements. • The derivation of assumptions made of metal or commodity price(s), for the principal minerals and co-products. • The source of exchange rates used in the study. • Derivation of transportation charges. • The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. • The allowances made for royalties payable, both Government and private.	• The assumptions for site operating costs (overheads and mine) are derived from the last evaluation model completed by MinRes. • The site costs are based on comparable MinRes operating sites. • The cost for processing the ore is based on the life of mine agreement to build, own and operate (BOO) the processing plant. • The costs from site to port are based on the life of mine agreement to BOO the road haulage, port and transhipping services on a cost per tonne basis. • Capital costs for those items outside of the BOO contracts are based on MinRes internal estimates derived from experience delivering similar operating conditions across other parts of its portfolio. • The Cape Size Freight Index has been used to determine the shipping costs estimate. • An allowance of 7.5% FOB for the WA State Government royalty was used as well as additional third-party royalties.
Revenue factors	• The derivation of, or assumptions made	• Discounts to benchmark prices have been applied to account for the iron grade and impurities associated with the product

Criteria	JORC Code Explanation	Commentary
	regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. • The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	specifications. • The CFR Assumptions, exchange rate and weighted average cost of capital (WACC) is based on the MinRes consensus pricing and is the long term forecast compiled from a number of independent party forecasts. • The assumptions used are: - The long run AUD:USD exchange 0.7148 - The long run Platts Price for 62 index USD80/dmt - WACC 11.6% • Based on these assumptions the long-range FOB price varies from A$73/dmt to A$77/dmt depending on the discounts applied for product quality.
Market assessment	• The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. • A customer and competitor analysis along with the identification of likely market windows for the product. • Price and volume forecasts and the basis for these forecasts. • For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.	• MinRes markets the iron ore products utilising in house iron ore marketing expertise. • There have been no (external): ○ Market assessment investigations. ○ Customer or competitor analyses. ○ Price and Volume forecasts.
Economic	• The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. • NPV ranges and sensitivity to variations in the significant assumptions and inputs.	• The financial model prepared for the sale of products according to the Ore Reserve Estimate mine schedule indicates a positive NPV. • Project sensitivity has been carried out on a range +-20% for the major financial parameters and this demonstrates a positive NPV.
Social	• The status of agreements with key stakeholders and matters leading to social licence to operate.	• Heritage surveys and consultation (both archaeological & ethnographic) have been undertaken with the full involvement of the registered Native Title Party – Robe River Kuruma (RRK) people. • Approval is being sort as required for those heritage sites potentially impacted by mining, with the first 2-year mine plan footprint being free of heritage constraints. Agreement from the RRK group to support clearing of heritage constraints for the portion of Ken's Bore within the current primary approvals

Criteria	JORC Code Explanation	Commentary
		boundary has been reached, and further S18 clearances will remove constraints from later mining stages in advance of areas being required. • Negotiations will be required for stages planned to be mined outside of the primary approval boundary.
Other	• To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: • Any identified material naturally occurring risks. • The status of material legal agreements and marketing arrangements. • The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.	• A Life of Mine product off-take agreement is in place with Baosteel Resources to purchase between 50% and 75% of MinRes 57% volume entitlement. The contractual specification limits are >57.5% Fe, <6.0% SiO2, <3.5% Al2O3, <0.10% P. • All major state and federal governmental approvals to commence the OIP have been granted. • Further approvals will be sought with the submission of a Mining Proposal under the Mining Act for below water table mining. • Primary Approval under the EP Act (S38) for changes to the mine pit footprint will be sought once technical work is completed and consultation with the RRK people has been undertaken.
Classification	• The basis for the classification of the Ore Reserves into varying confidence categories. • Whether the result appropriately reflects the Competent Person's view of the deposit. • The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	• All Measured Mineral Resources within detailed pit designs, and scheduled to achieve marketing specifications, have been converted to Proved Ore Reserves. • Any existing grade controlled, and surveyed product stockpile has been converted to Proved Ore Reserves. • All Indicated Mineral Resources within detailed pit designs, and scheduled to achieve marketing specifications, have been converted to Probable Ore Reserves. • This classification is considered appropriate in the view of the competent person.
Audits or reviews	• The results of any audits or reviews of Ore Reserve estimates.	• There have been no external audits or reviews of the Ore Reserve estimates at this time.
Discussion of relative accuracy/ confidence	• Where appropriate a statement of the relative	• Wet processing has not been considered in the Ore Reserve Estimate, the current assumption is that the maximum feed ratio

Criteria	JORC Code Explanation	Commentary
	accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which 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. • Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. • It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	of below water table material is no greater than 35%, this is to ensure the feed moisture doesn't exceed the design dust extinction value of 8%. If materials handleability does become an issue and a wet plant is required, a recovery factor will be required for all material processed through the wet plant. • Re-blocking of the model is assumed to adequately address mining dilution and ore loss. Any additional factors for block model performance against the grade control block model will require operational data and will be addressed once the data is available. • A total of ~45 heritage sites have been identified on the pit footprint with 3 areas attributed a higher level of significance. These areas are currently delayed in the mine schedule to ensure adequate time for consultation with RRK. Should these areas be excluded at a later date an estimated 44.0Mt of inventory at 54% Fe COG may be impacted.

APPENDIX 6: KEN'S BORE JORC (2012) TABLE 1 ASSESSMENT CRITERIA

Section 1 - Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	All sampling has been carried out in accordance with the MinRes RC and Diamond Drilling Sampling Procedure (described in detail below) which is in line with industry standards. Reverse circulation drilling was used to obtain 2 m samples from which the whole sample is crushed to -3mm and 2.5kg was pulverised for production of a fused bead for multi-element XRF analysis. Diamond drill core sampling was conducted at m intervals for ease of handling and correlation with exploration RC drilling with shorter length to lithological contacts but no smaller than 20cm. The RC and Diamond drilling provides consecutive 2m representative samples of the intersected geological formations. Each RC sample weighs approximately 3kg. Sampling and assays of 1596 RC holes, 37 diamond drill holes, 4 mud-rotary holes, 64 water bore holes, 3 winzes and 2 open holes for 87,268.4 m. RC drill holes were down-hole sampled at 2m intervals via a Mitzke static cone splitter attached to the rig's cyclone underflow. Pre-2022 drilling RC samples were collected every 2m and pre-2007 every 1m down hole directly from the cyclone after passing through a three -tier riffle splitter or cone mounted splitter mounted on the rig. Each sample represented 12% by volume of the drilling interval with an average weight of 4kg for a 2m interval.
Drilling techniques	RC drilling was conducted using a 5.5-inch face sampling hammer. Diamond drilling used a HQ3 and PQ3 drill bit/core size. All diamond drilling was completed using triple tube methods.
Drill sample recovery	Sample recovery was recorded visually in the field, and physically weighed by ALS in Perth for the samples generated during the MinRes drilling campaign. Cavities encountered during drilling were relayed by the driller to the attending rig geologist and recorded accordingly. Sample bias due to preferential loss/gain of fine/coarse material is within acceptable limits. Maximisation of sample recovery and ensuring the representative nature of the samples was controlled by the driller and drill crew. Methods used included backing the hammer off the drill face at the end of each 2m drill interval to allow rock chip samples time to clear the sampling system, levelling the sampling system using a spirit level, and cleaning out the sampling system at the end of each 6m drill rod. All MinRes RC drill samples were collected at two metre intervals from a rig mounted static cone splitter adjusted to produce a ~3kg sample. The remaining sample was collected in buckets and placed sequentially near the hole. A field geologist was present to monitor the quality of sampling. No relationship was observed between sample recovery and grade. The cyclone on the RC rig was cleaned between drill holes to minimise sample contamination. Twinned hole studied (RC versus diamond) indicate good correlation, therefore insignificant sample bias using RC drilling techniques. Diamond core recoveries were recorded for every run.
Logging	Samples were sieved and logged at two metre intervals. A portion of the sieved material was retained into numbered chip trays per hole and retained onsite for future reference. All RC chip samples have been retained and geologically logged for all sample intervals for the entire hole depth. The geological logging has been validated using geochemical lab results. Geological logging was carried out by MinRes staff and contract geologists with recording of water table depth, weathering profiles, lithology, colour, estimate of mineral percentages and for mineralised intervals, Pilbara Iron Ore Codes (PIOC) for grain size/texture, clast/pisolite composition, matrix and lustre/ hardness and interpretation of stratigraphy. Logging is both quantitative and qualitative. Logging took place at the rig using AcQuire software on Tough books.

Criteria	Commentary
	All RC chip and Diamond core trays are photographed and stored in the MinRes databases as a reference. All recorded information is uploaded approximately.
Sub-sampling techniques and sample preparation	RC drill samples were sub-sampled using a rig mounted static cone splitter. A single sub-sample for each interval was collected (excluding duplicates) and placed directly into pre-numbered calico bags. The residual sample spoil was placed on the ground in rows adjacent to the drill hole. Where wet or moist samples were encountered in MinRes drill holes, the sample was collected into a pre-numbered calico bag and left to dry in the sun, prior to collection for sending to the lab. Within every 100 sample numbers, provision is made for the introduction of five duplicate samples collected to check for sample quality of the drill rig sub-sampling system. Field duplicates were collected on every 20th bag (bags ending in 00/21/41/61/81). Plots of the duplicate and original sample data were constructed for both the historic and MinRes drilling programs, breaking the information down into field duplicates and lab repeats. Specifically, relative difference plots were constructed to assess for poor sampling practice, poor assaying or high inherent nugget effect. Scatter plots were constructed to assess for sampling bias. And precision plots were constructed to assess the level of precision of the duplicate sample to the original sample. As expected, precision improved as duplicates and repeats were taken further along the preparation process due to the sample becoming more homogenised with each advancing stage of preparation. No grade bias in the field duplicates or in the lab duplicates for any of the analytes was observed. Duplicates had varying degrees of precision depending on the analyte being analysed. Sample weights were recorded for the MinRes samples at the ALS Lab in Perth. The sample weights are considered appropriate for the grain size of the material being sampled. Wet and dry samples were collected via the same technique. Pre-2022 samples were collected in pre-labelled calico bags via a cone splitter mounted directly below the cyclone on the rig.
Quality of assay data and laboratory tests	Historic RC samples were assayed using industry standard techniques performed at SGS Laboratories in Perth. The samples were analysed by XRF (X-Ray Fluorescence Spectrometry) for Fe, SiO_2, Al_2O_3, TiO_2, CaO, Mn, P, S, MgO, K_2O and 14 other trace elements. In addition, LOI (Loss On Ignition) was determined by TGA (Thermo Gravimetric Analysis) at temperatures of (0-400°C, 400-650°C and 0-1000°C) (LOI400, LOI650 and LOI1000). MinRes assaying was carried out at the ALS Lab in Perth using XRF for the following analytes: Fe, SiO_2, Al_2O_3, TiO_2, CaO, Mn, P, S, MgO, K_2O and 14 other trace elements. TGA was used for loss on ignition at three temperature ranges LOI650-1000, LOI425-650 and LOI110-425. A total LOI was calculated from the three ranges and merged with the LOI_1000 data from the historic assays. Assaying and laboratory procedures are considered to represent total concentration. Historic drilling programs inserted certified reference material (CRM) at a frequency of 1 in 50 samples. The laboratory also included CRM's and lab duplicates as checks. QAQC on all pre 2022 drilling by API was vigorous with external audits by Optiro and Geostats. Audit results show an acceptable level of accuracy and precision for geological modelling and estimation. QAQC for the 2022 MinRes drilling campaign at Ken's Bore has been carried out by the MinRes database administrator. Standards were inserted on every 25th bag (bags ending in 01/25/50/75). MinRes utilised 5 certified coarse Iron ore standards during the 2023 Ken's Bore program; GIOP-17, GIOP-61, GIOP-76, GIOP-76 and GIOP-142. The certified expected value and certified standard deviation values were sourced from the Geostats CRM certificates for the GIOP standards and cover the Fe grades from low to high (low ~Fe 55% and high Fe 58%). 2022 Standard results show acceptable precision and accuracy for estimation and modelling purposes. However, a few analytes performed poorly in the 2022 drilling. Std GIOP-17 showed poor performance with respect to P. Std GIOP-176 showed poor performance with respect to LOI-1000 and SiO2. Std GIOP-125 showed poor performance with respect to LOI-1000. Std GIOP-142 showed poor performance with respect to LOI-1000. Impact of poor performance has yet to be evaluated or understood.

Criteria	Commentary
	Duplicates for all campaigns were inserted at a rate of 1 in 20 samples and show acceptable precision.
Verification of sampling and assaying	MinRes manages the drill hole data in an acQuire database. The following data was validated and processed by MinRes in Micromine. Negative values or values below detection limit were set to half detection limit. Assays with no Fe values were deleted from the composite file. The total LOI for holes was an aggregate of LOI's stored in LOI1000_pct. Comparison of RC and twinned diamond data distributions show that the drilling methods have similar grade distributions with strong correlation on QQ plots verifying the suitability of RC data for use in the estimation and geological interpretation.
Location of data points	All post-drilling drill hole collars were subsequently surveyed by MinRes Field Supervisors and Field Technicians by using an R2 GNSS receiver with the TDS 600 data collector. The Datum used was GDA 94 Zone 50 and calibration was completed on site prior to every use using the Trimble RTX centre point correction service (Horizontal: 20-15mm; Vertical: 30-35mm). Historic drillhole collars were surveyed using RTK-GPS by registered surveyors. All resource RC drill holes are vertical (diamond holes drilled for geotechnical purposes are angled); down hole surveys were conducted on the 2022 drilling campaign but not pre-2022. Average RC hole depth is 50m. Hole dip deviation from 2022 drilling is averages approximately 0.80 from 0-50m. Hole deviation on average is less than 1m. The grid system is MGA Zone 50 (GDA94 based) for horizontal data and AHD (based on AusGeoid09) for vertical data. Topographic coverage has derived by aerial survey (LIDAR) with a vertical accuracy of +/- 0.15m. RC drilling utilised gyro tools and single shot camera at regular intervals for downhole orientation. Pre-2022 drilling has no down hole survey data. Pre-2022 hole collars were surveyed by differential GPS. All collars and down hole traces were visually validated against topography triangulation and in Vulcan.
Data spacing and distribution	The resource definition drilling is nominally 50m by 50m spacing across the majority of the resource; with a 100m by 100m spacing on the edges of the deposit and to the north. There is a 25m x 25 m drilled grid in a small area of the deposit. The 50m x 50m has defined the continuity of the ore body and enabled an appropriate resource classification. Data has been composited to 2m, which is the dominant interval length. Pre-2007 drilling was sampled at 1m intervals. Post 2006 drilling was sampled at 2m intervals.
Orientation of data in relation to geological structure	All drill holes were drilled vertically to test the sub-horizontal CID stratigraphy. No bias is observed due to the drilling orientation. Historic holes had no down hole survey and are considered to be vertical. Vertical holes are considered appropriate for CID style mineralisation. Pre 2022 holes had no down survey. Typical for Iron deposits in the Pilbara, holes less than 80m don't have down hole surveys.
Sample security	Samples from RC drilling are collected and bagged at the drill site during the drilling operation. All samples are then catalogued and sealed prior to dispatch to ALS laboratory by MinRes staff. Pre 2022 drilling; API and SGS communicate on a regular basis and a standard chain of custody paperwork is used.
Audits or reviews	2022 drilling program: QAQC samples are routinely monitored by the database manager and geologists on a batch and campaign basis. The accuracy of key major elements such Fe, SiO2, Al2O3 and P for standards was acceptable and the field duplicate assay data was found to be unbiased and displayed an acceptable level of precision. AcQuire database validation rules are run with every assay, collar, logging and survey upload to check for out of range values and data that makes illogical sense.

Criteria	Commentary
	Pre-2022 drilling used the same approach. API conducted monthly QA/QC checks on CRM and duplicate data. API has independent audits of sampling techniques and QA/QC data.

Section 2 - Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	Ken's Bore deposit is owned through an unincorporated joint venture between Mineral Resources Limited, who will manage the project and AMCI (IO) Pty Ltd Ken's Bore is located on Red Hill Station, and in part on the Crown Land, in the Ashburton Shire, West Pilbara Region of Western Australia. Granted mining leases M08/480-I and M08/484-I are part of the Pastoral Lease N049852, located approximately 75km and 50km south -southwest of the town of Pannawonica respectively. Lease M08/480-I was granted to Aquila Steel Pty Ltd/AMCI (IO) Pty Ltd on 22/10/2015 and will expire on 21/10/2036, this tenement covers an area of 1,172HA. The lease M08/484-I was granted to API Management Pty Ltd/Red Hill Iron Limited on 22/10/2015 and will expire on 21/10/2036, this tenement covers an area of 10,040HA. The tenements are in good standing with no known impediments.
Exploration done by other parties	Exploration history at Ken's Bore dates back to the year 2002, where Rio Tinto Exploration completed reconnaissance mapping and rock chip sampling targeting CID at Ken's Bore, followed by 12 RC holes. The below table summaries exploration activities since then.

Year	Company	Activity
2002 (A67505)	Rio Tinto	Reconnaissance mapping, 12 RC holes.
2006 -(A74688)	API	RC - 76 holes for 3,760m. Rock chip samples.
2007 - (A77793)	API	RC – 107 holes for 4,992m and DD – 7 holes for 317.6m.
2008 - (A81613)	API	RC – 95 holes for 5,264m and DD – 8 holes for 465m.
2009 - (A86271)	API	RC – 121 holes for 6,523m
2010 - (A89438, A89704)	API	RC – 311 holes for 13,832m
2012 - (A97255, A97606)	API	RC – 396 holes for 21,849m. 25m by 25m test area
2013 - (A101620)	API	RC – 8 holes for 434m
(A105221, A105473)	API	RC – 115 holes for 5,847m, DD – 7 holes for 258.4m
2015 - (A108329)	API	RC – 81 holes for 3,688m, DD – 1 hole for 55m.
2017	API	DD – 10 holes for 200.9m
2018	API	DD – 4 holes for 200m

Geology	Ken's Bore is classified as CID (Channel Iron Formation) and is in the Hamersley Province, approximately 1000km north of Perth in the north-west of Western Australia. The province consists predominantly of late Archean and Lower Proterozoic (2800-230Ma) sedimentary rocks of the Hamersley Basin situated between the Archean Yilgarn and Pilbara cratons. Ken's Bore CID mineralisation occurs as a paleochannel striking Northwest. CID has been formed by the alluvial and chemical deposition of iron-rich sediments in paleo-river channels after erosion and weathering of lateritised Hamersley Group sediments. The deposit is approximately 11km in length and has a maximum width of approximately 2km. The mesa raises up to 30m high in places with paleochannel extending to depths of 70m. Iron mineralisation at Ken's Bore consists of a series of lenses and pods with the mineralisation defined by three distinct zones. 1. Goethitic (semi) hard cap occurs at the interface between the alluvial/immature detritals/clayey cover. This unit is relatively thin (~6m thick) and not always laterally continuous. 2. The primary ore body is hard and competent CID (~19m thick) and typically occurs below the hard cap and clayey zones. CID here is generally very well preserved and more hematitic than goethitic. 3. The basal mixed CID zone occurs almost exclusively below the hard primary ore zone. It is thickest in the middle of the channel and tapers out towards the flanks of the channel (~6m thick).

Criteria	Commentary
Drill hole Information	No longer relevant as Mineral Resource estimate has been completed.
Data aggregation methods	No longer relevant as Mineral Resource estimate has been completed. Note however that data was aggregated based on mineralisation domain. Grades for Fe were weight averaged based on sample interval length. No grade cutting has been applied for grade estimation. Grades in each respective mineralisation domain were weight averaged based on sample interval length. There was no selective sampling of shorter high-grade samples and samples were done in either 1m or 2m sample lengths. No metal equivalent values are being reported.
Relationship between mineralisation widths and intercept lengths	Ken's Bore Channel Iron mineralisation is sub-horizontal. All drilling at Ken's Bore is vertical and drilled perpendicular to mineralisation and channel stratigraphy. Mineralised intercepts are close to true width.
Diagrams	See main report for sections and plans.
Balanced reporting	Not applicable, exploration results have previously been reported. A Mineral Resource estimate has been completed.
Other substantive exploration data	Not applicable, exploration results have previously been reported. A Mineral Resource estimate has been completed
Further work	Further Exploration and resource development activities will continue at Ken's Bore. Planned work includes RC and Diamond drill programs. The RC drilling component of this work aims to increase the Mineral Resource confidence as well as extensions to the known footprint of the deposit. The diamond drilling component of this program is to obtain geo-metallurgical information for product specification and processing. Further close space grade control drilling will also continue at Ken's Bore to support the short-term mine plan.

Section 3 - Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	All the data used for the model has been stored in sequel server (p1sql002\acQuire (SQL server 13.0.1601.5 – PHIA-CSI) with acQuire frontend since 2022. All the data and associated metadata are managed by the dedicated database team and is protected by external and/or internal threats by MinRes IT department with high level of security. Data used in the resource estimation is collected in multiple drilling campaigns by various owners. Data migration was completed by a competent person (MinRes senior database geologist) with appropriate checks to ensure primary data and associated metadata are protected. Further data validations were completed by estimation geologist prior to grade estimation.
Site visits • Comment on any site visits undertaken by the Competent Person and the outcome of those	MinRes Specialist Resource Geologist Josh Rubenstein Visited Ken's Bore site in November 2022 to review the drilling and sampling, and concluded that the work competed was appropriate for the purposes of resource estimation.
Geological interpretation	Regional, local and deposit scale geology of Ken's Bore deposit is reasonably well understood. The deposit is Channel Iron Deposit (CID). Paleochannel geometry as well as primary mineralisation and waste layers are reasonably well defined. Hydrated goethite/ hematic zone (HYD and HYT), primary hematite/goethite mineralisation layer (TP), mixed friable unconsolidated pisoids and ooids zone (TPM), clay dominant waste layer and conglomerate waste bands geometry and boundaries are reasonably well defined. Tight spaced (12.5m x 12.5m) grade control drilling program covering 300m by 250m area is being drilled to better define grade control drilling requirements and results to date confirms the current interpretation.

Criteria	Commentary
	The Competent Person who completed the geological interpretation for Ken's Bore has a significant body of experience with channel iron deposits and iron ore in general and well in excess of the requisite minimum 5 years' experience required in the JORC Code. RC and diamond core logging data, full suite of multi-element geochemical data and available down hole geophysics data were used for geological interpretation of the deposit. Interpretation was completed on Vulcan 2023.2 software using gridded surface modelling. Geological interpretation, which is the basis for estimation domains, was further validated by exploratory statistical data analysis and boundary analysis prior to grade estimation. Overall geological continuity of modelled layers at Ken's Bore is reasonable. Average thickness of modelled mineralised and waste layers is reasonable, however, local variation of thickness is possible at mining scale, and this will be addressed at grade control and mine scale models. Grade control drilling completed to date confirms the grade continuity as well as thickness of modelled geology/estimation domains.
Dimensions	The current known extent of the mineralisation is reasonably defined over 11,000m length along the strike, and width varies from 200m to 2100m along the dip (flat). First hydrated mineralisation layer HYT starts from surface with an average thickness of ~7m and maximum thickness of 22m, with the strike length of over 4km and width of over 1km. This layer is laterally continuous at the central part but discontinuous in another part of the deposit. Second hydrated mineralisation that lies below the band of waste (with average thickness of ~16m), and overlies the primary TP mineralisation, has an average width of 5m. Depth to the second hydrated layer varies from 10-30m from surface depending on the position of the paleochannel. Primary TP mineralisation is directly below second hydrated mineralisation, and its average thickness is about 20m and thickest in the central part of the channel. Thickness decreases towards edges of the paleosurface. Basal mixed CID mineralisation (TPM) with average thickness of 6m, occurs below the primary CID mineralisation (TP), is thickest in the middle of the channel and tapers out towards the flank of the paleochannel.
Estimation and modelling techniques	Estimations of Fe, SiO_2, $Al2O_3$, P, S, LOI, TiO_2, CaO, MgO, MN, NaO for mineralisation domains; HYT, HYD, TP and TPM were carried out using ordinary kriging. Estimations of Fe, SiO_2, $Al2O_3$, P, S, LOI, TiO_2, CaO, MgO, MN for waste domains; DIW, CLA, TPB, CON, BAS, ALL were also carried out using ordinary kriging. Ordinary kriging is appropriate for estimation as data for variables estimated are collected in regular grids and adequate sample data for variography. Coefficient of variation is low. Estimation average for all waste domains. There are no cuts applied for any of the variables estimated. Assay data composited to 2m were used for estimation. Variography for Fe, SiO_2, $Al2O_3$, P, S, LOI, TiO_2, CaO, MgO, MN, NaO was performed in Micromine Software to determine search ranges for grade interpolation. Block model was constructed in Vulcan 2023.2 software with parent block size of 25mE, 25mN, and 4mRL, to reflect the half the drill hole spacing along X and Y direction and the proposed SMU size in Z direction. The blocks were sub-blocked to 5X x 5Y x 1Z for further geological definition. Search ellipsoid parameters were based on variography continuity analysis of all variables estimated by OK. QKNA was completed in Micromine to get optimum estimation parameters then multiple iterations of the estimate on Fe in each strand were run and the parameters that gave the slope of regression, kriging efficiency, percentage of blocks estimated in a pass and kriging variance were chosen. Grade interpolation was carried out in three passes, with each subsequent pass having relaxed search criteria. First search is approximately one third of the variogram range and increasing the search distance by another one third more in the subsequent passes. A minimum of 8, maximum of 32, and a maximum of 4 samples per hole and octant-based search combination was applied for estimating mineralisation domains HYT, HYD, TP and TPM. Volume comparison of current model was compared against the previous model completed in 2015 and volume and tonnes variance are within +/-4%. Fe grade variation is negligible. No by-products are present or modelled. A suite of deleterious elements significant to final economic product; SiO_2, Al_2O_3, P, S, LOI, TiO_2, CaO, MgO, MN, NaO was estimated for both mineralisation and waste domains. Please refer to the first section estimation technique for more details on estimation details.

Criteria	Commentary
	Sulfide risk was coded into the block model containing values which indicate the level of sulfide risk associated with each block. The following sulfide risk categories have been assigned to the geological block model. Sulfide risk = 0 (No Risk) or Low Risk S < 0.3. Average S values for all domains is very low ~0.013 %. Ten samples have S values greater than 0.3%. Two of these were above water table and 8 were below water table and spatially discontinuous. Parent block dimensions are 25mX x 25mY x 4mZ with sub cells of 5m x 5m x 1m. Parent blocks represent half the drill hole spacing along X and Y and half the bench height along Z direction. Block size in the RL dimension was chosen to align with the mine planning requirements of two mining flitches per each 8m bench height. There is very good correlation between Fe and some deleterious elements. Geological and mineralisation interpretation boundaries are the basis for estimation domains. Mineralisation and waste domains served as hard boundaries to constrain composite sample data and model blocks during the estimation process. No grade capping was applied to any of the estimation domains as exploratory statistical analysis did not indicate any requirements for top cut. Grade distribution of variables estimated do not show extreme outliers for majority of elements estimated. Coefficient of variation for the majority of variables estimated is low with the exception of K_2O, Na_2O, S and Mn. Inspection of probability plots also confirm this choice. Validation of the final Resources have been carried out in various ways, including onscreen validation of estimated blocks against drill data, swath plot validation and comparing global composite grade statistics verses block model grade statistics for all estimation domains. All modes of validation confirm estimates are within acceptable variance.
Moisture	Tonnages are estimated in dry basis.
Cut-off parameters	A cut-off grade of 50% Fe and 53% Fe has been used for the stated Mineral Resource estimate.
Mining factors or assumptions	Mining method is open pit. Dilution from blast movement and during digging is expected.
Metallurgical factors or assumptions	Metallurgical recovery properties are not being modelled or reported as part of the Resource estimation. However, suite of deleterious elements that may impact quality tolerance for final product was estimated. Further works are currently being planned to define recovery properties. Recovery has been assumed possible on the basis of the Feasibility Study competed by MIN in March 2022.
Environmental factors or assumptions	Mining waste is non-acid forming (“NAF”) and formed waste dumps will conform to WA standards. In the case of fiber mitigation, MinRes uses industry standard procedures. No material environmental factors have been identified that would prevent development at Ken’s Bore.
Bulk density	Density data for Ken’s Bore was determined, not assumed. Density data was collected for Ken’s Bore using three different methods; down hole geophysical methods, wax coated density and non-wax coted density from drill core samples. ABIMS was contracted to collect density using down hole probing with “Geovista Formation Density Version B (FDSB) sonde”. Two density measurements were recorded every 10cm, a long spacing and short spacing. The long spacing measurements correlated well with the wax coated core density data from commercial laboratory ALS and was the data used in the estimation. Density data was estimated into the model using 125 holes, using all the available data in December 2022. A total of 2618 composite samples were used. Any un-estimated blocks were assigned a density value by script based on detailed statistical analysis of available data. No bulk material density was determined as the mining has just commenced. Majority of deposit lacks cavity and vugs and lies above the water table. Some cavities/vugs are present in domain TPM domain below the water table but are discontinuous. For these reasons, the wax-coated technique for measuring the bulk density for bulk material is considered appropriate. Based on the available bulk density data, bulk density values have been assigned to un-estimated 2023 model blocks as follows: - HYT: 2.5 t/m^3

Criteria	Commentary
	- CON: 2.4 t/m^3 - BAS: 2.1 t/m^3 - TPB: 2.4 t/m^3 - CLA: 2.2 t/m^3 - ALL: 2.4 t/m^3 - DIW: 2.40 t/m^3
Classification	The Mineral Resource has been classified where it is contained within pit constraints that are based on long term pricing assumptions. Remaining mineralisation outside the pit has been left as unclassified. Indicated and Inferred Resources were classified using the following criteria: Indicated Resource – Mineralisation with good geological continuity and is defined by drilling on a 50mE x 50mN grid or better and supported by acceptable data quality. Estimation quality and geometric variability were also used as criteria to define Indicated Resource, limited to primary mineralisation domain TP with less grade variability. The indicated resource is limited to an extrapolation distance of 20m from the nearest informing composite data point. Inferred Resource – Mineralisation with assumed good geological continuity based on drill hole data that are wider than 50mE x 50mN. Limited to mineralisation domain with relatively high-grade variability HYT, HYD and TPM.
Audits or reviews	Golder and Associates completed West Pilbara Iron Ore Project BFS mineral resource estimate, which includes Ken's Bore in November 2017.
Discussion of relative accuracy/ confidence	Methodology applied for resource estimation is acceptable and appropriate. Estimate is robust, and comparable with previous estimate and global estimated grades. Mineral Resource has been validated both globally and locally against the input composite data using sections, swath plots and averages by domain. Statement relates to global estimate. The Mineral Resource estimate in 2023 represents an increase in tonnes at 50% Fe cut off. Grade variation between 2015 model and 2023 model are negligible (within 0.5% for Fe). There is no production data available to date for Ken's Bore Resource model comparison.