

21 February 2024

## Mt Marion underground Mineral Resource update

Mineral Resources Limited (ASX: MIN) (MinRes or Company) is pleased to advise the underground Mineral Resource for its Mt Marion lithium mine has increased 111%<sup>1</sup> to 19.3Mt at 1.22% Li<sub>2</sub>O as at 31 January 2024.

A diamond drilling program in the December quarter has significantly increased the confidence of the upper part of the North Pit underground resource. The North Pit underground ore body is vertically dipping, has a strike length of 500 metres and a thickness of 30-60 metres. Pegmatites have been intercepted at a depth of 1.2 kilometres below surface (see Figures 1 and 2).

MinRes expects to complete 80,000 metres of reverse circulation and diamond drilling over the next 18 months, including targeting the underground resource below the Central and C2 pits.

The encouraging underground drill results and resource update supports the decision to commence the underground exploration decline. A project milestone was recently achieved with the first blast fired for the decline box-cut.

The full updated Mt Marion Mineral Resource is reported in the Table below.

January 2024 Resource Update, reported above a 0.5% Li <sub>2</sub> O cutoff and depleted for mining up to 30 June 2023								
Category	Tonnes (Mt)	Li <sub>2</sub> O (%)	Fe (%)	MgO (%)	SiO <sub>2</sub> (%)	Al <sub>2</sub> O <sub>3</sub> (%)	CaO (%)	Density
<b>Open Pit</b>								
Indicated	41.8	1.44	0.94	0.73	72.58	15.74	0.49	2.7
Inferred	5.0	1.29	0.97	0.68	72.49	15.56	0.60	2.7
<b>Total</b>	<b>46.8</b>	<b>1.42</b>	<b>0.95</b>	<b>0.72</b>	<b>72.57</b>	<b>15.72</b>	<b>0.50</b>	<b>2.7</b>
<b>Underground</b>								
Indicated	12.9	1.27	0.93	1.21	73.00	15.37	0.37	2.7
Inferred	6.4	0.87	0.69	0.29	73.15	15.46	0.33	2.7
<b>Total</b>	<b>19.3</b>	<b>1.22</b>	<b>0.90</b>	<b>1.11</b>	<b>73.01</b>	<b>15.38</b>	<b>0.37</b>	<b>2.7</b>
<b>GRAND TOTAL (Open Pit + Underground)</b>								
Indicated	54.7	1.40	0.94	0.84	72.68	15.66	0.46	2.7
Inferred	11.4	1.05	0.81	0.46	72.86	15.50	0.44	2.7
<b>Grand Total</b>	<b>66.1</b>	<b>1.36</b>	<b>0.93</b>	<b>0.83</b>	<b>72.70</b>	<b>15.62</b>	<b>0.46</b>	<b>2.7</b>

Table 1: Mt Marion Mineral Resource update as at 31 January 2024 (100% basis).

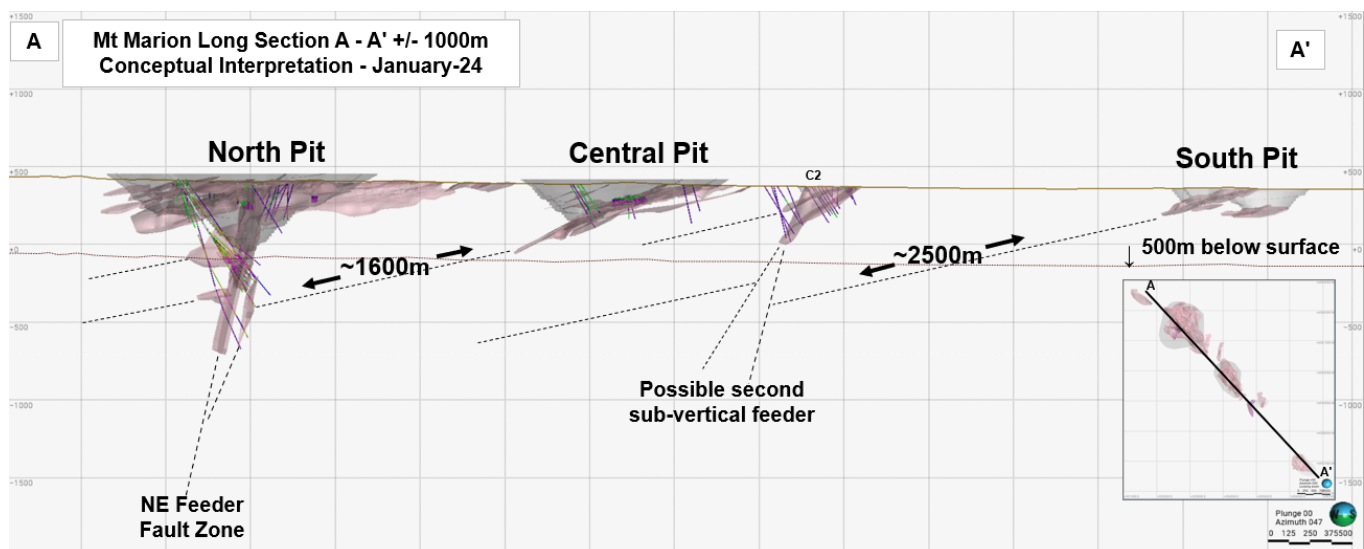


Figure 1: Mt Marion long section, illustrating the relative position of the North Pit and potential underground portion of the Mineral Resource

<sup>1</sup> From 30 June 2023 – refer to ASX Announcement 22 September 2023

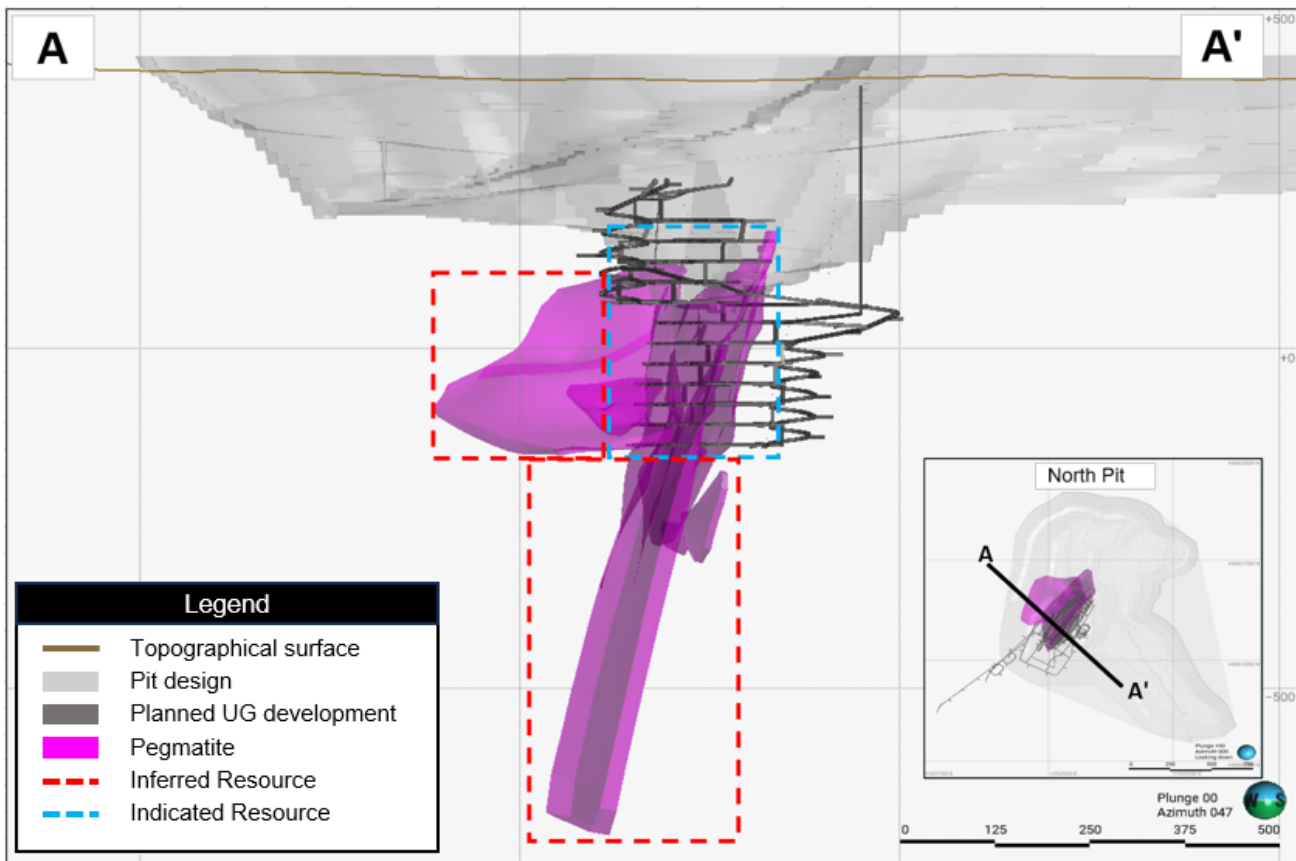


Figure 2: Conceptual representation of a potential underground extraction sequence for the upper portion of the Mt Marion underground Mineral Resource below the North Pit

In accordance with the JORC Code requirement for Reasonable Prospects for Eventual Economic Extraction (RPEEE), this update includes considerations of the combined open pit and underground extraction as there is now a substantial portion of Indicated Mineral Resource in the upper part of the underground estimate. Previous RPEEE considerations for the Mt Marion project were largely focused on open pit extraction, as the previous underground Mineral Resource was classified as Inferred.

### 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 are 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.

### ENDS

This announcement dated 21 February 2024 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](http://www.mineralresources.com.au).

## ATTACHMENT 1:

Mineral Resources and Ore Reserves estimates are reported 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 following points are disclosed in accordance with the requirements of ASX Listing Rule 5.8.1.

## 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.
- Individual pegmatites vary approximately 300m to 1,500m in strike, and average 15m in thickness, varying locally between sub-2m up to 35m thick within the main intrusions.
- Geological interpretation was carried out using implicit modelling in Leapfrog Software. The pegmatite domains were assigned using lithology logging in combination with SiO<sub>2</sub> (>65% ) and MgO (<1.5%) analyte grades to pinpoint the pegmatite-waste boundary in each drill hole.
- The pegmatite shapes were snapped to each assigned domain on all drillholes that fully pass through the domain.
- The pegmatite-waste boundary has been treated as “hard”, with lithium, iron and magnesium values changing abruptly across the boundary.
- Minimum mineralisation widths of 1 metre, and 3 metres maximum internal waste criteria were applied. Where internal waste is continuous both along and across drill lines, internal waste was excluded from the mineralisation envelope.
- Lateral extents were limited to half the nominal drill spacing, the feeder zone was extended approximately 200 metres beyond the deepest drillhole. Depth constraint was based on geometry of the shape and geological continuity observed in the drillholes intercepting the domain.
- 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.

## Sampling and sub-sampling techniques

- 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.
- 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 1 metre intervals.
- Rotary percussion (RP) drill holes were down-hole sampled at 1 metre intervals. All sub-samples were generated using a riffle splitting system.

## Drilling techniques

- RC drilling using face sampling hammers and cyclones comprised 98% of all drill metres.
- Diamond drilling comprises ~5% of all drill metres. 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.
- RP drilling comprises <0.4% of all drill metres, and only used in the earlier drilling programs.

### The criteria used for classification

- Whittle shell optimisation and life of mine modelling confirm the reasonable prospect for eventual economic extraction for the Open Pit Resource. The Underground Resource is supported by a concept level study.
- 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 40mE x 40mN grid or better and supported by acceptable down the hole survey control.
  - Nominally limited to an extrapolation distance of 20 metres 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 metres 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<sub>2</sub>O) 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

- 1 metre composites were used for the estimation.
- Ordinary kriging (OK) was used to estimate Li<sub>2</sub>O, and inverse distance squared (ID2) was used for Al<sub>2</sub>O<sub>3</sub>, CaO, Fe, K<sub>2</sub>O, MgO, MnO, Na<sub>2</sub>O, P, S, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub>, and LOI. Multiple passes of estimation were run to fill blocks.
- The estimation was constrained within manually generated domains defined from the resource drillhole dataset and guided by a geological model.
- Block model dimensions used are 15 metres (east) by 15 metres (north) by 5 metres (elevation) with sub-blocking down to 5 metres (east) by 5 metres (north) by 1 metre (elevation).
- The estimation was constrained within manually generated domains defined from the resource drillhole dataset and guided by a geological model.
- The drillhole database was filtered to create composite 1 metre samples within the pegmatite only. No mineralisation was interpreted outside the bounding pegmatite geological unit.
- 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 oxidised, partially oxidised 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<sub>2</sub>O 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. This cut-off is also supported for underground Resources by concept level underground mining studies.

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

- Mining at Mt Marion is currently via an open pit. Dilution from blast movement and during digging is anticipated.
- Underground mining assumes a minimum mining width of 10 metres and 10% ore loss.
- Metallurgical recovery based on current plant performance has been assumed.

## ATTACHMENT 2: JORC Table 1 - Mount Marion Lithium

### Section 1 - Sampling Techniques and Data

Criteria	Commentary
<b>Sampling techniques</b>	<p>The bulk of the data used for resource estimation was derived from the logging and sampling of reverse circulation drilling. 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.</p> <p>Samples were collected in line with the Reed Resources Limited Sampling techniques used for drilling at Mt Marion, and the MinRes RC Logging and Sampling Procedure (MINRES-TS-PRO-0003).</p> <p>Reverse circulation drilling was used to obtain 1m samples from which 3kg was pulverised to produce a 100-200g charge for assay.</p> <p>Diamond drilling was a significant component of the underground update. Primarily HQ core was drilled for resource estimation work, with some PQ core drilled for metallurgical and geotechnical sampling. Minimum and maximum samples lengths were 0.3m and 1.2m, with most intervals being 1.0m. 3kg of core was pulverised to produce a 100-200 g charge for assay. Metallurgy designated diamond core was marked up to 1m down hole intervals from which 3kg was pulverised to produce a 100-200g charge for assay.</p> <p>MinRes procedures applied were:</p> <ul style="list-style-type: none"> <li>RC SAMPLING PROCEDURE MRL-TS-PRO-0003</li> <li>MRL-EX-PRO-0028 - Diamond Core Sampling_Draft</li> <li>MRL-EX-PRO-0015 - Diamond Core Metre Marking</li> </ul> <p>MinRes sampling procedures: 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.</p>
<b>Drilling techniques</b>	<p>The majority 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.</p> <p>Diamond drilling was a significant component of the underground update. Primarily HQ core was drilled for resource estimation work, with RC pre-collars, in the deep feeder zone which has been designated the underground Mt Marion resource.</p> <p>Drill core was oriented using an electronic "Reflex" core orientation tool. The "Reflex" tool is calibrated on the surface and attached to the barrel at the end of the drill string. The "Reflex" tool constantly monitors down gravity vectors.</p>

Criteria	Commentary
	<p>MinRes procedures applied were:</p> <ul style="list-style-type: none"> <li>• MRL-EX-PRO-0014 - Diamond Core Orientation</li> </ul> <p>Some diamond core drilling (NQ, HQ3 and PQ3 diameter core) was undertaken to collect samples for metallurgical/geotechnical test work.</p> <p>Historical drilling completed in the 1970s accounts for less than 1% of the drilled metres, with the remainder drilled by Reed Resources Ltd (<b>Reed</b>) and Reed Industrial Minerals Pty Ltd (<b>RIM</b>) in 2009 to 2011 and MinRes in 2015 to 2022.</p> <p>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.</p>
<p><b>Drill sample recovery</b></p>	<p>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).</p> <p>Core recovery from the 2015 and 2016 diamond drilling averages 98%, with a standard deviation of 15% recovery. Similar recoveries were noted in the recent 2023 diamond drilling supporting the Mt Marion underground update.</p> <p>Sample recovery was visually estimated for the 2015 to 2023 RC drilling programs. No relationship was noted between sample recovery and grade, and sample bias has not occurred due to preferential loss/gain of fine/coarse material.</p> <p>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.</p> <p>Core recovery was maximised by ensuring that drilling equipment selection was based on ground and site conditions. Factors including ground variability, hardness, competency, and abrasiveness of the pegmatite were factors that were considered.</p> <p>No relationship was observed between sample recovery and grade.</p> <p>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.</p>
<p><b>Logging</b></p>	<p>Logging was qualitative in nature. Core and chip tray photography was completed.</p> <p>The majority of waste and pegmatite mineralisation intervals were logged.</p> <p>Some of the pre-2015 drilling does not have any geological logging.</p> <p>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.</p>
<p><b>Sub-sampling techniques and sample preparation</b></p>	<p>Diamond drillholes, were sampled using quarter core (2009 to 2011) or half core (2016 to present) samples, cut with a diamond saw.</p> <p>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.</p> <p>Pre-2015 non-core samples were drilled dry. Post-2015 non-core samples were drilled wet.</p> <p>Laboratory sample preparation conducted at Genalysis, ALS, SGS and the site lab at Mt Marion follow very similar processes comprising:</p> <ul style="list-style-type: none"> <li>• Drying at 105°C</li> </ul>

Criteria	Commentary
	<ul style="list-style-type: none"> <li>• Crush to a nominal top size of 6.3mm</li> <li>• Pulverising to 80% to 85% passing 75µm</li> <li>• Approximate 200g subsample collected from pulp using a rotary divider (Genalysis, ALS, SGS &amp; Mt Marion laboratory) or by scooping (Nagrom).</li> </ul> <p>Before 2015, single field duplicates were taken from each drill hole. After 2015, field duplicates were taken at every 20<sup>th</sup> sample. Field duplicates were not collected for core samples.</p> <p>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.</p> <p>Minor sampling errors were observed in the field data, however there was no grade bias 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.</p> <p>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.</p>
<p><b>Quality of assay data and laboratory tests</b></p>	<p>No QAQC of historical drilling, however, this comprises less than 1% of drilled metres and is not considered material.</p> <p>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 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.</p> <p>Li<sub>2</sub>O determined by four-acid digest with AAS finish for 2009 – 2011 data and by peroxide fusion digest with ICP finish for the MINRES (EXPL &amp; MINING) 2015 – 2022 samples.</p> <p>MinRes (Exploration) samples were analysed using XRF for the following analytes: Al<sub>2</sub>O<sub>3</sub>, CaO, Cr<sub>2</sub>O<sub>3</sub>, Fe, K<sub>2</sub>O, MgO, MnO, Na<sub>2</sub>O, Nb, P, SiO<sub>2</sub>, SO<sub>3</sub>, Ta and TiO<sub>2</sub>. Loss on ignition (LOI) at 1000°C measured by thermogravimetric analysis (TGA).</p> <p>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.</p> <p>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.</p> <p>2015 – 2022 MinRes (Exploration) 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.</p> <p>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.</p> <p>Analysis was carried out using Inductively Coupled Plasma Mass Spectrometry (ICP-MS), Atomic Absorption Spectrometry (AAS), X-Ray Fluorescence (XRF), and thermogravimetric analysis.</p>

Criteria	Commentary
	<p>Results show reasonable accuracy and precision was achieved during sampling, sample preparation and assaying.</p> <p>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.</p> <p>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.</p> <p>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.</p>
<b>Verification of sampling and assaying</b>	<p>Inspection of diamond core photographs and RC chip trays was used as a means of independently verifying significant intersections.</p> <p>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.</p> <p>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.</p> <p>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<sub>2</sub>O, from Fe<sub>2</sub>O<sub>3</sub> to Fe, from P<sub>2</sub>O<sub>5</sub> to P, From SO<sub>3</sub> to S, and from Ta to Ta<sub>2</sub>O<sub>5</sub> was required. No other adjustments have been made to the assay data.</p>
<b>Location of data points</b>	<p>The location of the drill hole collars from 2009 onwards have been accurately surveyed by a 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.</p> <p>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 100m.</p> <p>Deviation becomes slightly more of a concern at depth, and a measured pace of drilling and the use of directional drilling controls allowed any deviations to be managed. There were no material deviations at depth. Deviation was monitored for all deep DD holes using Axis Champ North Seeking gyroscopes. Any excessive deviation was corrected with HX and NX tool work to maintain optimal drill spacing. All tools pass a weekly validation check in a test stand for 2 different azimuth directions.</p> <p>A LIDAR topographic survey based on 1m contours, completed in 2015 by AAM Group is available across the tenement package. The topographic surface is validated by the drill hole collar surveys.</p> <p>The grid is based on the MGA94 Zone 51 grid system.</p> <p>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.</p>
<b>Data spacing and distribution</b>	<p>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.</p>



Criteria	Commentary
	<p>MinRes (Mining) 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.</p> <p>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.</p> <p>The section spacing is considered by the Competent Person to be sufficient to establish the degree of geological and grade continuity necessary to support the resource classifications that were applied.</p>
<b>Orientation of data in relation to geological structure</b>	<p>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.</p> <p>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 deeper Mt Marion underground estimate.</p> <p>The following procedures were used:</p> <ul style="list-style-type: none"> <li>• MRL-EX-PRO-0014 - Diamond Core Orientation</li> <li>• MRL-EX-FOR-0011- Exploration Drillhole Validation Record</li> </ul> <p>The relationship between drilling orientation and the orientation of key mineralised structures were not considered to have introduced a sampling bias.</p> <p>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.</p>
<b>Sample security</b>	<p>No specific measures have been taken to ensure sample security. Once received at the offsite 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.</p>
<b>Audits or reviews</b>	<p>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.</p> <p>The May 2022 estimate was reviewed by RPM Global, and no critical issues were identified.</p> <p>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 and the Mt Marion underground update in 2024. No critical issues were found.</p>

## Section 2 - Reporting of Exploration Results

Criteria	Commentary
<b>Mineral tenement and land tenure status</b>	<p>Granted Mining Leases M15/717, M15/999 and M15/1000. Leases granted to RIM), which is a joint venture between MinRes (50%) and Jiangxi Ganfeng Lithium Co. Ltd (50%).</p> <p>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</p>

Criteria	Commentary
	<p>Neometals Ltd announcement dated 7 July 2015 entitled "Completion of transaction with Metals X".</p> <p>The tenements are in good standing with no known impediments.</p>
<p><b>Exploration done by other parties</b></p>	<p>Initial drilling at Mt Marion was completed by Western Mining Corporation (WMC) in the 1970s. WMC drilling accounts for 0.5% of the total exploration drill meters. Further drilling was carried out by Reed 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.</p>
<p><b>Geology</b></p>	<p>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 1,500m 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.</p> <p>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.</p> <p>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.</p>
<p><b>Drill hole Information</b></p>	<p>A Mineral Resource estimate has been completed; no exploration results are reported</p>
<p><b>Data aggregation methods</b></p>	<p>Data was aggregated based on mineralisation domain. Grade for Li<sub>2</sub>O were weight averaged based on sample interval length. No grade cutting has been applied.</p> <p>Grades in each respective mineralisation domain were weight averaged based on sample interval length.</p> <p>No metal equivalent values are being reported.</p>
<p><b>Relationship between mineralisation widths and intercept lengths</b></p>	<p>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.</p>

Criteria	Commentary
<b>Diagrams</b>	Summary maps and sections are included in the body of the report.
<b>Balanced reporting</b>	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.
<b>Other substantive exploration data</b>	No other material exploration data to report.
<b>Further work</b>	<p>Both exploration and mine development drilling are ongoing across the project.</p> <p>Planned exploration work includes RC and Diamond drill programs to continue increasing the Mineral Resource confidence and support more detailed mine planning and optimisation work in the pit, and underground portion of the Mt Marion deposits.</p> <p>Diamond drilling is planned to extend further geotechnical investigations to support more detailed mine design and metallurgical test work to inform and improve yield parameters through the processing plant.</p> <p>The RC grade control drill program continues to support short term mine-planning.</p>

### Section 3 - Estimation and Reporting of Mineral Resources

Criteria	Commentary
<b>Database integrity</b>	<p>MinRes stores all of the Mt Marion drilling information in an Acquire database managed by MinRes.</p> <p>No significant flaws were identified.</p>
<b>Site visits</b>	<p>MinRes General Manager Exploration &amp; Geology 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 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.</p>
<b>Geological interpretation</b>	<p>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.</p> <p>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.</p> <p>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.</p> <p>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.</p>

Criteria	Commentary
	<p>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<sub>2</sub>O, Fe and MgO content). The pegmatite intersections are easily identified in the drilling.</p> <p>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<sub>2</sub>O threshold value above 0%.</p> <p>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<sub>2</sub>O threshold value is below 0.5%. Samples falling outside these parameters have been re-designated as waste rock, with Li<sub>2</sub>O 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.</p> <p>Lateritic weathering and hydration zone were investigated for impact on grade and geology. The impact was considered negligible.</p> <p>No lithium speciation has been observed in the deposit. Spodumene is the only lithium mineral present.</p> <p>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).</p> <p>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.</p>
<b>Dimensions</b>	<p>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 1,500m 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 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.</p>
<b>Estimation and modelling techniques</b>	<p>Estimation of Li<sub>2</sub>O was carried out using ordinary block kriging, an inverse distance squared check estimate was completed for Li<sub>2</sub>O.</p> <p>Estimation of Al<sub>2</sub>O<sub>3</sub>, CaO, Fe, K<sub>2</sub>O, MgO, MnO, Na<sub>2</sub>O, P, S, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub> and LOI1000 was carried out using inverse distance squared weighting.</p> <p>Top cuts were reviewed and were not considered to be necessary.</p> <p>Dynamic anisotropy was used to adjust the search ellipse and variogram orientation based on the local dip and dip direction of the geological interpretation.</p> <p>The block model was constructed using a parent block size of 15mE by 15mN by 5mRL based on assessment of grade continuity, and pragmatic considerations for mineability. The search ellipse orientation and radius were based on the results of the Li<sub>2</sub>O grade continuity analysis, with the same search neighbourhood parameters used for all analytes to maintain the metal balance and correlations between analytes.</p> <p>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</p>

Criteria	Commentary
	<p>to populate blocks with grades by the second search pass, then those blocks were given a default grade equivalent to the domain average.</p> <p>Pegmatite mineralisation was modelled, along with the surrounding host rock domains.</p> <p>The OK Li<sub>2</sub>O estimates were validated against inverse distance squared estimates for each pegmatite lens. Check estimates confirmed the primary OK results.</p> <p>No by-products are present or modelled.</p> <p>Along with Li<sub>2</sub>O, Al<sub>2</sub>O<sub>3</sub>, CaO, Fe, K<sub>2</sub>O, MgO, MnO, Na<sub>2</sub>O, P, S, SiO<sub>2</sub>, Ta<sub>2</sub>O<sub>5</sub>, TiO<sub>2</sub> and LOI have been estimated into the pegmatite lenses and the waste rock domains.</p> <p>Block dimensions are 15mE by 15mN by 5mRL with sub-cells to 5mE by 5mN by 1mRL.</p> <p>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<sub>2</sub>O grade continuity analysis, with the same search neighbourhood parameters used for all analytes to maintain the metal balance and correlations between analytes.</p> <p>Correlation between variables is low. No assumptions were made.</p> <p>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.</p> <p>No grade capping was applied, as analysis indicated that it was not necessary.</p> <p>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.</p> <p>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.</p>
<b>Moisture</b>	Tonnages were estimated on a dry basis.
<b>Cut-off parameters</b>	<p>A cut-off grade of 0.5% Li<sub>2</sub>O has been used for the stated Mineral Resource estimate.</p> <p>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<sub>2</sub>O. 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.</p> <p>The sensitivity of the Mineral Resource to the reporting cut-off grade is minimal at cut-off grades below 0.5%.</p> <p>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.</p>
<b>Mining factors or assumptions</b>	<p>Mining method is open pit. Dilution from blast movement and during digging is expected.</p> <p>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 for the Open Pit and concept level study for the underground.</p>

Criteria	Commentary
<b>Metallurgical factors or assumptions</b>	<p>To date, all encountered mineralisation across the project area occurs as spodumene.</p> <p>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.</p> <p>Metallurgical recovery properties are not being modelled or reported as part of the Resource estimation.</p> <p>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.</p>
<b>Environmental factors or assumptions</b>	<p>Mining waste is considered to be non-acid forming (<b>NAF</b>) and formed waste dumps will conform to WA standards. In the case of fibre mitigation, MinRes uses industry standard procedures.</p> <p>No environmental factors have been identified that would stop further development at the Mt Marion site.</p>
<b>Bulk density</b>	<p>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.</p> <p>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 were collected and tested using the wax-coated technique.</p> <p>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.</p> <p>Based on the available bulk density data, bulk density values have been applied to the model blocks as follows:</p> <ul style="list-style-type: none"> <li>• oxidised pegmatite: 2.60t/m<sup>3</sup></li> <li>• transitional pegmatite: 2.70t/m<sup>3</sup></li> <li>• fresh pegmatite: 2.72t/m<sup>3</sup></li> <li>• oxidised mafic: 2.20t/m<sup>3</sup></li> <li>• transitional mafic: 2.60t/m<sup>3</sup></li> <li>• fresh mafic: 2.80t/m<sup>3</sup></li> <li>• oxidised ultramafic: 2.40t/m<sup>3</sup></li> <li>• transitional ultramafic: 2.70t/m<sup>3</sup></li> <li>• fresh ultramafic: 2.90t/m<sup>3</sup></li> </ul> <p>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.</p>
<b>Classification</b>	<p>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.</p> <p>Indicated and Inferred Resources were classified using the following criteria:</p> <ul style="list-style-type: none"> <li>• Indicated resource – mineralisation with good geological continuity and defined by drilling on a 40me x 40mn grid or better and supported by acceptable down hole survey control. The indicated resource is nominally limited to an extrapolation distance of 20m from the</li> </ul>

Criteria	Commentary
	<p>nearest informing composite data point. The interpreted wireframe envelope used to classify blocks as indicated was also smoothed for practical considerations for mineability.</p> <ul style="list-style-type: none"> <li>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 hole survey control. The inferred resource is nominally limited to a down dip extrapolation distance of 60m from the nearest informing drill hole. The interpreted wireframe envelope used to classify blocks as inferred was also smoothed for practical considerations for mineability.</li> </ul> <p>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 distribution of the data) have been considered appropriately. The classification categorisation applied to the estimate is considered by the Competent Person to be appropriate for the style of mineralisation.</p>
<b><i>Audits or reviews</i></b>	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.
<b><i>Discussion of relative accuracy/confidence</i></b>	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.