

13 November 2024

Bald Hill Operations and Mineral Resources Update

Mineral Resources Limited (**ASX: MIN**) (**MinRes** or **Company**) wishes to provide an update on operations at its Bald Hill lithium mine (**Bald Hill**), located 50 kilometres south-east of Kambalda in the Goldfields region, and an upgrade to the project's Mineral Resource.

Operations update

Following a strategic review and in light of a prolonged period of low spodumene concentrate prices, Bald Hill will be safely transitioned into care and maintenance from this week.

The transition to care and maintenance will preserve cash and the value of Bald Hill's spodumene orebody for when conditions in the global lithium market improve.

Mining and mobile maintenance operations will cease from today, with the spodumene concentrate plant and accommodation village scheduled to temporarily cease operations by early December 2024.

Approximately 300 employees will be impacted and all Bald Hill employees will be prioritised for redeployment across MinRes' other operations in Western Australia. Where redeployment opportunities cannot be found, a redundancy process will be followed.

The final shipment of Bald Hill spodumene concentrate is anticipated to be sold in December, with FY25 shipped SC6 volumes now expected to be approximately 60k dry metric tonnes (dmt), versus prior volume guidance of 120-145k dmt SC6 equivalent.

A team of approximately 10 employees will remain on site to coordinate production ramp-down and care and maintenance activities.

When the global lithium price improves to a level that incentivises a restart of Bald Hill, a ramp-up back to full operation is anticipated to take approximately four to six weeks.

During care and maintenance, MinRes will continue to optimise mine plans, scale and operating structure ahead of any future restart.

Updated Mineral Resources statement

MinRes also wishes to provide an updated Mineral Resources statement for Bald Hill as of 30 June 2024.

The updated Bald Hill Mineral Resources of 58.1Mt at 0.94% Li₂O is a 168% increase from the prior June 2018 estimate of 21.7Mt.

This change is the result of the inclusion of a large drilling dataset completed since the June 2018 estimate which aided in the re-interpretation, geological modelling and resource estimation workflows for the 2024 estimate.

A detailed resource statement and the associated Table 1 is attached to this update.

The updated Mineral Resources confirms the inherent value of the Bald Hill project and underscores the importance of preserving the orebody for when global lithium market conditions are more favourable.

Separately, recent exploration work has identified additional resource potential across the tenure.

MinRes Managing Director Chris Ellison said:

"Bald Hill is a significant value opportunity for MinRes once conditions in the lithium market improve.

"Placing Bald Hill on care and maintenance is a prudent decision but one not made lightly. The decision aligns with the work we have done across the company in recent months to reduce costs.

"The significant upgrade to the Mineral Resources statement is evidence that Bald Hill is a high-quality asset with a long-term future.

"We will continue to monitor lithium prices and site operating costs with a view to recommencing operations once conditions improve."

BALD HILL MINERAL RESOURCES STATEMENT AS AT 30 JUNE 2024

MinRes is pleased to provide a Mineral Resources statement (100% basis) for its Bald Hill lithium deposit, which is 100% owned and operated by MinRes.

Highlights

- The updated Bald Hill Mineral Resources of 58.1Mt at 0.94% Li₂O is a 168% increase from the prior June 2018 estimate at a >0.3% Li₂O cutoff grade as of 30 June 2024.
- Key changes between model versions include:
 - inclusion of a large drilling dataset completed since the June 2018 estimate which aided in the re-interpretation, geological modelling and resource estimation workflows for the 2024 estimate
 - additional mineralisation domains identified, located north-west and south-east along strike of the deposit and extending at depth
 - increased confidence with the geological model and continuity of mineralisation, leading to an upgrade of Inferred to Indicated classification, and definition of additional Inferred material.

Mineral Resources 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 Bald Hill figures are currently solely based on an open pit scenario. Pending further deep drilling success, there is additional opportunity to incorporate underground extraction considerations.

Bald Hill's Indicated & Inferred Mineral Resources are reported as 58.1 Mt at 0.94% Li₂O. This was the first time the estimate was completed under MinRes' ownership. This has resulted in a significant change since the previous statement reported in June 2018 by Tawana Resources (delisted). Table 1 illustrates the comparison between the previous and current estimate.

The May 2024 model incorporated 777 additional holes within the geological model interpretation database, and 599 additional holes within the estimation database, as shown in Table 2.

Category	2024		2018	
	Tonnes (Mt)	Li ₂ O (%)	Tonnes (Mt)	Li ₂ O (%)
Indicated	17.2	0.91	9.6	1.01
Inferred	40.9	0.95	12.1	0.90
TOTAL	58.1	0.94	21.7	0.95

Table 1: Bald Hill Mineral Resources reported $\geq 0.3\%$ Li₂O cut-off and depleted for mining as of 30 June 2024

Hole type	Geology Interpretation		Resource Estimation	
	2018	2024	2018	2024
Diamond (DD)	12	45	12	26
RC DD tails	17	37	17	32
Reverse Circulation (RC)	1099	1823	699	1269
TOTAL	1128	1905	728	1327

Table 2: Numbers of drillholes used in interpretation and estimation

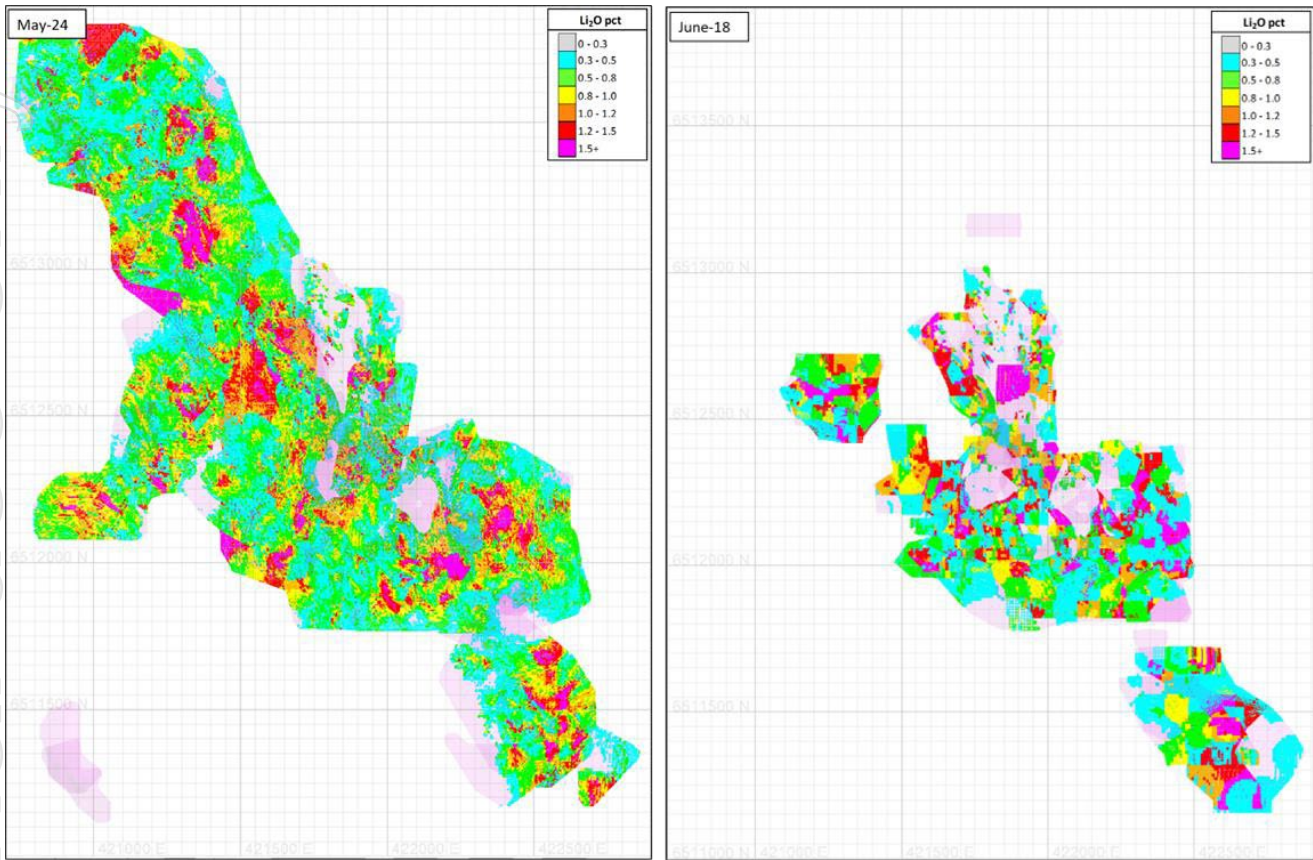


Figure 1: Illustration of May 2024 and June 2018 Resource Models, reported using a $\geq 0.3\%$ Li_2O cut-off-grade

The classification of the 2024 estimate was based on the following considerations:

- Data quality, data quantity and robustness of geological model.
- Quality of estimate.
- Geometric variability.
- Uncertainty.

Detailed consideration of the separate confidence categories were as follows:

- **Measured Resource** – Mineralisation with a high level of confidence in geological continuity and defined by drilling on a 20mE x 20mN grid or better.
 - Both the May 2024 and June 2018 models do not include a Measured Resource Classification.
- **Indicated Resource** – Mineralisation with a moderate level of confidence in geological continuity and defined by drilling on a 40mE x 40mN grid or better.
- **Inferred Resource** – Mineralisation with a lower level of confidence in geological continuity and defined by drilling $\geq 40\text{mE} \times 40\text{mN}$ grid.
- **Unclassified Resource** – Mineralisation with a low level of confidence in geological continuity and defined by drilling $\geq 60\text{mE} \times 60\text{mN}$.

Classification wireframes were created following the application of the above primary criteria to reflect additional considerations for reasonable prospects for eventual economic extraction (RPEEE). These wireframes closely mirror the primary criteria applied, with additional considerations for the existing ongoing mining operations.

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 Bald Hill area is underlain by generally north-striking, steeply dipping Archaean metasediments (schists and greywackes) and granitoids.
- Geological interpretation was carried out using implicit modelling in Leapfrog Software.
- The pegmatites vary in width and are generally comprised quartz-albite-muscovite-spodumene in varying amounts.
- Weathering of the pegmatites yields secondary mineralised accumulations in alluvial deposits.

Sampling and sub-sampling techniques

- Reverse circulation (RC) drill holes are sampled at 1m intervals through the pegmatite. Waste is sampled at 6m intervals.
- PQ, HQ3 and NQ2 drill core is typically continuously sampled at 2m intervals through pegmatite intercepts. Where required by changes in lithology, mineralisation, or alteration, core samples may be shorter or longer than the typical 2m core was collected for metallurgy and density test work.

Drilling techniques

- RC drilling using face sampling hammers and cyclones comprised 97% of all drill meters.
- Diamond drilling comprises ~3% of all drill metres. Hole diameters were PQ and HQ3 with NQ2 diamond tails on the end of RC drill holes to reach the deeper parts of the orebody.

The criteria used for classification

- 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.
- 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 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.
- 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 defined by drilling >40mE x 40mN grid, and limited to a down dip extrapolation distance of 60m 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 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.

Estimation methodology

- Nominal 1m composites were used for the estimation.
- Ordinary kriging (OK) was used to estimate Li_2O , Fe_2O_3 and Ta_2O_5 . 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 using a 0.3 % Li_2O cut-off. This cut-off defines an appropriate tonnage and grade that can be extracted once Ore Reserves are estimated.

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 1.

GOVERNANCE STATEMENT

All estimates are internally peer reviewed on a technical basis prior to public release. All public releases 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 Resources 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.

ENDS

This announcement dated 13 November 2024 has been authorised for release to the ASX by Mark Wilson, Chief Financial Officer and Company Secretary.

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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.

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APPENDIX 1: BALD HILL LITHIUM: JORC (2012) TABLE 1 ASSESSMENT CRITERIA

Section 1 – Sampling techniques and data

	Commentary
<p>Sampling techniques</p>	<p>The Bald Hill project database contains 1,905 holes, totaling 219,583m of drilling. This comprises 1,821 reverse circulation (RC), 37 RC with diamond core tails (RCD) and 45 diamond drilling (DD) holes.</p> <p>The Bald Hill Mineral Resource is based on assay data from 1,327 of these holes, consisting of 1,269 RC holes, 32 RCD holes and 26 DD holes.</p> <p>RC cuttings were continuously sampled at 1m intervals through all pegmatite intercepts including 3m of waste above and below each intercept.</p> <p>DD core is typically continuously sampled at 2m intervals through pegmatite intercepts.</p> <p>Where required by changes in lithology, mineralisation, or alteration, core samples may be shorter or longer than the typical 2m.</p> <p>The majority of drillhole collars are accurately surveyed using RTK DGPS equipment.</p> <p>Drill samples are logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features.</p> <p>Half diamond core was collected and placed in marked plastic sacks and shipped to the assay laboratory.</p> <p>RC samples were collected and placed in marked plastic bags which were placed in sacks and then shipped to the assay laboratory.</p> <p>Drill samples are jaw crushed and riffle split to 2–2.5 kg for pulverizing to 80% passing 75 microns. Prepared samples are fused with sodium peroxide and digested in dilute hydrochloric acid.</p> <p>The solution is analysed using ICP at the SGS Laboratory in Kalgoorlie. Before MinRes took over in Q3-2023, samples were analysed at Nagrom Laboratory in Perth. This shift to SGS aligns with MinRes' other Lithium deposits, such as Mount Marion and Wodgina, which are also analysed at SGS.</p> <p>The assay technique is considered to be robust as the method used offers total dissolution of the sample and is useful for mineral matrices that may resist acid digestions.</p> <p><i>The Co-Competent Persons are satisfied that the sampling techniques are appropriate for the style and tenor of mineralisation and fit for the purpose of supporting resource estimation.</i></p>
<p>Drilling techniques</p>	<p>RC was drilled using 4.5-inch (140 mm) rods with a nominal 5.9-inch (150 mm) diameter hole. Diamond core used either PQ, NQ2 or HQ3 diameter core. Core was oriented where possible.</p> <p>All DD holes and ~99% of RC drillholes are angled; the remainder were drilled vertically.</p> <p><i>The Co-Competent Persons are satisfied that the drilling techniques are appropriate and fit for the purpose of supporting resource estimation.</i></p>

Commentary

Chip recovery or weights for RC drilling were not recorded. Core recovery is very good through the mineralised zones and estimated to be greater than 90%.

RC drilling generally utilised an external booster to keep samples dry and maximising recoveries. The majority of RC holes are shallow (<150 m) with very few wet samples encountered.

No relationship between grade and recovery has been identified.

The Co-Competent Persons are satisfied that the drill sample recovery is adequate and fit for the purpose of supporting resource estimation.

Geological logs exist for all drillholes with lithological codes via an established reference legend.

Drill samples were logged for lithology, weathering, structure (diamond core), mineralogy, mineralisation, colour and other features. Logging and sampling has been carried out to "industry standards" to a level sufficient to support the Mineral Resource estimate.

Drillholes have been geologically logged in their entirety. Where logging was detailed, the subjective indications of spodumene content were estimated and recorded.

All drillholes are logged in full, from start to finish of the hole.

The Co-Competent Persons are satisfied that the logging is appropriate for the style and tenor of mineralisation and fit for the purpose of supporting resource estimation.

Where sampled, core is cut in half onsite using a core saw, to produce two identical halves.

Dry RC samples were collected at 1 m intervals and riffle or cone split on-site to produce a subsample less than 5 kg.

Sample preparation is according to industry standard, including oven drying, coarse crush, and pulverisation to 80% passing 75 microns.

Subsampling is performed during the preparation stage according to the assay laboratories' internal protocol.

Field duplicates, laboratory standards and laboratory repeats are used to monitor analyses.

The Co-Competent Persons consider sample sizes to be appropriate and correctly represent the style and type of mineralisation.

The assay technique is considered to be robust as the method used offers total dissolution of the sample and is useful for mineral matrices that may resist acid digestions.

For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. None were used.

Standards and duplicates were submitted in varying frequency throughout the exploration campaign and internal laboratory standards, duplicates and replicates are used for verification.

Drill sample recovery

Logging

Subsampling techniques and sample preparation

Quality of assay data and laboratory tests

Commentary

The Co-Competent Persons are satisfied that quality of assay data and laboratory tests are appropriate for the purpose of supporting resource estimation.

Verification of sampling and assaying

Mineral Resources geologists have verified these significant intersections concurrent with this update. The Ta and Li assays show a marked correlation with the pegmatite intersections via elevated downhole grades.

The Co-Competent Persons are satisfied that the verification is acceptable.

Twinning of holes undertaken to date show reasonable continuity and representivity of the mineralised intervals.

Drill logs exist for all holes as electronic files and/or hardcopy (all 2017 logging has been input directly to field logging computers).

Digital log sheets have been created with inbuilt validations to reduce potential for data entry errors.

All drilling data has been loaded to a database and validated prior to use.

For the Mineral Resource estimate, adjustments were made to a number of downhole surveys. These adjustments were made where angled holes were blocked well before the end of hole, or where downhole surveys had not yet been undertaken but surveys had been completed for nearby holes.

Where the drillhole was blocked, the last survey was copied to the end of hole depth. Where no down hole survey was completed or the hole was blocked at surface, the downhole surveys from a nearby hole, drilled by the same rig (and preferably same driller), was copied and applied to the hole. Some of these holes may need to be re-entered, cleaned and surveyed in the future. All changes were marked as "nominal" in the database.

In all cases, corrections to downhole surveys were reviewed against surrounding drillholes and pegmatite intervals to ensure error was minimised.

The Co-Competent Persons are satisfied that verification of sampling and assaying are appropriate for the purpose of supporting resource estimation.

Prior to drilling, collar coordinates are situated using handheld GPS (considered accurate to within 4 m). Following drilling, accurate surveying using RTK DGPS is undertaken by trained site personnel.

Hole collars are preserved until completion of downhole surveying. A significant portion of holes are surveyed using downhole digital instruments dominated by gyroscopic tools.

Location of data points

Grid used is MGA 94 Zone 51.

Topographical survey is generated from detailed airborne survey with points generated on a 1 m x 1 m grid. Areas mined have been defined by final mine surveys.

The Co-Competent Persons are satisfied that Location of data points is adequate for the purpose of supporting resource estimation.

Commentary

Data spacing and distribution

Drilling has been conducted on a 40 m x 40 m grid extending to 80 m x 80 m on the peripheries of the deposit, with a 140 m x 80 m area in the northern portion of the deposit drilled out at 20 m x 20 m.

The spacing of holes is considered of sufficient density to classify the Mineral Resource as "Indicated" or "Inferred" in accordance with the JORC Code.

There has been no sample compositing.

The Co-Competent Persons find that the spacing and distribution of data are both appropriate for the purpose of supporting resource estimation

Orientation of data in relation to geological structure

Drilling has been angled to achieve the most representative intersections through mineralisation.

The majority of drilling is angled. Some vertical holes have been drilled in areas where access is limited or the pegmatites are interpreted to be flat lying.

The lithium tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. The true width of pegmatites is generally considered 80–95% of the intercept width, with minimal opportunity for sample bias.

The Co-Competent Persons are satisfied that the data is oriented appropriately in relation to the geological structures and fit for the purpose of supporting resource estimation

Sample security

The drill samples are taken from the rig by experienced personnel, stored securely and transported to the laboratory by a registered courier and handed over by signature.

Audits or reviews

No audits have been undertaken to date.

Section 2 – Reporting of exploration results

Criteria

Commentary

Mineral tenement and land tenure status

The Bald Hill Resource is situated on Mining Lease M15/400 comprising 501 hectares. M15/400 is 100% owned by Mineral Resources Limited (MINRES).

There are no other third-party interests or royalties. Government royalties are 5% for lithium or tantalum mineral concentrates.

The portfolio of mineral tenements, comprising mining leases, exploration licences, prospecting licences, miscellaneous licences, a general-purpose lease, and a retention lease are in good standing.

Exploration done by other parties

Alluvial tantalite has been mined periodically from the early 1970s.

Gwalia Consolidated Limited undertook exploration for tantalite-bearing pegmatites from 1983–1998. Work included mapping, costeaning, and several phases of drilling using rotary air blast (RAB), RC, and DD methods. The work identified Mineral Resources that were considered uneconomic at the time.

Haddington Resources Limited (Haddington) entered an agreement to develop the resource and mining commenced in 2001 and continued until 2005. Haddington continued with exploration until 2009.

Criteria	Commentary
	<p>Living Waters acquired the project in 2009 and continued with limited exploration to the north of the main pit area.</p>
Geology	<p>The Bald Hill area is underlain by generally north-striking, steeply dipping Archaean metasediments (schists and greywackes) and granitoids. Felsic porphyries and pegmatite sheets and veins have intruded the Archaean rocks. Generally, the pegmatites crosscut the regional foliation, occurring as gently dipping sheets and as steeply dipping veins.</p> <p>The pegmatites vary in width and are generally comprised quartz-albite-muscovite-spodumene in varying amounts. Late-stage albitisation in the central part of the main outcrop area has resulted in fine-grained, banded, sugary pegmatites with visible fine-grained, disseminated tantalite. A thin hornfels characterised by needle hornblende crystals is often observed in adjacent country rocks to the pegmatite intrusives. Tantalite generally occurs as fine disseminated crystals commonly associated with fine-grained albite zones, or as coarse crystals associated with cleavelandite.</p> <p>Weathering of the pegmatites yields secondary mineralised accumulations in alluvial/eluvial deposits.</p>
Drillhole information	<p>Not applicable – not reporting exploration results.</p>
Data aggregation methods	<p>Not applicable – not reporting exploration results.</p>
Relationship between mineralisation widths and intercept lengths	<p>Not applicable – not reporting exploration results.</p> <p>The majority of drilling is angled. Some vertical holes have been drilled in areas where access is limited or the pegmatites are interpreted to be flat lying. The lithium tantalite-bearing pegmatites are generally flat to shallowly dipping in nature. The true width of pegmatites is generally 85–95% of the intercept width, with minimal opportunity for sample bias.</p> <p>Not applicable – not reporting exploration results.</p>
Diagrams	<p>Not applicable – not reporting exploration results.</p>
Balanced reporting	<p>Not applicable – not reporting exploration results.</p>
Other substantive exploration data	<p>Metallurgical testwork has been conducted by the analytical laboratory Nagrom. Nagrom has extensive experience with tantalum and lithium extraction testwork and has ISO9001:2008 accreditation. Results have demonstrated that the Bald Hill pegmatite is amenable to the production of Li and Ta concentrates.</p>
Further work	<p>Further RC and diamond drilling is warranted at the deposit to explore for additional resources and improve the understanding of the current resources prior to mining.</p> <p>Diagrams have been included in the body of this report.</p>

Section 3 - Estimation and reporting of Mineral Resources (criteria listed in the preceding section also apply to this section)

Criteria	Commentary
<p>Database integrity</p>	<p>Logging is completed onto templates using standard logging codes into Toughbook laptops. Analytical results are imported directly into the database by a database specialist.</p> <p>The central database, from which the extract used for Mineral Resource estimation was taken, is managed by Tawana. Upon receipt of the extract, CSA Global validated the database for internal integrity as part of the import process for modelling in Surpac.</p> <p>Data were validated for internal database integrity as part of the import process for use in Surpac. This includes logical integrity checks for data beyond the hole depth maximum and overlapping from-to errors within interval data. Visual validation checks were also made for obviously spurious collar or downhole survey values, collars which were not assigned a proper RL value, and collars which may lack substantial downhole survey data.</p> <p><i>The Co-Competent Persons are satisfied database integrity is appropriate for the purpose of supporting resource estimation</i></p>
<p>Site visits</p>	<p>Mineral Resources Co-Competent Persons: Ivy Chen and Ashok Doorgapershad, have visited site and reviewed the drilling, sample collection, and logging data collection procedures, along with conducting a review of the site geology.</p> <p>The outcome of these site visits was that data has been collected in a manner that supports reporting a Mineral Resource estimate in accordance with the JORC Code, and controls to the mineralisation are well-understood.</p> <p>Not Applicable.</p>
<p>Geological interpretation</p>	<p>The geological model developed is based on lithological logging of pegmatites within a metasedimentary host, with occasional hypabyssal intrusions of dioritic composition. The deposit geology is very well understood based on previous mining history and open pit exposures, and this is reflected in the generally high confidence in both the mineralisation and geological interpretations.</p> <p>The input data used for geological modelling has been derived from the qualitative and quantitative logging of lithology, alteration, geochemical composition of samples returned from RC and DD drilling.</p> <p>The geological model developed has a solid lithological basis, and is controlled by the presence of visually distinct pegmatite within drillholes. Pegmatite structures have been modelled as predominantly low angle / sub-horizontal structures on the basis of a high density of input drillhole data and confirmation of the interpretation on the basis of mapping. The data do not readily lend themselves to alternative interpretations, and it is unlikely that such alternatives would yield a more geologically reasonable result.</p> <p>The model developed for mineralisation is geologically driven; controlled by the presence or absence of pegmatite.</p>

Geological continuity is controlled by the preference for fractionated pegmatitic fluids to follow preferential structural pathways through the host rocks (an intercalated pile of metasediments and metavolcanics. Grade within this pegmatite is controlled by numerous factors such as fluid residence time, degree of fluid fractionation and pegmatite thickness.

The Co-Competent Persons are satisfied that geological interpretation has been adequately considered and is appropriate for the purpose of supporting resource estimation

Dimensions

The Bald Hill Mineral Resource comprises of several, sub horizontal pegmatite bodies, striking north-north-west, south-south-east, with a total strike length of 3,250m, and a width at its widest point of 1,150m. The Mineral Resource has a total vertical depth of 370m and begins 20m below the natural surface.

The Bald Hill Mineral Resource has been estimated using ordinary kriging in Maptek Vulcan.

The variables Li_2O pct, Fe_2O_3 pct and Ta_2O_5 ppm were estimated independently in a univariate sense.

Samples were composited to a nominal 1m interval based on assessment of the raw drill hole sample intervals. 1m composite will continue to be used for all future estimates.

Top-cuts were applied for the Ta_2O_5 estimate only, on a case-by-case basis for each domain. Top cut values were selected based on a statistical analysis of each domain, assessing the sample population, sample grade cumulative frequency - paying attention to outlier values - and where swath plots indicated a global over-estimate of Ta_2O_5 grade. Following identification that top-cuts were necessary, the composited database was edited, and the top cut value replaced the outlier value. Variograms were re-modelled, and estimations were re-processed, followed by a secondary statistical analysis as mentioned above.

Estimation and modelling techniques

Parameters for estimation and search ellipsoids were determined from quantitative kriging analysis performed within the Maptek Vulcan Data Analyser software package, which was also used to define semi variogram models for each variable.

A three-search pass strategy was employed, with successive searches using more relaxed parameters for selection of input composite data, and a greater search radius.

Geological modelling was completed using Seequent's Leapfrog Geo software.

Grade estimation was completed using Maptek Vulcan software.

The Bald Hill Mineral Resource has been estimated for the first time under MINRES ownership.

Additional mineral domains that were previously unmodelled have been identified and estimated.

For the portion of the model which aligns with previous estimates, the model compares well, with only the expected minor incremental changes to grades and tonnages.

Historic estimates for the Bald Hill deposit focused on Ta₂O₅ only, and as such are not directly comparable to the current estimate for which Li₂O is the primary target variable.

The only significant by-product to be considered is Ta₂O₅ which has been estimated within the domains defined by Li₂O.

Fe₂O₃ was estimated using the variograms from Li₂O.

No other deleterious elements have been identified or estimated.

Block model dimensions used for the Bald Hill Mineral Resource estimate were 10 by 10 by 2.5m (XYZ) sub-celled to 2.5 by 2.5 by 1.25m for resolution of volumes at lithological boundaries. This compares to an average drillhole spacing of 20m within the more densely informed areas of the deposit. This 20m spacing increases to up to 80m between drillholes in less well-informed portions of the deposit.

Kriging Neighbourhood Analysis (KNA) was conducted using Maptek Vulcan Data Analyser software package to test a variety of block sizes in both well and poorly informed areas of the deposit. The chosen block size represents the smallest block size that yields a robust set of estimation statistics, which are comparable to the results also yielded from larger blocks sizes.

Consideration of a 10m x 10m x 2.5m selective mining unit underpinned this estimate, and these assumptions continue to be tested.

The two variables under consideration; Li₂O and Ta₂O₅ are uncorrelated within both the pegmatite as a whole, and within the high-grade domain. Consequently, no correlation between variables was considered. Both variables were treated in a univariate sense.

A suitable correlation between Li₂O and Fe₂O₃ was identified and deemed appropriate for variography substitution in the estimate.

The nature of the mineralised body is such that the definition of the pegmatite host also defines the mineralisation. Within that and based on a combination of petrogenetic process and statistical appraisal, an internal high-grade Li₂O domain was defined.

Domained data were assessed using histogram and log probability plots to define potential top cuts to data. Where breaks in the continuity of the grade distributions were identified, a top cut was chosen and applied. This was conducted on a per-domain basis.

The results of estimation into the block model for the Bald Hill Mineral resource were validated visually and statistically. Estimated block grades were compared visually in section against the corresponding input data values. Additionally, trend plots of input data and block estimates were compared for swaths generated in each of the three principal geometric orientations (northing, easting and elevation).

The Co-Competent Persons are satisfied that the estimation and modelling techniques used are appropriate in this resource estimate

Moisture

Tonnages are reported on a dry basis.

Modelling of mineralisation for the resource was based on a combination of pegmatite lithological logging and excluded deleterious elements/compounds such as $\text{Fe}_2\text{O}_3 > 2.0\%$.

Cut-off parameters

The Mineral Resource is reported using a $\geq 0.3\%$ Li_2O cut-off which approximates a conservative cut-off grade used for potential open pit mining as determined from preliminary pit optimisations.

The Co-Competent Persons are satisfied that appropriate cutoff parameters have been used to report this estimate

Mining factors or assumptions

The methods used to design and populate the Bald Hill Mineral Resource block model were defined under the assumption that the deposit will be mined predominantly via open pit methods. Additional mineral domains identified at depth were included to allow for adequate scope for underground extraction. All material reported within the Mineral Resource meets the RPEEE criteria.

Metallurgical factors or assumptions

The material targeted for extraction predominantly comprises the mineral spodumene, for which metallurgical processing methods are well established. No specific detail regarding metallurgical assumptions have been applied in the estimation the current Mineral Resource, however at the current level of detail available, the Competent Person believes with sufficient confidence that metallurgical concerns will not pose any significant impediment to eventual economic extraction.

Environmental factors or assumptions

No assumptions have been made regarding waste products, however the Mineral Resource has previously been mined by open pit methods with a processing facility, stacked waste dumps and tailings storage facilities on site. It is reasonable to assume that in the presence of this infrastructure, the creation and storage of waste products on site will not be of concern for future mining activities.

Bulk density

In situ bulk densities for the Bald Hill Mineral Resource have been assigned on a lithological basis for both mineralisation and waste, based on historical values derived from mining and values taken from those used in similar deposits and lithologies.

The Competent Person considers the values chosen to be suitably representative.

Densities have been assigned on a lithological basis based on a total of 44 metasediment and 25 pegmatite core samples measured at the Nagrom laboratory and values derived from surrounding deposits and rock types.

Bulk densities have been applied on a lithological unit basis. Values assigned were as follows:

- Fresh pegmatite mineralisation 2.65 t/m³
- Transitional pegmatite 2.5t/m³
- Fresh diorite 2.8t/m³
- Transitional diorite 2.6t/m³
- Fresh metasediments 2.74t/m³
- Transitional metasediments 2.6t/m³
- Oxide metasediments 2.2t/m³
- Waste fill 1.8t/m³

Additional bulk density testwork utilising drill core across the mineralised zones and less common waste units is recommended for future estimates.

The Co-Competent Persons are satisfied that appropriate bulk density assumptions have been applied.

Classification

The Mineral Resource has been classified as Indicated and Inferred on a qualitative basis; taking into consideration numerous factors such as drillhole spacing, estimation quality statistics (kriging slope of regression), number of informing samples used in the estimate, average distance to informing samples in comparison to the semi variogram model ranges, and overall coherence and continuity of the modelled mineralisation wireframes.

The classification reflects areas of lower and higher geological confidence in mineralised lithological domain continuity based on the intersecting drill sample data numbers, spacing and orientation. Overall mineralisation trends are reasonably consistent within the various lithology types over numerous drill sections.

The Mineral Resource estimate appropriately reflects the Competent Person's views of the deposit.

Audits or reviews

Internal audits were completed by the Principal Modelling Geologist and Principal Resource Estimation Geologist at Mineral Resources Ltd as Specialists, which verified the technical inputs, methodology, parameters and results of the estimate. The estimate was also reviewed by the Co-Competent Persons.

The current model has not been audited by an independent third party.

Discussion of relative accuracy/confidence

The Mineral Resource accuracy is communicated through the classification assigned to the deposit. The Mineral Resource estimate has been classified in accordance with the JORC Code, 2012 Edition using a qualitative approach. All factors that have been considered have been adequately communicated in Section 1 and Section 3 of this Table.

The Mineral Resource statement relates to a global estimate of in-situ tonnes and grade.

The deposit has been historically mined for tantalum (Ta₂O₅), however no accounting for Li₂O had been undertaken, and therefore no production records are available for comparison to the current estimate.