MAIDEN JORC RESOURCE AT MITRE HILL REE PROJECT

Maiden Mineral Resource Estimate of 21MT @ 767ppm TREO

ASX RELEASE: 3 FEBRUARY 2023

Highlights

- Maiden JORC Inferred Mineral Resource estimate of **21 Mt @ 767 ppm TREO**
- Mineralisation starts from surface and is highlighted by thick zones of high-grade TREO
- Maiden Mineral Resource estimate only incorporates drilling at EL007647, highlighting significant resource expansion potential
- High priority tenement EL007647, located adjacent to and along strike from AR3's 81.4 Mt Koppamurra REE resource
- Exploration Target for Mitre Hill is estimated at an additional 13 – 34 Mt grading 630-830 ppm TREO
- Following delivery of the Mineral Resource estimate, Resource Base will focus on commencing studies and growing the Project in size and scale
- Planned infill drilling within the Exploration Target will substantially increase reported JORC Inferred Mineral Resource

Resource Base Ltd (ASX: RBX) (**Resource Base** or **the Company**) a strategic metals explorer targeting clay hosted REE and VHMS in Victoria and South Australia, announce a major milestone through delivery of a maiden Mineral Resource estimate at EL007647, part of the Company's Mitre Hill REE Project.

Resource Base Non-Executive Chairman, Maurice Feilich, commented:

"This is an excellent result for Resource Base. In less than a year, the Company has been able to declare a robust maiden resource estimate at Mitre Hill, over a concentrated component of the underexplored project package, which is comparable in grade to AR3's neighbouring Koppamurra project. We also have a sizeable exploration target, which could be quickly scaled up through additional drilling."

The **maiden JORC Inferred Mineral Resource estimate of 21 Mt @ 767 ppm TREO** consists of thick zones of near-surface mineralisation. Significantly, the existing resource has the potential to substantially grow in size and scale as the Mineral Resource estimate only incorporates 38-62% of the identified Exploration Target drilled to date. The Company has also completed significant aircore drilling in Exploration Lease EL 7646 located approximately six (6) km east of EL 7647 however is not included in this Mineral Resource estimate.

Resource Base has estimated an **Exploration Target at EL007647 of 13 Mt – 34 Mt at 630-830 ppm TREO**.

Following completion of the maiden Mineral Resource estimate, Resource Base is evaluating a follow-up aircore program to convert a portion of the Exploration Target to a JORC resource, and to test further extensions of REE mineralisation the Mitre Hill REE project.

The Mineral Resource estimate and Exploration Target is set out in the Table 1 below.

Table 1. *Mitre Hill project (EL007647) Mineral Resources estimate and Exploration Target.*

Resource Classification JORC	**Tonnes** (Mt)	**TREO** (ppm)	**TREO – CeO_2** (ppm)	**CREO** (ppm)	**HREO** (ppm)	**LREO** (ppm)	**U_3O_8** (ppm)	**ThO_2** (ppm)
Inferred	21	767	502	278	226	541	2	18
Total(1)	**21**	**767**	**502**	**278**	**226**	**541**	**2**	**18**
Exploration Target (2)	13 - 34	630-830	420-550	230-300	190-250	440-580	2	17- 19

Notes:

(1) Mineral Resources reported at a cut-off grade of 325 ppm TREO minus CeO_2 (TREO-CeO_2)

(2) The Exploration Target is reported at a cut-off grade range of 225 ppm TREO-CeO_2 to 425 ppm TREO minus CeO_2 (TREO-CeO_2). The potential quantity and grade of the Exploration Target is conceptual in nature and is therefore an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target, being conceptual in nature, takes no account of geological complexity, possible mining method or metallurgical recovery factors. The Exploration Target was estimated in order to provide an assessment of the potential scale of exploration for the Mitre Hill project.

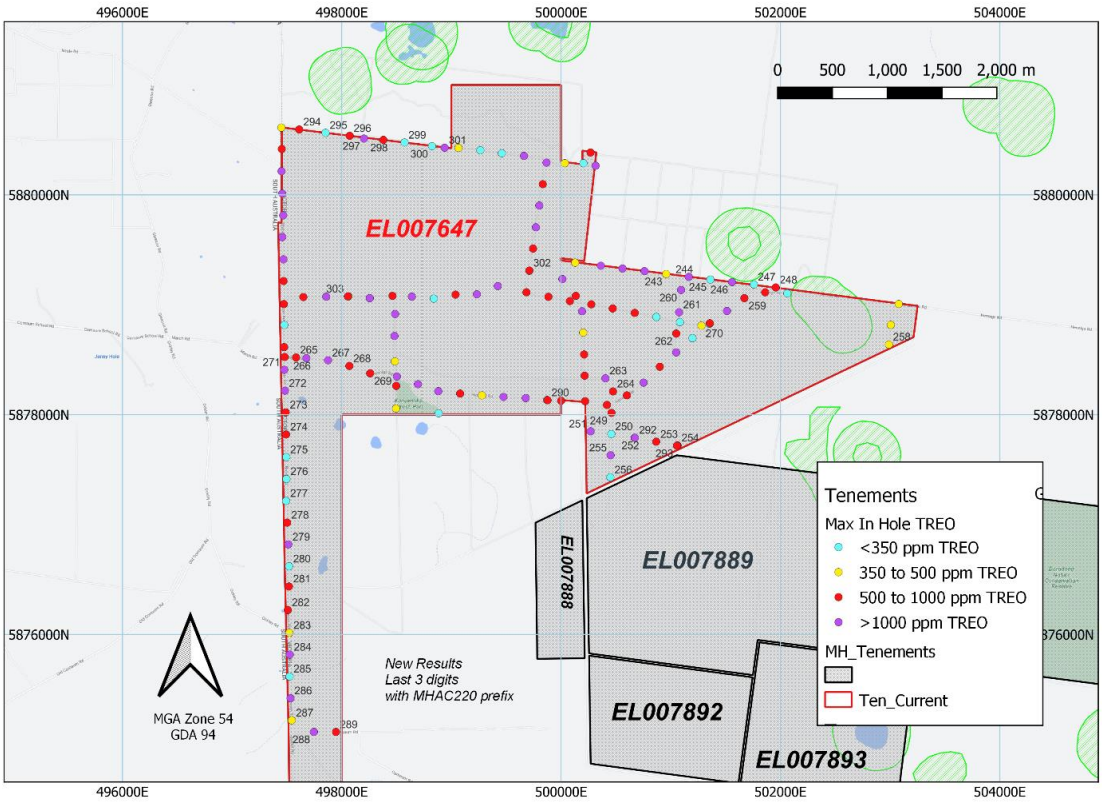

Figure 1: Plan view showing location of mineralised drill holes on EL007647, coloured by maximum TREO grade intercepted. Resource Base, 14 December 2022.

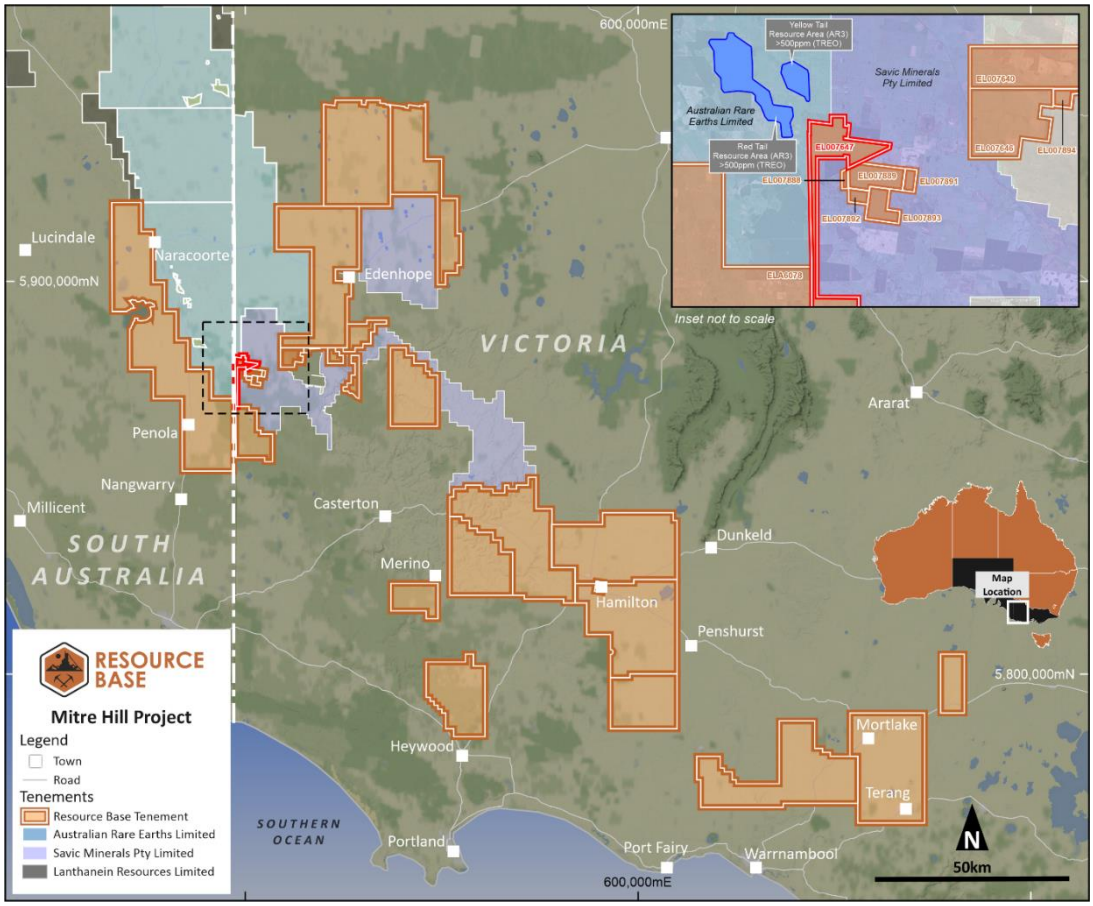

Figure 2: EL007647 Tenement Location. Resource Base,23 August 2022.

Summary of Key Material Information used to Estimate the Mineral Resources

The JORC Resource Classification for the Mitre Hill Project was compiled by Greg Jones of IHC Mining. The classification and key material used to estimate and report the Mineral Resources as stipulated by JORC (2012) (Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2012 Edition)) and the associated Listing rules was supported and definite within this report.

Tenement and Land Status

The Mitre Hill project and all exploration licenses are 100% owned by Resource Base Limited (or its subsidiaries). Exploration license (EL007647), is located within the Murray Basin region of western Victoria. The tenement is one of 30 held in the area by the Company, with all in good standing.

Project Geology

The Mitre Hill project is considered to be highly prospective for ionic adsorption clay and clay hosted rare earth element (REE) deposits in an area considered to be in the early stages of exploration regarding rare earths.

The REE mineralisation hosted by the clayey sediments are thought to be deposited onto the limestone basement associated with basalt alkali volcanism In south-east Australia however further work is required to confirm this theory. The accumulated fine-grain clays in this area is indicative of a marine or coastal environment during their deposition.

The high grade REE mineralisation is typically concentrated in the clay intervals directly above the weathered limestone upper contact. This adsorbed REE is the target for extraction and production of REO. A typical cross-section of the deposit is shown in Figure 3 below.

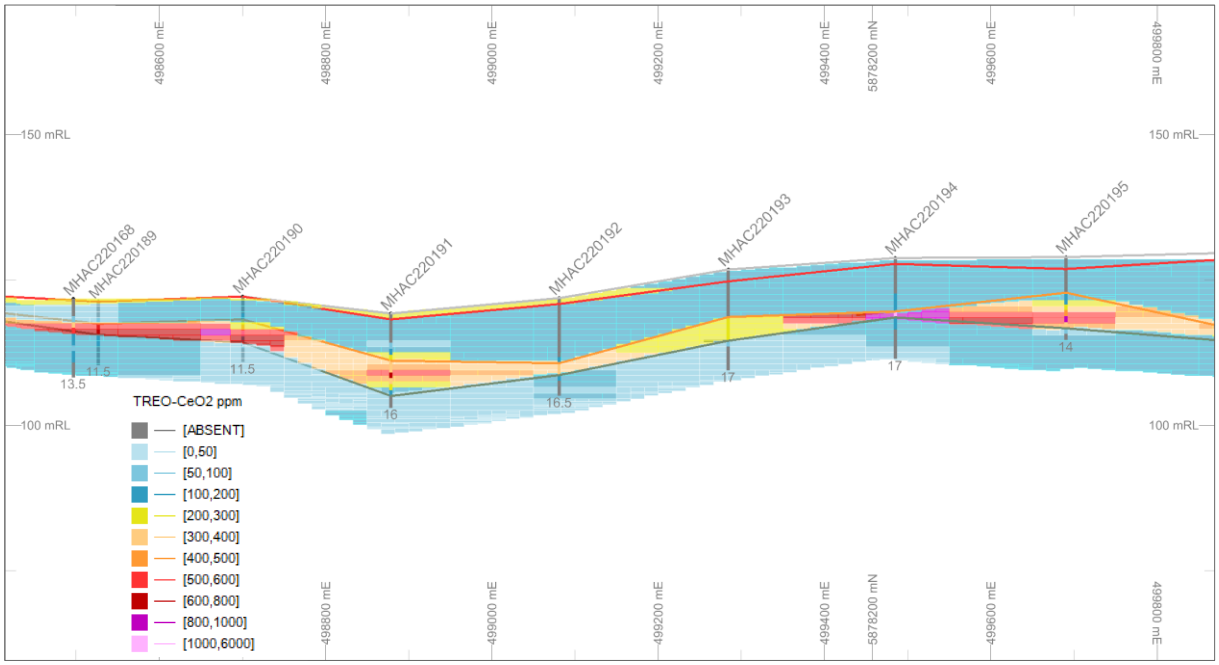

Figure 3: Type section 5,878,220N (499,100E mid-point) showing Mitre Hill Mineral Resource model cells and drill holes coloured by TREO-CeO_2 (ppm) (5x vertical exaggeration)

Drilling

In total 142 vertical air core holes for 2,052 m of drilling was completed to ascertain the Mineral Resource estimate (refer Figure 1 for collar locations). A cut-off grade of 325 ppm TREO-CeO2 was used for reporting purposes on a peer comparison of publicly available information and comparable clay-hosted mineralisation which is detailed in Appendix 2.

Dominant drill hole spacing has been stated at 200m spacing with 400 m to 1,400 m between transects, which was considered appropriate for the JORC Inferred Mineral Resource Classification and Exploration Target as applied.

Sampling

The ~2 kg samples for geochemical analysis were collected and assayed by Bureau Veritas laboratory in Adelaide, South Australia. Intervals were at 1m samples from each 1 m plastic bag. Near the end-of-hole narrower composite sample intervals, usually 3 m to 1 m depending on the depth of the reminder of the hole. A representative sample was taken by spearing from each one metre bulk sample and depositing into calico. Field duplicates were taken for every metre sample. Additionally, a representative 1 m calico sample was also speared from each bulk sample bag and kept as master sample.

Sample lengths were determined by geological boundaries with a maximum sample length of 1 m.

Sample Analysis

Bureau Veritas analysed, weighed and prepared whole samples within the laboratory in Adelaide, South Australia. Each sample was identified and a sample of 3 kg or less underwent pulverising to achieve better than 85% passing 75 microns.

Elements include Sc, Th, U, Y, La, Ce, Pr, Nd, Sm, Eu, Gd, Tb, Dy, Ho, Er, Tm, Yb and Lu; with elements analysed at ppm levels.

Sc was determined by Inductively Coupled Plasma (ICP) Optical Emission Spectrometry whilst all remaining elements have been Determined by Inductively Coupled Plasma (ICP) Mass Spectrometry.

Estimation Methodology

The Mineral Resource estimate was conducted using Datamine Studio RM. Inverse Distance Weighting 'ID3' techniques were used to interpolate assay grade from the drill hole samples to interpolate index values and non-

numeric sample identification into the block model. Ordinary Kriging was also used to interpolate TREO grade into the block model to be used as a validation check against the inverse distance weighting technique. The model has a block size of 100 m (X) x 100 m (Y) x 1 m (Z) with sub-cell splitting of 6 x 6 to provide increased resolution of the undulating morphology of the deposit. A discretisation array of 2 x 2 x 1 was used for the parent cell grade interpolation.

Appropriate and industry standard search ellipses were used to search for data for the interpolation and suitable limitations on the number of samples and the impact of those samples was maintained. The search ellipse was equal in size both along and across strike as no dominant grade strike direction exists for the deposit. No assumptions were made during the resource estimation as to the recovery of by-products. Further detailed characterisation and leach of ionic clay sample studies are required that may affect the marketability of the heavy mineral products.

The Mineral Resource estimate and Exploration Target was controlled to an extent by the geological/mineralisation and basement surfaces. Grade cutting or capping was not used during the interpolation because of the regular nature of sample spacing and the minimal number of statistical outliers. Statistical analysis of composited drill holes by domain was undertaken to compare against the un-composited data and showed a satisfactory relationship which concluded that grade cutting or capping was not required at this stage of exploration.

Validation of grade interpolations were done visually in Datamine Studio RM software by loading model and drill hole files and annotating and colouring and using filtering to check for the appropriateness of interpolations. Statistical distributions were prepared for model zones from drill hole and model files to compare the effectiveness of the interpolations. Along strike distributions of section line averages (swathe plots) for drill holes and models were also prepared for comparison purposes.

Resource Classification

The JORC Resource Classification for Mitre Hill project within Exploration Lease EL 7647 was supported by drill hole spacing, geological continuity and variography of TREO-CeO2 of the target mineralised domained Zone 3. The classification of Inferred was supported by all the criteria noted above. A significant Exploration Target has also been defined which can be used to determine areas of significant prospectivity for future drill programmes. As a Competent Person, IHC Mining Geological Services Manager Greg Jones considers that the result appropriately reflects a reasonable view of the deposit categorisation.

Cut-off Grades

The Mineral Resource has been reported above a 325 ppm total rare earth oxide (TREO) minus CeO2 cut-off. The selection of the TREO-CeO2 cut-off grade used for reporting was based on the experience of the Competent Person. Given the early stage of investigations at the Mitre Hill Project, this cut-off has been selected based on published information from more advanced projects with comparable mineralisation (i.e., clay-hosted rare earth mineralisation) and conceptual processing methods. Material above this cut-off generates a head feed grade of just over 500 ppm, and in the opinion of the Competent Person meets the conditions for reporting of a Mineral Resource with reasonable prospects of eventual economic extraction.

Mining and Metallurgy

No specific mining method is assumed other than potentially the use of dry mining methods using truck and excavator. The Company plans to use representative material for future metallurgical testwork programmes.

Statement of Mineral Resources

The Mineral Resource reported at a cut-off grade of 325 ppm TREO-CeO_2 for the Mitre Hill REE deposit is presented in Table 2. This table conforms to guidelines set out in the JORC (2012). The Mineral Resource JORC Classification outline above a cut-off grade of 325 ppm TREO-CeO_2 is presented in Figure 6. At a cut-off grade of 325 ppm TREO-CeO_2 the Mitre Hill REE project comprises a total Inferred Mineral Resource of 21 Mt @ 767 ppm TREO.

The grade tonnage curve for the Mitre Hill project is presented in Figures 4 and 5, which were prepared at varying cut-off grades to demonstrate the relationship of TREO-CeO_2, TREO and CREO grades and tonnages for both material and TREO-CeO_2 contained tonnes.

Table 2. Mineral Resource by regolith domain (zones)

Resource Classification JORC	Tonnes (Mt)	TREO (ppm)	TREO – CeO_2 (ppm)	CREO (ppm)	HREO (ppm)	LREO (ppm)	U_3O_8 (ppm)	ThO_2 (ppm)
Inferred	21	767	502	278	226	541	2	18
Total[(1)]	**21**	**767**	**502**	**278**	**226**	**541**	**2**	**18**

Note:

(1) Mineral resources reported at a cut-off grade of 325 ppm TREO-CeO2

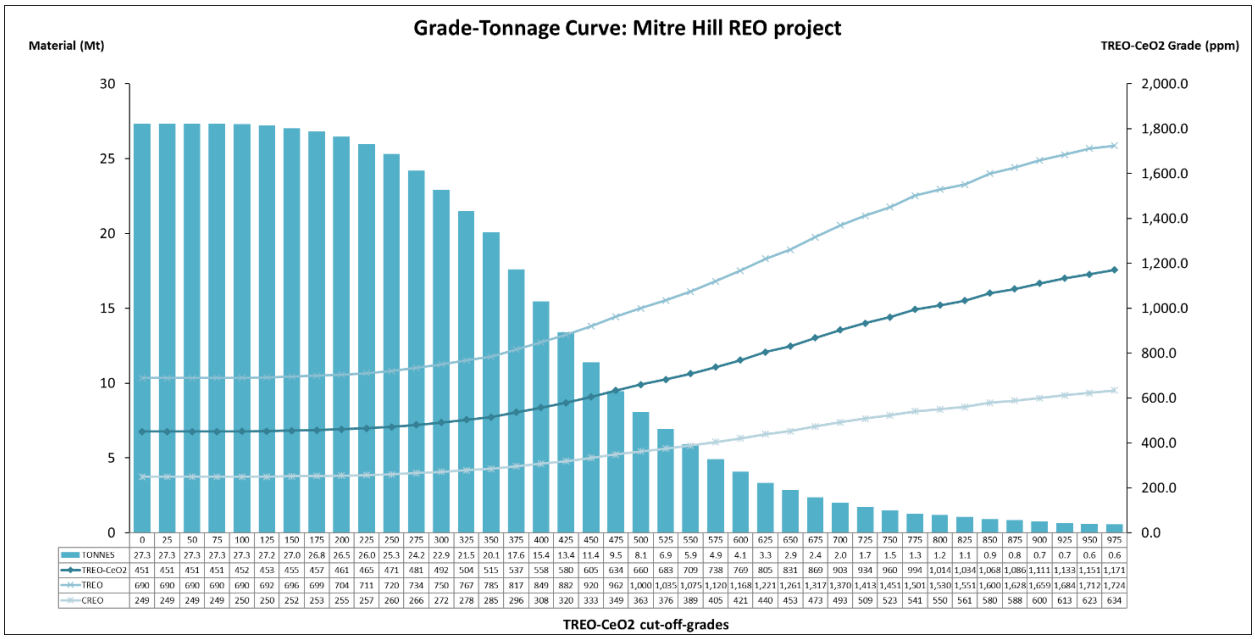

Figure 4: Grade tonnage curve showing material tonnes versus grade (TREO-CeO_2, TREO and CREO)

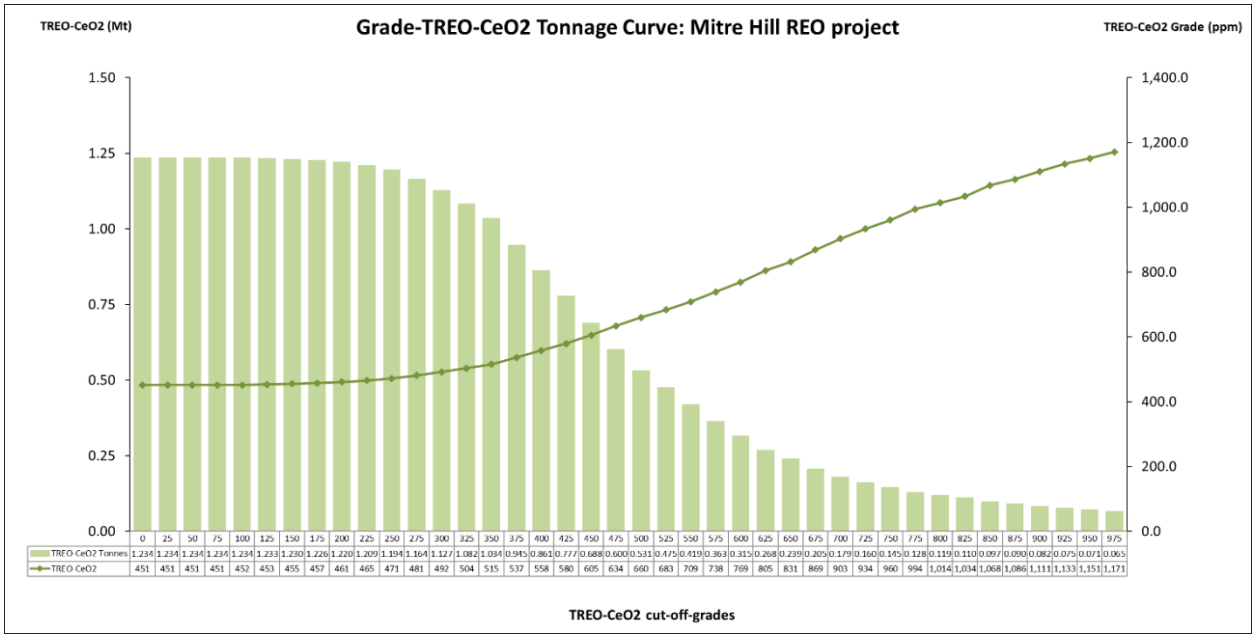

Figure 5: Grade tonnage curve showing TREO-CeO_2 tonnes versus grade (TREO-CeO_2)

Exploration Target

An Exploration Target has been defined for the Mitre Hill project using a cut-off range of 225 ppm to 425 ppm TREO-CeO_2 which defines a total Exploration Target range from 13 Mt to 34 Mt @ a grade range of 630-830 ppm TREO (refer Table 3).

The TREO-CeO_2 cut-off grade range for the Exploration Target was selected based on the 325 ppm TREO-CeO_2 cut-off grade used for the Mineral Resource estimate +/- 100 ppm.

The Exploration Target is informed by limited drilling and down hole assay results at this stage of exploration for the Mitre Hill project providing significant potential for the Exploration Target material to be integrated into the Mineral Resource estimate with further in-fill and exploration drilling in the defined areas (refer Figure 5).

Table 3. Exploration Target for Mitre Hill project

JORC Category	**Tonnes** (Mt)	**TREO** (ppm)	**REO – CeO_2** (ppm)	**CREO** (ppm)	**HREO** (ppm)	**LREO** (ppm)	**U_3O_8** (ppm)	**ThO_2** (ppm)
Exploration Target	13 - 34	630-830	420-550	230-300	190-250	440-580	2	17- 19
Total(1)	**13 - 34**	**630-830**	**420-550**	**230-300**	**190-250**	**440-580**	**2**	**17- 19**

Note:

(1) Exploration Target reported at a cut-off grade range of 225 ppm TREO-CeO_2 and 425 ppm TREO-CeO_2 The Exploration Target is reported at a cut-off grade range of 225 ppm TREO-CeO_2 to 425 ppm TREO minus CeO_2 (TREO-CeO_2). The potential quantity and grade of the Exploration Target is conceptual in nature and is therefore an approximation. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource. The Exploration Target, being conceptual in nature, takes no account of geological complexity, possible mining method or metallurgical recovery factors. The Exploration Target was estimated in order to provide an assessment of the potential scale of exploration for the Mitre Hill project.

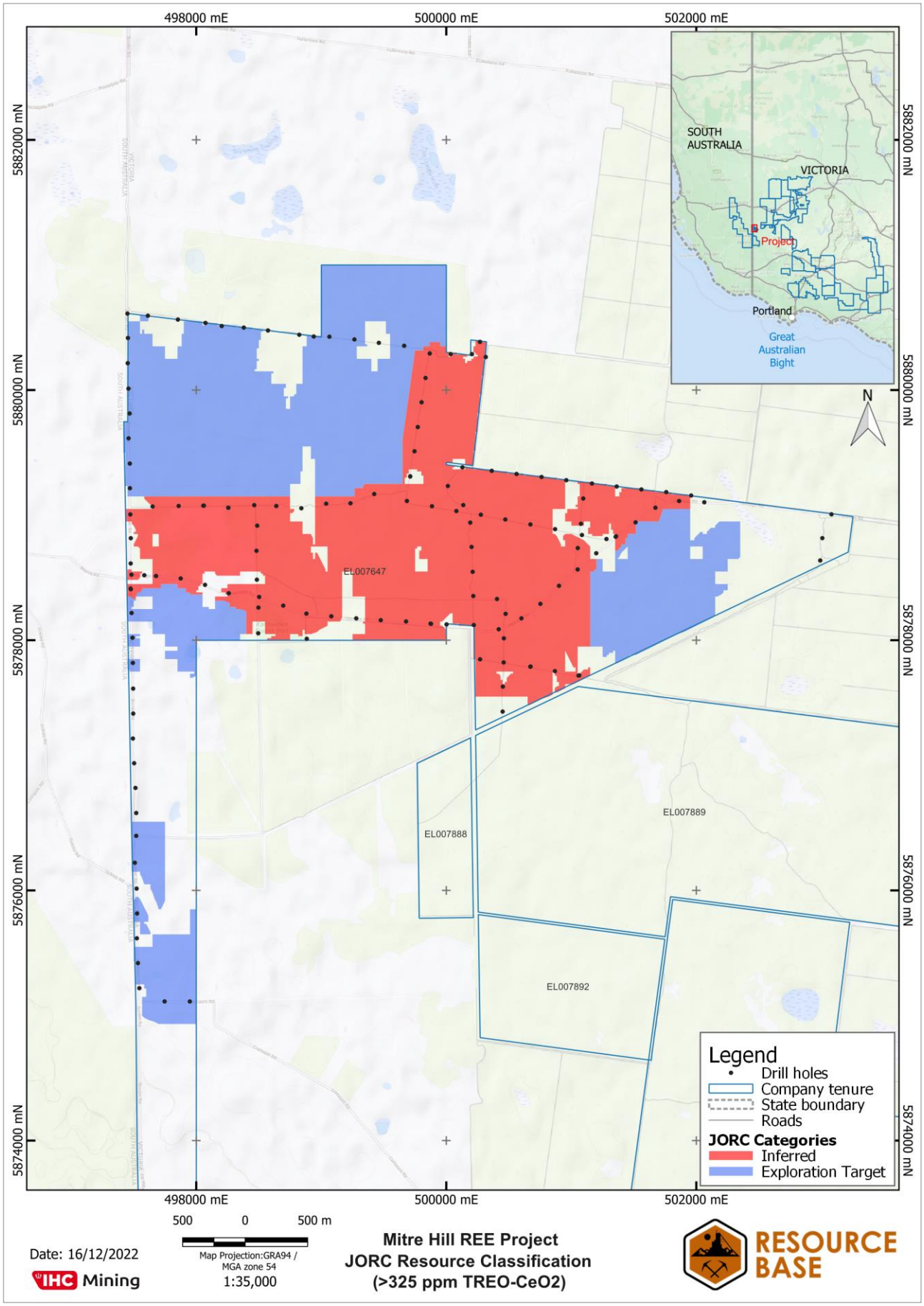

Figure 6: Mitre Hill JORC Mineral Resource Classification and Exploration Target (>325 ppm TREO-CeO_2)

Future Work Programs

The outcome of the Mineral Resource estimate has shown the company it has substantial mineral resources within a Tier-1 jurisdiction, which can be used to move the project into economic studies. Mitre Hill demonstrates the potential to offer both light and heavy rare earths of critical minerals. We look forward to updating shareholders with a pipeline of news flow as the project develops. Next steps include:

- Targeted infill drilling to increase Mineral Resource and resource confidence levels
- Metallurgical testwork and technical studies
- Discussions with potential end-users

- ENDS –

This announcement has been authorised by the Board of Resource Base Limited.

For further information please visit our website – www.resourcesbase.com.au

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Forward Looking Statements

Information included in this release constitutes forward-looking statements. Often, but not always, forward looking statements can generally be identified by the use of forward-looking words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "continue", and "guidance", or other similar words and may include, without limitation, statements regarding plans, strategies and objectives of management, anticipated production or construction commencement dates and expected costs or production outputs.

Forward looking statements inherently involve known and unknown risks, uncertainties and other factors that may cause the Company's actual results, performance, and achievements to differ materially from any future results, performance, or achievements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licenses and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which the company operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation.

Forward looking statements are based on the Company and its management's good faith assumptions relating to the financial, market, regulatory and other relevant environments that will exist and affect the Company's business and operations in the future. The Company does not give any assurance that the assumptions on which forward looking statements are based will prove to be correct, or that the Company's business or operations will not be affected in any material manner by these or other factors not foreseen or foreseeable by the Company or management or beyond the Company's control.

Although the Company attempts and has attempted to identify factors that would cause actual actions, events, or results to differ materially from those disclosed in forward looking statements, there may be other factors that could cause actual results, performance, achievements, or events not to be as anticipated, estimated or intended, and many events are beyond the reasonable control of the Company. Accordingly, readers are cautioned not to place undue reliance on forward looking statements. Forward looking statements in these materials speak only at the date of issue. Subject to any continuing obligations under applicable law or any relevant stock exchange listing rules, in providing this information the company does not undertake any obligation to publicly update or revise any of the forward-looking statements or to advise of any change in events, conditions or circumstances on which any such statement is based.

Competent Person Statement

The information in this report which relates to Mineral Resources and Exploration Targets for the Mitre Hill rare earth deposit is based upon and fairly represents information compiled by Mr Greg Jones who is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Jones is a full-time employee of IHC Mining, and has sufficient experience relevant to the style of mineralisation, the type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Jones consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

The Company first released the exploration results relating to Mitre Hill Project tenement EL007646 on 18 May 2022 and further results were released on 23 August 2022. The Company first released the exploration results relating to Mitre Hill Project tenement EL007647 on 10 October 2022, and further results were release on 24 October 2022 and 28 October 2022. The Company confirms that it is not aware of any new information or data that materially affects the information in the relevant market announcement.

Annexure 1: JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

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

Criteria	Commentary
Sampling techniques	Air-core drilling Sampling at 1m intervals off rig *c.* 2kg was taken from each meter sample to produce a 2g charge for analysis using a Lithium Borate Fusion & ICP Multiple elements including REE
Drilling techniques	Reverse circulation air-core drilling NQ size
Drill sample recovery	Recoveries logged based on visual estimate of percentage of expected sample volume in 25% gradations from 0% to 100%. Wetness of sample is recorded as dry, damp or wet Contamination is recorded on visual basis as hi, low or no contamination based on likelihood of contamination with adjoining sampling intervals due to high level of water or inaccurate sampling boundary. No attempt has been made to assess potential bias due to sample size fraction loss/gain
Logging	Geological log entire drill hole on meter by meter or interval basis as appropriate Geological boundaries based on 1m sample boundaries Data recorded to digital platform onsite Core-yard logging as required
Sub-sampling techniques and sample preparation	Scoop spear sampling from 1m rig samples for assay and storage Field duplicate taken for every meter sample pXRF sample taken as scoop sample from the 1m sample in warehouse Lab assay samples determined on basis of XRF results Sampling techniques are appropriate for the reconnaissance nature of the drilling programs
Quality of assay data and laboratory tests	An aliquot of sample is accurately weighed and fused with lithium metaborate at high temperature in a Pt crucible. The fused glass is then digested in nitric acid. This process provides complete dissolution of most minerals including silicates. Volatile elements are lost at the high fusion temperatures. In some cases, elements are reported as oxides. (Nature of the sample may compromise detection limits) Certified OREAS REE QA/QC standards of various concentrations were inserted at ratio of 1:20. Blank samples were inserted at ratio of 1:40. Field duplicates submitted for lab analysis at 1:20 ratio Geochemical database is managed by dedicated external third party - Geobase Australia Pty Ltd
Verification of sampling and assaying	Geological and sampling data is logged into Excel based templates using a auto-validated library structure Excel data is verified and uploaded to the appropriate project database by the Company's dedicated database management external consultants – Geobase Australia Pty Ltd Assay results are reported directly to the Exploration Manager and database manager Assay data is imported in digital format into the project database Sampling and assay data is checked to ensure that all intervals are matched to correct drilling interval with no unexpected gaps, overlaps or duplication. QA/QC results are checked to ensure that values are within accepted industry standard tolerances and reported by the database manager.

Criteria	Commentary
	Oxide values for REE are calculated within the exploration database from the laboratory reported elemental concentrations using standard stoichiometric conversion factors. TREO (Total Rare Earth Oxides) value is calculated within the exploration database using the elemental oxide values as follows; = $La_2O_3 + CeO_2 + Pr_6O_{11} + Sm_2O_3 + Nd_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$ MREO (Magnet Rare Earth Oxides) value is calculated within the exploration database using the elemental oxide values as follows; = $Pr_6O_{11} + Nd_2O_3 + Tb_4O_7 + Dy_2O_3$ Significantly mineralised intervals are manually checked to ensure validated correlation to geological data
Location of data points	Location Method: Garmin handheld 12 channel GPS Location Accuracy Horizontal: ±3m Location Accuracy Vertical: ±6m Grid System: GDA94 UTM Zone 54 Drill hole locations are extrapolated onto SRTM digital elevation model to obtain final elevation value Topographic control is adequate at this stage of exploration
Data spacing and distribution	Systematic grid style drilling at nominal 100m spacing along E-W lines spaced 200m apart in the N-S direction. Exclusion of cultural overlay zones in first pass program Broad roadside reconnaissance drilling with drill hole spacings ranging from approximately 0.25km to 1km
Orientation of data in relation to geological structure	Vertical drill holes Air-core drilling is of reconnaissance nature and not intended to produce small scale structural information Geological domains within drilled intersections are approximately horizontal and therefore approximately perpendicular to drill direction
Sample security	Samples collected during drilling and removed to secure warehouse each day Compilation of samples for dispatch to laboratory takes place in the secure warehouse by company employees Samples are palletised and protected with multiple layers of packaging film for transport by logistics contractor to the analytical laboratory, Bureau Veritas in Adelaide.
Audits or reviews	QA/QC reporting by external consultant Geobase Australia Pty Ltd has not identified any significant data issues

Section 2 Reporting of Exploration Results

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

Criteria	Commentary
Mineral tenement and land tenure status	The Mitre Hill project comprises a number of Exploration Licences in Victoria, Australia which are wholly owned by the Company and are in good standing at the time of this report. Information relevant to EL007646 includes; Currently in good standing and valid until 7th November 2026 There are no non-government royalties applicable. Land use is mixed grazing/cropping and privately owned plantation forest. There are no registered Native Title claims. There is no known impediments to obtaining a license to operate in the area and

Criteria	Commentary
	exploration is active and on-going. Information relevant to EL007647 includes; Currently in good standing and valid until 17th June 2027 There are no non-government royalties applicable. Land use is mixed grazing/cropping, privately owned plantation forest, State Forest crown land. There are no registered Native Title claims. There is no known impediments to obtaining a license to operate in the area and exploration is active and on-going.
Exploration done by other parties	EL007646 Previous exploration work has been very limited. There has been no previous exploration targeting REE 1979-1982 Western Mining explored the region for brown coal. No holes were drilled on the current EL007646 area. 1986-1989 CRA Exploration explored the region for Heavy Mineral Sands, drilling one hole only on the current EL007646 area. Results did not warrant follow up. 2007 Mineral Sands Ltd explored the region for Heavy Mineral Sands with no drilling on the current EL007646 area. 2008 Corvette Resources Ltd explored the region for Heavy Mineral Sands with no drilling on the current EL007646 area. EL007647 Previous exploration in the area includes campaigns for; Oil and gas in the mid-1960's Heavy mineral sands in the mid-1970's Coal in the late-1970's to early-1980's Heavy mineral sands again in the mid- to late-1980's Heavy mineral sands again in the mid- to late-2000's During these periods of exploration only 1 drill hole has been excavated on the current EL007647 tenement area, a coal exploration bore in the 1980.
Geology	The Mitre Hill project is considered to contain ionic adsorption clay and clay hosted rare earth deposits in an area considered to be in the early stages of exploration regarding rare earths and is proving to be highly prospective. The REE mineralisation hosted by the clayey sediments (Zone 3) were thought to be deposited onto the limestone basement associated with basalt alkali volcanism In south-east Australia. The accumulated fine-grain clays in this area is indicative of a marine or coastal environment during their deposition. At this stage of exploration there is insufficient geological work undertaken to determine detailed structural geology and closer spaced drilling to better interpret the undulating geological domain boundaries of the deposit.
Drill hole Information	The material information for drill holes relating to this report are contained within the Appendix.
Data aggregation methods	No metal equivalents have been used. Rare earth elements are reported in parts per million (ppm) and the conversion from element to oxide was completed using stoichiometric oxide conversion factors.
Relationship between mineralisation widths and intercept lengths	All intercepts reported are down hole (vertical) lengths. The mineralisation is interpreted to be horizontal, flat lying therefore vertical drilling is perpendicular to mineralisation. The true mineralisation width is not yet well defined when considering any internal variation of REE distribution within the target domain and weathered limestone unit.
Diagrams	Please see maps and diagrams included in the announcement text
Balanced reporting	This report contains all drilling results that are consistent with JORC guidelines. Where data was not included, it was considered not material.

Criteria	Commentary
Other substantive exploration data	All known exploration data relevant to this Mineral Resource estimate has been reported in this report.
Further work	Grid-based drilling on private farmland. Land access and stakeholder engagement. Roadside reconnaissance air-core drilling.

Section 3 Estimation and Reporting of Minerals Resources

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

Criteria	Commentary
Database integrity	Exploration data provided by the company to IHC Mining in the form of an Access Database, and systematically updated as new data was inserted. Visual screen checks of data to identify duplicate assays and the reproducibility of assays was conducted. Database assay values have been subjected to random reconciliation with laboratory certified value is to ensure integrity. Visual and statistical comparison was undertaken to check the validity of results.
Site visits	Mr Harry Horvath, the Senior Exploration Geologist of the Company supervised the exploration programme on-site activities to observe the drilling, sample and data collection.
Geological interpretation	The geological interpretation was undertaken by the Company with direct collaboration and supervision from IHC Mining. The geological interpretation was then initially validated by the Company's Senior Exploration Geologist and then used by IHC Mining as a framework for developing domain control strings and wireframes within the 3D window of Studio RM Datamine software. Interpretation of modelling domains was completed using TREO-CeO2, TREO, lithology, colour and geological logging. The Mineral Resource estimate was controlled by the topographic surface, geological surfaces and undulating weathered limestone basement surface. Three domains were identified with the target high grade TREO clay unit being defined as Zone 3. The Zone 3 mineralised zone is geologically continuous across the project area both along and across strike, positioned directly above the undulating limestone basement contact (Zone 200). The Zone 3 mineralised clay unit has variable grade both along and across strike containing target 'hot-spots' of elevated TREO-CeO2. Depth the mineralised material down hole also varies given the undulating nature of the limestone influencing the thickness of material above. Typically the higher TREO-CeO2 grades are located in the clay intervals directly above the weathered limestone contact. Zone 1 can be defined as a thin surficial sandy loam soil with a high concentration of sand which caps the project lithological sequence at surface, continuous both along and across strike. Zone 2 is a clayey sand unit positioned directly below the Zone 1 lower contact and directly above the Zone 3 upper contact exhibiting variable thicknesses across the project area. The limestone basement (Zone 200) also contains isolated intervals of elevated TREO-CeO2 at the transition zone between the clay unit and weathered limestone which provides the Company further opportunity to explore potential extraction of TREO from the limestone unit going forward.
Dimensions	The dimensions for the Mitre Hill REO deposit is predominantly constrained by the Companies Exploration Lease EL 7647 both along and across strike indicating further potential to expand on the existing deposit. The deposit is 5.8 km at its widest across

Criteria	Commentary
	strike and 5.6 km at its longest along strike. Depth of the Zone 3 clay unit varies across the project area from near surface to depths of ~10-12 m given the undulating nature of the limestone basement influencing the morphology of the material above. The clay unit is typically 2 – 4 m thick with some regions exhibiting thicknesses of 6 – 8 m.
Estimation and modelling techniques	The Mineral Resource estimate was conducted using CAE mining software (also known as Datamine Studio RM). Inverse Distance Weighting 'ID3' techniques were used to interpolate assay grade from the drill hole samples to interpolate index values and non-numeric sample identification into the block model. Ordinary Kriging was also used to interpolate TREO grade into the block model to be used as a validation check against the inverse distance weighting technique. Appropriate and industry standard search ellipses were used to search for data for the interpolation and suitable limitations on the number of samples and the impact of those samples was maintained. The search ellipse was equal in size both along and across strike as no dominant grade strike direction exists for the deposit. No assumptions were made during the resource estimation as to the recovery of by-products. Further detailed characterisation and leach of ionic clay sample studies are required that may affect the marketability of the heavy mineral products. The average parent cell size used for the interpolation was half the dominant drill hole width and half the standard drill hole line spacing. No assumptions were made regarding the modelling of selective mining units however it is assumed that a form of dry mining will be undertaken and the cell size and the sub cell splitting will allow for an appropriate dry mining preliminary reserve to be prepared. Any other mining methodology will be more than adequately catered for with the parent cell size that was selected for the modelling exercise. No assumptions were made about correlation between variables. The Mineral Resource estimate and Exploration Target was controlled to an extent by the geological/mineralisation and basement surfaces. Grade cutting or capping was not used during the interpolation because of the regular nature of sample spacing. Statistical analysis of composited drill holes by domain was undertaken to compare against the un-composited data and showed a satisfactory relationship which concluded that grade cutting or capping was not required at this stage of exploration. Validation of grade interpolations were done visually in Datamine Studio RM software by loading model and drill hole files and annotating and colouring and using filtering to check for the appropriateness of interpolations. Statistical distributions were prepared for model zones from drill hole and model files to compare the effectiveness of the interpolations. Along strike distributions of section line averages (swathe plots) for drill holes and models were also prepared for comparison purposes.
Moisture	Tonnages were estimated an assumed dry basis.
Cut-off parameters	Cut-off grades for TREO-CeO2 were used to prepare the reported resource estimates. The selection of the TREO-CeO2 cut-off grade used for reporting was based on the experience of the Competent Person and based on a peer review of publicly available information from more advanced projects with comparable mineralisation styles (i.e clay hosted rare earth mineralisation) and comparable conceptual processing methods.
Mining factors or assumptions	No specific mining method is assumed other than potentially the use of dry mining methods.
Metallurgical factors or assumptions	No metallurgical assumptions or testwork undertaken by the Company at this early stage of exploration. It is recommended that the Company undertake suitable metallurgical testwork during future work programmes with respect to acid leaching testwork to understand the metallurgical amenability of the project and to support the reasonable prospects for

Criteria	Commentary
	eventual economic extraction.
Environmental factors or assumptions	No assumptions have been made regarding possible waste and process residue however the shallow depth of the deposit will minimise environmental impacts of mining. The potential processing method disregard the issue of radioactive tailing issues.
Bulk density	A BD of 1.78 was chosen for the Zone 3 clay unit which was selected based on a review of similar sediment hosted REO deposits with known density values assigned. A BD of 1.85 was defined for clayey sand (CS)/sand (SA) units of Zone 1 and Zone 2 and a BD of 1.62 was defined for the limestone (LMST), weathered limestone unit (WLMST) also based on a review of similar deposit type with known density values assigned. It is recommended that the Company undertake their own density testwork to determine known density values for the deposit.
Classification	The JORC Resource Classification for Mitre Hill project within Exploration Lease EL 7647 was supported by drill hole spacing, geological continuity and variography of TREO-CeO2 of the target mineralised domained Zone 3. The classification of Inferred was supported by all the criteria noted above. A significant Exploration Target has also been defined which can be used to determine areas of significant prospectivity for future drill programmes. As a Competent Person, IHC Mining Geological Services Manager Greg Jones considers that the result appropriately reflects a reasonable view of the deposit categorisation.
Audits or reviews.	No audits or reviews of the Mineral Resource estimate has been undertaken at this point in time.
Discussion of relative accuracy/ confidence	The overall grade interpolation for this method was considered a reasonable methodology.

Annexure 2: Drill Hole composited data

BHID	FROM	TO	LENGTH	ZONE	TREO	TCeO2	HREO	LREO	CREO	NdPr	ThO2	U3O8
MHAC220160	3	4	1	200	530.9	329.4	128.0	402.9	170.4	112.3	10.2	0.6
MHAC220161	5	8	3	3	962.5	734.0	296.0	666.4	400.2	249.1	10.8	0.8
MHAC220161	9	10	1	3	432.8	330.2	143.0	289.8	184.2	109.9	11.9	1.2
MHAC220163A	11	14	3	3	825.5	615.9	377.4	448.1	384.7	146.2	12.7	1.8
MHAC220164	13	16	3	3	640.6	500.5	256.5	384.0	294.4	143.9	14.4	2.2
MHAC220165	12	17	5	3	1106.2	801.5	354.6	751.6	454.4	268.7	13.8	2.1
MHAC220167	1	2	1	2	488.9	360.0	166.9	322.1	211.0	114.5	13.1	0.6
MHAC220168	5	6	1	3	641.6	578.9	330.7	310.9	369.1	142.7	5.1	0.3
MHAC220170	9	10	1	3	1028.3	631.5	231.1	797.2	318.6	226.9	20.5	1.8
MHAC220170	11	13	2	3	656.7	489.1	272.8	384.0	289.2	121.3	15.6	2.4
MHAC220171	14	15	1	3	2501.5	1404.6	500.6	2000.9	730.8	580.3	22.2	1.8
MHAC220173	5	7	2	3	660.3	423.2	232.8	427.5	249.7	124.2	17.9	1.5
MHAC220174	6	9	3	3	827.3	564.4	282.5	544.8	326.9	167.4	16.1	1.1
MHAC220175	8	10	2	3	809.3	526.8	242.1	567.2	296.5	161.5	17.6	0.9
MHAC220178	10	11	1	3	770.5	597.3	309.8	460.8	363.7	148.0	11.9	2.4
MHAC220179	10	11	1	2	667.2	421.5	146.8	520.4	213.6	172.7	8.0	1.2
MHAC220179	11	13	2	3	1166.1	822.1	392.5	773.6	470.2	253.7	10.8	1.5
MHAC220180	13	16	3	3	894.0	694.4	364.9	529.1	404.7	182.5	14.8	2.2
MHAC220181	10	12	2	3	1001.8	688.6	358.2	643.7	394.5	196.7	18.8	2.4
MHAC220182	3	6	3	3	1170.9	835.6	484.4	686.5	524.3	206.9	15.9	1.8
MHAC220183	9	11	2	3	932.4	623.4	348.8	583.6	385.6	184.3	20.2	2.4
MHAC220184	2	3	1	3	609.9	378.9	212.2	397.6	224.9	101.0	28.4	1.8
MHAC220185	2	3	1	3	646.0	385.5	181.3	464.7	215.4	123.4	22.8	1.8
MHAC220187	11	12	1	3	709.0	412.9	201.0	507.9	236.9	125.1	26.7	1.8
MHAC220187	15	16	1	3	599.8	372.5	160.0	439.8	202.2	125.7	24.5	1.8
MHAC220188	1	3	2	3	836.4	570.4	307.5	528.9	341.5	163.3	18.8	1.5
MHAC220189	4	6	2	3	1017.8	657.9	270.5	747.4	347.9	229.7	20.2	1.5
MHAC220190	5	7	2	3	1290.8	903.3	315.7	975.1	450.2	321.9	23.9	2.4
MHAC220191	8	11	3	3	734.8	483.4	231.9	502.8	274.9	154.9	22.8	2.4
MHAC220192	11	13	2	3	494.1	381.4	199.2	294.9	230.3	103.1	11.9	2.1
MHAC220194	9	10	1	3	1846.2	1035.5	382.7	1463.5	537.6	345.5	15.4	1.2
MHAC220195	9	12	3	3	868.1	549.5	258.9	609.2	305.7	175.7	23.5	2.8
MHAC220197	9	10	1	3	682.1	381.1	122.8	559.3	190.0	152.8	17.6	2.4
MHAC220198	7	9	2	3	635.6	396.0	171.5	464.1	219.9	136.6	15.1	1.8
MHAC220199	12	13	1	3	823.9	495.9	188.3	635.6	257.5	183.3	17.1	2.4
MHAC220200	8	10	2	3	1049.1	673.2	319.0	730.1	376.1	207.6	27.0	2.9
MHAC220201	7	9	2	3	719.4	487.2	260.1	459.3	286.8	133.3	20.5	2.9
MHAC220202	8	9	1	3	2326.0	1442.8	558.7	1767.3	779.0	573.3	29.0	2.4
MHAC220205	15	16	1	3	1579.9	1093.5	546.6	1033.3	624.2	307.6	25.6	1.2
MHAC220206	20	22	2	3	817.5	503.7	192.0	625.5	261.3	177.4	11.4	2.4
MHAC220210	6	8	2	3	1559.8	1043.2	509.7	1050.0	594.2	326.5	23.3	2.7
MHAC220212	11	14	3	3	1585.9	944.7	322.9	1263.1	450.2	320.1	14.2	2.9
MHAC220213	13	15	2	3	547.5	358.4	169.0	378.5	201.9	111.9	7.7	2.1
MHAC220215	6	8	2	3	1965.6	1174.5	387.4	1578.3	603.0	513.3	33.0	2.1
MHAC220215	8	9	1	200	714.2	448.9	181.2	533.0	237.6	158.6	19.3	1.8
MHAC220218	6	8	2	3	481.0	363.1	225.2	255.8	224.4	81.6	30.4	1.2
MHAC220219	7	9	2	3	798.2	526.7	265.2	533.0	306.4	157.1	23.0	1.5
MHAC220220	7	8	1	3	1184.5	775.4	365.7	818.8	432.8	244.3	25.0	1.2

BHID	FROM	TO	LENGTH	ZONE	TREO	TCeO2	HREO	LREO	CREO	NdPr	ThO2	U3O8
MHAC220221	7	8	1	3	2447.1	1406.7	455.8	1991.4	702.5	569.8	62.6	2.4
MHAC220222	13	15	2	3	667.2	443.0	216.1	451.0	245.7	128.3	25.0	1.2
MHAC220224	14	15	1	3	573.8	405.5	228.8	344.9	245.0	109.8	9.1	1.8
MHAC220224	16	17	1	3	541.2	386.4	221.5	319.7	237.0	100.4	9.7	1.2
MHAC220225	7	9	2	3	711.0	448.7	182.9	528.1	240.7	164.4	15.6	1.0
MHAC220226	5	6	1	3	643.7	422.6	194.2	449.5	223.9	133.4	25.6	1.2
MHAC220227	5	7	2	3	801.0	477.3	170.3	630.7	243.3	182.1	19.6	1.2
MHAC220228	6	8	2	3	959.4	627.1	324.2	635.1	357.3	187.3	16.8	1.8
MHAC220229	7	9	2	3	766.0	516.0	268.9	497.1	298.5	149.7	22.5	1.8
MHAC220233	8	9	1	3	896.5	513.3	155.2	741.4	246.4	208.0	29.6	1.2
MHAC220234	5	6	1	3	614.6	393.5	175.2	439.5	208.2	132.8	17.6	1.2
MHAC220236	5	6	1	3	1710.2	1054.2	442.6	1267.6	580.0	384.1	11.4	1.2
MHAC220237	4	5	1	200	617.3	402.3	191.6	425.7	224.6	129.8	13.1	1.2
MHAC220238	6	8	2	3	1243.5	733.7	271.7	971.8	378.4	280.8	23.0	1.2
MHAC220240	8	9	1	3	3261.0	1971.1	727.8	2533.2	1034.5	775.4	25.0	1.8
MHAC220241	10	11	1	3	2859.9	1923.8	985.9	1874.0	1135.9	586.1	26.2	4.1
MHAC220242	8	11	3	3	1224.3	809.6	396.7	827.6	457.8	243.9	25.4	2.2
MHAC220244	15	17	2	3	2131.2	1373.9	608.6	1522.6	776.7	512.6	8.8	4.1
MHAC220246	16	18	2	3	954.5	642.5	312.0	642.5	371.5	205.6	16.2	2.9
MHAC220248	23	24	1	3	621.5	363.5	111.1	510.4	155.8	112.9	13.7	3.5
MHAC220249	7	8	1	3	780.3	505.1	242.1	538.2	283.6	169.2	13.1	1.8
MHAC220251	10	11	1	3	1676.3	1041.2	470.8	1205.6	611.7	377.0	11.9	2.9
MHAC220252	8	9	1	3	777.0	499.4	231.7	545.3	279.0	169.1	27.3	2.4
MHAC220253	10	11	1	2	881.1	608.4	318.5	562.6	353.1	168.0	25.6	3.5
MHAC220255	12	13	1	3	1273.3	752.5	262.8	1010.5	396.5	317.3	19.3	2.9
MHAC220259	17	20	3	3	631.6	431.3	226.1	405.5	262.4	138.0	18.4	8.1
MHAC220260	12	13	1	3	2446.6	1457.8	514.9	1931.8	787.0	647.4	15.9	3.5
MHAC220261	8	9	1	3	1072.3	567.4	187.0	885.3	278.3	213.9	13.7	1.2
MHAC220262	16	18	2	3	794.5	529.2	255.7	538.9	306.7	174.4	10.0	2.7
MHAC220263	6	8	2	3	934.2	580.4	242.9	691.3	315.8	211.5	20.5	2.1
MHAC220264	6	7	1	3	659.0	403.4	168.1	490.9	216.2	140.4	11.9	1.8
MHAC220265	3	4	1	3	661.7	393.9	174.4	487.3	216.6	126.9	20.5	1.2
MHAC220266	5	6	1	3	1335.6	828.3	340.0	995.7	437.3	288.9	21.1	1.2
MHAC220267	4	6	2	3	2009.9	1584.8	617.2	1392.6	836.2	526.0	17.4	0.7
MHAC220268	6	7	1	200	518.4	407.3	179.5	338.9	228.7	129.2	8.0	1.2
MHAC220269	2	3	1	3	598.3	356.3	179.0	419.3	206.7	106.9	17.6	1.2
MHAC220271	11	12	1	3	573.4	396.5	178.1	395.3	212.2	118.7	14.8	1.2
MHAC220271	15	18	3	3	733.2	427.3	183.5	549.7	229.5	143.7	23.5	1.4
MHAC220271	18	19	1	200	644.9	366.0	135.9	509.0	193.2	139.8	17.6	1.8
MHAC220272	5	6	1	3	1094.1	640.8	296.8	797.2	363.0	218.5	21.6	1.8
MHAC220273	1	2	1	3	526.5	380.3	187.2	339.3	217.8	111.0	22.2	1.2
MHAC220274	2	3	1	3	787.1	529.2	272.1	515.1	314.6	163.3	18.2	1.2
MHAC220278	1	2	1	3	536.1	360.5	166.2	369.9	204.9	109.8	13.7	1.2
MHAC220279	3	4	1	200	1265.9	751.2	440.2	825.7	464.8	199.6	16.5	1.2
MHAC220281	4	6	2	3	722.0	536.5	285.9	436.1	327.7	169.1	21.6	1.8
MHAC220282	3	4	1	3	685.9	534.8	239.0	446.9	298.2	158.6	15.9	1.2
MHAC220283	2	3	1	3	468.9	357.1	155.7	313.1	197.2	112.2	18.2	1.8
MHAC220284	2	4	2	3	1039.4	562.2	271.0	768.4	317.1	173.3	18.5	1.5
MHAC220286	4	6	2	3	1344.5	761.0	402.3	942.2	442.6	234.4	17.4	1.2
MHAC220288	1	3	2	3	891.9	735.9	341.7	550.1	412.8	220.0	25.9	1.2

BHID	FROM	TO	LENGTH	ZONE	TREO	TCeO2	HREO	LREO	CREO	NdPr	ThO2	U3O8
MHAC220289	8	9	1	3	964.4	844.6	329.2	635.2	450.7	296.1	22.2	2.4
MHAC220290	13	14	1	3	801.2	512.5	258.9	542.2	292.3	158.6	19.9	1.8
MHAC220291	18	19	1	3	707.9	426.6	135.4	572.4	185.7	131.6	13.7	1.8
MHAC220292	8	10	2	3	849.4	572.4	283.7	565.8	329.0	175.6	22.5	1.8
MHAC220293	12	13	1	3	686.3	412.4	150.6	535.8	217.3	163.3	19.3	2.4
MHAC220294	16	17	1	3	575.2	379.9	178.5	396.7	191.1	105.2	15.4	2.4
MHAC220296	0	2	2	200	696.5	475.4	249.7	446.8	271.9	137.8	20.8	2.1
MHAC220297	2	6	4	3	1142.1	657.2	293.7	848.4	338.2	222.7	26.7	2.3
MHAC220298	4	7	3	3	874.8	566.9	304.1	570.7	319.3	154.1	19.7	2.4
MHAC220301	6	9	3	3	843.6	526.2	207.0	636.6	257.4	182.0	22.6	2.8
MHAC220302	16	17	1	2	904.2	539.4	210.6	693.6	271.2	190.4	13.7	2.4
MHAC220303	12	14	2	3	665.5	481.8	220.0	445.4	261.3	140.4	20.8	2.4