

## REE resource increases to 27m tonnes and new discovery

Mineral Resource increased by 30% to 27 million tonnes, from 22% of prospect area

Latest 36 holes expanded the Resource and found new thick, high-grade deposits

Assays enhance potential for REE mineralisation to continue 16km to Wind Break and increases the target area from 35km<sup>2</sup> to over 100km<sup>2</sup>

Discovery hole RM302 intersected 11m @ 1,700ppm TREO 5km NE of Deep Leads

ABx Group (ASX: ABX) (“ABx”) is pleased to announce a 30% increase to its Northern Tasmanian-based Deep Leads and Rubble Mound ionic adsorption clay (IAC) rare earth elements (REE) Mineral Resource Estimate to 27 million tonnes<sup>1</sup>. The increase follows the receipt of assays from 36 drill holes which have discovered new deposits, increasing the potential for mineralisation to extend over 16km to the Wind Break discovery.

**Table 1: Mineral Resources at Deep Leads-Rubble Mound**

Resource Category	Million Tonnes	From (m)	To (m)	Thickness (m)	TREO ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Permanent Magnet REOs				Ratios	
								Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	PermMag TREO %	Tb+Dy TREO %
Inferred	24	4.5	12.1	7.6	801	602	195	128	33	4.8	29	25%	4.3%
Indicated	4	4.6	11.2	6.7	901	660	217	144	36	5.3	32	24%	4.1%
<b>Totals</b>	<b>27</b>	<b>4.5</b>	<b>12.1</b>	<b>7.6</b>	<b>803</b>	<b>603</b>	<b>196</b>	<b>128</b>	<b>33</b>	<b>4.8</b>	<b>30</b>	<b>24%</b>	<b>4.3%</b>
Other Rare Earth oxides												Low radioactivity	
Resource Category	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm	U <sub>3</sub> O <sub>8</sub> ppm	ThO ppm
Inferred	199	17	7.4	29	6.0	115	2.3	29	2.4	16	183	0.9	3.3
Indicated	240	17	9.6	34	6.2	129	2.1	33	2.4	14	196	0.8	3.2
<b>Totals</b>	<b>200</b>	<b>17</b>	<b>7.5</b>	<b>29</b>	<b>6.0</b>	<b>115</b>	<b>2.3</b>	<b>29</b>	<b>2.4</b>	<b>15</b>	<b>183</b>	<b>0.9</b>	<b>3.3</b>

**Parameters** Cut-off grade = 250ppm TREO-CeO<sub>2</sub> Minimum thickness = 2 metres Maximum extrapolation = 80m Density = 1.9 tonnes/cubic metre  
TREO = total rare earth elements as oxides. TREO-CeO<sub>2</sub> = TREO minus cerium oxide

### Commenting on the Resource upgrade, ABx Group Managing Director and CEO Mark Cooksey said:

“The 30% increase in Inferred Mineral Resources<sup>1</sup> arises from the latest 36 holes that were our furthest step-out drillholes. 69% of the holes returned resource grade assays, which is above average for such wide spaced scout drilling in new areas.

“Our northernmost discovery hole, RM302, located 5km NE of Deep Leads could become our best prospect because it is 11 metres thick and enriched in permanent magnet rare earths, especially dysprosium (Dy) and terbium (Tb). These are highly valuable rare earths and almost exclusively produced from IAC deposits. Hole RM302 also indicates that this IAC rare earth mineralisation could extend 16km to the Wind Break discovery in our new exploration licence application.

“In addition, it is important to note that the cost of extracting rare earths from IAC deposits is highly dependent on the desorption process conditions. ‘Standard’ desorption conditions include 30 minutes at pH 4 (same acidity as apple juice). The ABx deposits have the highest reported extractions under these conditions for any IAC rare earth resource in Australia.<sup>2</sup> For other deposits requiring more acidic conditions, the production cost is likely to be substantially higher.

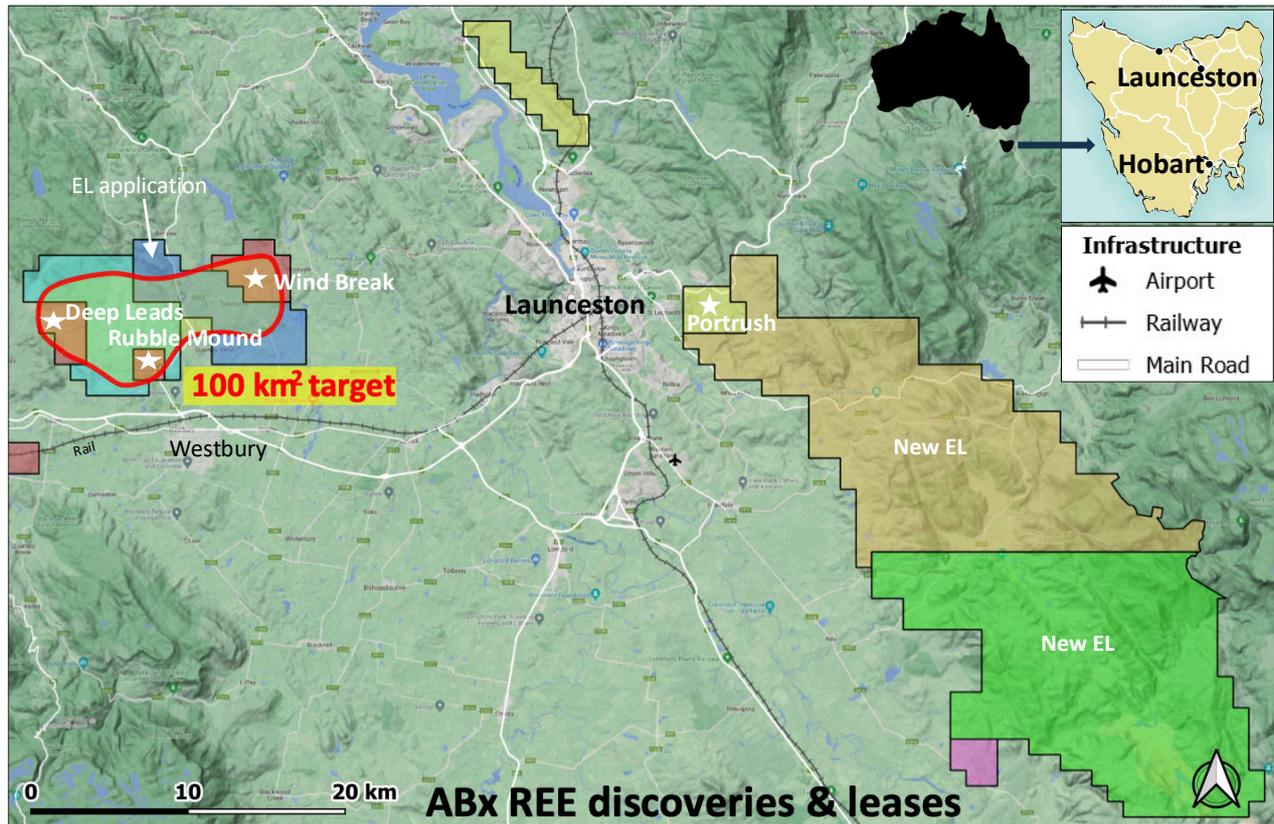
<sup>1</sup> See resource information and qualifying statements below

<sup>2</sup> See ASX release ‘Widespread High Extractions of Ionic Adsorption Clay Rare Earths’, 2 February 2023

*“Not all clays are created equal and very few clay-hosted REE deposits globally are amenable to low-cost benign production methods.”*

## Location and Infrastructure

ABx’s IAC deposits are located in accessible pine plantations near highways, rail lines, airports, international shipping ports, grid hydropower and cities with major engineering capabilities and heavy industries – see Figure 1.



**Figure 1:** ABx’s leases and REE discoveries in the northern Tasmanian REE province. Deep Leads-Rubble Mound is the first discovery to have wide-spaced drilling. The exploration licence application (dark blue) is a recent application to cover the prospective ground between the Deep Leads and the Wind Break discoveries located 16km ENE of Deep Leads

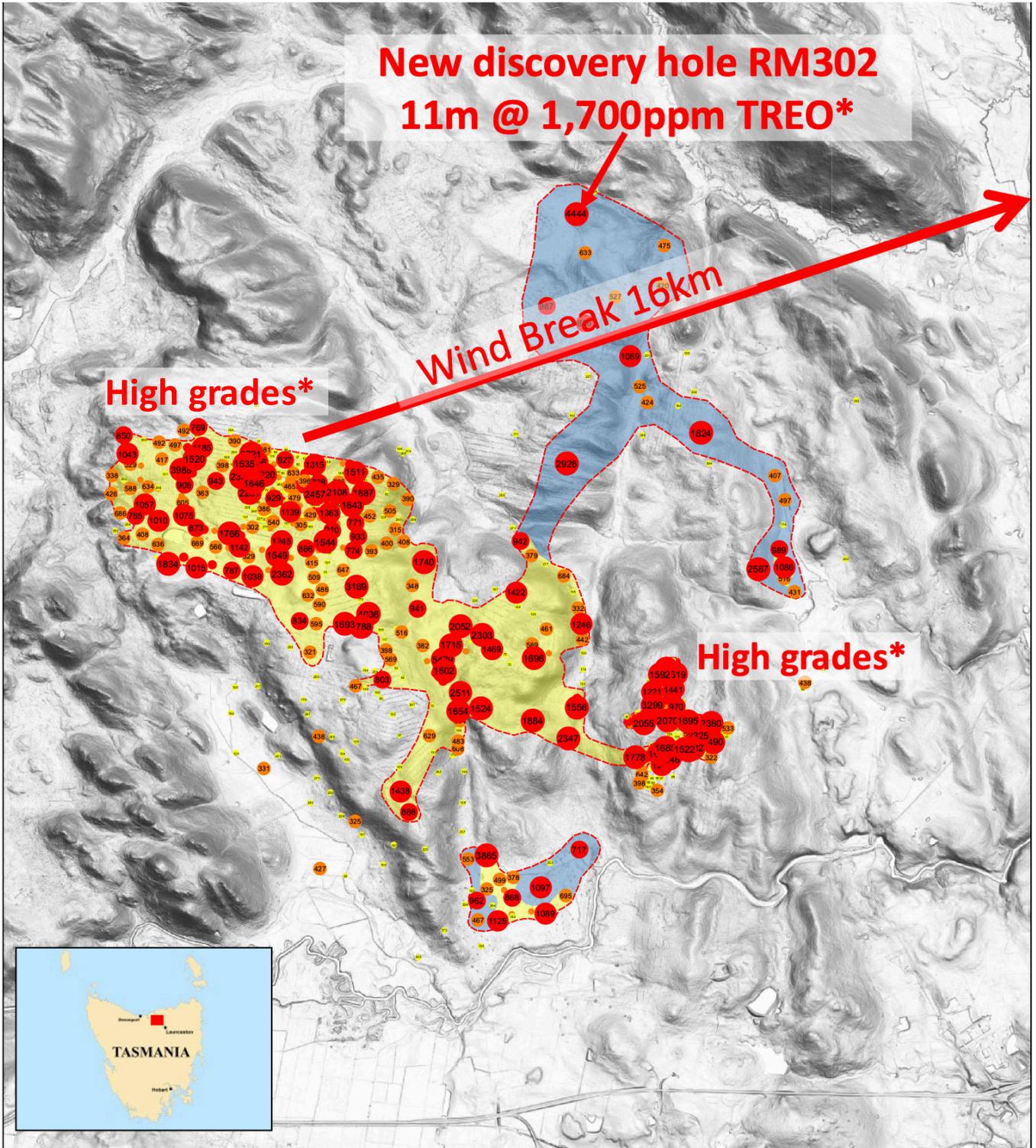
## Exploration Target Area and Drilling Campaign

ABx’s exploration activity has increased the target area from 35km<sup>2</sup> at Deep Leads-Rubble Mound to over 100km<sup>2</sup>, which also covers the Wind Break discovery – see Figure 1. Subject to the new exploration licence application being granted, ABx will commence ground exploration of the area and this is expected to lead to exploration drilling programs in coming months.

ABx is being more selective and targeted in the types of deposits that it will test by drilling.

Recent drillhole RM302 (see Figure 2) is considered to be one of the best REE intercepts to date and is located at the north-eastern point of ABx’s first-pass drill coverage. It is the first of several similar prospects identified by ABx in the north-east and around the Wind Break discovery.

Table 2 shows the assay results for the intercept in hole RM302, which is 11 metres thick from only 2 metres depth to 13 metres depth, with 6 metres of higher grades from 4 to 10 metres depth.



Rare Earth Element  
Exploration

**REE Mineralisation Zone**

- REE Mineralisation Zone
- REE Mineralisation Zone Extension

**Total Rare Earth Oxide Grades (TREO)**

- Greater than 700ppm
- Between 300 and 700ppm
- Less than 300ppm



Figure 2: Deep Leads drillholes with REE grades shown as total rare earth oxide (TREO). Assay results for discovery hole RM302 are shown in Table 2

**Table 2**

Hole ID	From (m)	To (m)	Metres (m)	TREO max ppm	TREO avg ppm	TREO-CeO <sub>2</sub> ppm	Perm Mag ppm	Permanent Magnet REE				Ratios	
								Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	PermMag TREO %	Tb+Dy TREO %
RM302	2	3	1	724	724	300	104	70	17	2.3	15.1	14%	2.4%
RM302	3	4	1	1648	1648	628	245	167	43	4.7	30.5	15%	2.1%
RM302	4	5	1	2932	2932	1660	773	545	155	11.0	62.5	26%	2.5%
RM302	5	6	1	1222	1222	805	334	230	63	5.5	35.6	27%	3.4%
RM302	6	7	1	1723	1723	1422	460	286	76	12.9	85.3	27%	5.7%
RM302	7	8	1	4444	4444	4014	902	496	124	36.2	245.6	20%	6.3%
RM302	8	9	1	3269	3269	2893	742	442	112	24.7	162.4	23%	5.7%
RM302	9	10	1	1408	1408	1219	320	195	50	10.0	65.3	23%	5.3%
RM302	10	11	1	640	640	540	150	95	24	4.2	27.0	23%	4.9%
RM302	11	12	1	421	421	348	95	59	15	2.6	18.0	23%	4.9%
RM302	12	13	1	453	453	375	103	65	16	2.9	19.0	23%	4.8%
<b>Totals</b>	<b>2</b>	<b>13</b>	<b>11</b>	<b>1717</b>	<b>1717</b>	<b>1291</b>	<b>385</b>	<b>241</b>	<b>63</b>	<b>10.6</b>	<b>69.7</b>	<b>22%</b>	<b>4.7%</b>

### High levels of dysprosium and terbium

The four permanent magnet rare earth elements Nd, Pr, Dy and Tb represent more than 90% of total REE market value. Dy and Tb are particularly valuable, because they are almost exclusively supplied from IAC rare earth deposits. The Dy+Tb/TREO of the Resource is 4.3%, which is one of the highest reported ratios for any IAC rare earth deposit.

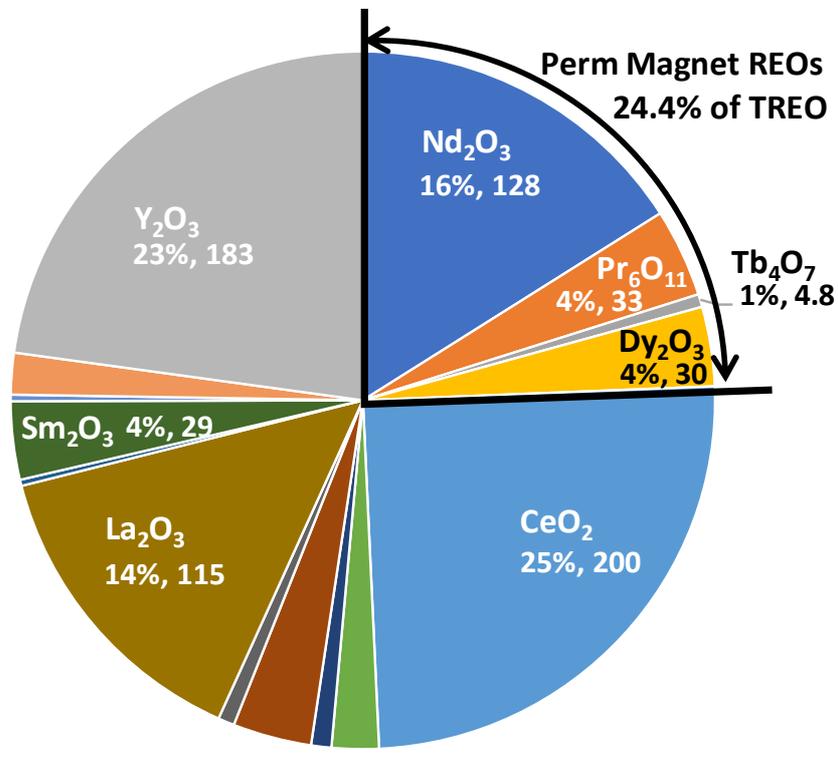


Figure 3: REE grades (in ppm or g/t) for the overall Deep Leads-Rubble Mound resources to date

## RESOURCE INFORMATION

This Mineral Resource is based on 681 drillholes totalling 6,728 metres drilled and 3,145 metres assayed for rare earth elements. Old holes that did not reach the mineralisation are excluded.

### Intercepts above cut-off grade: 2m averaging above 250ppm TREO-CeO<sub>2</sub>

Intercepts that exceed the minimum cut-off grade of 2 metres thick averaging above 250ppm TREO-CeO<sub>2</sub> used in this Resource upgrade are shown in Table 5 at the end of this report.

### Change compared to previous estimate

Inferred Resources increased by 6 million tonnes and Indicated Resources remain unchanged from the previous Interim Resource Estimate dated 8 May 2023.<sup>3</sup> This is because the final 36 holes were drilled at wide spacings of about 200 metres, which is Inferred category.

### Areas of mineralisation and estimated resources

Prospective areas *	Square km	Ratio
Deep Leads-Rubble Mound prospective area	35	
<b>Prospective area including Windbreak discovery</b>	<b>102</b>	<b>2.9 increase</b>

**Table 3: Area of drill coverage for this resource estimation**

\* ABx's proprietary exploration technology for Rare Earth Elements in Tasmania

Drilling areas data	Square km	Proportion
Total area inside drilling boundary	28	
Total unmineralised area inside boundary	13	47%
<b>Total mineralised area inside boundary</b>	<b>15</b>	<b>53%</b>
<b>Mineralised area included in resource estimate</b>	<b>3.3</b>	<b>22%</b>

The estimated area within the drilling boundary is 28km<sup>2</sup> of which, drill results show that 15km<sup>2</sup> or 53% is mineralised above cut-off grade.

The maximum projection of resources beyond drillholes is 80 metres, so, the area estimated in this resource estimate is only 3.3km<sup>2</sup> which is 22% of the estimated mineralised area.

This does not infer that all of the undrilled area within the estimated mineralised area is resource-grade. Further drilling is required to firm-up resource estimates.

### Basis for Resource Category Classification (listing rule 5.8.1)

- The maximum distance of extrapolation beyond the sample points is 80 metres
- The proportion of the resource that is based on 80 metre extrapolated data is 88%
- Cross-section assessment of grade-thickness continuity is the basis for application of the 80 metre extrapolation limit for Inferred Resources
- Figure 2 shows the drill spacings and Table 4 lists the survey coordinates of the drillholes.
- Holes less than 80 metres apart are used in the estimation of Indicated Resources and their spacings range from 1 metre for duplicated holes to 80 metres, averaging 58 metres apart
- The holes that are further than 80 metres apart are used for Inferred Resource estimation, limited to the maximum extrapolation distance of 80 metres from the drillhole.

<sup>3</sup> See ASX release 'ABX 20Mt resource milestone achieved' 8 May 2023

### Tonnage-Grade Relationship

To assist the testing of production alternatives and the planning of further drill-evaluation strategies, a tonnage-grade graph has been created to show the tonnages of resources and average grade of those tonnages, sorted from highest grade to lowest grade (see Figure 4).

Results in this tonnage-grade graph are reported in TREO as well as TREO minus cerium oxide, as CeO<sub>2</sub> is relatively low in value. The grades of permanent magnet REOs are also shown.

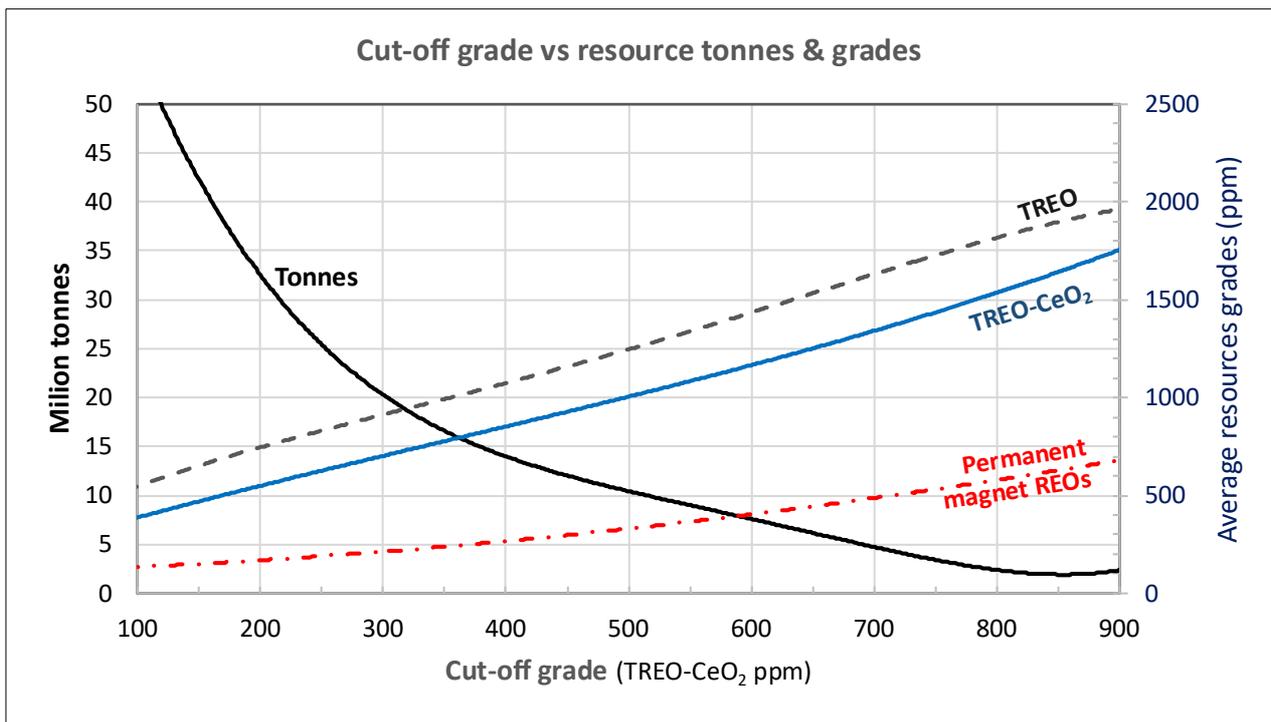


Figure 4: Tonnages and average grades plotted versus the cut-off grade applied to the resource estimation. This shows the relationship between cut-off grades, resource tonnages and average grades of total rare earth elements expressed as oxides (TREO), TREO minus cerium oxide (TREO-CeO<sub>2</sub>) and Permanent Magnet REOs.

**Table 4 - Summary of resource estimation information in accordance with LR 5.8.1**

<b>Geology and geological interpretation</b>	REE mineralisation occurs in clay layers that overlie a Jurassic age dolerite basement in a district with some residual weathered Tertiary age alkali basalt. Jurassic age tholeiitic dolerite and Tertiary age bauxite-laterite are the main bedrock geological units. Paleochannels host thicker clay zones which host the rare earth element mineralisation.
<b>Sampling and sub-sampling techniques</b>	Sampling was at 1 metre intervals. Subsampling for assaying is by quartering the clay samples twice and each time, mixing diagonally opposite quarters. Assay results from resampling correspond satisfactorily.
<b>Drilling techniques</b>	RC aircore and push-tube coring used.
<b>Criteria used for classification, including drill and data spacing and distribution.</b>	Drill spacing boundary between Indicated and Inferred Resources is 80 metres. Maximum extrapolation of Inferred Resources is 80 metres.
<b>Sample analytical method</b>	Assay samples are analysed by standard NATA-approved induction coupled plasma analytical methods for rare earth elements at ALS labs in Brisbane (method ME-MS81) and LabWest in Perth (method MMA04). Interlab comparisons proved satisfactory.
<b>Estimation methodology</b>	Assay intervals are all 1 metre. Downhole intercepts are simple arithmetic averages of grades above cut-off grade. Because the clay horizon drapes the topography, estimation is by the 2-dimensional polygonal method with maximum extrapolation of Inferred Resources to 80 metres. Clay density is measured at over 2 tonnes per cubic metre but a few drill samples exhibit density loss, so a density of 1.9 tonnes per cubic metre was applied globally.
<b>Cut-off grade</b>	2 metres averaging 250 ppm TREO - CeO <sub>2</sub> as used by peer companies. A separation between background and mineralised grades exists at 190-260ppm TREO-CeO <sub>2</sub> .
<b>Mining and metallurgical methods and parameters, and other modifying factors</b>	None applicable at this resource-drilling stage. Production and rehabilitation strategies are being reviewed. Deposits of this type are mined in China but under very different jurisdictions. The land is freehold hardwood and pine plantations.

This announcement is approved for release by the board of directors.

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## About ABx Group Limited

ABx Group (ABX) is a uniquely positioned, high-tech Australian company delivering materials for a cleaner future.

The three current significant projects are:

- Creation of an ionic adsorption clay rare earth project in northern Tasmania
- Establishment of a plant to produce hydrogen fluoride and aluminium fluoride from recycled industrial waste, via its 83%-owned subsidiary, Alcore
- Mining and enhancing the value of bauxite resources for cement, aluminium and fertilisers.

We only operate where welcomed and we apply best practices to restore any disturbed land to a better condition than we found it.

## Qualifying statements

### Disclaimer Regarding Forward Looking Statements

This ASX announcement (Announcement) contains various forward-looking statements. All statements other than statements of historical fact are forward-looking statements. Forward-looking statements are inherently subject to uncertainties in that they may be affected by a variety of known and unknown risks, variables and factors which could cause actual values or results, performance, or achievements to differ materially from the expectations described in such forward-looking statements.

ABx does not give any assurance that the anticipated results, performance, or achievements expressed or implied in those forward-looking statements will be achieved.

## General

The information in this report that relate to Exploration Information and Mineral Resources are based on information compiled by Ian Levy who is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Levy is a qualified geologists and a director of ABx Group Limited.

Mr Levy has sufficient experience, which is relevant to the style of mineralisation and 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 Levy has consented in writing to the inclusion in this report of the Exploration Information in the form and context in which it appears.

## Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul style="list-style-type: none"> <li>Drill hole samples from reverse circulation aircore and push-tube core drilling to 37.5 metres maximum depth but typically to 12 metres depth</li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</li> </ul>	<ul style="list-style-type: none"> <li>Reverse circulation aircore chip sampling and push-tube coring. Grades of core samples correspond well with aircore sample grades.</li> </ul>
Drill sample recovery	<ul style="list-style-type: none"> <li>Method of recording &amp; assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery &amp; ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	<ul style="list-style-type: none"> <li>Weight tests indicated reliable sample recovery except for first metre in soils (not used in resource estimates)</li> <li>No relationship between sample recovery and grade has been observed but some evidence of washing out clay in wet zones which will undersample the REE in places.</li> </ul>
Logging	<ul style="list-style-type: none"> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	<ul style="list-style-type: none"> <li>Geologically logged by senior geologists. Every sample photographed, with photos, logs and assays entered into ABx's proprietary Abacus database.</li> </ul>
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	<ul style="list-style-type: none"> <li>Chips are subsampled using bauxite shovel and quartering method in accordance with ISO standards for fine damp clay material. Reassaying corresponds well</li> </ul>
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>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.</li> <li>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external lab checks) &amp; whether</li> </ul>	<ul style="list-style-type: none"> <li>Assaying done at NATA-registered commercial labs of ALS Brisbane Australia and Labwest Minerals Analysis in Western Australia. Duplicate interlab assays corresponded well.</li> <li>Description extraction tests were conducted by ANSTO at Lucas Heights, Sydney NSW with ANSTO's assays done at ALS Brisbane.</li> </ul>

Criteria	JORC Code explanation	Commentary
<b>Verification of sampling and assaying</b>	<p>acceptable levels of accuracy (ie lack of bias) &amp; precision have been established.</p> <ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>All assaying done at NATA-registered commercial laboratories of ALS Brisbane Australia and Labwest Minerals Analysis Pty Ltd in Western Australia.</li> <li>Duplicated and redrilled holes correlated closely</li> <li>Duplicate interlab assays corresponded well.</li> <li>No adjustment of assay data done.</li> </ul>
<b>Location of data points</b>	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>GPS hole locations have been tested for accuracy on many prospects, all satisfactorily – usually within 1m.</li> <li>Grid Coordinates are GDA94</li> <li>Topographic control by Lidar topography when needed</li> </ul>
<b>Data spacing and distribution</b>	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>Drilling typically at 50 to 75 metre spacing on mineralised prospects</li> <li>Geological continuity is established by drill pattern</li> <li>Grade continuity is not yet established beyond 50m</li> <li>Sample compositing not applied</li> </ul>
<b>Orientation of data in relation to geological structure</b>	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Vertical holes through horizontal clay is appropriate</li> <li>Clay layer drapes over topography and accumulates in gullies. Vertical holes is the appropriate orientation.</li> </ul>
<b>Sample security</b>	<ul style="list-style-type: none"> <li>The measures taken to ensure sample security.</li> </ul>	<ul style="list-style-type: none"> <li>Samples collected and bagged at every hole site and assembled onto pallets daily, shipped to lab weekly.</li> </ul>
<b>Audits or reviews</b>	<ul style="list-style-type: none"> <li>The results of any audits or reviews of sampling techniques and data.</li> </ul>	<ul style="list-style-type: none"> <li>Several audits confirmed reliability</li> </ul>

**Section 2 Reporting of Exploration Results** (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<b>Mineral tenement and land tenure status</b>	<ul style="list-style-type: none"> <li>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</li> <li>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</li> </ul>	<ul style="list-style-type: none"> <li>Satisfactory to excellent. All tenements are in force, unencumbered and securely held by ABX</li> <li>All drilling is on freehold land with access approvals by landholders</li> </ul>
<b>Exploration done by other parties</b>	<ul style="list-style-type: none"> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul style="list-style-type: none"> <li>ABX is the first company to explore for Rare Earth Elements in northern Tasmania. No prior work has been done by other parties</li> </ul>
<b>Geology</b>	<ul style="list-style-type: none"> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul style="list-style-type: none"> <li>Bauxite deposit formed on Lower Tertiary basalts overlying Jurassic dolerite</li> </ul>
<b>Drill hole Information</b>	<ul style="list-style-type: none"> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>GPS location.</li> <li>Airborne Radar RL and LIDAR topography</li> <li>Lidar topography contoured at 1m height intervals</li> </ul>

## APPENDIX 1 : JORC Code, 2012 Edition – Table 1 report

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> <ul style="list-style-type: none"> <li>● If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>● All holes are short straight vertical holes</li> </ul>
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>● In reporting Exploration Results, weighting overgrading techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>● Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>● The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>● All data are presented as received from labs</li> <li>● Intercept summaries, if and when presented, are length-weighted arithmetic averages</li> <li>● Total Rare Earth Oxides (TREEO) are an aggregate of all rare earth oxides. TREEO-CeO<sub>2</sub> is TREEO minus Cerium oxide values.</li> </ul>
<b>Relationship between miner-disalation widths &amp; intercept lengths</b>	<ul style="list-style-type: none"> <li>● These relationships are particularly important in the reporting of Exploration Results.</li> <li>● If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>● If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').</li> </ul>	<ul style="list-style-type: none"> <li>● Mineralisation typically 3 to 6 metres thick and Drillholes are sampled at 1 metre intervals</li> <li>● Horizontal layers drilled by vertical holes means intercept thickness is true thickness</li> </ul>
<b>Diagrams</b>	<ul style="list-style-type: none"> <li>● Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</li> </ul>	<ul style="list-style-type: none"> <li>● N.A. Diagrams presented give appropriate information</li> </ul>
<b>Balanced reporting</b>	<ul style="list-style-type: none"> <li>● Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</li> </ul>	<ul style="list-style-type: none"> <li>● All new results are reported in this report and reference made to previous tabulation of data</li> </ul>
<b>Other substantive exploration data</b>	<ul style="list-style-type: none"> <li>● Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</li> </ul>	<ul style="list-style-type: none"> <li>● N.A. Information provided is appropriate.</li> </ul>
<b>Further work</b>	<ul style="list-style-type: none"> <li>● The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</li> <li>● Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	<ul style="list-style-type: none"> <li>● Step-out drilling over a wider area has been planned, work plans submitted and new drill rig configurations have been developed.</li> </ul>

### Section 3 Estimation & Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
<b>Database integrity</b>	<ul style="list-style-type: none"> <li>● Measures taken to ensure data has not been corrupted by, for example, transcription or keying errors, between its initial collection &amp; its use for Mineral Resource estimation purposes.</li> </ul>	<ul style="list-style-type: none"> <li>● Random QA-QC checks done on each drill campaign</li> <li>● Rare data or lab errors noted if conflicts with geological logging.</li> <li>● Hand-held XRF readings double-check</li> </ul>
<b>Site visits</b>	<ul style="list-style-type: none"> <li>● Data validation procedures used.</li> <li>● Comment on any site visits undertaken by the Competent Person &amp; outcome of those visits.</li> <li>● If no site visits, why.</li> </ul>	<ul style="list-style-type: none"> <li>● Lab data entered electronically. Written logs &amp; sample photos also in database</li> <li>● Competent persons visited sites at discovery, mapping, drilling, bulk sampling &amp; mining. All satisfactory.</li> <li>● All sites visited</li> </ul>
<b>Geological interpretation</b>	<ul style="list-style-type: none"> <li>● Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.</li> </ul>	<ul style="list-style-type: none"> <li>● Geology is simple strata. Drillholes determine degree of variation, especially where concealed by soil or covering layers.</li> </ul>

Criteria	JORC Code explanation	Commentary
Dimensions	<ul style="list-style-type: none"> <li>Nature of the data used &amp; of any assumptions made.</li> <li>Effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding &amp; controlling Mineral Resource estimation.</li> <li>Factors affecting continuity both of grade &amp; geology.</li> <li>Extent &amp; variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, &amp; depth below surface to the upper &amp; lower limits of Mineral Resource.</li> </ul>	<ul style="list-style-type: none"> <li>Outcrops mapped &amp; sampled. Drillholes complete the subsurface mapping.</li> <li>Outlines can vary estimate by 10% to 15%. 2 different methods used to check</li> <li>Method 1 = geological model outlines. Method 2 = voronoi polygons</li> <li>Continuity assumed to be semi random or highly variable, as normal for laterites</li> <li>REE clay channels 100 to 450m wide meander over 1 to 2km strike. REE mineralisation thickness varies from 1 to 33 metres. Overburden varies from 0 to 10m.</li> </ul>
	<ul style="list-style-type: none"> <li>Nature &amp; appropriateness of estimation technique(s) applied &amp; key assumptions, including treatment of extreme grade values, domaining, interpolation parameters &amp; maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software &amp; parameters used.</li> <li>Availability of check estimates, previous estimates &amp;/or mine production records &amp; whether Mineral Resource estimate takes appropriate account of such data.</li> <li>The assumptions made regarding recovery of by-products.</li> <li>Estimation of deleterious elements or other non-grade variables of economic significance</li> <li>In the case of block model interpolation, the block size in relation to the average sample spacing &amp; the search employed.</li> <li>Any assumptions behind modelling of selective mining units.</li> <li>Assumptions about correlation between variables.</li> <li>Description of how the geological interpretation was used to control the resource estimates.</li> <li>Discussion of basis for using or not using grade cutting or capping.</li> <li>Process of validation, checking process used, comparison of model data to drill hole data, &amp; use of reconciliation data if available.</li> <li>Whether the tonnages are estimated on a dry basis or with natural moisture, &amp; the method of determination of the moisture content.</li> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>Method 1: Block model 25m x 25m horizontally inside geological boundaries. Thickness set by intercepts in holes. Grades interpolated Gemcom software by inverse distance squared methods. Search ellipse 250m along strike by 150m.</li> <li>Method 2: each drill sample is allocated an area half way to next holes, to a limit of 80 metres. Tonnage is density x area x sample length. Samples meeting grade cutoffs accumulated by tonnage weighting. Good correlation with Method 1.</li> <li>Good consistency between initial estimates &amp; re-estimations after additional drilling.</li> <li>By-products not reported. Viability not dependent on by-products.</li> <li>No deleterious elements known at this resource stage. CaO may affect yields.</li> <li>Blocks 25m x 25m suits irregular drill spacing of 50 to 90m and fits the geological shapes.</li> <li>Nil</li> <li>Nil</li> <li>Method 1 blocks kept inside boundaries.</li> <li>Method 2: Voronoi polygons also inside main boundaries and max 80m</li> <li>Nil at this early stage. Best left uncut.</li> <li>2 estimation methods correspond reasonably. Holes compare well with twinned holes, pit samples &amp; reasonably well with mine results.</li> <li>Dry density factor applied so tonnages and grades are on a dry basis. Moisture measured gravimetrically by weighing wet and after drying</li> <li>250ppm TREO-CeO2 is current boundary between background and mineralised REE zones. Will be adjusted to suit economics when known</li> <li>Nil at this early stage</li> </ul>
Moisture	<ul style="list-style-type: none"> <li>The basis of the adopted cut-off grade(s) or quality parameters applied.</li> </ul>	<ul style="list-style-type: none"> <li>Nil at this early stage</li> </ul>
Cut-off parameters	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions &amp; internal (or external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods &amp; parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Nil at this early stage</li> </ul>
Winning factors or assumptions	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions &amp; internal (or external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods &amp; parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>Nil at this early stage</li> </ul>
Metallurgical factors or assumptions	<ul style="list-style-type: none"> <li>Basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes &amp; parameters made when reporting Mineral Resources may not always be rigorous. Where</li> </ul>	<ul style="list-style-type: none"> <li>Description tests done on 78 representative samples by ANSTO indicate good potential for high extraction rates. Mineralogy studies ongoing</li> </ul>

Criteria	JORC Code explanation	Commentary
Environmental factors or assumptions	<p>this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</p> <ul style="list-style-type: none"> <li>Assumptions made regarding possible waste &amp; process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining &amp; processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions.</li> </ul>	<ul style="list-style-type: none"> <li>Rehabilitation strategy is under assessment by a senior industry expert with considerable experience in Tasmania.</li> <li>All options must meet ABx's paramout policy to always leave the land better than found and only operate where welcome.</li> <li>ABx has applied for a research grant for devising the optimum production and rehabilitation methods in Tasmania</li> </ul>
Bulk density	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size &amp; representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture &amp; differences between rock &amp; alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.</li> <li>The basis for the classification of the Mineral Resources into varying confidence categories.</li> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology &amp; metal values, quality, quantity &amp; distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Measured densities by volumetric methods from pit samples. However lower density samples found in drill samples led to a 15% reduction in global density assumption to 1.9 dry tonnes per cubic metre.</li> <li>N.A. Clays are compacted</li> <li>No assumptions used</li> </ul>
Classification	<ul style="list-style-type: none"> <li>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology &amp; metal values, quality, quantity &amp; distribution of the data).</li> <li>Whether the result appropriately reflects the Competent Person's view of deposit.</li> </ul>	<ul style="list-style-type: none"> <li>Method 1: number of data points per block</li> <li>Method 2: nearness to next holes</li> <li>Resources will not be classified as measured until mining experience is gained sufficient to correlate resource predictions with actual production outcomes. Data variability is similarly high in holes and in mine openings.</li> <li>Estimation results appropriately reflects Competent Persons' views of the deposit</li> </ul>
Audits or reviews	<ul style="list-style-type: none"> <li>Results of any audits or reviews of Mineral Resource estimates.</li> <li>Where appropriate a statement of the relative accuracy &amp; confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy &amp; confidence of the estimate.</li> <li>Statement should specify whether it relates to global or local estimates, &amp; if local, state the relevant tonnages, which should be relevant to technical &amp; economic evaluation. Documentation should include assumptions made &amp; the procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>None done to date. Next major update will be audited</li> <li>All Competent Persons do manual, volume-based checks of estimates to be satisfied with results from estimations methods</li> <li>Competent Persons have signed approvals for publicly released resource reports</li> <li>No objections to date &amp; comments are welcomed</li> <li>Each deposit is estimated individually.</li> </ul>
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> <li>Statement of relative accuracy &amp; confidence of the estimate should be compared with production data, where available.</li> </ul>	<ul style="list-style-type: none"> <li>Is always being done, in accordance with industry practice &amp; common sense triple-checking. This will be a constant task as this project develops further.</li> </ul>

END

**Table 5 – Intercepts used for this Mineral Resource estimation**

SG=	1.9	Range	80	metres	WGS 84 UTM 55 S	LIDAR	*Cut-off grade	250	ppm	Permanent Magnet REE				Ratios														
Hole ID	From (m)	To (m)	Metres > cog* (m)	Hole depth (m)	East (m)	North (m)	Hole collar RL (m)	TREO max ppm	TREO avg ppm	TREO-CeO2 ppm	Perm Mag ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	PermMag TREO %	Tb+Dy TREO %	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm
AH001	5	9	4	9	477742	5410529	282.6	492	408	287	79	48	11	2.6	16.8	19%	4.8%	120	11	4	15	4	43	1	12	2	10	108
DL162	6	9	3	9	478481	5410275	301.9	1,222	1,179	981	332	216	49	10.5	55.7	28%	5.6%	198	32	19	67	10	145	4	57	4	24	288
DL167	4	6	2	6	479226	5409600	308.7	667	486	316	133	97	28	1.7	6.6	27%	1.7%	170	3	5	12	1	119	0	19	0	2	22
DL170	3	5	2	5	479301	5409906	300.8	2,108	1,533	305	107	71	19	2.9	14.2	7%	1.1%	1228	9	5	16	3	64	1	20	1	8	71
DL172	4	6	2	6	479114	5409999	300.9	728	484	325	114	74	19	3.3	18.0	24%	4.4%	159	11	5	19	3	63	1	18	2	9	80
DL180	4	6	2	6	479252	5409513	307.6	910	768	324	108	73	18	2.8	13.3	14%	2.1%	444	8	6	18	3	75	1	19	1	6	80
DL185	7	9	2	9	479153	5408913	306.5	486	357	279	104	68	17	2.4	15.8	29%	5.1%	79	8	5	16	3	48	1	15	1	7	72
DL187	5	7	2	7	479500	5408943	303.6	3,169	2,583	249	79	50	13	2.6	13.7	3%	0.6%	2334	10	4	13	3	46	1	15	2	10	65
DL190	6	9	3	9	479625	5408667	305.7	4,036	3,056	1,779	790	554	145	14.0	77.3	26%	3.0%	1278	29	33	97	13	410	3	105	4	20	275
DL196	6	8	2	8	479765	5407997	317.2	803	557	301	121	82	20	2.7	15.8	22%	3.3%	256	8	6	16	3	58	1	20	1	9	56
DL221	8	12	4	12	478819	5409966	308.8	465	394	258	89	59	14	2.5	13.6	23%	4.1%	136	7	5	16	3	43	1	16	1	6	73
DL313	8	10	2	10	479010	5410191	304.1	1,116	806	602	258	176	53	4.5	24.7	32%	3.6%	204	12	10	27	4	146	2	42	2	13	86
DL315	8	10	2	10	478971	5410094	305.1	1,027	913	722	251	164	41	6.4	38.4	27%	4.9%	191	21	12	39	7	147	3	42	3	19	178
DL316	3	5	2	5	479079	5409888	307.2	2,457	1,379	333	128	86	23	2.7	16.5	9%	1.4%	1046	10	5	15	3	70	2	19	2	11	68
DL389	17	20	3	20	478741	5409403	311.0	1,245	947	723	243	159	38	7.3	38.6	26%	4.8%	224	19	13	45	7	135	2	38	3	15	202
DL392	7	10	3	10	479568	5408993	302.9	1,887	1,167	1,046	409	282	75	8.3	44.5	35%	4.5%	121	25	15	50	9	241	3	55	4	22	214
DL393	4	7	3	7	479359	5410196	286.3	382	375	285	93	62	17	2.1	11.8	25%	3.7%	90	7	4	12	3	68	1	12	1	6	78
DL397	3	5	2	6	479075	5410182	303.9	1,315	834	309	92	56	13	3.3	18.6	11%	2.6%	525	10	5	20	4	53	1	15	1	8	100
DL403	5	10	5	10	478481	5410204	303.2	3,856	2,910	2,742	953	609	137	31.4	175.4	33%	7.1%	168	89	62	188	33	356	11	180	12	74	784
DL404	1	3	2	4	478429	5410213	303.2	1,060	736	706	264	173	39	8.1	43.8	36%	7.0%	30	22	17	48	8	92	3	49	3	19	182
DL407	5	10	5	10	478072	5410014	296.1	943	770	499	139	85	21	4.3	28.5	18%	4.3%	271	19	7	26	7	71	3	21	3	16	189
DL408	2	4	2	10	478413	5409895	307.0	615	450	349	148	106	34	1.5	6.9	33%	1.9%	101	2	5	12	1	140	0	18	0	2	20
DL409	7	10	3	10	478209	5409481	302.9	1,766	1,302	737	239	156	40	6.2	37.5	18%	3.4%	565	22	11	40	8	142	3	35	3	18	216
DL411	3	8	5	8	478951	5409937	309.7	1,118	693	362	137	97	22	2.9	15.3	20%	2.6%	330	8	6	18	3	89	1	19	1	6	75
DL413	13	15	2	15	479183	5409401	314.4	1,544	1,040	726	254	161	47	7.6	38.7	24%	4.5%	314	19	17	47	7	107	2	54	2	13	205
DL414	0	3	3	3	479470	54109313	299.5	774	604	518	162	91	32	6.3	33.0	27%	6.5%	86	17	12	36	6	76	2	38	2	11	157
DL415	4	8	4	8	479484	5410102	291.1	1,511	814	441	180	124	35	3.0	17.4	22%	2.5%	373	9	6	17	3	104	2	26	1	11	81
DL420	18	21	3	21	478827	5409704	313.4	1,139	852	776	252	161	35	8.6	47.1	30%	6.5%	76	24	15	54	9	96	2	46	3	17	257
DL422	4	11	7	11	478494	5410280	302.3	1,099	746	592	202	134	30	5.8	32.9	27%	5.2%	154	18	11	37	6	82	2	36	2	14	181
DL425	8	15	5	15	478459	5409999	310.8	1,646	587	485	125	77	19	4.2	24.9	21%	4.9%	102	15	6	25	5	74	2	19	2	10	202
DL426	6	11	5	11	478514	5410093	305.5	601	489	406	118	77	17	3.7	20.7	24%	5.0%	82	12	7	24	4	60	1	20	2	9	148
DL427	7	14	7	14	478567	5410078	307.0	2,220	1,164	1,077	299	188	44	9.9	56.4	26%	5.7%	87	32	17	62	11	152	3	51	4	21	424
DL432	8	12	4	12	478466	5410199	303.1	895	602	546	162	101	23	5.5	32.3	27%	6.3%	56	18	9	33	7	69	2	27	2	14	202
DL433	2	8	6	8	478486	5410195	303.4	1,302	927	698	209	124	28	8.1	48.2	22%	6.1%	229	24	13	51	9	87	3	38	3	19	244
DL434	1	7	6	10	478491	5410213	303.1	581	463	314	102	64	14	3.4	20.0	22%	5.1%	149	10	6	23	4	40	1	19	1	8	100
DL435	7	14	7	14	478536	5410210	304.2	856	709	632	202	129	30	6.2	36.5	28%	6.0%	77	18	12	40	7	91	2	35	2	13	211
DL444	2	5	3	8	477934	5409898	288.4	363	351	239	73	48	11	1.8	12.3	21%	4.0%	111	7	3	11	2	45	1	10	1	6	79
DL448	9	11	2	11	478399	5410121	305.2	814	673	608	224	153	35	5.4	30.6	33%	5.3%	65	16	11	33	6	98	2	37	2	15	164
DL450	5	15	10	19	478360	5410185	303.6	1,535	863	694	243	164	41	5.3	32.2	28%	4.3%	169	20	9	31	7	144	3	34	3	19	181
DL453	3	8	5	8	478427	5410294	301.0	2,721	1,489	1,102	440	307	79	8.2	45.7	30%	3.6%	387	23	18	53	8	265	3	66	3	20	204
DL455	6	8	2	8	478441	5410350	299.8	403	336	247	76	49	11	2.2	13.3	23%	4.6%	89	8	4	14	3	38	1	12	1	6	84
DL462	13	15	2	15	478696	5409261	310.5	1,549	1,081	835	299	203	48	7.2	40.8	28%	4.4%	246	21	14	47	8	163	2	47	3	18	213
DL466	20	22	2	23	478661	5409838	313.0	418	368	297	100	62	15	3.4	20.2	27%	6.4%	71	11	5	19	4	42	1	17	2	10	86
DL468	17	22	5	22	478381	5410042	308.1	1,027	661	542	218	150	36	5.1	27.0	33%	4.9%	119	12	11	34	5	103	1	37	2	10	110
DL477	3	7	4	7	479619	5408664	305.8	5,615	3,408	1,406	533	355	84	14.2	79.8	16%	2.8%	2003	36	30	90	14	226	4	95	5	31	342
DL480	5	8	3	8	479124	5408758	304.3	590	495	297	105	70	17	2.6	15.0	21%	3.6%	198	7	5	17	3	57	1	17	1	6	77
DL482	2	21	6	21	478987	5409332	315.6	866	574	441	156	105	24	4.3	22.8	27%	4.7%	134	12	8	27	4	68	1	27	2	10	126
DL484	4	12	7	12	478881	5409909	315.0	594	414	297	105	71	17	2.7	14.2	25%	4.1%	117	7	6	18	3	58	1	17	1	6	76
DL488	2	5	3	6	477953	5409521	291.9	741	521	281	95	63	15	2.4	14.7	18%	3.3%	240	8	4	15	3	47	1	15	1	8	83
DL489	1	5	4	5	477874	5409537	289.0	873	726	505	157	100	23	4.6	29.0	22%	4.6%	221	17	8	29	6	74	2	25	2	14	170
DL490	0	4	4	4	477258	5409657	277.7	765	602	503	153	99	23	4.5	27.6	25%	5.3%	99	17	7	28	6	72	2				

Table 5 continued

SG=	1.9	Range	80	metres	WGS 84 UTM 55 S	LIDAR	*Cut-off grade 250 ppm				Permanent Magnet REE				Ratios													
Hole ID	From (m)	To (m)	Metres > cog* (m)	Hole depth (m)	East (m)	North (m)	Hole collar RL (m)	TREO max ppm	TREO avg ppm	TREO-CeO2 ppm	Perm Mag ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	PermMag TREO %	Tb+Dy TREO %	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm
DL530	6	9	3	9	477892	5410565	290.1	769	511	399	139	94	25	2.9	17.6	27%	4.0%	112	10	5	19	3	100	1	19	1	9	91
DL531	2	9	7	9	477930	5410355	288.5	1,185	878	663	228	152	40	5.2	30.6	26%	4.1%	215	17	9	33	6	140	2	33	2	15	177
DL532	2	8	6	8	477830	5410095	287.4	1,076	530	451	138	88	21	3.9	24.2	26%	5.3%	78	14	6	23	5	76	2	20	2	12	153
DL533	0	6	6	6	477753	5409976	283.5	906	569	390	125	82	19	3.4	20.9	22%	4.3%	179	13	6	20	4	68	2	19	2	11	121
DL535	0	2	2	5	477722	5409861	283.5	388	373	257	83	54	14	2.0	13.0	22%	4.0%	115	8	3	12	3	50	1	12	1	7	77
DL537	2	5	3	5	477733	5409795	284.3	605	536	413	131	86	22	3.2	19.7	24%	4.3%	122	12	5	20	4	83	2	19	2	11	126
DL539	1	7	6	7	477748	5409666	286.6	1,075	739	603	176	111	27	5.2	33.0	24%	5.2%	135	19	8	31	7	102	2	26	3	16	213
DL540	0	6	6	6	477490	5409607	282.8	1,010	728	583	159	99	23	4.8	31.4	22%	5.0%	145	19	7	29	7	94	3	23	3	17	222
DL541	0	2	2	2	477382	5409953	278.0	634	436	337	94	59	15	2.8	17.9	22%	4.8%	99	11	4	17	4	57	1	14	2	9	124
DL542	0	2	2	2	477203	5409937	270.8	588	538	423	120	75	19	3.4	22.2	22%	4.8%	114	13	5	21	5	75	2	18	2	12	151
DL543	2	5	3	14	477007	5409883	260.4	426	385	291	87	55	12	2.6	16.7	22%	5.0%	94	10	4	16	3	46	1	13	1	9	100
DL545	2	4	2	4	477173	5410289	288.3	1,043	774	503	171	117	29	3.6	22.3	22%	3.4%	271	13	6	23	5	103	2	24	2	13	141
DL549	2	4	2	4	477305	5410024	282.4	469	418	268	82	55	14	1.8	11.5	20%	3.2%	150	8	3	12	3	58	1	11	1	7	83
DL553	0	6	6	8	477101	5409866	277.5	686	581	502	135	83	20	4.4	28.1	23%	5.6%	79	17	6	26	6	75	2	21	2	15	197
DL555	2	17	7	17	478312	5409345	305.4	719	412	298	113	81	19	2.0	10.6	27%	3.1%	114	5	4	13	2	84	1	16	1	4	55
DL564	3	6	3	6	479122	5407417	278.9	438	357	246	85	67	14	2.0	12.6	24%	4.1%	111	7	4	12	2	49	1	13	1	7	65
DL569	5	7	2	8	479493	5409341	304.4	467	433	308	96	63	15	2.4	15.2	22%	4.1%	125	10	4	14	3	58	1	13	1	9	98
DL572	3	6	2	7	477138	5409431	271.8	364	348	267	81	51	13	2.4	14.7	23%	4.9%	81	9	3	15	3	42	1	13	1	9	90
DL573	2	6	4	11	477326	5409469	278.6	576	421	336	100	63	15	3.0	18.5	24%	5.1%	84	11	4	19	4	52	2	17	1	10	116
DL574	3	10	7	11	477484	5409364	287.6	636	500	383	116	75	19	3.0	18.3	23%	4.3%	117	11	4	19	4	75	1	17	2	10	123
DL576	9	22	12	29	477588	5409168	303.3	1,834	759	610	224	153	36	5.2	28.9	29%	4.5%	149	14	10	35	5	122	2	35	2	11	150
DL577	14	21	7	22	477746	5409236	294.8	817	520	434	128	82	20	3.5	21.9	25%	4.9%	86	13	5	21	5	79	2	19	2	11	149
DL578	2	8	6	11	477883	5409388	291.3	669	516	392	102	62	15	3.2	21.1	20%	4.7%	124	14	4	18	5	53	2	15	2	12	164
DL579	19	21	2	20	477876	5409130	303.1	1,015	879	664	209	138	34	5.0	31.4	24%	4.1%	215	19	7	31	6	146	2	30	3	17	195
DL580	5	8	3	14	478035	5409160	295.4	1,200	1,028	451	166	113	27	3.6	21.9	16%	2.5%	577	12	7	23	4	84	2	26	2	11	115
DL581	3	5	2	10	478069	5409341	296.0	566	555	466	150	100	25	3.5	22.2	27%	4.6%	89	14	6	22	5	89	2	22	2	12	143
DL582	4	13	3	14	478198	5409332	299.9	553	416	272	77	49	11	2.2	14.7	19%	4.1%	144	10	3	13	3	38	1	12	1	9	105
DL583	3	7	4	9	478235	5409102	299.2	787	552	362	129	87	22	2.9	17.4	23%	3.7%	189	9	5	18	3	77	1	19	1	8	91
DL585	6	12	6	20	478445	5409045	295.9	1,038	622	512	181	122	30	4.2	24.0	29%	4.5%	110	13	7	28	5	105	2	28	2	11	131
DL587	11	16	2	16	479045	5409192	314.3	415	392	275	89	60	17	1.9	10.9	23%	3.3%	117	6	4	12	2	81	1	13	1	5	62
DL589	6	15	9	19	478744	5409071	302.1	2,362	1,352	1,205	405	275	64	10.2	56.6	30%	4.9%	147	30	20	68	11	221	3	61	4	21	361
DL590	2	4	2	6	478692	5408912	298.0	455	434	359	105	69	16	3.0	17.8	24%	4.8%	75	11	5	19	4	58	1	16	1	9	131
DL591	11	14	3	15	479008	5408853	310.2	632	464	365	112	73	16	3.3	19.4	24%	4.9%	99	11	6	21	4	57	1	17	2	9	126
DL592	3	11	4	11	478924	5408589	299.4	834	504	390	128	86	20	3.2	18.5	25%	4.3%	114	11	6	21	4	75	1	19	2	8	116
RM001	4	6	2	6	482421	5407560	295.8	2,055	1,081	509	187	128	33	4.0	22.3	17%	2.4%	571	14	7	24	5	98	2	27	2	11	132
RM013	14	16	2	16	482598	5407891	281.3	554	404	276	121	82	24	2.3	13.1	30%	3.8%	128	7	4	13	2	55	1	18	1	9	44
RM016	8	10	2	10	482627	5408013	278.5	1,198	798	312	131	89	27	2.2	12.7	16%	1.9%	486	7	4	13	3	72	1	19	1	8	53
RM025	8	10	2	10	482654	5407853	281.2	844	830	294	113	76	20	2.5	14.6	14%	2.1%	536	8	4	16	3	58	1	18	1	9	61
RM030	7	9	2	9	482742	5408179	275.2	1,006	902	512	233	162	46	4.1	21.9	26%	2.9%	390	11	9	25	4	106	2	38	2	12	69
RM032	5	7	2	7	482741	5408064	277.9	1,619	1,214	1,116	430	288	83	8.9	50.1	35%	4.9%	99	26	17	52	10	274	4	68	4	27	205
RM049	8	12	4	12	482533	5408097	275.8	689	463	344	115	77	21	2.5	14.9	25%	3.7%	118	9	4	15	3	78	1	16	1	9	91
RM051	5	7	2	7	482661	5407589	280.0	2,070	1,610	1,052	488	339	104	7.4	37.4	30%	2.8%	558	17	15	47	7	253	2	73	2	17	130
RM074	6	9	3	9	482639	5407311	276.8	1,685	1,363	1,096	469	335	74	9.4	49.8	34%	4.3%	267	25	19	60	9	227	4	80	3	24	176
RM076	6	8	2	8	482549	5407324	285.7	550	413	372	154	112	23	2.8	15.6	37%	4.4%	40	9	6	19	3	76	1	24	1	8	72
RM110	7	9	2	9	482436	5406990	278.5	663	650	454	150	97	26	3.9	22.4	23%	4.1%	196	14	6	25	5	89	2	23	2	11	129
RM114	10	13	3	13	482508	5407743	288.5	3,299	2,456	1,510	705	494	150	10.4	50.0	29%	2.5%	946	23	25	67	8	401	3	112	3	20	143
RM125	11	15	4	15	482831	5407594	270.7	1,340	1,007	953	283	184	49	6.9	43.0	28%	5.0%	54	28	10	43	10	217	4	36	4	21	298
RM128	9	12	3	12	482868	5407581	270.6	1,695	1,277	980	360	240	66	8.1	46.4	28%	4.3%	297	25	12	48	9	246	3	52	4	20	201
RM152	6	9	3	9	482340	5407611	292.4	1,178	820	657	205	130	33	5.7	35.9	25%	5.1%	163	24	8	35	8	104	3	32	3	19	216
RM158	11	14	3	14	480877	5408311	289.0	1,469	1,218	1,102	360	236	58	10.3	55.9	30%	5.4%	116	36	16	57	12	201	4	57	5	29	325
RM167	10	14	4	26	480960	5405967	216.1	499	411	284	94	63	17	2.0	12.5	23%	3.5%	127	8	2	12	3	68	1	13	1	8	74
RM170	7	12	5																									

Table 5 continued

SG=	1.9	Range	80	metres	WGS 84 UTM 55 S		LIDAR	*Cut-off grade 250 ppm				Permanent Magnet REE				Ratios												
Hole ID	From (m)	To (m)	Metres > cog*	Hole depth (m)	East (m)	North (m)	Hole collar RL (m)	TREO max ppm	TREO avg ppm	TREO-CeO2 ppm	Perm Mag ppm	Nd <sub>2</sub> O <sub>3</sub> ppm	Pr <sub>6</sub> O <sub>11</sub> ppm	Tb <sub>4</sub> O <sub>7</sub> ppm	Dy <sub>2</sub> O <sub>3</sub> ppm	PermMag TREO %	Tb+Dy TREO %	CeO <sub>2</sub> ppm	Er <sub>2</sub> O <sub>3</sub> ppm	Eu <sub>2</sub> O <sub>3</sub> ppm	Gd <sub>2</sub> O <sub>3</sub> ppm	Ho <sub>2</sub> O <sub>3</sub> ppm	La <sub>2</sub> O <sub>3</sub> ppm	Lu <sub>2</sub> O <sub>3</sub> ppm	Sm <sub>2</sub> O <sub>3</sub> ppm	Tm <sub>2</sub> O <sub>3</sub> ppm	Yb <sub>2</sub> O <sub>3</sub> ppm	Y <sub>2</sub> O <sub>3</sub> ppm
RM241	3	20	17	22	480391	5408083	281.1	1,602	822	608	206	137	36	4.7	27.7	25%	3.9%	214	15	9	31	5	136	2	33	2	13	159
RM245	3	14	11	14	480397	5408079	281.1	2,009	823	622	215	143	36	5.4	30.4	26%	4.3%	200	15	10	36	5	141	2	35	2	12	151
RM247	4	33	24	33	480536	5407676	266.1	1,654	697	560	193	129	34	4.3	25.9	28%	4.3%	136	15	6	26	5	116	2	29	2	14	151
RM248	6	11	5	22	480553	5407581	261.5	534	476	352	99	62	16	2.7	18.1	21%	4.4%	124	12	3	15	4	62	2	14	2	11	128
RM250	3	6	3	6	480535	5407373	251.6	483	443	330	106	70	17	2.7	16.5	24%	4.3%	113	10	5	17	3	57	1	16	1	9	105
RM251	3	6	3	9	480531	5407293	250.5	608	455	400	103	64	14	3.4	21.8	23%	5.5%	55	14	5	21	5	50	2	16	2	12	170
RM252	5	10	5	12	481741	5407811	230.2	1,256	940	853	222	144	37	5.8	35.7	24%	4.4%	87	23	8	36	8	191	3	28	3	19	313
RM257	5	7	2	9	481792	5408412	220.8	442	400	360	116	76	19	2.8	17.1	29%	5.0%	40	10	4	17	3	79	1	15	1	8	106
RM258	5	7	2	9	481783	5408568	220.1	1,246	873	839	144	76	17	6.3	44.9	16%	5.9%	34	32	7	38	11	78	4	19	4	23	481
RM261	7	9	2	9	481602	5409056	223.3	684	636	595	245	174	47	3.5	19.9	38%	3.7%	42	10	8	24	4	175	1	31	1	9	88
RM263	3	5	2	7	481274	5409263	225.5	379	376	332	109	74	19	2.3	14.2	29%	4.4%	44	8	4	14	3	74	1	15	1	7	94
RM264	5	12	7	13	481163	5409412	226.3	942	655	564	173	113	27	4.5	28.3	26%	5.0%	91	19	6	27	6	101	3	25	3	18	185
RM266	7	12	2	12	480119	5408717	270.4	941	804	720	240	159	42	5.7	33.7	30%	4.9%	84	19	10	38	7	166	2	30	3	15	190
RM267	1	2	1	11	480066	5408955	271.9	348	348	303	95	61	17	2.4	14.4	27%	4.8%	45	9	4	16	3	67	1	11	1	7	88
RM268	2	13	10	15	480184	5409192	279.2	1,740	812	544	176	114	29	4.5	28.9	22%	4.1%	268	17	7	28	6	100	2	24	2	16	166
RM272	5	13	8	14	480378	5408203	279.0	5,479	2,006	1,889	478	301	72	14.2	91.6	24%	5.3%	117	53	23	97	19	321	6	64	7	38	783
RM273	4	15	11	16	480462	5408346	280.4	1,715	724	596	226	154	41	4.3	26.9	31%	4.3%	128	14	9	27	5	129	2	34	2	15	133
RM274	2	5	3	7	480557	5408542	270.6	2,052	1,252	1,046	394	271	69	7.8	46.4	32%	4.3%	206	22	15	53	8	237	3	60	3	21	231
RM277	2	5	3	7	481121	5408885	276.3	1,422	1,352	1,139	490	338	93	8.0	50.5	36%	4.3%	214	24	17	49	9	265	4	73	4	32	172
RM280	7	10	3	14	480777	5408454	283.8	2,303	1,157	1,090	293	179	43	8.9	62.4	25%	6.2%	67	36	13	56	13	170	5	43	5	34	423
RM282	4	7	3	10	481428	5408515	269.7	461	369	285	111	72	19	2.4	17.0	30%	5.3%	84	9	4	14	3	53	2	17	2	12	58
RM283	3	8	5	14	481282	5408362	278.9	589	379	277	108	72	18	2.3	15.3	28%	4.6%	102	8	4	15	3	53	1	17	1	9	58
RM285	7	9	2	11	480305	5408065	283.7	778	718	631	244	164	38	6.2	36.2	34%	5.9%	88	18	13	40	6	102	2	43	2	16	145
RM287	4	5	1	6	479101	5406994	223.6	266	266	211	77	51	12	1.9	11.9	29%	5.2%	55	6	3	12	2	35	1	12	1	6	55
RM288	5	10	5	15	479137	5406071	214.8	427	336	275	84	55	14	2.2	13.1	25%	4.6%	60	8	3	14	3	54	1	12	1	8	87
RM292	27	38	11	37	480741	5405553	218.1	467	374	303	94	59	15	2.7	17.8	25%	5.5%	71	11	4	15	4	46	2	14	2	11	100
RM293	11	15	4	18	480730	5405750	218.7	962	691	639	160	102	26	4.3	28.3	23%	4.7%	53	18	6	28	6	111	2	22	2	15	267
RM295	11	32	9	32	481085	5405613	216.1	580	413	274	101	69	18	1.8	10.9	24%	3.1%	139	6	2	12	2	65	1	15	1	6	63
RM296	12	25	5	31	481005	5405858	216.7	539	418	310	100	68	18	2.1	13.0	24%	3.6%	107	8	3	13	3	72	1	15	1	7	88
RM297	2	6	4	12	480638	5406171	220.3	553	416	371	99	60	14	3.2	21.5	24%	5.9%	45	13	4	19	5	58	2	15	2	11	144
RM299	9	18	6	23	481768	5406272	212.1	717	537	388	115	75	19	2.9	18.0	21%	3.9%	149	11	4	17	4	75	2	17	1	10	132
RM300	7	13	6	14	481377	5405886	213.7	1,097	600	554	211	144	36	4.3	26.5	35%	5.1%	46	14	7	27	5	116	2	32	2	13	125
RM302	2	13	11	15	481722	5412740	213.5	4,444	1,717	1,291	385	241	63	10.6	69.7	22%	4.7%	425	41	15	60	14	211	5	60	6	36	459
RM303	1	6	5	10	481812	5412346	215.7	633	439	332	100	67	17	2.2	14.4	23%	3.8%	107	9	3	15	3	74	1	15	1	7	104
RM304	4	12	8	15	482117	5411897	234.9	527	424	314	105	69	17	2.4	15.8	25%	4.3%	110	10	4	15	3	61	1	16	1	10	88
RM305	2	4	2	6	482599	5412015	230.7	420	372	258	77	49	12	2.3	13.9	21%	4.3%	113	8	3	14	3	55	1	12	1	6	78
RM306	3	10	7	16	482614	5412422	234.7	475	364	264	86	57	15	2.0	12.9	24%	4.1%	101	8	3	13	3	52	1	13	1	8	76
RM307	5	13	7	13	481809	5411630	236.5	514	407	303	109	72	19	2.5	16.1	27%	4.6%	104	10	4	14	3	61	1	17	1	10	71
RM312	4	11	7	11	481630	5410202	232.3	2,926	1,432	1,284	386	245	60	11.1	70.1	27%	5.7%	147	41	15	66	14	234	5	57	6	36	424
RM313	1	3	2	6	482273	5411295	221.6	1,069	667	583	181	117	29	4.9	29.8	27%	5.2%	84	17	7	30	6	114	2	27	2	15	181
RM314	3	11	8	12	482368	5410985	214.0	525	412	330	91	57	14	2.7	17.4	22%	4.9%	82	11	3	15	4	57	2	13	2	10	122
RM315	3	6	3	14	482446	5410824	213.1	424	371	312	74	46	11	2.3	15.1	20%	4.7%	59	10	3	13	3	54	1	10	1	9	131
RM317	3	13	10	16	482993	5410517	237.6	1,824	829	725	170	106	27	4.9	32.4	20%	4.5%	104	23	7	31	8	107	3	24	3	20	329
RM325	3	8	5	10	481423	5411805	243.0	987	567	400	137	92	24	2.9	18.0	24%	3.7%	166	11	5	18	4	85	2	20	2	11	108
RM327	10	32	11	33	483845	5409836	192.8	497	377	304	96	62	16	2.5	16.0	25%	4.9%	73	10	3	15	3	56	1	14	1	10	94
RM328	4	8	2	20	483743	5410083	194.5	407	332	249	73	47	12	2.0	12.3	22%	4.3%	84	7	3	12	3	47	1	11	1	7	83
RM330	3	7	4	16	483944	5408900	190.7	431	401	275	96	66	16	2.1	11.8	24%	3.5%	126	6	5	14	2	64	1	15	1	5	67
RM331	2	7	5	8	483576	5409129	211.9	2,587	1,218	598	239	160	42	5.4	31.3	20%	3.0%	619	16	10	31	6	114	2	38	2	16	125
RM332	0	2	2	5	485300	5409245	196.6	1,001	731	532	219	151	39	4.5	24.4	30%	4.0%	199	12	8	28	5	109	1	36	2	11	102

Table 5 concluded