WORLD-CLASS IONIC RARE EARTHS RECOVERIES CONTINUE AT EMA PROJECT

Highlights

- Outstanding recoveries of magnetic rare earth oxides (MREO), up to 83%, from phase 2 metallurgical testwork
- Recoveries achieved using standard weak ammonium sulphate leaching solution, pH 4, at ambient temperatures over low leach times of only 30 minutes duration
- Leachability response now confirms majority portion of the defined 82km^2 of rare earth mineralisation contains ionic clays
- Remaining 107km^2 of the Ema project remains un-drilled and un-tested
- Results demonstrate mineralisation is suited to processing through conventional processing facilities common in China
- Further metallurgical optimisation and flowsheet development work has commenced at the ANSTO facility in Sydney
- Maiden Ema Mineral Resource Estimate on track for release by end of April 2024

Results received include recoveries of:

- 10 metres @ 76% Nd, 74% Pr, 47% Dy and 54% Tb from 10m (EMA-TR-101)
- 6 metres @ 66% Nd, 61% Pr, 56% Dy and 83% Tb from 10m (EML-TR-059)

Previous recoveries announced[1] from Ema included:

- 13 metres @ 71% Nd, 62% Pr, 45% Dy and 52% Tb from 5m (TR-071)
- 5 metres @ 66% Nd, 66% Pr, 52% Dy and 55% Tb from 12m (TR-059)
- 10 metres @ 65% Nd, 61% Pr, 43% Dy and 50% Tb from 10m (TR-110

Andrew Reid, Managing Director, commented:

"Phase 2 metallurgical characterisation of the Ema prospect is indeed vindication of the company's view that it holds a world-class, emerging rare earths project.

Benefits from the drill campaign, as initially revealed by assays and now reinforced by metallurgical analysis, are being realised.

Very high recoveries achieved through standard ammonium sulphate leaching display stunning results which we believe will help deliver the company a sizeable maiden Mineral Resource Estimate over the coming weeks and we are confident that with our ongoing in-house exploration efforts, we can solidify our position in the rare earths sector."

Brazilian Critical Minerals Limited (**ASX: BCM**) ("**BCM**" or the "**Company**") is pleased to announce the phase 2 ammonium sulphate rare earth element (ree) extraction assay results for auger holes drilled at Ema in the Apuí region of Brazil (Figure 1). The tests were conducted at the SGS laboratory in Brazil.

Figure 1. Ema project location in the Apui region of Brazil.

These follow-up metallurgical testwork results continue to confirm high recoveries of the key permanent magnet rare earth elements, Praseodymium, Neodymium, Dysprosium and Terbium , up to 83%, with results equal to any ionic clay hosted deposit in the world. The outcome of the phase 1 and 2 results shows that the Ema mineralisation could be processed through any conventional processing facility designed for ionic clay rare earths. These results also support the further development of our project and a pathway to production with all options to be investigated.

The established industry standard set of recovery conditions was applied to the Ema phase 2 testwork, being the utilisation of a very weak acid, ammonium sulphate for leaching, pH 4 at ambient temperatures with a 30-minute leach duration.

The recoveries announced here, plus the phase 1 recoveries announced previously[1] are confirming Ema, which currently stretches 82km^2 has the potential to become one of the largest ionically clay hosted deposits defined outside of China.

Work with a composite sample, from the high-grade zone, has been delivered to the ANSTO facility in Sydney for further optimisation work over the coming months.

Table 1. Hole EMA-TR-101 with total rare earth head grades and recovered (%) magnetic rare earth oxides.

		Head Grades ppm		% REO recovered in the ammonium sulphate solution					Leached ppm
From	**To**	**TREO**	**MREO**	**Nd_2O_3**	**Pr_6O_{11}**	**Dy_2O_3**	**Tb_4O_7**	**MREO**	**MREO**
10	11	451	112	76	75	25	33	71	80
11	12	445	115	81	78	29	35	76	87
12	13	485	141	74	71	32	37	70	99
13	14	571	169	79	77	39	46	76	128
14	15	695	219	76	74	45	52	74	161
15	16	1050	332	79	81	59	68	78	258
16	17	1407	475	83	80	67	74	81	386
17	18	1369	429	85	82	69	75	83	355
18	19	1370	413	72	68	58	64	70	288
19	20	1507	472	57	57	51	55	56	266

Table 2. Hole EML-TR-052 with total rare earth head grades and recovered (%) magnetic rare earth oxides.

		Head Grades ppm		% REO recovered in the ammonium sulphate solution					Leached ppm
From	**To**	**TREO**	**MREO**	**Nd_2O_3**	**Pr_6O_{11}**	**Dy_2O_3**	**Tb_4O_7**	**MREO**	**MREO**
10	11	582	124	54	49	40	98	52	65
11	12	921	251	39	35	37	57	38	96
12	13	1042	296	70	64	62	86	69	203
13	14	1033	317	81	74	69	92	78	248
14	15	978	277	77	73	64	84	75	207
15	16	1126	254	76	71	61	84	74	187

These ammonium sulphate leach results show a clear relationship of high recovery to the highest-grade portions of each mineralised intercept. Very high recoveries of Terbium (Tb) and Dysprosium (Dy) have also been recorded with both elements normally having a substantially higher (up to 10 times) combined value compared to critical light rare elements Praseodymium (Pr) and Neodymium (Nd).

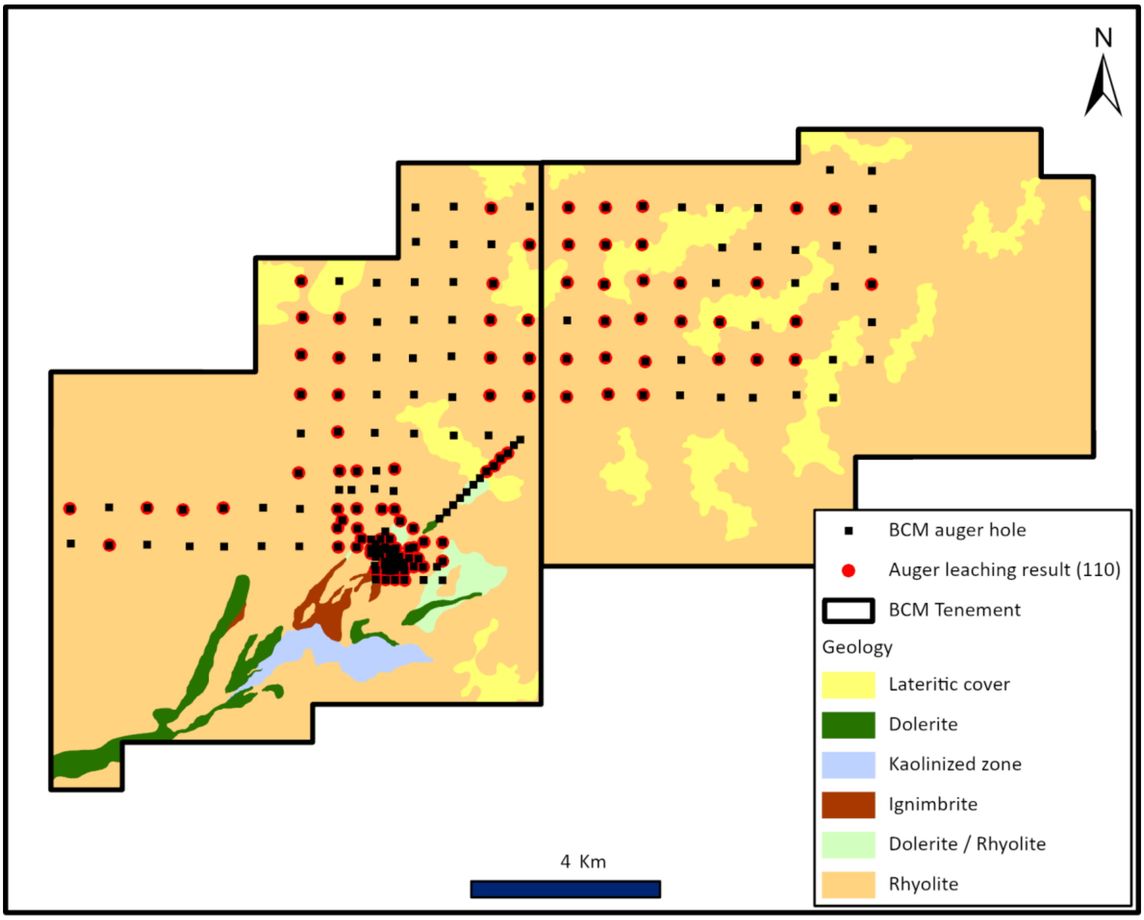

Figure 2. Ema-Ema East ree project location – Auger holes used in ammonium sulphate leaching tests.

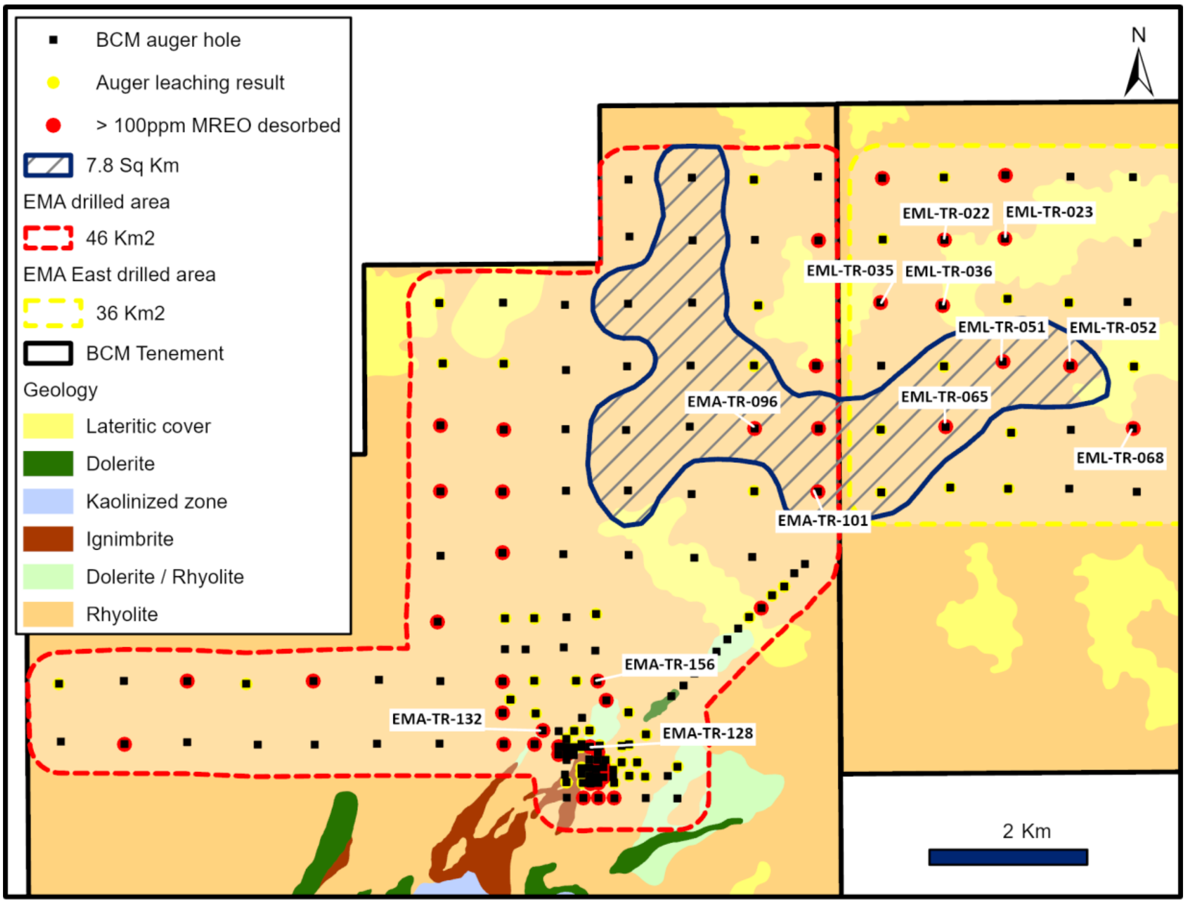

Figure 3. Ema-Ema East detailed location map showing ammonium sulphate leached holes > 100ppm MREO

This announcement contains the ammonium sulphate leach results for 2 drill holes with the remainder expected in mid-late March.

There are pending ammonium sulphate leach results for 52 drill holes, to be received by end May.

Ema REE Project

The EMA ree project (Ema and Ema East leases) is unique amongst Brazilian ree projects in that it shares almost identical characteristics with the ree deposits developed over felsic volcanic rocks in the southwest of China, the world´s largest known ionic clay rare earth region.

Ionic clay deposits are low-grade, low-cost, high margin operations owing to their simple mining and processing methodology, non-radioactive products and waste, and attractive mineralogy and saleable product composition.

The Ema-Ema East ree project comprises 189 km2 of felsic volcanics over which 194 auger holes totalling 2,749 metres have been drilled to date, covering approximately 82 km2 (Figure 2). BCM has received and announced the full assay results for 191 holes of the total holes drilled to date, utilising a lithium borate fusion assay methodology.

Future work at Ema/Ema East

Completion of the Ema Mineral Resource Estimate, which has commenced with GE21 consultancy.

Completion of the Ema Mineral Resource Estimate is scheduled for end of April.

This announcement has been authorised for release by the Board of Directors.

Enquiries

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About Brazilian Critical Minerals Ltd

Brazilian Critical Minerals Limited (BCM) is a unique mineral exploration and mineral processing technology company listed on the Australian Securities Exchange.

Its major exploration focus is Brazil, mainly in the southern Amazon, a region BCM believes is vastly underexplored with high potential for the discovery of world class gold-PGM, base metal and Ionic Adsorbed Clay (IAC) Rare Earth Element deposits. BCM's key assets are the Três Estados and Ema gold-PGM projects and the ree projects at Ema, Ema East and Apui. The company has 718km² of exploration tenements within the Colider Group and adjacent sediments, a prospective geological environment for gold, PGM, base metal and ree deposits.

BCM is also developing an environmentally friendly and sustainable beneficiation process to extract precious metals using a unique bio leach pre-treatment process. This leading-edge process, that extracts precious metals naturally, is being developed initially for the primary purpose of economically extracting Platinum Group metals from the Três Estados mineral deposit. It is expected that such technology will be transferable and relevant to many other PGM projects. BCM believes that this processing technology is critical in the environmentally timely PGM space and supports a societal need to move towards a carbon neutral economy.

Competent Person Statement

The information in this report that relates to exploration results is based on information compiled by Mr. Antonio de Castro, BSc (Hons), MAusIMM, CREA, who acts as BCM´s Senior Consulting Geologist through the consultancy firm, ADC Geologia Ltda. Mr. de Castro has sufficient experience which is relevant to the type of deposit under consideration and to the reporting of exploration results and analytical and metallurgical test work to qualify as a competent person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Castro consents to the report being issued in the form and context in which it appears.

References

1. Brazilian Critical Minerals (ASX:BCM) World Class REE Recoveries at Ema Project on 13.03.24

Appendices

Appendix 1 – Auger hole with intervals > 100ppm MREO recovered by the ammonium sulphate leach.

			Head grade	Grade of the rare earth oxides in the leach solution				
Auger hole	From (m)	Interval (metres)	TREO ppm	Nd_2O_3 ppm	Pr_6O_{11} ppm	Dy_2O_3 ppm	Tb_4O_7 ppm	MREO ppm
EMA-TR-101	10	10	935	152	44	12.4	2.4	211
EML-TR-052	10	6	947	120	33	12.9	2.3	168

Appendix 2 – Results for holes which intersected the enriched ionic rare earth horizon. Total TREO assays analysed by lithium metaborate fusion and MREO recovered in ammonium sulphate solution. Intervals in bold type contain > 50ppm MREO in solution.

			Head grade		Rare earth oxides in the leach solution					
Auger Hole	From (m)	To (m)	TREO ppm	MREO ppm	MREO ppm	REC. %	Nd_2O_3 ppm	Pr_6O_{11} ppm	Dy_2O_3 ppm	Tb_4O_7 ppm
EMA-TR-101	**10**	**11**	451	**112**	**80**	**71**	61	17	2.2	0.4
EMA-TR-101	**11**	**12**	445	**115**	**87**	**76**	66	19	2.5	0.5
EMA-TR-101	**12**	**13**	485	**141**	**99**	**70**	74	21	3.0	0.6
EMA-TR-101	**13**	**14**	571	**169**	**128**	**76**	96	27	4.1	0.8
EMA-TR-101	**14**	**15**	695	**219**	**161**	**74**	120	34	6.4	1.3
EMA-TR-101	**15**	**16**	1050	**332**	**258**	**78**	187	56	12.6	2.5
EMA-TR-101	**16**	**17**	1407	**475**	**386**	**81**	279	80	21.9	4.2
EMA-TR-101	**17**	**18**	1369	**429**	**355**	**83**	254	72	23.8	4.5
EMA-TR-101	**18**	**19**	1370	**413**	**288**	**70**	203	57	22.5	4.3
EMA-TR-101	**19**	**20**	1507	**472**	**266**	**56**	183	54	24.7	4.6
EML-TR-052	6	7	698	130	2	2	1	0	0.2	0.0
EML-TR-052	7	8	773	131	2	2	1	0	0.1	0.0
EML-TR-052	8	9	561	101	2	2	1	0	0.2	0.0
EML-TR-052	**10**	**11**	582	**124**	**65**	**52**	47	13	4.5	0.8
EML-TR-052	**11**	**12**	921	**251**	**96**	**38**	69	19	7.1	1.3
EML-TR-052	**12**	**13**	1042	**296**	**203**	**69**	146	40	15.3	2.7
EML-TR-052	**13**	**14**	1033	**317**	**248**	**78**	178	48	18.9	3.4
EML-TR-052	**14**	**15**	978	**277**	**207**	**75**	147	40	16.7	3.0
EML-TR-052	**15**	**16**	1126	**254**	**187**	**74**	133	36	14.9	2.7

Appendix 3: Auger drill-hole locations

Hole ID	East	North	RL (m)	Depth	Azimuth	Dip	Tenement
EMA-TR-101	187615.76	9180798.82	147.98	14	0	-90	880.107/2008
EML-TR-052	190805.51	9181598.3	137.28	16	0	-90	880.184/2016

Appendix 4

The following Table and Sections are provided to ensure compliance with JORC Code (2012 Edition).

JORC (2012) Table 1 – Section 1: Sampling Techniques and Data for auger hole drilling

Item	JORC code explanation	Comments
Sampling Techniques	• 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. • Include reference to measures taken to ensure sample representativity and the appropriate calibration of any measurement tools or systems used. • Aspects of the determination of mineralisation that are Material to the Public Report. • 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	• Exploration results are based on auger drilling conducted by BCM´s exploration team. • The data presented is based on the assay of soils and saprolite by auger drilling at 1m sample intervals. • Sampling was supervised by a BCM geologist or field assistants. • Every 1-metre sample was collected in a raffia bag in the field and transported to the exploration shed to be dried in the sun, prior to homogenisation. • Samples were homogenised and subsequently riffle split with about 1 kg sent to SGS for preparation and analysis and a similar amount stored on site. • Blanks, standard samples and duplicates were not utilised for the ammonium sulphate leach assays

Item	JORC code explanation	Comments
	submarine nodules) may warrant disclosure of detailed information.	
Drilling Techniques	• 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).	• Auger drilling was completed by a hand held-mechanical auger with a 3" auger bit. The drilling is an open hole, meaning there is a significant chance of contamination from surface and other parts of the auger hole. Holes are vertical and not oriented.
Drill Sample Recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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.	• No recoveries are recorded. • The operator observes the volume of each metre and notes any discrepancy. • No relationship is believed to exist between recovery and grade.
Logging	• 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• All holes were logged by BCM geologists or field technicians, detailing the colour, weathering, alteration, texture and any geological observations. Care is taken to identify transported cover from in-situ saprolite/clay zones and the moisture content. Logging was done to a level that would support a Mineral Resource Estimate. • Qualitative logging with systematic photography of the stored box. • The entire auger hole is logged.

<table>
<tr><th>Item</th><th>JORC code explanation</th><th>Comments</th></tr>
<tr><td>Sub-Sampling Techniques and Sampling Procedures</td><td>If core, whether cut or sawn and whether quarter, half or all core taken.
If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.
For all sample types, the nature, quality and appropriateness of the sample preparation technique.
Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples.
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.
Whether sample sizes are appropriate to the grain size of the material being sampled.</td><td>Auger sampling procedure is completed in the exploration shed in Apui.
The entire one metre sample is bagged on site, in a raffia bag which is transported to the exploration shed, where it is naturally dried prior to homogenisation, then quartered to about 1kg to go to SGS and another 1kg to store on site.
Sample preparation for the auger samples was conducted at SGS Vespasiano (greater Belo Horizonte) comprising oven drying, crushing of entire sample to 75% < 3mm followed by rotary splitting and pulverisation of 250 to 300 grams at 95% minus 150#
The <3mm rejects and the 250-300 grams pulverised sample were returned to BCM for storage, after all assays were reported.
Samples used for the ammonium sulphate leach processes ICM694 were taken from the <3mm rejects and used directly without any additional preparation.</td></tr>
<tr><td>Quality of Assay Data and Laboratory Tests</td><td>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.
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.</td><td>The assay technique used for iREE was the leach with ammonium sulphate 0.5 mil/L with ICPOES/MS reading (SGS code ICM694). This is a recognised industry standard analysis technique for ionic REE suite and associated elements amenable to be leached. Elements analysed at ppm levels:
<table>
<tr><td>Ag</td><td>Al</td><td>As</td><td>Au</td><td>B</td><td>Ba</td><td>Be</td><td>Bi</td></tr>
<tr><td>Ca</td><td>Cd</td><td>Ce</td><td>Co</td><td>Cr</td><td>Cs</td><td>Cu</td><td>Dy</td></tr>
<tr><td>Er</td><td>Eu</td><td>Fe</td><td>Ga</td><td>Gd</td><td>Ge</td><td>Hf</td><td>Hg</td></tr>
<tr><td>Ho</td><td>In</td><td>K</td><td>La</td><td>Li</td><td>Lu</td><td>Mg</td><td>Mn</td></tr>
<tr><td>Mo</td><td>Na</td><td>Nb</td><td>Ni</td><td>P</td><td>Pb</td><td>Pd</td><td>Pr</td></tr>
<tr><td>Pt</td><td>Rb</td><td>Re</td><td>S</td><td>Sb</td><td>Sc</td><td>Se</td><td>Si</td></tr>
<tr><td>Sm</td><td>Sn</td><td>Sr</td><td>Ta</td><td>Tb</td><td>Te</td><td>Th</td><td>Ti</td></tr>
<tr><td>Tm</td><td>U</td><td>V</td><td>W</td><td>Y</td><td>Yb</td><td>Zn</td><td>Zr</td></tr>
</table></td></tr>
</table>

Item	JORC code explanation	Comments
	• Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established	The sample, comprising dominantly clay minerals, was assayed without pulverization. The ICM694 procedure is with 40 grams sample leached at ambient temperature with 160ml solution of ammonium sulphate 0.5 mol/L during 30 minutes. The pulp is filtered and the reject washed with distilled water. An aliquot of the solution is extracted and diluted 25 times with HNO3 2%. The solution is analysed by ICP-MS. The sample preparation and assay techniques used are industry standard and provide partial analysis; total analysis is achieved with the lithium metaborate fusion. • The SGS laboratory used for the RRE assays is ISO 9001 and 14001 and 17025 accredited. • Analytical Standards for iREE There were no standards inserted by BCM for this specific analytical procedure. • Blanks There were no blanks inserted by BCM for this specific analytical procedure. • Duplicates There were no duplicates inserted by BCM for this specific analytical procedure. Laboratory did not insert standards and blanks, only duplicates for this analytical procedure which were analysed as per industry standard practice. There is no evidence of bias from these results.
Verification of Sampling and Assaying	• The verification of significant intersections by either independent or alternative company personnel. • The use of twinned holes. • Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• No independent or alternative verification of sampling and assaying procedures was carried out. • Analytical results for REE were supplied digitally, directly from the SGS laboratory in Vespasiano to BCM's Exploration Manager in Rio de Janeiro. • No twinned holes were used. • Geological data was logged onto paper and transferred to Excel spreadsheets at end of the day and then transferred into the drill hole database. Microsoft Access is used for database storage and management and incorporates numerous data validation and data integrity checks. All assay data is imported directly into the Microsoft Access database.

Item	JORC code explanation	Comments
	• Discuss any adjustment to assay data.	• No adjustments were made to the data. • All REE assay data received from the laboratory in element form is unadjusted for data entry. • Conversion of elements analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors. (Source:https://www.jcu.edu.au/advanced-analytical-centre/resources/element-to-stoichiometric-oxide-conversion-factors). <table><tr><td>Element ppm</td><td>Conversion Factor</td><td>Oxide Form</td></tr><tr><td>Ce</td><td>1.2284</td><td>CeO2</td></tr><tr><td>Dy</td><td>1.1477</td><td>Dy2O3</td></tr><tr><td>Er</td><td>1.1435</td><td>Er2O3</td></tr><tr><td>Eu</td><td>1.1579</td><td>Eu2O3</td></tr><tr><td>Gd</td><td>1.1526</td><td>Gd2O3</td></tr><tr><td>Ho</td><td>1.1455</td><td>Ho2O3</td></tr><tr><td>La</td><td>1.1728</td><td>La2O3</td></tr><tr><td>Lu</td><td>1.1371</td><td>Lu2O3</td></tr><tr><td>Nd</td><td>1.1664</td><td>Nd2O3</td></tr><tr><td>Pr</td><td>1.2082</td><td>Pr6O11</td></tr><tr><td>Sm</td><td>1.1596</td><td>Sm2O3</td></tr><tr><td>Tb</td><td>1.1762</td><td>Tb4O7</td></tr><tr><td>Tm</td><td>1.1421</td><td>Tm2O3</td></tr><tr><td>Y</td><td>1.2699</td><td>Y2O3</td></tr><tr><td>Yb</td><td>1.1387</td><td>Yb2O3</td></tr></table>Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO into their reporting and evaluation groups: TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3 LREO (Light Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3 CREO (Critical Rare Earth Oxide) = Nd2O3 + Eu2O3 + Tb4O7 + Dy2O3 + Y2O3 (From U.S. Department of Energy, Critical Material Strategy, December 2011) MREO (Magnetic Rare Earth Oxide) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3

Item	JORC code explanation	Comments
		NdPr = $Nd_2O_3 + Pr_6O_{11}$ DyTb = $Dy_2O_3 + Tb_4O_7$ In elemental from the classifications are: TREE: La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Tb+Lu+Y HREE: Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Tb+Lu+Y CREE: Nd+Eu+Tb+Dy+Y LREE: La+Ce+Pr+Nd
Location of Data Points	• 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. • Specification of the grid system used. • Quality and adequacy of topographic control.	• The UTM WGS84 zone 21S grid datum is used for current reporting. The drill holes collar coordinates for the holes reported are currently controlled by hand-held GPS.
Data Spacing and Distribution	• Data spacing for reporting of Exploration Results. • 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. • Whether sample compositing has been applied.	• Auger holes were over 200m to 800m apart, designed for testing iREE mineralisation over the mapped felsic volcanics. • The data spacing and distribution is sufficient to establish the level of REE elements present in the target area and its continuity along the regolith profile appropriate for a Mineral Resource. • No sample composition was applied.
Orientation of Data in relation to Geological Structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • If the relationship between the drilling orientation and the orientation of key	• The location and depth of the sampling is appropriate for the deposit type. • Relevant REE values are compatible with the exploration model for ionic REEs. • No relationship between mineralisation and drilling orientation is known at this stage.

Item	JORC code explanation	Comments
	mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	
Sample security	• The measures taken to ensure sample security.	• The auger samples in sealed plastic bags were sent directly to SGS by bus and then airfreight. The Company has no reason to believe that sample security poses a material risk to the integrity of the assay data.
Audit or Reviews	• The results of any audits or reviews of sampling techniques and data.	• The sampling techniques and data have been reviewed by the Competent Person and are found to be of industry standard.

JORC (2012) Table 1 - Section 2: Reporting of Exploration Result

Criteria	JORC code explanation	Commentary
Mineral Tenement and Land Tenure Status	• 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. • 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.	• The Ema and Ema East leases are 100% owned by BCM with no issues in respect to native title interests, historical sites, wilderness or national park and environmental settings. • The company is not aware of any impediment to obtain a licence to operate in the area.
Exploration done by Other Parties	• Acknowledgment and appraisal of exploration by other parties.	• No exploration by other parties has been conducted in the region.
Geology	• Deposit type, geological setting and style of mineralisation.	• The REE mineralisation at Ema is contained within the tropical lateritic weathering profile developed on top of felsic rocks (rhyolites), as per the Chinese deposits. • The REE mineralisation is concentrated in the weathered profile where it has dissolved from the primary mineral, such as monazite and xenotime, then adsorbed on to the neo-forming fine particles of aluminosilicate clays (e.g. kaolinite, illite, smectite). • This adsorbed iREE is the target for extraction and production of REO.

Drill Hole Information	• 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:
	  • easting and northing of the drill hole collar
	  • elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar
		• Auger hole locations and diagrams are presented in this announcement.
		• Details are tabulated in the announcement.

Criteria	JORC code explanation	Commentary
	• dip and azimuth of the hole • down hole length and interception depth • hole length. • 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.	
Data aggregation methods	• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. • 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. • The assumptions used for any reporting of metal equivalent values should be clearly stated.	• Weighted averages were calculated for all intercepts. • No metal equivalent values reported.
Relationship between mineralisation widths and intercepted lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. • 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').	• Significant values of desorbed REE were reported for the auger samples. • Mineralisation orientation is not known at this stage, although assumed to be flat. • The downhole depths are reported, true widths are not known at this stage.

Criteria	JORC code explanation	Commentary
Diagrams	• 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.	• Maps and tables of the auger hole location and target location are inserted.
Balanced reporting	• 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.	• All desorbed MREO (magnetic rare earth oxides) contained in the ammonium sulphate solution are reported
Other substantive exploration data	• 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.	• No other significant exploration data has been acquired by the Company.
Further Work	• The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Process all data acquired aiming to complete an MRE in the coming months. • Additional metallurgical test work by ammonium sulphate leach is planned in ANSTO – Sydney.