

## FINAL 2024 DRILLING ASSAYS EXTEND GRADES AND THICKNESS OF MINERALISATION

### Highlights

- Fourth and final assay batch comprising 32 holes received from the 2024 Mineral Resource infill drilling program
- Results continue to show excellent shallow grades and thicknesses in line with previous results
- Assays now to be included in an updated MRE covering central starter area over 21km<sup>2</sup>
- Assay results expected to significantly extend the area of the current Indicated Resource
- MRE update currently being finalised
- Scoping Study is progressing well and on track for release during Q1

### Significant results >500 ppm include:

- 9m @ **1,065ppm TREO** from 12m (EMA-TR-397), ending in **949ppm** TREO
- 5m @ **985ppm TREO** from 8m (EMA-TR-395), ending in **507ppm** TREO
- 5m @ **858ppm TREO** from 12m (EMA-TR-381), ending in **1,150ppm** TREO

Brazilian Critical Minerals Limited (**ASX: BCM**) ("**BCM**" or the "**Company**") is pleased to announce the assay results for the fourth and final batch of infill auger holes drilled for rare earth elements (REEs) at Ema in the Apuí region of Brazil (Figure 1), aimed at defining an Indicated Mineral Resource Estimate (MRE) over the central portion of the Ema Mineral Resource limits.

### Andrew Reid, Managing Director, commented:

"The 2024 drilling program achieved everything we hoped for. We have extended drilling coverage and mineralisation over a significant region which will underpin a goal of a minimum 20-year mine life for Ema. As with all the drilling programs completed the best NdPr grades sit at shallow depths directly above the basement felsic volcanics being ideal for in-situ recovery extraction.

The Ema region, locality, topography, style of mineralisation and host rocks are similar to the large Chinese ionic clay deposits which have been cheaply extracted via ISR techniques for several decades.

This project and its attributes are truly unique outside of Asia as we push hard on our value-creation strategy. We are now strategically positioned to systematically target a large, mineralised zone in the upcoming scoping study with permeability field trials commencing shortly."



Figure 1. Location of the Ema Project, Brazil.

Assay results have now been received for 244 holes (90%) of the 270 originally planned holes. The remaining 26 holes were not drilled due to the start of heavy rains and will be completed during the 2025 drill season. Results generally returned thick mineralised intercepts with the highest grades of NdPr being found directly above the fresh rock interface.

Drilling was designed on 300m centres within the high priority starter zone (red dashed line area Figure 2) which comprises approximately 24% of the previously announced indicated and inferred **977Mt<sup>1</sup>** MRE area. Drilling commenced on the western portion of this area (Figures 2 and 3) with assays now received for all 244 holes drilled.

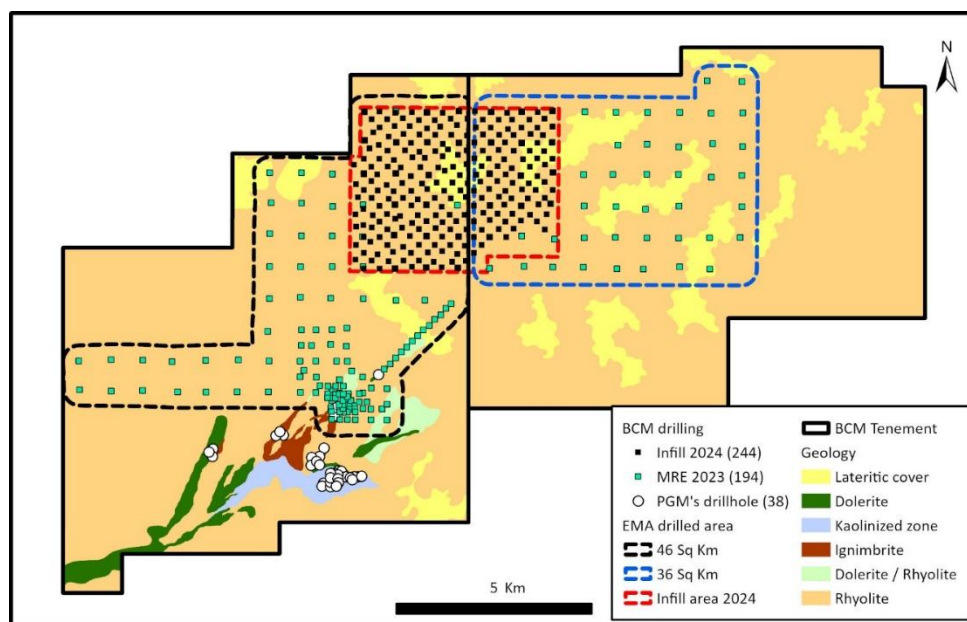


Figure 2 - Ema REE project – Mineral Resource covering 82 km<sup>2</sup> with auger holes on 800m spacing and infill auger holes on 300m centres over 21 sq km (within red dotted line).

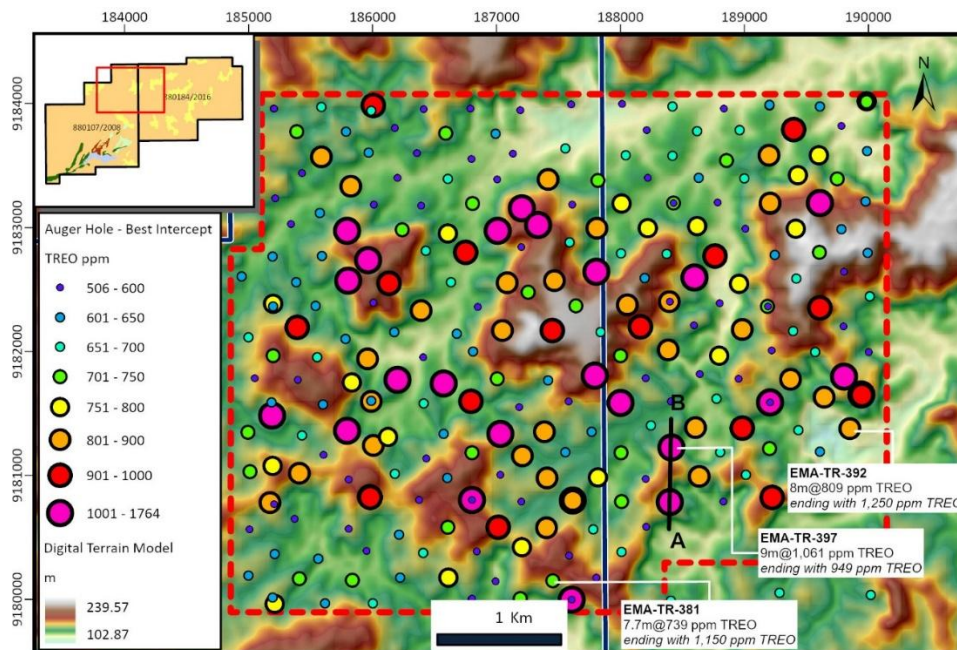


Figure 3 – Location map of the auger infill holes with assay results received to date, with cross section A-B.

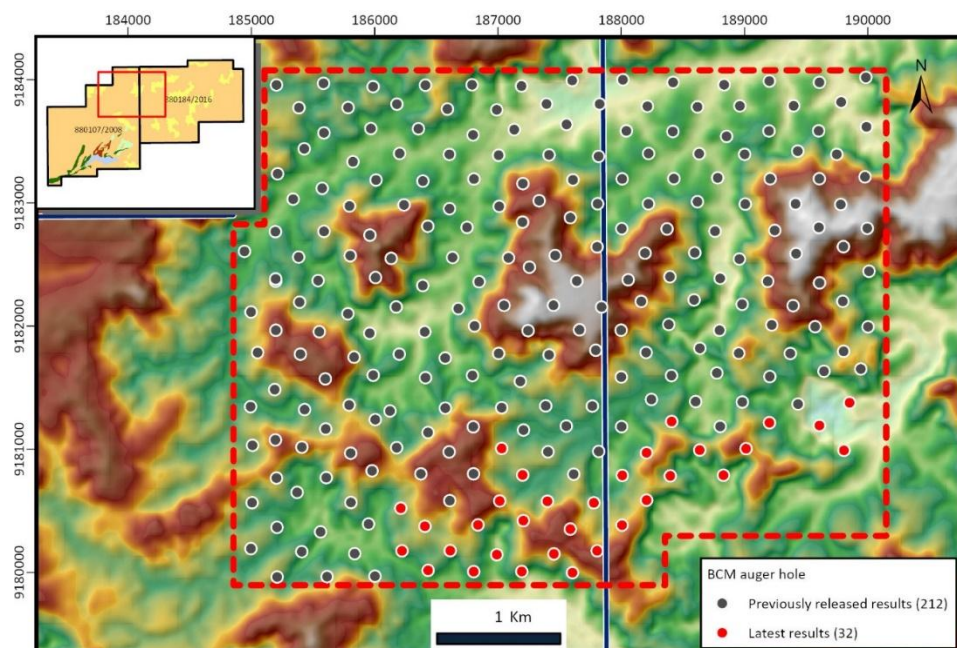


Figure 4 – Location map of the auger infill holes with assay results received to date and those left outstanding.

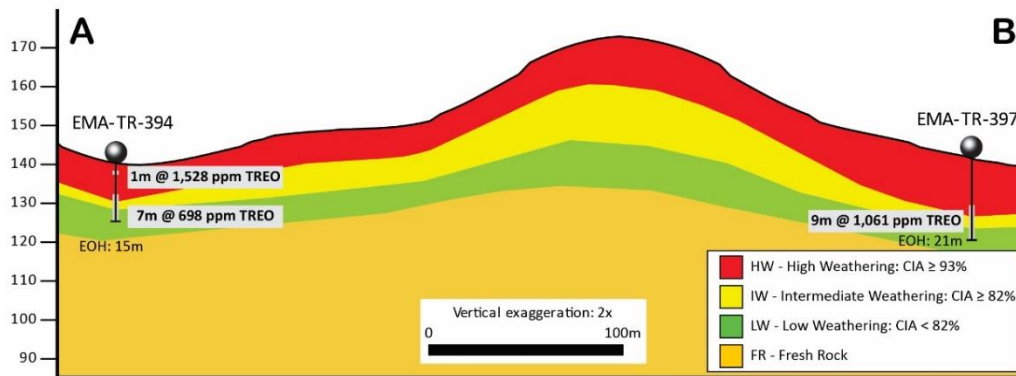


Figure 5 - Cross section A-B from EMA-394 to 397

## Ema REE project

The EMA ionic REE project is unique amongst Brazilian REE projects in that it shares almost identical characteristics with the ionic REE deposits developed over volcanic rocks in southwest China and Myanmar, the world's largest known ionic clay region, producing significant quantities of the world's rare earth production in 2024.

Exploration drilling is conducted with hand-held auger drills, which offer the advantage of low-cost, rapid deployment and mobility. One key constraint of auger drilling is the depth limitation, with the deepest holes, generally containing the highest-grade results, drilled to ~20m. In addition, most of the exploration to date has been conducted on widely spaced (800m) centres, with infill drilling on 300m centres in the central resource area.

Infill drilling at 300-metre centres provides a more detailed assessment of the mineralisation grade and thickness, leading to an increase in the confidence level of the Mineral Resource Estimate. This transition to closer spacing has led to the identification of some exceptional intercepts, suggesting the presence of high-grade pods within the mineralised zones. These findings will be crucial for the next phase of exploration as the team works to define these high-grade areas for potential in-situ recovery (ISR).

Despite the variability in collar elevations of the drilled holes, the typical enrichment of Neodymium (Nd) and Praseodymium (Pr) is consistently encountered at a similar depth within the lower saprolite zone, located just above the fresh rock. The enriched zone generally measures around 10 meters in thickness indicating a continuous mineralised horizon. This widespread occurrence strongly suggests the presence of continuous high-grade zones across the project area.

The high-value heavy magnetic REE's Tb and Dy consistently comprise about 10% of the NdPr levels, making a strong contribution to the basket value in the MREC<sup>2</sup>. The increased values at the bottom of the holes highlight the economic potential of the lower saprolite zones and the zone to be targeted for in-situ extraction.

Strip logs of holes EMA-TR-381, 392 and 397 (Figure 6) are examples in this batch of the lower enrichment zone with the presence of high NdPr grades towards the base of the regolith profile within the low weathering zone.



Figure 6 – Drill-hole profiles showing typical ionic REE enrichment zone with high NdPr grades close to the fresh rock interface.

## References

<sup>1</sup>Brazilian Critical Minerals (ASX:BCM) – Updated Mineral Resource Estimate for Ema 14<sup>th</sup> January 2025

<sup>2</sup>Brazilian Critical Minerals (ASX:BCM) – High-Value Mixed Rare Earth Carbonate Produced For Ema 11<sup>th</sup> November 2024

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

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## About Brazilian Critical Minerals Ltd

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

Its major exploration focus is Brazil, in the Apurí region, where BCM has discovered a world class Ionic Adsorbed Clay (IAC) Rare Earth Elements deposit. The Ema IAC project is contained within the 781 km<sup>2</sup> of exploration tenements within the Colider Group.

BCM has defined an indicated and inferred MRE of 977Mt of REE's with metallurgical recoveries averaging 68% MREO some of the highest for these types of deposits anywhere in the world.

The Company is currently converting this MRE from the Inferred to the Indicated category with an extensive drill program which will inform the scoping study and economic analysis due for completion in Q1 2025.



JORC Category	cut-off ppm TREO	Tonnes Mt	TREO ppm	NdPr ppm	DyTb ppm	MREO ppm	MREO:TREO %
Indicated	500	135	763	174	16	190	25
Inferred	500	842	724	172	16	188	26
<b>Total</b>	<b>500</b>	<b>977</b>	<b>729</b>	<b>172</b>	<b>16</b>	<b>188</b>	<b>26</b>

## Competent Person Statement

The information in this announcement that relates to exploration results is based on information compiled by Mr. Antonio de Castro, BSc (Hons), Member of AusIMM, 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.

The Company confirms that is not aware of any new information or data that materially affects the information included in the above-mentioned releases, and in the case of exploration results and resource estimates, that all material assumptions and technical parameters underpinning the results in the relevant market announcement continue to apply and have not materially changed. The Company confirms that

the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

## Appendices

### Appendix 1 – Auger hole intersections at a 500ppm TREO cut-off grade (batch 4)

Auger hole	From (m)	Interval (m)	TREO (ppm)	% MREO <sup>1</sup>	% HREO <sup>2</sup>	NdPr (ppm)	DyTb (ppm)
EMA-TR-368	4	10	667	22	22	141	15
EMA-TR-371	8	9	619	24	21	134	13
EMA-TR-372	7	4	590	24	18	134	11
EMA-TR-373	11	4	632	25	24	144	15
EMA-TR-374	8	2	570	16	17	80	10
EMA-TR-374	12	6	673	25	22	156	14
EMA-TR-375	6	8	825	28	28	213	21
EMA-TR-376	8	3,8	902	26	21	223	18
EMA-TR-377	12	3,5	713	30	26	194	18
EMA-TR-378	8	9,5	777	26	22	185	17
EMA-TR-380	10	10	733	25	20	166	14
EMA-TR-381	9	7,7	739	25	18	174	13
EMA-TR-382	5	5,3	683	25	22	159	16
EMA-TR-383	8	4	674	22	20	133	14
EMA-TR-384	11	10	756	27	19	194	15
EMA-TR-385	7	11,5	852	26	27	203	24
EMA-TR-386	2	7	690	26	19	167	13
EMA-TR-387	6	3	590	21	20	110	12
EMA-TR-388	8	7	646	23	24	137	16
EMA-TR-389	7	3	735	21	18	139	13
EMA-TR-390	4	1	516	16	20	71	11
EMA-TR-391	9	10	600	25	18	142	11
EMA-TR-392	8	8	809	23	20	188	17
EMA-TR-393	11	6	636	25	23	143	15
EMA-TR-394	8	7	698	26	23	173	17
EMA-TR-395	6	7	857	30	22	250	18
EMA-TR-396	7	4,4	912	29	22	263	19
EMA-TR-397	12	9	1061	27	19	298	19
EMA-TR-398	9	7	737	18	16	115	11
EMA-TR-399	9	3,5	662	31	21	191	13
EMA-TR-400	8	4,35	668	24	17	149	11
EMA-TR-401	5	2	693	16	14	99	10

<sup>1</sup> MREO (Magnetic Rare Earth Oxide) = Tb4O7 + Dy2O3 + Nd2O3 + Pr6O11

<sup>2</sup> HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3

**Appendix 2 – Total REE oxide distribution down-hole (batch 4)**

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-368	4	5	542	20	13	62	12	667
EMA-TR-368	5	6	568	18	13	66	10	
EMA-TR-368	6	7	581	18	16	82	11	
EMA-TR-368	7	8	630	18	21	120	12	
EMA-TR-368	8	9	740	18	23	154	13	
EMA-TR-368	9	10	736	23	27	185	17	
EMA-TR-368	10	11	817	26	29	220	21	
EMA-TR-368	11	12	749	27	28	193	20	
EMA-TR-368	12	13	657	28	28	170	17	
EMA-TR-368	13	14	655	28	26	154	18	
EMA-TR-371	8	9	604	18	20	110	10	619
EMA-TR-371	9	10	574	19	22	118	11	
EMA-TR-371	10	11	628	17	23	134	10	
EMA-TR-371	11	12	710	16	22	147	11	
EMA-TR-371	12	13	604	20	25	141	12	
EMA-TR-371	13	14	696	22	26	167	15	
EMA-TR-371	14	15	646	26	26	149	17	
EMA-TR-371	15	16	594	27	25	130	16	
EMA-TR-371	16	17	516	27	23	105	14	
EMA-TR-371	17	18	474	28	23	95	14	
EMA-TR-372	1	2	285	28	9	16	9	590
EMA-TR-372	2	3	289	29	9	16	10	
EMA-TR-372	3	4	308	30	10	21	11	
EMA-TR-372	4	5	301	24	12	28	9	
EMA-TR-372	5	6	227	25	12	21	6	
EMA-TR-372	6	7	283	20	16	37	6	
EMA-TR-372	7	8	525	20	21	101	11	
EMA-TR-372	8	9	562	16	23	119	9	
EMA-TR-372	9	10	646	19	26	152	12	
EMA-TR-373	5	6	208	31	13	20	7	632
EMA-TR-373	6	7	312	26	13	31	8	
EMA-TR-373	7	8	369	18	13	42	6	
EMA-TR-373	8	9	491	16	15	69	7	
EMA-TR-373	9	10	483	18	21	93	8	
EMA-TR-373	10	11	439	18	23	91	8	
EMA-TR-373	11	12	564	21	24	126	12	
EMA-TR-373	12	13	746	23	28	189	17	
EMA-TR-373	13	14	560	29	26	129	16	

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-373	14	15	659	24	22	132	16	
EMA-TR-374	8	9	546	19	14	66	11	570
EMA-TR-374	9	10	595	15	17	94	9	
EMA-TR-374	10	11	497	17	20	90	9	
EMA-TR-374	11	12	361	16	21	71	6	673
EMA-TR-374	12	13	601	17	23	127	10	
EMA-TR-374	13	14	607	19	24	134	11	
EMA-TR-374	14	15	718	22	26	173	15	
EMA-TR-374	15	16	758	23	26	182	17	
EMA-TR-374	16	17	719	25	27	174	17	
EMA-TR-374	17	18	636	25	25	147	15	
EMA-TR-375	4	5	333	24	22	64	9	825
EMA-TR-375	5	6	471	24	26	110	12	
EMA-TR-375	6	7	662	19	25	152	13	
EMA-TR-375	7	8	1214	19	24	266	22	
EMA-TR-375	8	9	850	28	31	242	24	
EMA-TR-375	9	10	882	29	31	252	24	
EMA-TR-375	10	11	825	31	31	231	24	
EMA-TR-375	11	12	893	32	31	248	28	
EMA-TR-375	12	13	718	30	29	186	20	
EMA-TR-375	13	14	553	32	26	130	16	
EMA-TR-376	2	3	335	22	9	23	8	
EMA-TR-376	3	4	288	25	9	18	8	
EMA-TR-376	4	5	485	13	7	28	7	
EMA-TR-376	5	6	408	20	10	33	8	
EMA-TR-376	6	7	329	23	15	40	8	
EMA-TR-376	7	8	392	23	20	71	9	
EMA-TR-376	8	9	677	18	22	139	13	
EMA-TR-376	9	10	955	15	22	193	14	
EMA-TR-376	10	11	887	24	31	254	20	
EMA-TR-376	11	11,8	1138	27	31	327	28	
EMA-TR-377	6	7	477	17	18	76	8	713
EMA-TR-377	7	8	404	18	17	62	7	
EMA-TR-377	8	9	536	18	21	103	10	
EMA-TR-377	9	10	474	20	18	77	10	
EMA-TR-377	10	11	459	21	23	96	9	
EMA-TR-377	11	12	433	23	29	117	10	
EMA-TR-377	12	13	513	27	33	155	13	

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-377	13	14	684	28	33	205	19	
EMA-TR-377	14	15	719	27	28	180	19	
EMA-TR-377	15	15,5	1157	19	26	278	23	
EMA-TR-378	8	9	515	20	19	86	10	777
EMA-TR-378	9	10	576	18	24	131	10	
EMA-TR-378	10	11	984	25	26	232	26	
EMA-TR-378	11	12	1163	20	27	294	23	
EMA-TR-378	12	13	762	18	27	196	14	
EMA-TR-378	13	14	740	21	27	185	16	
EMA-TR-378	14	15	776	23	27	192	18	
EMA-TR-378	15	16	851	25	27	213	21	
EMA-TR-378	16	17	687	25	25	158	17	
EMA-TR-378	17	17,5	652	25	25	147	17	
EMA-TR-379	0,5	1	124	65	15	10	8	
EMA-TR-379	1	2	151	52	17	18	9	
EMA-TR-379	2	3	190	47	19	27	10	
EMA-TR-379	3	4	246	38	19	35	11	
EMA-TR-379	4	4,5	267	37	21	44	11	
EMA-TR-380	10	11	772	13	10	66	11	733
EMA-TR-380	11	12	631	21	25	144	13	
EMA-TR-380	12	13	661	21	26	156	14	
EMA-TR-380	13	14	705	20	26	166	14	
EMA-TR-380	14	15	759	19	26	180	14	
EMA-TR-380	15	16	778	19	26	188	15	
EMA-TR-380	16	17	736	20	26	179	14	
EMA-TR-380	17	18	739	20	27	182	14	
EMA-TR-380	18	19	738	21	27	187	15	
EMA-TR-380	19	20	809	22	28	211	17	
EMA-TR-381	7	8	379	22	10	27	9	739
EMA-TR-381	8	9	426	21	15	56	10	
EMA-TR-381	9	10	504	20	20	90	11	
EMA-TR-381	10	11	615	19	22	124	12	
EMA-TR-381	11	12	629	18	23	135	12	
EMA-TR-381	12	13	731	17	24	166	13	
EMA-TR-381	13	14	795	16	24	181	12	
EMA-TR-381	14	15	718	17	26	175	12	
EMA-TR-381	15	16	892	18	28	239	15	
EMA-TR-381	16	16,7	1150	22	31	327	24	

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-382	1	2	344	28	11	29	11	683
EMA-TR-382	2	3	513	19	10	42	12	
EMA-TR-382	3	4	443	23	10	33	11	
EMA-TR-382	4	5	484	20	11	42	11	
EMA-TR-382	5	6	535	21	19	90	13	
EMA-TR-382	6	7	644	21	22	125	16	
EMA-TR-382	7	8	559	22	23	114	14	
EMA-TR-382	8	9	630	22	29	168	13	
EMA-TR-382	9	10	934	23	30	261	20	
EMA-TR-382	10	10,3	1064	21	29	287	22	
EMA-TR-383	2	3	135	59	15	12	8	674
EMA-TR-383	3	4	125	56	12	8	7	
EMA-TR-383	4	5	183	48	13	13	10	
EMA-TR-383	5	6	256	31	14	26	9	
EMA-TR-383	6	7	410	23	16	54	10	
EMA-TR-383	7	8	468	17	11	44	9	
EMA-TR-383	8	9	611	19	16	87	12	
EMA-TR-383	9	10	678	18	22	140	12	
EMA-TR-383	10	11	689	20	24	149	15	
EMA-TR-383	11	12	717	22	24	156	15	
EMA-TR-384	11	12	517	18	21	101	10	756
EMA-TR-384	12	13	669	16	20	123	11	
EMA-TR-384	13	14	688	17	23	146	13	
EMA-TR-384	14	15	712	18	30	200	12	
EMA-TR-384	15	16	799	18	30	222	14	
EMA-TR-384	16	17	752	19	30	213	14	
EMA-TR-384	17	18	853	19	30	243	16	
EMA-TR-384	18	19	955	21	31	281	19	
EMA-TR-384	19	20	921	23	29	246	21	
EMA-TR-384	20	21	696	25	26	164	17	
EMA-TR-385	0,5	1	336	21	11	30	7	852
EMA-TR-385	1	2	577	14	12	63	9	
EMA-TR-385	2	3	354	18	7	19	7	
EMA-TR-385	3	4	462	15	6	22	7	
EMA-TR-385	4	5	324	21	11	28	7	
EMA-TR-385	5	6	440	21	19	75	9	
EMA-TR-385	6	7	361	23	21	67	9	
EMA-TR-385	7	8	530	17	19	93	10	

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-385	8	9	637	15	18	106	10	
EMA-TR-385	9	10	539	19	22	111	10	
EMA-TR-385	10	11	802	19	26	190	15	
EMA-TR-385	11	12	928	23	32	277	21	
EMA-TR-385	12	13	1166	24	31	335	28	
EMA-TR-385	13	14	1107	30	30	300	33	
EMA-TR-385	14	15	961	32	28	237	31	
EMA-TR-385	15	16	931	36	27	222	33	
EMA-TR-385	16	17	1043	37	24	214	39	
EMA-TR-385	17	18	800	38	25	173	31	
EMA-TR-385	18	18,5	699	36	24	143	25	
EMA-TR-386	0,5	1	236	34	11	16	10	
EMA-TR-386	1	2	494	15	6	24	8	
EMA-TR-386	2	3	537	21	16	74	13	
EMA-TR-386	3	4	632	17	23	132	12	
EMA-TR-386	4	5	673	18	26	165	13	
EMA-TR-386	5	6	803	18	28	213	14	
EMA-TR-386	6	7	706	18	27	179	13	
EMA-TR-386	7	8	722	19	28	187	14	
EMA-TR-386	8	9	757	22	31	216	16	
EMA-TR-387	1	2	340	19	12	34	7	
EMA-TR-387	2	3	380	17	12	39	7	
EMA-TR-387	3	4	239	20	14	28	5	
EMA-TR-387	4	5	230	32	13	21	8	
EMA-TR-387	5	6	327	24	13	35	9	
EMA-TR-387	6	7	563	18	20	102	11	
EMA-TR-387	7	8	608	19	21	114	12	
EMA-TR-387	8	9	599	23	21	114	14	
EMA-TR-387	9	10	483	23	21	91	12	
EMA-TR-387	10	11	459	23	22	87	11	
EMA-TR-388	0,5	1	286	24	17	41	7	
EMA-TR-388	1	2	307	19	12	30	6	
EMA-TR-388	2	3	522	15	14	66	9	
EMA-TR-388	3	4	470	16	15	62	8	
EMA-TR-388	4	5	344	19	15	46	7	
EMA-TR-388	5	6	498	17	18	79	9	
EMA-TR-388	6	7	525	17	20	93	10	
EMA-TR-388	7	8	455	16	15	58	9	
EMA-TR-388	8	9	571	14	10	48	9	
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HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-388	9	10	624	19	18	97	14	
EMA-TR-388	10	11	515	23	20	92	13	
EMA-TR-388	11	12	549	23	24	120	14	
EMA-TR-388	12	13	798	27	29	210	21	
EMA-TR-388	13	14	793	30	31	223	23	
EMA-TR-388	14	15	673	31	29	171	20	
EMA-TR-389	0,5	1	111	74	14	6	9	735
EMA-TR-389	1	2	103	76	13	5	8	
EMA-TR-389	2	3	112	71	13	6	9	
EMA-TR-389	3	4	131	54	13	10	7	
EMA-TR-389	4	5	162	40	15	16	7	
EMA-TR-389	5	6	250	36	15	28	9	
EMA-TR-389	6	7	431	23	19	73	9	
EMA-TR-389	7	8	722	17	20	132	12	
EMA-TR-389	8	9	791	17	20	146	14	
EMA-TR-389	9	10	693	20	22	138	13	
EMA-TR-390	0,5	1	221	30	14	24	7	516
EMA-TR-390	1	2	242	29	15	30	7	
EMA-TR-390	2	3	280	28	15	35	8	
EMA-TR-390	3	4	337	26	15	43	9	
EMA-TR-390	4	5	516	20	16	71	11	
EMA-TR-390	5	5,6	425	23	18	65	10	
EMA-TR-391	9	10	504	18	21	96	9	600
EMA-TR-391	10	11	508	19	22	105	10	
EMA-TR-391	11	12	536	18	22	109	9	
EMA-TR-391	12	13	600	17	22	122	10	
EMA-TR-391	13	14	553	17	24	123	9	
EMA-TR-391	14	15	614	17	24	138	10	
EMA-TR-391	15	16	539	18	27	135	9	
EMA-TR-391	16	17	690	17	28	183	12	
EMA-TR-391	17	18	749	18	30	213	13	
EMA-TR-391	18	19	703	20	30	195	15	
EMA-TR-392	6	7	309	23	18	48	7	809
EMA-TR-392	7	8	412	16	8	24	7	
EMA-TR-392	8	9	733	12	10	62	9	
EMA-TR-392	9	10	681	12	13	80	9	
EMA-TR-392	10	11	617	13	14	78	9	
EMA-TR-392	11	12	538	20	17	83	11	

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-392	12	13	656	20	26	159	13	
EMA-TR-392	13	14	936	24	32	278	22	
EMA-TR-392	14	15	1060	27	34	335	27	
EMA-TR-392	15	16	1250	29	37	429	36	
EMA-TR-393	7	8	156	48	15	16	9	
EMA-TR-393	8	9	206	41	14	20	9	
EMA-TR-393	9	10	356	25	11	28	10	
EMA-TR-393	10	11	466	21	14	57	11	
EMA-TR-393	11	12	585	17	17	90	10	636
EMA-TR-393	12	13	725	17	22	148	13	
EMA-TR-393	13	14	683	24	29	181	16	
EMA-TR-393	14	15	742	26	29	196	19	
EMA-TR-393	15	16	580	28	27	139	15	
EMA-TR-393	16	17	502	27	24	107	13	
EMA-TR-394	0,5	1	145	49	10	7	8	698
EMA-TR-394	1	2	228	27	6	7	7	
EMA-TR-394	2	3	1528	4	1	6	6	
EMA-TR-394	3	4	386	16	3	6	7	
EMA-TR-394	4	5	296	19	5	9	6	
EMA-TR-394	5	6	400	17	5	11	7	
EMA-TR-394	6	7	404	16	7	21	7	
EMA-TR-394	7	8	400	21	16	53	9	
EMA-TR-394	8	9	503	18	19	87	9	
EMA-TR-394	9	10	536	18	24	117	10	
EMA-TR-394	10	11	535	19	24	119	10	
EMA-TR-394	11	12	726	22	29	196	16	
EMA-TR-394	12	13	879	25	30	245	22	
EMA-TR-394	13	14	903	29	30	245	26	
EMA-TR-394	14	15	804	29	28	202	23	
EMA-TR-395	3	4	358	21	7	17	8	857
EMA-TR-395	4	5	496	15	9	39	7	
EMA-TR-395	5	6	442	19	20	79	8	
EMA-TR-395	6	7	565	17	26	136	9	
EMA-TR-395	7	8	797	16	31	235	12	
EMA-TR-395	8	9	1069	18	35	351	18	
EMA-TR-395	9	10	1162	20	34	373	22	
EMA-TR-395	10	11	1061	24	33	328	25	
EMA-TR-395	11	12	837	30	29	214	26	
EMA-TR-395	12	13	507	29	25	112	15	

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-396	2	3	393	23	5	11	10	912
EMA-TR-396	3	4	519	18	6	20	11	
EMA-TR-396	4	5	540	19	6	24	11	
EMA-TR-396	5	6	480	22	11	40	12	
EMA-TR-396	6	7	487	18	11	43	9	
EMA-TR-396	7	8	549	19	20	101	11	
EMA-TR-396	8	9	793	17	31	232	13	
EMA-TR-396	9	10	1292	21	36	447	24	
EMA-TR-396	10	11	1033	26	31	291	26	
EMA-TR-396	11	11,4	864	29	28	217	25	
EMA-TR-397	11	12	426	20	15	56	9	1065
EMA-TR-397	12	13	507	19	18	80	10	
EMA-TR-397	13	14	732	18	20	134	13	
EMA-TR-397	14	15	622	17	21	120	11	
EMA-TR-397	15	16	721	17	24	162	12	
EMA-TR-397	16	17	932	15	26	225	13	
EMA-TR-397	17	18	1364	17	33	428	20	
EMA-TR-397	18	19	2664	21	38	957	51	
EMA-TR-397	19	20	1056	23	31	309	21	
EMA-TR-397	20	21	949	24	30	269	20	
EMA-TR-398	6	7	366	25	7	14	10	737
EMA-TR-398	7	8	475	22	6	16	11	
EMA-TR-398	8	9	463	19	6	19	10	
EMA-TR-398	9	10	849	12	5	30	11	
EMA-TR-398	10	11	746	14	10	68	10	
EMA-TR-398	11	12	756	14	16	113	10	
EMA-TR-398	12	13	697	18	21	137	12	
EMA-TR-398	13	14	748	16	23	160	11	
EMA-TR-398	14	15	687	17	23	144	11	
EMA-TR-398	15	16	673	19	25	155	12	
EMA-TR-399	3	4	317	26	10	23	9	662
EMA-TR-399	4	5	424	25	16	57	12	
EMA-TR-399	5	6	319	27	16	42	9	
EMA-TR-399	6	7	373	24	19	61	9	
EMA-TR-399	7	8	441	20	19	75	10	
EMA-TR-399	8	9	490	20	26	116	10	
EMA-TR-399	9	10	574	20	30	162	11	
EMA-TR-399	10	11	591	20	31	172	11	

HoleID	From	To	TREO (ppm)	% HREO	% MREO	NdPr (ppm)	DyTb (ppm)	Average (ppm)
EMA-TR-399	11	12	721	23	33	220	15	
EMA-TR-399	12	12,5	859	20	29	233	17	
EMA-TR-400	3	4	415	23	16	55	11	
EMA-TR-400	4	5	512	18	15	68	10	
EMA-TR-400	5	6	598	19	17	86	13	
EMA-TR-400	6	7	327	23	15	41	9	
EMA-TR-400	7	8	401	19	18	65	8	
EMA-TR-400	8	9	581	14	17	92	9	
EMA-TR-400	9	10	748	15	25	176	12	
EMA-TR-400	10	11	526	17	23	111	9	668
EMA-TR-400	11	12	741	20	29	199	14	
EMA-TR-400	12	12,35	880	17	25	204	15	
EMA-TR-401	0,5	1	133	62	14	10	9	
EMA-TR-401	1	2	134	61	13	9	9	
EMA-TR-401	2	3	121	50	11	7	7	
EMA-TR-401	3	4	190	39	13	16	8	
EMA-TR-401	4	5	340	21	12	33	8	
EMA-TR-401	5	6	702	15	14	89	11	
EMA-TR-401	6	7	684	14	18	110	10	693
EMA-TR-401	7	8	448	19	23	96	8	

Many drillholes did not intersect the complete weathering profile, with some holes stopping in the saprolite domains due to the depth limitations of the auger drilling, particularly below the water table, and difficulties in penetrating semi-compact rocks.

#### Appendix 4: Auger drill-hole locations

Hole ID	East	North	RL (m)	Depth (m)	Azimuth	Dip	Tenement
EMA-TR-368	186408	9180374	137	14	0	-90	880.107/2008
EMA-TR-371	186213	9180521	151	18	0	-90	880.107/2008
EMA-TR-372	187031	9181007	166	11	0	-90	880.107/2008
EMA-TR-373	186223	9180175	134	15	0	-90	880.184/2016
EMA-TR-374	187201	9180791	152	18	0	-90	880.184/2016
EMA-TR-375	187402	9180578	149	14	0	-90	880.184/2016
EMA-TR-376	187015	9180580	185	11,8	0	-90	880.184/2016

Hole ID	East	North	RL (m)	Depth (m)	Azimuth	Dip	Tenement
EMA-TR-377	186839	9180386	162	15,5	0	-90	880.184/2016
EMA-TR-378	186614	9180177	142	17,5	0	-90	880.184/2016
EMA-TR-379	186434	9180017	136	4,5	0	-90	880.184/2016
EMA-TR-380	187194	9180008	139	20	0	-90	880.184/2016
EMA-TR-381	187455	9180150	169	16,7	0	-90	880.184/2016
EMA-TR-382	187588	9180352	177	10,3	0	-90	880.184/2016
EMA-TR-383	187778	9180565	144	12	0	-90	880.184/2016
EMA-TR-384	187207	9180420	170	21	0	-90	880.184/2016
EMA-TR-385	187605	9179998	147	18,5	0	-90	880.184/2016
EMA-TR-386	188007	9180384	163	9	0	-90	880.184/2016
EMA-TR-387	186991	9180144	124	11	0	-90	880.184/2016
EMA-TR-388	186804	9180007	137	15	0	-90	880.184/2016
EMA-TR-389	188009	9180788	143	10	0	-90	880.184/2016
EMA-TR-390	187805	9180175	179	5,6	0	-90	880.184/2016
EMA-TR-391	188206	9180587	162	19	0	-90	880.184/2016
EMA-TR-392	189852	9181378	134	16	0	-90	880.184/2016
EMA-TR-393	189608	9181193	131	17	0	-90	880.184/2016
EMA-TR-394	188398	9180784	142	15	0	-90	880.184/2016
EMA-TR-395	188637	9180993	139	13	0	-90	880.184/2016
EMA-TR-396	188206	9180971	161	11,4	0	-90	880.184/2016
EMA-TR-397	188409	9181225	159	21	0	-90	880.184/2016
EMA-TR-398	189203	9181215	136	16	0	-90	880.184/2016
EMA-TR-399	189013	9181005	174	12,5	0	-90	880.184/2016
EMA-TR-400	188829	9180789	135	12,35	0	-90	880.184/2016
EMA-TR-401	189807	9180991	125	8	0	-90	880.184/2016

## Appendix 5

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
<b>Sampling Techniques</b>	<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 representativity 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>Exploration results are based on auger drilling conducted by BCM’s exploration team.</li> <li>The data presented is based on the assay of soils and saprolite by auger drilling at 1m sample intervals.</li> <li>Sampling was supervised by a GE21 geologist and two mining technicians.</li> <li>Every 1-metre sample was collected in a big plastic bag in the field and transported to the exploration shed to be dried in the muffle. prior to homogenisation.</li> <li>Samples were homogenised and subsequently riffle split with about 1 kg sent to SGS for analysis and a similar amount stored.</li> <li>1 certified blank sample. 1 certified reference material (standard) samples and 1 field duplicate sample were inserted into the sample sequence for each 25 samples.</li> </ul>
<b>Drilling Techniques</b>	<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>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.</li> </ul>
<b>Drill Sample Recovery</b>	<ul style="list-style-type: none"> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and 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>No recoveries are recorded.</li> <li>The operator observes the volume of each metre and notes any discrepancy.</li> <li>No relationship is believed to exist between recovery and grade.</li> </ul>
<b>Logging</b>	<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> </ul>	<ul style="list-style-type: none"> <li>All holes were logged by GE21 geologist. 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.</li> </ul>

Item	JORC code explanation	Comments																																																				
	<ul style="list-style-type: none"> <li>Whether logging is qualitative or quantitative in nature. 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>Qualitative logging with systematic photography of the stored box.</li> <li>The entire auger hole is logged.</li> </ul>																																																				
<b>Sub-Sampling Techniques and Sampling Procedures</b>	<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 representativity 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>Auger sampling procedure is completed in the exploration shed in Apui.</li> <li>The entire one metre sample is bagged on site. in a big plastic bag, which is transported to the exploration shed. where it is dried at 70-90C prior to homogenisation. then quartered to about 1kg to go to SGS and another 1kg to store on site.</li> <li>Sample preparation for the auger samples was conducted at SGS Vespasiano (greater Belo Horizonte) comprising oven drying at 105C. crushing of entire sample to 75% &lt; 3mm followed by rotary splitting and pulverisation of 250 to 300 grams at 95% minus 150#</li> <li>The &lt;3mm rejects and the 250-300 grams pulverised sample were returned to BCM for storage.</li> <li>Only the last 10 metres of each hole were sent to assay. the samples above will be sent if required.</li> </ul>																																																				
<b>Quality of Assay Data and Laboratory Tests</b>	<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 laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established</li> </ul>	<ul style="list-style-type: none"> <li>1 blank sample. 1 certified reference material (standard) sample and 1 field duplicate sample were inserted by BBX into each 25-sample sequence.</li> <li>Standard laboratory QA/QC procedures were followed. including inclusion of standard. duplicate and blank samples.</li> <li>The assay results of the standards fall within acceptable tolerance limits and no material bias is evident.</li> <li>The assay technique used for REE was Lithium Metaborate Fusion ICP-MS (SGS code ICP95A and IMS95A). This is a recognised industry standard analysis technique for REE suite and associated elements. Elements analysed at ppm levels:</li> </ul> <table border="1" data-bbox="949 1547 1485 1753"> <tbody> <tr><td>Ba</td><td>Ce</td><td>Cr</td><td>Cs</td><td>Dy</td><td>Er</td><td>Eu</td><td>Ga</td></tr> <tr><td>Gd</td><td>Hf</td><td>Ho</td><td>La</td><td>Lu</td><td>Nb</td><td>Nd</td><td>Pr</td></tr> <tr><td>Rb</td><td>Sm</td><td>Sn</td><td>Sr</td><td>Ta</td><td>Tb</td><td>Th</td><td>Tm</td></tr> <tr><td>U</td><td>V</td><td>W</td><td>Y</td><td>Yb</td><td>Zr</td><td>Zn</td><td>Co</td></tr> <tr><td>Cu</td><td>Ni</td><td></td><td></td><td></td><td></td><td></td><td></td></tr> </tbody> </table> <p>The sample preparation and assay techniques used are industry standard and provide total analysis.</p> <p>The ICP95A reports the major elements oxides used to calculate the Chemical Index of Alteration (CIA) at % levels included:</p> <table border="1" data-bbox="949 1910 1485 2029"> <tbody> <tr><td>Al2O3</td><td>CaO</td><td>Cr2O3</td><td>F2O3</td></tr> <tr><td>K2O</td><td>MgO</td><td>MnO</td><td>Na2O</td></tr> <tr><td>P2O5</td><td>SiO2</td><td>TiO2</td><td></td></tr> </tbody> </table>	Ba	Ce	Cr	Cs	Dy	Er	Eu	Ga	Gd	Hf	Ho	La	Lu	Nb	Nd	Pr	Rb	Sm	Sn	Sr	Ta	Tb	Th	Tm	U	V	W	Y	Yb	Zr	Zn	Co	Cu	Ni							Al2O3	CaO	Cr2O3	F2O3	K2O	MgO	MnO	Na2O	P2O5	SiO2	TiO2	
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Item	JORC code explanation	Comments																					
		<ul style="list-style-type: none"> <li>The SGS laboratory used for the RRE assays is ISO 9001 and 14001 and 17025 accredited.</li> <li>Analytical standard for REE ITAK-713 and 714 were used as CRM material in the batches sent to SGS.</li> <li>The assay results for the standards were consistent with the certified levels of accuracy and precision and no bias is evident.</li> <li>The blanks used contain some REE. with critical elements Ce. Nd. Dy and Y present in small quantities.</li> <li>Duplicate samples were allocated separate sample numbers and submitted with the same analytical batch as the primary sample. Variability between duplicate results is considered acceptable and no sampling bias is evident.</li> <li>Laboratory inserted standards. blanks and duplicates were analysed as per industry standard practice. There is no evidence of bias from these results.</li> </ul>																					
<b>Verification of Sampling and Assaying</b>	<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>Apart from the routine QA/QC procedures by the Company and the laboratory. there was no other independent or alternative verification of sampling and assaying procedures.</li> <li>Analytical results for REE were supplied digitally. directly from the SGS laboratory in Vespasiano to the BCMs Exploration Manager in Rio de Janeiro.</li> <li>No twinned holes were used.</li> <li>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.</li> <li>No adjustments were made to the data.</li> <li>All REE assay data received from the laboratory in element form is unadjusted for data entry.</li> <li>Conversion of elements analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors. (Source:<a href="https://www.jcu.edu.au/advanced-analytical-centre/resources/element-to-stoichiometric-oxide-conversion-factors">https://www.jcu.edu.au/advanced-analytical-centre/resources/element-to-stoichiometric-oxide-conversion-factors</a>).</li> </ul> <table border="1" data-bbox="954 1787 1492 2022"> <thead> <tr> <th>Element ppm</th> <th>Conversion Factor</th> <th>Oxide Form</th> </tr> </thead> <tbody> <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> </tbody> </table>	Element ppm	Conversion Factor	Oxide Form	Ce	1.2284	CeO2	Dy	1.1477	Dy2O3	Er	1.1435	Er2O3	Eu	1.1579	Eu2O3	Gd	1.1526	Gd2O3	Ho	1.1455	Ho2O3
Element ppm	Conversion Factor	Oxide Form																					
Ce	1.2284	CeO2																					
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Ho	1.1455	Ho2O3																					

Item	JORC code explanation	Comments																											
		<table border="1" data-bbox="952 383 1490 656"> <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> <p>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:</p> <p>TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3</p> <p>LREO (Light Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3</p> <p>HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3</p> <p>CREO (Critical Rare Earth Oxide) = Nd2O3 + Eu2O3 + Tb4O7 + Dy2O3 + Y2O3</p> <p>(From U.S. Department of Energy. Critical Material Strategy. December 2011)</p> <p>MREO (Magnetic Rare Earth Oxide) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3</p> <p>NdPr = Nd2O3 + Pr6O11</p> <p>DyTb = Dy2O3 + Tb4O7</p> <p>In elemental form the classifications are:</p> <p>TREE: La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Lu+Y</p> <p>HREE: Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Lu+Y</p> <p>CREE: Nd+Eu+Tb+Dy+Y</p> <p>LREE: La+Ce+Pr+Nd</p>	La	1.1728	La2O3	Lu	1.1371	Lu2O3	Nd	1.1664	Nd2O3	Pr	1.2082	Pr6O11	Sm	1.1596	Sm2O3	Tb	1.1762	Tb4O7	Tm	1.1421	Tm2O3	Y	1.2699	Y2O3	Yb	1.1387	Yb2O3
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<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>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.</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> </ul>	<ul style="list-style-type: none"> <li>Auger holes were in lines 400m apart with holes with 300m centers, designed for testing iREE mineralization over the mapped felsic volcanics.</li> <li>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.</li> </ul>																											

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<b>Orientation of Data in relation to Geological Structure</b>	<ul style="list-style-type: none"> <li>• Whether sample compositing has been applied.</li> <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>• No sample composition was applied.</li> <li>• The location and depth of the sampling is appropriate for the deposit type.</li> <li>• Relevant REE values are compatible with the exploration model for ionic REEs.</li> <li>• No relationship between mineralisation and drilling orientation is known at this stage.</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>• 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.</li> </ul>
<b>Audit 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>• The sampling techniques and data have been reviewed by the Competent Person and are found to be of industry standard.</li> </ul>

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

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>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.</li> <li>The company is not aware of any impediment to obtain a licence to operate in the area.</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>No exploration by other parties has been conducted in the region.</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>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.</li> <li>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).</li> <li>This adsorbed iREE is the target for extraction and production of REO.</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> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <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>Auger locations and diagrams are presented in this announcement.</li> <li>Details are tabulated in the announcement.</li> </ul>

Criteria	JORC code explanation	Commentary
<b>Data aggregation methods</b>	<ul style="list-style-type: none"> <li>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.</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>Weighted averages were calculated for all intercepts.</li> <li>500ppm TREO cut-off grade was applied to define the relevant intersections.</li> <li>No metal equivalent values reported.</li> </ul>
<b>Relationship between mineralization widths and intercepted 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>Significant values of REE were reported for the auger samples.</li> <li>Mineralisation orientation is not known at this stage although assumed to be flat.</li> <li>The downhole depths are reported, true widths are not known at this stage.</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>Maps and tables of the auger holes location and target location are inserted.</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>Relevant REE mineralisation with grades higher than 500ppm TREO in auger holes were reported with confirmation of IAC (Ionic Adsorbed Clay) type mineralisation obtained in almost all the auger holes from phase 1, in this same geological setting.</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>No other significant exploration data has been acquired by the Company.</li> </ul>

Criteria	JORC code explanation	Commentary
<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>Additional metallurgical test work with magnesium sulphate leach.</li> <li>Permeability test works under WSP co-ordination.</li> <li>SS under Ausenco and WSP coordination.</li> <li>Detail topography survey with LIDAR for mine planning</li> <li>Geophysics survey, Electro resistivity to define the saprolite/fresh rock boundary and faults in the rock.</li> </ul>