

APUI ENE RARE EARTH PROJECT DELIVERS STRONG TREO RESULTS

Highlights

- Apui ENE is the second major REE discovery made by BCM during 2023
- New high-grade results received for Apui ENE project, including;
 - 5 metres @ **2,257ppm TREO**¹ from 13m, including 3m @ **3,357ppm** TREO ending in **1,470ppm** TREO (APTR-020)
 - 15 metres @ **1,195ppm TREO** from surface, including 3m @ **1,979ppm** TREO ending in **1,131ppm** TREO (APTR-032)
 - 8 metres @ **1,067ppm TREO** from surface, including 3m @ **1,217ppm** TREO ending in **691ppm** TREO (APTR-035)
- Elevated TREO grades starting from surface with NdPr values up to 663 ppm
- Less than 10% of the 173 km² tenement drill tested so far
- 12 km² of continuous REE mineralization defined around APTR-013.

Previous results announced² from Apui ENE included;

- 12 metres @ **1,380 ppm TREO** from surface, including 5m @ **1,942 ppm TREO** from 7 metres (APTR-013)
- 3 metres @ **1,130 ppm** TREO from surface (APTR-014)
- 4 metres @ **908 ppm TREO** from surface (APTR-018)

Andrew Reid, Managing Director, commented:

“These excellent drilling results at Apui ENE clearly demonstrate the potential of the larger region to deliver significant mineral resource growth which is in close proximity to our flagship Ema REE project.” We now look forward to testing the metallurgical properties of these new results with next steps to include continuing additional drilling activities over the coming months to further define the mineral resource size which will complement our existing 1Bt MRE recently announced at Ema” (*Refer to ASX announcement dated 22 April 2024 page 2 and resource table in this announcement*)

¹ TREO (Total Rare Earth Oxide) = La₂O₃ + CeO₂ + Pr₆O₁₁ + Nd₂O₃ + Sm₂O₃ + Eu₂O₃ + Gd₂O₃ + Tb₄O₇ + Dy₂O₃ + Ho₂O₃ + Er₂O₃ + Tm₂O₃ + Yb₂O₃ + Y₂O₃ + Lu₂O₃

Brazilian Critical Minerals Limited (**ASX: BCM**) (“**BCM**” or the “**Company**”) is pleased to announce the assay results for the follow up of auger hole APTR-13² drilled for rare earth elements (REEs) at the APUI ENE REE project in the Apuí region of Brazil (Figure 1).

The Apui REE project is the second major REE discovery made by BCM during the 2023 drill campaign with discovery holes announced in November 2023². The results from the follow up programme shows the presence of high REE grades of >3m in thickness exceeding 1,200ppm TREO, with accompanying elevated values of NdPr (Table 1). The results demonstrate the presence of high-grade zones within the widespread REE rich sediments. Mineralisation at this stage remains open in all directions (Figure 2).

High TREO values start from surface (Appendix 2) persisting to end of down hole, which require deeper drilling to sample the lower zone more enriched in ionic rare earths.



Figure 1. Location of the Ema project in Brazil

Table 1. Auger hole APTR-032 assay results (10-15m) >200ppm NdPr

From (m)	To (m)	TREO ppm	HREO %	MREO %	NdPr ppm	DyTb ppm
10	11	1,299	27	22	257	35
11	12	1,734	24	26	414	40
12	13	2,444	25	28	613	60
13	14	1,760	21	26	428	36
14	15	1,131	28	23	227	34

This follow-up drill programme consisted of 19 auger holes totalling 216 metres drilled around APTR-13 in the APUI ENE project.

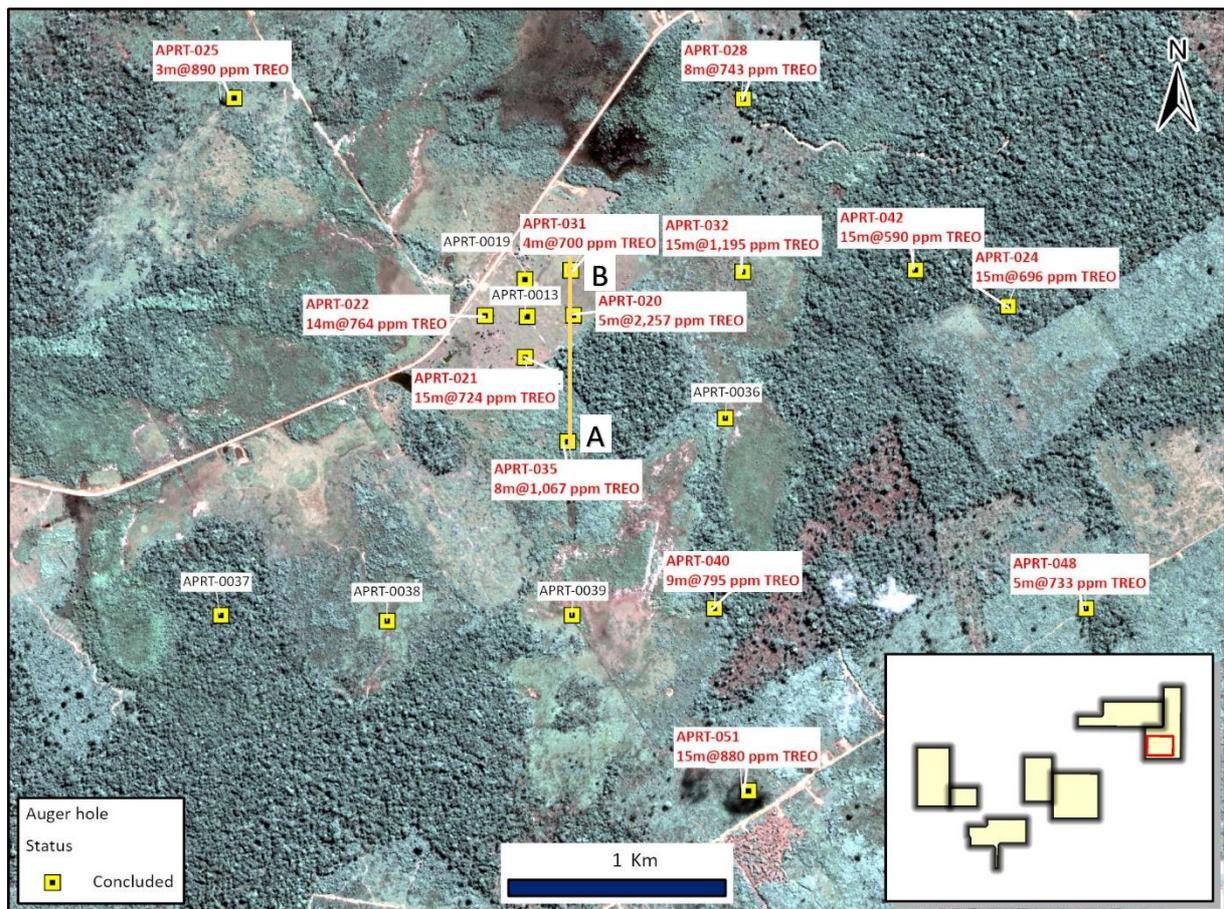


Figure 2. Apui ENE drilling. Auger holes location on satellite image

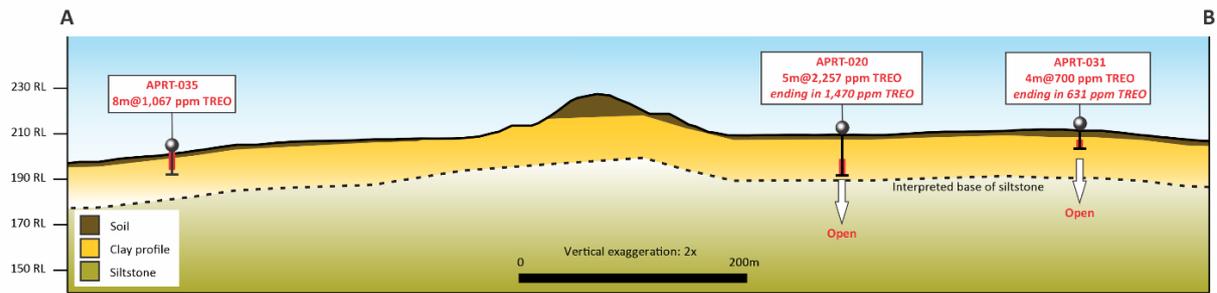


Figure 3. Representative cross-section showing high-grade REE results

Future work at Apui ENE and Apui REE projects

Step out drilling and deeper holes in this same area is being planned to define and intercept the enriched horizon containing the ionic rare earths.

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 iREE 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 iREE deposits.

BCM is also developing an environmentally friendly and sustainable beneficiation process to extract precious metals using a unique bio leach 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.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement and, in the case of mineral resource estimate, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. Refer to ASX announcement dated 22 April 2024 and below:

Ema REE Project 2024 Global Mineral Resource Estimate-@COG 500ppm TREO

JORC Category	Tonnes Mt	TREO ppm	Pr ₆ O ₁₁ ppm	Nd ₂ O ₃ ppm	Tb ₄ O ₇ ppm	Dy ₂ O ₃ ppm	MREO ppm	MREO:TREO %
inferred	1,017	793	45	154	4	13	216	27

Ema REE Project 2024 Mineral Resource Estimate – by cut-off grade

JORC Category	cut-off ppm TREO	Tonnes Mt	TREO ppm	NdPr ppm	DyTb ppm	MREO ppm	MREO:TREO %
Inferred	0	1,340	694	163	15	178	26
Inferred	500	1,017	793	199	17	216	27
Inferred	600	863	836	218	18	236	28
Inferred	700	685	885	237	20	257	29
Inferred	800	494	936	259	21	280	30
Inferred	900	331	977	278	22	300	31

Apui and Apui ENE REE Project

The Apui ENE and Apui REE projects comprise 531 km² of sediments with volcanoclastic contribution. The Apui ENE REE project is on the Camaíú Formation, PP4cm, Proterozoic sandstones and conglomerates with volcanic contributions and intercalated with volcanic tuffs sitting immediately on top of the volcanic felsics of the Colider group while the Apui REE project is in the Borrachudo unit, SDatj b, much younger Siluro-Devonian volcanogenic sandstones intercalated with centimetric layers of tuffs, both rich in REEs.

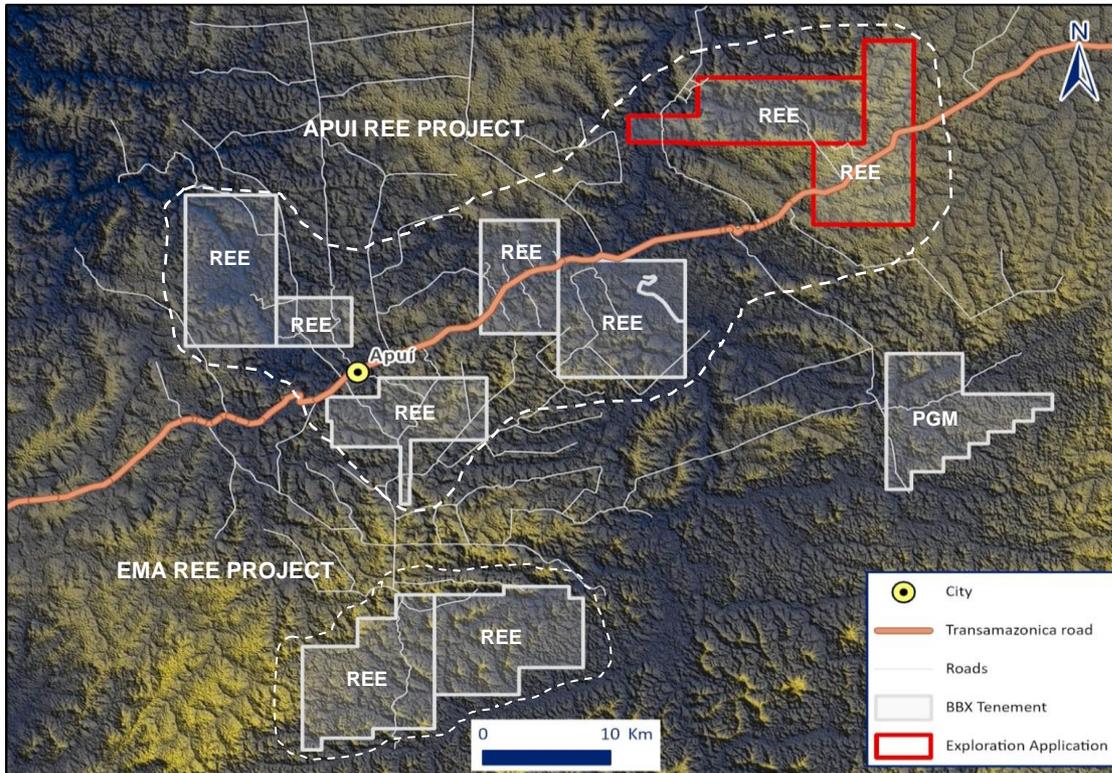


Figure 4. BCM's tenure location in the Apui region.

Table 2. Summary of BCM's REE projects

Project	Deposit Type	Status	Program
Ema 189 sq km	iREE hosted in regolith developed from felsic volcanics – rhyolites, similar to the Chinese deposits	<ul style="list-style-type: none"> 82 sq km auger drill tested in 800m centers High recoveries of magnetic ionic rare earths in AMSUL from the REE enriched horizon MRE estimation in progress Ammonium leach characterization and optimization at ANSTO 	<ul style="list-style-type: none"> Drill the high-grade zone in 200m centers Upgrade the MRE estimation in the high-grade zone
Apui 358 sq km	REE hosted in regolith developed from Silurian Devonian sediments.	<ul style="list-style-type: none"> Regional reconnaissance auger holes in the sediments with high values of REE from surface HREE increasing with depth in APTR-004, characteristic of development of IAC regolith 	<ul style="list-style-type: none"> Follow up APTR-004 with deeper holes Additional regional reconnaissance auger holes AMSUL tests

Apui ENE 173 sq km	REE hosted in regolith developed from a Proterozoic sediment including tuffs and vulcanoclasts.	<ul style="list-style-type: none"> • 12 sq km auger drill tested • High TREO grades from surface • Exceptional values of NdPr in specific intervals • Ionic rare earths present in the regolith profile below 14 metres with recoveries increasing with depth. 	<ul style="list-style-type: none"> • RC or DD drilling to delineate the IAC horizon • Metallurgical test works on the shallow REE mineralization
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Appendices

Appendix 1. APUI ENE intersections at 500ppm TREO cut-off grade

Auger hole	From (m)	To (m)	TREO ² ppm	% HREO ³	% MREO ⁴	NdPr ppm	DyTb ppm
APRT-020	0	9	740	29	17	102	21
APRT-020	13	18	2257	14	9	102	17
APRT-021	0	15	724	31	18	107	23
APRT-022	0	14	764	25	19	130	19
APRT-022	17	25	629	27	20	105	17
APRT-024	0	15	696	24	22	135	17
APRT-025	0	3	890	27	19	148	23
APRT-028	0	8	743	24	21	139	18
APRT-031	4	8	700	23	20	124	16
APRT-032	0	15	1195	28	22	239	33
APRT-035	0	8	1067	23	19	182	24
APRT-040	0	9	795	25	20	140	20
APRT-042	0	15	590	30	20	102	18
APRT-048	10	15	733	26	19	120	18
APRT-051	0	15	880	26	19	152	18

Appendix 2. Total REE oxide distribution down-hole

HoleID	From (m)	To (m)	TREO ppm	% HREO ⁵	% MREO ⁶	NdPr ppm	DyTb ppm	Int. ppm TREO
APRT-019	0	1	440	25	19	73	11	
APRT-019	1	2	344	24	19	58	8	
APRT-019	2	3	328	21	20	57	7	
APRT-019	3	4	258	16	21	49	4	

² TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3

³ HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3

⁴ MREO (Magnetic Rare Earth Oxide) = Tb4O7 + Dy2O3 + Nd2O3 + Pr6O11

⁵ HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3

⁶ MREO (Magnetic Rare Earth Oxide) = Tb4O7 + Dy2O3 + Nd2O3 + Pr6O11

HoleID	From (m)	To (m)	TREO ppm	% HREO ⁵	% MREO ⁶	NdPr ppm	DyTb ppm	Int. ppm TREO
APRT-019	4	5	268	19	19	47	5	
APRT-019	5	6	247	15	19	43	4	
APRT-019	6	7	292	11	19	52	4	
APRT-019	7	8	304	14	19	54	5	
APRT-020	0	1	777	29	18	118	23	740
APRT-020	1	2	661	29	18	101	20	
APRT-020	2	3	738	30	17	101	22	
APRT-020	3	4	732	29	18	110	21	
APRT-020	4	5	552	29	18	83	16	
APRT-020	5	6	714	31	17	96	22	
APRT-020	6	7	931	24	15	117	23	
APRT-020	7	8	912	24	15	113	23	
APRT-020	8	9	645	32	16	79	22	
APRT-020	9	10	498	37	16	60	19	
APRT-020	10	11	359	40	16	44	15	
APRT-020	11	12	373	36	18	52	14	
APRT-020	12	13	401	32	16	50	14	
APRT-020	13	14	703	22	12	68	17	2257
APRT-020	14	15	511	26	17	73	14	
APRT-020	15	16	5480	3	2	102	20	
APRT-020	16	17	3120	6	5	140	18	
APRT-020	17	18	1470	11	10	129	18	
APRT-021	0	1	916	27	19	147	25	724
APRT-021	1	2	821	27	19	137	22	
APRT-021	2	3	819	28	19	130	23	
APRT-021	3	4	998	28	18	149	28	
APRT-021	4	5	802	30	18	116	25	
APRT-021	5	6	684	33	18	98	24	
APRT-021	6	7	794	31	18	115	27	
APRT-021	7	8	775	35	18	106	30	
APRT-021	8	9	789	32	18	115	27	
APRT-021	9	10	534	37	18	77	21	
APRT-021	10	11	669	29	16	89	21	
APRT-021	11	12	649	30	16	82	20	
APRT-021	12	13	505	35	18	71	19	
APRT-021	13	14	594	29	18	91	18	
APRT-021	14	15	504	32	19	81	17	
APRT-022	0	1	759	26	19	126	20	
APRT-022	1	2	539	24	20	93	13	
APRT-022	2	3	780	24	20	137	19	
APRT-022	3	4	849	25	20	149	21	

HoleID	From (m)	To (m)	TREO ppm	% HREO ⁵	% MREO ⁶	NdPr ppm	DyTb ppm	Int. ppm TREO
APRT-022	4	5	933	24	20	165	22	764
APRT-022	5	6	977	22	21	178	22	
APRT-022	6	7	916	23	21	168	21	
APRT-022	7	8	1081	21	21	203	24	
APRT-022	8	9	1045	22	20	183	24	
APRT-022	9	10	631	27	20	108	17	
APRT-022	10	11	591	26	18	93	16	
APRT-022	11	12	474	28	16	64	14	
APRT-022	12	13	586	25	16	78	15	
APRT-022	13	14	537	26	16	72	15	
APRT-022	14	15	379	31	17	53	12	
APRT-022	15	16	424	28	17	60	12	
APRT-022	16	17	450	27	19	71	13	
APRT-022	17	18	550	27	19	87	16	629
APRT-022	18	19	680	20	20	125	14	
APRT-022	19	20	549	27	22	103	16	
APRT-022	20	21	514	29	21	92	16	
APRT-022	21	22	497	29	20	83	15	
APRT-022	22	23	474	32	21	81	17	
APRT-022	23	24	898	20	15	112	19	
APRT-022	24	25	868	28	20	153	24	
APRT-024	0	1	617	28	19	100	18	696
APRT-024	1	2	668	26	20	118	17	
APRT-024	2	3	682	25	22	132	17	
APRT-024	3	4	801	26	22	156	21	
APRT-024	4	5	722	28	22	139	21	
APRT-024	5	6	711	30	22	138	22	
APRT-024	6	7	596	32	22	111	21	
APRT-024	7	8	577	30	23	115	18	
APRT-024	8	9	739	24	20	128	18	
APRT-024	9	10	675	25	21	128	17	
APRT-024	10	11	798	18	23	170	15	
APRT-024	11	12	700	19	22	139	13	
APRT-024	12	13	733	15	19	126	12	
APRT-024	13	14	614	19	22	126	12	
APRT-024	14	15	811	20	26	196	15	
APRT-025	0	1	982	26	19	163	24	890
APRT-025	1	2	971	28	19	160	26	
APRT-025	2	3	716	26	19	121	18	
APRT-028	0	1	937	22	21	175	20	
APRT-028	1	2	934	24	20	163	22	

HoleID	From (m)	To (m)	TREO ppm	% HREO ⁵	% MREO ⁶	NdPr ppm	DyTb ppm	Int. ppm TREO
APRT-028	2	3	873	25	20	153	22	743
APRT-028	3	4	803	26	21	150	21	
APRT-028	4	5	708	27	22	133	20	
APRT-028	5	6	631	25	22	122	15	
APRT-028	6	7	515	20	22	102	10	
APRT-028	7	8	546	20	23	115	11	
APRT-031	0	1	452	26	19	76	12	
APRT-031	1	2	405	24	20	73	10	
APRT-031	2	3	362	26	19	60	9	
APRT-031	3	4	351	25	20	60	9	
APRT-031	4	5	686	21	20	123	15	700
APRT-031	5	6	663	24	20	117	16	
APRT-031	6	7	820	23	20	149	18	
APRT-031	7	8	631	22	19	108	13	
APRT-032	0	1	881	23	19	150	19	1195
APRT-032	1	2	972	21	22	190	20	
APRT-032	2	3	903	27	20	158	24	
APRT-032	3	4	881	32	19	142	30	
APRT-032	4	5	719	36	19	110	27	
APRT-032	5	6	1039	27	20	179	29	
APRT-032	6	7	875	29	20	150	25	
APRT-032	7	8	1279	27	21	234	36	
APRT-032	8	9	1023	34	20	171	37	
APRT-032	9	10	979	36	20	162	37	
APRT-032	10	11	1299	27	22	257	35	
APRT-032	11	12	1734	24	26	414	40	
APRT-032	12	13	2444	25	28	613	60	
APRT-032	13	14	1760	21	26	428	36	
APRT-032	14	15	1131	28	23	227	34	
APRT-035	0	1	1029	21	18	168	22	1067
APRT-035	1	2	1071	21	18	173	22	
APRT-035	2	3	1099	20	19	191	22	
APRT-035	3	4	1291	19	21	245	25	
APRT-035	4	5	1125	22	20	203	25	
APRT-035	5	6	1235	22	19	211	28	
APRT-035	6	7	993	25	19	163	25	
APRT-035	7	8	691	30	19	106	22	
APRT-035	8	9	457	35	18	65	17	
APRT-035	9	10	360	41	19	52	16	
APRT-036	0	1	337	22	19	57	7	
APRT-036	1	2	309	22	19	53	7	

HoleID	From (m)	To (m)	TREO ppm	% HREO ⁵	% MREO ⁶	NdPr ppm	DyTb ppm	Int. ppm TREO
APRT-036	2	3	286	22	19	48	6	
APRT-036	3	4	292	22	19	50	6	
APRT-036	4	5	313	25	19	53	7	
APRT-036	5	6	275	31	19	43	8	
APRT-037	0	1	490	22	19	83	10	
APRT-037	1	2	453	21	19	77	9	
APRT-037	2	3	493	24	18	78	11	
APRT-037	3	4	514	24	18	78	12	
APRT-037	4	5	459	25	17	68	11	
APRT-037	5	6	401	27	17	57	10	
APRT-037	6	7	344	28	17	50	9	
APRT-037	7	8	442	24	18	68	10	
APRT-037	8	9	429	23	18	68	9	
APRT-038	0	1	229	26	19	37	5	
APRT-038	1	2	275	23	19	45	5	
APRT-038	2	3	258	20	19	46	5	
APRT-039	0	1	240	24	18	37	5	
APRT-039	1	2	234	23	18	38	5	
APRT-039	2	3	235	23	18	37	5	
APRT-039	3	4	183	19	19	31	3	
APRT-039	4	5	153	19	18	25	3	
APRT-040	0	1	695	28	20	121	19	795
APRT-040	1	2	883	29	20	151	25	
APRT-040	2	3	878	28	20	151	24	
APRT-040	3	4	851	26	21	153	22	
APRT-040	4	5	874	23	20	155	19	
APRT-040	5	6	601	29	20	103	17	
APRT-040	6	7	605	28	21	108	17	
APRT-040	7	8	786	21	20	138	17	
APRT-040	8	9	980	17	20	184	16	
APRT-042	0	1	598	29	21	107	18	590
APRT-042	1	2	533	31	20	90	16	
APRT-042	2	3	552	33	20	92	18	
APRT-042	3	4	678	29	21	119	19	
APRT-042	4	5	677	30	20	116	20	
APRT-042	5	6	628	29	21	111	18	
APRT-042	6	7	561	29	20	99	16	
APRT-042	7	8	618	28	21	111	17	
APRT-042	8	9	633	28	21	115	18	
APRT-042	9	10	588	29	20	104	17	
APRT-042	10	11	584	30	20	99	18	

HoleID	From (m)	To (m)	TREO ppm	% HREO ⁵	% MREO ⁶	NdPr ppm	DyTb ppm	Int. ppm TREO
APRT-042	11	12	605	31	20	102	19	
APRT-042	12	13	556	31	20	96	17	
APRT-042	13	14	499	33	20	81	17	
APRT-042	14	15	538	30	20	92	17	
APRT-048	0	1	377	40	17	48	16	
APRT-048	1	2	358	40	16	42	15	
APRT-048	2	3	341	43	15	36	15	
APRT-048	3	4	398	40	16	46	17	
APRT-048	4	5	360	47	16	39	17	
APRT-048	5	6	412	42	16	47	18	
APRT-048	6	7	398	41	16	48	17	
APRT-048	7	8	399	34	16	50	14	
APRT-048	8	9	371	37	18	50	14	
APRT-048	9	10	389	37	17	51	15	
APRT-048	10	11	515	36	18	73	19	733
APRT-048	11	12	698	27	18	109	20	
APRT-048	12	13	917	20	15	121	18	
APRT-048	13	14	750	23	21	143	17	
APRT-048	14	15	786	23	22	152	18	
APRT-049	0	1	398	39	17	50	15	
APRT-049	1	2	409	39	16	51	16	
APRT-049	2	3	438	39	16	55	17	
APRT-049	3	4	367	35	16	46	13	
APRT-049	4	5	443	37	16	54	16	
APRT-049	5	6	431	37	16	53	16	
APRT-049	6	7	406	37	16	49	15	
APRT-049	7	8	411	35	16	52	14	
APRT-049	8	9	399	36	16	48	14	
APRT-049	9	10	405	35	16	50	14	
APRT-049	10	11	370	39	16	44	14	
APRT-049	11	12	380	38	16	46	14	
APRT-049	13	14	406	36	16	51	14	
APRT-051	0	1	674	27	19	109	18	880
APRT-051	1	2	653	26	19	109	16	
APRT-051	2	3	613	31	18	90	18	
APRT-051	3	4	602	29	18	89	16	
APRT-051	4	5	670	26	19	113	17	
APRT-051	5	6	519	31	19	83	15	
APRT-051	6	7	505	30	20	85	14	
APRT-051	7	8	676	24	21	125	15	
APRT-051	8	9	757	24	21	142	17	

HoleID	From (m)	To (m)	TREO ppm	% HREO ⁵	% MREO ⁶	NdPr ppm	DyTb ppm	Int. ppm TREO
APRT-051	9	10	1357	16	22	274	19	
APRT-051	10	11	3659	9	19	663	31	
APRT-051	11	12	569	34	16	73	19	
APRT-051	12	13	627	28	18	95	17	
APRT-051	13	14	740	24	20	129	18	
APRT-051	14	15	583	28	19	94	17	

Appendix 3. Auger drill-hole locations

Hole ID	East	North	RL (m)	Depth	Azimuth	Dip	Tenement
APRT-019	220046	9220304	210	8	0	-90	880.077/2023
APRT-020	220270	9220138	211	18	0	-90	880.077/2023
APRT-021	220048	9219943	208	15	0	-90	880.077/2023
APRT-022	219863	9220136	207	25	0	-90	880.077/2023
APRT-024	222270	9220179	192	15	0	-90	880.077/2023
APRT-025	218709	9221145	204	3	0	-90	880.077/2023
APRT-028	221052	9221141	196	8	0	-90	880.077/2023
APRT-031	220258	9220346	213	8	0	-90	880.077/2023
APRT-032	221048	9220339	210	15	0	-90	880.077/2023
APRT-035	220244	9219551	203	10	0	-90	880.077/2023
APRT-036	220967	9219660	205	6	0	-90	880.077/2023
APRT-037	218647	9218744	193	9	0	-90	880.077/2023
APRT-038	219414	9218719	196	3	0	-90	880.077/2023
APRT-039	220264	9218746	200	5	0	-90	880.077/2023
APRT-040	220919	9218777	188	9	0	-90	880.077/2023
APRT-042	221843	9220347	183	15	0	-90	880.077/2023
APRT-048	222628	9218777	183	15	0	-90	880.077/2023
APRT-049	222654	9217953	172	14	0	-90	880.077/2023
APRT-051	221076	9217931	191	15	0	-90	880.077/2023

References

² Brazilian Critical Minerals (ASX:BCM) ASX Announcement "New Discovery at Apui ENE REE Project Exceptional REE values with up to 2,757 ppm TREO, including 594 ppm Nd Pr on 27.11.23

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	<ul style="list-style-type: none"> 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 submarine nodules) may warrant disclosure of detailed information. 	<ul style="list-style-type: none"> 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 2 kg sent to SGS for analysis and a similar amount stored. 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.
Drilling Techniques	<ul style="list-style-type: none"> 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- 	<ul style="list-style-type: none"> Auger drilling was completed by a hand held-mechanical auger with a 3” auger bit. The drilling is 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.

Item	JORC code explanation	Comments
	<p>sampling bit or other type. whether core is oriented and if so. by what method. etc).</p>	
Drill Sample Recovery	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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.
Sub-Sampling Techniques and Sampling Procedures	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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#

Item	JORC code explanation	Comments																									
	<p>in-situ material collected. including for instance results for field duplicate/second-half sampling.</p> <ul style="list-style-type: none"> Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> The <3mm rejects and the 250-300 grams pulverised sample were returned to BCM for storage. 																									
<p>Quality of Assay Data and Laboratory Tests</p>	<ul style="list-style-type: none"> 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. 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 	<ul style="list-style-type: none"> 1 blank sample, 1 certified reference material (standard) sample and 1 field duplicate sample were inserted by BCM into each 25-sample sequence. Standard laboratory QA/QC procedures were followed, including inclusion of standard, duplicate and blank samples. The assay results of the standards fall within acceptable tolerance limits and no material bias is evident. 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: <table border="1" data-bbox="895 1308 1423 1491"> <tbody> <tr> <td>Ba</td> <td>Ce</td> <td>Cr</td> <td>Cs</td> <td>Dy</td> </tr> <tr> <td>Gd</td> <td>Hf</td> <td>Ho</td> <td>La</td> <td>Lu</td> </tr> <tr> <td>Rb</td> <td>Sm</td> <td>Sn</td> <td>Sr</td> <td>Ta</td> </tr> <tr> <td>U</td> <td>V</td> <td>W</td> <td>Y</td> <td>Yb</td> </tr> <tr> <td>Cu</td> <td>Ni</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> <ul style="list-style-type: none"> The SGS laboratory used for the RRE assays is ISO 9001 and 14001 and 17025 accredited. Analytical standard for REE ITAK-705 was used as CRM material in the batches sent to SGS. The assay results for the standards were consistent with the certified levels of accuracy and precision and no bias is evident. 	Ba	Ce	Cr	Cs	Dy	Gd	Hf	Ho	La	Lu	Rb	Sm	Sn	Sr	Ta	U	V	W	Y	Yb	Cu	Ni			
Ba	Ce	Cr	Cs	Dy																							
Gd	Hf	Ho	La	Lu																							
Rb	Sm	Sn	Sr	Ta																							
U	V	W	Y	Yb																							
Cu	Ni																										

Item	JORC code explanation	Comments
		<ul style="list-style-type: none"> The blanks used contain some REE, with critical elements Ce, Nd, Dy and Y present in small quantities. 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. Laboratory inserted standards, blanks and duplicates were analysed as per industry standard practice. There is no evidence of bias from these results.
Verification of Sampling and Assaying	<ul style="list-style-type: none"> 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. Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> 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. Analytical results for REE were supplied digitally, directly from the SGS laboratory in Vespasiano to the 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. 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).

Item	JORC code explanation	Comments		
		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
		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
		<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+Tb+Lu+Y</p>		

Item	JORC code explanation	Comments
		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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Auger holes were over 200m to 800m apart, designed for testing iREE mineralisation over the mapped Proterozoic sediments with contribution of tuffs and volcano clasts. • 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	<ul style="list-style-type: none"> • 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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material. 	<ul style="list-style-type: none"> • 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.
Sample security	<ul style="list-style-type: none"> • The measures taken to ensure sample security. 	<ul style="list-style-type: none"> • 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.

Item	JORC code explanation	Comments
Audit or Reviews	<ul style="list-style-type: none">The results of any audits or reviews of sampling techniques and data.	<ul style="list-style-type: none">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 Results

Criteria	JORC code explanation	Commentary
Mineral Tenement and Land Tenure Status	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The Apui ENE 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	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> No exploration by other parties has been conducted in the region.
Geology	<ul style="list-style-type: none"> Deposit type. geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The REE mineralisation at Apui is contained within the tropical lateritic weathering profile developed on top of sediments. 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	<ul style="list-style-type: none"> 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"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar 	<ul style="list-style-type: none"> Auger locations and diagrams are presented in this announcement. Details are tabulated in the announcement.

Criteria	JORC code explanation	Commentary
	<ul style="list-style-type: none"> • 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	<ul style="list-style-type: none"> • 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. 	<ul style="list-style-type: none"> • Weighted averages were calculated for all intercepts. • 500ppm TREO cut-off grade was applied to define the relevant intersections. • No metal equivalent values reported.
Relationship between mineralization widths and intercepted lengths	<ul style="list-style-type: none"> • 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'). 	<ul style="list-style-type: none"> • Significant values of 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	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Maps and tables of the auger holes location and target location are inserted.
Balanced reporting	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Relevant REE mineralisation with grades higher than 500ppm TREO in auger holes was reported.
Other substantive exploration data	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> No other significant exploration data has been acquired by the Company.
Further Work	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Follow up with deep drilling Metallurgical leaching tests on the REE rich sediments