Apuí project
Significant REEs identified in reconnaissance auger holes
Additional applications submitted

BBX Minerals Limited (ASX: BBX) ("BBX" or the "Company") is pleased to announce that initial reconnaissance auger drilling for rare earth elements (REEs) conducted on its three new leases within the Apuí region in Brazil has reported significant Total Rare Oxide (TREO[1]) values (Table 1). The Apuí REE project comprises 7 tenements (Figure 2), encompassing an area of 51,104 hectares.

Highlights

- **Auger holes confirm the presence of REE from surface to end of hole in the entire unit characterised by a distinctive ternary radiometric signature**
- **Clear enrichment in Heavy Rare Earth Oxides with depth**
- **Applications submitted for two additional tenements over areas of preserved regolith with favourable radiometric signature 25km ENE of Apui**

Significant results:

- APTR 001: 12 meters **@ 606 ppm TREO** from surface
- APTR 002: 12 meters **@ 714 ppm TREO** from surface
- APTR 004: 9 meters **@ 815 ppm TREO** from surface, including 4m @ **930 ppm TREO** from 5 meters

The obtained values demonstrate the persistence of REEs in the regolith with a clear enrichment in HREO with depth in holes APTR 001, 002, 004 and 010 (see Appendix 1), with grades obtained compatible with typical ionic REE (iREE) deposits, such as Makuutu in Uganda All auger holes were terminated, due to intersection of the water table or hard ironstone, in REE mineralisation with grades higher than 200 ppm TREO-CeO2.

The auger holes were over 1 km apart, strategically conducted to validate the presence of RREs within the regolith in the target areas with a specific radiometric signature. The total tested area of these radiometric targets is 92.39 km^2, 39% of the total area with the ternary radiometric signature (Figure 1). The specific ternary radiometric signature, distinct from that of the surrounding rocks, is similar to that observed at Makuutu, a surface signature characteristic of the zones enriched in REEs.

It is important to note that these results validate the presence of REEs in the entire regolith with local enrichment of REEs at depth. However, they may not necessarily provide an accurate representation of the potential grade of the underlying lateritic profile due to the limitation on testing deeper zones where enrichment of REEs often occurs, particularly in relation to the higher-value heavy rare earth oxides (HREOs). In addition, due to the broad spacing of these reconnaissance holes, the highest-grade zones may not have been tested.

The auger results combined with the soil sampling results (see media release of August 7, 2023) and the distinctive radiometric ternary signature demonstrate the potential to define a world class REE deposit within the large Apui project area.

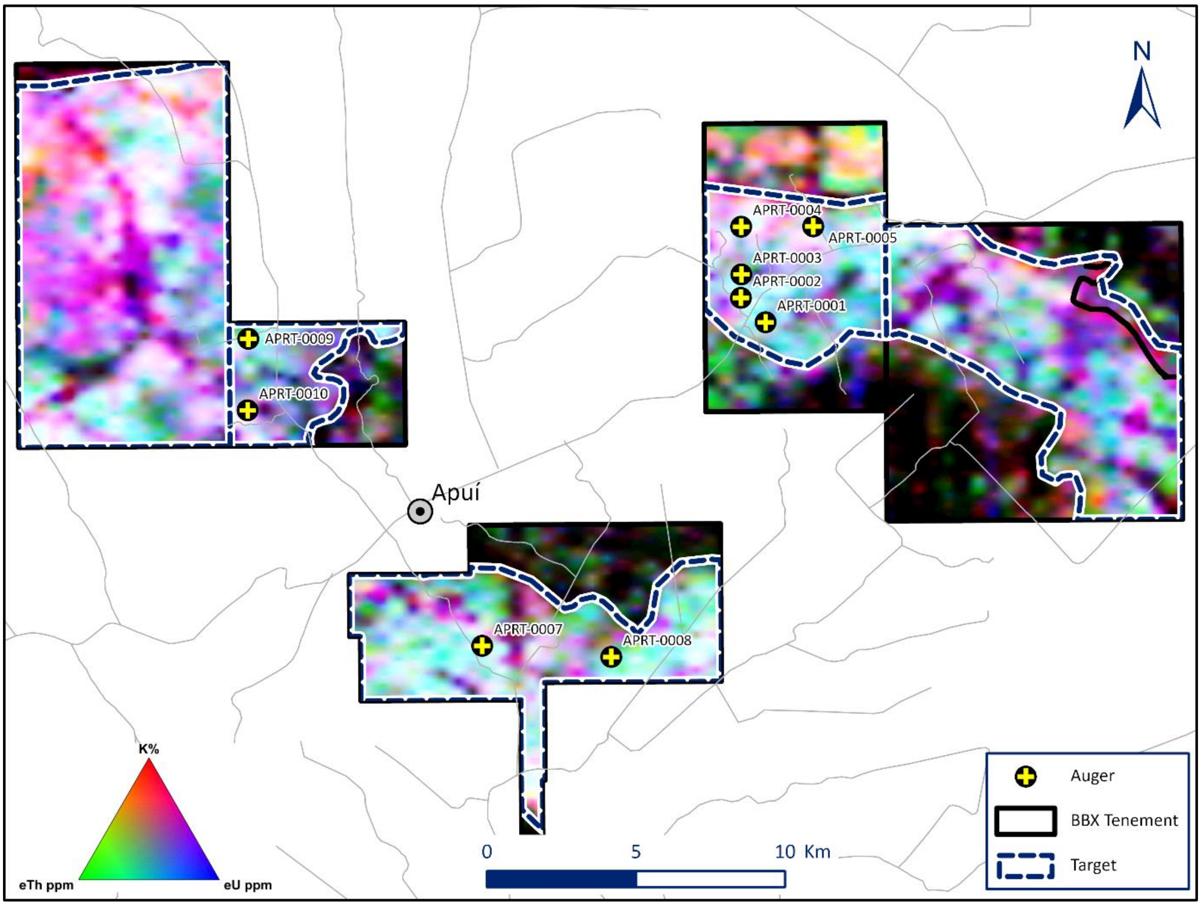
[1] TREO = $La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Lu_2O_3 + Y_2O_3$

Andre J Douchane, CEO, commented: *"While the new Apui discoveries have tremendous potential, the geological team remains focused on the Ema discovery where there have been higher grade intercepts. BBX has allocated nearly 90% of its assets toward developing a JORC resource at Ema – hopefully by first quarter 2024.*

The report from CETEM estimating the Ema REE recovery is scheduled to be completed in the coming weeks. This report together with estimated plant operating costs from our engineers should help the team pinpoint an approximate economic cut-off grade.

Work also continues on the PGM bioleach process where pilot plant testing has progressed much faster than we thought. We expect to publish a full report in the next several weeks."

Figure 1 - BBX's Projects with regional auger holes



To further investigate the REE distribution within the weathered zone to assist in identifying the highest-grade zones, the programme of broad-spaced auger drilling will continue. This drilling campaign aims to obtain a more detailed understanding of the REE profile and potential enrichment within the weathered zone as well as the potential areal extent of high-grade mineralisation to define zones for detailed drilling, including sonic drilling, for an MRE.

The results suggest the potential for an enrichment process within the regolith profile following a similar pattern to that observed at Ema, located 30 kilometres to the south (see media release of May 22, 2023).

Table 1: Apuí auger hole intersections from surface to E.O.H

Auger holes	Target	Depth (m)	TREO ppm	MREO ppm	% MREO	HREO ppm	% HREO
APRT001	01	12	606	138	23	126	21
APRT002	01	12	714	165	23	169	24
APRT003	01	3	654	146	22	148	23
APRT004	01	9	815	178	22	176	22
APRT005	01	5	652	148	23	112	17
APRT007	02	3	517	118	23	108	21
APRT008	02	5	577	138	24	114	20
APRT009	03	6	522	122	23	115	22
APRT010	03	9	549	118	21	133	24

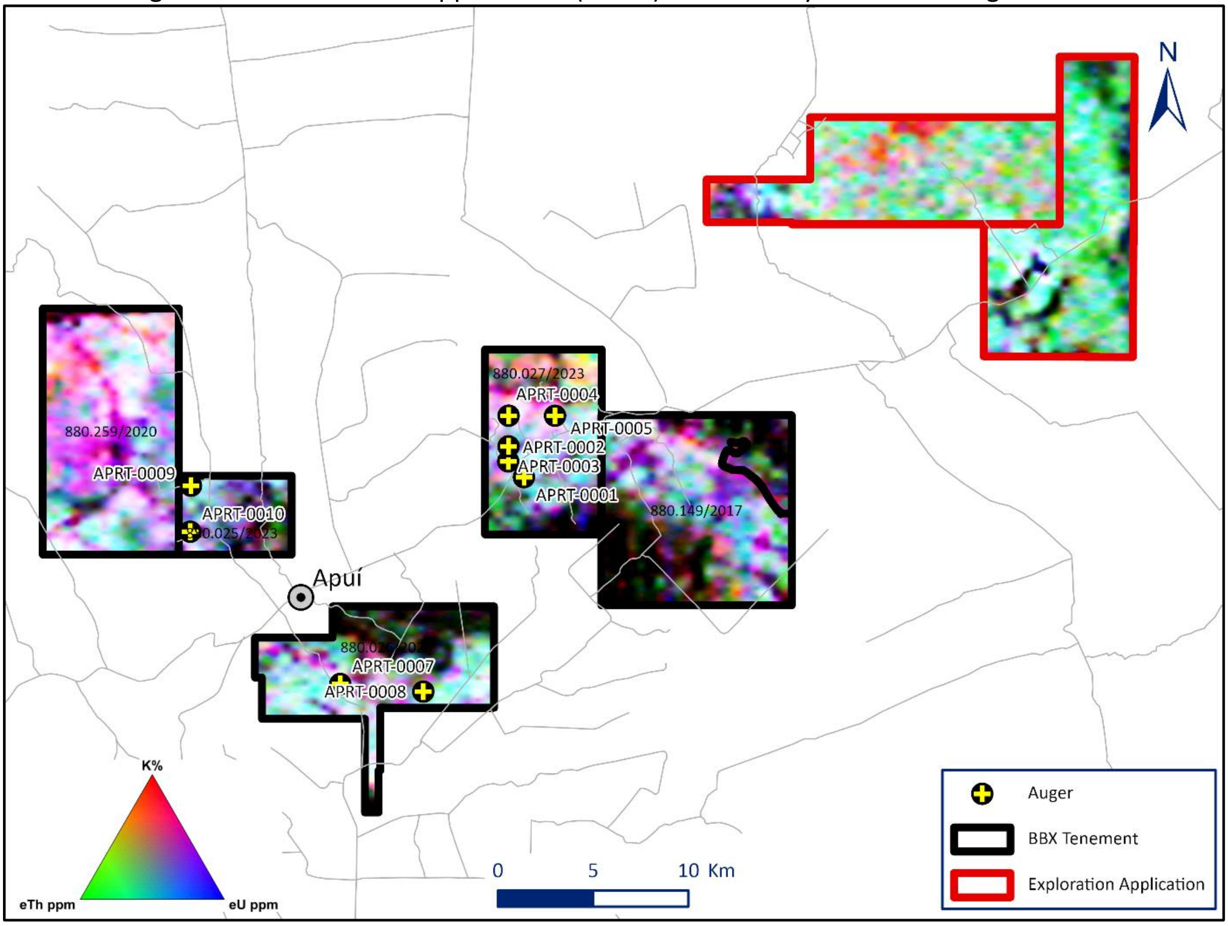
The geochemical signature of the regolith tested in targets 1, 2 and 3 (Table 1), formed on top of a protolith primarily composed of sediments, as at Makuutu, differs from that observed at Ema (see media release of May 22, 2023), developed over a predominantly rhyolite protolith, similar to the ionic adsorbed clay deposits found in China. These rhyolite-associated deposits typically exhibit a higher proportion of Praseodymium (Pr) and Neodymium (Nd).

Given the significant REE results at the Ema and Apui REE projects, BBX considers that its existing tenements and surrounding areas within the Apui region provide potential for further low-cost exploration opportunities to add to the Company's existing PGM resource at Três Estados.

New applications

BBX has submitted applications for two new tenements covering an area of preserved lateritic profile with favourable ternary radiometric signature (see Figure 2), further expanding its significant strategic tenement holding in the Apui region. Auger drill testing will be initiated immediately the tenements are granted.

Figure 2. New tenement applications (in red) over ternary radiometric signature



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

For more information:

André Douchane
Chief Executive Officer
adouchane@bbxmineralscom

About BBX Minerals Ltd

BBX Minerals Limited 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 BBX 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. BBX'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 419 km² of granted exploration tenements within the Colider Group and adjacent sediments, a prospective geological environment for gold, PGM, base metal and iREE deposits.

BBX 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. BBX 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 BBX´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.

CREA/RJ:02526-6D
AusIMM:230624

Appendices

Appendix 1. Total REE oxide distribution down-hole

HoleID	From	To	TREO ppm	MREO ppm	HREO ppm	LREO ppm	CREO ppm
APRT-0001	0.00	1.00	523	117	114	410	153
APRT-0001	1.00	2.00	462	103	98	364	134
APRT-0001	2.00	3.00	377	84	73	304	104
APRT-0001	3.00	4.00	511	115	95	416	140
APRT-0001	4.00	5.00	567	126	121	446	165
APRT-0001	5,00	6,00	664	146	136	528	187
APRT-0001	6.00	7.00	756	174	153	603	217
APRT-0001	7.00	8.00	737	170	150	587	213
APRT-0001	8.00	9.00	653	148	150	503	199
APRT-0001	9.00	10.00	694	160	146	547	204
APRT-0001	10.00	11.00	669	150	137	532	191
APRT-0001	11.00	12.00	659	156	141	518	198
APRT-0002	0.00	1.00	634	142	145	490	192
APRT-0002	1.00	2.00	574	128	123	451	168
APRT-0002	2.00	3.00	539	121	119	420	162
APRT-0002	3.00	4.00	751	167	179	571	234
APRT-0002	4.00	5.00	885	207	216	669	285
APRT-0002	5.00	6.00	828	195	202	626	270
APRT-0002	6.00	7.00	791	181	188	603	248
APRT-0002	7.00	8.00	779	175	183	596	243
APRT-0002	8.00	9.00	625	139	135	490	183
APRT-0002	9.00	10.00	604	142	145	459	191
APRT-0002	10.00	11.00	839	224	212	627	285
APRT-0002	11.00	12.00	717	158	183	534	229
APRT-0003	0.00	1.00	700	156	159	541	209
APRT-0003	1.00	2.00	732	163	166	566	217
APRT-0003	2.00	3.00	530	119	121	409	159
APRT-0004	0.00	1.00	717	155	144	573	198
APRT-0004	1.00	2.00	762	171	151	611	216
APRT-0004	2.00	3.00	751	167	148	603	210
APRT-0004	3.00	4.00	803	181	114	689	194
APRT-0004	4.00	5.00	585	130	101	485	152
APRT-0004	5.00	6.00	765	168	147	619	208
APRT-0004	6.00	7.00	884	195	183	701	251
APRT-0004	7.00	8.00	957	199	240	717	300
APRT-0004	8.00	9.00	1113	236	353	760	405
APRT-0005	0.00	1.00	703	159	122	581	184
APRT-0005	1.00	2.00	739	168	129	611	194

HoleID	From	To	TREO ppm	MREO ppm	HREO ppm	LREO ppm	CREO ppm
APRT-0005	2.00	3.00	706	160	121	586	184
APRT-0005	3.00	4.00	583	133	98	484	153
APRT-0005	4.00	5.00	528	121	91	437	139
APRT-0007	0.00	1.00	517	116	107	410	149
APRT-0007	1.00	2.00	512	117	108	404	149
APRT-0007	2.00	3.00	521	120	109	413	152
APRT-0008	0.00	1.00	793	190	154	639	223
APRT-0008	1.00	2.00	804	192	157	647	227
APRT-0008	2.00	3.00	542	130	107	435	154
APRT-0008	3.00	4.00	350	83	70	280	101
APRT-0008	4.00	5.00	398	95	79	319	114
APRT-0009	0.00	1.00	445	104	98	348	135
APRT-0009	1,00	2,00	562	130	120	442	166
APRT-0009	2.00	3.00	607	140	132	475	180
APRT-0009	3.00	4.00	595	140	128	467	177
APRT-0009	4.00	5.00	544	128	119	426	162
APRT-0009	5.00	6.00	379	89	90	288	119
APRT-0010	0.00	1.00	472	103	105	367	141
APRT-0010	1.00	2.00	518	114	111	407	153
APRT-0010	2.00	3.00	599	127	139	460	182
APRT-0010	3.00	4.00	564	124	128	436	171
APRT-0010	4.00	5.00	510	116	114	396	157
APRT-0010	5.00	6.00	508	107	120	388	154
APRT-0010	6.00	7.00	660	134	185	475	224
APRT-0010	7.00	8.00	556	122	148	408	189
APRT-0010	8.00	9.00	555	113	149	406	183

Appendix 2. REE oxide assay results in auger drilling

HOLEID	FROM	TO	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb4O7 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	TREO ppm
APRT-0001	0	1	104.5	199.7	23.6	81.6	14.4	5.8	12.5	1.9	10.4	1.9	5.7	0.8	5.7	0.9	56.6	526
APRT-0001	1	2	95.5	176.2	20.8	72	12.5	4.9	10.1	1.6	8.9	1.6	4.8	0.7	4.9	0.8	49.2	465
APRT-0001	2	3	81.4	146.7	17.3	58.7	10	3.7	7.8	1.1	6.9	1.2	3.7	0.5	3.6	0.5	35.5	379
APRT-0001	3	4	109.8	201	23.3	81.5	13.9	4.4	11.4	1.7	8.7	1.6	4.4	0.7	4.3	0.7	45.1	513
APRT-0001	4	5	116	216.8	25.2	87.8	15.5	6	13.7	2.1	11.2	2	5.9	0.8	5.8	0.8	60.1	570
APRT-0001	5	6	137.5	258.6	29.8	102.2	18.1	6.5	15.9	2.3	11.9	2.2	6.4	0.9	6	0.9	67.3	666
APRT-0001	6	7	151.9	294.2	35	122.1	20.6	6.9	20.2	2.9	14.4	2.6	6.8	0.9	5.7	0.8	73.4	758
APRT-0001	7	8	147.1	286.6	34.3	118.7	20.1	7.2	18	2.6	14.2	2.5	7.1	0.9	6	0.9	73.7	740
APRT-0001	8	9	124.8	245.6	29.4	103	18.7	7.8	15.7	2.4	13.2	2.5	7.7	1.1	7.4	1.1	76.4	657
APRT-0001	9	10	137.8	265.5	31.9	112.2	18.8	7	17.3	2.4	13	2.4	6.9	1	6.7	0.9	72.8	697
APRT-0001	10	11	135.1	261.2	30.1	105.4	18.2	6.5	16.2	2.4	12.4	2.2	6.4	0.9	6	0.9	67.5	671
APRT-0001	11	12	125.7	251.8	29.9	110.5	19	6.6	17.7	2.6	13.2	2.3	6.6	0.9	6	0.9	67.4	661
APRT-0002	0	1	122.3	241	27.9	98.6	17	7.4	15.2	2.4	13.2	2.4	7.3	1	7.2	1.1	74.4	638
APRT-0002	1	2	113.5	222.5	25.6	89.1	15.2	5.7	13.6	2	11.1	2	5.6	0.9	6	0.9	62.8	577
APRT-0002	2	3	103.7	207.6	24	84.2	14.1	5.6	12.7	1.9	10.7	1.9	5.6	0.8	5.8	0.9	61.8	541
APRT-0002	3	4	142.6	280	32.7	116.1	19.6	9	19	2.8	15.6	3	8.9	1.2	8.2	1.2	96	756
APRT-0002	4	5	156.6	324.8	44.9	142.5	24.6	10.3	22.2	3.2	16.4	3.3	10.1	1.5	10	1.4	118.6	890
APRT-0002	5	6	145.4	305	36.7	139.2	23.5	10	21.2	3	16.4	3.3	9.9	1.4	9.7	1.5	107.4	834
APRT-0002	6	7	144	296.9	35.1	127.1	22.5	9.4	19.9	2.8	15.8	3	9.3	1.4	9.3	1.4	98.5	796
APRT-0002	7	8	143.4	295.1	34	123.5	21.6	9.2	19.6	2.8	15.1	2.9	9.1	1.3	8.2	1.2	97.3	784
APRT-0002	8	9	120.6	244.3	27.6	97.6	16.7	7.2	14.5	2.2	11.9	2.2	7.1	0.9	6.4	1	68.4	629
APRT-0002	9	10	109.9	223.2	26.9	99.1	17.7	7.4	17.5	2.5	13.1	2.5	7.3	1	6.6	1	72.6	608
APRT-0002	10	11	133.3	298.1	41.2	154.2	25.7	10.3	29.9	4.6	23.9	4.1	10.2	1.3	9	1.2	97.4	844
APRT-0002	11	12	131.1	266.1	29.9	106.7	18.1	9.7	18.8	3.2	17.8	3.4	9.6	1.3	8.3	1.2	97.9	723
APRT-0003	0	1	132.6	270.6	30.2	107.5	19.2	7.4	17.9	2.7	15.2	2.7	7.3	1.1	8.1	1.1	79.5	703

HOLEID	FROM	TO	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb4O7 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	TREO ppm
APRT-0003	1	2	141.3	280.6	31.9	111.9	19.6	8.4	19	2.8	16.6	2.9	8.3	1.1	8.2	1.3	82.1	736
APRT-0003	2	3	103	201.8	23.1	81.2	14.5	5.9	13.4	2	12.3	2.1	5.8	0.8	6	0.9	60.4	533
APRT-0004	0	1	144.5	289	31.5	107.7	18.9	6.8	16.6	2.5	13.6	2.4	6.8	1	6.5	1	71	720
APRT-0004	1	2	149.4	307.5	34.2	120.4	19.1	6.9	18.4	2.7	14.1	2.6	6.8	0.9	6.8	1	74.6	765
APRT-0004	2	3	148.6	303.7	33.5	117.1	19.1	7.1	17.5	2.7	13.7	2.5	7	1	6.8	1	73.2	755
APRT-0004	3	4	172.8	347.6	37.5	131.1	21.3	5	16.9	2.3	10.2	1.6	4.9	0.7	4.6	0.7	46.8	804
APRT-0004	4	5	123.3	242.5	26.9	92	15.2	4.8	13	1.9	9.3	1.6	4.8	0.7	4.6	0.7	46.1	587
APRT-0004	5	6	154.5	313	34	117.5	19.5	7.1	17.8	2.6	13.6	2.5	7	0.9	6.7	1.1	71.1	769
APRT-0004	6	7	169.8	356	38.7	136.1	23.2	8.5	22.7	3.3	17.3	3	8.4	1.2	8	1.2	90	887
APRT-0004	7	8	168.8	374.5	38	135.9	23.2	11.9	23.9	3.7	21.6	4.5	11.8	1.4	9.5	1.3	134.5	964
APRT-0004	8	9	165.2	395.9	41.8	157.1	29.2	19.1	32	5.2	32.3	6.9	18.9	2.2	13.7	2	204.7	1126
APRT-0005	0	1	146.5	289.8	32.4	112.1	19.2	5.3	17.6	2.5	12.3	1.9	5.2	0.7	5	0.9	53.3	705
APRT-0005	1	2	155.7	302.7	33.8	118.3	19.8	5.3	18.6	2.6	12.8	2	5.3	0.8	5.5	0.8	57	741
APRT-0005	2	3	147.8	292.2	32.6	113	18.8	5.1	17.3	2.5	12.3	1.8	5	0.7	5.4	0.8	52.5	708
APRT-0005	3	4	123.4	239	27.2	94.7	15.7	4.3	13.5	2	9.6	1.5	4.3	0.6	4.4	0.6	43.3	584
APRT-0005	4	5	111.1	215.6	25	85.8	14.3	4.2	12.3	1.7	8.9	1.4	4.2	0.6	4.3	0.6	39.6	530
APRT-0007	0	1	103.7	201.3	23.3	81.3	13.5	5.4	11.9	1.8	10.1	1.8	5.4	0.8	5.4	0.8	53.2	520
APRT-0007	1	2	103.2	195.3	23.4	82.2	15	5.4	12.2	2.1	9.8	1.9	5.3	0.8	5.2	0.8	52	515
APRT-0007	2	3	105.4	199.6	23.3	84.2	14.3	5.4	12.4	2.1	10.5	1.9	5.3	0.8	5.4	0.8	52.6	524
APRT-0008	0	1	156.5	311	36.8	134.3	24.4	6.7	23.6	3.8	15.3	2.5	6.6	0.9	6.8	1.1	64.4	795
APRT-0008	1	2	159.9	314.8	36.4	135.8	24.2	6.9	24.3	3.8	15.7	2.5	6.8	0.9	6.7	1.1	66.1	806
APRT-0008	2	3	110.5	208.5	25	91.4	16.1	4.7	15.4	2.6	10.9	1.8	4.6	0.7	5	0.8	45.6	544
APRT-0008	3	4	76	129.1	16	58.4	9.9	3.4	9	1.7	7.2	1.2	3.3	0.4	3.4	0.5	31.5	351
APRT-0008	4	5	84.4	149.3	18.6	66.3	11.6	3.6	10.2	1.9	8.3	1.4	3.5	0.5	3.8	0.6	34.9	399
APRT-0009	0	1	87.6	166.9	19.7	73.4	12.2	5.1	10.2	1.9	9.3	1.8	5	0.7	5.5	0.8	47.9	448
APRT-0009	1	2	110.9	214.2	25	91.6	15.4	6.2	13.1	2.3	11.5	2.1	6.1	0.9	6.6	1	57.7	565

HOLEID	FROM	TO	La2O3 ppm	CeO2 ppm	Pr6O11 ppm	Nd2O3 ppm	Sm2O3 ppm	Eu2O3 ppm	Gd2O3 ppm	Tb4O7 ppm	Dy2O3 ppm	Ho2O3 ppm	Er2O3 ppm	Tm2O3 ppm	Yb2O3 ppm	Lu2O3 ppm	Y2O3 ppm	TREO ppm
APRT-0009	2	3	119.2	230.7	26.8	98	16.9	6.6	15.3	2.5	12.5	2.3	6.5	1	6.9	1	64	610
APRT-0009	3	4	115.1	227.3	26.9	98	17.2	6.4	14.9	2.5	12.4	2.3	6.4	0.9	6.7	1.1	60.5	599
APRT-0009	4	5	106	206	24.5	89.1	15.1	6	14.4	2.4	11.5	2.2	5.9	0.9	6.1	1	56.3	547
APRT-0009	5	6	72.9	136.8	16.8	61.7	11.2	4.5	9.9	1.8	8.6	1.6	4.5	0.7	4.8	0.7	44.3	381
APRT-0010	0	1	97.7	177.1	20.2	72.1	12.3	5.1	10.3	1.8	9.2	1.7	5	0.8	5.5	0.8	55.3	475
APRT-0010	1	2	105.4	198.5	22.5	80.4	13.1	5.6	11.4	2	9.2	1.9	5.5	0.8	5.6	0.8	58.6	521
APRT-0010	2	3	117.7	228.7	24.8	88.6	14.8	6.5	13.9	2.4	11.5	2.1	6.4	0.9	6.3	0.9	76.3	602
APRT-0010	3	4	107.8	217.2	23.7	87	14.7	6	13.6	2.4	11.2	2.2	5.9	0.9	5.7	0.8	67.4	566
APRT-0010	4	5	95	196.5	22.8	81.5	13.1	5.3	11.9	2.1	10.1	1.9	5.3	0.7	5.2	0.8	60.2	512
APRT-0010	5	6	99.6	193.7	20.8	73.6	13	5.6	11.6	2.1	10	2	5.6	0.8	5.5	0.8	66	511
APRT-0010	6	7	116.2	242.1	25.5	90.9	15.7	8.6	15.6	2.8	15.1	3.3	8.5	1.1	6.6	1	112	665
APRT-0010	7	8	97.5	202.2	23.3	84.6	14.5	6.8	12.5	2.3	11.9	2.4	6.7	0.9	5.9	0.8	87.5	560
APRT-0010	8	9	101.6	205.8	21.4	77	13	7.1	12.2	2.2	11.9	2.5	7.1	1	6.4	0.9	89	559

Appendix 3. Auger drill-hole location

HoleID	East	North	RL(m)	Depth	Azimuth	Dip	Tenement
APRT-0001	193326.68	9210164.50	157.70	12	0	-90	880.027/2023
APRT-0002	192499.04	9210981.08	151.39	12	0	-90	880.027/2023
APRT-0003	192513.42	9211767.65	156.83	3	0	-90	880.027/2023
APRT-0004	192506.21	9213368.79	130.89	9	0	-90	880.027/2023
APRT-0005	194925.44	9213379.08	170.31	5	0	-90	880.027/2023
APRT-0007	183818.23	9199310.74	139.36	3	0	-90	880.026/2023
APRT-0008	188148.32	9198937.05	180.36	5	0	-90	880.026/2023
APRT-0009	175972.36	9209611.00	133.87	6	0	-90	880.025/2023
APRT-0010	175947.00	9207209.23	102.88	9	0	-90	880.025/2023

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 submarine nodules) may warrant disclosure of detailed information.	• Exploration results are based on auger drilling conducted by BBX´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 BBX 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	• 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	• 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.

Item	JORC code explanation	Comments
	tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	
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 BBX 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	• 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.	• Auger sampling procedure is completed in the exploration shed in Apui. • Thye entire the 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 2kg to go to SGS and another 2kg 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#.

<table>
<tr><th>Item</th><th>JORC code explanation</th><th>Comments</th></tr>
<tr><td></td><td>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>The <3mm rejects and the 250-300 grams pulverised sample were returned to BBX for storage.</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.
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.</td><td>1 blank sample, 1 certified reference material (standard) sample and 1 field duplicate sample were inserted by BBX into each 25sample 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>
<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>
</table>The sample preparation and assay techniques used are industry standard and provide total analysis.
The SGS laboratory used for the RRE assays is ISO 9001 and 14001 and 17025 accredited.</td></tr>
</table>

Item	JORC code explanation	Comments
		• 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. • 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	• 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.	• 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 BBX´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

<table>
<tr><th>Item</th><th>JORC code explanation</th><th>Comments</th></tr>
<tr><td></td><td></td><td>
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://wwwjcueduau/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>12284</td><td>CeO2</td></tr>
<tr><td>Dy</td><td>11477</td><td>Dy2O3</td></tr>
<tr><td>Er</td><td>11435</td><td>Er2O3</td></tr>
<tr><td>Eu</td><td>11579</td><td>Eu2O3</td></tr>
<tr><td>Gd</td><td>11526</td><td>Gd2O3</td></tr>
<tr><td>Ho</td><td>11455</td><td>Ho2O3</td></tr>
<tr><td>La</td><td>11728</td><td>La2O3</td></tr>
<tr><td>Lu</td><td>11371</td><td>Lu2O3</td></tr>
<tr><td>Nd</td><td>11664</td><td>Nd2O3</td></tr>
<tr><td>Pr</td><td>12082</td><td>Pr6O11</td></tr>
<tr><td>Sm</td><td>11596</td><td>Sm2O3</td></tr>
<tr><td>Tb</td><td>11762</td><td>Tb4O7</td></tr>
<tr><td>Tm</td><td>11421</td><td>Tm2O3</td></tr>
<tr><td>Y</td><td>12699</td><td>Y2O3</td></tr>
<tr><td>Yb</td><td>11387</td><td>Yb2O3</td></tr>
</table>
</td></tr>
</table>

Item	JORC code explanation	Comments
		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) = La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 + Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Y_2O_3 + Lu_2O_3 LREO (Light Rare Earth Oxide) = La_2O_3 + CeO_2 + Pr_6O_{11} + Nd_2O_3 HREO (Heavy Rare Earth Oxide) = Sm_2O_3 + Eu_2O_3 + Gd_2O_3 + Tb_4O_7 + Dy_2O_3 + Ho_2O_3 + Er_2O_3 + Tm_2O_3 + Yb_2O_3 + Y_2O_3 + Lu_2O_3 CREO (Critical Rare Earth Oxide) = Nd_2O_3 + Eu_2O_3 + Tb_4O_7 + Dy_2O_3 + Y_2O_3 (From US Department of Energy, Critical Material Strategy, December 2011) MREO (Magnetic Rare Earth Oxide) = Nd_2O_3 + Pr_6O_{11} + Tb_4O_7 + Dy_2O_3 NdPr = Nd_2O_3 + Pr_6O_{11} 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.	• 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.

Item	JORC code explanation	Comments
	• Specification of the grid system used. • Quality and adequacy of topographic control.	
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 1km apart, designed for reconnaissance testing of the identified targets. • The data spacing and distribution is sufficient to establish the level of REE elements present in the target areas and its continuity along the regolith profile. • 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 mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.	• The location and depth of the sampling is appropriate for the deposit type. • Relevant REE values are compatible with the Makuutu, Uganda exploration model. • No relationship between mineralisation and drilling orientation is known at this stage.
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 Results

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 Apuí leases are 100% owned by BBX 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 Apuí is contained within the tropical lateritic weathering profile developed on top of sediments as per the Makuutu iREE deposit in Uganda. • 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 (eg 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 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 from collar to end of hole. • No cut-off grade was applied. • No metal equivalent values reported.
Relationship between mineralization 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 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 soil auger holes 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.	• Relevant REE mineralisation in auger holes is reported pending confirmation of IAC (Ionic Adsorbed Clay) type mineralisation
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.	• Step out the auger drill in the Apuí project to test for enriched REE zones in the regolith developed on top of the sediments. • Refine the main targets amenable to auger drill testing for enriched REE zones, using detailed topography and radiometry as a subsidiary exploration tool. • Composite samples will be tested for their ionic clay potential based on the procedures applied for the Makuutu deposit.