EMA assay results confirm continuous and extensive REE mineralisation

BBX Minerals Limited (**ASX: BBX**) ("**BBX**" or the "**Company**") is pleased to announce assay results for the 25 remaining drill holes from its 2017 and 2021 drilling programmes at the Ema Project in Brazil. Multi-element assays were conducted at independent laboratory SGS, aiming to evaluate the rare earth element (**REE**) enrichment level in the lateritic regolith.

21 holes reported significant Total Rare Oxide (TREO[1]) values, with the intersection selection based on values above 200ppm of TREO-CeO2 (Appendix 5), with values above 600ppm (Appendix 1) reported in 16 holes, including 2m @ 2,354 ppm TREO in EMD-024.

Results show good continuity of higher grade mineralisation (>600ppm TREO) along the cross-section from EMD-002 to EMD-006 (Appendix 3), with holes spaced approximately 100m apart.

Highlights:

- EMD018**: 14.0m @ 623** ppm TREO[2] from 2.0 metres including 5.3m @ **837** ppm TREO, located 200m south of EMD017 (positive ammonium sulphate leach test for iREE**)**
- EMD001**: 30.0m @ 414** ppm TREO from surface including 2.0m **@ 841** ppm TREO
- EMD002: **24.0m @ 407** ppm TREO from 2.0 metres including 4.0m @ **800** ppm TREO
- EMD004: **28.0m @ 508** ppm TREO from 2.0 metres including 10.0m @ **707** ppm TREO
- EMD005: **24.0m @ 526** ppm TREO from 4.0 metres including 4.0m @ **627** ppm TREO
- EMD006: **10.0m @ 544** ppm TREO from 6.0 metres including 4.0m @ **716** ppm TREO
- EMD008: **8.0m @ 642** ppm TREO from 4.0 metres including 4.0m @ **745** ppm TREO
- EMD020: **12.0m @ 402** ppm TREO from 2.0 metres including 4.6m @ **692** ppm TREO
- EMRC001**: 12.0m @ 558** ppm TREO from 4.0 metres including 2.0m **@ 1026** ppm TREO
- EMRC010: **16.0m @ 348** ppm TREO from surface including 2.0m @ **637** ppm TREO

These results reflect the significant REE potential at Ema and the adjacent Ema East tenement for areas with TREO grades exceeding 600ppm, with positive 2% ammonium sulphate leach assays in EMD-017 (see media release of July 19, 2023) confirming the presence of ionic absorbed REEs. Ongoing evaluation of the REE potential at Ema/Ema East involves relatively quick and low-cost reconnaissance auger drilling on an 800m grid. Three auger drills are currently operating with a fourth planned to start within two weeks.

Andre J Douchane, CEO, commented: *"These final diamond drill holes from the original Ema exploration programme continue to show good values in the oxidised surface material over quite a large area. We're very excited to see the continued consistency and continuity. We are continuing to expand our auger drilling programme in an effort to define an REE deposit as quickly as we can. Samples are being sent to SGS for assay on a regular basis so that the results can be announced in a few weeks. Turnaround time from SGS continues to be about 6 weeks."*

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

[1] TREO = La2O3 + CeO2 +Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu 2O3 + Y2O3
[2] TREO = La2O3 + CeO2 +Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Lu 2O3 + Y2O3

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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 PGM, gold and ionic absorbed clay rare earth (REE) deposits. BBX's key assets are the Três Estados and Ema precious metal projects and the Ema and Apui REE projects. The company has 419.1km² of exploration tenements within the Colider Group, a prospective geological environment for gold, PGM, base metal and REE deposits.

BBX is also developing an environment-compatible and sustainable beneficiation process that extracts 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.

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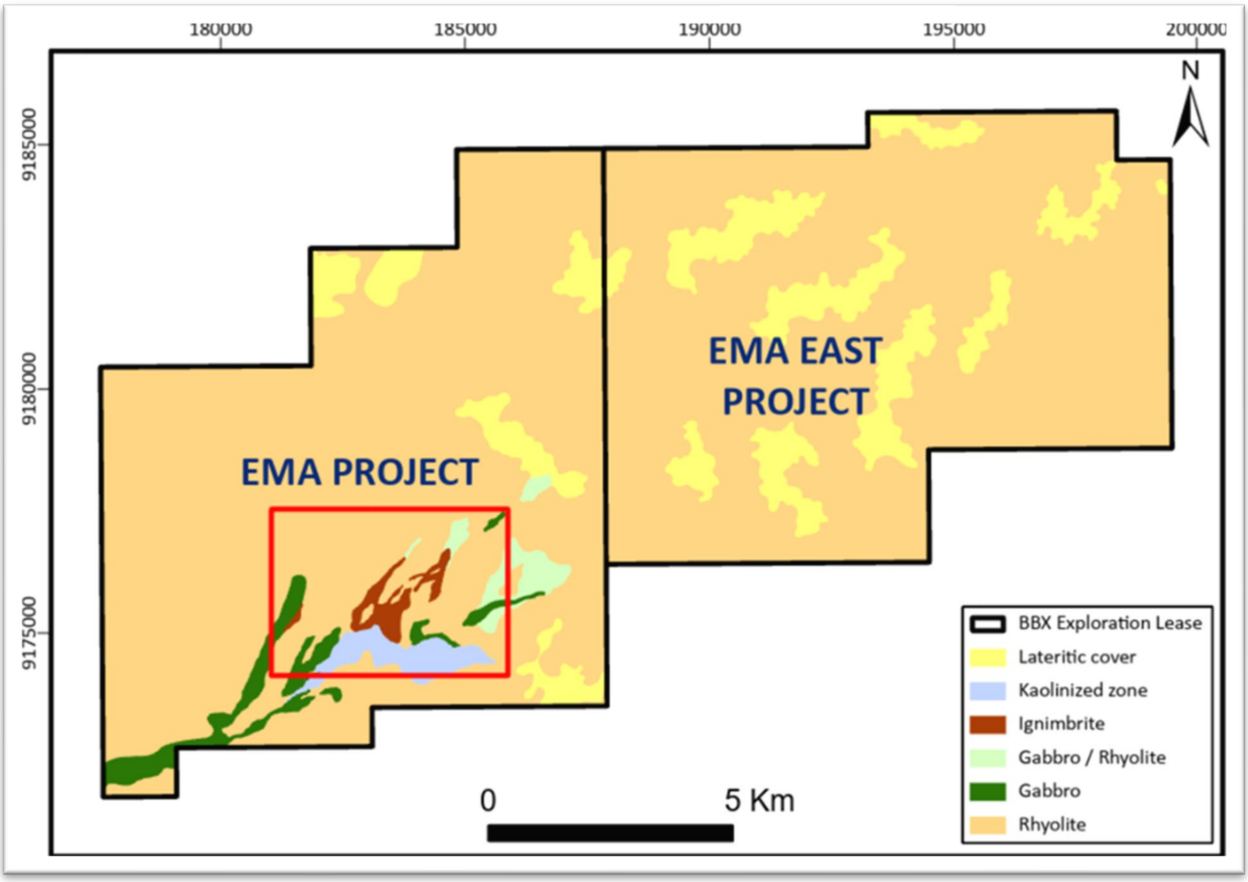
AusIMM:230624

Appendices

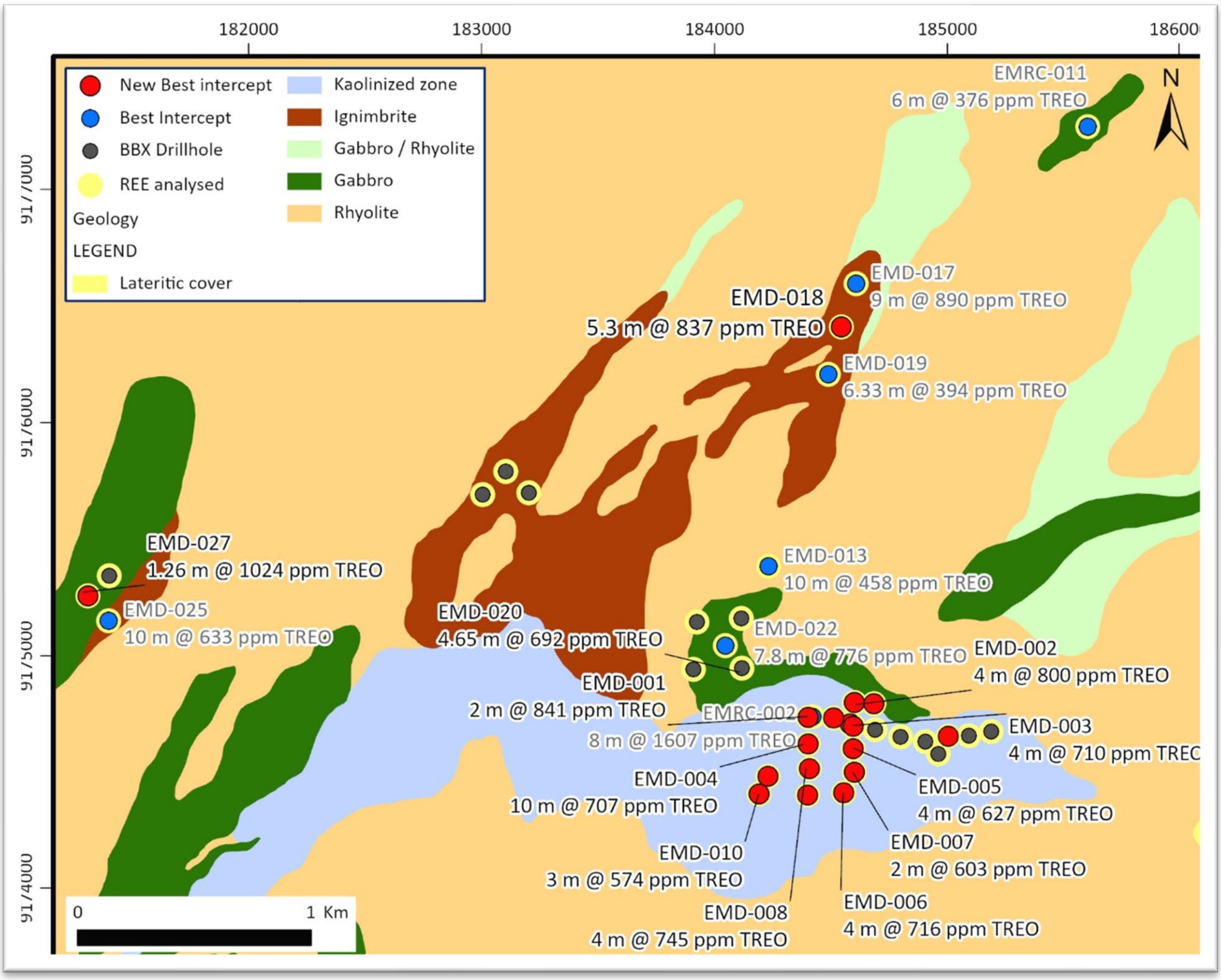
Appendix 1: EMA project drilling results above 600ppm TREO

Hole ID	Depth From (meters)	Length (meters)	TREO ppm	MREO ppm	MREO as % TREO
EMD-001	16.00	2.00	841	62	7
EMD-002	12.00	4.00	800	187	23
EMD-003	20.00	4.00	710	228	32
EMD-004	4.00	10.00	707	219	31
EMD-005	14.00	4.00	627	174	28
EMD-006	8.00	4.00	716	205	29
EMD-007	16.00	2.00	603	138	23
EMD-008	6.00	4.00	745	208	28
EMD-010	17.00	3.00	574	162	28
EMD-018	6.7	5.3	837	256	30
EMD-020	8.00	4.65	692	289	42
EMD-023	22.00	4.00	618	228	37
EMD-024	22.00	2.00	2354	757	32
EMD-027	17.00	1.26	1024	272	27
EMRC-001	14.00	2.00	1026	263	26
EMRC-007	18.00	2.00	668	315	47
EMRC-010	4.00	2.00	637	144	23

Appendix 2: Ema and Ema East REE project geology



Appendix 3: Ema drill collar locations



Appendix 4: Drillhole Locations

Hole ID	East	North	RL (m)	Azimuth	DIP	Depth (m)	Tenement	Method
EMD001	184401.00	9174736.00	222.00	0	-90	120.00	880.107/2008	DD
EMD002	184603,00	9174800,00	212,00	0	-90	100,50	880.107/2008	DD
EMD003	184595,00	9174698,00	240,00	0	-90	120,00	880.107/2008	DD
EMD004	184403,00	9174625,00	192,00	0	-90	81,00	880.107/2008	DD
EMD005	184596,00	9174602,00	214,00	0	-90	93,00	880.107/2008	DD
EMD006	184557,00	9174410,00	167,00	0	-90	55,50	880.107/2008	DD
EMD007	184582,00	9174497,00	167,00	0	-90	75,00	880.107/2008	DD
EMD008	184408,00	9174509,00	178,00	0	-90	65,54	880.107/2008	DD
EMD009	184400,00	9174400,00	157,00	0	-90	55,50	880.107/2008	DD
EMD010	184190,00	9174406,00	136,00	0	-90	40,00	880.107/2008	DD
EMD011	184229,00	9174481,00	155,00	0	-90	60,00	880.107/2008	DD
EMD-018	184543.00	9176409.00	141.00	0	-90	51.08	880.107/2008	DD
EMD-020	184118.00	9174948.00	210.00	0	-90	70.20	880.107/2008	DD
EMD-021	183910.00	9174943.00	152.00	0	-90	51.44	880.107/2008	DD
EMD-023	184116.00	9175161.00	161.00	0	-90	81.44	880.107/2008	DD
EMD-024	183924.00	9175146.00	217.00	0	-90	55.26	880.107/2008	DD
EMD-027	181311.00	9175258.00	181.00	0	-90	71.00	880.107/2008	DD
EMRC001	184511,00	9174734,00	211,00	0	-90	36,00	880.107/2008	RC
EMRC003	184583,00	9174708,00	244,00	0	-90	42,00	880.107/2008	RC
EMRC004	184688,00	9174683,00	239,00	0	-90	40,00	880.107/2008	RC
EMRC005	184797,00	9174652,00	243,00	0	-90	40,00	880.107/2008	RC
EMRC006	184906,00	9174631,00	244,00	0	-90	18,00	880.107/2008	RC
EMRC007	185004,00	9174655,00	247,00	0	-90	40,00	880.107/2008	RC
EMRC008	185094,00	9174657,00	264,00	0	-90	32,00	880.107/2008	RC
EMRC010	184683,00	9174794,00	213,00	0	-90	38,00	880.107/2008	RC

Appendix 5: REE oxide assay results with highlights above 200ppm TREO-CeO2

HOLEID	FROM	TO	La^2O^3 ppm	CeO^2 ppm	Pr^6O^{11} ppm	Nd^2O^3 ppm	Sm^2O^3 ppm	Eu^2O^3 ppm	Gd^2O^3 ppm	Tb^4O^7 ppm	Dy^2O^3 ppm	Ho^2O^3 ppm	Er^2O^3 ppm	Tm^2O^3 ppm	Yb^2O^3 ppm	Lu^2O^3 ppm	Y^2O^3 ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-001	0	2	135.7	421.8	31.7	92.8	12.1	1.5	8	0.8	3.7	0.7	1.5	0.4	2.5	0.4	17.8	731	Soil		
EMD-001	2	4	42.5	69.3	9.4	28.6	4.3	5.5	5.2	1	7.1	1.7	5.5	0.9	7.5	1.1	55.1	245	Soil		
EMD-001	4	6	26	65.8	5.4	17.7	3.6	4.1	3.5	0.7	4.9	1.2	4.1	0.8	6	0.9	39.9	185	Soil		
EMD-001	6	8	42.7	87.7	8.9	28.5	5.2	4.3	4.5	0.8	5.3	1.4	4.3	0.8	5.7	0.8	42.1	243	Saprolite		
EMD-001	8	10	65.9	132.9	14.1	45.5	7.9	4.1	5.7	0.9	5.8	1.4	4.1	0.8	5.8	0.9	43.5	339	Saprolite		
EMD-001	10	12	78.5	184.4	16.8	53.3	9.5	4.6	6.6	1	6.3	1.5	4.5	0.8	6	0.8	45.4	420	Saprolite		
EMD-001	12	14	60.6	176.6	12.7	40.9	7.2	3.6	5.5	0.8	5.1	1.1	3.6	0.6	5.1	0.7	36.9	361	Saprolite		
EMD-001	14	16	53.7	274.5	11.3	35.7	6.7	3.9	5.3	0.9	5.6	1.3	3.9	0.7	5.5	0.8	41	451	Saprolite	**30**	**414**
EMD-001	16	18	63.1	647	13.3	42.1	7.5	4	5.7	0.9	5.7	1.3	4	0.7	5.7	0.8	39.2	841	Saprolite		
EMD-001	18	20	76.5	202.1	16.5	50.4	8.3	4.7	6.7	1.1	6.8	1.5	4.6	0.8	6.3	0.8	51.5	439	Saprolite		
EMD-001	20	22	71.3	152.3	15.7	45	8.2	4.6	6.3	0.9	6.6	1.3	4.5	0.7	5.6	0.7	43.9	368	Saprolite		
EMD-001	22	24	65.2	257.3	14.9	46.2	7.8	4.2	7	0.9	6.4	1.4	4.2	0.7	5.4	0.8	44.2	467	Saprolite		
EMD-001	24	26	65.8	138.1	15.4	42.3	7.8	4.3	5.8	0.8	5.5	1.4	4.2	0.7	5.4	0.7	40.5	339	Saprolite		
EMD-001	26	28	73.9	176	17.1	50.7	8.9	4.2	7.1	1	6.3	1.2	4.1	0.7	5	0.7	36.1	393	Saprolite		
EMD-001	28	30	83.4	157.5	19.3	58.1	9.4	3	5.9	0.7	4.9	0.9	3	0.5	3.9	0.5	30.4	381	Saprolite		
EMD-002	0	2	54.7	178.1	11.2	33.1	4.5	1.3	3.5	0.5	2.6	0.4	1.3	0.2	1.7	0.2	9.9	303	Soil		
EMD-002	2	4	107.7	165	16.5	49.5	6.7	1.1	5.5	0.6	3	0.5	1.1	0.2	1	0.2	9	368	Soil		
EMD-002	4	6	18.3	50.5	2.8	8.3	1.7	1	1.6	0.3	1.5	0.3	1	0.1	1.5	0.2	10.6	100	Soil		
EMD-002	6	8	37.4	71.4	6.9	20.2	3.6	3.8	3.9	0.7	4.8	1	3.7	0.7	5.5	0.8	36	200	Saprolite		
EMD-002	8	10	44.3	131.3	11.2	33.7	7.4	4.1	6.6	1	6.8	1.4	4	0.8	5	0.8	40.1	299	Saprolite		
EMD-002	10	12	65.4	152.4	17.5	61.1	13.5	10.4	14.9	2.3	15.7	3.5	10.3	1.5	11.2	1.6	111.2	493	Saprolite	**24**	**407**
EMD-002	12	14	103.6	162.8	27.7	101.5	25.2	27.8	38.2	5.9	40.4	8.8	27.4	3.9	24.4	3.6	291.6	893	Saprolite		
EMD-002	14	16	84	190.9	41.6	131.2	15.4	13.5	21.8	3.4	21.4	5.2	13.3	2	13	1.9	148.5	707	Weathered rock		
EMD-002	16	18	76	126.6	19.1	62.4	12.6	10.9	15.1	2.4	15.3	3.4	10.8	1.5	10.6	1.6	115	483	Weathered rock		

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HOLEID	FROM	TO	$La^{2}O^{3}$ ppm	CeO^{2} ppm	$Pr^{6}O^{11}$ ppm	$Nd^{2}O^{3}$ ppm	$Sm^{2}O^{3}$ ppm	$Eu^{2}O^{3}$ ppm	$Gd^{2}O^{3}$ ppm	$Tb^{4}O^{7}$ ppm	$Dy^{2}O^{3}$ ppm	$Ho^{2}O^{3}$ ppm	$Er^{2}O^{3}$ ppm	$Tm^{2}O^{3}$ ppm	$Yb^{2}O^{3}$ ppm	$Lu^{2}O^{3}$ ppm	$Y^{2}O^{3}$ ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-002	18	20	56.6	127.8	13.5	43	8.7	7.7	10.7	1.8	11.6	2.3	7.6	1.1	8	1.2	80.9	383	Weathered rock		
EMD-002	20	22	61.2	115.5	13.5	40.6	7.5	4.7	6.2	1	6.4	1.5	4.6	0.7	5.2	0.8	40.9	310	Weathered rock		
EMD-002	22	24	67	120.3	15.5	47.6	8.8	4.2	7.1	1	6.1	1.3	4.2	0.6	4.9	0.7	41.9	331	Weathered rock		
EMD-002	24	26	57	105.8	12.3	39.5	7.2	6	7.4	1.2	8.2	1.8	5.9	0.9	6.7	1.1	60	321	Weathered rock		
EMD-003	0	2	116	144.6	13.3	35.9	5	1.7	3.4	0.4	2.5	0.5	1.7	0.2	1.6	0.3	11.8	339	Soil		
EMD-003	2	4	59.7	79	7.5	22.4	3.8	1.3	2.8	0.3	1.9	0.3	1.2	0.2	1.6	0.2	10.9	193	Soil		
EMD-003	4	6	26.6	47	3	9.1	1.3	0.9	1.3	0.2	1.4	0.2	0.9	0.1	1.1	0.1	6.4	100	Soil		
EMD-003	6	8	20.1	49.4	2	5.5	0.9	0.7	0.9	0.1	0.9	0.2	0.7	0.1	0.7	0.1	5.5	88	Soil		
EMD-003	8	10	23	371.8	2.4	6.2	0.9	0.7	1.4	0.2	0.8	0.2	0.7	0.1	0.9	0.1	6	415	Soil		
EMD-003	10	12	19.6	460.3	2.2	5.9	0.8	0.6	1.1	0.1	1.3	0.2	0.6	0.1	0.7	0.1	5.5	499	Soil		
EMD-003	12	14	24.9	229.2	2.8	7.3	1.2	0.7	1.1	0.1	1.1	0.2	0.7	0.1	0.8	0.2	5.1	276	Soil		
EMD-003	14	16	66.3	52.9	7.9	20.6	2.1	0.7	1.9	0.3	1.2	0.2	0.7	0.1	0.8	0.1	5.5	161	Soil		
EMD-003	16	18	99.3	153.4	13.7	28.1	2.8	1.1	2.8	0.3	1.8	0.3	1.1	0.1	0.9	0.1	6.3	312	Saprolite		
EMD-003	18	20	73.7	70.6	10	23.2	2.8	0.8	1.9	0.2	1.5	0.2	0.8	0.1	0.9	0.1	6.2	193	Saprolite		
EMD-003	20	22	327.6	75.5	60.7	140.7	11.9	1.6	8.7	0.8	4	0.6	1.5	0.2	1.4	0.2	16	651	Saprolite	**4**	**710**
EMD-003	22	24	288.3	127.3	65.1	172.4	21.6	5.7	16.4	1.8	9.8	1.8	5.6	0.7	5	0.7	46.8	769	Saprolite		
EMD-004	0	2	39.2	163.6	8.5	25	6.1	4.4	5.2	0.9	5.3	1.3	4.3	0.6	5.1	0.7	37.5	308	Soil		
EMD-004	2	4	77.6	205.3	17.4	52.7	8.2	4.1	6.1	0.9	6.1	1.2	4.1	0.7	5.2	0.8	40.5	431	Soil	**28**	**508**
EMD-004	4	6	172.6	186.5	40	122.4	18	5	9.9	1.2	7.7	1.4	5	0.7	5.5	0.9	45.3	622	Soil		
EMD-004	6	8	217.7	157.7	50.1	148	21.9	5.7	12.1	1.4	7.9	1.7	5.6	0.9	6.4	1	55.9	694	Soil		
EMD-004	8	10	241.6	147.4	56.4	171.6	28.1	6.4	15.7	1.8	10.2	2	6.4	0.9	7.4	1.1	62.3	759	Soil		
EMD-004	10	12	226.6	168.8	51.7	157.8	25.9	7.3	16.8	2	10.7	2	7.2	1.1	7.9	1.2	63.4	750	Soil		
EMD-004	12	14	127	197.8	58.4	179.9	19.1	7.3	17	2	13.2	3.4	7.2	1.1	8	1.2	67	710	Soil		
EMD-004	14	16	99.2	156.5	24.8	77.7	15.1	8.3	13.3	1.9	12.4	2.7	8.2	1.3	9.3	1.4	79.2	511	Soil		
EMD-004	16	18	89.5	150.6	21.8	71	12.4	8.3	13.6	2	12.9	2.7	8.2	1.3	9.7	1.4	82	487	Soil		
EMD-004	18	20	73.5	131.4	18.5	54.6	10.6	7.1	10.2	1.6	11.1	2.1	7	1.1	8.3	1.3	68.1	407	Soil		

HOLEID	FROM	TO	La^2O^3 ppm	CeO^2 ppm	Pr^6O^{11} ppm	Nd^2O^3 ppm	Sm^2O^3 ppm	Eu^2O^3 ppm	Gd^2O^3 ppm	Tb^4O^7 ppm	Dy^2O^3 ppm	Ho^2O^3 ppm	Er^2O^3 ppm	Tm^2O^3 ppm	Yb^2O^3 ppm	Lu^2O^3 ppm	Y^2O^3 ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-004	20	22	64.6	118.7	15.4	48.4	10	8.3	9.6	1.7	11.2	2.3	8.2	1.2	8.5	1.3	79.2	389	Soil		
EMD-004	22	24	64.3	125.2	14.8	46.2	8.6	6.7	8.7	1.4	9.6	2	6.6	1	7.1	1.1	62.5	366	Soil		
EMD-004	24	26	65	143	15.8	46.9	8.8	5.4	7.8	1.1	8.8	1.6	5.3	0.9	6.4	1	50.8	369	Soil		
EMD-004	26	28	53.7	114.2	12.7	41.4	7.7	4.7	7.2	1	6.3	1.4	4.6	0.7	4.9	0.7	42.7	304	Soil		
EMD-004	28	30	51.8	112.2	13.4	41.2	8.8	5	7.4	1.2	7.4	1.5	5	0.8	6.4	0.8	51.5	314	Soil		
EMD-005	0	2	21.3	84	2.9	7.7	2	3.2	2.6	0.5	4.4	1	3.2	0.5	4.1	0.6	30.2	168	Saprolite		
EMD-005	2	4	23.9	76.7	3.6	10.6	2.2	4.2	3.4	0.7	5.8	1.3	4.2	0.7	5.5	0.8	39.8	183	Saprolite		
EMD-005	4	6	29.2	100.2	5.1	15.5	3.2	4.5	3.8	0.7	5.8	1.3	4.4	0.7	5.6	0.8	43	224	Saprolite		
EMD-005	6	8	47	216.1	36.8	109.1	4.9	4.5	7.7	1	8.7	2.5	4.4	0.8	5.6	0.8	49.3	499	Saprolite	**24**	**526**
EMD-005	8	10	92.2	213	20	60.9	10.3	4.8	7.1	1.1	6.6	1.4	4.7	0.8	5.8	0.8	49.1	479	Saprolite		
EMD-005	10	12	121.6	207.1	27.4	82	13.8	5.3	8.4	1.1	7.2	1.7	5.2	0.8	6.3	0.9	55.2	544	Saprolite		
EMD-005	12	14	134.8	203.1	31	94.6	15	5.4	9.2	1.2	7.8	1.6	5.3	0.8	6	1	59.6	576	Saprolite		
EMD-005	14	16	129.8	205.1	38.6	114.4	16.8	5.9	11.4	1.5	9.4	1.9	5.8	0.9	6.9	1	62.3	612	Saprolite		
EMD-005	16	18	121.4	211.2	41.4	129.2	16	7	13.7	1.7	11.5	2.8	6.9	1	7.6	1.2	69.3	642	Saprolite		
EMD-005	18	20	98.4	156.5	24.6	78	14	6.7	10.2	1.5	10.2	2	6.6	1	7.3	1.1	66.5	485	Saprolite		
EMD-005	20	22	79.2	191.6	20.5	63.9	11.8	6.5	9.4	1.5	9.6	2.1	6.4	1	6.9	1	65.5	477	Saprolite		
EMD-005	22	24	83	129.4	21.5	68	13.9	7.4	10.7	1.7	11.3	2.3	7.3	1.1	8	1.3	75.4	442	Saprolite		
EMD-005	24	26	81.9	126.8	21.6	70.7	13.6	9.7	13.8	2.1	14.5	2.9	9.5	1.4	10	1.6	91.3	471	Saprolite		
EMD-005	26	28	87.7	118.5	22.4	73.7	16.6	11.1	15.5	2.6	17.1	3.3	11	1.6	11.5	1.9	106.6	501	Saprolite		
EMD-005	28	30	97.1	134.1	23.5	75	18.3	14.8	20.1	3.2	21.2	4.3	14.6	2.1	15.1	2.4	138.2	584	Saprolite		
EMD-006	0	2	18.9	104.2	4	11.5	2.6	4.5	3.6	0.7	5.6	1.2	4.5	0.7	5.4	0.8	42.9	211	Soil		
EMD-006	2	4	35.8	161.2	8.1	22.9	4.3	4.3	4.5	0.9	6.4	1.4	4.2	0.7	5.6	0.8	44.8	306	Soil		
EMD-006	4	6	48	141.1	10.2	31.5	5.8	4.5	4.9	0.8	5.5	1.3	4.5	0.7	5.2	0.9	42.2	307	Soil		
EMD-006	6	8	101.7	139.4	24.4	72.4	12.2	5.8	8.3	1.2	8.1	1.6	5.7	0.9	6.9	1	57.3	447	Soil	**10**	**544**
EMD-006	8	10	189.8	135.9	46.7	140.1	23.4	9.7	15.3	2.1	13.3	2.8	9.6	1.5	10.9	1.9	88.1	691	Soil		
EMD-006	10	12	196.6	133.3	46.8	142.5	26.3	11.6	19.2	2.8	16.3	3.5	11.5	1.8	13.8	2.3	113.1	741	Soil		

HOLEID	FROM	TO	$La^{2}O^{3}$ ppm	CeO^{2} ppm	$Pr^{6}O^{11}$ ppm	$Nd^{2}O^{3}$ ppm	$Sm^{2}O^{3}$ ppm	$Eu^{2}O^{3}$ ppm	$Gd^{2}O^{3}$ ppm	$Tb^{4}O^{7}$ ppm	$Dy^{2}O^{3}$ ppm	$Ho^{2}O^{3}$ ppm	$Er^{2}O^{3}$ ppm	$Tm^{2}O^{3}$ ppm	$Yb^{2}O^{3}$ ppm	$Lu^{2}O^{3}$ ppm	$Y^{2}O^{3}$ ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-006	12	14	129.8	111.8	30.8	93.3	17.4	9	13.1	2.1	12.6	2.7	8.9	1.5	10.6	1.7	88.4	534	Soil		
EMD-006	14	16	59.7	103.6	13.6	36.6	7.5	4.8	6.1	1.1	6.8	1.5	4.8	0.8	6.3	0.9	50.4	305	Soil		
EMD-006	16	17	46.1	89.6	10	29.5	5.8	4.5	5.2	0.9	6.2	1.3	4.4	0.7	5.5	0.9	46.3	257	Weathered rock		
EMD-006	17	18	46	91.5	9.9	29.4	5.9	4.3	5.3	0.8	6.5	1.4	4.2	0.7	5.6	0.9	44.6	257	Weathered rock		
EMD-006	18	19	49.7	99.6	10.7	32.2	6	4.6	5.4	1	5.8	1.3	4.5	0.7	5.6	0.8	43.7	272	Weathered rock		
EMD-006	19	20	39.5	99.6	14.9	41.3	5.1	3.9	5.9	0.7	5.7	1.1	3.8	0.7	5.1	0.7	40.6	269	Fresh rock		
EMD-006	20	21	17	78.9	3.1	7.7	1.9	3.1	2.6	0.6	4.1	0.8	3.1	0.5	4.1	0.6	30.8	159	Fresh rock		
EMD-007	0	2	39.4	77.9	8.6	24.6	4.9	4.1	4.5	0.7	4.9	1.1	4.1	0.7	4.7	0.7	38.4	219	Saprolite		
EMD-007	2	4	23.9	129.1	4.5	12.5	2.1	3	2.9	0.5	3.9	0.9	2.9	0.5	3.9	0.5	28.4	220	Saprolite		
EMD-007	4	6	26.4	141.8	5.5	15.6	2.9	2.8	2	0.4	3.1	0.7	2.8	0.5	3.8	0.6	25.6	235	Saprolite		
EMD-007	6	8	36.5	143.8	7	18.9	3.9	2.8	3.3	0.5	3.5	0.8	2.8	0.5	3.8	0.6	27	256	Saprolite		
EMD-007	8	10	41.9	172.5	9.1	27.1	5.3	3.4	3.6	0.6	4.3	0.9	3.4	0.5	4.4	0.7	31.1	309	Saprolite		
EMD-007	10	12	61.6	145.4	13.9	37.6	6.8	4.5	5.2	0.8	6	1.2	4.5	0.7	5.5	0.8	43.8	338	Saprolite		
EMD-007	12	14	73.7	124.1	16.9	51.3	8.7	5	6.8	1	6.7	1.5	5	0.8	5.9	0.9	48.2	356	Saprolite	**8**	**455**
EMD-007	14	16	121.9	125.2	28.7	90	16.9	9.8	13.6	2.1	14	3	9.7	1.5	10.8	1.9	101.6	551	Saprolite		
EMD-007	16	18	121.3	114.6	28.6	88.3	18.9	13.2	18.4	3	18.2	4	13	2	15.1	2.3	141.8	603	Weathered rock		
EMD-007	18	20	54.1	99.4	12.5	36.6	7.2	6.1	6.5	1.2	7.9	1.6	6	0.9	6.9	1	59.6	308	Weathered rock		
EMD-008	0	2	21.5	151.6	5.4	14.7	3	4	3.1	0.7	4.3	1.1	3.9	0.6	4.9	0.7	35.2	255	Saprolite		
EMD-008	2	4	57.2	164	14.2	46.3	7	3.7	5.3	0.9	6.1	1.2	3.7	0.7	5.4	0.8	39.5	356	Saprock		
EMD-008	4	6	138.4	150	32.9	100.7	15.5	5.2	8.7	1.2	7.3	1.6	5.1	0.9	6.9	1	50	525	Saprock	**8**	**642**
EMD-008	6	8	208.8	129.2	48.9	144.5	23.8	8.2	15.6	2	11.8	2.5	8.1	1.3	10.1	1.5	76.9	693	Saprock		
EMD-008	8	10	202.2	117.1	45.4	136.5	27	16.3	23.7	3.6	22.3	4.7	16.1	2.5	18.9	2.9	156.7	796	Saprock		
EMD-008	10	12	98.5	116.3	21	62.1	13.9	14.7	15.9	2.8	19.4	4.1	14.5	2.3	16.4	2.7	149.9	555	Saprock		
EMD-008	12	14	52.2	104.8	12.2	34.2	6.6	5.5	5.7	1	7.6	1.6	5.5	0.9	7.4	0.9	54.4	300	Saprock		
EMD-008	14	16	48.4	96.1	10.8	31.5	5.8	4.9	5.3	0.9	6.3	1.4	4.8	0.8	5.6	0.8	42.7	266	Saprock		

HOLEID	FROM	TO	$La^{2}O^{3}$ ppm	CeO^{2} ppm	$Pr^{6}O^{11}$ ppm	$Nd^{2}O^{3}$ ppm	$Sm^{2}O^{3}$ ppm	$Eu^{2}O^{3}$ ppm	$Gd^{2}O^{3}$ ppm	$Tb^{4}O^{7}$ ppm	$Dy^{2}O^{3}$ ppm	$Ho^{2}O^{3}$ ppm	$Er^{2}O^{3}$ ppm	$Tm^{2}O^{3}$ ppm	$Yb^{2}O^{3}$ ppm	$Lu^{2}O^{3}$ ppm	$Y^{2}O^{3}$ ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-008	16	18	46.1	97.8	10.1	29.3	5.5	4.4	4.9	0.8	6	1.1	4.3	0.7	5.4	0.8	44	261	Saprock		
EMD-008	18	20	45.3	93.6	9.9	30.3	5.5	4.1	4.9	0.9	6	1.3	4	0.7	5.6	0.8	45.7	259	Saprock		
EMD-008	20	22	45.7	95.9	10.3	29.9	5.6	4.2	5	0.8	6.3	1.3	4.2	0.7	5.1	0.8	44	260	Saprock		
EMD-009	0	2	22.4	118.4	15.4	48.1	3.2	5.3	5.4	0.8	7.4	2	5.2	0.8	5.9	0.9	47.2	288	Soil		
EMD-009	2	4	25.2	129.8	5.3	16.1	3.6	5.1	4	0.9	6.4	1.5	5.1	0.9	6.1	0.9	47	258	Soil		
EMD-009	4	6	44.1	237.7	41.9	128.7	5.2	4.8	8.6	1.1	9.1	2.7	4.7	0.8	6	0.8	46.7	543	Saprolite		
EMD-009	6	8	58.8	178.2	12.4	38.4	7.3	4.9	5.5	0.9	6.1	1.4	4.8	0.8	6.1	0.8	46.7	373	Saprolite		
EMD-009	8	10	76.5	171.6	17.1	53.7	8.3	5.3	6.5	1	6.7	1.4	5.2	0.8	6.7	0.9	51.5	413	Saprolite		
EMD-009	10	12	101.6	186.8	30.8	96.3	11	5.3	8.4	1.1	7.8	1.8	5.2	0.9	6.7	1	51.4	516	Saprolite	**14**	**463**
EMD-009	12	14	99.9	143.4	21.3	67.2	10.7	6.3	7.9	1.3	8.4	1.8	6.2	1	7.6	1.1	61.6	446	Saprolite		
EMD-009	14	16	112.6	120.3	24.2	79.7	13.9	8.3	11.6	1.8	11.6	2.4	8.2	1.3	10.1	1.5	83.9	491	Saprolite		
EMD-009	16	18	99.9	101.1	21.4	69.2	13.1	9.3	12.3	1.9	12.8	2.8	9.2	1.5	11.2	1.7	94.8	462	Saprolite		
EMD-009	18	19	45.2	91.5	9.4	29	5.2	4.8	4.9	1	6.3	1.4	4.7	0.8	5.8	0.9	47.3	258	Weathered rock		
EMD-009	19	20	44.2	92.3	9.3	29.4	4.9	4.3	4.5	0.8	5.6	1.2	4.3	0.7	5.1	0.8	39.5	247	Weathered rock		
EMD-010	0	2	21.1	78.1	4.3	13.5	2.8	3.4	3.2	0.6	4.1	1	3.4	0.5	4.4	0.7	32.9	174	Saprolite		
EMD-010	2	4	33.7	104.5	7.1	22.5	4.5	3.8	3.9	0.7	5.1	1.1	3.8	0.6	5.1	0.7	38.6	236	Saprolite		
EMD-010	4	6	47.4	101.8	10	31.1	5.7	4.3	4.4	0.8	5	1.1	4.3	0.7	5.2	0.8	43.4	266	Saprolite		
EMD-010	6	8	63	108.3	13.4	44	7.9	4.3	5.2	0.8	5.8	1.3	4.2	0.7	5.5	0.8	40.7	306	Saprolite		
EMD-010	8	10	79.4	120.4	17	53	8.3	4.6	5.2	0.8	5.3	1.2	4.5	0.8	5.4	0.8	41.4	348	Saprolite		
EMD-010	10	12	83.2	120.1	19.2	62.3	9.6	5.2	5.6	0.9	6.7	1.4	5.1	0.8	6.3	1	51.5	379	Saprolite		
EMD-010	12	13	67.2	111.7	16.1	51.8	8.1	3.2	4.3	0.7	4.3	0.8	3.2	0.5	4.2	0.6	27.7	304	Weathered rock		
EMD-010	13	14	73.8	94.3	17.5	58.7	8.8	3	4.5	0.6	4.4	0.9	3	0.5	4.1	0.6	28.4	303	Weathered rock	**12**	**412**
EMD-010	14	15	76.7	89.6	18.6	58.8	9.9	6.5	7.6	1.4	9.2	2	6.4	1	7.3	1	59.8	356	Weathered rock		
EMD-010	15	16	97.7	112.3	22.9	75.6	11.8	4.6	6.8	0.9	6.1	1.2	4.6	0.7	5.5	0.9	42.1	394	Weathered rock		
EMD-010	16	17	98	111.5	23	73.5	12.4	5.6	7.4	1	7.3	1.6	5.5	0.9	7.2	1	55.3	411	Weathered rock		

HOLEID	FROM	TO	La^2O^3 ppm	CeO^2 ppm	Pr^6O^{11} ppm	Nd^2O^3 ppm	Sm^2O^3 ppm	Eu^2O^3 ppm	Gd^2O^3 ppm	Tb^4O^7 ppm	Dy^2O^3 ppm	Ho^2O^3 ppm	Er^2O^3 ppm	Tm^2O^3 ppm	Yb^2O^3 ppm	Lu^2O^3 ppm	Y^2O^3 ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-010	17	18	159.3	130.1	40.8	134.3	21.1	8.9	15.5	2	12.8	2.6	8.8	1.4	10.5	1.6	87.4	637	Weathered rock		
EMD-010	18	19	109.5	119.2	24.7	83.3	14.3	6.5	9.7	1.3	8.6	1.7	6.4	1	7.6	1.1	62.8	458	Weathered rock		
EMD-010	19	20	171.6	120.5	38.5	124.1	23.3	9	15.5	1.9	12.8	2.6	8.8	1.3	10.2	1.6	85	627	Weathered rock		
EMD-011	0	2	12	61.4	2.2	7.3	2	4	3.2	0.7	5.6	1.1	4	0.6	5	0.7	37.9	148	Saprolite		
EMD-011	2	4	20.6	84.9	4.3	13.5	2.6	3.5	3	0.6	4.5	1	3.5	0.6	4.6	0.7	32.7	181	Saprolite		
EMD-011	4	6	47	100.2	9.5	30.6	5.7	3.2	3.7	0.6	4.3	0.9	3.1	0.5	4.1	0.6	31.5	245	Saprolite		
EMD-011	6	8	63.6	114	13.8	44.8	7.8	4.5	5.9	0.9	6.4	1.3	4.5	0.7	5.4	0.8	43.5	318	Weathered rock	14	448
EMD-011	8	10	71.1	97.7	16	53.7	8.7	4.1	5.5	0.8	5.5	1.2	4	0.6	4.6	0.7	37.6	312	Weathered rock		
EMD-011	10	12	93.2	93.8	21.4	72.6	11.5	4.1	6.9	0.9	5.7	1.2	4	0.6	5	0.8	41.2	363	Weathered rock		
EMD-011	12	14	133.3	124.2	30.3	101.8	19.1	6.8	11.9	1.4	9.8	2	6.7	1.1	7.6	1.1	62.5	520	Weathered rock		
EMD-011	14	16	120	125.2	27.2	94.4	18	7.7	13	1.8	11.2	2.3	7.6	1.2	9	1.3	77.1	517	Weathered rock		
EMD-011	16	18	118.9	130.3	26.9	88.4	17	7.6	13	1.8	11.5	2.4	7.5	1.2	9	1.4	73.1	510	Weathered rock		
EMD-011	18	20	133.2	144.8	31	100.7	19.1	10.4	16.3	2.3	14.5	3.1	10.2	1.6	11.5	1.8	94.3	595	Weathered rock		
EMD-018	0	2	41.2	215.5	6.6	18.4	3.5	4.1	4.5	0.9	6.9	1.4	4.1	0.6	4.6	0.7	38.2	351	Saprolite		
EMD-018	2	4	82.6	324.2	15.3	42.5	7.4	5.1	6.1	1.2	8.2	1.6	5.1	0.7	5.2	0.7	42.7	549	Saprolite	14	623
EMD-018	4	5.11	76.7	329.2	14.8	41.4	8.3	4.4	5.9	1	7.1	1.5	4.4	0.7	4.8	0.7	37	538	Saprolite		
EMD-018	5.11	6.7	67.1	445.3	12.8	35.9	6.1	4.6	5.4	1	6.6	1.4	4.6	0.7	4.8	0.7	38.5	636	Saprolite		
EMD-018	6.7	8	175.9	180.5	43	143.5	24	6.9	14.9	1.9	11.6	2.2	6.8	0.9	7.1	1	60.1	680	Weathered rock		
EMD-018	8	10	220	192.9	57.6	206.9	36.8	11.6	26.2	3.3	18.9	3.5	11.4	1.5	11.7	1.6	116.2	920	Weathered rock		
EMD-018	10	12.1	196	188.7	51.3	189.2	33.5	11.6	23.8	3.1	17.6	3.6	11.5	1.5	11.3	1.6	112.8	857	Weathered rock		
EMD-018	12.1	14	84	130.6	20.8	72.8	14.1	6.3	11.1	1.4	9.7	2	6.2	0.9	6.1	0.8	59	426	Fresh rock		
EMD-018	14	16	61.9	123.6	14.8	50.4	9.2	4.5	7.7	1.2	7.9	1.5	4.4	0.7	4.7	0.6	46	339	Fresh rock		
EMD-020	0	2	8.4	17.3	2.1	7.8	1.5	1.1	1.6	0.3	1.9	0.3	1.1	0.2	1.5	0.3	9.7	55	Saprolite		
EMD-020	2	4	9.1	17.2	2	7.8	1.7	1.4	1.5	0.3	1.8	0.4	1.4	0.2	1.5	0.3	9.7	56	Saprolite		

HOLEID	FROM	TO	La^2O^3 ppm	CeO^2 ppm	Pr^6O^{11} ppm	Nd^2O^3 ppm	Sm^2O^3 ppm	Eu^2O^3 ppm	Gd^2O^3 ppm	Tb^4O^7 ppm	Dy^2O^3 ppm	Ho^2O^3 ppm	Er^2O^3 ppm	Tm^2O^3 ppm	Yb^2O^3 ppm	Lu^2O^3 ppm	Y^2O^3 ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-020	4	6	9.1	24.2	3.2	12.8	2.8	1.7	2.6	0.4	2.5	0.5	1.6	0.2	1.7	0.2	14.8	78	Saprolite		
EMD-020	6	8	13.3	64.5	4.3	16.8	4.1	2.3	4.3	0.7	3.7	0.8	2.3	0.3	2.3	0.3	22.1	142	Saprolite		
EMD-020	8	10	47.3	178.2	53.7	187.3	15	7	20.5	2.4	15.8	4.4	6.9	1	6.5	0.9	73.3	620	Saprolite	12	402
EMD-020	10	11.34	57.3	133.4	43.4	157.9	18.6	12.1	28.9	3.9	23.5	5.9	11.9	1.6	10.2	1.4	145.5	655	Saprolite		
EMD-020	11.34	12.65	42.8	221.7	84.5	289.9	13.3	8.4	25.7	2.8	20.1	6.2	8.3	1.2	7.4	1.1	104.3	838	Saprolite		
EMD-020	12.65	14	39.9	66.5	12.5	52.6	12.9	7	14.4	2	11.6	2.5	6.9	0.9	5.9	0.8	78.1	315	Weathered rock		
EMD-020	14	16	16.8	36.1	4.7	19.9	5.6	2.6	5	0.8	4.2	1	2.6	0.4	2.3	0.3	25	127	Weathered rock		
EMD-020	16	18.15	14.8	33.3	4.2	19.4	4.2	2	4.5	0.6	3.8	0.8	2	0.3	2.2	0.3	21.1	113	Weathered rock		
EMD-020	18.15	20	16.1	120.4	41.2	143.7	3.7	2.3	9.1	0.9	7.7	2.7	2.3	0.3	1.7	0.3	20.1	373	Fresh rock		
EMD-021	0	2	7.2	26.3	1.4	4.7	1	1.3	1.2	0.2	1.3	0.4	1.3	0.3	1.7	0.3	9.1	58	Saprolite		
EMD-021	2	4	10.8	30.6	2.1	7.7	1	1.2	1.9	0.3	1.7	0.5	1.2	0.2	1.7	0.3	10.1	71	Saprolite		
EMD-021	4	6	6.9	52	1.9	8.5	1.6	1.3	1.4	0.3	1.6	0.4	1.3	0.2	1.6	0.2	8.6	88	Saprolite		
EMD-021	6	8	11.5	50.6	2.8	11.2	2.8	1.4	1.9	0.3	1.7	0.4	1.4	0.2	1.8	0.2	8.4	97	Saprolite		
EMD-021	8	10	11.4	67.4	2.6	9.7	1.9	1.3	1.6	0.2	1.7	0.4	1.3	0.2	1.9	0.3	9.4	111	Saprolite		
EMD-021	10	12	8.6	74.4	2	8.4	1.6	1.5	1.5	0.3	1.6	0.4	1.5	0.3	2.3	0.3	10	115	Saprolite		
EMD-021	12	14	6.7	77.1	1.7	7.6	2.1	2.1	2.2	0.4	2.5	0.6	2.1	0.4	2.7	0.4	16.2	125	Saprolite		
EMD-021	14	16	11.4	74.1	3.6	15.9	3.8	2.3	3.3	0.5	3.1	0.7	2.3	0.3	2.5	0.3	17.1	141	Saprolite		
EMD-021	16	18	14.3	67.7	4.5	19.6	4.4	2.6	4.4	0.7	4.5	0.9	2.5	0.4	3	0.4	24	154	Saprolite		
EMD-021	18	20	18.9	63.4	5.5	23.3	5.7	3.4	5.5	0.9	5.2	1.1	3.3	0.5	3.5	0.5	29.7	170	Saprolite		
EMD-023	10	12	26.5	62.8	8.3	30.8	5.9	2.2	3.7	0.6	3.8	0.8	2.1	0.3	2.6	0.3	13.5	164	Saprolite		
EMD-023	12	14	29.2	61.1	10.9	42.7	6.7	2.4	4	0.7	4.2	0.9	2.4	0.4	2.8	0.4	17.2	186	Saprolite		
EMD-023	14	16	61.8	74.8	21.9	85.3	10.9	3.2	5.6	0.9	5.6	1.2	3.2	0.5	3.9	0.5	21.6	301	Saprolite	12	493
EMD-023	16	18	76.7	81.8	31.6	122.8	15.1	4.3	7	1.2	7.1	1.5	4.2	0.7	4.9	0.6	29.3	389	Saprolite		
EMD-023	18	20	104.6	76.8	37.6	146.4	18.8	5.5	8.8	1.4	8.8	1.8	5.5	0.9	6.1	0.9	40.1	464	Saprolite		
EMD-023	20	22	144.5	78.6	47.5	184.3	26.7	6.2	11.1	1.7	9.4	2	6.2	1	6.6	1	43.3	570	Saprolite		
EMD-023	22	24	164.8	84.8	47.7	187.6	35.3	7.9	18	2.3	13	2.8	7.8	1.2	8.2	1.2	58.4	641	Saprolite		

HOLEID	FROM	TO	La^2O^3 ppm	CeO^2 ppm	Pr^6O^{11} ppm	Nd^2O^3 ppm	Sm^2O^3 ppm	Eu^2O^3 ppm	Gd^2O^3 ppm	Tb^4O^7 ppm	Dy^2O^3 ppm	Ho^2O^3 ppm	Er^2O^3 ppm	Tm^2O^3 ppm	Yb^2O^3 ppm	Lu^2O^3 ppm	Y^2O^3 ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMD-023	24	26	129.9	81.4	37.1	146.8	33.4	10.1	25.1	3.2	16.8	3.6	10	1.6	10.6	1.4	83.4	594	Saprolite		
EMD-024	0	2	8.2	67.4	1.4	5.2	1.9	2.8	2.3	0.5	3.7	0.9	2.8	0.5	3.5	0.5	23.2	125	Saprolite		
EMD-024	2	4	6.8	64.7	1	4.5	2	3.3	2.8	0.6	4	0.9	3.3	0.5	3.9	0.6	25.5	124	Saprolite		
EMD-024	4	6	6.1	159.4	1.2	4	2	3	2.9	0.6	4.1	1	2.9	0.5	4.2	0.6	27.4	220	Saprolite		
EMD-024	6	8	3.9	239.8	1.2	5.1	2	3.7	3.4	0.7	4.9	1.2	3.6	0.6	5.1	0.7	32.4	308	Saprolite		
EMD-024	8	10	3.6	271.4	1.3	5.8	2.6	3.7	3.5	0.8	4.6	1.1	3.6	0.6	4.8	0.6	30.7	339	Saprolite		
EMD-024	10	12	5.2	280.4	1.5	5.7	2.9	3.7	3.2	0.7	4.8	1.2	3.7	0.6	4.7	0.7	31	350	Saprolite		
EMD-024	12	14	11.7	192	2.8	10.8	3.4	3.9	4	0.8	5	1.2	3.9	0.7	5.1	0.7	32.7	279	Saprolite		
EMD-024	14	16	10	203.1	2.8	10.8	4.1	3.6	4.3	0.8	5.2	1.1	3.5	0.6	4.8	0.6	33.2	289	Saprolite		
EMD-024	16	18	17.7	286.3	5.5	20.6	6.3	5.1	6.2	1.2	7.2	1.6	5	0.8	5.5	0.8	48.3	418	Saprolite		
EMD-024	18	20	25.2	169.6	6.8	25.2	4.9	3.8	4.7	0.9	5.3	1.2	3.8	0.7	4.9	0.7	35.4	293	Saprolite		
EMD-024	20	22	39.1	151.2	17.2	54.2	6.1	4	6.9	0.9	5.3	1.3	4	0.7	4.9	0.6	36.2	333	Saprolite		
EMD-024	22	24	703.2	394.1	156.4	549.3	85.9	24.1	60.6	8	43.5	9	23.8	3.4	22.3	3.1	267.4	2354	Saprolite	**2**	**2354**
EMD-027	0	2	13.7	61.1	3.6	13.3	2.7	1.2	2	0.4	2.1	0.4	1.2	0.2	1.5	0.2	7.4	111	Saprolite		
EMD-027	2	4	14.4	59.9	4.6	18.1	3.4	1	1.8	0.3	1.8	0.4	1	0.2	1.3	0.1	6.4	115	Saprolite		
EMD-027	4	6	19.2	88.1	5.5	21.1	3.6	1	2.3	0.3	1.6	0.3	1	0.2	1.3	0.1	6.3	152	Saprolite		
EMD-027	6	8	41	127.5	11.2	39.9	6	1.6	3.8	0.5	2.6	0.5	1.6	0.2	1.9	0.2	11.5	250	Saprolite		
EMD-027	8	10	48	64.2	13.2	49.7	7.3	1.9	4.6	0.6	3.2	0.7	1.8	0.3	2	0.3	13.1	211	Saprolite		
EMD-027	10	12	68.3	46.1	20.1	76.2	13.6	2.8	8.4	1	5.1	1.2	2.7	0.4	3.2	0.4	21.7	271	Saprolite	**8.26**	**464**
EMD-027	12	14	82	101.8	28.2	106.5	17	6.7	17	2.2	12.3	2.9	6.6	1	7.3	0.9	60.9	453	Saprolite		
EMD-027	14	16	50	129	13.5	50.9	12.4	8	14.3	2.1	12.7	2.7	7.9	1.2	8	1.1	71.9	386	Saprolite		
EMD-027	16	17	53.9	46.6	14.2	55.6	11.7	7.4	13.7	2.1	13	2.8	7.3	1.2	7.4	1	83.9	322	Saprolite		
EMD-027	17	18.26	180.8	127.9	47.5	176.9	35.8	23.4	43.8	7	40.5	8.9	23.1	3.2	21.1	2.9	281.2	1024	Saprolite		
EMD-027	18.26	20	10.4	41.2	10.1	35.1	2.2	1.4	3.1	0.4	2.8	0.9	1.4	0.2	1.3	0.1	13.1	124	Fresh rock		
EMD-027	20	22	7.2	17.7	2.2	8.2	1.7	0.9	1.9	0.2	1.7	0.3	0.9	0.2	1	0.1	7.8	52	Fresh rock		
EMD-027	22	24	10.9	24.8	2.6	11.9	2.4	1.2	2.3	0.4	2.2	0.4	1.2	0.2	1.4	0.2	12	74	Fresh rock		

HOLEID	FROM	TO	$La^{2}O^{3}$ ppm	CeO^{2} ppm	$Pr^{6}O^{11}$ ppm	$Nd^{2}O^{3}$ ppm	$Sm^{2}O^{3}$ ppm	$Eu^{2}O^{3}$ ppm	$Gd^{2}O^{3}$ ppm	$Tb^{4}O^{7}$ ppm	$Dy^{2}O^{3}$ ppm	$Ho^{2}O^{3}$ ppm	$Er^{2}O^{3}$ ppm	$Tm^{2}O^{3}$ ppm	$Yb^{2}O^{3}$ ppm	$Lu^{2}O^{3}$ ppm	$Y^{2}O^{3}$ ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMRC-001	0	2	43.2	64.6	6.6	17.3	2.4	0.2	1.8	0.2	0.9	0.3	0.2	0.1	1	0.2	7	146	Soil		
EMRC-001	2	4	42.7	60.6	6.5	17.5	2.2	0.3	1.8	0.2	0.9	0.3	0.3	0.1	1	0.2	6.8	141	Soil		
EMRC-001	4	6	121.3	169.9	16	44.8	6.1	0.5	4.3	0.5	2.1	0.4	0.5	0.1	0.9	0.1	8.1	376	Soil	**12**	**558**
EMRC-001	6	8	29.1	393.2	116.8	366.1	1.6	0.1	14.7	1	10.8	5.3	0.1	0.1	0.8	0.1	4.6	944	Soil		
EMRC-001	8	10	10.2	153.3	42.2	127.5	0.8	0.1	5.7	0.3	3.3	1.9	0.1	0.1	0.8	0.1	4.3	351	Soil		
EMRC-001	10	12	1.6	143.1	1.1	3.3	0.7	0.6	1.2	0.3	1.3	0.4	0.6	0.2	1.5	0.2	7.5	164	Soil		
EMRC-001	12	14	84.9	317.8	11.3	26.7	3.8	2.7	4.5	0.8	5	1	2.7	0.5	3.5	0.5	21.2	487	Soil		
EMRC-001	14	16	335.8	383.8	69.1	186.9	11.7	1.1	11.2	1	5.9	1.7	1.1	0.2	1.5	0.2	14.3	1026	Soil		
EMRC-001	16	18	93.9	59	12.3	33.8	4.3	0.3	3.4	0.4	1.5	0.3	0.3	0.1	1	0.1	7.4	218	Soil		
EMRC-001	18	20	5.5	122.7	1.5	4.2	0.9	0.6	1	0.2	0.8	0.3	0.6	0.2	1.8	0.3	8.5	149	Soil		
EMRC-003	0	2	22.4	51.7	9.1	26	2.1	1	3	0.3	1.6	0.4	0.9	0.2	1.7	0.3	10.8	132	Soil		
EMRC-003	2	4	15.2	26.3	3.5	10.5	1.9	1	2	0.3	1.6	0.5	1	0.3	1.9	0.3	12	78	Soil		
EMRC-003	4	6	7.7	22	1.9	5.6	1.2	1	1.2	0.2	1.1	0.4	1	0.3	2	0.4	11.7	58	Soil		
EMRC-003	6	8	4.1	38	1.4	3.8	1	1.3	1.4	0.2	1.3	0.5	1.3	0.3	2.8	0.5	15.4	73	Soil		
EMRC-003	8	10	1.9	77.5	1	3.1	0.9	1.6	1.2	0.2	1.4	0.5	1.6	0.3	3.2	0.5	14.9	110	Soil		
EMRC-003	10	12	0.9	107.6	0.9	3	0.8	1.5	1.2	0.3	1.4	0.5	1.5	0.4	3.4	0.5	15.3	139	Soil		
EMRC-003	12	14	0.1	92.3	0.5	1.3	0.2	0	0.4	0	0.1	0.1	0	0.1	0.6	0.1	3.7	99	Soil		
EMRC-003	14	16	12.9	219.1	71.2	224.9	1.6	2.2	10.6	0.9	9.2	4.3	2.2	0.5	4	0.6	21.9	586	Soil	**2**	**586**
EMRC-003	16	18	12.5	38.8	2.7	7.2	1.3	1.8	1.4	0.3	1.9	0.6	1.7	0.4	3.3	0.5	17.7	92	Soil		
EMRC-003	18	20	17.1	158.2	2.8	7.2	0.7	0.3	0.9	0.1	0.6	0.3	0.3	0.1	1	0.2	5.9	196	Soil		
EMRC-004	0	2	70.3	100	10.1	30.4	4.6	1	2.9	0.4	2	0.5	1	0.3	1.7	0.3	11.4	237	Soil		
EMRC-004	2	4	23.6	37.6	4.1	11.7	2	0.6	1.5	0.2	1.2	0.3	0.6	0.2	1.5	0.2	9.3	95	Soil		
EMRC-004	4	6	10.9	20.9	2.1	6.1	0.9	0.5	1.2	0.2	0.6	0.3	0.5	0.1	1.4	0.2	8	54	Soil		
EMRC-004	6	8	10.7	20.1	1.8	6.1	0.8	0.4	1	0.1	0.6	0.2	0.4	0.1	1.3	0.2	7.3	51	Soil		
EMRC-004	8	10	3.6	16	1.2	3.4	0.5	0.2	0.8	0.1	0.4	0.3	0.2	0.1	1	0.2	6.2	34	Soil		
EMRC-004	10	12	14	86.4	2.5	8.4	1.2	1.3	1.7	0.3	1.5	0.5	1.2	0.3	2.2	0.4	13.9	136	Soil		

HOLEID	FROM	TO	$La^{2}O^{3}$ ppm	CeO^{2} ppm	$Pr^{6}O^{11}$ ppm	$Nd^{2}O^{3}$ ppm	$Sm^{2}O^{3}$ ppm	$Eu^{2}O^{3}$ ppm	$Gd^{2}O^{3}$ ppm	$Tb^{4}O^{7}$ ppm	$Dy^{2}O^{3}$ ppm	$Ho^{2}O^{3}$ ppm	$Er^{2}O^{3}$ ppm	$Tm^{2}O^{3}$ ppm	$Yb^{2}O^{3}$ ppm	$Lu^{2}O^{3}$ ppm	$Y^{2}O^{3}$ ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMRC-004	12	14	8.7	156.3	1.5	4.2	1.2	2.9	2.1	0.4	3.2	0.9	2.9	0.6	4.4	0.7	26.9	217	Soil		
EMRC-004	14	16	6	155.6	1.2	4.3	1.4	3.2	2.8	0.6	3.9	1	3.1	0.6	4.6	0.8	32.4	222	Soil		
EMRC-004	16	18	9	130.1	1.8	5.4	1.6	2.9	2.4	0.5	3.6	1	2.8	0.6	4.6	0.7	30.6	198	Soil		
EMRC-004	18	20	29.4	115.2	4	9.4	1.7	2.7	2.4	0.5	3.3	0.9	2.6	0.5	4.2	0.6	28	205	Soil		
EMRC-004	20	22	13.4	82.3	2.3	5.5	1.4	3.1	2.5	0.5	3.3	1	3	0.5	4.4	0.7	29.1	153	Soil		
EMRC-004	22	24	27.7	91.4	5.1	12.7	2.3	2.5	2.5	0.5	3.2	0.9	2.4	0.4	3.8	0.5	25.8	182	Soil		
EMRC-005	0	2	17.4	26.7	3.2	9.8	2.2	2.3	2.6	0.5	3	0.8	2.3	0.4	3.3	0.5	22.1	97	Soil		
EMRC-005	2	4	18.4	28.9	2.6	7.9	1.9	2.9	2.2	0.5	3.8	0.9	2.9	0.6	4.4	0.7	29.7	108	Soil		
EMRC-005	4	6	52.4	69.7	4.7	13.3	2.4	3.8	3.1	0.7	4.9	1.3	3.8	0.8	5.7	0.9	40.7	208	Soil		
EMRC-005	6	8	33.2	80.6	3.5	9.6	2.1	4.5	3.4	0.8	5.8	1.4	4.5	0.8	6.3	0.9	45.1	203	Soil		
EMRC-005	8	10	9.7	144.7	1.6	4.3	1.2	3	2.5	0.5	4.1	1.1	3	0.6	4.7	0.7	33.4	215	Soil		
EMRC-005	10	12	6	80.3	1.5	4.3	1.2	4.3	3.3	0.8	5.8	1.4	4.2	0.8	5.6	0.8	43.6	164	Soil		
EMRC-005	12	14	38.9	357.7	4.6	11.4	2.6	3	3.6	0.7	4.9	1.1	3	0.6	4.4	0.7	36.6	474	Soil		
EMRC-005	14	16	10.3	379	1.8	4.8	1.2	2.9	2.1	0.5	3.7	0.9	2.8	0.5	4	0.6	29.2	444	Soil		
EMRC-005	16	18	26.6	4002.1	5.5	15.4	5.1	9.3	6.8	1.8	13.4	2.9	9.2	1.6	12.4	1.7	60	4174	Soil		
EMRC-005	18	20	21.2	78.5	5.3	15.4	3.4	3.7	4	0.8	5.1	1.2	3.7	0.7	4.8	0.7	40.7	189	Soil		
EMRC-005	20	22	34.5	107.1	5.9	16.9	3.5	3.6	4	0.7	4.8	1.2	3.6	0.6	4.7	0.6	35	227	Soil		
EMRC-006	0	2	23.6	34.5	3.7	10.8	2.1	3.1	3	0.6	3.9	1	3	0.6	4.2	0.7	31.3	126	Soil		
EMRC-006	2	4	36.8	38.7	3.7	10.7	2.1	3.6	3.3	0.7	4.7	1.2	3.6	0.7	4.9	0.8	37.1	153	Soil		
EMRC-006	4	6	28	37.1	3.2	8.7	2	4.5	3.7	0.8	5.9	1.4	4.4	0.8	6	0.9	46.7	154	Soil		
EMRC-006	6	8	28.5	23.6	2.1	6.1	1.5	4	3.5	0.7	5.4	1.3	3.9	0.8	5.7	0.8	41.9	130	Soil		
EMRC-006	8	10	22.5	19	1.8	4.4	1.5	3.4	2.9	0.6	4.5	1.1	3.4	0.7	4.8	0.7	34.5	106	Soil		
EMRC-006	10	12	18.8	149.9	2.1	6.9	1.9	3.5	3.2	0.8	4.9	1.1	3.4	0.6	4.9	0.7	34.6	237	Soil		
EMRC-006	12	14	13.7	88.1	2.2	7.7	2.1	3.5	3.2	0.7	4.7	1.2	3.5	0.7	4.7	0.7	36.5	173	Soil		
EMRC-006	14	16	11	29.5	1.7	5.9	1.5	2.2	2.1	0.5	3.3	0.8	2.2	0.4	3.3	0.5	25.7	91	Saprolite		
EMRC-006	16	18	25.8	23.7	2.6	6.6	1.5	3.2	2.4	0.6	4.4	1.1	3.1	0.6	4.6	0.7	34.4	115	Saprolite		

HOLEID	FROM	TO	$La^{2}O^{3}$ ppm	CeO^{2} ppm	$Pr^{6}O^{11}$ ppm	$Nd^{2}O^{3}$ ppm	$Sm^{2}O^{3}$ ppm	$Eu^{2}O^{3}$ ppm	$Gd^{2}O^{3}$ ppm	$Tb^{4}O^{7}$ ppm	$Dy^{2}O^{3}$ ppm	$Ho^{2}O^{3}$ ppm	$Er^{2}O^{3}$ ppm	$Tm^{2}O^{3}$ ppm	$Yb^{2}O^{3}$ ppm	$Lu^{2}O^{3}$ ppm	$Y^{2}O^{3}$ ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMRC-007	0	2	34.9	33.3	4.2	13.1	2.9	4.7	3.9	0.9	6.1	1.4	4.6	0.9	6.5	1	46.5	165	Soil		
EMRC-007	2	4	18.2	9.3	2	7.2	1.5	1.8	1.9	0.4	2.3	0.7	1.8	0.4	2.6	0.4	18.4	69	RCK		
EMRC-007	4	6	59.5	50.1	5.7	16.6	3.1	5	4.9	1.1	6.7	1.6	4.9	0.9	6.4	0.9	49.8	217	RCK		
EMRC-007	6	8	76.6	112.8	8.6	23	4.3	7.7	7.9	1.6	11	2.4	7.6	1.3	9.1	1.3	72.8	348	Soil	**2**	**348**
EMRC-007	8	10	50.9	79.6	7.2	20.8	3.6	6.3	6.3	1.4	9.2	2.1	6.2	1.1	7.7	1.1	62.1	266	Soil		
EMRC-007	10	12	28.6	138.1	3.1	8.7	2.1	4.2	3.5	0.8	5.6	1.3	4.1	0.7	5.7	0.9	41.7	249	Soil		
EMRC-007	12	14	50.9	95.3	5.6	15	3	4.8	4.5	1	6.6	1.5	4.7	0.8	6.3	0.9	47.3	248	Soil		
EMRC-007	14	16	15.6	143.5	8.2	25.7	2.2	4.4	4.7	0.9	6.5	1.7	4.3	0.8	5.8	0.9	44.6	270	Soil		
EMRC-007	16	18	20.5	71.5	2.9	8.9	2.2	4.4	4	0.8	6.2	1.4	4.4	0.8	6.1	0.9	43.8	179	Soil		
EMRC-007	18	20	30.8	253.3	72.8	230.4	3.6	3.6	11.4	1.1	10.2	4	3.5	0.7	4.8	0.7	36.6	668	Soil	**2**	**668**
EMRC-007	20	22	31	69.5	5.9	18.3	3.8	3.5	4	0.8	4.9	1.2	3.4	0.6	4.6	0.7	36.6	189	Soil		
EMRC-008	0	2	23.5	20	2.8	10.1	2.2	3.4	3	0.6	4.3	1.1	3.3	0.6	4.8	0.7	32.8	113	Soil		
EMRC-008	2	4	27.4	46.4	11.5	34.6	2.3	3.4	4.1	0.8	5.6	1.5	3.4	0.7	5.4	0.8	36	184	Soil		
EMRC-008	4	6	45	44.2	3.9	11.1	2.7	6.4	5.6	1.2	8.3	2	6.4	1	8	1.1	63.4	210	Soil		
EMRC-008	6	8	56.5	78	4.5	10.8	2.1	4.1	3.6	0.8	5.5	1.3	4.1	0.8	5.7	0.8	42.2	221	Soil		
EMRC-008	8	10	17.6	37.5	1.8	4.5	1.3	3.8	2.9	0.7	5.5	1.3	3.8	0.7	5.5	0.8	43.5	131	Soil		
EMRC-008	10	12	9.6	117.6	1.4	5.4	1.4	3.6	2.5	0.6	4.4	1.1	3.5	0.7	5	0.7	37.1	195	Soil		
EMRC-008	12	14	25.1	75.7	4.5	12.6	2.4	2.9	3	0.6	3.8	1	2.8	0.5	4.4	0.7	31.2	171	Soil		
EMRC-008	14	16	23.1	49	4	13.6	2.7	2.5	2.8	0.5	3.3	0.9	2.4	0.5	3.8	0.5	24.2	134	Soil		
EMRC-008	16	18	18.9	401.4	3.7	13.2	3.2	2.7	3	0.6	3.6	0.9	2.7	0.5	4.3	0.6	26	485	Soil		
EMRC-008	18	20	44.6	83.3	8.9	28.9	5.3	3.1	4	0.7	4.3	1	3	0.6	4.4	0.6	31.8	225	Soil		
EMRC-010	0	2	93.9	77.3	18.3	53.4	7.5	2.5	4.9	0.7	3.7	0.8	2.4	0.5	4	0.5	19.9	290	Soil		
EMRC-010	2	4	96.3	119.5	17.5	51.7	7.4	2.5	5.4	0.8	4.3	0.9	2.5	0.5	4.1	0.7	24.8	339	Soil		
EMRC-010	4	6	158.3	285.4	35.3	102.5	14	2	8.3	1	4.8	0.8	2	0.4	2.5	0.4	18.9	637	Soil	**16**	**348**
EMRC-010	6	8	32.5	38.8	8.7	29.9	5.3	0.8	3.7	0.4	2.1	0.4	0.8	0.2	1.4	0.2	8.7	134	Soil		
EMRC-010	8	10	81.3	223.1	41.9	142.3	16.2	2.2	12.3	1.4	7.6	1.8	2.2	0.4	2.4	0.3	18.9	554	Soil		

HOLEID	FROM	TO	La_2O_3 ppm	CeO_2 ppm	Pr_6O_{11} ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_4O_7 ppm	Dy_2O_3 ppm	Ho_2O_3 ppm	Er_2O_3 ppm	Tm_2O_3 ppm	Yb_2O_3 ppm	Lu_2O_3 ppm	Y_2O_3 ppm	TREO ppm	Regolith Zone	Length	TREO ppm
EMRC-010	10	12	33.4	74.1	10.4	42.1	8.7	1.3	6.6	0.9	4.1	0.7	1.3	0.3	1.8	0.2	15.5	201	Soil		
EMRC-010	12	14	28.1	62.8	8.3	33.6	7.5	1.6	5.9	0.8	4	0.7	1.6	0.3	2	0.2	13.8	171	Soil		
EMRC-010	14	16	36.1	106.9	14.5	71.3	19.1	11.9	21.4	3.2	19.6	4	11.7	1.8	11.5	1.6	122.5	457	Soil		
EMRC-010	16	18	27.1	45.2	7.8	32.2	7.5	4.5	8.7	1.4	8	1.8	4.4	0.7	4.7	0.7	51.8	207	Fresh rock		
EMRC-010	18	20	16.2	23.2	4.8	21.2	4.9	2.7	5.5	0.8	4.5	1.1	2.6	0.4	2.6	0.4	28.6	120	Fresh rock		

Appendix 6

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 the RC and DD 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 the diamond drilling completed during 2021 and RC drilling completed in 2017. • Diamond core was cut and sampled at intervals, generally of 1m to 2m, with half core retained in BBX´s core storage facility and the other half sent to SGS for preparation. Sample representativity was ensured by close supervision of the drilling and sampling process by a BBX geologist or field technician. Core recoveries were logged and recorded in the database. To date overall recoveries for the diamond holes were >98% and there were no core loss issue or significant sample recovery problems. • Diamond drill sample: diamond core was half split and sampled typically at 2m intervals, although sampling was adjusted to geological contacts, and hence sample length ranged from 1m - 3m. Samples were placed in plastic sample bags and immediately sealed with cable ties. Half core was retained on site in Apui for future reference. • The diamond drill samples were submitted to the SGS laboratory in Vespasiano, greater Belo Horizonte for crushing and pulverisation and subsequently freighted to the BBX´s laboratory in Catalão, Goiás. • 2 certified blank samples, 6 certified reference material (standard) samples and 2 duplicate samples were inserted into the sample sequence, in each run of 100 samples. • The data presented is based on the sampling and logging of reverse circulation and diamond drilling by company staff.

Item	JORC code explanation	Comments

		• The RC drilling was completed during September 2017.
		• The RC drilling and sampling procedures followed industry best practice, utilising an on-site riffle splitter to ensure representativity.
		• Sample lengths are 1m with 2m composite samples along the entire hole.
		• The entire 1m sample was collected in a raffia bag and split down to 1kg. Almost all the samples were dry.
		  ◦ The 2m composite was generated by mixing the 1kg sample from each 1m interval forming a 2kg sample which was subsequently riffle split with 50% sent to SGS for preparation and 50% stored.
		  ◦ 2 certified blank samples, 6 certified reference material (standard) samples and 2 duplicate samples were inserted into the sample sequence, in each run of 100 samples.
		• Pulverized pulps of the RC and DD stored at Catalão were shipped back to SGS in Vespasiano for total rock analyses.
		• The Certified reference material (standard) were replaced by Certified reference material (standard) for REE.

Drilling Techniques	• Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	• The diamond drilling was conducted using an EDG S11 mobile rig supplied by Energold Ltd. Drilling diameter was all in NTW which is equivalent to NQ. Core was not oriented, and it was not directionally surveyed. • The RC drilling was conducted using a Reverse Circulation (RC) percussion drill. Penetration rates were quite rapid down to the fresh rock, slowing thereafter. Average daily production was approximately 25m.

Item	JORC code explanation	Comments
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.	• Diamond recovery was logged by the on-site geologist by carefully comparing the length of core recovered with the length of the drilling run, as part of the routine core logging process • Drilling was conducted slowly in the soil profile to maximize recovery and ensure sample representativity. The upper section of the hole was cased. • No relationship was perceived between sample recovery and assay results. • Sample recovery for the RC drilling was generally above 90% with almost all sample collected dry in fresh rock.
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.	• Detail geological logging of the DD drilling has been conducted by an experienced geologist to a high level of detail recording various qualitative parameters such as rock type, mineralogy, colour, texture and oxidation. • The DD core was geologically logged using predefined lithological, mineralogical, and physical characteristics (colour, weathering, fracture density and type, etc). Logging was predominantly qualitative in nature. • 100% of the recovered intervals were geologically logged. • All diamond core has been photographed, prior to cutting, wet and dry. • Geological logging for the RC drilling has been completed by an experienced geologist to a high level of detail. • Logging is qualitative in nature.
Sub- Sampling Techniques and	• If core, whether cut or sawn and whether quarter, half or all core taken.	• Diamond core was half core sampled, at all times sampling the same side of the core.

Item	JORC code explanation	Comments
Sampling Procedures	• If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representativity of samples. • Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Sample preparation for the DD drilling was conducted at SGS Vespasiano (greater Belo Horizonte) comprising oven drying, crushing of entire sample to 75% < 3mm followed by rotary splitting and pulverisation of 250 to 300 grams at 95% minus 150# • The <3mm rejects and the 250-300 grams pulverised sample were returned to BBX for storage and assay with a proprietary analytical technique. • The RC samples were collected on a standard 1m interval. • Raffia big bags were used to collect the entire sample from each 1m interval. • A 1kg sample was split off for subsequent composition of 2m intervals, 1kg from each metre. • The 2kg, 2m composite sample was split in two, with 1kg sent to the lab and 1kg stored on site. • Almost all the samples were dry. • Sample preparation was conducted at SGS Vespasiano (greater Belo Horizonte) comprising oven drying, crushing of entire sample to 75% < 3mm followed by rotary splitting and pulverisation of 250 to 300 grams at 95% minus 150# • The <3mm rejects and the 250-300 grams pulverized sample were returned to BBX for storage.
Quality of Assay Data and Laboratory Tests	• 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	• The assay results of the standards show most of the results fall within acceptable tolerance limits and no material bias is evident. • The pulps for the RC and DD stored at Catalão were returned to SGS Vespasiano to assay for REE.

<table>
<tr><th>Item</th><th>JORC code explanation</th><th>Comments</th></tr>
<tr>
<td></td>
<td>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>• 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.

• Analytical Standards 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.

• Blanks

The blanks used contain some REE, with critical elements Ce, Nd, Dy and Y present in small quantities.

• Duplicates

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.</td>
</tr>
</table>

Item	JORC code explanation	Comments
		Laboratory inserted standards, blanks and duplicates were analysed as per industry standard practise. 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 SGS laboratory facility in Vespasiano to the BBX´s Exploration Manager in Rio de Janeiro. • No twinned holes were used. • Geological data was logged into paper and transferred to Excel spreadsheets at end of the day and then transfer into the drill hole database. Microsoft Access is used for database storage and management and incorporates numerous data validation and data validation and 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).

Element ppm	Conversion Factor	Oxide Form
Ce	1.2284	CeO2
Dy	1.1477	Dy2O3

Item	JORC code explanation	Comments
		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 Rare earth oxide is the industry accepted form for reporting rare earths. The following calculations are used for compiling REO into their reporting and evaluation groups: TREO (Total Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 + Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3 LREO (Light Rare Earth Oxide) = La2O3 + CeO2 + Pr6O11 + Nd2O3 HREO (Heavy Rare Earth Oxide) = Sm2O3 + Eu2O3 + Gd2O3 + Tb4O7 + Dy2O3 + Ho2O3 + Er2O3 + Tm2O3 + Yb2O3 + Y2O3 + Lu2O3 CREO (Critical Rare Earth Oxide) = Nd2O3 + Eu2O3 + Tb4O7 + Dy2O3 + Y2O3 (From U.S. Department of Energy, Critical Material Strategy, December 2011)

Item	JORC code explanation	Comments
		MREO (Magnetic Rare Earth Oxide) = Nd2O3 + Pr6O11 + Tb4O7 + Dy2O3 NdPr = Nd2O3 + Pr6O11 In elemental from the classifications are: TREE: La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Tb+Lu+Y HREE: Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Tb+Lu+Y CREE: Nd+Eu+Tb+Dy+Y LREE: La+Ce+Pr+Nd
Location of Data Points	• Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control.	• The UTM WGS84 zone 21S grid datum is used for current reporting. The drill holes collar coordinates for the holes reported are currently controlled by hand-held GPS.
Data Spacing and Distribution	• Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied.	• Drilling in this target is typically with holes 200m apart, over the mapped unit in targets a few kilometres apart. • This announcement refers to assays of exploration RC and diamond holes for Rare Earth Elements. • The DD samples are from intervals of 1.00m up to 4.00m, but nominal length of 2.00m; no compositing was applied. • All RC samples are 2m composites from original 1m samples. • This announcement refers to RC and DD hole assays and no representation of extensions, extrapolations or otherwise continuity of grade are made.

Item	JORC code explanation	Comments
		• All samples are 2m composites from original 1m samples. drill holes and no representation of extensions, extrapolations or otherwise continuity of grade are made.
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 orientation of the RC and DD drilling in the Ema project is appropriate given the strike and morphology of the mapped felsic and gabbro units. • Relevant REE mineralisation intersected is interpreted to be in a flat-lying weathered profile including cover soil, clay transition to saprolite and saprock. • Below the saprock are fresh rhyolites, ignimbrites and mafic rocks. • All drill holes are vertical which is appropriate for horizontal mineralised zones in the regolith profile.
Sample security	• The measures taken to ensure sample security.	• The RC and DD pulps as received from SGS, in sealed plastic bags, were kept in a locked room until shipped to BBX´s laboratory facility in Catalão. 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 Ema lease is 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 is contained within the tropical lateritic weathering profile developed on top of rhyolites, ignimbrites and mafic rocks potentially derived from the underlying rocks as described for the Chinese iREE deposits. • The REE mineralization is concentrated in the weathered profile where it has dissolved from the primary mineral form, such as monazite and xenotime, then adsorbed on to the neo-forming fine particles of aluminosilicates clays (e.g. kaolinite, illite, smectite). • This adsorbed REE 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	• Drillhole locations and diagrams are presented in this announcement. • All drill-holes are vertical. The cores were not oriented and did not have a down-hole survey. • Details are tabulated in the announcement.

Criteria	JORC code explanation	Commentary
	• elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar • 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.	• Aggregate intercepts were calculated for the REO (Rare Earth Oxides) based on a cut-off grade of 200ppm TREO (Total Rare Earth Oxides) minus Ce2O, with maximum 2 metres for internal dilution, which was used as a cut-off grade in the Makuutu project DFS. • Aggregate intercepts were calculated for REO based on a 600ppm TREO for high grade zones. • Significant intervals were tabulated downhole for reporting. All individual samples were included in length-weighted averaging over the entire tabulated range. • No metal equivalent values have been reported.

Criteria	JORC code explanation	Commentary
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').	• Relevant mineralisation of REE was intercepted as reported with thicknesses approximating true width due to the flat geometry.
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.	• Drillhole locations and diagrams are presented in this announcement.
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 is reported, confirmation of IAC (Ionic Adsorbed Clay) type mineralisation has been announced for EMD017 drillhole.
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).	• Follow up the holes which reported significant REE elements with auger drilling.

Criteria	JORC code explanation	Commentary
	• Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	• Conduct a regional reconnaissance auger drilling programme on 800m square grid.