20 December 2021

MAKUUTU PHASE 4 DRILLING TRANCHE 3 ASSAY RESULTS

- **Third Tranche of Phase 4 drilling results (71 holes) received with all 71 holes intersecting rare earth element (REE) mineralised clay above the MRE cut-off grade, including the following outstanding thick high-grade intervals:**
  - **RRMDD447** **11.7 metres at 1,437 ppm TREO from 4.5 metres**
  - **RRMDD446** **12.0 metres at 1,468 ppm TREO from 4.5 metres**
  - **RRMDD449** **8.1 metres at 1,413 ppm TREO from 7.5 metres**
  - **RRMDD456** **12.3 metres at 1,268 ppm TREO from 3.2 metres**
  - **RRMDD444** **11.4 metres at 1,223 ppm TREO from 8.0 metres**
  - **RRMDD457** **16.4 metres at 1,210 ppm TREO from 2.0 metres**
  - **RRMDD454** **14.4 metres at 1,187 ppm TREO from 5.1 metres**
  - **RRMDD394** **13.2 metres at 1,184 ppm TREO from 2.7 metres**
- **All Phase 4 samples have been delivered to Perth with three (3) Tranches of samples (251 holes) currently at the assay laboratory**

Ionic Rare Earths Limited ("IonicRE" or "the Company") (ASX: IXR) is pleased to announce the receipt of assays for Tranche three (3) of the 8,220 metre Phase 4 drill program completed in October at the Makuutu Rare Earths Project ("Makuutu" or "the Project") in Uganda.

Drilling results to date indicate that Makuutu is a large scale, ionic adsorption clay (IAC) hosted rare earth element (REE) project, with extension potential identified east and to the northwest. The Project is well supported by existing infrastructure and is one of a few confirmed IAC deposits identified globally, outside of China.

Drill assay results have been received for the Tranche 3 submission consisting of 71 drill holes, including RRMDD390 to 460. The results are for holes drilled within the existing inferred and indicated Mineral Resource Estimate (MRE) and to define extensions to the MRE in the Makuutu Central Zone (MCZ) and areas F and G.

All 71 holes reported in this announcement have delivered clay and saprolite mineralisation intersections above the cut-off grade of 200 ppm Total Rare Earth Oxide less CeO_2 (TREO-CeO_2), consistent with the initial drilling phases (2019 and H1 2020) and the current MRE.

Notable thick, high-grade and near surface intervals reported from the tranche three (3) assay results include:

- RRMDD447 11.7 metres at 1,437 ppm TREO from 4.5 metres
- RRMDD446 12.0 metres at 1,468 ppm TREO from 4.5 metres
- RRMDD449 8.1 metres at 1,413 ppm TREO from 7.5 metres
- RRMDD456 12.3 metres at 1,268 ppm TREO from 3.2 metres
- RRMDD444 11.4 metres at 1,223 ppm TREO from 8.0 metres
- RRMDD457 16.4 metres at 1,210 ppm TREO from 2.0 metres
- RRMDD454 14.4 metres at 1,187 ppm TREO from 5.1 metres
- RRMDD394 13.2 metres at 1,184 ppm TREO from 2.7 metres
- RRMDD432 6.7 metres at 1,174 ppm TREO from 3.4 metres
- RRMDD430 4.2 metres at 1,162 ppm TREO from 4.8 metres
- RRMDD390 16.2 metres at 1,128 ppm TREO from 3.8 metres
- RRMDD443 12.0 metres at 1,060 ppm TREO from 4.1 metres

The final sample tranche from the program has arrived in Perth. Sample backlogs remain significant at the assay laboratory with three tranches remaining for analysis.

Ionic Rare Earths Managing Director Mr. Tim Harrison commented:

“These are very strong infill results and further confirm, as I expected, the high grade, near surface and thick nature of the clay in the MCZ. Additional to the strong infill results, assays confirm the potential for extension of mineralisation on the western side of the MCZ to extend the lobe on the northwest corner.”

“Drill assays across areas F and G have delivered as expected and should also see an increase in the total resources defined at these areas. Pleasingly, these results are another positive step for the Project on delivering a larger, higher classification MRE at Makuutu.”

Drilling Results

The third tranche of assays have been received from the Makuutu Phase 4 drill program. The aim of the program is to increase MRE confidence in the Central Zone plus areas F, G, H and I, as illustrated in Figure 1. In addition, exploration targets C, E and the area between the Central Zone and Central Zone East have been infill drilled to support resource estimation of these zones.

Figure 1 illustrates the drill status over the entire Makuutu Rare Earths Project area, including;

1) the hole locations relevant to this announcement, which are shown in red;
2) completed Phase 4 drill holes with assay results pending shown as blue points;
3) all previously reported holes, which are shown in grey.

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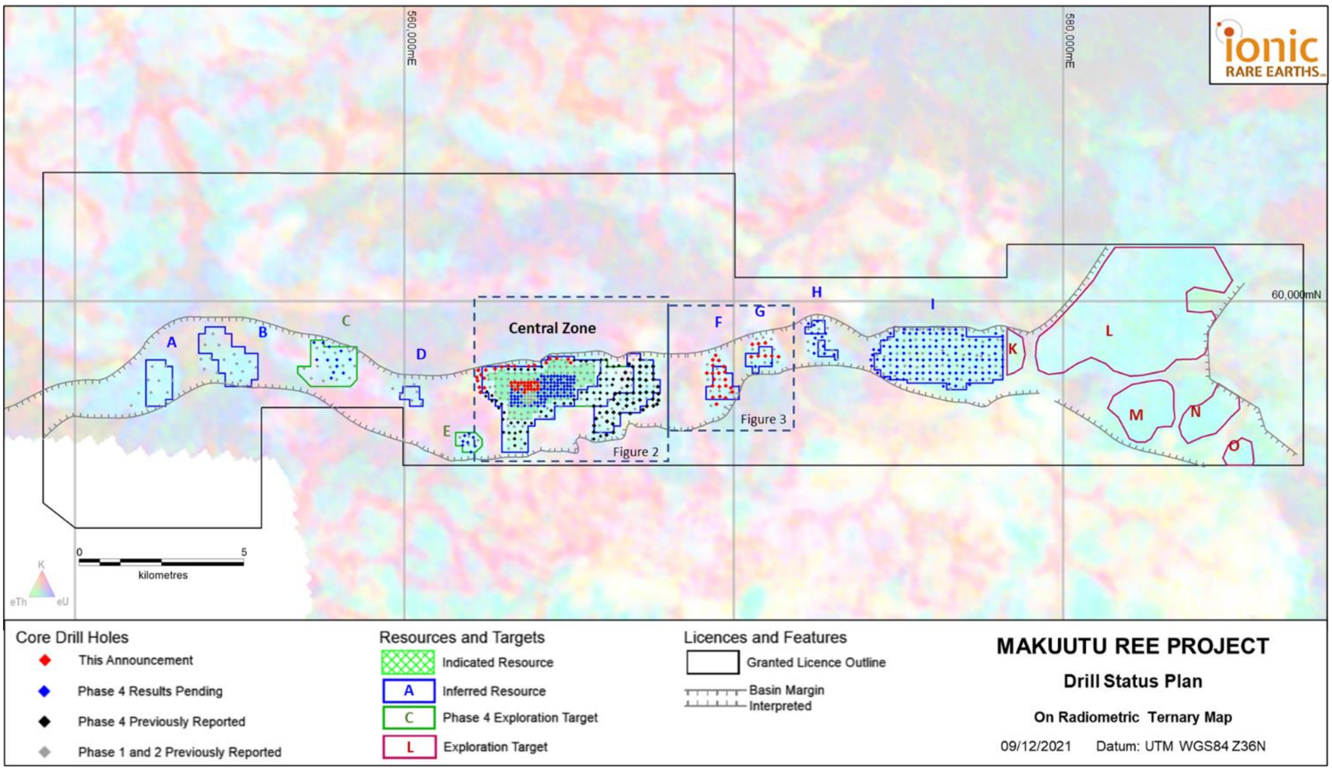

Figure 1: Phase 4 Drill Program status plan showing completed and planned drill holes covering the Makuutu Rare Earths Project with the MRE and target areas.

The drill results reported in Tranche 3 consist of seventy-one (71) infill drill holes drilled to;

- Infill and test the northern and western margin of the current Central Zone inferred resource,
- infill a portion of the Makuutu Central Zone indicated resource to further increase grade estimation confidence in that area, and
- Infill and extend resource areas F and G.

The results from each of these objectives is summarized in the following sections.

a) Infill and extension drilling of the northern and western margins of the Makuutu Central zone (MCZ) aimed to increase confidence on the current MRE boundary and extend the resource area to the west. All drilling was designed to provide a 200-metre spaced pattern adequate for indicated status grade modelling confidence. The intersections from these holes are shown in Figure 2 and listed in Table 1.

The drilling successfully defined mineralisation in an area to the west of the existing resource with further opportunity to extend beyond these results.

Inferred resource infill drilling was consistent with the known mineralisation and shows a narrowing of the mineralization on the northern resource limit approaching the boundary of the host sedimentary basin.

Indicated resource infill drilling in the central portion of the MCZ resource brings the drill spacing in to a 100-metre grid. The results are consistent with expectations giving further confidence in geology and grade continuity.

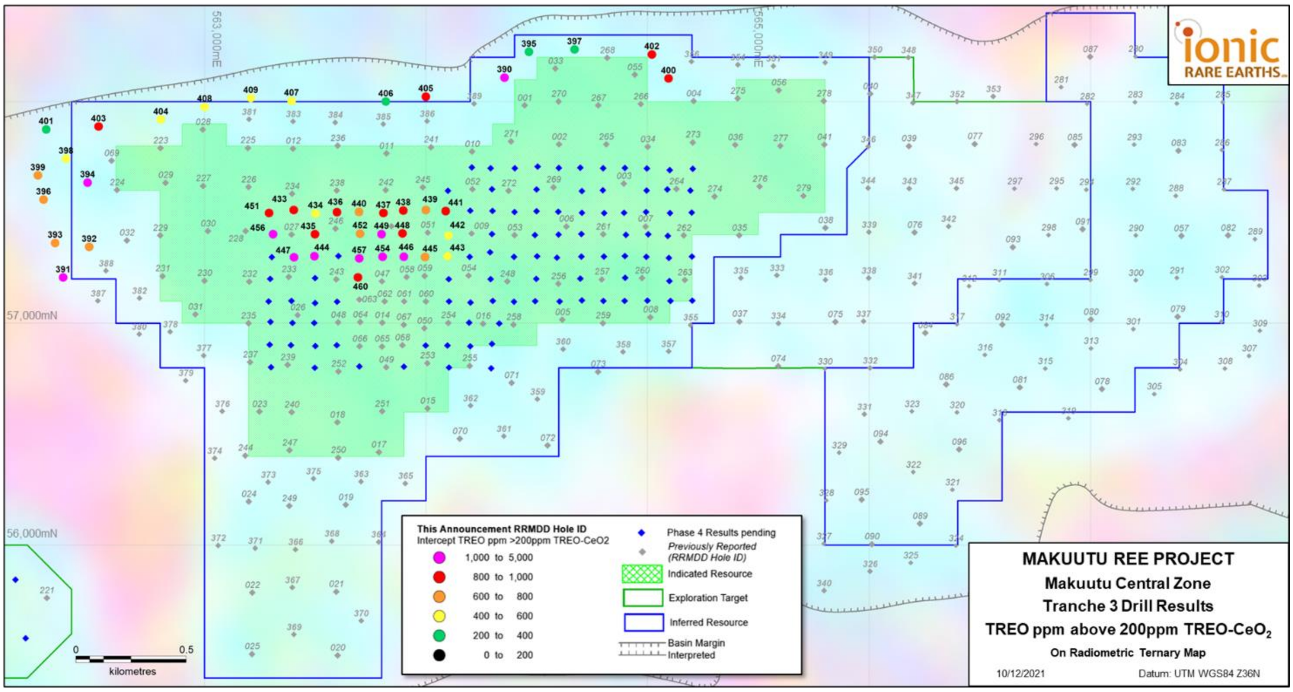

Figure 2: Makuutu Central Zone drill plan with Tranche 3 infill drill holes showing hole locations by drill intercept TREO grade and RRMDD drill hole ID.

Table 1: Makuutu Central Zone Tranche 3 drilling results above MRE cut-off grade of 200ppm TREO-CeO_2.

Drill Hole ID	Depth From (metres)	Length (metres)	TREO (ppm)	TREO-CeO_2 (ppm)	HREO (ppm)	CREO (ppm)	Target
RRMDD390	3.8	16.2	1128	780	233	363	Inferred resource infill
RRMDD391	2.9	3.3	2451	1843	698	944	Extension
RRMDD392	3.0	22.3	645	397	142	196	Inferred resource infill
RRMDD393	2.4	12.6	670	441	197	246	Extension
RRMDD394	2.7	13.2	1184	852	302	429	Inferred resource infill
RRMDD395	17.8	1.1	312	207	56	92	Inferred resource infill
RRMDD396	4.0	9.5	791	548	207	278	Extension
RRMDD397	13.4	2.7	341	221	79	108	Inferred resource infill
RRMDD398	4.1	12.1	553	365	158	194	Extension
RRMDD399	3.1	11.2	634	412	185	228	Extension
RRMDD400	3.4	10.9	888	543	221	287	Extension
RRMDD401	2.4	10.7	441	253	86	122	Inferred resource infill
RRMDD401	16.7	1.0	320	224	116	129	Extension
RRMDD402	2.4	14.6	998	719	278	377	Inferred resource infill
RRMDD403	6.6	8.0	804	619	377	388	Inferred resource infill
RRMDD404	3.5	2.8	482	308	112	150	Inferred resource infill
RRMDD405	8.6	2.5	868	595	279	338	Inferred resource infill
RRMDD406	3.4	1.0	508	243	88	115	Inferred resource infill
RRMDD406	9.6	1.2	322	219	69	105	Inferred resource infill
RRMDD407	3.6	2.7	574	323	101	147	Inferred resource infill
RRMDD408	3.1	1.2	427	223	78	105	Inferred resource infill
RRMDD409	3.8	1.4	562	250	79	114	Inferred resource infill
RRMDD433	3.8	13.8	895	642	286	358	Indicated resource infill
RRMDD434	8.1	10.6	420	287	92	141	Indicated resource infill
RRMDD435	3.3	18.1	804	568	270	326	Indicated resource infill
RRMDD436	4.2	8.9	924	642	289	359	Indicated resource infill
RRMDD437	6.9	1.0	405	221	68	93	Indicated resource infill
RRMDD437	10.7	17.8	873	621	293	346	Indicated resource infill

RRMDD438	5.8	17.2	958	696	314	392	Indicated resource infill
RRMDD439	7.9	1.9	332	247	96	120	Indicated resource infill
RRMDD439	11.8	11.2	775	595	334	353	Indicated resource infill
RRMDD440	8.5	9.5	696	470	173	221	Indicated resource infill
RRMDD441	6.7	11.3	905	663	307	363	Indicated resource infill
RRMDD442	4.4	14.0	456	257	91	126	Indicated resource infill
RRMDD443	4.1	12.0	1060	697	325	398	Indicated resource infill
RRMDD443	18.7	1.3	446	271	94	135	Indicated resource infill
RRMDD444	8.0	11.4	1223	893	376	484	Indicated resource infill
RRMDD445	4.2	18.1	661	436	191	236	Indicated resource infill
RRMDD446	4.5	12.0	1468	1234	715	765	Indicated resource infill
RRMDD447	4.5	11.7	1841	1437	733	863	Indicated resource infill
RRMDD448	6.2	13.9	809	598	289	337	Indicated resource infill
RRMDD449	7.5	8.1	1413	961	418	520	Indicated resource infill
RRMDD450	2.8	8.7	902	630	214	304	Indicated resource infill
RRMDD451	4.9	16.8	896	660	290	354	Indicated resource infill
RRMDD452	6.8	20.0	611	423	162	217	Indicated resource infill
RRMDD454	5.1	14.4	1187	910	503	551	Indicated resource infill
RRMDD456	3.2	12.3	1268	936	431	537	Indicated resource infill
RRMDD457	2.0	16.4	1210	914	468	541	Indicated resource infill

Note: Rounding may create arithmetic differences

TREO, HREO and CREO definitions provided within JORC Table 1.

b) Infill and extension of MRE areas F and G was designed to increase the drill spacing across both areas to a 200-metre grid. The resource in these areas was limited in the current MRE due to lack of drill density on the margins and drilling was conducted outside the resource area to provide increased data density for the next resource update.

All drill holes were mineralised in both areas with hole locations shown in Figure 3, and intercepts above the MRE cutoff grade of 200ppm TREO-CeO_2 listed in Table 2. Interval thickness showed general consistency with some narrower intercepts on the area margins.

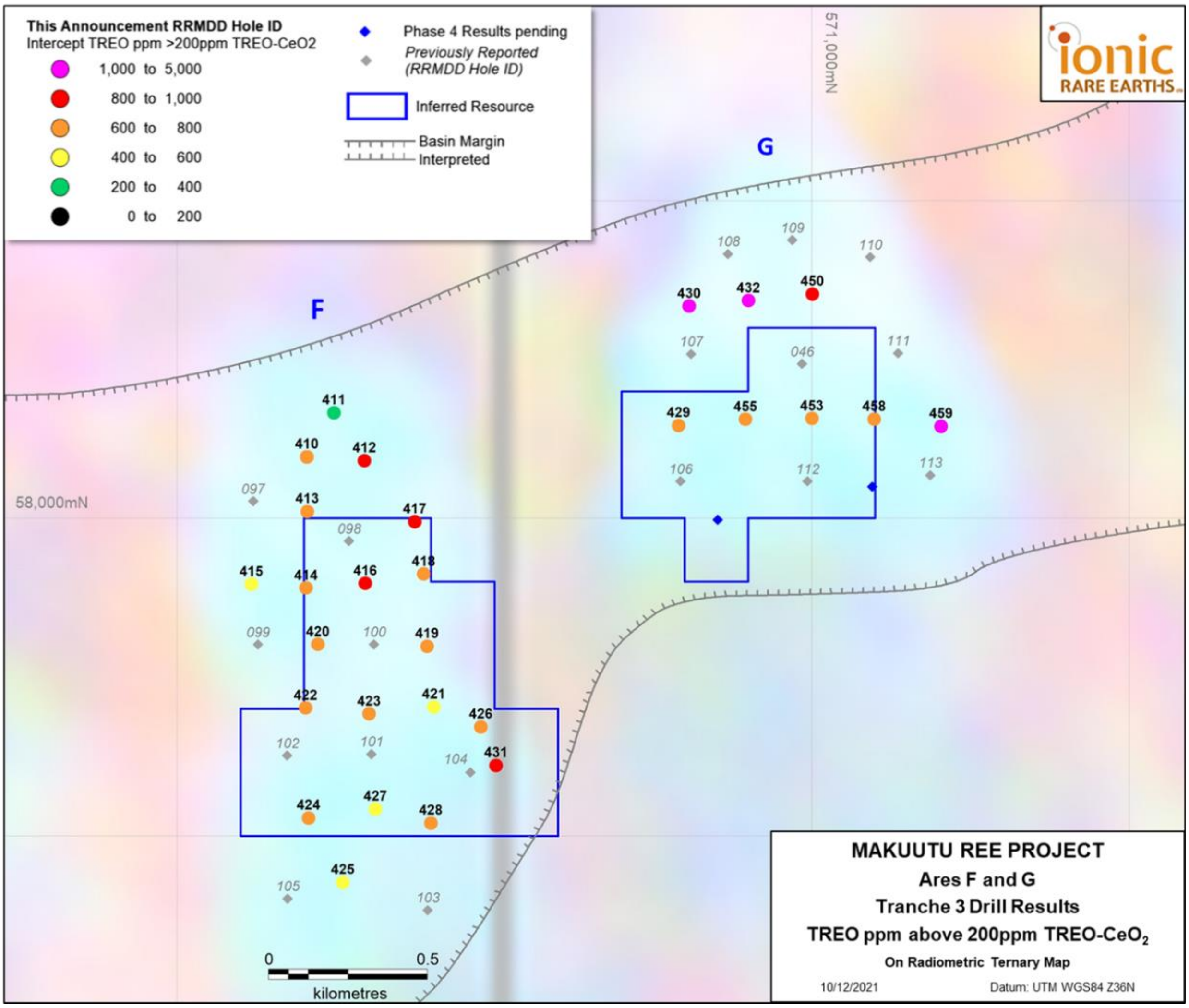

Figure 3: Areas F and G drill plan with Tranche 3 infill drill holes showing hole locations by drill intercept TREO grade and RRMDD drill hole ID.

Table 2: Areas F and G Tranche 3 drilling results above MRE cut-off grade of 200ppm TREO-CeO_2.

Drill Hole ID	Depth From (metres)	Length (metres)	TREO (ppm)	TREO-CeO_2 (ppm)	HREO (ppm)	CREO (ppm)	Target
RRMDD410	6.2	10.2	873	610	212	301	Area F infill
RRMDD411	4.4	1.0	361	229	89	113	Area F infill
RRMDD411	7.3	7.7	718	552	187	265	Area F infill
RRMDD412	4.4	9.6	818	600	202	287	Area F infill
RRMDD413	6.1	8.3	791	544	178	260	Area F infill
RRMDD414	3.8	11.2	715	493	188	245	Area F infill
RRMDD415	4.9	1.8	476	284	105	132	Area F infill
RRMDD415	9.2	13.4	579	387	127	185	Area F infill
RRMDD416	5.5	9.8	893	579	168	264	Area F infill
RRMDD417	4.0	6.6	911	659	231	318	Area F infill
RRMDD418	2.0	4.2	744	433	160	216	Area F infill
RRMDD419	2.2	1.4	721	459	193	236	Area F infill
RRMDD420	4.0	7.4	609	384	109	174	Area F infill
RRMDD421	2.7	4.2	494	290	99	134	Area F infill
RRMDD422	5.5	9.0	793	541	168	254	Area F infill
RRMDD423	3.8	11.8	723	450	154	216	Area F infill
RRMDD424	4.6	11.9	674	424	140	199	Area F infill

RRMDD425	4.4	9.5	541	348	148	189	Area F infill
RRMDD426	3.3	5.4	613	372	152	190	Area F infill
RRMDD427	5.2	13.2	570	355	145	183	Area F infill
RRMDD428	2.3	5.5	643	445	208	242	Area F infill
RRMDD429	4.4	9.5	732	485	180	246	Area G infill
RRMDD430	4.8	4.2	1162	884	317	451	Area G infill
RRMDD431	3.3	1.6	833	471	169	232	Area F infill
RRMDD432	3.4	6.7	1174	803	283	402	Area G infill
RRMDD450	2.8	8.7	902	630	214	304	Area G infill
RRMDD453	5.2	9.0	642	441	152	212	Area G infill
RRMDD455	2.8	8.0	792	504	165	245	Area G infill
RRMDD458	4.4	8.4	747	520	186	261	Area G infill
RRMDD459	3.3	3.0	1034	711	184	330	Area G infill

Note: Rounding may create arithmetic differences

TREO, HREO and CREO definitions provided within JORC Table 1.

Drilling Program Update

The Phase 4 drill program totalled 8,220 metres of drilling (432 holes) with the objective of increasing the resource confidence to JORC Indicated status over most of the current resource. The drill program was the largest undertaken on the Project to date and will be followed by a MRE update currently anticipated to be undertaken in early 2022.

In addition to the assay samples, several tonnes of metallurgical samples, consisting of individual drill core intervals, are also being delivered from the program to specialised testing laboratories in Australia. Testing of existing and current samples is ongoing.

Table 3: Makuutu Rare Earths Project core hole details this Announcement (Datum UTM WGS84 Zone 36N).

Drill Hole ID	UTM East (m.)	UTM North (m.)	Elevation (m.a.s.l.)	Drill Type	Hole Length EOH (m.)	Azimuth	Inclination
RRMDD390	564354	58107	1151	DD HQ3	22.1	0	-90
RRMDD391	562363	57205	1139	DD HQ3	6.7	0	-90
RRMDD392	562480	57343	1148	DD HQ3	26.4	0	-90
RRMDD393	562326	57361	1141	DD HQ3	16.0	0	-90
RRMDD394	562474	57633	1150	DD HQ3	16.4	0	-90
RRMDD395	564466	58223	1152	DD HQ3	24.1	0	-90
RRMDD396	562275	57557	1144	DD HQ3	15.0	0	-90
RRMDD397	564671	58233	1151	DD HQ3	24.4	0	-90
RRMDD398	562377	57740	1147	DD HQ3	17.4	0	-90
RRMDD399	562249	57665	1142	DD HQ3	15.2	0	-90
RRMDD400	565096	58103	1140	DD HQ3	15.6	0	-90
RRMDD401	562287	57873	1142	DD HQ3	21.4	0	-90
RRMDD402	565020	58211	1138	DD HQ3	19.2	0	-90
RRMDD403	562523	57886	1151	DD HQ3	18.5	0	-90
RRMDD404	562804	57917	1158	DD HQ3	23.4	0	-90
RRMDD405	564000	58021	1142	DD HQ3	12.4	0	-90
RRMDD406	563820	57999	1155	DD HQ3	13.1	0	-90
RRMDD407	563394	58002	1167	DD HQ3	24.4	0	-90
RRMDD408	563002	57975	1162	DD HQ3	11.4	0	-90
RRMDD409	563210	58014	1166	DD HQ3	19.4	0	-90
RRMDD410	569409	58192	1106	DD HQ3	16.4	0	-90
RRMDD411	569494	58330	1105	DD HQ3	15.4	0	-90
RRMDD412	569590	58180	1106	DD HQ3	14.0	0	-90
RRMDD413	569411	58019	1108	DD HQ3	14.4	0	-90
RRMDD414	569407	57779	1110	DD HQ3	15.0	0	-90
RRMDD415	569235	57791	1108	DD HQ3	23.4	0	-90

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RRMDD416	569593	57794	1107	DD HQ3	15.3	0	-90
RRMDD417	569749	57988	1103	DD HQ3	11.4	0	-90
RRMDD418	569778	57823	1101	DD HQ3	6.2	0	-90
RRMDD419	569788	57595	1102	DD HQ3	4.9	0	-90
RRMDD420	569444	57601	1111	DD HQ3	11.4	0	-90
RRMDD421	569809	57405	1106	DD HQ3	7.9	0	-90
RRMDD422	569406	57401	1113	DD HQ3	15.2	0	-90
RRMDD423	569605	57383	1112	DD HQ3	17.5	0	-90
RRMDD424	569414	57055	1118	DD HQ3	17.4	0	-90
RRMDD425	569522	56852	1125	DD HQ3	20.9	0	-90
RRMDD426	569958	57341	1104	DD HQ3	13.0	0	-90
RRMDD427	569626	57083	1119	DD HQ3	19.5	0	-90
RRMDD428	569800	57039	1118	DD HQ3	12.4	0	-90
RRMDD429	570581	58290	1109	DD HQ3	16.9	0	-90
RRMDD430	570614	58666	1100	DD HQ3	11.0	0	-90
RRMDD431	570006	57220	1107	DD HQ3	5.4	0	-90
RRMDD432	570801	58684	1102	DD HQ3	10.1	0	-90
RRMDD433	563404	57509	1170	DD HQ3	20.4	0	-90
RRMDD434	563502	57494	1172	DD HQ3	20.4	0	-90
RRMDD435	563500	57400	1172	DD HQ3	21.4	0	-90
RRMDD436	563599	57499	1173	DD HQ3	16.4	0	-90
RRMDD437	563808	57496	1174	DD HQ3	28.5	0	-90
RRMDD438	563898	57507	1173	DD HQ3	23.0	0	-90
RRMDD439	564000	57510	1173	DD HQ3	24.0	0	-90
RRMDD440	563698	57501	1173	DD HQ3	18.0	0	-90
RRMDD441	564090	57505	1173	DD HQ3	18.0	0	-90
RRMDD442	564102	57394	1175	DD HQ3	18.4	0	-90
RRMDD443	564098	57301	1176	DD HQ3	20.4	0	-90
RRMDD444	563497	57301	1172	DD HQ3	20.4	0	-90
RRMDD445	563996	57298	1176	DD HQ3	22.3	0	-90
RRMDD446	563900	57299	1176	DD HQ3	18.2	0	-90
RRMDD447	563405	57296	1168	DD HQ3	18.8	0	-90
RRMDD448	563895	57404	1175	DD HQ3	23.0	0	-90
RRMDD449	563800	57401	1175	DD HQ3	17.8	0	-90
RRMDD450	571003	58704	1101	DD HQ3	12.9	0	-90
RRMDD451	563292	57496	1169	DD HQ3	22.4	0	-90
RRMDD452	563704	57403	1174	DD HQ3	26.8	0	-90
RRMDD453	571001	58313	1110	DD HQ3	14.2	0	-90
RRMDD454	563805	57299	1175	DD HQ3	19.6	0	-90
RRMDD455	570791	58310	1110	DD HQ3	11.4	0	-90
RRMDD456	563310	57401	1169	DD HQ3	15.4	0	-90
RRMDD457	563700	57291	1174	DD HQ3	20.5	0	-90
RRMDD458	571198	58310	1107	DD HQ3	12.8	0	-90
RRMDD459	571409	58288	1103	DD HQ3	7.9	0	-90
RRMDD460	563694	57205	1174	DD HQ3	20.1	0	-90

Authorised for release by the Board.

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Makuutu Mineral Resource Estimate

Table 4: Makuutu Resource above 200ppm TREO-CeO_2 Cut-off Grade

Resource Classification	Tonnes (millions)	TREO (ppm)	TREO-CeO_2 (ppm)	LREO (ppm)	HREO (ppm)	CREO (ppm)	Sc_2O_3 (ppm)
Indicated Resource	66	820	570	590	230	300	30
Inferred Resource	248	610	410	450	160	210	30
Total Resource	**315**	**650**	**440**	**480**	**170**	**230**	**30**

Rounding has been applied to 1Mt and 10ppm which may influence averaging calculation.

All REO are tabulated in MRE announcement dated 3 March 2021 with formulas defining composition of Light Rare Earth Oxides (LREO), Heavy Rare Earth Oxides (HREO), Critical Rare Earth Oxides (CREO) and Total Rare Earth Oxides (TREO).

Table 5: Mineral Resources by Area

Classification	Indicated Resource			Inferred Resource			Total Resource		
Area	**Tonnes (millions)**	**TREO (ppm)**	**TREO-CeO_2 (ppm)**	**Tonnes (millions)**	**TREO (ppm)**	**TREO-CeO_2 (ppm)**	**Tonnes (millions)**	**TREO (ppm)**	**TREO-CeO_2 (ppm)**
Central Zone	66	820	570	51	730	500	118	780	540
A				12	570	390	12	570	390
B				25	410	280	25	410	280
C				-	-	-	-	-	-
D				6	560	400	6	560	400
E				-	-	-	-	-	-
Central Zone East				37	740	520	37	740	520
F				11	570	390	11	570	390
G				6	660	450	6	660	450
H				4	780	560	4	780	560
I				96	550	350	96	550	350
Total Resource	**66**	**820**	**570**	**248**	**610**	**410**	**315**	**650**	**440**

Rounding has been applied to 1Mt and 10ppm which may influence averaging calculations.

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About Makuutu Rare Earths Project

The Makuutu Rare Earths Project is an ionic adsorption clay ("IAC") hosted rare earth element ("REE") deposit located 120 km east of Kampala in Uganda and is well serviced by existing high quality infrastructure including roads, rail, power infrastructure and cell communications. The installed infrastructure is illustrated in Figure 4.

The deposit stretches 37 km in length and has demonstrated potential for a long life, low-cost capital source of critical and heavy rare earths. These IAC deposits are prevalent in southern China which have been the source of the world's lowest cost critical and heavy REE production, however these deposits are gradually being exhausted and Makuutu represents one of only a handful of such deposits outside of southern China.

The Makuutu deposit is shallow, with less than 3 m of cover over a 9 m average thickness clay and saprolite zone which results in low-cost bulk mining methods with low strip ratio. A maximum thickness of 19.5 m has been identified at Makuutu. Processing is via simple acidified salt desorption heap leaching, breaking the chemical ionic bond which washes the rare earths (in a chemical form) from the ore into a pregnant leach solution ("PLS"). The PLS is concentrated up using membrane technology, from which the rare earths are precipitated as a mixed rare earth carbonate product; a product which attracts both a higher payability and achieves a high basket price due to the dominant high value critical and heavy rare earths which make up over 70% of the product basket.

The Project has the potential of generating a high margin product with an operation life exceeding 27 years. The Project is also prospective for a low-cost Scandium co-product.

Figure 4: Makuutu Rare Earths Project Location with major existing infrastructure.

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Existing Infrastructure

One of the Makuutu Rare Earths Project's competitive advantages is its proximity to existing infrastructure. The Makuutu site is approximately 10km from Highway 109 which is a sealed bitumen road connecting to Kampala, to Kenya and on to the Port of Mombasa. All weather access roads connecting the site to the adjacent sealed bitumen highway are already existing. A rail line lies within 10 kilometres north of the Makuutu site near the town of Iganga. There are four hydroelectric power plants located within 65 km of the project area, with total installed generating capacity of approximately 810 MW, providing an abundant supply of cheap power to the Project.

Water will be sourced at the project by harvesting water from the Makuutu site, given the Project location in a positive rainfall environment, and a net positive process water balance will require membrane processes to be used to process site discharge water for reagent recovery. Excess water management will be a key focus of the Project the ensure environmental standards are met and reagent consumption is minimised.

A workforce of semi-skilled and artisanal workers is available in nearby towns and population centres. The closest major population centre is Iganga, which has a population of 50,000. The town of Mayuge is approximately 10 km from the Project site and the intent is to source local operations staff from the immediate districts and train staff accordingly. The operation is to be staffed by a residential workforce. No fly in – fly out is envisaged, and the number of expatriate staff is intended to be low, and to be phased out over time. Industrial facilities are available in the city of Jinja, approximately 40 km from the Project area. Additional industrial facilities are available on the outskirts of Kampala.

Competent Person Statements

The information in this Report that relates to Exploration Results for the Makuutu Project is based on information compiled by Mr. Geoff Chapman, who is a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM). Mr. Chapman is a director of geological consultancy GJ Exploration Pty Ltd that is engaged by Ionic Rare Earths Ltd. Mr. Chapman has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (JORC Code). Mr. Chapman consents to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Information in this report that relates to previously reported Exploration Targets and Exploration Results has been crossed-referenced in this report to the date that it was originally reported to ASX. Ionic Rare Earths Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcements.

The information in this report that relates to Mineral Resources for the Makuutu Rare Earths deposit was first released to the ASX on 3 March 2021 and is available to view on www.asx.com.au. Ionic Rare Earths Limited confirms that it is not aware of any new information or data that materially affects information included in the relevant market announcement, and that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

The information in this report that relates to Scoping Study results and production targets was first released to the ASX on 29 April 2021 and is available to view on www.asx.com.au. Ionic Rare Earths Limited confirms that

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it is not aware of any new information or data that materially affects information included in the relevant market announcement, and that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

Forward Looking Statements

This announcement has been prepared by Ionic Rare Earths Limited and may include forward-looking statements. Forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of Ionic Rare Earths Limited. Actual values, results or events may be materially different to those expressed or implied in this document. Given these uncertainties, recipients are cautioned not to place reliance on forward looking statements. Any forward-looking statements in this document speak only at the date of issue of this document. Subject to any continuing obligations under applicable law and the ASX Listing Rules, Ionic Rare Earths Limited does not undertake any obligation to update or revise any information or any of the forward-looking statements in this document or any changes in events, conditions or circumstances on which any such forward looking statement is based.

Appendix 1: Diamond Core Drilling Analytical Results RRMDD390 to RRMDD460 Including Highlighted Intersections >200 ppm TREO-CeO_2

(Note: Rounding will cause minor value differences)

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD390	0.0	1.9	1.9	95.6	590.9	16.7	51.0	8.1	1.4	5.8	1.0	5.7	1.1	3.3	0.5	3.9	0.6	28.8	815	Hardcap		
RRMDD390	1.9	3.8	1.9	120.8	1296.0	20.8	62.3	10.1	1.7	6.7	1.2	6.7	1.2	3.6	0.6	4.2	0.6	30.7	1567	Hardcap		
RRMDD390	3.8	4.7	0.9	71.1	110.6	14.1	47.1	7.8	1.4	6.2	1.0	6.0	1.2	3.9	0.6	4.1	0.6	40.1	316	Clay		
RRMDD390	4.7	5.5	0.9	99.2	194.7	21.4	73.5	12.1	2.1	8.7	1.3	7.4	1.5	4.5	0.7	4.5	0.7	46.5	479	Clay		
RRMDD390	5.5	6.4	0.9	429.2	461.9	89.5	299.8	48.7	8.0	30.1	4.0	20.0	3.4	9.0	1.2	7.3	1.0	96.3	1509	Clay		
RRMDD390	6.4	7.3	0.9	518.4	541.7	130.5	431.6	69.9	11.5	42.2	5.5	26.6	4.4	11.3	1.5	8.6	1.1	115.2	1920	Clay		
RRMDD390	7.3	8.2	1.0	724.8	733.4	160.7	516.7	82.8	13.7	50.6	6.5	31.4	5.3	13.1	1.7	9.8	1.3	139.1	2491	Clay		
RRMDD390	8.2	9.2	1.0	384.7	399.2	111.6	393.1	65.4	11.0	42.1	5.7	28.1	4.9	12.9	1.8	9.9	1.4	137.8	1609	Clay		
RRMDD390	9.2	10.2	1.0	335.4	389.4	87.5	312.6	51.1	8.8	35.2	4.7	24.4	4.5	11.9	1.6	9.6	1.4	134.6	1413	Clay		
RRMDD390	10.2	11.2	1.0	254.5	318.2	63.8	227.4	37.9	6.6	26.5	3.7	18.8	3.5	9.5	1.3	7.9	1.1	104.3	1085	Clay		
RRMDD390	11.2	12.1	1.0	246.3	667.0	54.0	189.5	30.6	5.5	22.5	3.2	17.4	3.4	9.5	1.3	8.1	1.1	111.0	1370	Clay		
RRMDD390	12.1	13.1	1.0	217.6	373.4	46.0	166.8	27.5	4.9	21.7	3.1	17.0	3.4	9.3	1.3	8.1	1.2	110.2	1012	Clay		
RRMDD390	13.1	14.1	1.0	195.3	260.4	43.1	158.0	26.4	4.9	21.4	3.1	16.7	3.3	9.4	1.3	8.0	1.2	110.2	863	Clay		
RRMDD390	14.1	15.0	1.0	197.0	256.7	45.1	162.7	27.3	4.7	20.6	3.0	16.4	3.3	9.3	1.3	7.7	1.1	108.3	864	Clay		
RRMDD390	15.0	15.9	0.9	166.0	236.5	36.7	134.1	22.7	4.1	17.8	2.5	13.8	2.8	7.7	1.1	6.6	1.0	92.2	746	Clay		
RRMDD390	15.9	16.9	1.0	173.0	232.8	36.9	133.6	22.4	4.3	19.1	2.7	15.4	3.2	9.0	1.3	7.8	1.1	111.9	774	Upper Saprolite		
RRMDD390	16.9	18.0	1.0	224.6	260.4	50.1	194.8	34.9	6.7	32.2	4.7	27.2	5.6	15.9	2.2	13.7	2.0	191.1	1066	Upper Saprolite		
RRMDD390	18.0	19.0	1.0	225.8	286.2	47.0	183.7	33.7	6.8	32.3	4.8	27.2	5.3	14.6	2.0	12.4	1.7	177.2	1061	Lower Saprolite		
RRMDD390	19.0	20.0	1.0	106.6	195.3	19.8	71.9	11.8	2.5	13.1	2.0	12.0	2.7	8.2	1.2	7.0	1.0	119.8	575	Lower Saprolite	16	1128
RRMDD390	20.0	21.1	1.0	74.9	169.5	15.9	55.1	9.2	1.7	7.0	1.0	6.0	1.3	3.8	0.5	3.6	0.5	48.3	398	Saprock		
RRMDD390	21.1	22.1	1.0	70.5	169.5	16.6	61.5	11.7	2.4	10.1	1.5	9.2	1.8	5.2	0.7	4.6	0.6	59.4	425	Saprock		
RRMDD391	0.0	1.5	1.5	80.7	734.6	16.8	57.9	10.0	1.8	8.6	1.4	7.9	1.5	4.8	0.7	5.1	0.8	46.5	979	Hardcap		
RRMDD391	1.5	2.9	1.5	45.5	1314.4	9.9	33.5	5.7	0.9	4.3	0.8	4.3	0.8	2.6	0.4	2.9	0.4	25.7	1452	Transition		
RRMDD391	2.9	3.8	0.8	252.2	400.5	58.5	200.0	32.1	5.3	23.3	3.5	19.0	3.7	10.5	1.5	9.5	1.3	117.0	1138	Clay		
RRMDD391	3.8	4.6	0.8	432.8	583.5	103.2	359.3	58.4	9.8	43.2	6.2	33.3	6.4	18.0	2.4	15.5	2.2	215.2	1889	Clay		
RRMDD391	4.6	5.4	0.8	194.1	289.9	45.3	158.0	25.9	4.4	19.7	2.9	15.9	3.1	8.8	1.2	8.0	1.1	97.9	876	Clay		
RRMDD391	5.4	6.2	0.8	1331.1	1146.1	297.2	1111.6	182.1	33.1	168.9	24.2	140.6	29.6	84.5	11.4	68.4	10.0	1181.0	5820	Upper Saprolite	3	2451
RRMDD391	6.2	6.7	0.5	94.1	183.0	19.5	68.1	11.9	2.3	10.6	1.6	9.8	2.2	6.7	0.9	5.7	0.9	94.1	511	Saprock		
RRMDD392	0.0	2.0	2.0	143.7	912.7	23.4	71.3	11.5	2.0	8.7	1.5	8.0	1.5	4.6	0.7	5.0	0.7	42.7	1238	Hardcap		
RRMDD392	2.0	3.0	1.0	144.8	325.5	25.0	81.2	12.8	2.0	9.4	1.5	8.9	1.8	5.6	0.9	6.0	0.9	60.3	687	Transition		
RRMDD392	3.0	4.0	1.0	192.3	398.0	33.6	109.8	17.2	2.8	13.5	2.1	12.1	2.5	7.5	1.1	7.3	1.1	81.9	883	Clay		
RRMDD392	4.0	5.0	1.0	127.2	235.9	24.6	80.8	12.8	2.0	10.0	1.5	9.0	1.9	5.7	0.9	6.0	0.9	61.7	581	Clay		
RRMDD392	5.0	5.9	1.0	181.8	289.9	35.3	114.7	17.3	2.7	11.8	1.8	9.9	2.0	6.0	0.9	6.2	0.9	64.0	745	Clay		
RRMDD392	5.9	6.8	0.9	243.9	335.4	45.8	142.3	20.0	3.1	12.6	1.8	10.4	2.0	6.0	0.9	6.2	0.9	65.1	896	Clay		
RRMDD392	6.8	7.8	0.9	205.8	288.7	39.1	121.9	19.1	3.1	12.9	1.9	10.7	2.1	6.2	0.9	6.0	0.9	67.1	786	Clay		
RRMDD392	7.8	8.7	0.9	177.7	291.1	36.5	123.6	20.6	3.5	14.3	2.1	11.4	2.2	6.3	0.9	6.1	0.9	70.7	768	Clay		
RRMDD392	8.7	9.6	0.9	148.4	256.7	34.3	121.9	21.7	3.8	16.0	2.3	12.6	2.5	7.0	1.0	6.6	0.9	81.9	718	Clay		
RRMDD392	9.6	10.6	1.0	137.8	243.2	32.9	119.6	21.3	3.8	16.1	2.3	12.5	2.5	7.1	1.0	6.4	0.9	81.9	689	Clay		
RRMDD392	10.6	11.6	1.0	145.4	276.4	35.9	133.6	24.7	4.4	19.1	2.7	15.3	3.0	8.7	1.2	8.0	1.2	101.2	781	Clay		
RRMDD392	11.6	12.6	1.0	118.5	245.1	34.1	133.0	25.4	4.7	21.2	3.1	17.9	3.6	10.3	1.4	8.9	1.3	123.1	751	Clay		
RRMDD392	12.6	13.5	1.0	122.0	249.4	35.9	141.1	26.9	5.0	22.4	3.2	18.5	3.7	10.3	1.4	9.1	1.3	127.6	778	Clay		
RRMDD392	13.5	14.5	1.0	108.6	246.9	31.2	120.1	22.4	4.2	18.7	2.8	15.8	3.2	9.2	1.2	8.0	1.1	113.3	707	Clay		
RRMDD392	14.5	15.5	1.0	104.3	246.9	33.7	138.8	28.5	5.7	26.5	4.0	23.1	4.7	13.3	1.8	11.2	1.6	165.7	810	Clay		

																					>200ppm $TREO-CeO_2$ Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD392	15.5	16.4	0.9	100.4	250.6	27.8	105.6	19.4	3.8	16.5	2.5	14.4	2.9	8.1	1.2	7.2	1.0	104.5	666	Clay		
RRMDD392	16.4	17.3	0.9	92.1	230.3	21.9	79.5	14.0	2.5	9.1	1.2	6.2	1.2	3.3	0.5	3.0	0.4	40.9	506	Clay		
RRMDD392	17.3	18.2	0.9	75.3	181.2	17.3	62.3	11.4	2.1	8.7	1.2	6.0	1.1	3.4	0.5	3.1	0.5	38.7	413	Clay		
RRMDD392	18.2	19.1	0.9	90.8	230.9	24.3	92.5	17.0	3.1	14.2	2.1	12.1	2.4	6.7	0.9	5.7	0.8	92.8	597	Clay		
RRMDD392	19.1	20.0	0.9	87.5	212.5	21.4	79.7	14.6	2.7	11.5	1.7	9.3	1.8	5.1	0.7	4.7	0.7	63.1	517	Upper Saprolite		
RRMDD392	20.0	20.9	0.9	75.6	190.4	18.6	67.5	12.3	2.3	9.5	1.4	8.1	1.6	4.7	0.7	4.4	0.6	56.4	454	Upper Saprolite		
RRMDD392	20.9	21.9	0.9	74.4	189.8	17.6	63.8	11.8	2.2	8.8	1.4	8.0	1.6	4.7	0.7	4.9	0.7	53.0	443	Upper Saprolite		
RRMDD392	21.9	22.7	0.9	58.2	143.1	14.4	51.1	8.9	1.6	6.0	0.9	4.7	0.9	3.1	0.5	3.7	0.6	28.6	326	Lower Saprolite		
RRMDD392	22.7	23.6	0.9	91.1	236.5	22.0	76.6	12.9	2.3	8.3	1.2	6.2	1.3	3.8	0.6	4.3	0.7	38.6	506	Lower Saprolite		
RRMDD392	23.6	24.4	0.9	93.4	245.7	22.5	79.3	13.7	2.5	9.6	1.4	7.5	1.5	4.5	0.7	5.0	0.8	46.6	535	Lower Saprolite		
RRMDD392	24.4	25.3	0.9	85.1	220.5	20.8	76.4	14.5	2.8	11.0	1.7	9.5	1.9	5.5	0.9	6.0	0.9	54.6	512	Lower Saprolite	22	645
RRMDD392	25.3	26.4	1.1	70.3	170.1	16.2	59.4	10.9	2.3	9.1	1.4	7.6	1.6	4.6	0.7	4.2	0.6	51.8	411	Saprock		
RRMDD393	0.0	2.4	2.4	101.9	594.5	19.8	65.0	11.1	2.0	8.8	1.4	7.9	1.5	4.5	0.7	4.9	0.7	45.0	870	Hardcap		
RRMDD393	2.4	3.4	1.0	163.6	285.0	30.3	100.7	16.1	2.8	11.2	1.7	9.3	1.9	5.4	0.9	5.5	0.8	56.4	691	Clay		
RRMDD393	3.4	4.3	0.9	129.6	230.9	28.6	102.5	17.3	3.2	13.4	2.0	11.3	2.3	6.7	0.9	6.1	0.9	71.5	627	Clay		
RRMDD393	4.3	5.2	0.9	144.8	261.6	34.1	126.0	21.8	4.0	16.7	2.4	13.4	2.6	7.4	1.1	6.6	1.0	79.7	723	Clay		
RRMDD393	5.2	6.1	0.9	141.3	260.4	35.4	130.1	23.4	4.5	17.9	2.6	14.0	2.7	7.6	1.1	6.6	1.0	79.9	728	Clay		
RRMDD393	6.1	6.9	0.9	95.0	204.5	24.8	96.8	17.9	3.5	15.2	2.3	12.9	2.6	7.3	1.1	6.6	1.0	80.5	572	Clay		
RRMDD393	6.9	7.8	0.9	97.2	228.5	25.6	100.2	19.0	3.7	16.1	2.4	13.9	2.8	8.1	1.2	7.4	1.1	88.4	616	Clay		
RRMDD393	7.8	8.7	0.9	106.4	244.5	31.7	128.3	23.8	4.9	22.0	3.4	19.9	4.1	11.8	1.7	9.8	1.5	147.9	761	Clay		
RRMDD393	8.7	9.6	0.9	98.3	226.0	31.4	133.6	26.1	5.6	25.1	4.0	22.8	4.6	12.9	1.9	10.8	1.6	147.9	753	Clay		
RRMDD393	9.6	10.5	0.9	92.7	207.0	34.0	154.5	33.6	7.3	36.4	5.9	35.5	7.3	20.4	2.8	16.3	2.4	240.6	897	Upper Saprolite		
RRMDD393	10.5	11.4	0.9	88.5	205.8	32.4	143.5	25.3	5.5	32.4	4.6	27.9	6.6	19.3	2.5	14.1	2.2	318.7	929	Upper Saprolite		
RRMDD393	11.4	12.3	0.9	96.1	221.7	24.1	92.6	14.9	3.1	14.8	1.9	10.5	2.5	7.6	1.0	5.6	1.0	189.9	687	Upper Saprolite		
RRMDD393	12.3	13.1	0.9	85.7	210.7	19.6	70.7	12.5	2.5	9.7	1.5	8.7	1.8	5.2	0.8	4.9	0.7	57.7	493	Upper Saprolite		
RRMDD393	13.1	14.0	0.9	84.9	224.2	20.2	73.0	12.7	2.5	9.3	1.3	7.1	1.4	3.8	0.5	3.5	0.5	43.6	489	Upper Saprolite		
RRMDD393	14.0	15.0	1.0	76.9	197.8	18.1	65.9	11.8	2.3	8.6	1.2	6.2	1.2	3.4	0.5	3.1	0.5	34.3	432	Lower Saprolite	13	670
RRMDD393	15.0	16.0	1.0	83.4	207.0	19.1	69.4	12.3	2.5	8.9	1.3	7.2	1.4	3.8	0.5	3.5	0.5	39.7	461	Saprock		
RRMDD394	0.0	1.4	1.4	83.4	472.9	15.3	49.5	8.7	1.5	6.9	1.2	7.3	1.4	4.3	0.7	5.1	0.7	38.4	697	Hardcap		
RRMDD394	1.4	2.7	1.4	122.6	470.5	20.6	60.3	9.8	1.7	7.4	1.3	7.8	1.5	4.6	0.7	5.4	0.8	40.1	755	Transition		
RRMDD394	2.7	3.6	0.9	154.2	200.8	25.4	80.5	12.1	1.9	9.4	1.4	8.6	1.8	5.5	0.8	5.5	0.8	59.6	568	Clay		
RRMDD394	3.6	4.4	0.9	206.4	262.9	30.1	89.8	13.1	2.1	9.8	1.5	8.9	1.8	5.5	0.8	5.6	0.9	59.2	698	Clay		
RRMDD394	4.4	5.3	0.9	156.0	208.2	24.5	78.0	12.0	2.1	9.3	1.4	8.7	1.7	5.5	0.8	5.7	0.8	57.4	572	Clay		
RRMDD394	5.3	6.1	0.9	218.7	213.7	32.1	97.2	14.4	2.4	10.4	1.6	9.2	1.8	5.6	0.9	6.0	0.9	59.4	674	Clay		
RRMDD394	6.1	7.0	0.9	177.1	244.5	35.5	122.5	19.2	3.3	14.8	2.2	12.4	2.4	6.9	1.0	7.1	1.0	76.8	727	Clay		
RRMDD394	7.0	7.8	0.9	225.8	850.1	41.0	131.8	20.3	3.8	16.3	2.5	14.1	2.8	8.1	1.2	7.8	1.1	90.8	1417	Clay		
RRMDD394	7.8	8.7	0.9	202.3	422.6	43.5	147.5	23.9	4.2	17.8	2.7	15.2	3.0	8.8	1.3	8.3	1.2	101.7	1004	Clay		
RRMDD394	8.7	9.6	0.9	175.9	288.7	47.7	172.0	28.6	5.0	20.1	3.0	16.5	3.2	9.1	1.3	8.3	1.2	104.0	885	Clay		
RRMDD394	9.6	10.4	0.8	160.7	261.6	51.8	189.5	32.4	5.6	21.8	3.1	17.2	3.4	9.4	1.3	8.4	1.2	106.3	874	Clay		
RRMDD394	10.4	11.3	0.9	353.0	355.0	107.9	421.1	75.8	14.3	61.3	8.8	49.0	9.1	24.8	3.4	20.4	2.8	281.9	1789	Clay		
RRMDD394	11.3	12.2	0.9	374.1	379.6	127.5	487.6	90.2	16.5	69.2	10.1	56.6	10.3	27.7	3.8	23.6	3.1	314.9	1995	Clay		
RRMDD394	12.2	13.1	0.9	695.5	507.3	201.2	771.0	131.0	24.7	102.6	14.2	77.1	13.6	34.9	4.6	27.9	3.6	393.7	3003	Clay		
RRMDD394	13.1	14.1	0.9	314.3	307.1	71.9	278.8	50.0	9.9	47.6	7.3	43.4	8.8	25.5	3.5	21.8	3.1	308.6	1502	Clay		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD394	14.1	15.0	0.9	202.3	258.0	57.1	235.6	41.3	8.4	39.0	5.5	31.7	6.1	16.9	2.3	13.9	1.9	204.5	1124	Clay		
RRMDD394	15.0	15.9	0.9	144.8	217.4	33.3	129.5	22.1	4.1	19.2	2.7	15.1	2.9	8.2	1.2	7.4	1.0	100.8	710	Clay	13	1184
RRMDD394	15.9	17.4	1.5	69.8	150.5	16.5	59.1	10.4	2.1	8.9	1.3	7.2	1.5	4.4	0.6	4.0	0.6	53.2	390	Saprock		
RRMDD395	0.0	1.3	1.3	66.3	730.9	12.4	40.2	6.9	1.3	5.7	1.0	5.7	1.1	3.3	0.5	3.7	0.5	30.1	910	Hardcap		
RRMDD395	1.3	2.6	1.3	59.3	324.3	10.8	34.8	6.4	1.0	4.5	0.8	4.6	0.9	2.7	0.5	3.1	0.5	23.1	477	Hardcap		
RRMDD395	2.6	3.8	1.3	83.9	393.1	15.7	53.1	8.5	1.4	6.7	1.0	6.5	1.3	4.1	0.6	4.2	0.6	41.9	622	Transition		
RRMDD395	3.8	4.8	1.0	58.2	163.4	11.1	37.7	6.2	1.1	4.9	0.8	4.9	1.0	2.9	0.4	3.0	0.5	31.6	328	Clay		
RRMDD395	4.8	5.8	1.0	44.1	116.3	8.9	30.8	5.2	0.9	4.2	0.7	4.2	0.9	2.6	0.4	2.7	0.4	26.9	249	Clay		
RRMDD395	5.8	6.8	1.0	39.6	105.5	8.1	28.7	5.1	0.9	4.1	0.7	4.1	0.8	2.4	0.3	2.5	0.4	25.0	228	Clay		
RRMDD395	6.8	7.8	1.0	40.3	134.5	8.3	28.5	4.9	0.8	3.9	0.6	3.7	0.8	2.4	0.4	2.5	0.4	24.3	256	Clay		
RRMDD395	7.8	8.8	1.0	24.5	132.1	5.2	18.5	3.1	0.6	2.8	0.5	3.0	0.6	1.9	0.3	1.9	0.3	18.8	214	Clay		
RRMDD395	8.8	9.8	1.0	29.1	119.8	5.9	20.5	3.7	0.7	3.4	0.6	3.6	0.7	2.1	0.3	2.1	0.3	21.0	214	Clay		
RRMDD395	9.8	10.8	1.0	25.4	99.1	4.9	16.9	3.4	0.7	3.1	0.6	3.3	0.6	1.8	0.3	1.9	0.3	18.3	180	Clay		
RRMDD395	10.8	11.8	1.0	23.1	64.2	4.1	14.2	2.7	0.6	2.7	0.4	2.7	0.5	1.6	0.2	1.6	0.2	15.9	135	Clay		
RRMDD395	11.8	12.7	1.0	25.8	61.7	4.6	15.2	3.0	0.6	2.9	0.5	2.9	0.6	1.7	0.2	1.7	0.3	16.3	138	Clay		
RRMDD395	12.7	13.7	1.0	18.1	111.0	4.4	14.9	2.9	0.5	2.4	0.4	2.4	0.5	1.6	0.2	1.6	0.3	14.9	176	Clay		
RRMDD395	13.7	14.7	1.0	22.2	180.0	5.8	19.9	3.7	0.8	2.9	0.5	3.0	0.6	1.9	0.3	2.0	0.3	16.8	261	Clay		
RRMDD395	14.7	15.7	1.0	20.4	81.0	5.1	18.1	3.4	0.7	2.5	0.4	2.5	0.5	1.6	0.3	1.7	0.3	15.6	154	Clay		
RRMDD395	15.7	16.7	1.0	31.8	227.9	8.2	28.6	5.0	1.0	3.8	0.6	3.3	0.6	2.0	0.3	2.0	0.3	18.7	334	Clay		
RRMDD395	16.7	17.8	1.1	33.2	65.5	8.4	30.1	5.0	1.1	3.7	0.5	3.0	0.6	1.6	0.2	1.7	0.3	17.1	172	Upper Saprolite		
RRMDD395	17.8	18.9	1.1	75.5	104.5	16.7	58.9	9.8	2.3	7.0	0.9	4.8	0.9	2.4	0.4	2.2	0.3	25.4	312	Upper Saprolite	1.1	312
RRMDD395	18.9	20.0	1.1	34.5	55.9	8.2	28.5	5.0	1.1	3.7	0.5	2.8	0.5	1.5	0.2	1.4	0.2	16.0	160	Upper Saprolite		
RRMDD395	20.0	21.4	1.4	49.4	97.3	12.0	41.6	7.5	1.7	5.7	0.8	4.3	0.8	2.2	0.3	2.2	0.3	24.9	251	Lower Saprolite		
RRMDD395	21.4	22.1	0.8	46.3	87.2	10.8	37.8	6.8	1.6	5.2	0.8	4.2	0.8	2.3	0.3	2.2	0.3	24.4	231	Lower Saprolite		
RRMDD395	22.1	24.1	2.0	41.3	72.0	8.9	30.7	5.7	1.3	4.5	0.6	3.4	0.7	1.8	0.3	1.8	0.3	19.3	192	Lower Saprolite		
RRMDD396	0.0	1.4	1.4	73.8	560.2	13.2	42.7	7.5	1.3	5.8	1.0	6.0	1.2	3.7	0.6	4.1	0.6	34.2	756	Hardcap		
RRMDD396	1.4	2.8	1.4	81.0	933.6	14.3	44.4	7.4	1.3	5.5	1.0	5.6	1.1	3.4	0.5	3.7	0.6	31.0	1134	Hardcap		
RRMDD396	2.8	4.0	1.2	96.6	404.1	18.9	61.4	10.1	1.7	7.6	1.3	7.3	1.4	4.2	0.7	4.9	0.7	41.4	662	Transition		
RRMDD396	4.0	5.0	0.9	203.5	223.6	39.1	123.1	18.9	3.3	13.5	2.0	11.4	2.2	6.3	0.9	6.5	1.0	66.3	722	Mottled		
RRMDD396	5.0	5.9	0.9	171.2	190.4	37.1	126.6	21.4	3.9	17.3	2.6	14.9	3.0	8.7	1.3	8.2	1.2	94.5	702	Mottled		
RRMDD396	5.9	6.8	0.9	204.1	248.1	41.8	141.1	23.3	4.2	17.2	2.5	13.6	2.7	7.5	1.1	7.0	1.0	80.8	796	Clay		
RRMDD396	6.8	7.7	0.9	167.7	254.3	41.7	150.5	26.7	4.8	19.9	2.9	15.9	3.1	8.6	1.2	7.9	1.2	91.6	798	Clay		
RRMDD396	7.7	8.7	0.9	180.6	298.5	45.2	165.0	29.7	5.5	22.0	3.2	17.7	3.4	9.2	1.3	8.3	1.2	97.7	889	Clay		
RRMDD396	8.7	9.6	0.9	154.8	288.7	48.6	190.7	37.1	6.8	28.0	4.0	22.2	4.2	11.9	1.7	10.5	1.5	125.0	936	Clay		
RRMDD396	9.6	10.4	0.9	154.8	289.9	45.3	174.4	32.8	6.3	25.6	3.7	20.4	3.8	10.4	1.5	9.6	1.3	108.2	888	Clay		
RRMDD396	10.4	11.3	0.9	198.8	291.1	51.1	186.6	34.7	6.7	28.5	4.2	23.6	4.7	13.0	1.8	11.4	1.7	144.1	1002	Clay		
RRMDD396	11.3	12.2	0.9	102.3	218.0	33.7	141.1	29.6	6.4	30.4	4.5	26.1	5.3	14.6	2.0	12.6	1.8	173.3	802	Clay		
RRMDD396	12.2	12.9	0.7	80.6	158.5	20.2	80.0	16.6	3.7	19.4	2.9	17.3	3.9	11.5	1.6	10.1	1.6	144.1	572	Upper Saprolite		
RRMDD396	12.9	13.5	0.6	69.8	159.1	16.9	60.4	11.2	2.4	10.0	1.5	8.7	1.9	6.0	0.9	6.2	0.9	74.0	430	Lower Saprolite	9	791
RRMDD396	13.5	15.0	1.5	66.6	151.1	15.9	55.9	11.0	2.1	8.2	1.2	6.6	1.3	3.7	0.6	3.9	0.6	37.6	366	Saprock		
RRMDD397	0.0	1.9	1.9	149.5	702.6	27.8	88.1	13.7	2.4	10.6	1.8	9.4	1.8	5.3	0.8	5.6	0.8	51.0	1071	Hardcap		
RRMDD397	1.9	3.8	1.9	177.1	906.6	24.5	67.3	10.1	1.7	6.7	1.2	6.4	1.3	3.7	0.5	4.0	0.6	31.9	1244	Hardcap		
RRMDD397	3.8	4.8	1.0	100.5	230.9	19.0	63.6	9.9	1.7	8.0	1.2	7.2	1.5	4.4	0.7	4.5	0.7	46.2	500	Clay		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD397	4.8	5.7	1.0	59.9	202.7	11.9	40.1	6.9	1.3	5.9	0.9	5.3	1.1	3.3	0.5	3.3	0.5	31.0	375	Clay		
RRMDD397	5.7	6.7	1.0	63.2	178.1	12.3	41.3	7.4	1.3	6.1	0.9	5.7	1.1	3.6	0.5	3.5	0.5	33.0	359	Clay		
RRMDD397	6.7	7.7	1.0	38.0	98.9	8.1	28.1	5.0	0.9	4.2	0.7	4.3	0.8	2.7	0.4	2.8	0.4	25.0	220	Clay		
RRMDD397	7.7	8.6	1.0	39.9	121.2	8.6	30.4	5.7	1.1	4.9	0.8	4.7	0.9	2.8	0.4	2.8	0.4	26.8	251	Clay		
RRMDD397	8.6	9.6	1.0	33.0	280.1	7.5	26.2	4.9	1.0	4.2	0.7	4.2	0.8	2.4	0.3	2.4	0.4	22.6	390	Clay		
RRMDD397	9.6	10.5	1.0	32.6	158.5	7.6	27.2	5.3	1.0	4.5	0.8	4.4	0.8	2.5	0.4	2.5	0.4	24.3	273	Clay		
RRMDD397	10.5	11.5	1.0	36.5	95.1	8.7	32.1	6.1	1.2	5.3	0.8	4.7	0.9	2.7	0.4	2.7	0.4	26.4	224	Clay		
RRMDD397	11.5	12.5	1.0	47.4	184.3	11.7	42.7	8.2	1.6	6.6	1.0	5.7	1.1	3.0	0.5	3.1	0.4	31.7	349	Clay		
RRMDD397	12.5	13.4	0.9	58.6	95.7	14.3	52.0	9.3	1.9	7.1	1.0	5.2	1.0	2.9	0.4	2.9	0.5	32.8	286	Clay		
RRMDD397	13.4	14.2	0.9	78.1	80.2	15.3	56.0	9.9	2.0	7.8	1.1	5.9	1.1	3.2	0.5	3.5	0.5	36.4	302	Clay		
RRMDD397	14.2	15.1	0.9	60.0	170.1	13.7	51.9	9.7	2.0	7.8	1.1	6.2	1.2	3.6	0.6	3.8	0.6	40.0	372	Clay		
RRMDD397	15.1	16.0	0.9	69.4	107.6	17.5	65.0	11.9	2.3	9.6	1.2	6.9	1.3	3.7	0.6	3.9	0.6	46.1	348	Clay	3	341
RRMDD397	16.0	17.2	1.2	16.2	34.3	3.9	14.7	3.1	0.6	3.1	0.6	3.5	0.7	2.1	0.4	2.5	0.4	22.9	109	Upper Saprolite		
RRMDD397	17.2	18.4	1.2	13.5	29.5	3.0	10.6	2.3	0.3	2.6	0.5	2.8	0.6	1.7	0.3	1.9	0.3	19.8	90	Upper Saprolite		
RRMDD397	18.4	19.6	1.2	16.5	32.2	3.8	13.4	3.1	0.4	2.9	0.5	3.2	0.6	1.9	0.3	2.0	0.3	21.1	102	Upper Saprolite		
RRMDD397	19.6	20.8	1.2	15.4	35.4	4.0	14.7	3.8	0.3	3.6	0.6	3.7	0.7	2.1	0.4	2.7	0.4	25.0	113	Upper Saprolite		
RRMDD397	20.8	22.0	1.2	22.2	40.9	5.9	19.7	5.9	0.4	5.9	1.1	6.5	1.3	3.9	0.6	4.4	0.7	46.1	166	Upper Saprolite		
RRMDD397	22.0	23.2	1.2	22.5	37.2	5.4	18.9	5.2	0.4	5.7	1.0	6.6	1.3	4.1	0.6	4.5	0.7	42.4	157	Upper Saprolite		
RRMDD397	23.2	24.4	1.2	22.5	55.0	5.8	19.2	5.8	0.4	6.0	1.1	6.9	1.4	4.2	0.7	4.7	0.8	50.5	185	Upper Saprolite		
RRMDD398	0.0	1.6	1.6	139.0	761.6	23.7	71.3	11.5	2.0	8.9	1.5	8.4	1.6	4.8	0.8	5.2	0.8	42.9	1084	Hardcap		
RRMDD398	1.6	3.2	1.6	312.0	814.4	57.8	177.9	26.0	3.9	14.7	2.3	12.4	2.1	6.1	1.0	6.7	1.0	50.3	1488	Hardcap		
RRMDD398	3.2	4.1	0.9	143.1	417.7	28.6	95.5	15.8	2.7	11.8	1.8	10.3	2.1	6.0	0.9	6.0	0.9	58.5	802	Transition		
RRMDD398	4.1	5.1	1.1	166.0	202.7	32.5	107.8	17.9	3.1	13.0	1.9	10.6	2.1	6.0	0.9	5.8	0.9	61.2	632	Clay		
RRMDD398	5.1	6.0	0.9	149.5	199.0	33.3	117.2	19.3	3.3	13.9	2.0	11.2	2.1	5.8	0.9	5.6	0.8	59.8	624	Clay		
RRMDD398	6.0	6.9	0.9	133.1	223.6	32.0	116.6	21.9	4.0	16.6	2.4	13.3	2.4	6.8	0.9	6.2	0.9	71.0	652	Clay		
RRMDD398	6.9	7.9	0.9	129.0	226.6	35.2	133.0	23.5	4.3	17.6	2.5	13.7	2.4	6.4	0.9	5.5	0.8	67.8	669	Clay		
RRMDD398	7.9	8.8	0.9	96.4	208.8	24.8	91.9	17.7	3.5	14.6	2.2	12.0	2.2	5.9	0.8	5.2	0.8	60.7	548	Clay		
RRMDD398	8.8	9.7	0.9	81.5	180.6	19.8	72.2	14.2	2.9	13.6	2.2	12.1	2.4	6.8	1.0	5.9	0.9	72.8	489	Clay		
RRMDD398	9.7	10.6	0.9	80.7	184.9	20.9	85.0	19.9	4.4	21.4	3.4	19.5	4.1	11.7	1.6	9.9	1.4	129.5	598	Clay		
RRMDD398	10.6	11.5	0.9	78.7	184.3	20.7	89.9	22.3	5.0	27.8	4.3	27.3	5.9	17.6	2.4	14.5	2.1	212.7	715	Clay		
RRMDD398	11.5	12.5	1.0	71.4	172.6	18.2	75.5	16.2	3.5	19.9	3.0	18.8	4.4	13.6	1.8	10.9	1.7	208.9	640	Upper Saprolite		
RRMDD398	12.5	13.4	0.9	71.0	168.9	16.8	63.3	12.3	2.7	11.5	1.7	9.8	2.0	6.2	0.9	5.3	0.8	94.0	467	Upper Saprolite		
RRMDD398	13.4	14.3	0.9	70.8	167.1	16.2	58.8	11.3	2.3	9.1	1.4	7.8	1.5	4.2	0.6	3.8	0.5	45.0	400	Lower Saprolite		
RRMDD398	14.3	15.2	0.9	66.4	159.7	15.3	54.1	10.2	2.0	7.8	1.1	5.9	1.0	3.0	0.4	2.8	0.4	29.3	359	Lower Saprolite		
RRMDD398	15.2	16.2	0.9	66.8	159.7	15.5	55.1	10.7	2.1	8.4	1.3	7.6	1.4	4.3	0.6	4.0	0.6	45.0	383	Lower Saprolite	12	553
RRMDD398	16.2	17.4	1.3	63.4	149.9	14.5	52.1	9.9	2.0	7.8	1.1	6.6	1.3	3.6	0.5	3.3	0.5	37.0	353	Saprock		
RRMDD399	0.0	1.5	1.5	64.9	425.0	12.3	39.8	7.4	1.3	5.5	1.0	5.3	1.1	3.2	0.5	3.5	0.5	27.0	598	Hardcap		
RRMDD399	1.5	3.1	1.5	102.4	566.3	18.4	57.9	10.1	1.6	6.7	1.2	6.9	1.4	3.9	0.6	4.5	0.6	34.2	817	Transition		
RRMDD399	3.1	3.9	0.8	161.3	308.3	36.7	117.2	19.8	3.6	14.5	2.1	11.7	2.3	6.8	1.0	6.6	1.0	72.1	765	Clay		
RRMDD399	3.9	4.7	0.8	127.2	229.1	31.5	107.2	19.6	3.6	15.3	2.2	12.7	2.6	7.3	1.1	7.2	1.1	82.5	650	Clay		
RRMDD399	4.7	5.6	0.8	114.8	242.6	28.4	101.9	17.6	3.3	14.3	2.1	11.8	2.3	6.6	1.0	6.3	0.9	72.3	626	Clay		
RRMDD399	5.6	6.4	0.8	104.0	238.9	27.8	105.1	19.5	3.9	16.5	2.4	13.6	2.6	7.1	1.0	6.4	0.9	77.5	627	Clay		
RRMDD399	6.4	7.3	0.8	105.6	242.6	29.5	113.6	23.3	4.7	20.3	2.9	16.3	3.1	8.3	1.2	7.1	1.1	91.1	670	Clay		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD399	7.3	8.1	0.8	98.7	234.6	30.3	127.7	27.4	5.9	26.2	4.1	23.4	4.5	12.3	1.7	10.1	1.4	132.7	741	Clay		
RRMDD399	8.1	8.9	0.8	93.4	216.2	30.7	133.0	29.6	6.3	29.7	4.7	27.8	5.5	15.3	2.1	12.4	1.8	172.1	781	Clay		
RRMDD399	8.9	9.8	0.9	105.1	240.8	38.1	174.4	33.2	7.2	40.8	6.0	37.4	8.2	23.2	3.1	17.9	2.7	327.6	1066	Upper Saprolite		
RRMDD399	9.8	10.7	0.9	90.1	207.6	21.9	81.8	13.7	2.8	12.9	1.9	11.1	2.5	7.3	1.0	5.7	0.9	137.8	599	Upper Saprolite		
RRMDD399	10.7	11.6	0.9	76.6	175.7	17.8	62.8	11.4	2.2	8.6	1.3	7.2	1.4	4.0	0.6	3.7	0.5	45.0	419	Upper Saprolite		
RRMDD399	11.6	12.5	0.9	73.8	172.0	17.4	62.4	11.7	2.5	10.5	1.7	11.0	2.5	8.0	1.3	8.9	1.4	87.4	472	Upper Saprolite		
RRMDD399	12.5	13.4	0.9	80.7	197.8	18.7	65.8	11.5	2.2	8.4	1.2	6.4	1.2	3.3	0.4	2.9	0.5	35.2	436	Lower Saprolite		
RRMDD399	13.4	14.3	0.9	78.1	186.1	18.2	64.5	11.0	2.3	8.7	1.2	6.5	1.2	3.4	0.5	2.9	0.4	35.6	421	Lower Saprolite	11	634
RRMDD399	14.3	15.2	0.9	73.9	181.8	17.6	63.0	11.1	2.3	8.7	1.3	8.0	1.6	4.7	0.7	4.2	0.6	51.8	431	Saprock		
RRMDD400	0.0	1.7	1.7	83.2	590.9	15.2	47.1	8.2	1.4	6.1	1.1	5.7	1.1	3.4	0.5	3.7	0.6	31.9	800	Hardcap		
RRMDD400	1.7	3.4	1.7	99.0	571.2	16.5	50.4	8.3	1.4	5.5	1.0	5.3	1.1	3.2	0.5	3.6	0.5	29.3	797	Transition		
RRMDD400	3.4	4.4	1.0	118.5	523.3	23.8	78.8	13.3	2.4	10.9	1.8	11.5	2.4	7.2	1.1	6.9	1.0	75.6	878	Clay		
RRMDD400	4.4	5.3	0.9	116.6	487.7	28.4	99.6	17.6	3.4	16.6	2.9	18.1	4.0	11.5	1.7	10.3	1.6	139.7	960	Clay		
RRMDD400	5.3	6.1	0.9	136.0	385.7	35.9	130.1	22.4	4.5	21.8	3.7	23.3	5.0	15.0	2.1	12.8	1.9	187.3	988	Clay		
RRMDD400	6.1	7.1	0.9	165.4	272.7	41.7	155.1	27.1	5.2	24.2	3.9	23.6	5.0	14.5	2.0	12.6	1.9	185.4	940	Clay		
RRMDD400	7.1	8.0	0.9	157.2	545.4	41.4	151.0	27.3	5.3	25.4	4.0	24.2	5.1	14.7	2.1	12.9	1.9	187.3	1205	Clay		
RRMDD400	8.0	8.9	0.9	148.9	401.7	39.1	141.7	24.8	4.7	22.1	3.4	20.1	4.2	11.9	1.7	10.1	1.5	150.5	987	Clay		
RRMDD400	8.9	9.8	0.9	188.8	316.9	47.4	171.5	28.8	5.4	24.2	3.7	20.9	4.3	11.9	1.7	10.3	1.5	153.0	990	Clay		
RRMDD400	9.8	10.6	0.9	218.7	276.4	57.9	207.0	35.1	6.2	26.4	3.9	21.5	4.2	11.9	1.7	10.1	1.5	143.5	1026	Clay		
RRMDD400	10.6	11.5	0.9	181.8	266.6	46.8	171.5	30.1	5.4	22.3	3.1	17.0	3.2	8.6	1.2	7.6	1.2	101.8	868	Clay		
RRMDD400	11.5	12.4	0.9	158.9	262.9	41.8	158.0	28.3	5.4	22.1	3.1	16.5	3.0	8.1	1.1	7.0	1.0	92.6	810	Clay		
RRMDD400	12.4	13.4	1.0	119.0	242.6	26.7	95.2	15.9	3.0	13.7	2.0	11.0	2.2	6.2	0.9	5.4	0.8	73.3	618	Upper Saprolite		
RRMDD400	13.4	14.3	1.0	92.1	156.6	20.1	70.2	11.5	2.2	9.6	1.3	7.5	1.5	4.3	0.6	3.8	0.6	51.6	434	Upper Saprolite	11	888
RRMDD400	14.3	15.3	0.9	88.1	183.0	19.5	69.6	11.9	2.4	10.3	1.4	8.3	1.6	4.6	0.6	3.9	0.6	58.0	464	Saprock		
RRMDD400	15.3	15.6	0.4	103.3	216.8	24.0	86.5	17.2	3.4	13.9	2.0	10.5	2.0	5.3	0.7	3.9	0.6	72.4	563	Saprock		
RRMDD401	0.0	2.4	2.4	64.5	442.2	11.6	36.0	6.1	1.0	4.3	0.8	4.3	0.9	2.6	0.4	2.9	0.4	23.1	601	Hardcap		
RRMDD401	2.4	3.4	0.9	105.3	179.3	21.3	67.3	10.9	1.7	7.3	1.1	6.1	1.2	3.4	0.5	3.3	0.5	34.0	443	Clay		
RRMDD401	3.4	4.4	1.0	156.6	282.5	35.9	118.4	17.0	2.6	11.1	1.5	7.8	1.4	3.8	0.5	3.3	0.5	40.3	683	Clay		
RRMDD401	4.4	5.4	1.0	78.7	402.9	18.2	59.4	9.9	1.6	7.6	1.2	6.8	1.3	4.0	0.6	3.7	0.5	41.0	637	Clay		
RRMDD401	5.4	6.3	1.0	67.3	193.5	16.7	62.3	11.0	2.1	10.4	1.7	10.7	2.3	6.9	1.0	6.7	1.0	76.4	470	Clay		
RRMDD401	6.3	7.4	1.0	84.4	227.9	16.7	51.6	8.0	1.4	6.1	1.0	5.7	1.1	3.1	0.5	3.3	0.5	30.2	441	Clay		
RRMDD401	7.4	8.4	1.0	72.9	202.1	15.3	50.6	8.1	1.4	7.1	1.1	6.8	1.4	4.2	0.6	4.1	0.6	42.7	419	Clay		
RRMDD401	8.4	9.4	1.0	72.1	138.8	15.6	52.3	8.5	1.5	7.4	1.1	6.7	1.4	4.2	0.6	4.0	0.6	44.1	359	Clay		
RRMDD401	9.4	10.4	1.0	63.2	134.5	14.6	50.7	8.5	1.5	7.3	1.1	6.6	1.4	3.9	0.6	4.0	0.6	42.7	341	Clay		
RRMDD401	10.4	11.3	0.9	60.4	85.6	16.1	61.1	10.9	2.0	8.9	1.3	7.0	1.3	3.7	0.5	3.5	0.5	40.3	303	Clay		
RRMDD401	11.3	12.2	0.9	78.3	102.9	22.0	85.7	15.3	3.0	12.9	1.9	10.7	2.0	5.5	0.8	4.9	0.7	61.3	408	Clay		
RRMDD401	12.2	13.1	0.9	62.6	84.8	17.7	70.2	12.6	2.5	10.9	1.5	8.0	1.5	4.0	0.5	3.6	0.5	43.7	325	Clay	11	441
RRMDD401	13.1	13.9	0.9	36.5	53.9	8.9	33.8	6.5	1.3	6.1	0.9	5.5	1.1	3.2	0.5	3.0	0.4	33.4	195	Clay		
RRMDD401	13.9	14.9	1.0	43.5	80.3	10.6	38.6	6.8	1.3	6.0	0.8	4.9	1.0	2.7	0.4	2.9	0.4	29.3	230	Clay		
RRMDD401	14.9	15.8	0.9	53.9	108.0	13.4	49.0	8.9	1.7	8.1	1.1	7.0	1.4	4.0	0.6	3.9	0.6	45.7	307	Clay		
RRMDD401	15.8	16.7	0.9	42.8	76.8	10.4	39.2	7.2	1.4	6.5	1.0	5.6	1.1	3.2	0.5	3.1	0.5	36.7	236	Clay		
RRMDD401	16.7	17.7	1.0	49.1	96.7	12.3	46.2	9.3	2.0	9.6	1.5	9.3	2.0	5.8	0.8	5.4	0.8	69.7	320	Upper Saprolite	1	320
RRMDD401	17.7	18.7	1.0	52.4	96.2	11.3	39.8	7.1	1.4	6.4	0.9	5.2	1.0	3.1	0.5	3.1	0.4	35.4	264	Lower Saprolite		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD401	18.7	19.6	0.9	53.8	101.6	11.9	41.6	7.3	1.5	6.5	0.9	5.2	1.1	3.1	0.5	3.2	0.5	38.9	278	Saprock		
RRMDD401	19.6	20.3	0.7	56.6	113.1	12.9	46.2	8.4	1.6	7.2	1.0	6.2	1.3	3.6	0.5	3.3	0.5	46.1	309	Saprock		
RRMDD401	20.3	21.4	1.1	50.1	94.6	11.1	39.0	6.6	1.4	5.0	0.7	3.7	0.7	2.2	0.3	2.2	0.3	24.8	243	Saprock		
RRMDD402	0.0	1.2	1.2	104.3	781.3	17.0	50.5	8.2	1.3	5.4	1.0	5.2	1.1	3.2	0.5	3.4	0.5	28.4	1011	Hardcap		
RRMDD402	1.2	2.4	1.2	107.4	812.0	17.5	50.6	8.1	1.3	5.5	1.0	5.3	1.1	3.2	0.5	3.4	0.5	27.8	1045	Transition		
RRMDD402	2.4	3.4	1.1	142.5	163.4	28.9	99.7	15.4	2.8	12.6	1.9	11.3	2.3	6.5	1.0	6.2	0.9	73.5	569	Clay		
RRMDD402	3.4	4.5	1.1	119.0	135.7	30.1	105.3	16.6	3.1	14.4	2.1	12.5	2.5	7.0	1.0	6.5	0.9	78.5	535	Clay		
RRMDD402	4.5	5.6	1.1	154.2	194.1	36.6	127.1	20.9	3.9	16.0	2.5	14.3	2.7	7.9	1.1	6.9	1.1	83.9	673	Clay		
RRMDD402	5.6	6.5	0.9	190.0	312.0	49.8	173.8	29.3	5.4	21.6	3.3	17.9	3.4	9.4	1.3	7.8	1.2	98.3	924	Clay		
RRMDD402	6.5	7.4	0.9	204.7	321.8	55.5	197.1	34.1	6.2	24.1	3.7	20.0	3.6	10.1	1.4	8.2	1.2	104.6	996	Clay		
RRMDD402	7.4	8.4	0.9	255.7	316.9	71.5	254.3	44.6	8.1	31.1	4.8	25.9	4.7	13.2	1.7	10.5	1.5	138.4	1183	Clay		
RRMDD402	8.4	9.3	0.9	221.7	325.5	62.6	226.3	40.0	7.2	28.4	4.5	24.4	4.4	12.6	1.7	10.2	1.5	130.2	1101	Clay		
RRMDD402	9.3	10.2	0.9	222.8	347.6	63.1	228.6	40.4	7.3	27.3	4.2	22.4	3.8	10.5	1.3	8.6	1.2	105.7	1095	Clay		
RRMDD402	10.2	11.1	0.9	224.0	400.5	60.0	216.4	37.5	6.9	26.5	4.0	21.3	3.7	10.3	1.3	8.1	1.2	103.9	1126	Clay		
RRMDD402	11.1	12.0	0.9	216.4	293.6	61.1	219.9	39.5	7.2	28.2	4.3	23.5	4.3	12.0	1.6	9.8	1.4	119.6	1043	Clay		
RRMDD402	12.0	12.9	0.9	149.5	184.9	38.1	138.8	24.7	4.6	18.2	2.8	15.3	2.8	7.7	1.0	6.4	0.9	79.4	675	Clay		
RRMDD402	12.9	13.8	0.9	145.4	127.8	35.2	129.5	23.7	4.5	19.2	3.1	17.7	3.3	9.4	1.2	7.4	1.1	100.1	628	Clay		
RRMDD402	13.8	14.9	1.0	263.9	452.1	90.7	372.1	82.4	16.9	72.0	12.7	74.0	13.1	33.7	4.0	21.4	2.6	339.1	1851	Upper Saprolite		
RRMDD402	14.9	15.9	1.0	202.9	332.9	64.8	269.4	60.8	13.0	58.0	10.4	61.4	11.0	28.5	3.4	18.4	2.3	299.7	1437	Lower Saprolite		
RRMDD402	15.9	16.9	1.0	172.4	296.0	50.4	206.5	44.9	9.2	43.1	7.4	42.9	7.9	20.0	2.4	13.2	1.7	227.9	1146	Lower Saprolite	15	998
RRMDD402	16.9	18.2	1.3	150.7	208.2	33.6	124.2	22.2	4.3	19.6	3.2	18.5	3.6	10.2	1.3	8.0	1.2	112.5	721	Saprock		
RRMDD402	18.2	19.5	1.3	100.3	159.7	24.3	93.3	18.4	3.5	16.0	2.6	13.9	2.5	6.9	0.8	4.8	0.6	75.2	523	Saprock		
RRMDD403	0.0	1.7	1.7	90.8	157.8	19.3	65.3	11.8	1.9	9.3	1.5	8.4	1.7	5.1	0.8	5.3	0.8	51.8	432	Soil		
RRMDD403	1.7	3.3	1.6	75.5	267.8	13.9	43.9	7.6	1.2	5.1	0.9	5.2	1.1	3.3	0.5	3.5	0.6	29.8	460	Soil		
RRMDD403	3.3	4.9	1.7	90.2	511.0	16.9	53.5	9.9	1.7	6.9	1.3	7.3	1.4	4.3	0.7	4.7	0.7	35.2	746	Hardcap		
RRMDD403	4.9	6.6	1.6	116.9	337.8	20.5	63.0	10.7	1.8	7.2	1.3	7.2	1.4	4.1	0.6	4.3	0.6	32.9	611	Hardcap		
RRMDD403	6.6	7.5	1.0	110.1	180.6	28.5	107.5	17.3	3.0	11.8	1.5	7.9	1.4	3.7	0.5	3.7	0.5	36.1	514	Mottled		
RRMDD403	7.5	8.5	0.9	70.1	108.6	16.1	56.6	9.6	1.7	8.0	1.2	7.3	1.5	4.5	0.7	4.3	0.7	47.2	338	Mottled		
RRMDD403	8.5	9.5	1.0	122.0	211.3	29.1	104.6	17.7	3.2	14.1	2.0	11.4	2.2	6.2	0.9	5.7	0.8	69.8	601	Upper Saprolite		
RRMDD403	9.5	10.5	1.0	152.5	266.6	48.2	206.5	38.3	6.9	28.4	3.6	17.6	2.9	7.2	0.9	5.6	0.8	76.4	862	Upper Saprolite		
RRMDD403	10.5	11.6	1.0	105.4	211.3	34.3	152.2	30.0	5.5	24.6	3.1	15.7	2.6	6.3	0.8	5.3	0.7	69.7	668	Upper Saprolite		
RRMDD403	11.6	12.6	1.0	91.7	186.1	27.7	121.9	32.8	8.1	52.2	9.4	61.5	13.6	38.7	5.6	35.4	5.1	477.5	1167	Lower Saprolite		
RRMDD403	12.6	13.6	1.0	79.9	169.5	22.3	103.8	38.0	11.4	87.1	16.2	111.7	26.3	79.7	11.5	72.9	10.9	1022.3	1864	Lower Saprolite		
RRMDD403	13.6	14.6	1.0	70.4	137.0	14.7	49.8	8.8	1.9	9.6	1.5	9.3	2.0	5.9	0.9	5.6	0.8	61.1	379	Lower Saprolite	8	804
RRMDD403	14.6	15.9	1.3	77.9	158.5	16.1	54.1	10.8	2.5	14.2	2.3	15.0	3.6	10.7	1.6	10.1	1.5	153.0	532	Saprock		
RRMDD403	15.9	17.2	1.3	72.1	153.6	16.7	62.6	12.2	2.5	12.4	1.8	11.1	2.5	7.1	1.0	6.5	0.9	104.0	467	Saprock		
RRMDD403	17.2	18.5	1.3	68.8	149.9	16.6	60.3	10.6	2.0	9.4	1.4	7.7	1.6	4.7	0.7	4.1	0.6	67.7	406	Saprock		
RRMDD404	0.0	1.7	1.7	74.6	187.3	14.8	49.9	9.3	1.5	7.0	1.1	6.7	1.4	4.1	0.6	4.4	0.6	37.5	401	Hardcap		
RRMDD404	1.7	3.5	1.7	219.3	862.3	39.5	120.7	20.2	3.3	12.7	2.2	11.9	2.3	6.5	1.0	7.0	1.0	52.4	1363	Hardcap		
RRMDD404	3.5	4.5	1.0	147.8	280.1	31.7	109.6	18.8	3.2	14.1	2.2	13.0	2.6	7.8	1.1	7.3	1.1	79.4	720	Clay		
RRMDD404	4.5	5.4	0.9	71.8	119.8	17.6	62.8	11.0	2.0	8.4	1.4	8.3	1.6	4.8	0.7	4.6	0.7	48.9	364	Clay		
RRMDD404	5.4	6.3	0.9	63.6	105.2	15.3	55.1	9.9	1.9	8.0	1.3	7.8	1.5	4.6	0.7	4.4	0.7	45.7	326	Clay	3	482
RRMDD404	6.3	7.2	0.9	67.8	69.5	12.7	44.2	7.7	1.5	5.9	1.0	5.8	1.1	3.3	0.5	3.1	0.5	34.0	259	Clay		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD404	7.2	8.1	0.9	40.0	106.4	10.3	37.4	6.7	1.4	5.4	0.9	5.4	1.0	3.1	0.4	3.0	0.5	32.0	254	Clay		
RRMDD404	8.1	9.0	0.9	36.5	78.9	9.8	36.5	6.3	1.3	4.7	0.8	4.4	0.9	2.6	0.4	2.5	0.4	27.2	213	Clay		
RRMDD404	9.0	9.9	0.9	35.3	81.7	10.2	37.6	6.6	1.4	4.9	0.8	4.3	0.8	2.5	0.4	2.4	0.4	27.0	216	Clay		
RRMDD404	9.9	10.9	1.0	35.7	88.9	10.3	37.7	6.6	1.5	4.7	0.7	4.3	0.8	2.5	0.3	2.3	0.4	26.2	223	Clay		
RRMDD404	10.9	11.8	1.0	36.8	91.9	10.5	38.0	6.6	1.4	4.9	0.8	4.2	0.8	2.4	0.3	2.3	0.3	26.8	228	Clay		
RRMDD404	11.8	12.7	0.9	50.1	93.2	13.0	46.5	8.1	1.8	5.8	0.9	4.8	0.9	2.6	0.4	2.4	0.4	28.7	260	Clay		
RRMDD404	12.7	13.7	0.9	46.6	78.1	12.4	43.9	7.7	1.7	5.4	0.8	4.6	0.9	2.5	0.4	2.2	0.4	26.7	234	Clay		
RRMDD404	13.7	14.6	0.9	41.2	96.4	10.8	37.8	6.7	1.5	4.8	0.7	4.0	0.7	2.1	0.3	2.0	0.3	23.4	233	Clay		
RRMDD404	14.6	15.5	0.9	40.8	70.0	10.7	38.5	6.7	1.6	4.7	0.7	4.0	0.8	2.2	0.3	2.1	0.3	24.4	208	Clay		
RRMDD404	15.5	16.8	1.3	34.5	68.9	8.9	32.1	5.6	1.4	3.9	0.6	3.3	0.6	1.8	0.3	1.7	0.3	18.9	183	Clay		
RRMDD404	16.8	18.1	1.3	42.3	81.7	10.6	37.8	6.6	1.6	4.5	0.7	3.8	0.7	2.2	0.3	2.0	0.3	22.9	218	Clay		
RRMDD404	18.1	19.5	1.3	49.4	125.3	11.4	41.3	6.8	1.6	5.7	0.8	4.7	0.9	2.6	0.4	2.3	0.3	26.5	280	Clay		
RRMDD404	19.5	20.8	1.3	43.7	86.7	10.4	37.6	6.5	1.7	4.9	0.7	4.1	0.7	2.2	0.3	2.0	0.3	22.5	224	Clay		
RRMDD404	20.8	22.1	1.3	41.9	93.8	9.6	35.3	6.2	1.6	4.9	0.7	3.7	0.7	2.0	0.3	1.9	0.3	19.7	223	Upper Saprolite		
RRMDD404	22.1	23.4	1.3	36.1	80.0	8.4	30.4	5.3	1.4	4.4	0.6	3.3	0.6	1.7	0.2	1.5	0.2	17.4	192	Upper Saprolite		
RRMDD405	0.0	1.4	1.4	110.1	248.1	24.2	83.6	15.5	2.5	12.0	2.0	11.2	2.3	6.5	1.0	6.6	1.0	67.7	594	Soil		
RRMDD405	1.4	2.8	1.4	110.5	293.6	21.7	69.8	12.1	2.0	8.7	1.5	8.5	1.8	5.2	0.8	5.4	0.8	48.5	591	Soil		
RRMDD405	2.8	4.3	1.4	99.0	307.1	19.3	62.5	10.6	1.7	7.4	1.2	7.4	1.5	4.4	0.7	5.0	0.8	42.9	571	Soil		
RRMDD405	4.3	5.3	1.0	101.9	269.0	17.6	56.6	9.2	1.5	7.0	1.2	7.0	1.4	4.4	0.7	4.7	0.7	38.5	521	Watercourse		
RRMDD405	5.3	6.3	1.0	103.4	282.5	17.0	54.0	8.7	1.5	6.7	1.1	6.8	1.3	4.2	0.6	4.4	0.6	35.8	529	Watercourse		
RRMDD405	6.3	7.0	0.8	126.7	305.9	22.6	71.2	11.2	2.0	8.1	1.3	7.5	1.4	4.6	0.7	4.7	0.7	38.0	606	Watercourse		
RRMDD405	7.0	7.8	0.8	133.7	296.0	25.4	80.7	13.6	2.3	9.0	1.5	8.4	1.6	4.9	0.7	5.1	0.7	40.8	624	Watercourse		
RRMDD405	7.8	8.6	0.8	146.0	212.5	25.4	78.8	12.3	2.2	8.6	1.4	8.0	1.5	4.5	0.7	4.6	0.6	37.3	545	Watercourse		
RRMDD405	8.6	9.2	0.6	129.6	216.2	27.7	92.1	15.6	2.8	11.1	1.7	10.0	1.9	5.8	0.8	5.9	0.8	51.4	574	Clay		
RRMDD405	9.2	9.8	0.6	168.3	401.7	56.3	234.4	46.3	8.8	37.9	5.7	33.4	6.3	18.4	2.5	15.3	2.1	205.7	1243	Clay		
RRMDD405	9.8	10.4	0.6	117.9	271.5	39.1	173.2	39.5	8.4	38.5	6.0	34.4	6.5	18.7	2.5	15.5	2.1	187.9	962	Upper Saprolite		
RRMDD405	10.4	11.1	0.6	89.4	205.1	25.6	109.9	23.0	4.8	24.3	3.7	21.7	4.4	12.9	1.6	9.8	1.4	156.8	694	Upper Saprolite	3	868
RRMDD405	11.1	12.4	1.3	79.9	187.3	17.9	64.6	12.1	2.4	10.0	1.5	9.1	1.7	5.2	0.7	4.5	0.7	56.0	454	Lower Saprolite		
RRMDD406	0.0	1.7	1.7	88.9	394.3	17.9	58.8	11.3	1.9	8.3	1.4	8.0	1.6	4.6	0.8	4.9	0.8	44.8	648	Hardcap		
RRMDD406	1.7	3.4	1.7	93.1	571.2	14.9	45.8	8.0	1.4	5.4	1.0	5.4	1.1	3.1	0.5	3.5	0.5	25.9	781	Hardcap		
RRMDD406	3.4	4.4	1.0	80.7	264.1	16.6	58.7	10.3	1.9	8.7	1.4	8.1	1.5	4.8	0.7	4.5	0.6	45.1	508	Clay	1	508
RRMDD406	4.4	5.5	1.0	39.4	100.7	8.5	30.6	5.6	1.1	5.1	0.9	5.4	1.1	3.5	0.5	3.3	0.5	33.4	239	Clay		
RRMDD406	5.5	6.5	1.0	20.9	96.4	4.8	17.6	3.3	0.7	3.4	0.6	3.9	0.8	2.6	0.4	2.6	0.4	25.3	184	Clay		
RRMDD406	6.5	7.6	1.0	25.6	99.9	6.4	23.8	4.4	0.9	4.4	0.8	4.8	1.0	3.1	0.4	2.9	0.4	30.1	209	Clay		
RRMDD406	7.6	8.6	1.0	26.0	89.6	6.5	24.7	4.5	0.9	4.4	0.7	4.9	1.0	3.2	0.4	2.9	0.4	31.5	202	Clay		
RRMDD406	8.6	9.6	1.0	19.2	56.6	5.0	18.5	3.6	0.8	3.4	0.6	3.9	0.8	2.6	0.4	2.5	0.4	25.0	143	Clay		
RRMDD406	9.6	10.8	1.2	68.7	103.9	17.7	62.8	11.1	2.5	8.4	1.1	6.1	1.1	3.2	0.4	2.5	0.4	32.6	322	Upper Saprolite	1	322
RRMDD406	10.8	12.0	1.2	65.1	92.3	15.0	53.1	9.5	2.1	8.2	1.1	5.8	1.0	2.9	0.4	2.5	0.4	32.0	291	Upper Saprolite		
RRMDD406	12.0	13.1	1.2	56.1	112.0	12.4	44.4	8.1	1.8	7.3	1.0	5.5	1.0	2.8	0.4	2.3	0.3	31.2	287	Upper Saprolite		
RRMDD407	0.0	1.8	1.8	125.5	319.4	23.4	77.9	13.9	2.3	10.4	1.7	9.6	1.9	5.2	0.8	5.4	0.8	49.9	648	Hardcap		
RRMDD407	1.8	3.6	1.8	276.8	910.2	52.8	175.5	31.1	4.9	20.8	3.2	16.5	2.8	7.0	0.9	5.8	0.8	59.1	1568	Hardcap		
RRMDD407	3.6	4.2	0.6	164.2	364.8	34.1	117.2	18.5	3.3	13.8	2.1	11.1	2.2	5.9	0.8	5.4	0.8	58.5	803	Clay		
RRMDD407	4.2	5.2	1.1	143.1	298.5	28.2	94.7	14.2	2.7	11.5	1.8	9.8	2.0	5.6	0.8	5.3	0.8	61.3	680	Clay		

																					>200ppm $TREO-CeO_2$ Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD407	5.2	6.3	1.1	65.1	143.7	14.3	50.5	8.3	1.6	7.0	1.1	6.5	1.3	3.6	0.6	3.7	0.5	40.1	348	Clay	3	574
RRMDD407	6.3	7.3	1.1	47.4	94.1	11.0	39.3	6.4	1.3	5.8	0.9	5.4	1.1	3.2	0.5	3.2	0.5	34.3	254	Clay		
RRMDD407	7.3	8.4	1.1	48.7	97.3	10.6	37.4	6.2	1.2	5.4	0.9	5.1	1.0	3.0	0.4	3.0	0.4	33.0	254	Clay		
RRMDD407	8.3	9.4	1.1	33.3	232.2	8.0	28.8	4.9	1.1	4.6	0.8	4.3	0.9	2.6	0.4	2.5	0.4	28.1	353	Clay		
RRMDD407	9.4	10.5	1.1	31.2	126.5	8.3	29.9	5.3	1.1	4.7	0.8	4.5	1.0	2.7	0.4	2.7	0.4	29.8	249	Clay		
RRMDD407	10.5	11.5	1.1	80.7	132.1	12.8	41.5	6.4	1.4	5.1	0.8	4.3	0.9	2.6	0.3	2.5	0.3	27.0	319	Clay		
RRMDD407	11.5	12.6	1.1	32.7	106.0	8.6	31.6	5.5	1.2	4.8	0.7	4.3	0.9	2.5	0.3	2.5	0.4	27.4	230	Clay		
RRMDD407	12.3	14.7	2.3	31.8	88.6	9.8	37.4	6.4	1.4	5.2	0.8	4.5	0.9	2.6	0.4	2.7	0.4	29.5	222	Clay		
RRMDD407	12.6	13.6	1.1	29.9	110.8	8.1	29.6	5.1	1.2	4.4	0.6	3.8	0.8	2.1	0.3	2.3	0.3	24.9	224	Clay		
RRMDD407	13.2	15.7	2.5	45.4	88.9	11.5	42.3	7.0	1.6	5.2	0.8	4.4	0.9	2.6	0.4	2.3	0.4	29.7	243	Clay		
RRMDD407	15.7	16.8	1.1	47.5	81.6	12.6	47.7	8.2	1.7	5.9	0.8	5.1	1.0	2.9	0.4	2.7	0.4	33.1	252	Clay		
RRMDD407	16.8	17.8	1.1	38.4	105.6	10.4	38.6	6.5	1.4	5.0	0.7	4.0	0.8	2.3	0.3	2.3	0.4	27.3	244	Clay		
RRMDD407	17.8	18.9	1.1	34.1	95.4	8.8	31.8	5.3	1.2	4.0	0.6	3.4	0.7	1.9	0.3	1.8	0.3	22.6	212	Clay		
RRMDD407	18.9	19.9	1.1	40.6	85.3	10.9	39.4	6.8	1.4	4.7	0.6	3.6	0.7	2.0	0.3	1.9	0.3	24.3	223	Clay		
RRMDD407	19.9	20.9	1.0	53.0	86.8	14.1	50.9	8.3	1.9	5.8	0.8	4.3	0.8	2.2	0.3	2.0	0.3	27.0	259	Clay		
RRMDD407	20.9	22.1	1.2	55.6	211.9	13.7	48.8	8.4	1.9	6.1	0.9	4.7	1.0	2.6	0.4	2.4	0.4	29.2	388	Upper Saprolite		
RRMDD407	22.1	23.2	1.2	70.1	181.8	18.2	65.1	10.9	2.5	7.7	1.1	5.9	1.1	3.0	0.4	2.7	0.4	34.3	405	Upper Saprolite		
RRMDD407	23.2	24.4	1.2	46.7	119.3	11.3	39.9	7.0	1.7	5.2	0.8	4.0	0.8	2.1	0.3	2.0	0.3	23.1	265	Upper Saprolite		
RRMDD408	0.0	3.1	3.1	134.9	396.8	21.0	61.6	10.2	1.7	7.1	1.2	7.0	1.4	4.0	0.6	4.4	0.6	36.2	688	Hardcap		
RRMDD408	3.1	4.3	1.2	75.1	203.9	15.7	54.1	9.0	1.6	7.6	1.2	7.0	1.4	4.1	0.6	4.0	0.6	41.5	427	Clay	1	427
RRMDD408	4.3	5.5	1.2	38.2	72.8	9.2	31.3	5.1	0.9	4.7	0.7	4.1	0.9	2.5	0.4	2.5	0.4	27.3	201	Clay		
RRMDD408	5.5	6.7	1.2	38.0	71.4	9.0	31.7	5.3	1.0	4.7	0.7	4.4	0.9	2.8	0.4	2.7	0.4	29.8	203	Clay		
RRMDD408	6.7	7.8	1.1	35.5	94.5	8.9	32.2	5.2	1.0	4.5	0.7	4.0	0.8	2.1	0.3	2.2	0.3	25.9	218	Clay		
RRMDD408	7.8	9.0	1.1	40.2	138.8	10.2	36.4	6.4	1.2	5.1	0.8	4.6	1.0	2.6	0.4	2.7	0.4	28.8	280	Clay		
RRMDD408	9.0	11.4	2.4	28.6	60.9	6.5	21.3	3.6	0.4	2.7	0.4	2.2	0.4	1.3	0.2	1.2	0.2	14.0	144	Upper Saprolite		
RRMDD409	0.0	1.9	1.9	164.2	332.9	29.5	94.5	16.5	2.7	11.1	1.8	9.7	1.9	5.2	0.8	5.5	0.8	46.4	723	Hardcap		
RRMDD409	1.9	3.8	1.9	243.9	496.3	42.9	134.7	22.5	3.6	15.2	2.4	12.9	2.3	6.3	0.9	6.3	0.9	52.2	1043	Hardcap		
RRMDD409	3.8	5.2	1.4	90.1	312.0	18.7	62.2	9.5	1.7	7.5	1.2	6.5	1.4	3.8	0.6	4.1	0.6	42.2	562	Clay	1	562
RRMDD409	5.2	6.2	1.0	62.0	135.7	11.9	37.2	5.3	1.1	4.4	0.7	3.9	0.8	2.2	0.3	2.4	0.3	25.1	294	Clay		
RRMDD409	6.2	7.3	1.0	36.2	94.7	7.7	25.9	3.9	0.9	3.5	0.6	3.3	0.7	1.9	0.3	1.9	0.3	21.0	203	Clay		
RRMDD409	7.3	8.3	1.0	36.8	73.9	7.5	25.0	3.8	0.8	3.3	0.5	3.2	0.6	1.7	0.3	1.9	0.3	19.6	179	Clay		
RRMDD409	8.3	9.4	1.0	33.3	63.3	7.1	23.9	3.8	0.8	3.4	0.5	3.3	0.7	1.9	0.3	2.0	0.3	20.6	165	Clay		
RRMDD409	9.4	10.4	1.0	41.8	95.4	7.7	25.1	4.1	0.9	3.4	0.6	3.2	0.7	1.8	0.3	1.9	0.3	19.8	207	Clay		
RRMDD409	10.4	11.4	1.0	59.7	103.6	9.4	29.5	4.3	1.0	3.7	0.6	3.3	0.7	1.8	0.3	1.9	0.3	19.6	240	Clay		
RRMDD409	11.4	12.5	1.0	27.1	76.4	6.1	21.5	3.7	0.8	3.4	0.5	3.0	0.6	1.9	0.3	1.8	0.3	19.3	167	Clay		
RRMDD409	12.5	13.4	0.9	39.1	91.0	10.3	37.7	6.1	1.5	4.9	0.7	4.2	0.9	2.5	0.4	2.4	0.4	29.2	231	Clay		
RRMDD409	13.4	14.4	1.0	50.1	37.7	12.3	44.6	7.2	1.8	6.0	0.9	4.9	1.0	2.6	0.4	2.6	0.4	33.0	206	Clay		
RRMDD409	14.4	15.3	1.0	52.4	84.3	11.9	43.0	6.7	1.7	5.3	0.7	4.1	0.8	2.3	0.4	2.1	0.3	27.3	243	Clay		
RRMDD409	15.3	16.3	1.0	58.2	58.8	13.2	47.5	7.1	1.7	5.9	0.8	3.9	0.8	2.1	0.3	2.0	0.3	26.5	229	Clay		
RRMDD409	16.3	17.4	1.0	46.2	62.5	10.9	39.3	6.2	1.5	4.9	0.7	3.5	0.7	1.9	0.3	1.8	0.3	23.1	204	Clay		
RRMDD409	17.4	18.4	1.0	61.9	87.7	14.4	50.6	7.9	1.9	6.2	0.8	4.2	0.8	2.0	0.3	2.0	0.3	26.3	267	Clay		
RRMDD409	18.4	19.4	1.0	46.7	127.8	11.3	38.4	6.0	1.3	4.1	0.6	2.8	0.5	1.4	0.2	1.5	0.2	16.8	259	Upper Saprolite		
RRMDD410	0.0	1.9	1.9	63.7	399.2	13.5	45.5	9.3	1.5	6.9	1.2	7.0	1.4	4.3	0.7	4.5	0.7	36.3	596	Hardcap		

																					>200ppm $TREO-CeO_2$ Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD410	1.9	3.8	1.9	52.5	398.0	11.5	40.6	9.0	1.5	6.4	1.2	6.9	1.4	4.0	0.7	4.8	0.7	31.9	571	Hardcap		
RRMDD410	3.8	4.6	0.8	105.1	434.9	19.8	65.1	11.2	2.0	8.8	1.5	8.3	1.6	4.8	0.7	5.2	0.8	44.2	714	Transition		
RRMDD410	4.6	5.4	0.8	62.0	209.4	12.4	42.2	7.5	1.3	6.1	1.0	6.2	1.3	4.0	0.6	4.7	0.7	37.2	397	Clay		
RRMDD410	5.4	6.2	0.8	61.3	81.7	13.1	46.2	7.9	1.5	6.9	1.1	6.6	1.4	4.2	0.7	4.6	0.7	42.8	281	Clay		
RRMDD410	6.2	7.0	0.8	68.7	155.4	15.1	52.7	9.0	1.7	7.8	1.2	7.1	1.5	4.5	0.7	4.6	0.7	46.2	377	Clay		
RRMDD410	7.0	7.8	0.8	95.5	107.2	21.1	75.8	12.6	2.4	10.9	1.7	9.4	1.9	5.8	0.8	5.4	0.8	61.0	412	Clay		
RRMDD410	7.8	8.7	0.9	134.3	301.0	31.3	112.4	19.0	3.5	15.6	2.4	13.0	2.6	7.2	1.0	6.3	0.9	79.1	729	Clay		
RRMDD410	8.7	9.5	0.9	194.7	635.1	46.6	163.3	26.7	4.8	19.8	2.9	15.6	3.1	8.5	1.2	7.3	1.0	97.3	1228	Clay		
RRMDD410	9.5	10.4	0.9	224.0	315.7	51.2	180.2	28.3	5.0	21.6	3.1	16.6	3.3	9.3	1.3	7.6	1.2	105.7	974	Clay		
RRMDD410	10.4	11.3	0.9	150.1	301.0	34.8	124.8	20.8	3.7	16.3	2.4	13.1	2.7	7.4	1.0	6.5	0.9	85.3	771	Clay		
RRMDD410	11.3	12.2	0.9	140.7	410.3	33.3	119.6	20.1	3.6	15.5	2.4	12.6	2.5	7.1	1.0	6.2	0.9	80.1	856	Clay		
RRMDD410	12.2	13.1	0.9	140.7	211.9	33.1	118.4	19.6	3.7	16.0	2.3	13.0	2.5	7.1	1.0	6.3	0.9	82.3	659	Clay		
RRMDD410	13.1	13.9	0.8	136.6	172.6	32.5	117.2	19.1	3.6	15.0	2.2	12.1	2.3	6.5	0.9	5.7	0.8	75.2	602	Upper Saprolite		
RRMDD410	13.9	14.8	0.8	296.7	224.8	74.2	272.9	45.5	8.3	33.3	4.6	23.8	4.3	11.2	1.5	8.7	1.2	137.1	1148	Upper Saprolite		
RRMDD410	14.8	15.6	0.8	358.9	161.5	87.8	330.1	58.1	11.1	49.2	7.0	36.4	6.9	18.8	2.3	14.2	2.0	210.2	1355	Lower Saprolite		
RRMDD410	15.6	16.4	0.8	382.3	132.7	70.4	270.6	46.6	9.4	49.8	6.8	37.9	8.0	21.8	2.7	15.3	2.3	325.1	1382	Lower Saprolite	10	873
RRMDD411	0.0	1.6	1.6	50.0	324.3	10.2	34.5	6.7	1.2	5.3	0.9	5.5	1.1	3.2	0.5	3.5	0.5	29.0	477	Hardcap		
RRMDD411	1.6	3.3	1.6	72.4	457.0	11.9	37.6	7.0	1.2	5.1	0.9	5.1	1.1	3.2	0.5	3.6	0.5	29.2	636	Hardcap		
RRMDD411	3.3	4.4	1.1	76.3	706.3	15.2	52.0	8.7	1.6	6.7	1.1	6.8	1.4	4.2	0.6	4.4	0.6	38.9	925	Transition		
RRMDD411	4.4	5.3	1.0	70.4	132.7	15.3	53.7	9.4	1.6	7.5	1.3	7.6	1.6	5.0	0.7	5.1	0.8	48.8	361	Clay	1	361
RRMDD411	5.3	6.3	1.0	57.7	184.9	12.1	43.4	7.2	1.3	6.2	1.0	6.0	1.3	3.8	0.6	4.0	0.6	38.7	369	Clay		
RRMDD411	6.3	7.3	1.0	62.2	235.2	13.5	47.7	8.1	1.5	7.0	1.1	6.3	1.3	4.1	0.6	4.0	0.6	41.1	434	Clay		
RRMDD411	7.3	8.1	0.8	64.9	324.3	14.5	51.3	8.8	1.6	7.8	1.2	6.8	1.3	4.1	0.6	4.0	0.6	44.3	536	Clay		
RRMDD411	8.1	8.9	0.8	61.8	60.6	13.7	48.2	8.1	1.6	7.7	1.1	6.3	1.3	3.9	0.5	3.7	0.5	43.6	263	Clay		
RRMDD411	8.9	9.8	0.8	73.9	100.0	16.4	58.3	10.3	1.8	9.4	1.3	8.0	1.6	4.8	0.7	4.3	0.6	53.5	345	Clay		
RRMDD411	9.8	10.6	0.8	65.7	219.9	14.9	52.7	9.7	1.8	8.5	1.2	7.3	1.4	4.3	0.6	4.0	0.6	47.7	440	Clay		
RRMDD411	10.6	11.4	0.8	108.8	138.2	25.6	90.7	15.7	2.9	13.9	2.0	11.0	2.1	5.9	0.8	5.1	0.7	69.2	493	Clay		
RRMDD411	11.4	12.4	1.0	278.0	245.1	68.4	235.6	40.5	7.0	29.3	3.8	20.1	3.6	9.7	1.2	7.6	1.0	113.1	1064	Upper Saprolite		
RRMDD411	12.4	13.3	0.9	507.8	143.1	109.6	395.4	68.1	12.7	59.6	7.8	41.3	7.5	20.2	2.5	14.6	2.0	259.1	1651	Upper Saprolite		
RRMDD411	13.3	14.1	0.8	219.9	131.4	50.6	183.1	33.5	6.2	27.9	3.9	21.6	3.9	10.9	1.4	9.1	1.3	119.2	824	Lower Saprolite		
RRMDD411	14.1	14.9	0.8	174.7	119.9	39.7	143.5	25.0	4.8	22.5	3.0	16.6	3.1	8.7	1.2	7.1	1.0	100.2	671	Lower Saprolite	8	718
RRMDD411	14.9	15.4	0.5	89.4	65.7	17.3	63.2	9.9	1.9	10.2	1.3	7.0	1.4	4.1	0.6	3.1	0.5	58.4	334	Saprock		
RRMDD412	0.0	1.8	1.8	53.1	552.8	11.6	40.2	8.5	1.4	6.3	1.2	6.7	1.4	4.0	0.7	4.5	0.7	35.8	729	Hardcap		
RRMDD412	1.8	3.7	1.8	57.2	663.3	12.4	42.3	8.3	1.5	6.1	1.1	6.2	1.2	3.6	0.6	4.2	0.6	32.4	841	Hardcap		
RRMDD412	3.7	4.4	0.7	73.7	394.3	15.3	51.4	9.5	1.6	7.8	1.3	7.1	1.5	4.6	0.7	4.7	0.7	41.8	616	Transition		
RRMDD412	4.4	5.3	0.9	64.5	269.0	14.3	49.8	9.1	1.6	7.6	1.2	7.1	1.5	4.6	0.7	4.4	0.6	44.1	480	Clay		
RRMDD412	5.3	6.2	0.9	72.2	103.8	16.2	58.2	10.5	1.9	9.7	1.4	8.6	1.7	5.2	0.7	5.1	0.7	55.9	352	Clay		
RRMDD412	6.2	7.2	1.0	126.1	363.6	30.3	103.9	17.9	3.2	14.5	2.0	11.3	2.2	6.3	0.8	5.3	0.8	72.9	761	Clay		
RRMDD412	7.2	8.2	1.0	156.0	227.9	39.3	132.4	21.5	3.5	15.6	2.0	11.1	2.1	5.7	0.8	5.1	0.7	67.1	691	Clay		
RRMDD412	8.2	9.0	0.8	588.7	486.4	145.0	506.2	86.7	15.6	66.5	8.7	44.8	7.5	19.7	2.4	15.1	2.0	214.6	2210	Clay		
RRMDD412	9.0	9.8	0.8	517.2	187.9	120.8	430.4	76.6	13.8	62.2	8.3	44.5	7.9	21.2	2.7	16.7	2.2	255.2	1768	Clay		
RRMDD412	9.8	10.6	0.8	225.2	178.7	44.1	162.1	30.8	6.1	30.0	4.2	23.8	4.5	13.2	1.7	10.7	1.5	144.8	881	Upper Saprolite		
RRMDD412	10.6	11.5	0.8	235.7	154.2	46.6	174.4	32.1	6.5	33.7	4.6	26.4	5.2	15.1	1.9	11.7	1.7	180.3	930	Upper Saprolite		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD412	11.5	12.3	0.9	76.6	130.8	16.7	58.2	10.1	2.1	9.0	1.2	7.0	1.4	4.2	0.6	3.4	0.5	53.5	375	Lower Saprolite		
RRMDD412	12.3	13.2	0.9	62.5	130.8	14.6	50.2	8.8	1.6	6.7	1.0	5.3	1.1	3.2	0.4	2.7	0.4	32.1	321	Lower Saprolite		
RRMDD412	13.2	14.0	0.8	71.4	148.6	16.5	57.4	10.1	1.9	7.6	1.0	6.0	1.2	3.5	0.5	3.3	0.5	36.3	366	Lower Saprolite	10	818
RRMDD413	0.0	1.4	1.4	101.2	733.4	18.5	60.1	10.9	1.8	7.9	1.4	7.4	1.5	4.2	0.7	4.4	0.6	37.1	991	Hardcap		
RRMDD413	1.4	2.5	1.1	103.6	382.0	18.9	61.5	10.1	1.7	8.6	1.3	7.9	1.5	4.9	0.7	5.0	0.7	47.2	656	Clay		
RRMDD413	2.5	3.4	0.9	107.7	187.9	17.9	55.9	8.9	1.5	7.4	1.1	7.0	1.4	4.4	0.7	4.6	0.7	42.9	450	Clay		
RRMDD413	3.4	4.3	0.9	60.3	216.2	12.9	44.0	7.5	1.4	6.8	1.0	6.3	1.3	4.1	0.6	4.3	0.7	41.5	409	Clay		
RRMDD413	4.3	5.2	0.9	58.2	138.8	13.2	45.5	8.2	1.4	6.9	1.1	6.6	1.3	4.1	0.6	4.4	0.6	43.6	335	Clay		
RRMDD413	5.2	6.1	0.9	51.6	183.6	11.1	38.6	6.9	1.2	5.8	0.9	5.7	1.1	3.5	0.5	3.9	0.5	36.3	352	Clay		
RRMDD413	6.1	7.1	1.1	65.7	431.2	15.3	53.3	9.5	1.6	8.3	1.2	7.2	1.4	4.5	0.6	4.4	0.7	46.0	651	Clay		
RRMDD413	7.1	8.2	1.1	69.7	92.7	16.7	59.7	10.1	1.8	9.3	1.3	7.4	1.5	4.4	0.6	4.1	0.6	48.0	328	Clay		
RRMDD413	8.2	9.2	1.0	110.8	304.6	28.8	102.4	17.8	3.1	13.9	2.0	10.9	2.0	5.8	0.8	5.3	0.7	62.1	671	Clay		
RRMDD413	9.2	10.2	1.0	119.0	219.3	31.7	110.0	19.1	3.4	14.6	2.0	10.5	2.0	5.6	0.8	4.8	0.7	58.5	602	Clay		
RRMDD413	10.2	11.2	1.0	369.4	345.2	95.3	331.3	58.1	9.6	39.1	5.1	24.8	4.3	11.2	1.5	9.1	1.3	115.9	1421	Clay		
RRMDD413	11.2	12.2	1.0	357.7	269.0	84.0	297.4	52.6	8.9	37.7	5.0	24.9	4.4	11.4	1.5	9.4	1.3	117.1	1282	Clay		
RRMDD413	12.2	13.0	0.8	207.6	161.5	45.8	172.6	33.4	6.2	30.4	4.2	22.7	4.3	12.0	1.6	9.5	1.4	137.8	851	Upper Saprolite		
RRMDD413	13.0	13.7	0.8	174.7	175.7	34.7	132.4	25.9	5.0	27.5	3.8	20.9	4.2	11.8	1.5	8.5	1.3	154.9	783	Upper Saprolite		
RRMDD413	13.7	14.4	0.7	90.1	162.1	18.7	68.2	14.3	2.9	13.9	2.0	10.7	2.2	6.0	0.8	4.6	0.7	72.0	469	Lower Saprolite	8	791
RRMDD414	0.0	1.9	1.9	91.7	1670.6	17.1	54.7	10.3	1.7	7.4	1.4	7.2	1.4	4.1	0.6	4.4	0.6	37.2	1911	Hardcap		
RRMDD414	1.9	3.8	1.9	92.9	1793.5	19.8	63.3	11.8	1.9	8.9	1.5	8.2	1.6	4.8	0.8	5.3	0.8	42.4	2058	Transition		
RRMDD414	3.8	4.7	1.0	104.3	396.8	22.1	75.3	13.9	2.3	11.1	1.7	10.0	2.0	6.3	0.9	6.1	0.9	57.5	711	Clay		
RRMDD414	4.7	5.7	1.0	114.7	339.0	26.9	94.6	18.3	3.0	14.4	2.2	12.3	2.5	7.6	1.1	7.3	1.1	69.2	714	Clay		
RRMDD414	5.7	6.5	0.8	123.1	191.6	28.2	95.5	17.2	3.0	13.3	2.0	11.2	2.2	6.4	0.9	6.1	0.9	61.7	563	Clay		
RRMDD414	6.5	7.3	0.8	129.0	225.4	31.8	107.1	19.5	3.3	14.3	2.1	11.5	2.3	6.5	0.9	6.2	0.9	63.2	624	Clay		
RRMDD414	7.3	8.1	0.8	129.6	198.4	32.5	110.6	19.6	3.2	14.0	2.0	11.1	2.2	6.2	0.9	5.7	0.8	62.4	599	Clay		
RRMDD414	8.1	9.1	1.0	196.4	212.5	46.5	159.2	27.1	4.7	21.0	2.9	15.3	2.9	8.2	1.2	7.2	1.1	92.1	798	Pallid		
RRMDD414	9.1	10.1	1.0	295.5	227.9	64.4	228.6	41.2	7.3	33.5	4.7	25.0	4.9	13.4	1.8	10.7	1.6	163.2	1124	Pallid		
RRMDD414	10.1	11.0	1.0	223.4	190.4	55.2	220.4	48.9	9.9	47.9	7.3	40.5	7.7	20.9	2.8	16.4	2.1	225.4	1119	Pallid		
RRMDD414	11.0	12.0	1.0	193.5	191.0	43.7	166.8	34.4	6.8	36.7	5.7	31.9	6.7	18.6	2.5	14.6	2.0	215.9	971	Pallid		
RRMDD414	12.0	12.8	0.8	108.1	152.3	21.4	76.2	13.5	2.5	14.4	2.2	12.7	2.9	8.5	1.1	6.8	1.0	115.8	539	Upper Saprolite		
RRMDD414	12.8	13.5	0.8	78.5	161.5	17.3	56.7	9.1	1.6	6.2	0.8	4.3	0.8	2.5	0.4	2.6	0.4	31.0	374	Upper Saprolite		
RRMDD414	13.5	15.0	1.5	83.6	173.2	18.6	64.0	11.5	2.0	8.2	1.1	6.3	1.2	3.3	0.5	3.2	0.5	35.8	413	Lower Saprolite	11	715
RRMDD415	0.0	1.9	1.9	161.8	558.9	24.1	70.0	12.3	2.0	9.0	1.5	8.4	1.6	4.8	0.8	5.1	0.7	42.5	904	Hardcap		
RRMDD415	1.9	3.9	1.9	127.8	611.7	20.4	61.1	11.3	1.9	8.0	1.3	8.0	1.6	4.7	0.8	5.2	0.8	41.0	905	Hardcap		
RRMDD415	3.9	4.9	1.0	139.0	469.2	23.3	71.9	12.1	2.0	9.9	1.6	9.1	1.9	5.7	0.9	6.0	0.9	52.1	805	Transition		
RRMDD415	4.9	5.8	0.9	88.0	251.8	19.3	66.7	12.8	2.2	10.8	1.7	10.1	2.0	6.4	0.9	6.4	0.9	57.9	538	Clay		
RRMDD415	5.8	6.6	0.9	103.6	132.1	18.5	60.8	11.3	1.9	9.3	1.5	8.5	1.8	5.4	0.8	5.6	0.9	51.8	414	Clay	2	476
RRMDD415	6.6	7.4	0.8	67.9	132.1	12.5	41.3	7.5	1.3	6.2	1.0	6.2	1.3	4.3	0.7	4.9	0.7	42.0	330	Clay		
RRMDD415	7.4	8.3	1.0	55.8	84.8	11.6	39.2	7.4	1.4	6.8	1.1	6.5	1.4	4.3	0.7	4.7	0.7	41.4	268	Clay		
RRMDD415	8.3	9.2	0.9	50.5	167.7	10.5	36.2	6.9	1.3	6.3	1.0	6.2	1.3	4.2	0.7	4.4	0.7	40.8	339	Clay		
RRMDD415	9.2	10.2	0.9	87.0	179.3	20.0	69.2	12.6	2.1	10.1	1.5	8.3	1.7	5.1	0.7	4.8	0.7	55.4	458	Clay		
RRMDD415	10.2	11.1	0.9	134.9	213.7	33.7	118.4	21.6	3.6	16.8	2.4	12.9	2.6	7.7	1.1	6.8	1.0	87.0	664	Clay		
RRMDD415	11.1	12.0	0.9	113.2	226.0	29.7	102.8	18.1	3.0	12.7	1.8	9.3	1.9	5.4	0.8	4.8	0.7	57.8	588	Clay		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	TREO ppm
RRMDD415	12.0	13.0	1.0	283.8	262.9	53.5	186.0	32.7	5.9	26.0	3.5	18.2	3.3	9.0	1.2	7.4	1.1	106.4	1001	Upper Saprolite		
RRMDD415	13.0	14.0	1.0	175.9	231.6	41.3	145.2	26.3	4.6	20.5	2.8	15.1	2.9	8.3	1.2	7.0	1.0	90.5	774	Upper Saprolite		
RRMDD415	14.0	15.0	1.0	166.0	186.7	46.4	162.1	28.5	5.2	22.4	3.0	16.6	3.1	8.4	1.2	7.0	1.0	100.2	758	Upper Saprolite		
RRMDD415	15.0	16.0	1.0	189.4	267.8	55.2	194.8	35.8	6.7	28.9	4.1	22.3	4.2	11.7	1.6	9.3	1.4	135.2	969	Upper Saprolite		
RRMDD415	16.0	16.8	0.8	111.4	183.0	27.7	93.5	15.9	2.9	12.7	1.7	9.4	1.7	5.0	0.7	4.1	0.6	61.2	532	Upper Saprolite		
RRMDD415	16.8	17.7	0.9	161.3	230.9	37.3	126.6	20.1	3.7	16.1	2.2	12.1	2.3	6.1	0.9	5.1	0.8	79.4	705	Upper Saprolite		
RRMDD415	17.7	19.2	1.5	27.1	58.1	6.1	20.1	3.4	0.6	2.4	0.3	2.0	0.4	1.1	0.2	1.1	0.2	11.9	135	Lower Saprolite		
RRMDD415	19.2	20.1	0.9	68.4	145.0	15.9	50.4	7.5	1.2	4.6	0.6	3.4	0.6	1.8	0.3	2.0	0.3	17.5	320	Lower Saprolite		
RRMDD415	20.1	21.0	0.9	77.3	169.5	18.6	64.7	11.3	2.1	9.1	1.3	7.2	1.4	4.1	0.6	3.9	0.6	45.2	417	Lower Saprolite		
RRMDD415	21.0	21.9	0.9	92.1	200.8	21.4	69.5	11.2	2.0	7.7	1.1	5.8	1.1	3.1	0.5	3.0	0.5	34.9	455	Lower Saprolite		
RRMDD415	21.9	22.6	0.8	94.2	213.7	22.3	73.8	12.2	2.1	8.6	1.1	6.2	1.2	3.2	0.5	3.2	0.5	34.4	477	Lower Saprolite	13	579
RRMDD415	22.6	23.4	0.8	107.5	253.1	25.1	83.5	13.7	2.4	9.6	1.3	7.2	1.3	3.8	0.6	3.6	0.5	39.5	553	Saprock		
RRMDD416	0.0	1.6	1.6	75.5	907.8	15.6	50.3	9.9	1.6	7.8	1.3	7.6	1.5	4.6	0.7	4.9	0.7	39.2	1129	Hardcap		
RRMDD416	1.6	3.2	1.6	95.1	2033.0	19.1	59.7	11.5	1.8	8.2	1.5	7.9	1.5	4.4	0.7	4.8	0.7	36.7	2287	Transition		
RRMDD416	3.2	3.9	0.7	23.6	132.7	4.8	15.2	2.6	0.4	1.9	0.3	2.0	0.4	1.3	0.2	1.4	0.2	12.6	200	Colluvium		
RRMDD416	3.9	4.6	0.7	18.2	104.8	3.7	12.0	2.1	0.4	1.7	0.3	1.6	0.3	1.1	0.2	1.3	0.2	11.0	159	Colluvium		
RRMDD416	4.6	5.5	0.8	49.1	122.0	11.1	37.4	6.6	1.2	5.7	0.9	5.6	1.2	3.7	0.5	3.9	0.6	36.1	286	Mottled		
RRMDD416	5.5	6.3	0.8	114.2	137.0	27.2	91.9	15.3	2.6	11.6	1.7	9.7	1.9	5.8	0.8	5.3	0.8	61.7	488	Mottled		
RRMDD416	6.3	7.0	0.7	404.6	400.5	65.1	200.0	30.8	5.1	20.0	2.6	13.5	2.3	6.3	0.9	5.2	0.8	67.1	1225	Clay		
RRMDD416	7.0	7.8	0.7	139.6	220.5	33.8	109.2	17.5	2.8	11.9	1.7	9.4	1.8	5.4	0.8	5.2	0.8	58.9	619	Clay		
RRMDD416	7.8	8.5	0.7	215.2	385.7	55.8	179.6	28.5	4.5	17.8	2.3	12.0	2.2	6.1	0.9	5.3	0.8	68.6	985	Clay		
RRMDD416	8.5	9.2	0.7	261.5	436.1	75.3	246.1	40.9	6.5	24.2	3.1	15.9	2.7	7.3	1.0	6.0	0.9	76.4	1204	Clay		
RRMDD416	9.2	10.0	0.7	183.5	310.8	47.6	153.4	24.4	3.9	15.1	2.0	10.6	1.9	5.3	0.8	4.8	0.7	59.2	824	Clay		
RRMDD416	10.0	11.0	1.0	133.1	368.5	33.2	107.5	16.6	2.7	11.1	1.5	8.1	1.5	4.4	0.7	4.0	0.6	46.9	740	Clay		
RRMDD416	11.0	12.0	1.0	236.9	347.6	57.6	195.4	31.3	5.5	21.7	3.0	15.4	2.7	7.7	1.0	6.4	0.9	80.8	1014	Clay		
RRMDD416	12.0	13.1	1.1	319.0	425.0	77.9	281.1	49.1	9.0	39.9	5.6	29.4	5.3	14.8	2.0	12.1	1.7	146.0	1418	Upper Saprolite		
RRMDD416	13.1	14.2	1.1	208.8	315.7	41.0	149.9	24.5	5.1	25.2	3.6	20.8	4.3	12.9	1.6	9.6	1.4	172.1	996	Upper Saprolite		
RRMDD416	14.2	15.3	1.1	64.0	128.4	14.5	51.8	8.7	1.8	7.0	1.1	6.3	1.3	3.9	0.5	3.1	0.4	41.4	334	Lower Saprolite	10	893
RRMDD417	0.0	2.0	2.0	52.9	286.2	10.7	35.5	7.0	1.1	5.5	0.9	5.7	1.2	3.6	0.6	4.3	0.6	32.6	448	Hardcap		
RRMDD417	2.0	4.0	2.0	65.8	511.0	13.5	43.6	8.7	1.5	6.6	1.2	6.7	1.3	4.1	0.7	4.7	0.7	34.2	704	Hardcap		
RRMDD417	4.0	4.9	0.9	100.9	176.3	28.0	91.6	17.0	3.0	12.7	2.0	11.1	2.2	6.3	0.9	5.9	0.9	56.8	515	Clay		
RRMDD417	4.9	5.8	0.9	246.3	395.5	63.2	208.2	36.2	6.2	24.9	3.7	20.2	3.7	10.2	1.5	9.2	1.3	100.7	1131	Clay		
RRMDD417	5.8	6.5	0.7	329.6	281.3	79.1	265.9	46.3	8.1	36.2	5.3	30.8	6.0	17.4	2.4	14.0	2.0	194.3	1319	Clay		
RRMDD417	6.5	7.2	0.7	442.1	375.9	97.3	333.6	58.1	10.5	49.8	7.3	42.8	8.6	24.1	3.3	19.0	2.8	295.9	1771	Clay		
RRMDD417	7.2	8.1	0.8	361.2	210.7	67.4	247.3	43.6	8.3	45.0	5.9	33.6	6.7	18.2	2.3	12.5	1.9	243.2	1308	Upper Saprolite		
RRMDD417	8.1	8.9	0.8	117.2	227.9	25.5	84.0	14.1	2.6	11.8	1.6	9.6	1.9	5.2	0.7	4.2	0.6	69.6	576	Upper Saprolite		
RRMDD417	8.9	9.7	0.8	94.6	196.5	22.3	72.6	12.2	2.1	8.9	1.3	6.9	1.4	3.8	0.5	3.5	0.5	40.4	467	Upper Saprolite		
RRMDD417	9.7	10.6	0.8	84.2	172.0	19.7	66.3	11.4	2.0	8.4	1.2	6.9	1.4	3.7	0.5	3.1	0.5	40.3	421	Lower Saprolite	7	911
RRMDD417	10.6	11.4	0.9	82.2	184.3	20.7	73.0	14.1	2.7	11.5	1.7	9.7	1.9	5.1	0.7	3.9	0.6	55.1	467	Saprock		
RRMDD418	0.0	2.0	2.0	76.6	963.1	14.5	46.0	9.2	1.5	7.1	1.2	7.2	1.4	4.3	0.7	4.6	0.7	35.0	1173	Hardcap		
RRMDD418	2.0	3.1	1.1	232.8	642.5	55.2	191.9	31.3	5.6	26.6	4.1	21.7	4.3	12.8	1.7	10.4	1.5	140.3	1383	Pallid		
RRMDD418	3.1	4.0	0.9	148.4	249.4	31.2	111.9	18.2	3.5	17.9	2.6	14.3	3.0	8.9	1.2	6.8	1.0	127.6	746	Upper Saprolite		
RRMDD418	4.0	5.1	1.1	80.0	174.4	19.1	67.7	12.7	2.6	10.9	1.7	9.4	1.8	5.3	0.7	4.5	0.6	56.8	448	Lower Saprolite		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval	
																					Length (m)	TREO ppm
RRMDD418	5.1	6.2	1.1	74.9	161.5	17.5	59.7	9.8	1.9	7.9	1.1	6.0	1.1	3.3	0.5	3.2	0.5	38.0	387	Lower Saprolite	4	744
RRMDD419	0.0	2.2	2.2	28.4	61.7	6.2	20.8	4.0	0.7	3.7	0.6	4.2	0.9	2.9	0.5	3.3	0.5	26.2	165	Watercourse		
RRMDD419	2.2	3.5	1.4	134.3	261.6	28.8	102.6	18.0	3.5	18.2	2.7	15.3	3.1	9.3	1.3	8.3	1.3	112.3	721	Lower Saprolite	1	721
RRMDD419	3.5	4.9	1.4	82.2	183.0	18.8	65.6	11.5	2.4	9.7	1.4	7.4	1.4	4.2	0.6	3.7	0.5	46.2	439	Saprock		
RRMDD420	0.0	2.0	2.0	56.3	515.9	10.9	35.1	6.8	1.1	5.6	0.9	5.6	1.2	3.4	0.5	3.8	0.6	30.4	678	Hardcap		
RRMDD420	2.0	4.0	2.0	30.1	114.6	5.6	17.6	3.0	0.5	2.4	0.4	2.5	0.5	1.6	0.2	1.7	0.2	14.6	195	Colluvium		
RRMDD420	4.0	5.2	1.2	106.4	121.9	19.7	64.6	10.0	1.7	8.3	1.3	7.8	1.5	5.0	0.7	5.0	0.8	51.0	406	Clay		
RRMDD420	5.2	5.9	0.7	197.6	191.6	41.2	133.0	19.7	3.2	13.8	1.9	10.4	1.9	5.8	0.8	5.2	0.8	63.0	690	Clay		
RRMDD420	5.9	6.6	0.7	128.4	199.0	27.8	90.5	13.4	2.3	9.8	1.4	7.7	1.5	4.5	0.6	4.1	0.6	47.6	539	Clay		
RRMDD420	6.6	7.3	0.7	40.3	277.6	10.2	33.2	4.9	0.8	3.2	0.5	2.6	0.5	1.5	0.2	1.4	0.2	14.5	392	Upper Saprolite		
RRMDD420	7.3	8.0	0.7	108.5	272.7	24.9	80.2	11.4	1.9	7.8	1.1	5.9	1.1	3.4	0.5	3.4	0.5	35.2	558	Upper Saprolite		
RRMDD420	8.0	9.0	1.0	150.1	182.4	30.2	99.4	15.5	2.8	11.8	1.6	8.7	1.6	4.7	0.7	4.3	0.7	53.0	567	Upper Saprolite		
RRMDD420	9.0	9.8	0.8	156.0	277.6	45.2	158.6	26.2	4.8	19.8	2.8	15.3	2.8	7.9	1.1	6.8	1.0	89.3	815	Upper Saprolite		
RRMDD420	9.8	10.6	0.8	230.5	319.4	57.6	199.5	32.0	5.5	23.1	3.2	15.8	2.9	7.9	1.0	6.4	0.9	87.6	993	Upper Saprolite		
RRMDD420	10.6	11.4	0.8	130.8	248.1	34.0	113.7	17.7	2.9	11.6	1.6	7.8	1.4	3.9	0.6	3.6	0.5	42.4	621	Lower Saprolite	7	609
RRMDD421	0.0	1.3	1.3	39.5	170.1	8.3	27.1	5.6	1.0	4.5	0.8	4.9	1.0	3.0	0.5	3.4	0.5	25.0	295	Hardcap		
RRMDD421	1.3	2.7	1.3	51.7	835.3	12.0	39.9	8.2	1.4	6.4	1.2	7.0	1.4	4.2	0.7	4.9	0.7	32.5	1008	Hardcap		
RRMDD421	2.7	3.4	0.7	217.6	347.6	35.8	109.8	16.9	3.0	12.9	2.0	11.1	2.1	6.4	0.9	6.5	0.9	61.0	835	Clay		
RRMDD421	3.4	4.2	0.8	82.7	184.3	18.5	63.6	11.2	2.2	9.3	1.4	7.4	1.4	4.2	0.6	3.8	0.5	49.5	440	Upper Saprolite		
RRMDD421	4.2	5.1	0.8	83.6	186.7	20.1	70.1	12.7	2.6	11.0	1.8	10.8	2.3	6.8	1.0	5.9	0.8	71.4	487	Upper Saprolite		
RRMDD421	5.1	5.9	0.9	78.6	176.9	17.3	58.3	9.4	2.0	8.0	1.2	7.2	1.4	4.3	0.6	3.7	0.5	42.7	412	Upper Saprolite		
RRMDD421	5.9	6.9	1.0	66.3	152.9	15.2	52.3	9.2	1.9	7.8	1.2	7.0	1.4	4.1	0.6	3.6	0.5	42.2	366	Lower Saprolite	4	494
RRMDD421	6.9	7.9	1.0	57.7	134.5	13.5	46.3	7.9	1.7	6.9	1.0	5.7	1.1	3.3	0.4	2.9	0.4	33.7	317	Lower Saprolite		
RRMDD422	0.0	2.3	2.3	51.4	211.9	9.8	31.7	5.8	0.9	4.8	0.8	4.5	1.0	2.9	0.5	3.0	0.5	26.9	356	Hardcap		
RRMDD422	2.3	4.7	2.3	73.8	657.2	15.6	50.4	9.0	1.4	6.9	1.1	6.3	1.3	3.8	0.6	3.9	0.6	34.2	866	Transition		
RRMDD422	4.7	5.5	0.8	55.8	307.1	11.1	37.8	6.4	1.1	5.0	0.8	4.9	1.0	3.0	0.4	2.9	0.4	32.9	471	Watercourse		
RRMDD422	5.5	6.8	1.3	73.3	103.7	14.6	50.0	8.4	1.5	6.8	1.1	6.9	1.4	4.4	0.7	4.6	0.7	45.6	324	Mottled		
RRMDD422	6.8	7.8	1.0	119.6	172.6	26.8	90.0	14.7	2.6	11.0	1.6	9.1	1.8	5.3	0.8	5.3	0.8	60.1	522	Clay		
RRMDD422	7.8	8.8	1.1	112.0	565.1	27.1	90.9	14.3	2.5	9.8	1.4	7.6	1.5	4.3	0.6	3.8	0.6	47.6	889	Clay		
RRMDD422	8.8	9.9	1.1	205.8	307.1	52.2	175.5	28.1	4.6	18.4	2.6	13.8	2.7	7.4	1.0	6.3	1.0	86.1	913	Upper Saprolite		
RRMDD422	9.9	10.9	1.1	222.8	199.0	50.1	168.5	26.7	4.6	19.0	2.6	14.1	2.7	7.3	1.0	6.5	1.0	88.1	814	Upper Saprolite		
RRMDD422	11.0	12.0	1.0	190.0	207.0	47.0	161.0	25.9	4.3	18.3	2.6	13.5	2.7	7.1	1.0	6.3	1.0	88.3	776	Upper Saprolite		
RRMDD422	12.0	13.0	1.0	292.0	223.0	59.1	205.3	35.0	6.4	26.9	4.0	22.4	4.6	11.9	1.7	9.7	1.4	153.7	1057	Upper Saprolite		
RRMDD422	13.0	13.8	0.8	231.0	239.5	57.4	204.7	34.2	6.2	24.9	3.6	19.1	3.7	9.7	1.3	8.0	1.2	114.8	959	Lower Saprolite		
RRMDD422	13.8	14.6	0.8	266.2	286.2	65.6	235.6	40.5	7.4	30.7	4.6	25.0	4.6	11.9	1.7	10.7	1.5	123.6	1116	Lower Saprolite	9	793
RRMDD422	14.6	15.2	0.6	109.5	174.4	22.5	79.4	13.4	2.7	13.1	1.9	10.9	2.3	6.6	0.9	5.4	0.8	92.2	536	Saprock		
RRMDD423	0.0	1.5	1.5	56.6	496.3	12.3	39.9	7.9	1.3	6.0	1.1	6.4	1.2	3.7	0.6	4.2	0.6	31.6	670	Hardcap		
RRMDD423	1.5	3.0	1.5	55.7	906.6	11.9	38.7	7.2	1.2	5.6	1.0	5.6	1.1	3.4	0.5	3.6	0.5	28.3	1071	Hardcap		
RRMDD423	3.0	3.8	0.8	89.8	513.5	18.5	61.9	10.0	1.8	8.5	1.4	8.1	1.6	5.1	0.8	5.2	0.8	48.9	776	Transition		
RRMDD423	3.8	4.4	0.6	97.0	501.2	19.9	65.8	10.5	1.9	9.2	1.5	8.3	1.7	5.2	0.8	5.3	0.8	52.6	782	Clay		
RRMDD423	4.4	5.1	0.7	98.2	692.8	20.8	69.9	11.4	2.0	10.2	1.7	9.7	2.0	6.3	0.9	6.2	1.0	61.5	995	Clay		
RRMDD423	5.1	6.0	0.9	81.9	118.0	17.9	61.0	10.2	1.9	9.5	1.5	9.0	1.9	5.9	0.9	5.9	0.9	57.0	383	Clay		
RRMDD423	6.0	6.9	0.9	74.2	125.3	16.0	56.3	9.5	1.7	7.9	1.2	7.4	1.6	4.8	0.7	5.1	0.8	51.2	364	Clay		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD423	6.9	7.8	0.9	60.3	83.2	13.2	47.0	8.2	1.4	6.8	1.1	6.7	1.4	4.5	0.7	4.7	0.7	45.7	286	Clay		
RRMDD423	7.8	8.6	0.8	77.8	519.6	16.6	57.9	10.4	1.9	7.6	1.2	6.8	1.4	4.3	0.7	4.6	0.7	42.5	754	Clay		
RRMDD423	8.6	9.4	0.8	97.2	171.4	22.3	77.3	13.3	2.4	9.7	1.4	7.3	1.5	4.3	0.6	4.4	0.6	44.7	458	Clay		
RRMDD423	9.4	10.2	0.8	115.6	466.8	28.2	97.6	16.9	3.0	11.9	1.8	9.2	1.8	5.0	0.7	5.0	0.7	51.3	816	Clay		
RRMDD423	10.2	11.1	0.9	142.5	271.5	32.7	113.6	19.5	3.5	13.2	1.9	10.1	1.9	5.4	0.8	5.2	0.8	53.8	676	Clay		
RRMDD423	11.1	12.0	0.9	133.1	184.9	32.0	108.7	17.9	3.3	12.6	1.7	10.0	1.9	5.4	0.8	5.5	0.8	56.4	575	Clay		
RRMDD423	12.0	12.9	0.9	176.5	177.5	43.7	149.9	25.0	4.4	16.0	2.3	12.2	2.3	6.4	0.9	5.9	0.9	69.7	694	Clay		
RRMDD423	12.9	13.8	0.9	297.9	186.7	67.4	236.8	41.2	7.6	27.5	3.8	18.1	3.3	8.3	1.1	7.2	1.0	84.6	992	Clay		
RRMDD423	13.8	14.7	0.9	275.6	253.1	62.2	222.2	38.7	7.4	28.9	4.2	23.1	4.5	12.2	1.7	10.7	1.5	137.1	1083	Clay		
RRMDD423	14.7	15.6	0.9	294.4	266.6	55.1	204.1	36.1	7.6	38.7	5.6	34.0	7.5	20.4	2.7	16.6	2.4	317.5	1309	Upper Saprolite	12	723
RRMDD423	15.6	16.6	1.0	81.0	159.7	18.5	69.8	13.9	2.8	11.8	1.7	9.6	1.9	5.2	0.7	4.3	0.6	70.6	452	Saprock		
RRMDD423	16.6	17.5	0.9	72.8	164.0	16.6	55.6	9.3	1.7	6.5	1.0	5.3	1.0	2.9	0.4	2.7	0.4	32.9	373	Saprock		
RRMDD424	0.0	1.8	1.8	68.1	1695.2	13.8	43.3	8.4	1.4	6.5	1.2	6.5	1.3	3.8	0.6	4.1	0.6	33.1	1888	Hardcap		
RRMDD424	1.8	3.7	1.8	76.3	1793.5	15.0	48.4	8.8	1.4	6.7	1.2	6.4	1.2	3.8	0.6	3.8	0.6	34.3	2002	Hardcap		
RRMDD424	3.7	4.6	1.0	218.1	258.0	36.9	120.1	18.2	3.1	14.1	2.2	12.7	2.7	7.8	1.2	7.6	1.1	89.9	794	Transition		
RRMDD424	4.6	5.6	1.0	235.7	286.2	36.4	114.9	17.2	2.9	13.0	1.9	11.3	2.3	6.8	1.0	6.7	1.0	76.7	814	Clay		
RRMDD424	5.6	6.5	0.9	131.9	282.5	30.3	103.8	16.9	2.9	13.0	2.0	11.7	2.5	7.2	1.1	6.9	1.0	81.8	696	Clay		
RRMDD424	6.5	7.5	0.9	127.8	170.1	29.8	104.5	16.9	2.9	13.4	2.1	12.2	2.5	7.5	1.1	7.1	1.1	85.1	584	Clay		
RRMDD424	7.5	8.4	0.9	164.2	208.8	29.4	96.1	15.2	2.7	11.4	1.8	10.2	2.1	6.3	0.9	6.4	0.9	67.3	624	Clay		
RRMDD424	8.4	9.3	0.9	116.0	191.6	27.1	86.4	14.5	2.7	11.0	1.7	9.4	1.9	5.4	0.8	5.1	0.8	58.3	533	Clay		
RRMDD424	9.3	10.3	0.9	212.3	450.8	34.1	94.8	14.7	2.7	10.5	1.6	8.9	1.8	5.3	0.8	4.8	0.8	54.5	898	Clay		
RRMDD424	10.3	11.2	0.9	134.3	351.3	35.2	113.0	19.2	3.3	12.9	1.9	10.5	2.0	6.0	0.9	5.9	0.9	63.9	761	Clay		
RRMDD424	11.2	12.1	0.9	204.7	273.9	47.6	152.2	25.5	4.6	17.8	2.4	13.4	2.5	6.8	1.0	6.0	0.9	72.9	832	Clay		
RRMDD424	12.1	13.1	0.9	141.3	253.1	43.4	149.3	26.1	4.7	17.7	2.3	12.2	2.4	6.6	1.0	5.8	0.8	73.3	740	Clay		
RRMDD424	13.1	13.9	0.9	88.7	161.5	26.6	94.8	17.8	3.7	15.6	2.3	12.7	2.6	7.2	1.0	5.9	0.8	86.2	527	Upper Saprolite		
RRMDD424	13.9	14.8	0.9	102.7	224.8	29.1	105.4	20.2	4.0	18.3	2.7	16.1	3.2	9.1	1.3	7.7	1.1	103.0	649	Upper Saprolite		
RRMDD424	14.8	15.7	0.9	106.6	227.3	29.4	101.4	17.8	3.3	14.5	2.0	11.4	2.2	6.2	0.9	5.2	0.8	71.4	600	Upper Saprolite		
RRMDD424	15.7	16.6	0.9	79.6	161.5	21.5	76.2	13.8	3.0	13.1	1.9	11.2	2.2	6.3	1.0	5.7	0.9	75.6	474	Lower Saprolite	12	674
RRMDD424	16.6	17.4	0.8	41.5	115.3	10.7	37.4	6.8	1.4	6.3	0.9	5.4	1.0	2.9	0.5	3.0	0.4	31.1	265	Lower Saprolite		
RRMDD425	0.0	3.4	3.4	52.5	423.8	10.6	34.4	6.9	1.1	5.4	0.9	5.7	1.1	3.5	0.6	4.1	0.6	28.3	579	Hardcap		
RRMDD425	3.4	4.4	0.9	135.5	770.2	35.4	120.7	19.8	3.2	14.9	2.2	11.9	2.2	6.2	0.9	5.8	0.9	59.2	1189	Transition		
RRMDD425	4.4	5.3	0.9	119.6	224.2	37.5	140.0	23.4	4.2	19.6	2.9	14.8	2.7	6.8	0.9	6.0	0.9	73.5	677	Clay		
RRMDD425	5.3	6.2	0.9	101.3	206.4	29.4	110.8	19.1	3.6	17.5	2.6	13.6	2.6	6.7	0.9	6.0	0.9	73.1	594	Clay		
RRMDD425	6.2	7.1	0.9	92.9	196.5	25.7	94.4	15.9	3.0	14.1	2.1	11.5	2.2	5.6	0.8	5.2	0.8	59.6	530	Clay		
RRMDD425	7.1	8.1	1.0	78.6	183.6	21.4	81.2	15.2	3.1	14.7	2.2	11.1	2.1	5.8	0.8	5.2	0.8	62.7	489	Clay		
RRMDD425	8.1	9.1	1.0	97.3	211.9	24.9	87.9	14.3	2.5	11.9	1.7	9.1	1.9	5.1	0.7	4.8	0.7	59.3	534	Clay		
RRMDD425	9.1	10.4	1.3	69.9	161.5	19.2	77.6	16.5	3.2	17.4	2.6	15.1	3.2	9.1	1.2	7.9	1.2	106.9	513	Clay		
RRMDD425	10.4	11.3	0.9	82.4	198.4	21.5	84.0	15.5	3.0	15.7	2.4	13.9	3.0	8.8	1.2	7.6	1.2	116.3	575	Clay		
RRMDD425	11.3	12.2	0.9	77.9	189.2	20.2	76.3	14.1	2.8	14.3	2.0	11.8	2.5	7.3	1.0	6.5	1.0	113.0	540	Clay		
RRMDD425	12.2	13.0	0.9	82.1	196.5	20.7	77.1	14.4	2.9	14.0	2.0	11.5	2.5	7.2	1.0	6.3	1.0	98.0	537	Clay		
RRMDD425	13.0	13.9	0.8	71.1	170.7	18.0	64.2	11.8	2.4	10.6	1.6	8.4	1.6	4.6	0.7	4.0	0.6	54.9	425	Upper Saprolite	10	541
RRMDD425	13.9	15.0	1.2	58.5	118.2	12.5	43.0	6.9	1.2	5.0	0.7	3.6	0.7	2.0	0.3	2.0	0.3	22.2	277	Saprock		
RRMDD425	15.0	16.2	1.2	66.5	144.3	16.0	58.2	10.5	2.0	9.5	1.3	6.3	1.3	3.6	0.5	3.2	0.5	39.4	363	Saprock		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm $TREO-CeO_2$ Interval Length (m)	TREO ppm
RRMDD425	16.2	17.4	1.2	66.6	140.7	15.4	54.0	9.4	1.8	8.2	1.2	6.6	1.4	3.9	0.6	3.8	0.5	42.4	356	Saprock		
RRMDD425	17.4	18.6	1.2	70.1	152.3	17.2	60.2	10.1	1.8	7.8	1.1	5.7	1.1	2.8	0.4	2.6	0.4	31.1	365	Saprock		
RRMDD425	18.6	19.7	1.2	53.4	109.1	11.8	41.9	7.5	1.4	6.4	1.0	5.1	1.0	3.0	0.4	3.2	0.5	31.0	277	Saprock		
RRMDD425	19.7	20.9	1.2	85.6	183.0	19.5	65.0	10.8	1.7	9.4	1.4	7.4	1.4	3.8	0.5	3.4	0.5	39.7	433	Saprock		
RRMDD426	0.0	1.2	1.2	33.5	96.6	7.2	24.6	4.9	0.8	4.4	0.7	4.6	1.0	2.9	0.4	3.3	0.5	27.7	213	Watercourse		
RRMDD426	1.2	2.4	1.2	35.3	76.5	7.1	23.0	4.4	0.7	3.8	0.6	4.0	0.8	2.6	0.4	2.8	0.4	24.6	187	Watercourse		
RRMDD426	2.4	3.3	0.9	66.1	103.3	12.9	41.5	7.6	1.3	6.5	1.1	6.5	1.3	4.0	0.6	4.2	0.7	38.9	296	Watercourse		
RRMDD426	3.3	4.2	0.9	194.1	407.8	41.7	133.0	21.8	3.8	17.1	2.6	14.1	2.7	7.3	1.1	6.9	1.0	77.2	932	Mottled		
RRMDD426	4.2	5.1	0.9	127.2	287.4	31.9	112.7	22.1	4.4	23.5	3.7	22.4	4.8	13.8	2.1	12.5	1.8	173.3	844	Mottled		
RRMDD426	5.1	5.9	0.9	92.3	205.1	21.7	74.6	13.5	2.7	12.6	1.8	10.8	2.2	6.5	1.0	6.3	0.9	75.1	527	Clay		
RRMDD426	5.9	6.8	0.9	89.0	200.8	21.1	73.6	13.5	2.6	12.0	1.8	10.5	2.2	6.4	0.9	5.8	0.9	80.4	521	Clay		
RRMDD426	6.8	7.7	0.9	74.4	166.4	17.1	57.7	10.6	2.0	8.5	1.4	8.1	1.7	4.8	0.7	4.4	0.7	59.2	418	Upper Saprolite		
RRMDD426	7.7	8.7	1.0	76.5	181.8	18.7	64.5	12.4	2.4	10.6	1.5	8.6	1.7	4.7	0.7	4.3	0.6	58.0	447	Lower Saprolite	5	613
RRMDD426	8.7	9.6	1.0	71.5	168.3	17.0	58.4	10.6	2.1	8.4	1.2	6.7	1.3	3.6	0.6	3.5	0.5	41.8	395	Saprock		
RRMDD426	9.6	10.6	1.0	69.7	165.2	16.7	56.6	10.4	2.1	8.9	1.2	7.3	1.5	3.9	0.6	3.8	0.6	45.7	394	Saprock		
RRMDD426	10.6	11.8	1.2	66.5	160.9	16.5	56.2	10.4	2.2	9.0	1.3	7.6	1.5	4.0	0.6	3.9	0.6	46.6	388	Saprock		
RRMDD426	11.8	13.0	1.2	64.3	150.5	15.4	52.4	9.8	1.9	7.3	1.1	6.4	1.2	3.4	0.5	3.4	0.5	37.8	356	Saprock		
RRMDD427	0.0	2.0	2.0	70.8	218.7	13.5	43.9	8.3	1.4	7.1	1.1	6.8	1.4	4.1	0.6	4.3	0.6	38.9	422	Hardcap		
RRMDD427	2.0	4.0	2.0	109.1	694.0	19.7	59.6	10.1	1.6	7.6	1.2	7.1	1.4	4.2	0.7	4.5	0.7	38.0	960	Hardcap		
RRMDD427	4.0	4.6	0.6	120.8	836.5	24.4	75.0	12.5	2.0	9.3	1.5	8.9	1.8	5.1	0.8	5.4	0.8	51.9	1157	Transition		
RRMDD427	4.6	5.2	0.6	140.7	732.1	28.3	85.4	13.4	2.2	10.3	1.6	9.6	2.0	6.2	1.0	6.4	1.0	63.7	1104	Transition		
RRMDD427	5.2	6.2	1.0	151.3	292.4	35.9	119.0	19.4	3.4	14.1	1.9	10.2	1.9	5.4	0.8	5.2	0.8	53.7	716	Clay		
RRMDD427	6.2	7.1	0.9	154.2	281.3	37.8	126.6	23.7	4.2	18.4	2.5	14.2	2.6	7.3	1.1	6.7	1.0	80.5	762	Clay		
RRMDD427	7.1	8.0	0.9	130.8	243.2	32.5	108.1	19.5	3.6	15.1	2.2	12.5	2.3	6.2	0.9	5.6	0.9	67.4	651	Clay		
RRMDD427	8.0	8.9	0.9	111.2	218.0	28.4	96.3	18.2	3.5	14.9	2.2	12.4	2.3	6.3	0.9	6.1	0.9	68.2	590	Clay		
RRMDD427	8.9	9.8	0.9	109.7	238.3	27.7	95.6	18.4	3.4	15.1	2.1	12.2	2.3	6.1	0.9	5.5	0.8	64.6	603	Clay		
RRMDD427	9.8	10.7	0.9	93.0	212.5	24.4	87.6	18.3	3.6	16.1	2.4	12.9	2.4	6.5	0.9	5.9	0.9	68.8	556	Clay		
RRMDD427	10.7	11.7	1.0	89.5	209.4	23.5	87.0	16.9	3.3	16.0	2.2	11.8	2.3	6.1	0.8	5.7	0.8	64.5	540	Clay		
RRMDD427	11.7	12.7	1.0	84.3	197.8	21.3	76.7	13.9	2.8	13.3	1.9	10.2	2.0	5.4	0.7	4.9	0.7	57.1	493	Clay		
RRMDD427	12.7	13.6	1.0	84.6	199.0	21.9	79.8	13.8	2.7	13.2	2.1	11.1	2.4	6.9	1.0	6.0	1.0	75.8	521	Clay		
RRMDD427	13.6	14.6	1.0	80.3	183.6	19.1	67.9	11.4	2.3	11.2	1.7	10.4	2.3	6.6	0.9	6.2	1.0	84.4	489	Clay		
RRMDD427	14.6	15.6	1.0	79.6	202.1	19.6	70.5	13.0	2.7	12.8	1.9	10.6	2.3	6.4	0.9	6.1	0.9	66.8	496	Upper Saprolite		
RRMDD427	15.6	16.6	1.0	71.5	177.5	17.8	65.6	12.9	2.6	13.3	2.0	11.1	2.4	6.9	1.0	6.5	0.9	70.6	463	Upper Saprolite		
RRMDD427	16.6	17.5	1.0	74.2	176.3	18.5	72.8	14.8	3.2	17.5	2.9	18.2	4.6	14.3	2.1	14.1	2.2	184.8	621	Upper Saprolite		
RRMDD427	17.5	18.4	0.9	72.0	182.4	18.2	66.3	11.5	2.3	10.8	1.6	9.0	2.1	6.3	0.9	5.8	0.9	98.3	488	Lower Saprolite	13	570
RRMDD427	18.4	19.5	1.1	72.9	181.2	17.8	61.8	11.0	2.1	9.2	1.3	6.9	1.4	3.7	0.5	3.6	0.6	42.0	416	Saprock		
RRMDD428	0.0	1.2	1.2	80.0	409.1	15.5	49.8	9.5	1.5	7.2	1.2	7.1	1.4	4.1	0.7	4.4	0.7	36.1	628	Hardcap		
RRMDD428	1.2	2.3	1.2	168.3	1141.2	29.6	89.9	15.3	2.4	10.9	1.7	9.7	1.8	5.5	0.9	5.9	0.9	43.6	1528	Hardcap		
RRMDD428	2.3	2.9	0.6	151.3	223.0	36.5	126.6	20.9	3.3	14.3	1.9	9.4	1.7	4.5	0.6	4.1	0.6	47.2	646	Mottled		
RRMDD428	2.9	3.5	0.6	131.4	211.9	31.8	107.9	18.3	3.2	14.2	1.9	10.1	1.9	5.4	0.7	5.0	0.8	57.3	602	Mottled		
RRMDD428	3.5	4.3	0.8	104.7	194.1	26.6	95.3	18.8	3.4	15.7	2.3	13.8	2.5	7.9	1.0	6.8	1.0	77.2	571	Clay		
RRMDD428	4.3	5.2	0.8	116.9	219.3	29.0	109.1	22.3	4.5	21.4	3.3	18.9	4.0	11.7	1.7	10.6	1.6	136.5	711	Clay		
RRMDD428	5.2	6.0	0.8	92.2	183.6	23.9	90.4	19.7	4.0	18.8	2.8	16.4	3.4	9.5	1.4	8.9	1.3	100.4	577	Clay		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD428	6.0	6.8	0.8	83.5	175.0	23.3	93.0	22.1	4.7	23.0	3.7	21.7	4.5	13.0	1.9	11.7	1.8	135.2	618	Clay		
RRMDD428	6.8	7.8	1.0	88.9	188.6	25.7	106.6	26.8	5.8	30.0	4.9	29.8	6.3	18.4	2.7	17.4	2.6	187.3	742	Upper Saprolite	6	643
RRMDD428	7.8	8.8	1.0	86.2	180.0	26.0	124.8	36.4	8.8	56.6	9.9	65.4	15.2	45.6	6.4	39.9	6.1	588.0	1295	Saprock		
RRMDD428	8.8	9.8	1.0	89.7	213.1	28.6	133.0	29.9	6.2	35.6	5.4	33.1	7.3	21.6	3.0	18.3	3.0	289.5	917	Saprock		
RRMDD428	9.8	10.8	1.0	79.9	178.7	18.5	67.7	13.5	2.8	14.3	2.1	12.1	2.6	7.9	1.1	6.4	1.0	112.8	521	Saprock		
RRMDD428	10.8	11.9	1.0	82.3	185.5	19.7	72.0	14.2	2.8	12.7	1.9	10.8	2.3	6.7	0.9	6.0	0.9	81.8	501	Saprock		
RRMDD428	11.9	12.4	0.6	73.5	164.6	17.5	63.5	12.2	2.5	10.8	1.7	9.5	2.0	6.1	0.9	5.8	0.9	66.8	438	Saprock		
RRMDD429	0.0	1.6	1.6	57.3	364.8	11.6	38.7	8.0	1.3	6.3	1.0	6.2	1.2	3.7	0.6	4.2	0.6	33.3	539	Hardcap		
RRMDD429	1.6	3.2	1.6	68.5	308.3	12.2	38.6	7.7	1.3	5.7	1.1	6.1	1.2	3.8	0.6	4.5	0.6	32.0	492	Hardcap		
RRMDD429	3.2	4.4	1.2	101.6	460.7	20.8	69.4	12.1	2.1	9.8	1.6	9.1	1.8	5.4	0.8	5.9	0.9	55.4	757	Transition		
RRMDD429	4.4	5.1	0.7	114.0	662.1	23.4	76.3	13.5	2.4	10.5	1.7	9.6	2.0	5.8	0.9	5.8	0.9	58.5	987	Mottled		
RRMDD429	5.1	5.8	0.7	77.5	238.9	16.6	56.6	9.9	1.8	8.3	1.3	7.8	1.6	4.8	0.7	4.8	0.8	49.0	480	Mottled		
RRMDD429	5.8	6.7	0.9	87.6	148.0	17.2	57.2	9.8	1.8	8.2	1.3	7.5	1.6	4.8	0.7	4.8	0.7	49.7	401	Mottled		
RRMDD429	6.7	7.7	0.9	183.0	238.3	25.4	75.1	12.4	2.2	9.9	1.5	8.8	1.8	5.5	0.9	5.5	0.9	54.5	626	Mottled		
RRMDD429	7.7	8.6	0.9	73.5	86.8	17.0	60.0	11.5	2.1	9.3	1.5	8.6	1.8	5.5	0.8	5.4	0.9	53.2	338	Mottled		
RRMDD429	8.6	9.5	0.9	77.3	291.1	21.3	78.0	14.8	2.8	12.2	1.8	10.5	2.1	6.2	0.9	5.8	0.9	65.1	591	Mottled		
RRMDD429	9.5	10.0	0.5	91.4	218.0	23.4	84.0	15.5	2.9	11.8	1.8	9.6	1.8	5.3	0.7	4.5	0.7	54.5	526	Clay		
RRMDD429	10.0	10.7	0.7	145.4	282.5	42.8	155.7	27.7	5.0	20.1	2.8	14.9	2.8	7.9	1.1	6.9	1.0	85.5	802	Clay		
RRMDD429	10.7	11.4	0.7	168.9	238.3	51.1	188.4	34.9	6.4	25.8	3.7	18.8	3.5	9.4	1.3	7.8	1.2	105.5	865	Clay		
RRMDD429	11.4	12.1	0.7	296.7	253.1	90.6	352.3	65.3	12.4	54.2	7.1	36.4	6.6	16.5	2.2	12.6	1.8	211.4	1419	Clay		
RRMDD429	12.1	13.0	0.9	247.5	224.8	74.8	295.1	56.8	11.4	49.6	6.6	34.5	6.2	16.0	2.1	12.1	1.7	192.4	1232	Upper Saprolite		
RRMDD429	13.0	13.9	0.9	111.9	159.1	26.6	102.6	19.3	4.1	21.0	2.9	16.5	3.5	9.7	1.3	7.9	1.2	130.8	618	Upper Saprolite	9	732
RRMDD429	13.9	14.9	1.0	53.6	120.3	13.6	48.6	9.0	1.4	6.4	0.8	4.0	0.8	2.1	0.3	2.0	0.3	25.9	289	Saprock		
RRMDD429	14.9	15.9	1.0	53.2	117.4	13.4	47.4	8.7	1.7	6.5	0.9	4.8	0.9	2.5	0.4	2.4	0.4	26.5	287	Saprock		
RRMDD429	15.9	16.9	1.0	67.6	159.1	16.2	58.2	10.4	2.0	7.5	1.0	5.3	1.0	2.9	0.4	2.5	0.4	30.7	365	Saprock		
RRMDD430	0.0	2.0	2.0	85.7	359.9	15.5	49.6	9.3	1.6	7.1	1.2	6.8	1.3	4.0	0.7	4.2	0.6	36.1	584	Hardcap		
RRMDD430	2.0	3.9	1.8	99.2	937.3	22.0	76.4	13.6	2.2	9.9	1.7	9.5	1.9	5.9	0.9	6.0	0.9	54.1	1242	Transition		
RRMDD430	3.9	4.8	1.0	167.1	319.4	30.2	103.8	17.9	3.1	14.5	2.2	12.5	2.5	7.3	1.1	6.9	1.1	81.5	771	Transition		
RRMDD430	4.8	5.8	1.0	227.5	297.3	45.8	157.5	26.9	4.8	21.8	3.1	17.0	3.4	9.4	1.3	8.3	1.2	111.1	936	Mottled		
RRMDD430	5.8	6.5	0.8	231.0	336.6	66.7	232.7	40.6	7.2	29.5	4.1	22.2	4.2	11.2	1.6	9.9	1.5	125.8	1125	Mottled		
RRMDD430	6.5	7.3	0.8	241.6	243.8	61.1	215.8	36.6	6.7	28.9	4.0	21.2	4.2	11.5	1.6	9.6	1.5	145.4	1034	Mottled		
RRMDD430	7.3	8.0	0.7	411.7	288.7	130.5	471.2	81.2	14.6	64.4	8.7	44.1	7.9	20.9	2.7	15.7	2.1	265.4	1830	Mottled		
RRMDD430	8.0	8.6	0.7	259.2	251.8	68.4	267.1	47.7	9.2	46.3	6.5	34.7	6.7	18.5	2.5	14.3	2.0	248.9	1284	Clay		
RRMDD430	8.6	9.0	0.4	143.1	207.0	27.3	100.9	17.2	3.5	18.9	2.6	14.7	3.2	9.2	1.2	6.9	1.1	153.7	710	Lower Saprolite	4	1162
RRMDD430	9.0	9.9	0.9	92.7	211.9	22.0	77.4	12.8	2.4	9.9	1.4	7.4	1.4	3.8	0.5	3.4	0.5	51.4	499	Saprock		
RRMDD430	9.9	11.0	1.1	74.2	173.2	17.8	63.8	11.3	2.2	8.9	1.3	7.0	1.3	3.6	0.5	3.3	0.5	42.0	411	Saprock		
RRMDD431	0.0	1.6	1.6	51.8	199.0	11.6	40.5	7.9	1.3	6.2	1.1	6.6	1.3	4.0	0.6	4.5	0.6	34.0	371	Hardcap		
RRMDD431	1.6	3.3	1.6	49.7	265.3	12.6	46.2	9.4	1.7	7.8	1.4	8.5	1.7	5.0	0.8	5.6	0.8	38.2	455	Hardcap		
RRMDD431	3.3	3.6	0.3	103.4	691.6	22.7	77.9	14.0	2.3	10.6	1.7	9.9	1.9	5.8	0.9	6.2	0.9	48.9	999	Clay		
RRMDD431	3.6	4.3	0.7	172.4	287.4	42.4	152.8	26.4	4.4	19.9	2.9	15.3	2.9	8.0	1.1	7.2	1.0	84.7	829	Upper Saprolite		
RRMDD431	4.3	4.9	0.7	139.6	264.1	31.5	117.2	21.2	3.8	19.2	2.9	15.9	3.2	9.4	1.3	8.0	1.2	112.3	751	Upper Saprolite	2	833
RRMDD431	4.9	5.4	0.5	58.5	128.4	13.4	49.9	9.7	1.8	8.9	1.3	7.5	1.6	4.9	0.7	4.3	0.6	62.6	354	Saprock		
RRMDD432	0.0	1.7	1.7	84.7	261.6	15.2	50.0	8.3	1.4	6.3	1.0	5.9	1.2	3.6	0.6	3.9	0.6	35.0	479	Hardcap		

																					>200ppm $TREO-CeO_2$ Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD432	1.7	3.4	1.7	85.6	727.2	18.4	63.2	11.1	1.8	8.3	1.4	7.9	1.6	4.7	0.8	5.1	0.8	45.7	984	Hardcap		
RRMDD432	3.4	4.4	1.0	126.1	979.0	29.7	107.3	18.7	3.1	14.0	2.3	12.9	2.5	7.2	1.2	7.2	1.1	73.4	1386	Mottled		
RRMDD432	4.4	5.3	0.9	218.7	287.4	49.5	180.2	29.8	5.3	22.9	3.4	18.8	3.5	9.9	1.5	9.1	1.4	111.0	953	Mottled		
RRMDD432	5.3	6.2	0.9	251.0	411.5	62.8	225.7	36.5	6.1	25.0	3.6	18.8	3.3	8.9	1.3	7.9	1.2	106.3	1170	Clay		
RRMDD432	6.2	7.1	0.9	304.9	275.2	73.6	270.6	44.1	7.6	31.7	4.3	22.7	4.1	10.7	1.5	8.7	1.3	125.8	1187	Clay		
RRMDD432	7.1	8.0	0.9	410.5	276.4	102.2	395.4	69.3	12.5	55.9	8.1	42.0	7.3	19.4	2.7	15.0	2.2	240.0	1659	Clay		
RRMDD432	8.0	8.8	0.9	297.9	207.0	66.2	260.1	45.6	9.4	47.1	6.4	33.6	6.5	17.4	2.3	13.2	1.9	222.2	1237	Clay		
RRMDD432	8.8	9.7	0.9	178.9	205.1	35.3	134.7	23.0	4.8	25.5	3.5	19.9	4.2	12.0	1.5	9.1	1.4	162.5	821	Upper Saprolite		
RRMDD432	9.7	10.1	0.4	144.8	158.5	26.5	104.9	18.3	4.1	25.5	3.5	19.9	4.6	12.9	1.6	9.2	1.5	218.4	754	Lower Saprolite	7	1174
RRMDD433	0.0	1.5	1.5	123.7	259.2	26.7	90.5	14.3	2.2	9.3	1.5	8.5	1.6	4.8	0.7	4.9	0.7	44.7	593	Hardcap		
RRMDD433	1.5	2.9	1.5	207.0	395.5	40.5	128.9	18.4	2.6	11.3	1.7	9.2	1.6	4.3	0.6	4.1	0.5	39.9	866	Hardcap		
RRMDD433	2.9	3.8	0.9	32.7	67.9	8.1	30.4	5.9	1.0	5.2	0.8	5.2	1.1	3.5	0.6	3.9	0.6	35.6	203	Mottled		
RRMDD433	3.8	4.6	0.9	59.5	93.5	16.1	59.5	11.2	1.9	8.3	1.2	6.9	1.4	4.4	0.7	4.3	0.6	43.8	313	Mottled		
RRMDD433	4.6	5.5	0.9	67.3	110.8	19.1	71.2	13.0	2.3	9.8	1.4	7.8	1.5	4.6	0.7	4.3	0.6	46.4	361	Mottled		
RRMDD433	5.5	6.3	0.9	89.5	142.5	25.6	95.8	18.0	3.1	13.5	2.1	11.2	2.2	6.8	1.0	6.2	0.9	74.7	493	Mottled		
RRMDD433	6.3	7.1	0.7	108.6	210.1	36.5	134.1	26.4	4.7	21.7	3.5	21.1	4.7	14.7	2.0	12.2	1.8	196.2	798	Upper Saprolite		
RRMDD433	7.1	7.8	0.7	92.3	217.4	31.2	116.3	22.4	4.0	17.8	2.8	16.3	3.4	10.2	1.5	9.1	1.3	120.4	666	Upper Saprolite		
RRMDD433	7.8	8.5	0.7	150.1	272.7	56.2	221.0	48.4	9.2	46.6	7.8	47.5	10.5	31.4	4.4	26.5	3.8	392.4	1329	Upper Saprolite		
RRMDD433	8.5	9.5	1.0	170.6	324.3	59.0	229.2	46.5	8.0	34.5	5.1	27.9	5.4	15.8	2.1	13.2	1.8	185.4	1129	Upper Saprolite		
RRMDD433	9.5	10.4	0.9	391.7	544.2	96.5	348.8	63.0	10.4	43.0	5.9	30.2	5.5	15.5	2.1	12.6	1.7	170.8	1742	Lower Saprolite		
RRMDD433	10.4	11.3	0.9	136.6	245.7	45.8	182.0	37.3	6.7	28.7	4.3	23.4	4.5	13.0	1.8	11.4	1.5	137.8	880	Lower Saprolite		
RRMDD433	11.3	12.1	0.9	119.6	210.1	36.1	144.6	30.8	5.9	26.6	4.2	23.8	4.8	13.6	1.9	12.4	1.7	140.3	776	Lower Saprolite		
RRMDD433	12.1	13.0	0.9	162.4	319.4	57.3	240.3	54.4	10.4	48.5	7.6	43.2	8.6	24.6	3.4	21.1	3.0	281.9	1286	Lower Saprolite		
RRMDD433	13.0	13.9	0.9	182.4	299.7	49.2	196.0	39.9	7.5	35.5	5.2	29.7	6.0	17.2	2.3	14.6	2.0	206.4	1094	Lower Saprolite		
RRMDD433	13.9	14.8	0.9	148.4	261.6	42.6	171.5	34.8	6.6	31.2	4.8	27.0	5.5	16.0	2.2	13.6	1.9	182.2	950	Lower Saprolite		
RRMDD433	14.8	15.7	0.9	122.0	237.1	34.0	138.2	27.8	5.5	26.9	4.0	23.1	4.8	14.4	1.9	12.0	1.7	174.0	827	Lower Saprolite		
RRMDD433	15.7	16.6	0.9	191.8	288.7	41.3	162.7	27.4	4.9	21.9	2.8	14.5	2.8	7.8	1.1	6.6	0.9	93.2	868	Lower Saprolite		
RRMDD433	16.6	17.6	0.9	130.2	234.6	34.6	136.5	25.9	4.9	22.7	3.4	19.2	3.8	11.5	1.6	10.0	1.4	128.3	768	Lower Saprolite	14	895
RRMDD433	17.6	18.5	0.9	80.9	160.9	22.9	93.9	19.4	3.9	19.8	3.1	17.7	3.8	11.3	1.6	10.0	1.4	134.0	585	Saprock		
RRMDD433	18.5	19.5	0.9	87.1	192.9	25.0	103.8	20.2	3.9	17.9	2.5	13.8	2.6	7.6	1.1	6.7	1.0	80.3	566	Saprock		
RRMDD433	19.5	20.4	0.9	89.8	203.3	27.5	116.6	22.2	4.2	19.7	2.7	14.1	2.7	7.8	1.1	6.7	1.0	86.0	605	Saprock		
RRMDD434	0.0	1.4	1.4	132.5	301.0	30.1	100.5	16.0	2.5	9.8	1.5	7.7	1.4	3.9	0.6	4.0	0.6	34.8	647	Hardcap		
RRMDD434	1.4	2.8	1.4	79.5	620.3	17.0	55.8	9.5	1.5	6.6	1.1	6.0	1.2	3.5	0.6	3.7	0.6	29.3	836	Hardcap		
RRMDD434	2.8	3.3	0.5	65.0	2352.4	13.5	47.1	9.3	1.6	7.2	1.4	7.2	1.4	4.5	0.7	4.7	0.6	34.8	2551	Transition		
RRMDD434	3.3	4.2	1.0	25.3	364.8	6.0	21.7	4.2	0.8	3.4	0.6	3.9	0.8	2.7	0.5	3.5	0.5	24.5	463	Mottled		
RRMDD434	4.2	5.2	1.0	23.9	59.0	5.9	22.0	4.2	0.8	3.6	0.6	3.9	0.9	3.0	0.5	3.5	0.5	27.3	160	Mottled		
RRMDD434	5.2	6.1	1.0	36.6	57.9	9.0	33.1	6.0	1.1	4.7	0.7	4.3	0.9	3.0	0.5	3.2	0.5	27.9	190	Mottled		
RRMDD434	6.1	7.1	1.0	54.8	97.8	14.6	52.4	8.9	1.7	6.3	0.9	5.3	1.1	3.3	0.5	3.6	0.5	31.6	283	Mottled		
RRMDD434	7.1	8.1	1.0	58.5	108.1	15.2	54.5	9.5	1.8	6.8	1.0	5.5	1.1	3.4	0.5	3.6	0.5	32.9	303	Mottled		
RRMDD434	8.1	9.0	1.0	63.7	112.8	16.3	58.7	10.1	1.9	7.4	1.1	5.9	1.2	3.6	0.6	3.7	0.6	35.6	323	Mottled		
RRMDD434	9.0	10.0	0.9	60.0	106.0	15.2	54.5	9.4	1.7	7.2	1.1	6.1	1.3	3.8	0.6	3.8	0.6	38.7	310	Mottled		
RRMDD434	10.0	10.9	1.0	78.9	206.4	21.9	78.5	13.7	2.6	9.3	1.4	7.3	1.4	4.0	0.6	3.8	0.6	41.8	472	Upper Saprolite		
RRMDD434	10.9	11.9	1.0	94.6	135.1	30.7	111.6	20.8	3.6	12.8	1.8	9.6	1.7	4.8	0.7	4.4	0.6	48.3	481	Upper Saprolite		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD434	11.9	12.9	1.0	67.8	89.2	20.2	74.8	14.1	2.5	9.7	1.4	8.0	1.5	4.4	0.7	4.3	0.6	44.8	344	Upper Saprolite		
RRMDD434	12.9	13.9	1.0	64.6	84.9	18.1	66.8	12.3	2.3	9.1	1.3	7.5	1.5	4.3	0.7	4.2	0.6	43.9	322	Upper Saprolite		
RRMDD434	13.9	14.9	1.0	108.2	138.2	24.8	90.4	15.9	3.0	11.2	1.6	8.3	1.6	4.4	0.7	4.0	0.6	43.7	457	Lower Saprolite		
RRMDD434	14.9	15.9	1.0	89.4	187.3	25.7	96.0	18.0	3.2	11.8	1.7	9.0	1.6	4.3	0.6	4.1	0.6	40.6	494	Lower Saprolite		
RRMDD434	15.9	16.9	1.0	98.6	134.5	30.4	112.8	20.9	3.8	14.2	2.0	10.1	1.8	4.6	0.7	4.2	0.6	43.3	483	Lower Saprolite		
RRMDD434	16.9	17.8	0.9	109.8	140.7	29.8	108.1	19.5	3.9	13.7	1.9	9.9	1.7	4.6	0.7	4.2	0.6	42.0	491	Lower Saprolite		
RRMDD434	17.8	18.7	0.9	96.9	127.1	27.5	101.4	18.1	3.4	12.0	1.7	8.9	1.6	4.4	0.7	3.9	0.6	39.4	448	Lower Saprolite	11	420
RRMDD434	18.7	19.5	0.9	60.6	93.0	15.1	54.4	9.3	1.8	6.7	1.0	5.1	1.0	2.9	0.4	2.8	0.4	26.9	281	Lower Saprolite		
RRMDD434	19.5	20.4	0.9	81.2	122.7	23.6	89.9	16.7	3.4	12.7	1.8	10.0	1.9	5.0	0.7	4.6	0.7	47.5	422	Saprock		
RRMDD435	0.0	2.7	2.7	158.3	355.0	29.4	91.8	13.6	2.3	8.9	1.3	7.3	1.4	4.0	0.7	4.5	0.7	37.3	716	Hardcap		
RRMDD435	2.7	3.3	0.6	73.3	177.5	15.3	53.2	8.9	1.6	7.0	1.2	6.8	1.4	4.4	0.7	4.8	0.8	40.8	398	Transition		
RRMDD435	3.3	4.1	0.8	122.6	293.6	17.6	55.1	8.5	1.6	6.9	1.1	6.5	1.4	4.1	0.7	4.9	0.8	41.9	567	Mottled		
RRMDD435	4.1	4.8	0.8	119.0	202.7	17.9	53.2	8.3	1.6	7.0	1.1	6.6	1.4	4.3	0.7	4.9	0.8	42.7	472	Mottled		
RRMDD435	4.8	5.8	0.9	110.6	429.9	18.7	59.4	9.1	1.8	7.5	1.2	7.1	1.5	4.6	0.8	5.0	0.8	46.2	704	Mottled		
RRMDD435	5.8	6.7	0.9	66.7	238.3	16.6	59.3	10.2	1.8	8.1	1.3	7.7	1.6	4.8	0.8	5.5	0.9	51.4	475	Mottled		
RRMDD435	6.7	7.6	0.9	88.7	134.5	22.0	75.5	12.3	2.2	9.4	1.4	8.3	1.7	5.1	0.8	5.3	0.8	54.9	423	Mottled		
RRMDD435	7.6	8.6	0.9	80.8	88.3	19.9	70.8	11.9	2.3	10.3	1.6	9.6	2.0	6.0	1.0	6.4	1.0	65.8	378	Mottled		
RRMDD435	8.6	9.5	0.9	133.1	256.7	24.3	77.7	12.9	2.4	10.6	1.6	9.6	1.9	5.7	0.9	6.0	1.0	58.4	603	Mottled		
RRMDD435	9.5	10.4	0.9	64.5	65.7	11.3	38.4	6.7	1.4	5.9	1.0	5.8	1.2	3.5	0.6	3.7	0.6	35.4	246	Clay		
RRMDD435	10.4	11.3	1.0	192.9	324.3	62.1	260.1	51.0	11.1	57.9	8.9	53.9	11.9	34.6	4.9	27.2	4.1	477.5	1582	Clay		
RRMDD435	11.3	12.3	0.9	209.9	336.6	74.7	303.3	55.0	10.6	46.7	6.4	34.9	6.9	18.9	2.7	14.8	2.2	257.8	1381	Clay		
RRMDD435	12.3	13.0	0.8	209.3	308.3	84.5	362.8	68.0	13.5	59.8	8.2	44.6	8.6	23.8	3.3	18.3	2.7	289.5	1505	Clay		
RRMDD435	13.0	13.8	0.8	129.6	210.7	46.9	198.3	37.8	7.9	36.4	5.2	29.2	6.0	16.5	2.3	13.5	2.0	214.6	957	Clay		
RRMDD435	13.8	14.6	0.8	158.3	266.6	52.9	219.9	41.5	8.4	35.6	5.0	27.7	5.4	15.1	2.1	11.9	1.7	178.4	1031	Clay		
RRMDD435	14.6	15.6	1.0	177.7	282.5	62.6	272.9	54.7	11.4	52.8	7.8	42.2	8.0	22.5	3.0	18.1	2.5	251.4	1270	Upper Saprolite		
RRMDD435	15.6	16.5	1.0	162.4	283.8	48.7	210.5	43.1	9.8	50.5	7.8	46.7	9.7	28.4	3.8	23.2	3.2	327.6	1259	Upper Saprolite		
RRMDD435	16.5	17.5	1.0	136.6	266.6	36.9	151.6	29.5	6.5	35.2	5.2	31.7	6.9	19.8	2.6	15.9	2.3	259.1	1006	Upper Saprolite		
RRMDD435	17.5	18.5	1.0	103.4	210.1	25.4	98.7	18.1	4.2	22.6	3.4	20.3	4.6	13.7	1.8	10.8	1.6	187.9	727	Upper Saprolite		
RRMDD435	18.5	19.4	1.0	84.3	174.4	20.8	78.3	15.5	3.0	15.6	2.4	12.9	3.0	8.9	1.3	7.1	1.1	139.1	568	Lower Saprolite		
RRMDD435	19.4	20.4	1.0	86.7	191.6	19.9	71.9	12.8	2.7	11.7	1.7	10.2	2.2	6.8	0.9	5.6	0.8	93.7	519	Lower Saprolite		
RRMDD435	20.4	21.4	1.0	69.9	174.4	18.8	69.4	12.6	2.6	10.5	1.6	9.0	1.8	5.3	0.7	4.7	0.7	61.5	443	Lower Saprolite	18	804
RRMDD436	0.0	1.5	1.5	139.0	256.7	30.6	107.9	18.8	3.1	12.8	1.8	9.6	1.7	4.7	0.7	5.1	0.7	42.2	635	Hardcap		
RRMDD436	1.5	2.9	1.5	116.1	442.2	25.3	87.8	16.1	2.7	11.4	1.7	8.8	1.6	4.5	0.7	4.6	0.7	37.1	761	Hardcap		
RRMDD436	2.9	3.6	0.6	21.5	33.4	4.2	15.3	2.9	0.6	2.8	0.5	3.4	0.8	2.6	0.4	3.1	0.5	24.3	116	Mottled		
RRMDD436	3.6	4.2	0.6	22.3	26.7	4.7	17.1	3.4	0.7	3.3	0.6	4.1	0.9	3.0	0.5	3.7	0.6	30.2	122	Mottled		
RRMDD436	4.2	5.1	1.0	48.2	67.9	12.6	46.1	8.7	1.8	8.1	1.3	8.1	1.8	5.4	0.8	5.4	0.8	59.7	277	Mottled		
RRMDD436	5.1	6.1	0.9	46.0	74.1	12.9	47.0	9.2	1.8	7.6	1.2	7.7	1.6	4.8	0.7	5.0	0.8	52.1	272	Mottled		
RRMDD436	6.1	7.0	0.9	203.5	432.4	81.8	286.9	58.1	10.9	41.0	5.8	32.6	6.0	16.2	2.2	12.9	1.9	188.6	1381	Mottled		
RRMDD436	7.0	7.8	0.8	208.2	412.7	70.9	246.1	48.2	9.4	37.8	5.4	30.8	6.0	16.5	2.2	13.2	1.9	207.6	1317	Clay		
RRMDD436	7.8	8.5	0.8	156.6	331.7	51.8	181.4	33.6	6.5	26.4	3.7	21.4	4.2	11.6	1.6	9.6	1.4	142.9	984	Clay		
RRMDD436	8.5	9.3	0.8	105.8	272.7	28.2	95.3	16.4	3.2	13.5	2.0	11.9	2.4	7.1	1.0	6.4	1.0	84.3	651	Clay		
RRMDD436	9.3	10.1	0.8	83.4	140.7	20.0	70.2	12.3	2.6	11.0	1.7	10.3	2.2	6.5	1.0	6.2	0.9	73.4	442	Upper Saprolite		
RRMDD436	10.1	11.2	1.1	207.0	388.2	65.0	234.4	47.7	9.9	42.6	6.6	38.7	8.0	22.5	3.1	18.6	2.7	288.3	1383	Lower Saprolite		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval	
																					Length (m)	TREO ppm
RRMDD436	11.2	12.3	1.1	245.1	437.3	69.0	261.3	54.6	11.4	48.5	7.8	45.2	9.1	25.4	3.7	22.3	3.2	325.1	1569	Lower Saprolite		
RRMDD436	12.3	13.0	0.7	116.9	209.4	29.7	109.8	22.4	4.9	20.3	3.4	20.4	4.2	12.2	1.8	11.4	1.7	122.3	691	Lower Saprolite	9	924
RRMDD436	13.0	13.8	0.7	89.7	162.1	21.7	77.1	13.9	2.9	12.5	2.0	11.9	2.4	7.2	1.1	6.9	1.0	77.1	490	Saprock		
RRMDD436	13.8	14.7	0.9	99.1	169.5	25.5	94.1	19.5	4.1	17.8	3.0	18.2	3.8	10.9	1.7	10.6	1.5	110.6	590	Saprock		
RRMDD436	14.7	15.5	0.9	122.0	228.5	31.4	119.0	24.6	5.4	22.8	3.9	23.6	5.1	14.6	2.2	13.8	2.0	143.5	762	Saprock		
RRMDD436	15.5	16.4	0.9	123.7	231.6	31.7	118.4	23.9	5.2	22.2	3.7	22.0	4.7	13.3	2.0	12.1	1.8	133.3	749	Saprock		
RRMDD437	0.0	1.4	1.4	180.0	294.8	31.4	101.0	16.4	2.6	10.1	1.5	8.1	1.6	4.5	0.7	4.9	0.7	42.8	701	Soil		
RRMDD437	1.4	2.9	1.4	194.7	384.5	31.9	100.5	15.8	2.5	10.1	1.5	8.3	1.6	4.5	0.7	5.1	0.8	43.0	806	Hardcap		
RRMDD437	2.9	4.3	1.4	119.0	464.3	21.3	65.7	11.0	1.9	7.9	1.3	7.5	1.5	4.4	0.7	5.1	0.8	40.1	753	Hardcap		
RRMDD437	4.3	5.2	0.9	68.0	176.3	13.3	45.7	7.5	1.4	6.5	1.1	6.6	1.4	4.4	0.7	5.1	0.7	41.9	381	Transition		
RRMDD437	5.2	5.9	0.7	55.7	98.4	10.7	36.4	6.3	1.1	5.5	0.9	6.0	1.2	4.1	0.6	4.7	0.7	39.2	272	Mottled		
RRMDD437	5.9	6.9	1.0	44.7	93.2	8.8	29.7	5.0	1.0	4.5	0.7	4.8	1.0	3.4	0.5	3.9	0.6	32.6	234	Mottled		
RRMDD437	6.9	7.8	1.0	89.0	183.6	15.3	48.6	7.6	1.4	6.4	0.9	5.4	1.1	3.7	0.6	4.2	0.6	36.6	405	Mottled	1	405
RRMDD437	7.8	8.8	1.0	35.4	214.4	8.0	28.7	5.1	1.1	5.1	0.9	5.4	1.2	3.8	0.6	4.3	0.7	37.5	352	Mottled		
RRMDD437	8.8	9.8	1.0	42.1	64.7	9.7	36.5	6.7	1.4	6.9	1.2	7.1	1.5	5.0	0.8	5.3	0.8	53.3	243	Mottled		
RRMDD437	9.8	10.7	1.0	43.0	156.0	10.3	39.1	7.0	1.5	7.3	1.2	7.2	1.5	4.8	0.7	4.8	0.8	53.0	338	Mottled		
RRMDD437	10.7	11.7	0.9	44.8	90.0	10.9	42.1	8.3	1.7	9.0	1.5	8.9	2.0	6.1	0.9	6.1	0.9	66.8	300	Mottled		
RRMDD437	11.7	12.4	0.7	42.9	67.1	10.0	37.9	7.2	1.5	7.9	1.2	7.7	1.6	5.1	0.8	4.9	0.7	56.6	253	Clay		
RRMDD437	12.4	13.0	0.7	39.4	227.9	11.3	45.0	9.2	2.0	10.2	1.7	10.1	2.1	6.5	0.9	6.0	0.9	70.1	443	Clay		
RRMDD437	13.0	13.9	0.9	82.7	138.2	17.2	63.7	11.7	2.5	13.1	2.0	11.6	2.5	7.2	1.0	6.8	1.0	88.0	449	Clay		
RRMDD437	13.9	14.8	0.9	112.9	192.2	20.4	71.7	12.2	2.6	13.2	2.0	11.7	2.4	7.4	1.1	6.6	1.0	85.6	543	Clay		
RRMDD437	14.8	15.6	0.9	148.4	208.2	23.9	82.0	13.3	2.9	14.5	2.2	12.9	2.6	7.9	1.1	7.2	1.1	93.7	622	Clay		
RRMDD437	15.6	16.4	0.8	112.9	180.6	20.5	72.2	12.2	2.5	12.4	1.9	10.9	2.3	6.9	1.0	6.2	1.0	78.5	522	Clay		
RRMDD437	16.4	17.2	0.8	107.7	143.7	22.0	78.4	13.7	2.9	14.2	2.2	13.4	2.7	8.3	1.1	7.4	1.1	96.4	515	Clay		
RRMDD437	17.2	18.1	0.9	238.1	320.6	46.2	162.1	28.9	5.9	26.5	3.9	22.0	4.5	12.8	1.7	10.6	1.5	147.9	1033	Upper Saprolite		
RRMDD437	18.1	19.0	0.9	511.3	665.8	84.6	283.4	48.7	10.3	47.3	7.3	42.7	9.2	27.7	3.6	21.5	3.2	369.5	2136	Upper Saprolite		
RRMDD437	19.0	19.8	0.9	170.1	229.7	34.2	121.9	22.6	4.6	21.6	3.3	19.4	3.9	11.4	1.6	10.1	1.5	138.4	794	Upper Saprolite		
RRMDD437	19.8	20.7	0.9	101.1	182.4	34.6	137.1	27.7	6.1	30.2	4.9	30.2	6.8	20.5	2.7	16.3	2.4	293.3	896	Upper Saprolite		
RRMDD437	20.7	21.6	0.9	106.7	187.9	33.7	133.6	26.8	5.9	27.7	4.3	25.6	5.3	15.8	2.1	13.2	1.9	186.7	777	Upper Saprolite		
RRMDD437	21.6	22.5	0.9	164.8	308.3	49.3	190.7	37.6	8.3	37.9	6.0	35.1	7.2	21.2	2.8	17.0	2.5	259.1	1148	Upper Saprolite		
RRMDD437	22.5	23.4	0.9	160.1	321.8	50.6	190.1	34.9	7.2	31.1	4.7	25.7	5.2	14.8	2.0	12.1	1.7	172.1	1034	Upper Saprolite		
RRMDD437	23.4	24.4	1.0	259.2	495.0	75.0	284.6	48.1	9.7	44.6	6.3	34.5	7.1	20.3	2.6	15.4	2.2	298.4	1603	Upper Saprolite		
RRMDD437	24.4	25.4	1.0	140.7	275.2	50.3	199.5	38.6	8.2	34.7	5.2	29.4	5.9	16.4	2.2	13.0	1.9	196.2	1017	Upper Saprolite		
RRMDD437	25.4	26.3	0.9	256.8	411.5	75.2	306.8	63.0	14.1	64.0	10.0	58.2	11.6	31.7	4.2	25.4	3.6	384.8	1721	Upper Saprolite		
RRMDD437	26.3	27.2	0.9	109.4	186.1	31.4	121.3	25.0	5.8	26.6	4.3	25.9	5.6	15.7	2.2	13.1	1.9	174.0	749	Lower Saprolite		
RRMDD437	27.2	28.0	0.9	102.3	176.3	29.1	117.8	23.0	5.4	25.6	4.0	24.1	5.3	15.2	2.1	12.2	1.9	182.9	727	Lower Saprolite		
RRMDD437	28.0	28.5	0.5	61.5	127.1	15.4	57.6	10.8	2.4	10.9	1.7	9.8	2.3	7.0	1.0	5.9	1.0	102.7	417	Lower Saprolite	18	873
RRMDD438	0.0	1.7	1.7	164.2	394.3	29.2	93.1	14.7	2.4	9.3	1.4	8.2	1.6	4.8	0.8	5.5	0.8	45.1	775	Soil		
RRMDD438	1.7	3.5	1.7	171.2	773.9	30.6	97.5	15.5	2.5	10.4	1.6	9.7	1.9	5.4	0.9	6.3	0.9	51.6	1180	Hardcap		
RRMDD438	3.5	4.3	0.9	82.7	463.1	17.3	58.6	9.7	1.6	7.4	1.2	7.3	1.6	4.6	0.7	4.8	0.7	44.6	706	Transition		
RRMDD438	4.3	5.2	0.8	67.1	487.7	14.0	46.3	7.8	1.4	6.3	1.0	6.2	1.3	4.1	0.6	4.4	0.7	39.2	688	Transition		
RRMDD438	5.2	5.8	0.7	32.0	46.4	7.1	25.1	4.4	0.9	3.9	0.7	4.3	1.0	3.1	0.5	3.6	0.6	31.2	165	Mottled		
RRMDD438	5.8	6.5	0.7	81.5	117.6	13.3	44.9	7.7	1.5	6.5	1.0	6.4	1.4	4.1	0.6	4.5	0.7	43.7	335	Mottled		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD438	6.5	7.2	0.7	76.2	89.4	19.9	72.3	12.7	2.5	11.3	1.8	10.3	2.2	6.3	0.9	6.1	1.0	77.2	390	Mottled		
RRMDD438	7.2	7.8	0.7	222.2	486.4	94.2	337.1	65.7	11.7	41.8	5.7	28.5	5.1	12.9	1.7	10.0	1.5	149.2	1474	Mottled		
RRMDD438	7.8	8.6	0.8	139.6	191.0	46.9	168.5	31.0	5.7	23.1	3.3	18.1	3.5	9.7	1.3	8.2	1.2	115.3	766	Clay		
RRMDD438	8.6	9.4	0.8	168.3	320.6	61.7	218.7	40.4	7.5	28.6	4.0	20.6	4.0	10.5	1.5	8.5	1.3	130.2	1026	Clay		
RRMDD438	9.4	10.2	0.8	263.9	302.2	53.4	177.9	30.1	5.6	23.3	3.3	17.9	3.7	10.1	1.3	8.2	1.2	135.9	1038	Clay		
RRMDD438	10.2	10.8	0.5	205.8	342.7	66.3	236.8	43.3	7.9	30.1	4.3	22.1	4.2	11.4	1.5	9.2	1.4	137.8	1125	Clay		
RRMDD438	10.8	11.6	0.8	127.8	162.1	36.6	127.7	22.3	4.1	16.8	2.5	13.8	2.9	7.9	1.1	7.1	1.1	98.2	632	Clay		
RRMDD438	11.6	12.4	0.8	113.3	133.3	29.6	102.4	16.9	3.3	14.3	2.2	12.6	2.6	7.5	1.1	6.8	1.1	90.7	538	Clay		
RRMDD438	12.4	13.4	1.0	92.9	133.3	25.9	92.0	16.6	3.1	13.4	2.1	11.8	2.4	6.8	1.0	6.1	0.9	83.2	492	Clay		
RRMDD438	13.4	14.3	0.9	109.0	168.3	30.3	108.9	19.0	3.9	16.6	2.5	14.3	3.0	8.6	1.2	7.3	1.1	112.3	606	Clay		
RRMDD438	14.3	15.2	0.9	113.2	159.7	30.9	113.1	20.5	3.9	17.1	2.6	14.2	2.9	8.1	1.2	7.3	1.1	99.1	595	Clay		
RRMDD438	15.2	16.2	0.9	90.4	115.3	22.7	82.5	15.3	3.1	13.6	2.2	12.9	2.6	7.4	1.1	6.8	1.0	89.9	467	Clay		
RRMDD438	16.2	17.1	0.9	105.0	148.0	27.5	99.5	19.4	4.0	16.9	2.7	15.7	3.2	9.0	1.2	7.9	1.2	100.8	562	Clay		
RRMDD438	17.1	18.1	1.0	101.0	142.5	27.5	100.8	18.7	3.9	16.8	2.6	15.0	3.1	8.7	1.2	7.5	1.1	101.8	552	Clay		
RRMDD438	18.1	19.1	1.0	170.6	314.5	52.4	197.7	38.8	8.3	36.9	5.7	33.3	7.1	19.9	2.7	15.7	2.4	278.1	1184	Upper Saprolite		
RRMDD438	19.1	20.2	1.0	459.7	868.5	135.9	536.5	106.2	23.1	109.4	16.3	94.1	19.9	54.9	7.1	39.9	6.0	778.4	3256	Upper Saprolite		
RRMDD438	20.2	21.2	1.0	330.7	601.9	91.7	361.6	70.3	15.7	73.4	11.1	64.3	13.7	37.7	5.0	28.0	4.2	566.4	2276	Upper Saprolite		
RRMDD438	21.2	22.3	1.0	114.2	173.2	32.3	120.7	24.7	5.3	22.2	3.6	20.8	4.2	11.7	1.6	9.6	1.4	122.0	668	Upper Saprolite		
RRMDD438	22.3	23.0	0.8	91.0	139.4	23.9	89.5	17.5	3.7	15.2	2.5	14.5	2.9	8.2	1.2	7.2	1.1	91.8	509	Lower Saprolite	17	958
RRMDD439	0.0	1.8	1.8	161.8	320.6	30.9	100.7	15.8	2.4	10.1	1.6	8.9	1.7	5.2	0.8	5.6	0.8	45.7	713	Soil		
RRMDD439	1.8	3.5	1.8	239.3	502.4	43.1	141.7	22.1	3.1	12.8	1.9	10.3	1.9	5.5	0.9	6.1	0.9	50.0	1042	Hardcap		
RRMDD439	3.5	5.3	1.8	163.6	886.9	30.1	97.5	16.5	2.5	10.7	1.7	9.6	1.9	5.7	0.9	6.2	1.0	52.6	1287	Hardcap		
RRMDD439	5.3	6.0	0.7	85.7	536.8	16.9	55.8	8.9	1.5	6.7	1.1	6.5	1.4	4.1	0.6	4.3	0.7	41.8	773	Transition		
RRMDD439	6.0	7.0	1.0	44.1	277.6	9.4	32.0	5.7	1.0	4.7	0.8	4.9	1.1	3.2	0.5	3.7	0.6	32.1	421	Mottled		
RRMDD439	7.0	7.9	1.0	78.5	114.1	13.5	43.7	7.5	1.4	5.7	0.9	5.5	1.1	3.3	0.6	4.1	0.6	32.1	313	Mottled		
RRMDD439	7.9	8.9	1.0	97.2	99.5	18.7	64.4	11.4	2.0	9.5	1.5	9.1	1.8	5.5	0.8	5.7	0.9	60.1	388	Mottled		
RRMDD439	8.9	9.9	1.0	62.4	71.1	12.8	45.4	8.3	1.6	7.2	1.2	7.3	1.4	4.4	0.7	4.8	0.7	47.2	277	Mottled	2	332
RRMDD439	9.9	10.8	1.0	43.3	34.8	9.9	36.4	7.3	1.4	7.2	1.2	7.5	1.6	4.8	0.8	5.3	0.8	49.4	211	Mottled		
RRMDD439	10.8	11.8	1.0	34.7	40.4	8.5	32.5	6.5	1.3	6.2	1.1	6.6	1.4	4.1	0.6	4.7	0.7	39.9	189	Mottled		
RRMDD439	11.8	12.7	0.9	63.6	79.4	12.4	43.0	8.1	1.6	8.1	1.4	8.3	1.7	5.1	0.8	5.2	0.8	56.0	295	Clay		
RRMDD439	12.7	13.5	0.9	134.3	160.3	19.9	66.6	11.4	2.3	10.4	1.7	9.8	1.9	5.5	0.9	5.7	0.8	62.2	494	Clay		
RRMDD439	13.5	14.4	0.9	146.6	184.3	23.7	70.9	12.0	2.4	10.8	1.6	9.6	1.9	5.2	0.8	5.4	0.8	59.3	535	Clay		
RRMDD439	14.4	15.2	0.9	89.4	113.9	16.1	54.8	9.9	1.9	8.9	1.4	8.4	1.7	5.1	0.8	5.3	0.8	54.0	372	Clay		
RRMDD439	15.2	16.1	0.8	94.5	114.6	15.9	53.7	9.9	2.0	9.0	1.4	8.4	1.7	4.9	0.8	5.1	0.7	53.1	376	Clay		
RRMDD439	16.1	16.9	0.9	31.8	34.6	6.9	27.2	5.7	1.2	6.8	1.2	7.6	1.6	4.7	0.7	5.1	0.8	51.0	187	Clay		
RRMDD439	16.9	17.9	0.9	40.9	46.8	8.1	30.1	6.2	1.3	6.9	1.2	7.3	1.5	4.7	0.7	5.1	0.8	49.8	211	Clay		
RRMDD439	17.9	18.8	1.0	113.1	219.3	30.7	108.1	21.7	4.3	18.9	2.8	16.1	3.2	8.8	1.3	7.9	1.2	98.4	656	Clay		
RRMDD439	18.8	19.8	0.9	252.2	428.7	66.9	239.1	48.2	9.4	43.1	6.3	37.3	7.5	20.9	2.8	16.8	2.5	274.3	1456	Clay		
RRMDD439	19.8	20.4	0.7	151.9	251.8	39.4	138.2	27.0	5.3	25.6	3.8	22.6	4.8	13.4	1.8	10.9	1.6	202.5	901	Upper Saprolite		
RRMDD439	20.4	21.5	1.1	178.3	267.8	57.0	240.3	62.5	15.3	99.4	16.2	107.4	24.5	70.6	9.5	53.1	8.4	977.8	2188	Upper Saprolite		
RRMDD439	21.5	22.6	1.1	187.6	233.4	46.4	187.8	40.7	9.3	54.4	8.0	50.8	11.1	31.3	4.3	25.8	3.9	388.6	1284	Upper Saprolite		
RRMDD439	22.6	23.0	0.4	75.9	125.3	14.8	54.5	9.7	2.2	10.8	1.6	9.6	2.2	6.6	0.9	5.5	0.9	105.4	426	Lower Saprolite	11	775
RRMDD439	23.0	24.0	1.0	65.8	137.0	15.1	54.9	10.1	2.0	8.1	1.2	6.8	1.4	4.1	0.6	3.8	0.6	51.4	363	Saprock		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD440	0.0	1.7	1.7	141.9	449.6	26.7	85.4	14.4	2.4	9.9	1.5	8.4	1.6	4.6	0.8	5.3	0.8	38.6	792	Hardcap		
RRMDD440	1.7	3.5	1.7	144.8	767.8	26.8	85.3	14.1	2.3	9.5	1.5	8.2	1.5	4.5	0.7	4.9	0.7	37.6	1110	Transition		
RRMDD440	3.5	4.3	0.8	53.4	81.4	8.7	28.1	4.7	0.9	4.0	0.7	4.0	0.9	2.9	0.5	3.7	0.6	25.9	220	Mottled		
RRMDD440	4.3	5.1	0.8	28.6	37.2	5.4	17.6	3.1	0.6	2.6	0.4	3.1	0.7	2.4	0.4	3.0	0.5	22.5	128	Mottled		
RRMDD440	5.1	6.0	0.8	44.1	91.6	7.1	21.1	3.5	0.6	2.8	0.5	3.0	0.6	2.2	0.4	2.8	0.5	20.7	201	Mottled		
RRMDD440	6.0	6.8	0.8	30.0	41.2	7.0	23.9	4.2	0.8	3.6	0.6	3.9	0.8	2.9	0.5	3.3	0.6	28.6	152	Mottled		
RRMDD440	6.8	7.6	0.8	50.0	58.5	11.6	39.9	6.9	1.2	5.9	0.9	5.8	1.2	4.0	0.6	4.1	0.7	42.0	233	Mottled		
RRMDD440	7.6	8.5	0.9	54.1	81.8	14.0	48.3	8.3	1.5	6.6	1.0	5.9	1.2	3.8	0.6	3.7	0.6	41.8	273	Clay		
RRMDD440	8.5	9.4	0.9	68.6	103.7	18.7	64.7	11.3	2.0	9.5	1.4	8.1	1.6	5.0	0.8	4.6	0.8	56.8	357	Clay		
RRMDD440	9.4	10.3	0.9	100.5	156.0	23.2	77.8	13.3	2.3	10.1	1.4	8.0	1.6	4.8	0.7	4.4	0.7	54.1	459	Clay		
RRMDD440	10.3	11.1	0.9	70.5	114.1	18.6	64.5	11.4	2.1	9.4	1.4	7.7	1.5	4.8	0.7	4.5	0.7	52.7	365	Clay		
RRMDD440	11.1	12.0	0.9	260.4	315.7	33.1	94.5	14.0	2.5	10.9	1.5	7.9	1.4	4.0	0.6	3.8	0.6	46.1	797	Clay		
RRMDD440	12.0	12.9	0.9	181.2	235.9	27.2	83.2	12.6	2.3	10.5	1.4	7.6	1.4	4.3	0.6	3.9	0.6	46.5	619	Clay		
RRMDD440	12.9	13.6	0.7	306.1	351.3	36.4	103.6	15.8	2.9	11.8	1.6	8.1	1.4	4.0	0.5	3.4	0.6	45.1	892	Clay		
RRMDD440	13.6	14.4	0.7	203.5	237.7	26.2	77.8	11.8	2.3	9.9	1.3	7.0	1.3	3.9	0.6	3.5	0.6	43.8	631	Clay		
RRMDD440	14.4	15.1	0.7	248.6	297.3	36.2	111.9	18.9	3.6	15.6	2.3	12.3	2.2	6.4	0.9	5.6	0.8	67.3	830	Clay		
RRMDD440	15.1	15.7	0.6	100.0	164.0	24.9	87.1	15.8	3.0	13.3	2.0	11.2	2.1	6.3	0.9	5.4	0.8	66.8	504	Upper Saprolite		
RRMDD440	15.7	16.3	0.6	219.3	409.1	59.7	223.4	45.0	9.7	47.7	7.5	46.6	10.0	30.6	4.0	22.0	3.4	416.5	1555	Upper Saprolite		
RRMDD440	16.3	17.2	0.8	103.1	181.8	34.3	130.6	28.5	5.9	25.7	4.1	24.7	4.8	14.3	2.0	11.8	1.7	148.6	722	Lower Saprolite		
RRMDD440	17.2	18.0	0.8	122.0	213.7	41.1	154.5	34.6	7.1	31.4	5.2	31.0	6.1	18.4	2.6	15.4	2.3	190.5	876	Lower Saprolite	10	696
RRMDD441	0.0	1.6	1.6	156.0	388.2	29.8	94.2	14.7	2.4	9.9	1.6	8.9	1.8	5.3	0.9	6.1	0.9	47.7	769	Hardcap		
RRMDD441	1.6	3.2	1.6	204.1	735.8	36.4	116.2	18.1	2.8	11.6	1.9	10.6	2.0	5.9	1.0	6.4	0.9	53.1	1207	Hardcap		
RRMDD441	3.2	4.8	1.6	136.0	674.4	26.1	85.1	14.0	2.3	9.6	1.6	8.8	1.8	5.3	0.8	5.7	0.8	46.0	1018	Transition		
RRMDD441	4.8	5.4	0.6	41.2	154.2	8.6	30.0	5.3	0.9	4.6	0.8	4.9	1.0	3.4	0.6	4.0	0.7	32.9	293	Mottled		
RRMDD441	5.4	6.1	0.6	36.7	59.1	7.8	28.1	5.0	1.0	4.8	0.8	4.9	1.1	3.5	0.6	4.0	0.7	34.4	192	Clay		
RRMDD441	6.1	6.7	0.7	52.4	93.5	12.3	43.6	7.9	1.5	6.3	1.0	5.8	1.2	3.7	0.6	4.3	0.7	36.7	272	Clay		
RRMDD441	6.7	7.5	0.8	83.6	109.8	21.0	75.5	13.6	2.6	10.5	1.5	8.6	1.6	4.7	0.7	5.1	0.8	48.0	388	Clay		
RRMDD441	7.5	8.3	0.8	99.5	743.2	24.8	88.8	17.2	3.2	13.2	2.1	11.0	2.2	6.0	0.9	6.4	1.0	60.1	1079	Clay		
RRMDD441	8.3	9.1	0.8	96.2	143.1	23.5	84.4	15.5	2.9	12.4	1.8	10.3	2.0	5.9	0.9	5.7	0.9	62.6	468	Clay		
RRMDD441	9.1	10.0	0.9	106.8	149.9	24.9	89.3	15.9	3.0	13.3	2.0	11.5	2.3	6.9	1.1	6.6	1.0	81.4	516	Clay		
RRMDD441	10.0	10.9	0.9	101.1	141.3	22.9	82.0	14.3	2.8	12.7	2.0	11.6	2.4	7.1	1.0	6.7	1.0	84.6	493	Clay		
RRMDD441	10.9	11.8	0.9	110.4	199.0	25.3	88.6	15.9	3.0	13.8	2.1	11.8	2.6	7.3	1.1	6.9	1.0	86.1	575	Clay		
RRMDD441	11.8	12.7	1.0	98.2	145.0	22.0	79.5	13.8	2.7	12.5	1.8	11.0	2.3	6.7	1.0	6.1	1.0	80.4	484	Clay		
RRMDD441	12.7	13.7	1.0	97.7	201.5	21.2	73.9	13.3	2.6	11.9	1.8	10.8	2.3	6.8	1.0	6.4	1.0	80.8	533	Clay		
RRMDD441	13.7	14.7	1.0	98.6	149.9	22.0	79.7	14.4	2.7	13.4	2.0	12.2	2.5	7.4	1.1	7.0	1.1	93.7	508	Clay		
RRMDD441	14.7	15.4	0.8	180.0	203.9	44.1	168.0	33.4	6.8	31.2	4.6	27.3	5.8	16.5	2.3	14.2	2.1	224.8	965	Upper Saprolite		
RRMDD441	15.4	16.2	0.8	656.8	529.4	177.6	699.8	146.7	30.0	147.5	21.7	121.7	24.3	65.6	9.2	54.3	7.8	834.3	3527	Upper Saprolite		
RRMDD441	16.2	16.9	0.8	402.3	377.1	92.8	374.4	80.0	16.7	83.7	12.8	74.0	14.7	39.9	5.6	33.5	4.7	448.3	2060	Upper Saprolite		
RRMDD441	16.9	18.0	1.1	136.0	168.9	25.7	104.0	21.1	4.8	26.5	4.1	25.6	5.7	17.3	2.4	14.3	2.3	231.1	790	Lower Saprolite	11	905
RRMDD442	0.0	1.8	1.8	131.4	280.1	25.4	81.6	13.5	2.3	8.8	1.4	7.9	1.5	4.2	0.7	4.8	0.7	35.6	600	Hardcap		
RRMDD442	1.8	3.6	1.8	111.2	227.9	22.1	70.6	11.6	1.9	7.7	1.3	7.2	1.4	4.1	0.7	4.4	0.6	32.1	505	Hardcap		
RRMDD442	3.6	4.4	0.8	45.9	124.1	9.6	34.1	6.3	1.2	5.7	1.0	6.1	1.3	4.0	0.6	4.5	0.7	42.4	287	Mottled		
RRMDD442	4.4	5.4	1.0	74.5	114.6	16.7	57.3	10.4	1.9	7.9	1.2	7.2	1.4	4.0	0.6	4.3	0.7	44.6	347	Clay		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD442	5.4	6.4	1.0	53.2	125.3	11.1	38.1	6.7	1.3	5.3	0.8	4.9	1.0	3.1	0.5	3.8	0.6	32.6	288	Clay		
RRMDD442	6.4	7.6	1.3	66.1	159.1	15.1	51.6	9.1	1.7	6.8	1.0	5.5	1.1	3.2	0.5	3.7	0.6	34.5	360	Clay		
RRMDD442	7.6	8.1	0.4	57.7	1217.3	13.6	48.2	9.3	1.8	7.9	1.4	7.8	1.6	4.8	0.8	5.2	0.8	46.0	1424	Clay		
RRMDD442	8.1	8.8	0.7	143.7	265.3	37.0	128.3	24.1	4.8	17.7	2.6	13.8	2.5	6.8	1.0	6.5	0.9	68.8	724	Clay		
RRMDD442	8.8	9.5	0.7	102.5	277.6	23.0	78.7	14.5	2.8	11.5	1.8	10.6	2.2	6.5	1.0	6.5	0.9	71.7	612	Clay		
RRMDD442	9.5	10.4	0.9	88.5	303.4	20.0	68.9	12.3	2.4	10.0	1.5	8.5	1.8	5.0	0.8	5.0	0.8	56.3	585	Clay		
RRMDD442	10.4	11.3	0.9	108.5	195.9	27.5	97.3	17.3	3.2	12.5	1.8	10.3	2.0	5.6	0.8	5.4	0.8	62.9	552	Clay		
RRMDD442	11.3	12.2	0.9	90.0	219.3	24.8	87.6	16.0	3.0	11.4	1.6	9.4	1.8	4.9	0.7	4.8	0.7	53.7	529	Clay		
RRMDD442	12.2	13.0	0.9	82.2	157.8	22.5	79.1	14.4	2.7	10.5	1.5	8.6	1.6	4.8	0.7	4.8	0.7	50.3	442	Clay		
RRMDD442	13.0	13.7	0.6	32.0	49.5	6.0	20.4	3.4	0.7	2.8	0.4	2.6	0.6	1.6	0.3	1.7	0.3	16.9	139	Clay		
RRMDD442	13.7	14.4	0.7	57.6	100.4	13.2	46.1	8.2	1.5	6.0	0.9	5.4	1.1	3.3	0.5	3.5	0.5	35.4	284	Clay		
RRMDD442	14.4	15.2	0.8	69.9	170.7	17.5	62.1	10.6	1.9	8.2	1.2	7.0	1.5	4.1	0.6	4.3	0.6	46.2	407	Upper Saprolite		
RRMDD442	15.2	16.0	0.8	74.2	165.8	19.5	70.3	11.9	2.2	8.9	1.3	7.1	1.4	4.0	0.6	3.9	0.6	43.8	416	Upper Saprolite		
RRMDD442	16.0	16.8	0.8	69.3	111.8	18.5	66.8	12.1	2.2	8.4	1.2	6.8	1.3	3.8	0.6	3.9	0.6	41.5	349	Upper Saprolite		
RRMDD442	16.8	17.6	0.8	74.1	146.2	22.6	82.3	15.4	2.8	9.8	1.5	7.8	1.4	3.9	0.6	4.0	0.6	41.5	415	Upper Saprolite		
RRMDD442	17.6	18.4	0.8	76.5	107.7	21.9	79.9	15.0	2.8	10.3	1.5	7.8	1.4	4.0	0.6	4.2	0.7	40.3	375	Upper Saprolite	14	456
RRMDD443	0.0	2.1	2.1	156.0	319.4	34.4	114.5	17.3	2.7	11.0	1.7	8.8	1.7	4.8	0.8	5.2	0.8	42.2	721	Hardcap		
RRMDD443	2.1	4.1	2.1	124.9	632.6	29.6	102.3	15.1	2.3	9.4	1.5	8.2	1.6	4.7	0.7	4.8	0.7	38.6	977	Hardcap		
RRMDD443	4.1	5.2	1.1	72.2	186.7	20.5	81.9	16.6	3.1	15.1	2.4	14.5	3.0	8.6	1.3	8.3	1.2	104.0	539	Mottled		
RRMDD443	5.2	6.0	0.8	163.0	242.6	43.7	178.5	37.8	7.4	37.1	5.9	35.7	7.5	21.3	3.0	18.7	2.8	274.3	1079	Clay		
RRMDD443	6.0	6.9	0.8	162.4	235.9	47.6	195.4	40.7	7.7	35.4	5.2	30.4	5.9	16.5	2.3	14.2	2.1	210.2	1012	Clay		
RRMDD443	6.9	7.7	0.8	179.4	243.2	47.5	194.2	39.2	7.2	32.4	4.7	26.3	5.1	14.1	1.9	12.0	1.8	170.2	979	Clay		
RRMDD443	7.7	8.6	0.9	128.4	242.6	41.4	173.8	35.8	6.6	29.6	4.4	24.9	4.9	13.5	1.9	11.6	1.7	167.6	889	Clay		
RRMDD443	8.6	9.5	0.9	139.0	1400.4	48.4	197.7	41.6	7.8	34.9	5.5	32.4	6.4	18.5	2.7	17.0	2.5	220.3	2175	Clay		
RRMDD443	9.5	10.4	0.9	139.6	238.9	43.3	175.0	36.4	6.8	31.6	4.7	25.9	4.9	14.0	2.1	12.5	1.8	174.0	911	Clay		
RRMDD443	10.4	11.3	0.9	134.3	216.2	40.4	162.7	33.7	6.4	30.1	4.5	24.0	4.6	13.1	1.9	11.5	1.7	170.8	856	Clay		
RRMDD443	11.3	12.2	0.9	146.0	264.1	43.4	173.8	36.2	6.7	31.0	4.6	24.8	4.7	13.5	2.0	11.8	1.7	165.7	930	Clay		
RRMDD443	12.2	13.1	0.9	192.9	342.7	57.0	229.2	46.7	8.6	37.7	5.6	33.3	6.5	18.3	2.6	16.3	2.4	233.0	1233	Clay		
RRMDD443	13.1	14.0	0.9	165.4	281.3	49.3	198.9	39.3	7.4	33.0	4.8	27.2	5.5	15.4	2.1	13.0	2.0	194.9	1039	Clay		
RRMDD443	14.0	14.6	0.6	168.3	287.4	49.4	200.6	41.4	7.7	34.9	5.0	28.6	5.6	15.6	2.2	13.5	2.0	198.1	1060	Clay		
RRMDD443	14.6	15.3	0.7	162.4	293.6	47.0	190.7	37.9	7.2	32.2	4.7	26.7	5.3	14.8	2.1	12.6	1.9	185.4	1024	Clay		
RRMDD443	15.3	16.1	0.9	182.4	595.8	42.4	162.1	31.0	6.0	25.1	3.7	20.4	3.7	10.0	1.4	8.4	1.2	117.8	1211	Upper Saprolite	12	1060
RRMDD443	16.1	17.0	0.9	53.8	93.7	14.3	53.9	10.5	1.9	8.3	1.1	5.9	1.1	2.9	0.4	2.6	0.4	33.3	284	Upper Saprolite		
RRMDD443	17.0	17.8	0.9	44.7	88.9	10.2	35.8	6.2	1.2	4.9	0.7	3.9	0.8	2.2	0.3	2.3	0.3	25.7	228	Upper Saprolite		
RRMDD443	17.8	18.7	0.9	49.5	84.5	11.9	42.8	7.4	1.4	6.0	0.8	4.6	0.9	2.7	0.4	2.9	0.4	30.7	247	Upper Saprolite		
RRMDD443	18.7	19.4	0.7	76.2	169.5	20.1	72.9	13.7	2.6	10.4	1.5	8.1	1.5	4.2	0.6	4.2	0.6	45.0	431	Upper Saprolite		
RRMDD443	19.4	20.0	0.6	83.0	180.0	21.2	80.6	14.9	2.9	11.1	1.6	8.5	1.5	4.2	0.6	4.0	0.6	46.1	461	Lower Saprolite	1	446
RRMDD443	20.0	20.4	0.4	75.2	165.2	17.6	65.6	12.6	2.4	10.7	1.6	8.3	1.6	4.6	0.7	4.3	0.6	46.0	417	Saprock		
RRMDD444	0.0	1.5	1.5	105.4	325.5	19.8	64.5	10.5	1.8	7.8	1.3	7.2	1.4	4.3	0.7	4.6	0.7	42.2	598	Hardcap		
RRMDD444	1.5	3.1	1.5	86.0	482.8	14.8	46.7	7.7	1.3	5.4	0.9	5.2	1.1	3.1	0.5	3.6	0.5	29.3	689	Hardcap		
RRMDD444	3.1	4.6	1.5	105.3	410.3	17.5	54.6	8.5	1.4	6.0	1.0	5.7	1.1	3.4	0.5	3.8	0.5	31.6	651	Hardcap		
RRMDD444	4.6	5.5	0.9	125.5	148.0	20.2	56.5	8.1	1.4	5.9	0.9	5.3	1.1	3.7	0.6	4.2	0.7	35.6	418	Mottled		
RRMDD444	5.5	6.3	0.9	41.5	57.5	8.8	29.0	5.2	0.9	4.4	0.7	4.5	0.9	3.3	0.6	4.1	0.7	31.4	194	Mottled		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	TREO ppm
RRMDD444	6.3	7.2	0.9	37.3	54.9	9.3	31.5	5.8	1.1	4.6	0.8	5.0	1.0	3.5	0.6	4.1	0.7	33.0	193	Mottled		
RRMDD444	7.2	8.0	0.9	45.0	68.1	11.5	39.2	7.4	1.3	5.5	0.9	5.2	1.0	3.4	0.5	4.0	0.6	32.0	226	Mottled		
RRMDD444	8.0	9.0	1.0	61.5	94.8	18.1	65.1	12.1	2.2	9.6	1.4	8.2	1.5	4.7	0.7	4.9	0.8	48.5	334	Clay		
RRMDD444	9.0	10.0	1.0	135.5	344.0	52.6	196.0	36.8	6.3	27.9	3.9	20.4	3.7	10.7	1.5	8.8	1.3	119.6	969	Clay		
RRMDD444	10.0	11.0	1.0	161.3	248.1	46.3	169.7	30.7	5.5	26.0	3.7	21.0	4.1	12.3	1.7	9.7	1.5	156.2	898	Clay		
RRMDD444	11.0	11.9	1.0	879.6	1023.3	215.1	739.5	130.5	22.3	95.1	12.9	67.5	11.3	30.6	3.9	21.6	3.0	350.5	3607	Clay		
RRMDD444	11.9	12.9	0.9	395.2	608.1	136.5	528.4	100.1	18.5	85.4	12.4	70.9	13.6	40.3	5.4	30.7	4.7	502.9	2553	Clay		
RRMDD444	12.9	13.8	1.0	116.2	197.2	34.9	134.7	25.9	4.9	22.7	3.4	19.2	3.9	11.4	1.5	9.3	1.4	132.7	719	Clay		
RRMDD444	13.8	14.8	1.0	90.1	140.0	22.7	85.6	15.9	3.2	16.0	2.5	14.4	3.2	9.6	1.3	8.1	1.3	118.1	532	Clay		
RRMDD444	14.8	15.8	1.0	178.9	271.5	51.8	205.9	39.0	7.5	36.1	5.6	30.4	6.3	18.7	2.5	14.7	2.2	234.3	1105	Upper Saprolite		
RRMDD444	15.8	16.8	1.0	128.4	224.8	31.4	115.1	20.5	4.0	18.8	2.8	15.3	3.1	8.7	1.2	7.7	1.1	94.6	678	Upper Saprolite		
RRMDD444	16.8	17.6	0.8	183.0	301.0	53.2	219.9	44.4	9.0	40.2	6.0	30.9	5.7	15.4	2.0	12.1	1.7	152.4	1077	Lower Saprolite		
RRMDD444	17.6	18.5	0.8	149.5	235.2	42.4	176.1	38.4	8.4	41.8	6.7	37.2	7.4	20.7	2.8	17.1	2.5	217.8	1004	Lower Saprolite		
RRMDD444	18.5	19.4	0.9	170.1	273.9	43.6	183.1	40.5	9.7	53.6	9.3	56.1	11.9	34.6	4.6	28.7	4.1	334.0	1258	Lower Saprolite	11	1223
RRMDD444	19.4	20.4	1.0	125.5	178.7	26.2	108.8	23.3	5.8	36.9	6.1	38.1	9.0	27.0	3.6	21.6	3.4	307.3	921	Saprock		
RRMDD445	0.0	1.7	1.7	168.9	400.5	34.4	119.0	20.1	3.4	12.3	1.8	9.1	1.6	4.6	0.7	5.1	0.7	38.2	820	Hardcap		
RRMDD445	1.7	3.5	1.7	137.2	355.0	33.1	117.8	19.9	3.2	11.3	1.6	8.0	1.4	3.8	0.6	4.2	0.6	31.5	729	Hardcap		
RRMDD445	3.5	4.2	0.7	139.6	336.6	28.8	98.1	15.0	2.4	9.3	1.2	6.1	1.1	3.2	0.5	3.6	0.5	25.7	672	Transition		
RRMDD445	4.2	5.1	0.9	67.9	131.4	12.8	43.2	7.9	1.5	7.8	1.3	7.8	1.6	5.2	0.8	5.3	0.8	58.4	354	Mottled		
RRMDD445	5.1	6.0	0.9	166.5	294.8	32.1	109.3	18.4	3.2	13.9	2.0	10.5	2.1	5.9	0.9	6.0	0.9	63.4	730	Clay		
RRMDD445	6.0	6.7	0.7	78.1	148.0	19.4	69.9	13.1	2.4	11.6	1.8	10.5	2.2	6.7	1.0	6.6	1.0	72.9	445	Clay		
RRMDD445	6.7	7.3	0.6	89.0	191.0	22.5	82.6	14.9	2.6	12.2	1.9	10.5	2.1	6.4	0.9	6.1	0.9	69.6	513	Clay		
RRMDD445	7.3	8.1	0.8	158.3	382.0	32.9	117.8	21.6	3.9	17.1	2.4	12.5	2.3	6.7	1.0	6.2	1.0	68.8	835	Clay		
RRMDD445	8.1	8.9	0.8	119.0	253.1	29.1	105.7	20.3	3.6	16.1	2.3	12.4	2.3	6.7	1.0	6.5	1.0	72.3	651	Clay		
RRMDD445	8.9	9.7	0.8	85.8	178.7	22.7	85.4	16.3	3.0	13.7	2.1	11.3	2.3	6.9	1.0	6.4	1.0	71.7	508	Clay		
RRMDD445	9.7	10.5	0.8	100.5	192.9	25.7	94.2	17.5	3.2	14.5	2.2	11.8	2.4	6.9	1.0	6.5	1.0	74.7	555	Clay		
RRMDD445	10.5	11.4	0.9	140.1	221.1	32.5	117.2	24.1	5.0	26.7	4.9	32.4	7.2	22.9	3.4	22.3	3.4	256.5	920	Clay		
RRMDD445	11.4	12.3	0.9	89.5	225.4	25.5	96.7	19.2	3.6	16.2	2.5	13.6	2.7	7.9	1.1	7.7	1.1	84.1	597	Clay		
RRMDD445	12.3	13.1	0.9	87.6	193.5	27.2	106.5	21.8	4.0	17.2	2.6	13.3	2.5	7.3	1.0	6.5	1.0	74.3	566	Clay		
RRMDD445	13.1	14.0	0.9	87.6	204.5	29.2	115.5	24.5	4.5	20.3	3.0	15.8	3.0	8.8	1.2	7.8	1.2	91.4	618	Clay		
RRMDD445	14.0	14.9	0.9	95.0	200.2	28.5	109.6	21.5	4.1	18.3	2.7	14.7	2.8	8.3	1.2	7.5	1.1	84.8	601	Clay		
RRMDD445	14.9	15.9	1.0	111.4	269.0	40.2	159.2	35.5	6.8	31.8	5.2	29.7	6.2	18.2	2.6	16.1	2.4	208.3	943	Clay		
RRMDD445	15.9	16.9	1.0	96.9	218.0	31.1	122.5	24.8	4.6	19.8	3.0	15.6	3.0	8.4	1.2	7.5	1.1	84.8	642	Clay		
RRMDD445	16.9	17.8	0.9	100.0	238.9	34.8	139.4	29.9	5.4	23.6	3.4	17.4	3.2	8.8	1.2	7.7	1.1	88.8	704	Clay		
RRMDD445	17.8	18.8	1.0	104.1	228.5	31.9	123.6	25.2	4.7	20.6	3.1	16.5	3.2	9.0	1.3	8.1	1.2	93.8	675	Clay		
RRMDD445	18.8	19.8	1.0	123.1	280.1	39.5	156.9	33.0	6.3	26.4	3.7	18.1	3.2	8.7	1.2	7.3	1.0	85.0	793	Upper Saprolite		
RRMDD445	19.8	20.8	1.0	86.1	211.3	29.4	114.2	24.1	4.5	19.5	2.8	14.3	2.7	7.2	1.0	6.5	1.0	75.1	600	Upper Saprolite		
RRMDD445	20.8	21.6	0.8	102.7	215.0	28.8	113.0	24.9	5.2	24.6	4.0	23.1	4.5	13.0	1.9	12.5	1.8	120.8	696	Lower Saprolite		
RRMDD445	21.6	22.3	0.8	94.3	223.6	28.6	110.9	24.2	5.2	27.4	4.8	29.7	6.5	20.6	2.9	19.0	3.0	229.9	831	Lower Saprolite	18	661
RRMDD446	0.0	1.8	1.8	124.3	449.6	26.5	90.0	13.9	2.3	9.1	1.4	7.8	1.5	4.4	0.7	4.8	0.7	41.0	778	Hardcap		
RRMDD446	1.8	3.6	1.8	153.1	757.9	33.2	116.6	17.2	2.7	10.8	1.5	7.9	1.5	4.3	0.7	4.5	0.6	38.6	1151	Hardcap		
RRMDD446	3.6	4.5	0.9	45.9	384.5	12.3	47.8	10.0	2.1	10.3	1.7	10.3	2.2	6.9	1.0	7.0	1.1	64.6	608	Transition		
RRMDD446	4.5	5.3	0.9	63.4	55.3	17.0	68.0	15.1	3.2	16.8	2.8	17.0	3.7	11.1	1.7	10.8	1.7	112.0	400	Mottled		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD446	5.3	6.2	0.9	109.9	88.9	20.1	73.5	16.1	3.4	17.1	2.9	17.3	3.6	11.1	1.6	10.5	1.6	107.9	486	Mottled		
RRMDD446	6.2	7.1	0.9	83.6	215.6	21.9	88.9	20.5	4.5	25.1	4.2	25.6	5.7	17.3	2.4	15.3	2.4	214.0	747	Mottled		
RRMDD446	7.1	8.0	0.9	190.6	325.5	68.5	258.9	52.0	9.9	45.9	6.8	37.3	8.1	23.1	3.0	17.5	2.7	335.3	1385	Clay		
RRMDD446	8.0	8.8	0.9	129.6	160.9	31.7	121.9	25.7	5.2	26.4	4.3	24.3	5.2	15.4	2.1	13.0	2.0	172.1	740	Clay		
RRMDD446	8.8	9.7	0.9	198.8	213.1	39.6	155.7	36.4	8.4	53.5	8.4	52.2	12.4	37.0	4.9	27.4	4.3	552.4	1405	Clay		
RRMDD446	9.7	10.6	0.9	144.3	194.7	36.9	137.1	27.8	5.7	28.0	4.3	24.6	5.2	15.3	2.1	13.2	2.0	190.5	832	Clay		
RRMDD446	10.6	11.5	0.9	183.5	260.4	52.9	198.3	38.2	7.2	34.3	5.1	28.0	6.0	17.7	2.4	14.5	2.2	233.0	1084	Clay		
RRMDD446	11.5	12.5	1.0	164.2	175.0	45.8	179.6	36.4	7.1	35.7	5.4	30.1	6.4	18.6	2.5	15.1	2.3	249.5	974	Upper Saprolite		
RRMDD446	12.5	13.5	1.0	124.3	170.7	33.5	124.8	25.6	5.1	23.6	3.8	20.8	4.3	12.6	1.7	10.7	1.6	130.8	694	Upper Saprolite		
RRMDD446	13.5	14.5	1.0	151.9	228.5	42.5	160.4	32.9	6.6	30.3	4.8	26.4	5.3	15.4	2.1	12.9	2.0	154.9	877	Upper Saprolite		
RRMDD446	14.5	15.5	1.0	388.2	319.4	95.4	373.2	75.8	14.6	59.8	8.6	43.0	7.5	20.0	2.7	16.1	2.4	197.5	1624	Upper Saprolite		
RRMDD446	15.5	16.5	1.0	716.6	585.9	245.3	1172.2	267.9	62.3	372.3	57.2	336.3	75.4	224.1	29.5	171.9	26.7	2844.6	7188	Upper Saprolite	12	1468
RRMDD446	16.5	17.4	0.9	113.9	230.3	24.4	86.7	14.1	2.9	13.7	1.9	10.5	2.3	6.9	0.9	5.6	0.9	94.2	609	Saprock		
RRMDD446	17.4	18.2	0.8	71.2	150.5	15.8	53.9	9.7	1.9	7.0	1.0	5.1	1.0	3.0	0.4	2.9	0.4	28.3	352	Saprock		
RRMDD447	0.0	1.5	1.5	93.4	277.6	17.9	58.4	9.8	1.6	7.4	1.2	7.0	1.4	4.2	0.7	4.5	0.7	41.0	527	Hardcap		
RRMDD447	1.5	3.0	1.5	119.6	605.6	21.0	65.8	10.2	1.6	6.7	1.1	5.9	1.2	3.6	0.6	3.8	0.5	31.7	879	Hardcap		
RRMDD447	3.0	4.5	1.5	115.9	777.6	22.8	75.5	12.9	2.1	8.9	1.6	8.4	1.6	4.7	0.8	5.4	0.8	40.4	1079	Transition		
RRMDD447	4.5	5.3	0.8	123.1	216.2	21.6	66.5	10.5	1.9	9.0	1.4	7.7	1.6	4.8	0.7	4.7	0.8	46.5	517	Mottled		
RRMDD447	5.3	6.2	0.9	421.0	369.7	54.6	165.6	20.9	3.5	14.8	1.9	9.1	1.6	4.4	0.7	4.5	0.7	40.8	1114	Mottled		
RRMDD447	6.2	7.0	0.7	60.3	83.2	15.9	55.5	9.6	1.7	7.0	1.1	5.7	1.1	3.5	0.5	3.9	0.6	33.4	283	Clay		
RRMDD447	7.0	8.0	1.1	55.6	80.0	15.6	56.5	10.1	1.7	7.4	1.1	6.3	1.3	4.0	0.6	4.2	0.7	38.2	283	Clay		
RRMDD447	8.0	8.9	0.9	110.5	134.5	28.6	103.9	18.1	3.1	13.7	2.1	10.8	2.2	6.4	0.9	6.2	0.9	65.8	508	Clay		
RRMDD447	8.9	9.7	0.9	97.2	151.7	28.0	101.0	18.1	3.2	13.9	2.1	11.4	2.2	6.8	1.0	6.3	0.9	71.5	515	Clay		
RRMDD447	9.7	10.6	0.9	1284.2	2272.5	565.4	2426.1	490.5	97.0	497.9	76.6	440.7	93.8	274.4	35.9	208.4	31.6	3238.2	12033	Clay		
RRMDD447	10.6	11.4	0.8	357.7	585.9	148.6	580.9	112.8	22.2	127.4	17.8	108.7	24.3	70.2	9.3	50.3	7.8	1080.7	3305	Clay		
RRMDD447	11.4	12.3	0.9	127.8	227.3	44.1	175.0	32.4	6.1	30.3	4.1	22.8	4.6	12.9	1.8	10.7	1.6	161.3	863	Upper Saprolite		
RRMDD447	12.3	13.1	0.8	409.3	390.6	63.6	203.0	29.8	5.6	25.6	3.4	18.5	3.6	10.1	1.4	8.3	1.2	118.9	1293	Upper Saprolite		
RRMDD447	13.1	13.9	0.8	158.9	265.3	48.2	191.9	35.7	6.9	34.5	4.7	26.7	5.4	15.3	2.1	12.7	1.9	193.0	1003	Upper Saprolite		
RRMDD447	13.9	14.6	0.7	154.2	271.5	52.9	226.9	42.1	8.4	43.1	5.6	32.1	6.3	17.5	2.4	14.3	2.1	212.7	1092	Lower Saprolite		
RRMDD447	14.6	15.4	0.8	196.4	315.7	62.5	268.3	50.8	10.3	53.4	7.1	38.9	7.7	20.4	2.8	16.1	2.3	238.7	1291	Lower Saprolite		
RRMDD447	15.4	16.2	0.8	137.8	211.3	41.0	180.8	39.9	9.3	58.8	8.6	53.3	11.6	33.4	4.5	26.3	4.0	405.1	1226	Lower Saprolite	12	1841
RRMDD447	16.2	17.1	0.9	132.5	215.6	30.1	121.3	22.0	5.0	32.6	4.3	26.4	6.3	18.8	2.6	14.4	2.3	298.4	933	Saprock		
RRMDD447	17.1	17.9	0.9	74.5	151.7	17.5	60.5	11.1	2.3	9.9	1.4	8.1	1.7	4.9	0.7	4.2	0.6	68.6	418	Saprock		
RRMDD447	17.9	18.8	0.9	62.2	127.1	15.2	53.4	10.2	2.1	8.6	1.3	7.2	1.5	4.2	0.6	3.8	0.6	46.6	344	Saprock		
RRMDD448	0.0	1.5	1.5	113.2	228.5	23.7	80.5	13.0	2.2	9.4	1.5	8.3	1.7	4.8	0.8	5.2	0.8	46.7	540	Hardcap		
RRMDD448	1.5	3.0	1.5	221.7	493.8	41.9	143.5	22.3	4.0	13.9	2.1	10.6	2.0	5.5	0.8	5.2	0.8	53.1	1021	Hardcap		
RRMDD448	3.0	4.4	1.5	113.4	461.9	24.5	83.7	12.7	2.0	7.6	1.2	6.2	1.2	3.7	0.6	4.1	0.6	31.0	754	Hardcap		
RRMDD448	4.4	5.3	0.9	65.9	114.5	11.4	35.9	6.5	1.2	5.9	0.9	5.6	1.2	3.9	0.6	4.6	0.7	36.2	295	Mottled		
RRMDD448	5.3	6.2	0.9	38.2	72.2	8.9	31.0	6.3	1.2	5.9	0.9	6.0	1.3	4.2	0.7	4.7	0.7	42.4	225	Mottled		
RRMDD448	6.2	7.0	0.9	53.8	137.6	12.8	44.7	8.5	1.7	8.4	1.3	7.9	1.7	5.4	0.9	6.0	0.9	55.6	347	Mottled		
RRMDD448	7.0	7.9	0.9	57.7	96.4	13.1	45.0	8.4	1.7	8.2	1.3	8.1	1.7	5.3	0.8	5.7	0.9	58.4	313	Mottled		
RRMDD448	7.9	8.7	0.9	50.0	134.5	11.5	39.9	8.1	1.6	8.0	1.3	7.8	1.7	5.6	0.9	6.0	0.9	55.9	334	Mottled		
RRMDD448	8.7	9.5	0.8	58.8	100.9	15.0	51.7	9.9	1.9	8.9	1.3	7.8	1.7	5.1	0.8	5.2	0.8	53.6	323	Clay		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval	
																					Length (m)	TREO ppm
RRMDD448	9.5	10.3	0.8	29.0	37.3	6.4	23.4	4.9	1.0	5.4	0.9	5.7	1.3	4.1	0.6	4.4	0.6	42.0	167	Clay		
RRMDD448	10.3	11.1	0.8	32.7	43.2	7.6	27.8	5.9	1.3	7.0	1.1	7.5	1.6	5.1	0.8	5.3	0.8	54.2	202	Clay		
RRMDD448	11.1	11.5	0.5	71.8	91.9	15.4	51.0	8.6	1.7	8.4	1.2	7.5	1.7	5.1	0.8	5.1	0.8	66.3	337	Clay		
RRMDD448	11.5	12.5	0.9	43.0	60.1	10.0	35.2	7.0	1.4	7.2	1.1	7.0	1.5	4.6	0.8	5.0	0.8	51.3	236	Clay		
RRMDD448	12.5	13.4	0.9	86.4	272.7	22.4	75.8	14.3	2.8	12.1	1.8	10.2	2.1	6.3	0.9	5.8	0.9	70.7	585	Clay		
RRMDD448	13.4	14.3	0.9	137.8	245.1	42.8	151.6	29.8	5.8	22.3	3.0	16.4	3.1	8.3	1.2	7.1	1.0	93.6	769	Clay		
RRMDD448	14.3	15.0	0.8	438.6	633.9	128.1	465.4	93.3	19.0	85.2	11.3	61.9	12.1	32.9	4.3	24.1	3.5	457.2	2471	Clay		
RRMDD448	15.0	15.8	0.8	300.2	405.4	83.6	319.6	66.3	14.5	70.9	9.9	57.0	11.9	33.5	4.6	25.3	3.8	490.2	1897	Clay		
RRMDD448	15.8	16.6	0.8	249.8	353.8	68.9	256.6	53.1	10.8	50.3	7.0	39.6	8.0	22.2	3.0	17.3	2.5	313.7	1457	Clay		
RRMDD448	16.6	17.5	0.9	289.7	366.1	76.4	297.4	61.8	13.3	62.2	8.7	48.7	9.6	26.5	3.7	21.6	3.1	314.9	1604	Clay		
RRMDD448	17.5	18.5	0.9	196.4	242.6	43.7	170.3	35.4	8.1	40.9	6.0	35.5	7.3	20.6	2.8	16.7	2.5	255.2	1084	Upper Saprolite		
RRMDD448	18.5	19.4	0.9	137.8	183.6	30.0	123.6	25.3	6.0	31.6	5.1	31.0	6.7	19.4	2.8	16.4	2.5	250.8	873	Upper Saprolite		
RRMDD448	19.4	20.0	0.7	94.6	130.8	18.7	75.6	14.7	3.6	19.7	3.1	19.0	4.3	12.9	1.9	10.8	1.8	184.8	596	Lower Saprolite	14	809
RRMDD448	20.0	20.7	0.7	88.5	129.0	17.4	68.4	12.6	3.0	15.8	2.3	13.9	3.1	9.3	1.4	7.9	1.3	154.9	529	Saprock		
RRMDD448	20.7	21.9	1.2	71.1	137.6	16.2	60.7	11.5	2.5	9.7	1.4	8.3	1.7	4.7	0.7	4.5	0.7	68.3	399	Saprock		
RRMDD448	21.9	23.0	1.2	52.9	102.1	11.2	41.9	7.3	1.6	5.9	1.0	5.5	1.1	3.4	0.5	3.5	0.6	38.0	277	Saprock		
RRMDD449	0.0	1.5	1.5	159.5	331.7	33.5	113.4	16.9	2.8	11.0	1.6	8.6	1.6	4.7	0.7	5.1	0.7	44.7	736	Hardcap		
RRMDD449	1.5	3.0	1.5	185.3	498.7	38.7	134.7	19.6	3.2	11.5	1.7	8.6	1.5	4.2	0.7	4.4	0.6	39.7	953	Hardcap		
RRMDD449	3.0	4.5	1.5	101.2	514.7	22.0	75.6	12.9	2.1	8.8	1.4	7.9	1.5	4.6	0.8	5.1	0.7	39.0	798	Transition		
RRMDD449	4.5	5.2	0.7	59.2	251.8	10.8	38.0	6.5	1.2	5.9	1.0	6.0	1.3	4.1	0.7	4.9	0.8	42.3	435	Mottled		
RRMDD449	5.2	5.9	0.7	50.3	122.6	10.0	35.7	6.3	1.3	5.9	1.0	6.4	1.4	4.4	0.7	5.1	0.9	46.4	298	Mottled		
RRMDD449	5.9	6.7	0.7	52.4	90.8	10.1	36.7	6.5	1.2	6.0	1.0	6.3	1.4	4.3	0.7	5.1	0.8	46.2	270	Mottled		
RRMDD449	6.7	7.5	0.9	50.7	260.4	10.4	39.0	7.2	1.4	7.1	1.2	8.0	1.6	5.3	0.9	5.9	0.9	57.0	457	Clay		
RRMDD449	7.5	8.4	0.9	139.0	496.3	22.2	74.9	13.5	2.7	13.3	2.3	13.7	2.9	8.9	1.4	9.2	1.4	101.6	903	Clay		
RRMDD449	8.4	9.3	0.9	71.9	565.1	14.6	53.5	10.3	2.1	11.2	2.0	12.0	2.6	8.1	1.3	8.2	1.3	89.7	854	Clay		
RRMDD449	9.3	10.1	0.9	79.6	514.7	17.1	64.9	12.5	2.5	13.7	2.3	14.5	3.2	9.5	1.5	9.6	1.5	118.1	865	Clay		
RRMDD449	10.1	11.0	0.8	135.5	314.5	35.5	129.5	23.1	4.4	18.8	2.9	16.4	3.3	9.5	1.4	9.0	1.4	115.9	821	Clay		
RRMDD449	11.0	11.9	0.9	156.6	509.8	43.6	159.8	31.7	6.3	26.4	4.4	26.1	5.2	15.3	2.4	15.3	2.2	163.8	1169	Clay		
RRMDD449	11.9	12.7	0.8	327.2	512.2	84.7	324.3	62.6	12.2	51.1	7.8	44.8	8.8	25.5	4.0	23.5	3.6	299.7	1792	Clay		
RRMDD449	12.7	13.6	0.9	676.7	601.9	207.2	851.5	167.6	34.6	150.4	21.8	117.6	21.4	57.2	8.2	46.2	6.6	626.1	3595	Clay		
RRMDD449	13.6	14.4	0.8	450.4	431.2	101.2	412.9	78.6	16.6	76.1	11.5	63.8	12.4	34.3	4.9	28.5	4.3	414.0	2141	Clay		
RRMDD449	14.4	15.3	0.8	229.3	261.6	43.6	167.4	30.6	6.3	27.1	4.0	22.0	4.2	11.7	1.7	10.7	1.6	139.7	962	Clay		
RRMDD449	15.3	15.7	0.4	107.1	167.7	25.9	106.5	19.1	4.2	24.4	3.5	21.5	4.9	14.7	2.2	12.4	2.1	234.3	750	Lower Saprolite	8	1413
RRMDD449	15.7	16.7	1.1	94.1	177.5	21.4	80.9	13.7	3.0	12.6	1.8	10.1	1.9	5.4	0.8	4.8	0.8	73.5	502	Saprock		
RRMDD449	16.7	17.8	1.1	65.3	130.8	14.7	53.9	9.4	2.0	7.5	1.2	6.4	1.2	3.4	0.5	3.4	0.5	38.0	338	Saprock		
RRMDD450	0.0	1.1	1.1	78.5	402.9	15.7	53.2	9.6	1.6	7.8	1.4	7.6	1.5	4.7	0.8	5.1	0.8	44.4	635	Hardcap		
RRMDD450	1.1	2.3	1.1	86.3	802.1	17.9	59.8	10.6	1.8	7.9	1.4	7.7	1.5	4.6	0.8	4.9	0.7	41.4	1049	Hardcap		
RRMDD450	2.3	2.8	0.5	89.1	383.3	17.6	59.4	10.6	1.8	8.6	1.4	8.2	1.7	5.2	0.8	5.4	0.8	49.4	643	Transition		
RRMDD450	2.8	3.6	0.9	141.9	356.2	21.3	66.4	11.3	1.9	9.3	1.4	8.5	1.7	5.2	0.8	5.3	0.8	53.5	686	Mottled		
RRMDD450	3.6	4.4	0.8	128.4	265.3	32.0	115.4	20.6	3.3	16.2	2.3	12.9	2.5	7.2	1.0	6.5	1.0	82.5	697	Mottled		
RRMDD450	4.4	5.0	0.6	198.8	359.9	37.6	127.1	21.5	3.5	16.7	2.4	13.1	2.6	7.4	1.1	7.0	1.0	79.0	879	Mottled		
RRMDD450	5.0	5.8	0.8	254.5	415.2	68.9	236.8	40.4	6.4	27.5	3.8	19.9	3.6	9.7	1.3	8.4	1.2	100.2	1198	Clay		
RRMDD450	5.8	6.6	0.8	369.4	366.1	107.8	380.2	66.8	10.7	44.6	6.0	30.9	5.3	14.0	1.8	11.2	1.5	144.8	1561	Clay		

																					>200ppm TREO-CeO_2 Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD450	6.6	7.5	0.9	290.9	221.1	67.1	247.3	43.8	7.7	38.2	5.2	28.3	5.2	14.3	1.8	11.3	1.6	167.0	1151	Clay		
RRMDD450	7.5	8.4	0.9	228.7	280.1	47.5	177.9	31.7	5.7	30.7	4.0	22.3	4.4	12.3	1.6	9.9	1.5	154.3	1013	Clay		
RRMDD450	8.4	9.3	0.9	297.9	227.3	53.8	207.6	34.2	6.4	37.2	4.8	26.7	5.4	14.9	1.9	11.2	1.7	221.6	1153	Upper Saprolite		
RRMDD450	9.3	10.0	0.7	103.3	166.4	21.0	79.5	15.4	2.9	13.8	1.8	10.2	2.0	5.8	0.7	4.6	0.7	91.2	519	Lower Saprolite		
RRMDD450	10.0	10.7	0.7	70.7	143.7	16.3	56.5	9.6	1.7	7.1	0.9	5.2	1.0	3.0	0.4	3.0	0.5	38.4	358	Lower Saprolite		
RRMDD450	10.7	11.4	0.7	87.6	187.3	20.4	72.0	13.7	2.4	10.5	1.5	8.1	1.5	4.1	0.6	3.6	0.5	48.8	463	Lower Saprolite	9	902
RRMDD450	11.4	12.2	0.7	87.5	215.6	20.6	72.1	12.9	2.4	9.5	1.3	7.2	1.3	3.8	0.5	3.4	0.5	41.1	480	Saprock		
RRMDD450	12.2	12.9	0.7	83.2	199.6	19.8	68.6	12.3	2.2	9.0	1.3	6.8	1.3	3.8	0.5	3.4	0.5	39.6	452	Saprock		
RRMDD451	0.0	2.0	2.0	191.8	633.9	35.5	113.5	17.2	2.8	11.6	1.8	9.3	1.7	4.7	0.7	4.4	0.6	45.8	1075	Saprock		
RRMDD451	2.0	3.9	2.0	209.9	1167.0	38.1	122.5	19.3	3.0	12.7	2.0	10.6	1.9	5.2	0.8	4.9	0.7	48.0	1647	Hardcap		
RRMDD451	3.9	4.9	1.0	101.4	183.6	31.2	111.9	21.2	3.5	15.5	2.2	12.5	2.5	7.1	1.0	6.7	0.9	76.1	577	Transition		
RRMDD451	4.9	6.0	1.0	135.5	202.1	38.2	140.0	25.4	4.2	20.3	2.9	16.7	3.4	10.1	1.5	9.2	1.3	117.2	728	Mottled		
RRMDD451	6.0	7.0	1.0	136.0	246.9	35.3	124.2	21.8	3.7	17.0	2.4	13.9	2.7	7.9	1.1	7.1	1.0	88.3	709	Mottled		
RRMDD451	7.0	8.0	1.0	143.7	194.7	41.1	151.0	27.7	4.8	22.8	3.3	19.2	3.9	11.8	1.6	10.4	1.5	134.0	772	Mottled		
RRMDD451	8.0	8.7	0.7	113.1	129.0	32.1	121.3	22.8	4.0	20.1	2.9	17.3	3.5	10.4	1.5	9.5	1.4	121.1	610	Clay		
RRMDD451	8.7	9.3	0.7	61.2	83.5	18.2	67.0	13.2	2.4	10.5	1.6	9.6	2.0	6.1	0.9	5.8	0.9	63.1	346	Clay		
RRMDD451	9.3	10.3	1.0	159.5	154.8	46.5	175.5	32.5	5.9	29.5	4.4	25.1	5.3	16.0	2.2	13.6	2.0	189.2	862	Clay		
RRMDD451	10.3	11.2	1.0	151.3	232.2	44.1	164.5	31.1	5.3	26.9	3.9	23.1	4.8	14.4	2.0	12.4	1.8	172.1	890	Clay		
RRMDD451	11.2	12.3	1.1	167.1	260.4	49.2	186.6	37.9	6.8	32.4	4.9	28.3	5.7	17.0	2.3	14.1	2.2	187.3	1002	Clay		
RRMDD451	12.3	13.3	1.0	246.3	282.5	77.2	299.8	73.6	14.1	62.9	10.0	59.2	11.1	32.2	4.3	28.1	3.9	308.6	1514	Clay		
RRMDD451	13.3	14.3	1.0	333.1	330.4	87.8	334.8	85.7	16.6	72.2	11.6	69.1	12.8	36.7	5.0	32.2	4.4	331.4	1764	Clay		
RRMDD451	14.3	15.2	0.9	384.7	367.3	66.6	226.3	46.8	8.9	40.5	6.2	36.3	6.9	19.8	2.6	16.9	2.4	207.0	1439	Clay		
RRMDD451	15.2	16.1	0.9	127.2	214.4	36.2	134.1	26.6	4.9	23.0	3.5	21.3	4.3	13.0	1.8	11.3	1.6	142.2	765	Clay		
RRMDD451	16.1	17.0	0.9	134.3	204.5	32.9	120.1	22.9	4.4	21.3	3.2	19.5	4.0	11.9	1.7	10.3	1.5	134.6	727	Clay		
RRMDD451	17.0	18.0	1.0	108.2	199.6	30.2	111.9	20.7	3.6	16.8	2.5	14.8	2.9	8.9	1.3	8.1	1.2	99.8	630	Clay		
RRMDD451	18.0	18.9	0.9	187.1	329.2	48.0	185.5	33.6	6.6	32.7	4.9	28.0	6.0	17.2	2.5	13.7	2.1	232.4	1130	Clay		
RRMDD451	18.9	19.6	0.7	186.5	329.2	42.5	163.9	29.2	5.9	28.5	4.1	23.6	5.0	14.4	2.0	11.1	1.7	213.3	1061	Upper Saprolite		
RRMDD451	19.6	20.2	0.6	107.2	248.1	24.1	84.6	14.2	2.8	10.8	1.6	8.6	1.7	4.7	0.7	4.4	0.7	56.1	570	Upper Saprolite		
RRMDD451	20.2	21.0	0.7	77.4	195.9	19.7	72.9	13.7	2.7	10.5	1.6	8.8	1.7	4.7	0.7	4.4	0.6	47.5	463	Lower Saprolite		
RRMDD451	21.0	21.7	0.7	86.7	213.1	20.5	73.2	13.2	2.5	9.5	1.4	7.3	1.4	3.8	0.6	3.6	0.6	40.3	478	Lower Saprolite	17	896
RRMDD451	21.7	22.4	0.7	89.4	232.2	21.9	79.1	13.9	3.0	11.5	1.6	8.9	1.8	5.1	0.7	4.4	0.7	57.1	531	Saprock		
RRMDD452	0.0	1.7	1.7	146.0	326.8	29.7	103.5	16.9	2.8	11.2	1.7	8.8	1.6	4.6	0.7	4.6	0.7	43.9	704	Hardcap		
RRMDD452	1.7	3.4	1.7	149.5	468.0	30.1	103.5	17.1	2.9	11.5	1.8	9.4	1.7	4.9	0.8	5.0	0.7	41.1	848	Hardcap		
RRMDD452	3.4	4.3	0.9	58.2	256.7	11.9	41.6	7.4	1.3	6.7	1.1	6.7	1.4	4.4	0.7	5.0	0.8	43.4	447	Clay		
RRMDD452	4.3	5.1	0.9	57.5	93.4	11.4	39.2	7.1	1.3	6.5	1.1	6.7	1.3	4.3	0.7	4.8	0.8	43.0	279	Clay		
RRMDD452	5.1	6.0	0.9	43.5	105.0	9.9	35.9	6.7	1.3	6.4	1.1	6.6	1.4	4.3	0.7	4.7	0.8	43.9	272	Clay		
RRMDD452	6.0	6.8	0.9	51.1	121.6	10.9	40.1	7.7	1.5	7.7	1.3	7.8	1.6	5.2	0.8	5.6	0.9	50.3	314	Clay		
RRMDD452	6.8	7.7	0.9	104.6	227.3	24.3	82.1	13.5	2.4	9.9	1.5	8.1	1.5	4.6	0.7	4.9	0.7	44.7	531	Clay		
RRMDD452	7.7	8.6	0.9	160.7	208.8	27.5	87.1	13.7	2.4	10.1	1.4	8.4	1.6	5.1	0.8	5.2	0.9	52.8	586	Clay		
RRMDD452	8.6	9.4	0.9	169.5	168.3	25.0	79.3	12.8	2.3	10.1	1.5	8.7	1.7	5.1	0.8	5.6	0.9	55.0	547	Clay		
RRMDD452	9.4	10.3	0.9	111.4	175.7	29.6	99.7	16.2	2.8	11.7	1.7	9.4	1.9	5.4	0.9	5.6	0.9	63.4	536	Clay		
RRMDD452	10.3	11.2	0.9	115.9	186.7	27.8	94.1	15.2	2.7	11.1	1.7	9.3	1.9	5.6	0.8	5.4	0.9	65.5	545	Clay		
RRMDD452	11.2	12.1	0.9	112.5	128.4	26.9	93.7	15.8	2.9	13.3	2.0	11.9	2.4	7.4	1.1	7.3	1.1	86.5	513	Clay		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval	
																					Length (m)	TREO ppm
RRMDD452	12.1	13.0	0.9	128.4	220.5	35.3	121.9	20.3	3.5	14.7	2.1	11.9	2.3	6.9	1.0	6.8	1.1	80.1	657	Clay		
RRMDD452	13.0	13.9	0.9	102.5	157.8	28.5	97.5	15.9	2.7	11.2	1.7	9.1	1.8	5.2	0.8	5.1	0.8	59.9	501	Clay		
RRMDD452	13.9	14.9	1.0	168.9	201.5	33.7	119.0	21.0	4.1	18.3	2.7	15.7	3.2	9.4	1.3	8.3	1.3	109.2	718	Clay		
RRMDD452	14.9	15.8	1.0	100.3	199.6	26.9	97.2	16.6	3.1	13.5	2.0	11.9	2.3	7.2	1.0	6.7	1.0	83.8	573	Clay		
RRMDD452	15.8	16.8	1.0	99.0	178.7	29.0	103.9	17.7	3.2	13.9	2.0	11.4	2.2	6.5	0.9	6.4	1.0	74.7	550	Clay		
RRMDD452	16.8	17.8	0.9	136.6	235.2	41.9	158.0	28.3	5.0	20.9	3.0	16.4	3.1	9.1	1.2	8.0	1.2	101.3	769	Clay		
RRMDD452	17.8	18.7	1.0	194.1	303.4	62.5	234.4	42.9	8.1	30.9	4.5	24.2	4.5	12.5	1.7	10.2	1.6	144.8	1080	Clay		
RRMDD452	18.7	19.7	1.0	187.6	316.9	51.6	183.1	31.9	6.0	23.3	3.4	17.6	3.2	9.2	1.3	8.1	1.2	100.6	945	Upper Saprolite		
RRMDD452	19.7	20.6	0.9	124.9	208.2	33.8	121.3	20.7	4.1	16.8	2.5	13.9	2.7	7.8	1.1	6.8	1.1	90.7	656	Upper Saprolite		
RRMDD452	20.6	21.6	1.0	107.8	172.0	28.0	99.3	17.5	3.5	14.4	2.2	12.3	2.4	7.0	1.0	6.4	1.0	78.6	553	Upper Saprolite		
RRMDD452	21.6	22.6	1.0	61.7	86.4	15.8	61.4	12.4	2.7	13.0	2.1	12.1	2.5	7.6	1.1	7.3	1.1	83.3	370	Upper Saprolite		
RRMDD452	22.6	23.5	1.0	74.5	115.6	19.9	77.7	16.6	3.5	16.6	2.6	15.6	3.1	9.1	1.3	8.3	1.3	98.7	464	Upper Saprolite		
RRMDD452	23.5	24.4	0.9	62.2	92.5	14.7	55.6	11.3	2.4	11.4	1.8	11.0	2.2	6.6	1.0	6.2	1.0	73.5	353	Lower Saprolite		
RRMDD452	24.4	25.3	0.9	80.5	138.8	23.7	90.7	17.4	3.5	16.4	2.5	14.3	2.9	8.4	1.2	7.6	1.2	94.1	503	Lower Saprolite		
RRMDD452	25.3	26.3	0.9	96.6	160.3	26.1	101.9	18.4	3.9	19.0	2.8	15.9	3.3	9.8	1.4	8.5	1.4	122.3	592	Lower Saprolite		
RRMDD452	26.3	26.8	0.6	168.9	292.4	41.7	166.8	29.5	6.2	31.4	4.3	24.9	5.2	15.1	2.0	11.4	1.9	220.3	1022	Lower Saprolite	20	611
RRMDD453	0.0	1.7	1.7	86.8	465.6	16.0	52.3	9.3	1.6	7.4	1.3	7.3	1.5	4.4	0.7	4.9	0.7	43.2	703	Hardcap		
RRMDD453	1.7	3.5	1.7	98.0	814.4	17.6	56.5	9.8	1.7	7.3	1.3	7.3	1.5	4.4	0.7	4.9	0.7	41.0	1067	Hardcap		
RRMDD453	3.5	5.2	1.7	105.9	757.9	21.9	73.5	12.7	2.1	9.9	1.7	9.3	1.9	5.7	0.9	5.8	0.9	56.1	1066	Transition		
RRMDD453	5.2	6.1	0.9	147.2	240.2	24.6	81.2	12.8	2.2	10.1	1.6	9.3	2.0	5.8	0.9	5.6	0.8	58.3	602	Mottled		
RRMDD453	6.1	7.0	0.9	165.4	135.1	26.2	81.9	12.7	2.2	9.8	1.5	8.8	1.8	5.3	0.8	4.9	0.8	54.7	512	Mottled		
RRMDD453	7.0	7.9	0.9	120.2	165.8	21.5	68.7	11.7	2.0	9.1	1.4	8.4	1.7	5.1	0.8	5.2	0.8	51.7	474	Mottled		
RRMDD453	7.9	8.7	0.9	179.4	143.7	25.6	77.6	12.2	2.2	9.1	1.5	8.5	1.7	5.0	0.8	5.1	0.7	53.0	526	Mottled		
RRMDD453	8.7	9.6	0.9	144.3	241.4	29.2	99.8	16.9	3.0	12.7	1.9	10.4	2.1	5.8	0.8	5.2	0.8	61.6	636	Mottled		
RRMDD453	9.6	10.2	0.6	160.1	272.7	35.5	123.6	20.6	3.6	14.8	2.1	11.0	2.1	5.6	0.8	5.1	0.7	61.8	720	Pallid		
RRMDD453	10.2	10.6	0.5	51.5	99.1	18.1	70.0	12.9	2.4	10.0	1.4	7.4	1.4	3.9	0.6	3.5	0.5	42.7	325	Pallid		
RRMDD453	10.6	11.6	0.9	156.0	215.6	41.1	155.7	27.6	5.0	20.1	2.7	13.9	2.5	6.6	0.9	5.1	0.8	72.6	726	Pallid		
RRMDD453	11.6	12.5	0.9	225.2	308.3	68.7	272.9	52.1	10.2	44.0	6.3	32.9	6.0	14.9	2.0	11.2	1.5	174.0	1230	Upper Saprolite		
RRMDD453	12.5	13.4	0.9	118.5	189.2	30.4	123.1	23.5	5.0	26.6	3.8	21.3	4.5	11.7	1.5	8.2	1.2	175.9	745	Upper Saprolite		
RRMDD453	13.4	14.2	0.8	72.6	168.9	17.0	60.1	10.2	1.9	7.5	1.0	5.2	1.0	2.7	0.4	2.3	0.4	36.1	387	Lower Saprolite	9	642
RRMDD454	0.0	1.6	1.6	159.5	267.8	29.5	95.1	13.5	2.3	8.9	1.3	7.0	1.2	3.6	0.6	3.9	0.6	33.3	628	Hardcap		
RRMDD454	1.6	3.1	1.5	183.5	562.6	39.9	135.3	18.6	2.8	10.6	1.6	8.1	1.5	4.4	0.7	4.8	0.7	38.0	1013	Hardcap		
RRMDD454	3.1	4.6	1.6	141.3	533.1	27.8	90.7	13.5	2.1	8.6	1.3	7.3	1.4	4.2	0.7	4.6	0.7	37.0	874	Hardcap		
RRMDD454	4.6	5.1	0.5	122.6	406.6	22.7	73.2	10.8	1.8	7.7	1.1	6.2	1.1	3.3	0.5	3.6	0.5	30.4	692	Transition		
RRMDD454	5.1	6.1	1.0	129.6	554.0	28.9	101.5	18.2	3.3	14.6	2.3	13.1	2.7	7.8	1.2	8.2	1.2	83.7	970	Mottled		
RRMDD454	6.1	6.7	0.6	33.9	59.2	9.5	36.4	7.8	1.6	7.2	1.2	7.7	1.6	4.9	0.7	5.4	0.8	47.5	225	Clay		
RRMDD454	6.7	7.5	0.8	84.1	281.3	25.5	97.9	20.2	3.9	20.2	3.2	19.5	4.2	12.1	1.8	11.8	1.7	137.1	724	Clay		
RRMDD454	7.5	8.3	0.8	117.9	235.9	44.0	167.4	33.2	6.0	26.5	4.0	23.6	4.7	13.4	1.9	12.5	1.8	161.9	855	Clay		
RRMDD454	8.3	9.1	0.8	297.9	318.2	57.5	201.8	36.6	7.3	35.7	5.5	32.6	7.0	20.4	2.8	17.7	2.6	288.3	1332	Clay		
RRMDD454	9.1	9.9	0.8	251.0	356.2	49.4	173.8	32.6	6.5	32.3	4.9	29.2	6.2	17.7	2.5	16.0	2.3	234.3	1215	Clay		
RRMDD454	9.9	10.6	0.7	110.8	231.6	34.2	130.6	27.0	5.4	27.8	4.5	28.3	6.4	19.2	2.7	17.1	2.5	266.7	915	Clay		
RRMDD454	10.6	11.4	0.7	136.6	271.5	47.6	193.0	41.6	8.4	45.2	7.4	46.7	10.7	31.4	4.3	26.8	4.0	472.4	1348	Clay		
RRMDD454	11.4	12.1	0.7	133.1	239.5	42.9	172.0	36.4	7.4	38.2	6.1	37.2	8.2	23.4	3.3	20.1	2.9	326.4	1097	Clay		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD454	12.1	12.9	0.8	136.6	231.6	37.1	142.3	32.5	6.4	34.0	5.2	32.0	6.6	19.6	2.7	17.0	2.5	233.0	939	Clay		
RRMDD454	12.9	13.8	0.8	84.1	122.2	24.2	88.3	18.8	3.8	18.7	2.9	18.1	3.8	11.1	1.6	9.8	1.5	120.0	529	Clay		
RRMDD454	13.8	14.6	0.9	120.8	193.5	33.8	123.6	25.5	4.9	23.4	3.5	21.5	4.3	12.6	1.8	11.0	1.7	139.1	721	Clay		
RRMDD454	14.6	15.5	0.8	188.2	293.6	49.7	179.6	36.8	7.0	31.5	4.7	27.7	5.3	15.6	2.2	13.2	1.9	175.2	1032	Clay		
RRMDD454	15.5	16.3	0.8	185.3	304.6	58.1	226.3	49.9	9.7	49.0	7.3	44.6	9.2	26.6	3.7	21.7	3.2	350.5	1350	Clay		
RRMDD454	16.3	17.1	0.8	251.0	380.8	83.2	325.4	67.4	12.8	60.7	8.6	50.2	9.5	27.2	3.7	22.2	3.2	326.4	1632	Clay		
RRMDD454	17.1	17.9	0.8	161.8	236.5	52.7	203.5	45.6	8.6	36.4	5.5	31.1	5.5	15.6	2.1	13.7	1.9	146.7	967	Clay		
RRMDD454	17.9	18.7	0.8	123.1	184.3	44.9	175.0	38.6	7.6	34.2	5.2	29.8	5.4	15.1	2.1	13.2	1.8	135.9	816	Clay		
RRMDD454	18.7	19.1	0.4	262.7	264.1	92.1	397.7	99.1	21.0	104.8	16.5	97.8	18.3	51.1	7.1	43.3	5.9	480.0	1962	Upper Saprolite		
RRMDD454	19.1	19.5	0.4	680.2	453.3	203.6	944.8	211.0	49.1	348.1	50.6	327.1	75.9	231.0	31.1	175.9	27.9	3390.6	7200	Lower Saprolite	14	1187
RRMDD454	19.5	19.8	0.3	73.5	152.3	18.5	67.1	13.2	2.7	13.9	2.0	12.2	2.6	7.6	1.1	6.2	1.0	98.7	473	Saprock		
RRMDD455	0.0	2.2	2.2	76.5	468.0	14.0	46.7	8.6	1.4	6.7	1.2	6.6	1.3	3.9	0.6	4.2	0.6	37.1	677	Hardcap		
RRMDD455	2.2	2.8	0.6	116.6	555.2	23.4	78.8	12.8	2.2	10.4	1.7	9.9	2.0	6.2	0.9	6.0	0.9	61.8	889	Transition		
RRMDD455	2.8	3.8	0.9	133.7	294.8	23.1	76.4	12.8	2.2	10.0	1.6	9.2	1.9	5.7	0.9	5.6	0.9	57.3	636	Mottled		
RRMDD455	3.8	4.7	1.0	77.6	262.9	17.2	61.2	10.7	1.9	8.8	1.4	8.4	1.7	5.1	0.8	5.0	0.7	51.8	515	Mottled		
RRMDD455	4.7	5.5	0.7	109.8	222.3	21.4	73.7	12.8	2.3	10.2	1.7	9.6	2.0	5.7	0.9	5.3	0.8	58.0	536	Mottled		
RRMDD455	5.5	6.2	0.7	127.2	259.2	25.5	86.7	15.0	2.6	11.6	1.8	10.1	2.0	5.6	0.8	5.0	0.8	57.9	612	Mottled		
RRMDD455	6.2	7.0	0.7	119.0	258.0	31.7	112.2	19.1	3.3	12.9	1.9	10.5	2.0	5.9	0.9	5.3	0.8	57.4	641	Mottled		
RRMDD455	7.0	7.9	0.9	261.5	288.7	55.5	186.0	31.0	5.5	20.5	2.8	13.9	2.5	6.5	0.9	5.6	0.8	68.8	950	Clay		
RRMDD455	7.9	8.4	0.5	186.5	304.6	45.7	162.7	28.4	5.0	20.0	2.8	14.5	2.7	7.1	1.0	5.9	0.9	75.4	863	Clay		
RRMDD455	8.4	8.9	0.5	150.1	261.6	39.1	140.6	23.5	4.3	16.3	2.3	12.1	2.2	6.3	0.9	5.4	0.8	64.4	730	Clay		
RRMDD455	8.9	9.5	0.7	234.6	581.0	63.8	223.4	33.9	5.8	21.0	2.9	14.7	2.8	7.2	1.0	6.2	0.9	85.6	1285	Clay		
RRMDD455	9.5	10.2	0.6	136.0	254.3	49.9	193.0	34.4	6.7	25.1	3.5	18.3	3.3	8.3	1.1	6.6	0.9	102.1	844	Clay		
RRMDD455	10.2	10.8	0.6	241.6	196.5	74.1	304.4	58.0	11.3	57.2	8.2	43.4	7.9	21.1	2.6	15.4	2.3	279.4	1323	Upper Saprolite	8	792
RRMDD455	10.8	11.4	0.6	89.5	138.8	18.4	67.5	11.2	2.2	12.1	1.6	8.8	1.9	5.6	0.7	4.5	0.7	91.6	455	Saprock		
RRMDD456	0.0	1.1	1.1	273.3	867.3	47.7	145.2	21.8	3.4	14.2	2.3	11.5	2.1	5.8	0.9	5.3	0.8	53.3	1455	Hardcap		
RRMDD456	1.1	2.2	1.1	196.4	418.9	34.2	101.9	15.4	2.5	10.4	1.5	8.8	1.5	4.4	0.6	4.4	0.6	40.8	843	Transition		
RRMDD456	2.2	3.2	0.9	39.8	68.4	10.5	37.3	7.6	1.4	6.2	1.0	6.4	1.3	4.3	0.7	4.6	0.7	42.2	232	Mottled		
RRMDD456	3.2	4.1	0.9	67.1	89.6	20.4	81.4	16.6	3.4	19.8	2.9	18.5	4.1	12.5	1.8	10.7	1.7	172.1	523	Mottled		
RRMDD456	4.1	4.8	0.8	127.8	267.8	50.0	179.0	36.2	6.3	29.0	4.1	24.3	4.8	14.1	1.9	11.0	1.6	208.9	967	Clay		
RRMDD456	4.8	5.5	0.7	93.4	175.0	32.3	114.3	22.1	4.0	16.5	2.4	13.6	2.5	7.3	1.0	6.4	0.9	84.6	576	Clay		
RRMDD456	5.5	6.3	0.9	103.4	203.3	37.6	135.9	26.9	4.7	22.1	3.2	18.7	3.7	10.8	1.5	9.1	1.4	145.4	728	Clay		
RRMDD456	6.3	6.9	0.6	167.7	319.4	62.8	223.9	45.5	7.8	31.1	4.5	24.0	4.3	11.5	1.6	9.4	1.3	140.3	1055	Clay		
RRMDD456	6.9	7.5	0.6	129.6	250.6	48.3	170.3	34.3	5.9	24.3	3.5	19.8	3.6	10.3	1.5	8.5	1.2	116.2	828	Clay		
RRMDD456	7.5	8.5	1.0	167.7	331.7	66.8	235.6	48.0	8.1	30.8	4.5	24.3	4.1	11.1	1.5	9.4	1.3	108.4	1053	Clay		
RRMDD456	8.5	9.2	0.6	204.1	386.9	79.9	288.1	58.6	10.1	42.2	6.0	33.1	5.7	15.7	2.1	12.6	1.8	164.5	1311	Clay		
RRMDD456	9.2	10.0	0.8	235.7	380.8	73.9	296.3	55.7	10.3	49.1	7.0	37.9	7.4	19.7	2.7	15.6	2.3	236.2	1431	Clay		
RRMDD456	10.0	10.9	0.8	338.9	577.3	110.8	429.2	82.1	14.7	71.2	10.7	60.3	12.4	33.3	4.6	26.3	3.9	429.2	2205	Clay		
RRMDD456	10.9	11.7	0.8	201.1	366.1	65.6	249.6	50.9	9.5	47.1	7.9	47.7	10.3	29.5	4.2	25.5	3.9	359.4	1478	Clay		
RRMDD456	11.7	12.6	1.0	309.6	428.7	87.0	356.9	67.6	12.9	69.5	10.1	58.0	12.1	33.4	4.5	25.4	3.9	445.7	1925	Lower Saprolite		
RRMDD456	12.6	13.6	0.9	251.0	326.8	63.8	258.9	48.7	9.4	48.6	7.1	40.5	8.4	23.3	3.2	17.9	2.7	309.9	1420	Lower Saprolite		
RRMDD456	13.6	14.1	0.5	301.4	549.1	69.8	260.1	46.4	8.3	37.8	5.6	29.5	5.5	13.9	1.9	11.4	1.6	132.7	1475	Lower Saprolite		
RRMDD456	14.1	15.4	1.3	246.3	342.7	70.0	288.1	57.9	11.3	58.3	9.0	53.8	11.2	31.4	4.4	26.0	3.9	378.4	1593	Lower Saprolite	12	1268

																					>200ppm $TREO-CeO_2$ Interval	
Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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 (m)	TREO ppm
RRMDD457	0.0	2.0	2.0	188.8	396.8	31.5	95.5	13.9	2.5	9.4	1.4	8.0	1.4	4.3	0.6	4.6	0.7	40.1	800	Hardcap		
RRMDD457	2.0	2.9	0.9	82.3	154.2	18.9	67.5	12.3	2.2	9.3	1.3	7.5	1.5	4.4	0.7	4.5	0.7	43.4	411	Clay		
RRMDD457	2.9	3.9	0.9	232.2	318.2	45.5	162.1	26.0	4.5	18.6	2.5	13.1	2.5	6.7	1.0	6.3	1.0	72.6	913	Clay		
RRMDD457	3.9	4.8	0.9	336.6	441.0	71.2	267.1	49.6	9.2	43.0	6.4	36.7	7.6	21.0	3.1	18.6	2.8	266.7	1580	Clay		
RRMDD457	4.8	5.7	0.9	175.3	264.1	44.3	172.6	32.6	5.9	27.0	4.1	22.7	4.7	13.2	1.9	11.4	1.8	153.7	935	Clay		
RRMDD457	5.7	6.7	0.9	141.3	238.3	49.3	198.9	40.5	7.4	34.9	5.4	31.4	6.5	18.4	2.7	15.6	2.3	227.3	1020	Clay		
RRMDD457	6.7	7.6	0.9	116.3	225.4	35.5	141.1	27.6	5.1	25.5	4.0	22.7	4.8	14.0	2.0	12.2	1.9	170.8	809	Clay		
RRMDD457	7.6	8.5	0.9	151.9	383.3	59.6	237.9	49.4	8.6	39.1	5.8	32.0	6.6	18.0	2.5	15.1	2.3	234.3	1246	Clay		
RRMDD457	8.5	9.5	1.0	252.2	452.1	87.0	366.2	77.8	14.4	75.0	11.2	66.8	14.7	41.7	5.7	31.7	4.9	633.7	2135	Clay		
RRMDD457	9.5	10.4	1.0	157.7	321.8	54.2	222.8	45.9	8.5	39.8	5.9	33.5	6.9	19.5	2.7	16.1	2.4	236.2	1174	Clay		
RRMDD457	10.4	11.4	1.0	138.4	249.4	46.8	197.1	41.5	7.8	38.8	6.0	35.5	7.4	21.0	3.0	18.3	2.7	254.0	1068	Clay		
RRMDD457	11.4	12.4	1.0	112.8	190.4	33.8	136.5	28.1	5.5	27.8	4.4	25.8	5.6	16.0	2.3	14.1	2.2	192.4	798	Clay		
RRMDD457	12.4	13.3	1.0	204.7	340.3	60.3	260.1	53.2	10.6	58.6	8.9	54.4	12.4	36.0	5.0	29.3	4.6	518.1	1656	Clay		
RRMDD457	13.3	14.3	1.0	219.9	394.3	74.1	310.3	61.5	11.5	52.9	7.8	42.0	8.1	21.9	3.0	17.8	2.5	234.3	1462	Clay		
RRMDD457	14.3	15.3	1.0	245.1	386.9	79.4	340.6	71.8	13.9	65.6	10.1	56.5	11.1	29.5	4.3	25.2	3.6	313.7	1657	Clay		
RRMDD457	15.3	16.1	0.8	197.6	285.0	60.4	264.8	60.6	12.9	65.6	10.7	63.0	12.6	35.1	5.0	30.6	4.4	346.7	1455	Clay		
RRMDD457	16.1	16.8	0.8	184.1	260.4	46.2	201.2	49.5	11.2	60.9	10.2	62.4	13.0	36.5	5.2	32.0	4.8	358.1	1336	Clay		
RRMDD457	16.8	17.6	0.8	117.2	173.2	27.4	115.8	23.9	5.4	30.8	4.8	29.3	6.3	17.9	2.6	15.9	2.4	198.7	772	Clay		
RRMDD457	17.6	18.4	0.8	163.6	197.2	32.3	144.1	28.9	6.7	47.3	7.0	45.3	11.4	34.0	4.6	25.6	4.3	538.4	1291	Lower Saprolite	16	1210
RRMDD457	18.4	19.1	0.7	58.5	119.3	13.2	47.4	8.2	1.7	7.0	1.0	5.7	1.1	3.2	0.5	3.1	0.5	39.1	309	Lower Saprolite		
RRMDD457	19.1	19.8	0.7	51.5	106.6	11.7	42.1	7.9	1.6	6.2	0.9	5.2	1.1	3.0	0.5	3.0	0.5	33.9	276	Lower Saprolite		
RRMDD457	19.8	20.5	0.7	50.0	100.5	11.2	40.9	7.4	1.6	6.5	1.0	5.4	1.1	3.1	0.5	2.9	0.5	36.2	269	Saprock		
RRMDD458	0.0	1.5	1.5	78.2	469.2	14.6	47.2	8.5	1.5	6.6	1.0	6.3	1.2	3.8	0.6	4.2	0.6	35.8	679	Hardcap		
RRMDD458	1.5	2.9	1.5	82.1	712.5	16.4	52.7	9.1	1.6	7.0	1.1	7.0	1.4	4.3	0.7	4.6	0.7	41.4	943	Transition		
RRMDD458	2.9	4.4	1.5	83.5	362.4	15.5	51.0	8.3	1.5	6.6	1.1	6.8	1.4	4.3	0.7	4.7	0.7	43.4	592	Transition		
RRMDD458	4.4	5.0	0.6	88.5	491.4	16.1	51.8	8.4	1.5	7.1	1.2	7.2	1.5	4.6	0.7	4.8	0.7	44.7	730	Mottled		
RRMDD458	5.0	5.6	0.6	77.3	138.2	13.8	44.3	7.8	1.4	6.4	1.1	6.5	1.4	4.0	0.7	4.3	0.7	38.4	346	Mottled		
RRMDD458	5.6	6.4	0.8	76.6	90.8	14.1	46.7	8.0	1.4	6.4	1.0	6.7	1.3	4.1	0.6	4.3	0.6	40.4	303	Mottled		
RRMDD458	6.4	7.1	0.8	147.2	102.7	24.8	79.5	12.8	2.2	9.5	1.4	8.0	1.6	4.8	0.7	4.5	0.7	48.8	449	Mottled		
RRMDD458	7.1	8.2	1.1	197.6	222.3	41.8	142.9	23.3	4.0	16.4	2.3	12.1	2.3	6.2	0.9	5.3	0.8	68.3	747	Clay		
RRMDD458	8.2	9.0	0.8	224.0	237.1	41.8	137.6	22.3	3.7	15.7	2.2	11.6	2.2	6.0	0.8	5.3	0.8	66.8	778	Clay		
RRMDD458	9.0	9.9	0.8	142.5	239.5	46.2	169.1	29.6	5.2	21.2	3.0	15.8	3.0	7.8	1.1	6.5	1.0	88.9	780	Clay		
RRMDD458	9.9	10.7	0.8	204.1	331.7	66.9	251.9	44.5	7.7	30.8	4.5	23.5	4.4	11.3	1.5	9.1	1.3	127.6	1121	Clay		
RRMDD458	10.7	11.7	1.0	201.1	273.9	65.4	265.9	51.5	9.9	46.0	6.6	35.2	6.5	16.6	2.2	12.5	1.8	188.6	1184	Upper Saprolite		
RRMDD458	11.7	12.8	1.1	123.7	171.4	32.9	133.0	24.2	4.7	26.5	3.8	20.9	4.5	12.2	1.6	9.2	1.4	177.2	747	Lower Saprolite	8	747
RRMDD459	0.0	1.7	1.7	64.3	460.7	12.9	43.9	8.5	1.5	6.7	1.1	6.6	1.3	4.2	0.6	4.6	0.7	37.8	655	Hardcap		
RRMDD459	1.7	3.3	1.7	54.9	824.3	12.4	41.5	7.9	1.4	6.0	1.1	6.0	1.2	3.8	0.6	4.3	0.6	33.0	999	Transition		
RRMDD459	3.3	3.9	0.6	78.7	379.6	19.7	69.3	11.8	2.0	8.9	1.4	8.4	1.6	4.9	0.7	5.0	0.7	49.8	643	Mottled		
RRMDD459	3.9	4.6	0.6	163.6	356.2	44.1	151.6	23.8	3.7	15.3	2.2	11.4	2.1	5.7	0.8	5.2	0.7	62.5	849	Mottled		
RRMDD459	4.6	5.0	0.4	376.5	237.1	108.3	368.6	56.0	8.9	33.2	4.4	21.5	3.6	9.3	1.3	7.7	1.0	100.3	1338	Pallid		
RRMDD459	5.0	5.4	0.4	348.3	273.9	96.4	337.1	52.1	8.0	31.2	4.1	20.1	3.4	8.7	1.2	7.2	1.0	99.2	1292	Clay		
RRMDD459	5.4	6.3	0.9	294.4	320.6	72.6	255.4	40.7	6.6	27.7	3.8	19.8	3.6	9.3	1.3	8.1	1.1	103.5	1168	Lower Saprolite	3	1034
RRMDD459	6.3	7.1	0.8	317.8	235.2	61.5	228.6	36.1	6.4	33.9	4.6	24.7	5.0	13.8	1.8	10.0	1.5	195.6	1176	Saprock		

Hole ID	From m	To m	Int. m	La_2O_3 ppm	CeO_2 ppm	Pr_2O_3 ppm	Nd_2O_3 ppm	Sm_2O_3 ppm	Eu_2O_3 ppm	Gd_2O_3 ppm	Tb_2O_3 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	>200ppm TREO-CeO_2 Interval Length (m)	>200ppm TREO-CeO_2 Interval TREO ppm
RRMDD459	7.1	7.9	0.8	92.9	149.9	18.1	66.3	10.8	1.9	8.8	1.1	5.9	1.2	3.2	0.5	2.8	0.4	56.9	420	Saprock		
RRMDD460	0.0	1.6	1.6	179.4	405.4	27.8	80.8	12.3	2.2	8.4	1.3	7.4	1.4	4.1	0.6	4.5	0.7	38.0	774	Hardcap		
RRMDD460	1.6	3.2	1.6	243.9	610.5	36.1	100.7	13.8	2.5	9.0	1.3	7.5	1.4	3.9	0.6	4.3	0.6	37.8	1074	Transition		
RRMDD460	3.2	4.0	0.8	64.9	176.3	13.0	42.2	7.1	1.2	4.9	0.8	4.6	1.0	3.0	0.5	3.5	0.5	27.4	351	Clay		
RRMDD460	4.0	4.8	0.8	42.6	110.2	9.5	33.2	5.9	1.1	4.8	0.8	4.9	1.0	3.2	0.5	4.0	0.6	31.0	253	Clay		
RRMDD460	4.8	5.6	0.8	83.6	235.2	23.3	82.7	14.8	2.7	10.4	1.6	8.4	1.7	4.7	0.7	4.5	0.7	46.9	522	Clay		
RRMDD460	5.6	6.5	0.8	76.9	134.5	19.9	70.9	12.8	2.2	9.3	1.4	7.6	1.5	4.3	0.7	4.5	0.7	44.6	392	Clay		
RRMDD460	6.5	7.0	0.5	91.7	166.4	24.0	85.3	15.3	2.8	11.4	1.7	9.7	1.9	5.3	0.8	5.1	0.8	56.0	478	Clay		
RRMDD460	7.0	7.5	0.5	55.7	361.1	11.2	36.2	5.7	1.1	4.2	0.7	3.9	0.8	2.4	0.4	2.6	0.4	24.1	511	Clay		
RRMDD460	7.5	8.4	0.9	99.0	129.0	26.1	93.7	16.5	2.9	12.2	1.8	10.0	2.1	5.8	0.8	5.4	0.8	63.2	469	Clay		
RRMDD460	8.4	9.3	0.9	116.1	374.7	34.8	126.6	22.8	4.1	16.7	2.5	13.2	2.6	7.0	1.0	6.2	0.9	74.7	804	Clay		
RRMDD460	9.3	10.2	1.0	153.6	301.0	45.9	169.7	31.1	5.6	22.6	3.3	17.7	3.3	8.7	1.3	7.7	1.1	94.2	867	Clay		
RRMDD460	10.2	11.2	1.0	158.9	604.4	48.1	177.3	34.1	6.4	27.3	4.5	26.9	5.4	14.9	2.2	13.4	1.9	149.8	1275	Clay		
RRMDD460	11.2	12.2	1.0	153.6	289.9	45.4	168.5	30.6	5.7	22.9	3.3	18.2	3.4	9.3	1.3	7.9	1.1	96.6	858	Clay		
RRMDD460	12.2	13.1	0.9	191.8	595.8	58.7	217.5	40.0	7.4	30.9	4.9	27.4	5.5	15.3	2.2	13.9	2.0	156.2	1369	Clay		
RRMDD460	13.1	13.9	0.8	242.8	366.1	74.3	279.9	52.8	9.6	38.8	5.8	31.7	6.0	17.0	2.5	14.7	2.1	175.9	1320	Clay		
RRMDD460	13.9	14.7	0.8	140.1	243.2	41.1	156.9	29.0	5.3	21.3	3.0	15.7	2.9	7.6	1.1	7.0	1.0	80.0	755	Clay		
RRMDD460	14.7	15.6	0.8	94.1	152.9	24.4	89.1	16.1	2.9	11.0	1.5	7.8	1.5	3.8	0.6	3.8	0.6	36.7	447	Upper Saprolite		
RRMDD460	15.6	16.0	0.4	88.0	143.1	22.2	80.7	14.6	2.6	10.4	1.5	7.8	1.4	4.0	0.6	3.9	0.6	38.2	420	Upper Saprolite		
RRMDD460	16.0	16.8	0.8	93.6	509.8	24.3	88.6	15.8	3.0	12.1	1.8	9.4	1.8	4.9	0.7	4.7	0.7	46.9	818	Upper Saprolite		
RRMDD460	16.8	17.5	0.7	57.2	97.7	15.9	57.9	11.1	2.1	8.2	1.2	6.4	1.2	3.4	0.5	3.4	0.5	32.9	300	Lower Saprolite	13	804
RRMDD460	17.5	18.4	0.9	51.3	166.4	13.8	50.0	9.2	1.8	6.9	1.0	5.9	1.2	3.5	0.6	4.0	0.6	33.7	350	Lower Saprolite		
RRMDD460	18.4	19.1	0.7	30.5	46.1	9.3	34.9	7.0	1.3	5.1	0.8	5.2	1.2	4.5	0.8	6.5	1.0	38.9	193	Upper Saprolite		
RRMDD460	19.1	20.1	1.0	59.2	105.3	13.5	47.1	8.1	1.5	6.2	0.9	5.2	1.0	3.0	0.5	3.1	0.5	29.8	285	Lower Saprolite		

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Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
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 representivity 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.*	**Diamond Core Drilling** Drill core was collected from a core barrel and placed in appropriately marked core trays. Down hole core run depths were measured and marked with core blocks. Core was measured for core loss and core photography and geological logging completed. Sample lengths were determined by geological boundaries with a maximum sample length of 1 metre applied in clay zones and up to 2 metres in laterite zones where core recovery was occasionally low. Where the core contained continuous lengths of soft clay a carving knife was used to cut the core. When the core was too hard to knife cut it was cut using an electric core saw. Using either method core was initial cut in half then one half was further cut in half to give quarter core. Quarter core was submitted to ALS for chemical analysis using industry standard sample preparation and analytical techniques. Half core was collected for metallurgical testwork.
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).*	**Diamond Core Drilling** Core size was HQ triple tube. The core was not oriented (vertical)
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*	**Diamond Drilling** Core recovery was calculated by measuring actual core length versus drillers core run lengths. Core recovery ranged from 25% to 100% and averaged 95.6%. Core loss I most common in the hardcap and transition regolith types which are not reported as resource or in exploration results.

Criteria	JORC Code explanation	Commentary
	preferential loss/gain of fine/coarse material.	No relationship exists between core 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 (100%) drill core has been geologically logged and core photographs taken. Logging is qualitative with description of colour, weathering status, alteration, major and minor rock types, texture, grain size, regolith zone, presence of kaolinite, hematite, veins and alteration and comments added where further observation is made. Additional non-geological qualitative logging includes comments for sample recovery, humidity, and hardness for each logged interval.
Sub-sampling techniques and sample preparation	• *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 representivity 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.*	**Diamond Drill Core** Where the core contained continuous lengths of soft clay a carving knife was used to cut the core. When the core was too hard to knife cut it was cut using an electric core saw. Sample lengths were determined by geological boundaries with a maximum sample length of 1 metre applied in clay zones and up to 2 metres in laterite zones where core recovery was occasionally low. Samples were collected from core trays by hand and placed in individually numbered bags. These bags were dispatched to ALS for analysis with no further field preparation. Sample weights were recorded prior to sample dispatch. Sample mass is considered appropriate for the grain size of the material being sampled that is generally very fine grained and uniform. Field duplicate sampling was conducted at a ratio of 1:25 samples. Duplicates were created by lengthways halving the ¼ core primary sample into 2 identical portions. Duplicate samples were allocated separate sample numbers and submitted with the same analytical batch as the primary sample.
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*	**Assay and Laboratory Procedures – All Samples** Samples were dispatched by air freight direct to ALS laboratory Perth Australia. The preparation and analysis protocol used is as follows:

Criteria	JORC Code explanation	Commentary
	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.*	(see tables and text below)

ALS Code	Description
WEI-21	Received sample weight
LOG-22	Sample Login w/o Barcode
DRY-21	High temperature drying
CRU-21	Crush entire sample
CRU-31	Fine crushing – 70% <2mm
SPL-22Y	Split sample – Boyd Rotary Splitter
PUL-31h	Pulverise 750g to 85% passing 75 micron
CRU-QC	Crushing QC Test
PUL-QC	Pulverising QC test

The assay technique used for REE was Lithium Borate Fusion ICP-MS (ALS code ME-MS81). This is a recognised industry standard analysis technique for REE suite and associated elements. Elements analysed at ppm levels:

Ba	Ce	Cr	Cs	Dy	Er	Eu	Ga
Gd	Hf	Ho	La	Lu	Nb	Nd	Pr
Rb	Sm	Sn	Sr	Ta	Tb	Th	Tm
U	V	W	Y	Yb	Zr		

Analysis for scandium (Sc) was by Lithium Borate Fusion ICP-AES (ALS code Sc-ICP06).

Criteria	JORC Code explanation	Commentary
		The sample preparation and assay techniques used are industry standard and provide a total analysis. All laboratories used are ISO 17025 accredited **QAQC** <u>Diamond Drill Core Samples</u> • Analytical Standards CRM AMIS0275 and AMIS0276 and a specific Makuutu CRM MUIACREI01 were included in sample batches at a ratio of 1:25 to drill samples submitted. This is an acceptable ratio. The assay results for the standards were consistent with the certified levels of accuracy and precision and no bias is evident. • Blanks CRM blanks AMIS0681 and OREAS22e were included in sample batches at a ratio of 1:25 to drill samples submitted for analysis. This is an acceptable ratio. Both CRM blanks contain some REE, with elements critical elements Ce, Nd, Dy and Y present in small quantities. The analysis results were consistent with the certified values for the blanks. No laboratory contamination or bias is evident from these results. • Duplicates Field duplicate sampling was conducted at a ratio of 1:25 samples. Duplicates were created by lengthways halving the ¼ core primary sample into 2 identical portions. 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*	No independent verification of significant intersection undertaken. No twinning of diamond core drill holes was undertaken.

Criteria	JORC Code explanation	Commentary
	verification, data storage (physical and electronic) protocols. • *Discuss any adjustment to assay data.*	Sampling protocols for diamond core sampling and QAQC were documented and held on site by the responsible geologist. No procedures for data storage and management have been compiled as yet. Data were collected in the field by hand and entered into Excel spreadsheet. Data are then compiled with assay results compiled and stored in Access database. Data verification is conducted on data entry including hole depths, sample intervals and sample numbers. Sample numbers from assay data are verified by algorithm in spreadsheet prior to entry int the database. Assay data was received in digital format from the laboratory and merged with the sampling data into an Excel spreadsheet format for QAQC analysis and review against field data. Once finalised and validated data is stored in a protected Access database. Data validation of assay data and sampling data have been conducted to ensure data entry is correct. All assay data is received from the laboratory in element form is unadjusted for data entry. Conversion of elemental analysis (REE) to stoichiometric oxide (REO) was undertaken by spreadsheet using defined conversion factors.(Source: https://www.jcu.edu.au/advanced-analytical-centre/services-and-resources/resources-and-extras/element-to-stoichiometric-oxide-conversion-factors)

Element ppm	Conversion Factor	Oxide Form
Ce	1.2284	CeO_2
Dy	1.1477	Dy_2O_3
Er	1.1435	Er_2O_3
Eu	1.1579	Eu_2O_3
Gd	1.1526	Gd_2O_3
Ho	1.1455	Ho_2O_3
La	1.1728	La_2O_3
Lu	1.1371	Lu_2O_3

Nd	1.1664	Nd_2O_3
Pr	1.2082	Pr_6O_{11}
Sm	1.1596	Sm_2O_3
Tb	1.1762	Tb_4O_7
Tm	1.1421	Tm_2O_3
Y	1.2699	Y_2O_3
Yb	1.1387	Yb_2O_3
Sc	1.5338	Sc_2O_3

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:

Note that Y_2O_3 is included in the TREO, HREO and CREO calculation.

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.

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 U.S. Department of Energy, Critical Materials Strategy, December 2011)

LREO (Light Rare Earth Oxide) = La_2O_3 + CeO2 + Pr_6O_{11} + Nd_2O_3

NdPr = Nd_2O_3 + Pr_6O_{11}

HREO% of TREO= HREO/TREO x 100

In elemental form the classifications are:

Note that Y is included in the TREE, HREE and CREE calculation.

TREE: La+Ce+Pr+Nd+Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Yb+Lu+Y

HREE: Sm+Eu+Gd+Tb+Dy+Ho+Er+Tm+Yb+Y+Lu

CREE: Nd+Eu+Tb+Dy+Y

Criteria	JORC Code explanation	Commentary
		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.*	Drill hole collar locations for all holes were surveyed by professional surveyors using DGPS. The general accuracy for x,y and z is $\pm$ 0.5m. Datum WGS84 Zone 36 North was used for location data collection and storage. This is the appropriate datum for the project area. No grid transformations were applied to the data. No downhole surveys were conducted. As all holes were vertical and shallow, the rig setup was checked using a spirit level for horizontal and vertical orientation Any deviation will be insignificant given the short lengths of the holes Detailed topographic data was not sourced or used.
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 relating to this report was conducted on a nominal 200m x 200m grid spacing. Resource estimates have been made on the deposit and announce to the ASX and detail on classification and drill quality and spacing are made in the Table 1 related to the corresponding resource announcements.
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 Makuutu mineralisation is interpreted to be in a flat lying weathered profile including cover soil, lateritic caprock, clays transitioning to saprolite and saprock. Below the saprock are fresh shales, siltstones and mudstones. Pit mapping and diamond drilling indicate the mineralised regolith to be generally horizontal All drill holes are vertical which is appropriate for horizontal bedding and regolith profile.
Sample security	• *The measures taken to ensure sample security.*	After collection, the samples were transported by Company representatives to Entebbe airport and dispatched via airfreight to Perth Australia. Samples were received by Australian customs authorities in Perth within 48 hours of dispatch and were still contained in the sealed shipment bags. Samples were subsequently transported from Australian customs to ALS Perth via road freight and inspected on arrival by a Company representative.

Criteria	JORC Code explanation	Commentary
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	No audits or reviews have been undertaken

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

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 Makuutu Project is located in the Republic of Uganda. The mineral tenements comprise two (3) granted Retention Licences (RL1693, RL00007 and RL00234), three (3) Exploration Licences (EL00147, EL00148 and EL00257) All granted licences are in good standing with no known impediments. The Makuutu Rare Earths Project is 100% owned by Rwenzori Rare Metals Limited ("RRM"), a Ugandan registered company. IonicRE currently has earned a 51% shareholding in RRM and may increase its shareholding to 60% by meeting further commitments as follows: 1. IonicRE to fund to completion of a Bankable Feasibility Study (BFS) to earn an additional 9% interest for a cumulative 60% interest in RRM. 2. Milestone payments, payable in cash or IonicRE shares at the election of the Vendor, as follows: a. US$375,000 on production of 10 kg of mixed rare-earth product from pilot or demonstration plant activities; and b. US$375,000 on conversion of existing licences to mining licences. At any time should IonicRE not continue to invest in the project and project development ceases for at least two months RRM has the right to return the capital sunk by IonicRE and reclaim all interest earnt by IonicRE.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Previous exploration includes: 1980: Country wide airborne geophysical survey identifying uranium anomalies in the Project area.

Criteria	JORC Code explanation	Commentary
		1990s: French BRGM and Ugandan DGSM undertook geochemical and geological survey over South-Eastern Uganda including the Project area. Anomalous Au, Zn, Cu, Sn, Nb and V identified. 2006-2009: Country wide high resolution airborne magnetic and radiometric survey identified U anomalism in the Project area. 2009: Finland GTK reprocessed radiometric data and refined the Project anomalies. 2010: Kweri Ltd undertook field verification of radiometric anomalies including scout sampling of existing community pits. Samples showed an enrichment of REE and Sc. 2011: Kweri Ltd conducted ground radiometric survey and evaluated historic groundwater borehole logs. 2012: Kweri Ltd and partner Berkley Reef Ltd conducted prospect wide pit excavation and sampling of 48 pits and a ground gravity traverse. Pit samples showed enrichment of REE weathered profile. Five (5) samples sent to Toronto Aqueous Research Laboratory for REE leach testwork. 2016 – 2017: Rwenzori Rare Metals conduct excavation of 11 pits, ground gravity survey, RAB drilling (109 drill holes) and one (1) diamond drill hole. The historic exploration has been conducted to a professional standard and is appropriate for the exploration stage of the prospect.
Geology	• *Deposit type, geological setting and style of mineralisation.*	The Makuutu deposit is interpreted to be an ionic adsorption REE clay-type deposits similar to those in south China, Madagascar and Brazil. The mineralisation is contained within the tropical lateritic weathering profile of a basin filled with sedimentary rocks including shales, mudstones and sandstones potentially derived from the surrounding granitic rocks. These granitic rocks are considered the original source of the REE which were then accumulated in the sediments of the basin as the granites have degraded. These sediments then form the protolith that was subjected to prolonged tropical weathering.

Criteria	JORC Code explanation	Commentary
		The weathering developed a lateritic regolith with a surface indurated hardcap, followed downward by clay rich zones that grade down through saprolite and saprock to unweathered sediments. The thickness of the regolith is between 10 and 20 metres from surface. The REE mineralisation is concentrated in the weathered profile where it has dissolved from its primary mineral form, such as monazite and xenotime, then adsorbed on to fine particles of aluminosilicate 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* ○ *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.*	The material information for drill holes relating to this announcement are contained in Table 3.
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*	A lower cut-off of 200 ppm TREO-CeO_2 was used for data aggregation of significant intervals with a maximum of 2 metres of internal dilution and no top-cuts applied. This lower cut-off is consistent with the marginal cut-off grade estimated and applied in the resource statements on the Makuutu Project Significant intervals were tabulated downhole for reporting. All individual samples were included in length weighted averaging over the entire tabulated range. No metal equivalents values are used.

Criteria	JORC Code explanation	Commentary
	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.*	
Relationship between mineralisation widths and intercept 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').*	Down hole lengths are considered true widths. The mineralisation is interpreted to be horizontal, flat lying sediments and weathering profile, with the vertical drilling perpendicular to mineralisation.
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.*	Refer to diagrams in body of text.
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.*	This report contains all drilling results that are consistent with the JORC guidelines. Where data may have been excluded, it is considered not material.
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.*	Metallurgical leach testing was previously conducted on samples derived from exploration pits, RAB drilling, and one 8.5 tonne bulk pit sample. In 2012, 5 pit samples were sent to the Toronto Aqueous Research Laboratory at the University of Toronto for leachability tests In 2017, 2 pit samples were sent to SGS Laboratory Toronto for leachability tests. 2017/18, 29 samples were collected from 7 RAB drill holes. 20 of these were consigned to SGS Canada and 4 to Aqueous Process Research (APR) in Ontario Canada. The remaining 5 samples were consigned to Bio Lantanidos in Chile.

Criteria	JORC Code explanation	Commentary
		2018/19, 8.5 tonne bulk sample was consigned to Mintek, South Africa, to evaluate using Resin-in-leach (RIL) technology for the recovery of REE. 2019: 118 samples from 31 holes from the 2019 diamond drilling program had preliminary variation testwork conducted TREE-Ce extraction ranged from 3% to 75%. 2020: Testing of composite samples with lower extractions from the 2019 variation testing using increasing rates of acid addition and leach time. Significant increases in extractions were achieved. 2020: Testing of composited samples from two exploration holes east of the Makuutu Central Zone provided an average extraction of TREE-Ce recovery of 41% @ pH1 Testing of samples from the project is ongoing.
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.*	Future work programs are intended to further evaluate the economic opportunity of the project including extraction recovery maximisation, resource definition and estimation on the known areas of mineralisation.