06 January 2022

THICKEST INTERVALS TO DATE AT MAKUUTU, TRANCHE 4 ASSAYS EXCEL

- **Fourth Tranche of Phase 4 drilling results received with all 75 holes intersecting rare earth element (REE) mineralised clay above the MRE cut-off grade, including the following outstanding thick high-grade intervals:**
  - **RRMDD539 8.9 metres at 1,476 ppm TREO from 4.3 metres**
  - **RRMDD477 13.5 metres at 1,432 ppm TREO from 3.5 metres**
  - **RRMDD518 16.5 metres at 1,424 ppm TREO from 5.4 metres**
  - **RRMDD514 8.7 metres at 1,336 ppm TREO from 12.3 metres**
  - **RRMDD533 9.6 metres at 1,296 ppm TREO from 3.1 metres**
  - **RRMDD520 28.5 metres at 1,250 ppm TREO from 2.9 metres**
  - **RRMDD523 16.4 metres at 1,229 ppm TREO from 4.1 metres**
  - **RRMDD521 18.6 metres at 1,200 ppm TREO from 4.7 metres**
- **Approximately 25% of assay intervals reported in this announcement present REE clay bearing thickness in excess of 20 metres**
- **Remaining Phase 4 samples from 176 holes at the assay laboratory and expected to be reported over next 2 months**

Ionic Rare Earths Limited ("IonicRE" or "the Company") (ASX: IXR) is pleased to announce the results of assays for Tranche Four (4) of the 8,220 metre Phase 4 drill program completed in October 2021 at the Makuutu Rare Earths Project ("Makuutu" or "the Project") in Uganda.

Drilling results to date confirm 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 a further 75 drill holes making up the Tranche 4 submission. The results are for holes drilled within the existing inferred and indicated Mineral Resource Estimate

(MRE) at the Makuutu Central Zone, resource areas G and H, and to evaluate Exploration Target C, that was excluded from the 2021 MRE due to limited drill hole density.

All 75 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 four (4) assay results include:

- RRMDD539 8.9 metres at 1,476 ppm TREO from 4.3 metres
- RRMDD477 13.5 metres at 1,432 ppm TREO from 3.5 metres
- RRMDD518 16.5 metres at 1,424 ppm TREO from 5.4 metres
- RRMDD514 8.7 metres at 1,336 ppm TREO from 12.3 metres
- RRMDD533 9.6 metres at 1,296 ppm TREO from 3.1 metres
- RRMDD520 28.5 metres at 1,250 ppm TREO from 2.9 metres
- RRMDD523 16.4 metres at 1,229 ppm TREO from 4.1 metres
- RRMDD521 18.6 metres at 1,200 ppm TREO from 4.7 metres
- RRMDD534 13.8 metres at 1,185 ppm TREO from 3.0 metres
- RRMDD517 15.1 metres at 1,175 ppm TREO from 5.4 metres
- RRMDD535 15.2 metres at 1,171 ppm TREO from 4.3 metres
- RRMDD513 16.3 metres at 1,126 ppm TREO from 2.9 metres
- RRMDD532 15.3 metres at 1,105 ppm TREO from 4.2 metres
- RRMDD488 22.1 metres at 1,080 ppm TREO from 4.9 metres
- RRMDD467 20.1 metres at 1,077 ppm TREO from 5.8 metres
- RRMDD546 10.3 metres at 1,076 ppm TREO from 3.9 metres

Ionic Rare Earths Managing Director Mr. Tim Harrison commented:

"The latest set of assays is another fantastic result from the Phase 4 drill program at Makuutu. The infill drill holes across the Makuutu Central Zone confirmed near surface, thick REE bearing clays, and continues to validate the Makuutu deposit. Thickness of mineralised clay and minimal cover is crucial to minimising the opex cost, and Makuutu continues to deliver with results from this batch reporting approximately 25% of the intercepts within the Makuutu Central Zone exceeding 20m thick, and over 85% greater than 10 metres thick."

"The extension holes in Areas G and H we expect will deliver new resource potential at Makuutu, and additionally, the results from area C are again very pleasing in providing greater confidence across this area to convert the considerable existing exploration target of 14 to 27 million tonnes to a resource in the next update."

"The 100% strike rate in these results bodes well for what we think will be a very positive year ahead for Makuutu as we advance towards a considerable increase in resource confidence over the next few months and drive Makuutu towards a completion of the feasibility study and a mining licence application by October 2022."

Drilling Results

Assay results have been received for 75 holes in the fourth tranche of assays 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, shown in red;
2) completed Phase 4 drill holes with assay results pending shown as blue points;
3) previously reported Phase 4 drill locations shown in black, and
4) Phase 1 and 2 drilling from 2019 and 2020 are shown in grey.

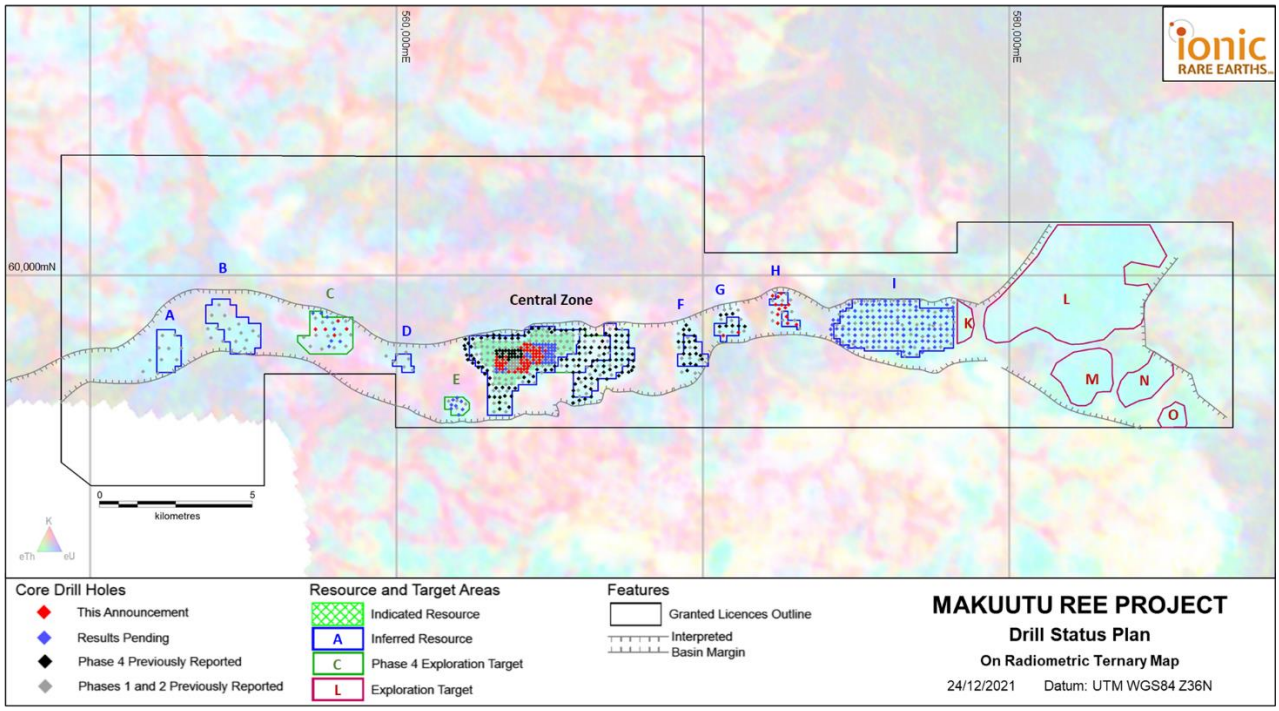

Figure 1: Phase 4 Drill Program status plan showing completed and planned drill holes covering the Makuutu Rare Earths Project with the MRE and target areas.

The drill results received to date in Tranche 4 consist of seventy-five (75) infill drill holes drilled to;

- infill a portion of the Makuutu Central Zone indicated resource to further increase grade estimation confidence in that area,
- infill and extend resource areas G and H, and
- infill exploration target C to provide increased drill density for resource classification.

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

a) All holes except RRMDD483 are indicated resource infill drilling in the central portion of the MCZ resource designed to bring the drill spacing in to a 100-metre grid. Hole RRMDD483 infilled the inferred resource 100 metres outside the indicated resource area. All holes are

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mineralised consistent with expectations giving further confidence in geology and grade continuity for the 2022 resource update.

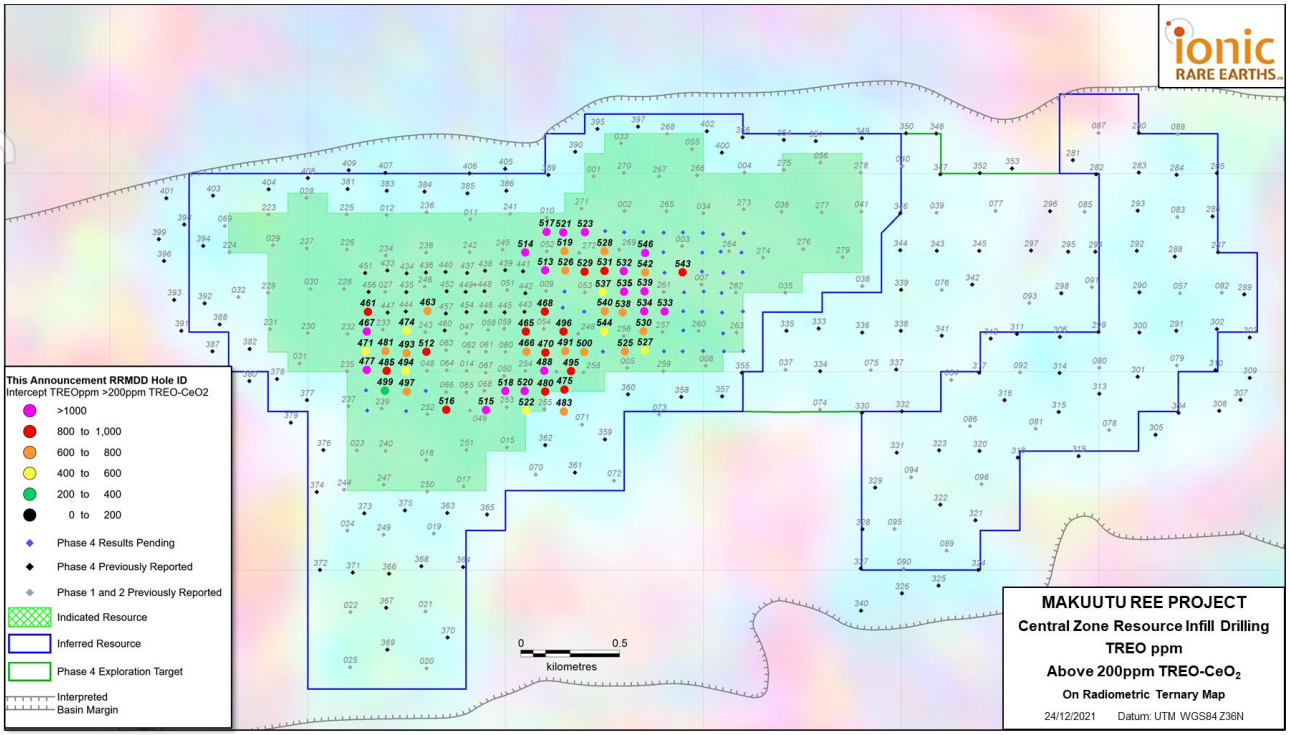

Figure 2: Makuutu Central Zone drill plan with Tranche 4 infill drill holes showing hole locations by drill intercept TREO grade and RRMDD drill hole ID.

Table 1: Makuutu Central Zone Tranche 4 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
RRMDD461	2.4	15.9	909	666	285	362	Indicated resource infill
RRMDD463	5.4	19.1	687	489	245	286	Indicated resource infill
RRMDD465	4.0	14.0	802	490	165	239	Indicated resource infill
RRMDD466	5.4	20.4	648	373	115	175	Indicated resource infill
RRMDD467	5.8	20.1	1077	807	343	426	Indicated resource infill
RRMDD468	3.2	14.1	936	640	311	363	Indicated resource infill
RRMDD470	5.8	23.4	880	608	260	332	Indicated resource infill
RRMDD471	10.3	23.0	491	353	135	180	Indicated resource infill
RRMDD474	6.0	17.9	467	329	132	172	Indicated resource infill
RRMDD475	4.6	7.4	549	320	92	135	Indicated resource infill
RRMDD475	17.2	6.8	888	624	251	328	Indicated resource infill
RRMDD477	3.5	13.5	1432	1135	452	591	Indicated resource infill
RRMDD480	3.9	11.5	918	631	238	322	Indicated resource infill
RRMDD481	5.0	15.0	764	523	166	244	Indicated resource infill
RRMDD483	4.7	19.2	712	434	136	205	Inferred resource infill
RRMDD485	5.7	18.2	825	622	198	294	Indicated resource infill
RRMDD488	4.9	22.1	1080	693	263	357	Indicated resource infill
RRMDD491	5.7	28.7	763	509	191	260	Indicated resource infill
RRMDD493	7.0	17.4	740	506	188	254	Indicated resource infill
RRMDD494	6.5	1.9	470	217	77	99	Indicated resource infill
RRMDD494	11.3	13.3	570	401	119	190	Indicated resource infill
RRMDD495	6.2	14.5	975	690	231	324	Indicated resource infill
RRMDD496	6.5	19.5	891	537	205	279	Indicated resource infill

RRMDD497	3.2	17.2	787	467	149	225	Indicated resource infill
RRMDD499	3.7	20.7	516	325	114	156	Indicated resource infill
RRMDD499	27.1	0.8	390	249	103	128	Indicated resource infill
RRMDD500	5.0	22.3	755	479	171	238	Indicated resource infill
RRMDD512	9.2	17.4	823	579	166	263	Indicated resource infill
RRMDD513	2.9	16.3	1126	876	489	525	Indicated resource infill
RRMDD514	12.3	8.7	1336	1011	477	571	Indicated resource infill
RRMDD515	12.4	1.6	1511	891	143	334	Indicated resource infill
RRMDD515	19.6	6.0	1211	834	309	432	Indicated resource infill
RRMDD516	4.7	12.0	983	645	216	311	Indicated resource infill
RRMDD517	5.4	15.1	1175	853	364	476	Indicated resource infill
RRMDD518	5.4	16.5	1424	1043	455	566	Indicated resource infill
RRMDD519	7.1	12.4	657	499	217	266	Indicated resource infill
RRMDD520	2.9	28.5	1250	859	346	456	Indicated resource infill
RRMDD521	4.7	18.6	1200	941	417	536	Indicated resource infill
RRMDD522	5.1	23.9	543	329	99	147	Indicated resource infill
RRMDD523	4.1	16.4	1229	932	347	455	Indicated resource infill
RRMDD525	9.2	26.2	650	485	171	237	Indicated resource infill
RRMDD526	5.8	13.3	651	483	208	257	Indicated resource infill
RRMDD527	6.7	13.5	558	383	130	182	Indicated resource infill
RRMDD528	4.8	15.4	676	462	180	239	Indicated resource infill
RRMDD529	3.5	16.1	813	602	281	333	Indicated resource infill
RRMDD530	5.2	21.5	697	493	191	255	Indicated resource infill
RRMDD531	3.3	15.5	942	724	289	383	Indicated resource infill
RRMDD532	4.2	15.3	1105	860	391	475	Indicated resource infill
RRMDD533	3.1	9.6	1296	920	386	492	Indicated resource infill
RRMDD534	3.0	13.8	1185	880	375	475	Indicated resource infill
RRMDD535	4.3	15.2	1171	859	347	454	Indicated resource infill
RRMDD537	6.1	16.9	578	425	167	222	Indicated resource infill
RRMDD538	3.7	21.2	631	417	131	197	Indicated resource infill
RRMDD539	4.3	8.9	1476	1131	438	575	Indicated resource infill
RRMDD540	4.7	25.1	718	457	168	233	Indicated resource infill
RRMDD542	4.0	15.9	679	489	177	245	Indicated resource infill
RRMDD543	4.8	15.9	987	737	371	431	Indicated resource infill
RRMDD544	5.9	18.5	554	355	129	174	Indicated resource infill
RRMDD546	3.9	10.3	1076	804	294	400	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 G and H 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.

Two holes RRMDD462 and 464 completed the infill on Area G (reported 20 December 2021) with the remaining holes bringing the spacing on Area H to a 200 metres grid. 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 are relatively narrow in Area H with the drilling outside the resource was designed to provide continuity of mineralisation to increase the resource in this area.

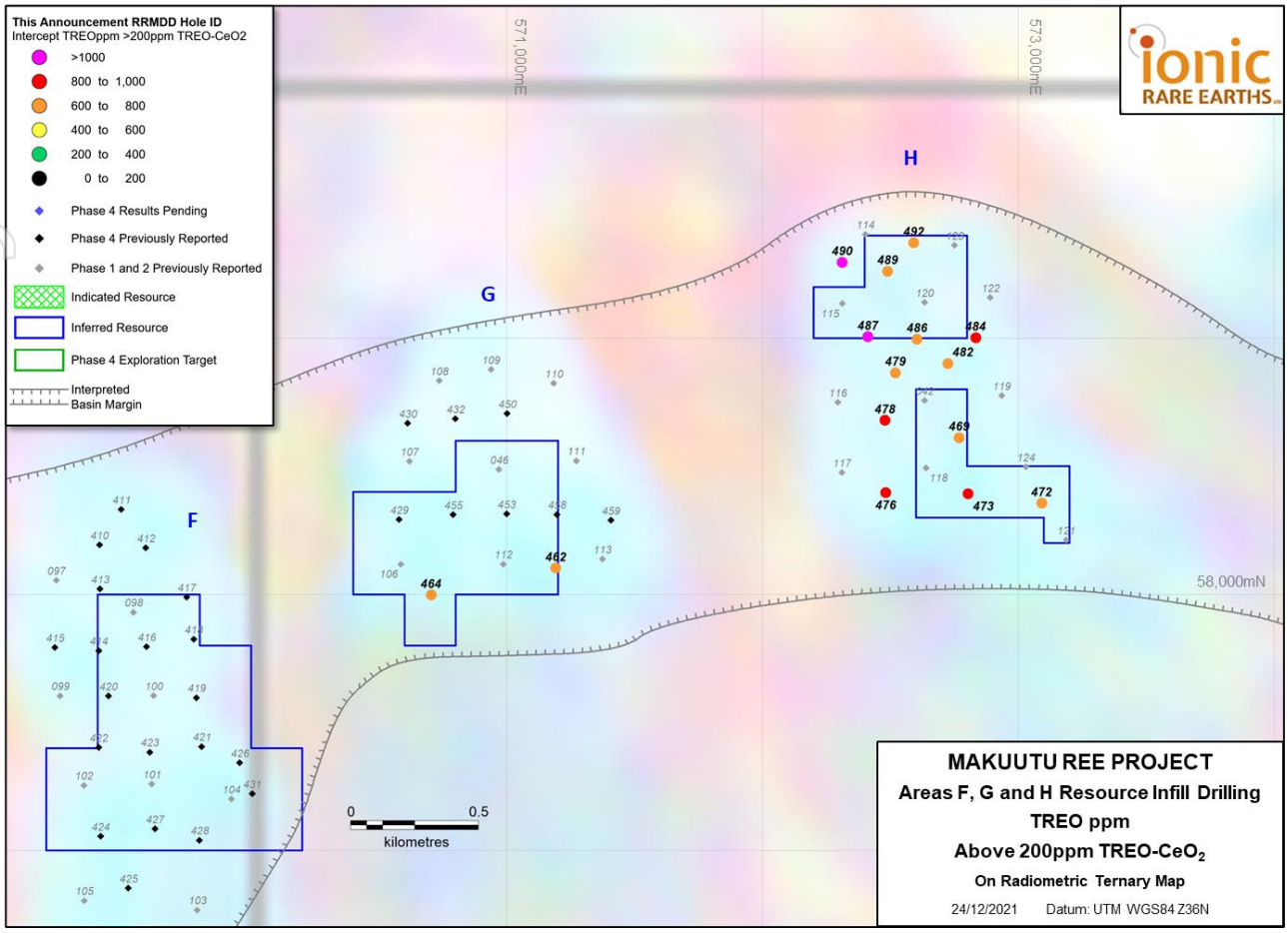

Figure 3: Areas F, G and H drill plan with Tranche 4 infill drill holes showing hole locations by drill intercept TREO grade and RRMDD drill hole ID. Previously reported holes shown in black (Tranche 3) and grey (Phase 1 and 2 drilling).

Table 2: Areas F and G Tranche 4 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
RRMDD462	3.2	12.3	702	404	137	187	Area F infill
RRMDD464	4.1	14.7	635	369	127	179	Area F infill
RRMDD469	4.5	7.6	749	491	141	225	Area G infill
RRMDD472	4.4	2.4	682	457	129	201	Area G infill
RRMDD473	5.2	2.0	891	576	172	249	Area G infill
RRMDD476	5.2	4.2	942	715	248	353	Area G infill
RRMDD478	4.9	4.5	947	732	210	328	Area G infill
RRMDD479	3.5	6.1	670	440	143	206	Area G infill
RRMDD482	5.7	5.6	729	538	171	244	Area G infill
RRMDD484	4.3	1.6	871	628	205	282	Area G infill
RRMDD486	5.0	3.6	698	459	161	225	Area G infill
RRMDD487	4.4	4.2	1027	686	211	318	Area G infill
RRMDD489	4.0	4.6	707	461	153	218	Area G infill
RRMDD490	6.4	2.6	1147	892	307	428	Area G infill
RRMDD492	3.6	9.8	712	468	149	222	Area G infill

Note: Rounding may create arithmetic differences

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

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c) Exploration Target C failed to achieve sufficient grade continuity in the 400-metre spaced Phase 1 and 2 drilling used in the current MRE (reported 3 March 2021) to allow resource classification. The mineralised clay intervals of this area are disrupted by sand layers barren of REE enrichment. Phase 4 drilling was completed on a 200-metre hole spacing in areas where the previous drilling indicated potential for less intervening sand zones.

The Exploration Target previously announced (ASX: 3 March 2021) for Area C is:

Area C: 14 – 27 million tonnes grading 450 – 675 ppm TREO*

*This Exploration Target is conceptual in nature but is based on reasonable grounds and assumptions. There has been insufficient exploration to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Results for five holes have been received with all mineralised with generally thick intervals of relatively lower grade mineralisation however the clay zones are consistent, with minimal sand disruption. Results from a further seven holes in this area are pending.

Figure 4 shows the location of the reported holes coloured by average TREO grade above the MRE cutoff grade of 200ppm TREO-CeO_2 with these intervals listed in Table 3.

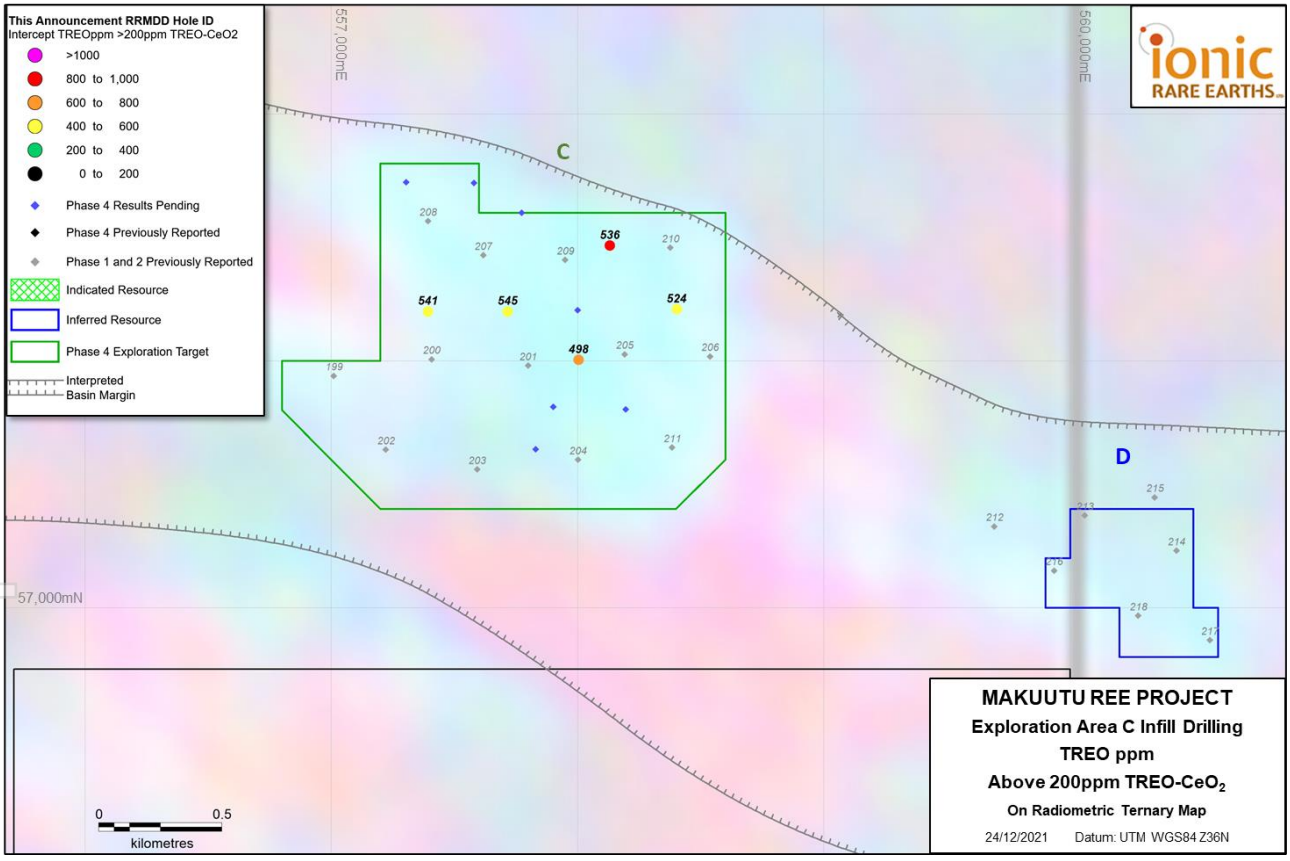

Figure 4: Exploration Area C drill plan with Tranche 4 infill drill holes showing hole locations by drill intercept TREO grade and RRMDD drill hole ID. Pending holes in blue and Phase 1 and 2 holes in grey.

Table 3: Exploration Target C Tranche 4 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
RRMDD498	4.5	22.5	728	538	204	273	Exploration Target C
RRMDD524	3.3	8.7	526	364	137	180	Exploration Target C
RRMDD536	3.8	12.5	887	633	291	363	Exploration Target C
RRMDD541	2.9	16.0	514	375	146	192	Exploration Target C
RRMDD545	4.7	17.9	433	299	119	153	Exploration Target C

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 completed in Q2 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 4 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
RRMDD461	563306	57299	1167	HQ3	20.7	0	-90
RRMDD462	571192	58099	1112	HQ3	17.7	0	-90
RRMDD463	563607	57304	1173	HQ3	25.9	0	-90
RRMDD464	570705	57995	1116	HQ3	20.6	0	-90
RRMDD465	564104	57200	1174	HQ3	19.2	0	-90
RRMDD466	564106	57098	1172	HQ3	28.5	0	-90
RRMDD467	563299	57201	1164	HQ3	27.0	0	-90
RRMDD468	564199	57300	1174	HQ3	19.2	0	-90
RRMDD469	572769	58608	1107	HQ3	12.1	0	-90
RRMDD470	564202	57094	1169	HQ3	30.0	0	-90
RRMDD471	563291	57099	1163	HQ3	33.3	0	-90
RRMDD472	573092	58353	1111	HQ3	7.7	0	-90
RRMDD473	572805	58390	1110	HQ3	10.3	0	-90
RRMDD474	563501	57204	1170	HQ3	23.9	0	-90
RRMDD475	564299	56908	1162	HQ3	24.0	0	-90
RRMDD476	572483	58395	1106	HQ3	10.2	0	-90
RRMDD477	563300	57006	1161	HQ3	18.3	0	-90
RRMDD478	572480	58677	1106	HQ3	9.8	0	-90
RRMDD479	572520	58862	1106	HQ3	12.8	0	-90
RRMDD480	564201	56896	1164	HQ3	17.6	0	-90
RRMDD481	563394	57101	1167	HQ3	22.2	0	-90
RRMDD482	572725	58899	1105	HQ3	13.7	0	-90
RRMDD483	564296	56797	1159	HQ3	25.2	0	-90
RRMDD484	572834	58999	1103	HQ3	6.6	0	-90
RRMDD485	563399	57001	1164	HQ3	25.1	0	-90
RRMDD486	572605	58993	1105	HQ3	9.1	0	-90
RRMDD487	572413	59003	1105	HQ3	10.4	0	-90
RRMDD488	564196	57003	1166	HQ3	27.0	0	-90

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RRMDD489	572489	59258	1104	HQ3	10.7	0	-90
RRMDD490	572313	59293	1103	HQ3	10.6	0	-90
RRMDD491	564302	57101	1167	HQ3	37.9	0	-90
RRMDD492	572592	59369	1103	HQ3	15.3	0	-90
RRMDD493	563500	57091	1167	HQ3	24.4	0	-90
RRMDD494	563496	57002	1166	HQ3	24.6	0	-90
RRMDD495	564331	57000	1163	HQ3	20.7	0	-90
RRMDD496	564293	57200	1171	HQ3	31.6	0	-90
RRMDD497	563501	56898	1165	HQ3	21.4	0	-90
RRMDD498	558005	58001	1168	HQ3	29.7	0	-90
RRMDD499	563392	56902	1161	HQ3	30.8	0	-90
RRMDD500	564399	57097	1164	HQ3	28.9	0	-90
RRMDD512	563600	57098	1169	HQ3	30.9	0	-90
RRMDD513	564201	57508	1171	HQ3	21.0	0	-90
RRMDD514	564101	57598	1171	HQ3	26.9	0	-90
RRMDD515	563902	56804	1164	HQ3	28.6	0	-90
RRMDD516	563701	56806	1164	HQ3	18.5	0	-90
RRMDD517	564208	57703	1168	HQ3	24.2	0	-90
RRMDD518	563999	56900	1166	HQ3	21.9	0	-90
RRMDD519	564299	57605	1168	HQ3	19.5	0	-90
RRMDD520	564098	56900	1165	HQ3	35.4	0	-90
RRMDD521	564293	57700	1167	HQ3	26.6	0	-90
RRMDD522	564105	56801	1162	HQ3	30.6	0	-90
RRMDD523	564402	57700	1166	HQ3	23.8	0	-90
RRMDD524	558403	58206	1156	HQ3	13.1	0	-90
RRMDD525	564604	57099	1157	HQ3	36.6	0	-90
RRMDD526	564302	57507	1169	HQ3	22.5	0	-90
RRMDD527	564705	57103	1154	HQ3	24.5	0	-90
RRMDD528	564500	57604	1166	HQ3	25.3	0	-90
RRMDD529	564400	57502	1168	HQ3	25.0	0	-90
RRMDD530	564698	57201	1158	HQ3	28.8	0	-90
RRMDD531	564500	57506	1166	HQ3	27.0	0	-90
RRMDD532	564599	57504	1165	HQ3	19.5	0	-90
RRMDD533	564805	57301	1158	HQ3	14.0	0	-90
RRMDD534	564702	57301	1161	HQ3	18.7	0	-90
RRMDD535	564600	57401	1164	HQ3	21.7	0	-90
RRMDD536	558131	58464	1169	HQ3	17.5	0	-90
RRMDD537	564492	57397	1167	HQ3	29.5	0	-90
RRMDD538	564593	57296	1164	HQ3	26.1	0	-90
RRMDD539	564703	57403	1162	HQ3	14.8	0	-90
RRMDD540	564502	57302	1166	HQ3	33.8	0	-90
RRMDD541	557393	58197	1161	HQ3	19.5	0	-90
RRMDD542	564706	57498	1163	HQ3	23.0	0	-90
RRMDD543	564895	57498	1160	HQ3	23.1	0	-90
RRMDD544	564499	57201	1164	HQ3	44.2	0	-90
RRMDD545	557717	58197	1170	HQ3	31.0	0	-90
RRMDD546	564705	57596	1163	HQ3	15.0	0	-90

Authorised for release by the Board.

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Makuutu Mineral Resource Estimate

Table 5: 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 6: 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.

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 5.

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.

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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 28.5 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 5: Makuutu Rare Earths Project Location with major existing infrastructure.

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 Limited. 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 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 RRMDD461 to RRMDD500 and RRMDD512 to RRMDD546 Including Highlighted Intersections >200 ppm TREO-CeO_2.

(Note: Rounding will cause minor value differences)

																				>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
RRMDD461	0.0	2.4	2.4	93.9	375.9	17.6	57.2	9.5	1.8	7.0	1.1	6.6	1.3	3.8	0.6	4.2	0.6	34.3	615.3	Hardcap		
RRMDD461	2.4	3.4	1.0	480.8	388.2	72.4	187.8	23.7	3.7	16.4	2.4	13.0	2.5	7.4	1.1	7.7	1.1	75.2	1283.6	Clay		
RRMDD461	3.4	4.4	1.0	115.2	315.7	26.2	84.1	14.4	2.5	11.6	1.9	10.2	2.1	6.3	1.0	6.6	1.0	61.6	660.4	Clay		
RRMDD461	4.4	5.3	1.0	144.8	297.3	32.7	102.4	17.3	2.9	12.7	2.0	10.5	2.1	6.3	0.9	6.5	0.9	60.7	700.1	Clay		
RRMDD461	5.3	6.3	1.0	132.5	158.5	36.5	117.8	20.0	3.4	14.0	2.2	11.1	2.1	6.2	0.9	6.5	1.0	61.1	573.8	Clay		
RRMDD461	6.3	7.3	1.0	131.4	166.4	35.0	114.1	19.5	3.2	13.9	2.1	10.9	2.2	6.4	1.0	6.9	1.0	63.5	577.5	Clay		
RRMDD461	7.3	8.3	1.0	118.5	159.7	39.9	138.2	24.0	3.9	15.7	2.4	11.6	2.2	6.2	0.9	6.5	0.9	62.5	593.1	Clay		
RRMDD461	8.3	9.3	1.0	108.2	149.3	33.2	116.6	19.9	3.4	13.9	2.1	11.1	2.2	6.5	1.0	6.8	1.0	66.3	541.7	Clay		
RRMDD461	9.3	10.3	1.0	123.7	287.4	32.7	118.4	21.0	3.7	16.5	2.4	13.5	2.7	7.7	1.2	8.2	1.1	80.6	721.1	Clay		
RRMDD461	10.3	11.4	1.0	216.4	250.6	65.6	254.3	45.3	8.1	35.6	4.9	26.6	5.2	14.1	2.1	13.4	1.8	151.1	1095.1	Clay		
RRMDD461	11.4	12.1	0.8	183.5	192.9	57.8	228.6	41.0	7.2	30.7	4.1	21.9	4.1	10.9	1.6	10.1	1.3	126.4	922.1	Clay		
RRMDD461	12.1	12.9	0.8	133.7	208.2	48.4	201.2	37.6	6.6	30.7	4.1	22.0	4.3	11.7	1.7	10.2	1.4	142.2	864.0	Clay		
RRMDD461	12.9	13.7	0.8	225.8	353.8	59.3	234.4	42.9	7.7	37.3	5.2	29.6	5.9	16.9	2.4	15.0	2.0	206.4	1244.8	Clay		
RRMDD461	13.7	14.5	0.8	164.2	234.0	53.3	217.0	39.5	7.2	34.1	4.8	26.4	5.4	14.6	2.2	13.3	1.9	182.2	1000.1	Clay		
RRMDD461	14.5	15.5	1.0	174.2	296.0	63.4	277.6	56.0	10.8	52.2	7.2	40.4	8.0	21.7	3.0	18.2	2.5	287.0	1318.2	Clay		
RRMDD461	15.5	16.5	1.0	118.5	216.8	39.0	169.1	37.2	7.5	40.7	6.2	37.3	7.9	22.6	3.2	19.9	2.8	281.9	1010.7	Clay		
RRMDD461	16.5	17.5	1.0	128.4	234.0	41.3	181.4	41.5	8.9	49.1	7.5	46.9	10.1	28.5	4.1	25.6	3.6	373.4	1184.5	Clay		
RRMDD461	17.5	18.3	0.8	126.7	222.3	40.5	187.8	42.9	9.8	59.9	8.9	56.5	12.7	36.5	5.3	31.8	4.6	499.1	1345.1	Upper Saprolite	15.9	909
RRMDD461	18.3	19.1	0.8	82.1	176.9	19.9	71.7	13.7	2.5	11.8	1.6	9.4	2.0	5.8	0.9	5.4	0.8	88.3	492.7	Saprock		
RRMDD461	19.1	19.9	0.8	67.9	145.6	16.6	60.4	11.4	2.2	9.6	1.4	7.6	1.5	4.2	0.6	4.1	0.5	49.5	383.1	Saprock		
RRMDD461	19.9	20.7	0.8	69.8	159.1	17.9	65.1	12.6	2.5	10.1	1.4	7.7	1.5	4.2	0.6	4.0	0.5	48.1	405.1	Saprock		
RRMDD462	0.0	1.3	1.3	66.8	356.2	12.9	44.2	8.1	1.5	7.5	1.2	7.1	1.4	4.3	0.6	4.1	0.6	41.3	557.9	Hardcap		
RRMDD462	1.3	2.6	1.3	65.1	468.0	11.9	38.8	7.2	1.3	6.1	1.0	6.1	1.1	3.8	0.6	3.7	0.6	31.9	647.1	Hardcap		
RRMDD462	2.6	3.2	0.7	102.7	1339.0	21.0	68.2	12.2	2.3	9.9	1.7	9.4	1.9	5.7	0.9	6.1	0.9	49.8	1631.8	Transition		
RRMDD462	3.2	4.2	1.0	108.0	809.5	22.8	74.5	13.0	2.4	11.1	1.8	10.1	2.0	6.2	0.9	6.2	0.9	55.5	1125.1	Mottled		
RRMDD462	4.2	5.2	1.0	147.2	656.0	26.2	79.0	12.4	2.4	10.5	1.7	9.6	2.0	6.0	0.9	6.1	0.9	55.5	1016.2	Mottled		
RRMDD462	5.2	6.0	0.9	136.6	168.9	24.9	75.9	11.7	2.2	9.3	1.4	8.4	1.7	5.4	0.8	5.4	0.8	51.3	504.7	Mottled		
RRMDD462	6.0	6.9	0.9	101.1	149.3	18.7	58.7	9.5	1.8	8.2	1.3	7.7	1.6	5.0	0.7	5.3	0.7	47.5	417.0	Mottled		
RRMDD462	6.9	7.8	0.8	81.4	82.5	15.0	47.9	7.8	1.5	6.9	1.1	6.7	1.4	4.4	0.7	5.0	0.7	43.2	306.5	Mottled		
RRMDD462	7.8	8.6	0.8	69.0	239.5	15.6	53.7	9.8	2.0	8.8	1.4	8.5	1.7	5.2	0.8	5.4	0.8	50.2	472.2	Mottled		
RRMDD462	8.6	9.5	0.9	293.2	340.3	53.6	168.5	26.8	5.1	20.2	2.8	14.9	2.7	7.7	1.1	7.2	1.0	71.1	1016.3	Mottled		
RRMDD462	9.5	10.2	0.7	212.9	288.7	41.2	125.4	18.8	3.5	13.4	1.9	9.7	1.9	5.5	0.8	5.4	0.8	49.0	778.7	Palid		
RRMDD462	10.2	10.9	0.7	246.3	294.8	42.6	121.9	17.9	3.3	12.7	1.8	9.8	1.9	5.5	0.9	5.9	0.9	50.4	816.6	Palid		
RRMDD462	10.9	11.7	0.8	102.3	205.1	26.1	89.6	16.1	3.2	12.2	1.8	9.8	1.9	5.6	0.8	5.7	0.9	51.7	532.7	Palid		
RRMDD462	11.7	12.5	0.8	85.7	188.6	29.8	111.9	21.3	4.1	15.7	2.3	11.9	2.3	6.5	0.9	6.2	0.9	61.0	549.1	Palid		
RRMDD462	12.5	13.2	0.8	197.0	293.6	47.5	164.5	29.9	5.8	23.0	3.4	18.5	3.6	10.0	1.4	9.2	1.3	100.8	909.5	Palid		
RRMDD462	13.2	14.0	0.8	100.7	190.4	30.4	115.6	21.6	4.3	17.7	2.5	13.5	2.6	7.5	1.1	7.0	1.0	76.7	592.8	Palid		
RRMDD462	14.0	14.8	0.8	112.9	243.2	37.5	155.7	31.9	6.6	29.4	4.2	22.7	4.4	12.3	1.7	10.8	1.6	125.0	799.8	Palid		
RRMDD462	14.8	15.5	0.7	73.9	158.5	19.1	75.3	16.0	4.1	21.8	3.5	21.8	4.9	14.2	1.9	11.8	1.7	170.8	599.4	Upper Saprolite	12.3	702
RRMDD462	15.5	16.6	1.1	81.7	192.9	19.9	69.3	11.4	2.2	8.3	1.2	6.5	1.3	3.7	0.5	3.7	0.5	37.7	440.8	Saprock		
RRMDD462	16.6	17.7	1.1	69.1	152.3	16.7	57.3	10.7	2.3	9.5	1.4	8.4	1.7	5.1	0.7	4.9	0.7	48.6	389.5	Saprock		
RRMDD463	0.0	1.8	1.8	107.1	331.7	21.1	67.8	11.5	1.9	9.1	1.4	8.6	1.6	5.0	0.8	5.0	0.8	44.3	617.6	Hardcap		
RRMDD463	1.8	3.6	1.8	163.6	482.8	28.5	87.5	13.6	2.4	9.7	1.5	8.6	1.6	4.8	0.7	4.8	0.7	41.0	851.8	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
RRMDD463	3.6	5.4	1.8	335.4	719.8	58.8	184.9	24.0	3.9	13.8	1.8	9.3	1.7	4.7	0.7	4.9	0.7	44.4	1409.1	Transition		
RRMDD463	5.4	6.2	0.9	96.4	208.2	18.8	58.6	9.8	1.8	8.1	1.3	7.4	1.5	4.7	0.7	5.3	0.8	42.5	465.9	Mottled		
RRMDD463	6.2	7.1	0.9	71.8	165.8	15.0	48.5	8.6	1.6	6.9	1.1	6.7	1.4	4.4	0.7	4.9	0.7	38.0	376.1	Mottled		
RRMDD463	7.1	7.9	0.9	83.9	147.4	16.6	52.7	9.0	1.7	7.4	1.2	6.8	1.4	4.5	0.7	5.1	0.8	40.5	379.6	Mottled		
RRMDD463	7.9	8.7	0.8	99.6	137.6	19.7	66.6	11.9	2.5	10.6	1.6	9.0	1.7	5.2	0.8	5.6	0.9	49.9	423.1	Clay		
RRMDD463	8.7	9.5	0.8	66.3	187.9	15.5	52.0	9.5	1.8	8.0	1.3	7.6	1.6	4.8	0.7	5.5	0.8	44.4	407.8	Clay		
RRMDD463	9.5	10.3	0.8	83.9	152.3	17.0	57.0	10.1	2.0	8.6	1.3	7.8	1.5	4.6	0.7	5.2	0.8	43.6	396.4	Clay		
RRMDD463	10.3	11.0	0.8	84.0	173.8	19.8	68.4	12.6	2.4	10.4	1.6	9.1	1.8	5.1	0.8	5.4	0.8	49.0	444.9	Clay		
RRMDD463	11.0	11.8	0.7	79.0	151.1	20.7	72.7	13.2	2.6	10.8	1.7	9.5	1.9	5.6	0.8	5.8	0.9	53.1	429.2	Clay		
RRMDD463	11.8	12.5	0.7	100.0	199.0	35.0	127.1	23.1	4.4	17.9	2.6	14.0	2.8	7.9	1.1	7.4	1.1	78.9	622.1	Clay		
RRMDD463	12.5	13.4	0.9	71.4	398.0	28.6	106.6	20.1	3.6	15.6	2.4	13.0	2.5	7.4	1.0	7.1	1.0	75.4	753.9	Clay		
RRMDD463	13.4	14.2	0.9	55.4	233.4	19.3	72.6	14.4	2.9	13.5	2.1	12.4	2.6	7.7	1.1	7.4	1.1	78.2	523.9	Clay		
RRMDD463	14.2	15.1	0.9	73.1	160.9	28.2	111.0	21.3	4.0	16.5	2.5	14.1	2.8	7.9	1.2	7.4	1.1	90.7	542.7	Clay		
RRMDD463	15.1	16.0	0.9	75.9	156.0	28.2	109.5	20.4	3.9	16.0	2.4	14.1	2.7	7.8	1.2	7.4	1.1	88.4	534.9	Clay		
RRMDD463	16.0	16.6	0.6	36.9	68.4	13.5	57.9	13.3	2.8	12.9	2.2	13.7	2.8	8.0	1.2	8.4	1.2	77.3	320.5	Clay		
RRMDD463	16.6	17.5	1.0	77.3	118.5	25.5	103.5	20.9	4.2	19.1	3.0	17.3	3.6	10.3	1.6	9.6	1.4	121.1	536.9	Clay		
RRMDD463	17.5	18.5	0.9	58.4	83.9	16.6	68.4	14.0	2.9	13.8	2.2	13.5	2.8	8.4	1.3	8.1	1.2	96.5	392.0	Clay		
RRMDD463	18.5	19.5	1.0	176.5	309.6	55.3	232.7	45.1	9.4	47.3	7.5	46.5	11.1	33.3	4.8	27.0	4.4	533.4	1543.7	Clay		
RRMDD463	19.5	20.4	0.9	146.0	258.0	47.1	196.5	38.7	7.9	37.0	5.6	33.5	7.1	21.2	3.0	17.3	2.7	298.4	1120.0	Clay		
RRMDD463	20.4	21.2	0.8	71.4	105.0	21.0	87.5	17.9	3.9	19.0	3.0	18.0	3.9	11.4	1.7	10.2	1.6	144.8	520.1	Clay		
RRMDD463	21.2	22.1	0.8	130.2	207.6	40.5	163.9	31.7	6.6	30.7	4.6	27.3	5.3	14.9	2.2	13.2	1.9	175.9	856.3	Clay		
RRMDD463	22.1	22.9	0.8	228.1	346.4	64.4	270.6	55.4	11.9	56.8	8.8	51.3	10.5	29.5	4.1	24.4	3.6	386.0	1551.7	Clay		
RRMDD463	22.9	23.7	0.8	151.9	254.3	41.1	168.0	35.3	7.9	37.8	6.1	36.7	7.8	22.5	3.2	18.7	2.9	294.6	1088.7	Clay		
RRMDD463	23.7	24.5	0.7	180.0	278.8	55.7	248.4	51.3	11.2	56.1	8.5	50.3	10.3	29.4	4.2	24.5	3.6	349.2	1361.6	Upper Saprolite	19.1	687
RRMDD463	24.5	25.2	0.7	110.2	164.0	23.1	97.5	17.2	4.0	26.5	3.5	22.1	5.6	16.6	2.3	11.8	2.0	304.8	811.2	Saprock		
RRMDD463	25.2	25.9	0.7	69.4	124.7	13.4	48.4	8.2	1.8	8.0	1.1	6.2	1.4	4.1	0.6	3.4	0.6	81.5	372.8	Saprock		
RRMDD464	0.0	2.1	2.1	119.6	318.2	21.4	65.9	10.0	1.8	7.6	1.2	7.0	1.4	4.1	0.7	4.6	0.7	38.6	602.8	Hardcap		
RRMDD464	2.1	4.1	2.1	210.5	382.0	40.4	124.2	17.6	3.1	11.6	1.7	9.6	1.8	5.2	0.8	5.6	0.8	49.3	864.2	Transition		
RRMDD464	4.1	5.0	0.9	180.6	329.2	45.4	145.2	23.7	3.8	15.2	2.3	11.2	2.1	6.1	0.9	6.0	0.9	61.3	833.8	Mottled		
RRMDD464	5.0	5.9	0.9	132.5	297.3	37.8	131.2	24.1	4.4	18.0	2.6	12.5	2.3	6.3	1.0	6.0	0.9	65.8	742.6	Mottled		
RRMDD464	5.9	6.8	0.9	129.0	285.0	35.3	121.9	21.5	3.9	16.0	2.4	11.9	2.3	6.4	0.9	5.8	0.8	65.0	708.0	Mottled		
RRMDD464	6.8	7.3	0.5	149.5	303.4	37.6	121.9	20.6	3.6	14.3	2.1	10.6	2.0	5.7	0.8	5.6	0.8	55.9	734.4	Clay		
RRMDD464	7.3	8.2	0.9	128.4	266.6	34.1	114.2	19.9	3.5	14.5	2.1	10.9	2.1	5.7	0.8	5.6	0.8	59.6	668.8	Clay		
RRMDD464	8.2	9.1	0.9	110.9	276.4	31.5	111.7	21.4	4.1	17.8	2.6	13.1	2.5	6.9	1.0	6.5	0.9	74.8	682.2	Clay		
RRMDD464	9.1	9.9	0.9	97.1	242.6	26.2	94.1	18.6	3.6	15.8	2.3	11.7	2.2	6.4	0.9	6.0	0.9	69.2	597.7	Clay		
RRMDD464	9.9	10.8	0.9	99.3	241.4	26.5	92.8	17.7	3.4	15.1	2.3	11.8	2.2	6.3	0.9	5.6	0.8	66.2	592.4	Clay		
RRMDD464	10.8	11.7	0.9	105.7	262.9	27.8	94.6	17.9	3.3	15.0	2.3	11.8	2.2	6.0	0.8	5.4	0.8	61.7	618.2	Clay		
RRMDD464	11.7	12.7	1.0	104.1	267.8	26.3	91.9	17.7	3.5	14.7	2.2	11.4	2.2	6.1	0.9	5.7	0.8	62.5	617.9	Clay		
RRMDD464	12.7	13.7	1.0	101.2	251.8	24.4	82.6	14.7	2.8	11.1	1.6	8.4	1.6	4.5	0.7	4.1	0.6	45.8	556.0	Clay		
RRMDD464	13.7	14.6	1.0	119.0	319.4	30.0	102.2	19.1	3.6	14.8	2.0	9.4	1.8	4.8	0.7	4.6	0.7	52.2	684.3	Clay		
RRMDD464	14.6	15.4	0.7	101.6	258.0	24.6	82.7	15.7	3.1	13.4	2.1	11.4	2.3	6.3	0.9	5.8	0.8	66.4	594.9	Clay		
RRMDD464	15.4	16.1	0.7	99.8	243.8	23.3	74.8	12.5	2.4	9.8	1.5	8.6	1.7	5.1	0.7	4.6	0.7	52.6	541.8	Clay		
RRMDD464	16.1	16.8	0.7	93.1	234.0	22.7	75.6	13.3	2.6	10.5	1.6	8.6	1.8	5.2	0.7	5.0	0.7	54.2	529.7	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
RRMDD464	16.8	17.5	0.7	104.3	256.7	26.0	88.8	16.2	3.2	14.4	2.4	13.7	3.0	9.1	1.3	8.6	1.3	99.8	648.7	Clay		
RRMDD464	17.5	18.2	0.7	92.1	230.3	22.1	75.2	14.0	2.7	11.3	1.7	9.1	1.8	5.5	0.8	5.0	0.7	63.9	536.2	Clay		
RRMDD464	18.2	18.8	0.6	87.0	204.5	20.7	67.9	12.2	2.3	10.1	1.5	8.0	1.6	4.9	0.7	4.6	0.7	57.9	484.6	Clay	14.7	635
RRMDD464	18.8	19.7	0.9	78.8	192.9	20.5	71.9	13.9	2.7	12.9	1.9	9.9	2.1	6.3	0.9	5.5	0.8	78.5	499.4	Saprock		
RRMDD464	19.7	20.6	0.9	89.8	226.6	22.5	75.8	14.0	2.7	11.8	1.8	9.5	1.9	5.5	0.8	5.8	0.9	64.5	534.1	Saprock		
RRMDD465	0.0	1.6	1.6	221.1	502.4	37.7	119.0	16.0	3.1	11.2	1.6	9.0	1.7	4.8	0.7	5.0	0.7	44.8	978.8	Hardcap		
RRMDD465	1.6	3.2	1.6	151.9	422.6	28.4	91.9	12.7	2.2	8.1	1.2	6.6	1.2	3.6	0.6	4.0	0.6	31.1	766.7	Hardcap		
RRMDD465	3.2	4.0	0.9	55.6	151.1	10.5	36.7	6.7	1.2	5.4	0.8	4.5	0.8	2.6	0.4	2.7	0.4	24.9	304.4	Mottled		
RRMDD465	4.0	4.9	0.9	166.5	281.3	30.4	108.8	21.4	4.1	17.9	2.3	11.0	1.8	4.3	0.6	3.5	0.5	47.2	701.7	Mottled		
RRMDD465	4.9	5.7	0.9	148.9	197.8	26.3	89.0	15.4	2.8	12.0	1.6	8.2	1.4	3.8	0.6	3.8	0.6	42.5	554.8	Mottled		
RRMDD465	5.7	6.4	0.7	115.3	245.7	27.5	96.8	16.8	2.9	11.5	1.7	9.1	1.7	5.0	0.8	4.9	0.7	58.0	598.4	Mottled		
RRMDD465	6.4	7.1	0.7	117.3	262.9	31.8	113.5	21.4	3.7	15.4	2.4	13.9	2.8	8.3	1.2	7.7	1.1	99.4	702.8	Mottled		
RRMDD465	7.1	7.8	0.7	130.2	384.5	39.6	142.3	26.7	4.4	16.7	2.6	14.5	2.9	8.4	1.3	7.7	1.1	102.6	885.4	Mottled		
RRMDD465	7.8	8.5	0.7	87.7	192.2	24.0	87.4	15.5	2.5	9.6	1.4	7.5	1.4	3.9	0.6	4.0	0.6	44.2	482.6	Mottled		
RRMDD465	8.5	9.4	0.9	123.7	220.5	26.0	87.9	15.2	2.5	10.1	1.4	7.4	1.4	3.8	0.6	3.6	0.6	39.4	544.1	Clay		
RRMDD465	9.4	10.3	0.9	104.4	227.3	25.5	90.3	15.4	2.6	9.7	1.3	6.6	1.2	3.3	0.5	3.5	0.5	36.6	528.6	Clay		
RRMDD465	10.3	11.1	0.9	103.8	208.8	33.2	120.7	22.5	3.6	12.7	1.7	8.7	1.5	4.0	0.6	3.6	0.5	41.8	567.8	Clay		
RRMDD465	11.1	12.0	0.9	125.5	305.9	44.3	163.9	32.2	5.1	17.4	2.5	11.6	1.8	4.8	0.7	4.2	0.6	48.5	768.9	Clay		
RRMDD465	12.0	12.9	0.9	229.9	439.8	49.7	173.8	30.4	5.2	18.4	2.6	12.1	1.9	4.9	0.7	4.3	0.6	50.0	1024.2	Clay		
RRMDD465	12.9	13.8	0.9	146.6	372.2	42.4	154.0	27.9	4.6	16.9	2.4	12.3	2.2	5.9	0.9	5.4	0.8	61.0	855.3	Clay		
RRMDD465	13.8	14.5	0.6	118.5	262.9	35.6	133.6	28.2	5.6	29.2	5.6	37.5	8.5	25.7	3.9	22.8	3.4	337.8	1058.8	Upper Saprolite		
RRMDD465	14.5	15.2	0.8	135.5	332.9	37.2	137.1	26.6	5.0	21.8	3.7	22.4	4.6	14.0	2.0	12.0	1.8	167.6	924.2	Upper Saprolite		
RRMDD465	15.2	16.0	0.8	184.1	420.1	45.3	163.9	30.1	5.2	20.0	2.8	14.5	2.5	7.0	1.0	6.3	0.9	76.4	980.3	Lower Saprolite		
RRMDD465	16.0	16.7	0.8	117.9	226.0	29.0	99.3	19.0	3.2	13.9	2.0	9.7	1.8	5.1	0.7	5.0	0.7	49.9	583.3	Lower Saprolite		
RRMDD465	16.7	17.4	0.6	483.2	882.0	115.7	433.9	80.2	14.5	62.5	8.3	36.2	5.7	13.6	1.8	10.8	1.5	128.9	2278.6	Lower Saprolite		
RRMDD465	17.4	18.0	0.6	103.9	236.5	28.5	100.1	20.1	3.8	19.6	3.5	21.0	4.5	13.7	2.1	13.6	1.9	141.6	714.5	Lower Saprolite	14.0	802
RRMDD465	18.0	19.2	1.2	107.8	232.8	31.7	113.5	23.8	4.6	21.6	3.5	19.1	3.8	11.1	1.6	10.5	1.4	114.9	701.5	Saprock		
RRMDD466	0.0	1.8	1.8	147.8	511.0	26.5	88.6	13.2	2.2	8.3	1.2	6.4	1.2	3.4	0.5	3.8	0.5	29.8	844.3	Hardcap		
RRMDD466	1.8	3.5	1.8	151.9	465.6	26.3	86.4	13.7	2.3	9.3	1.3	7.6	1.4	3.9	0.6	4.4	0.6	35.6	810.9	Transition		
RRMDD466	3.5	4.5	0.9	33.4	45.6	6.8	23.4	4.2	0.7	3.5	0.6	3.5	0.8	2.6	0.4	3.2	0.5	24.5	153.8	Mottled		
RRMDD466	4.5	5.4	0.9	23.2	33.8	4.9	16.9	3.1	0.6	2.8	0.5	3.3	0.8	2.5	0.4	3.3	0.5	24.1	120.8	Mottled		
RRMDD466	5.4	6.3	0.9	99.2	136.4	15.8	47.1	7.7	1.2	5.0	0.7	4.3	0.9	2.8	0.5	3.6	0.5	26.9	352.7	Mottled		
RRMDD466	6.3	7.3	0.9	59.0	189.2	15.2	51.6	9.1	1.6	6.7	1.0	5.6	1.2	3.5	0.6	4.2	0.6	35.9	384.8	Mottled		
RRMDD466	7.3	8.2	0.9	74.1	105.5	12.8	38.6	6.6	1.1	4.6	0.7	4.1	0.9	2.8	0.5	3.7	0.5	26.8	283.2	Mottled		
RRMDD466	8.2	9.1	0.9	115.8	234.6	27.8	94.4	16.9	2.7	11.1	1.5	8.4	1.6	4.4	0.7	5.0	0.8	49.3	575.0	Clay		
RRMDD466	9.1	10.0	0.9	113.6	226.6	28.0	96.6	17.5	2.8	11.2	1.5	8.1	1.5	4.3	0.7	4.6	0.7	45.6	563.3	Clay		
RRMDD466	10.0	11.0	0.9	115.9	237.1	27.3	91.2	16.3	2.7	10.6	1.4	7.2	1.3	3.7	0.6	4.1	0.6	39.0	558.9	Clay		
RRMDD466	11.0	11.9	0.9	103.7	605.6	28.2	97.0	17.5	2.9	11.8	1.7	8.7	1.7	4.8	0.8	5.3	0.7	48.1	938.4	Clay		
RRMDD466	11.9	12.6	0.7	131.9	353.8	46.3	161.5	30.8	5.0	18.8	2.6	12.4	2.1	5.3	0.8	5.1	0.7	53.8	831.0	Clay		
RRMDD466	12.6	13.4	0.7	123.1	385.7	36.2	125.4	23.3	3.8	15.6	2.1	10.9	2.0	5.4	0.8	5.6	0.8	55.0	795.8	Clay		
RRMDD466	13.4	14.1	0.7	123.7	236.5	27.1	89.5	15.5	2.5	10.4	1.4	7.3	1.4	3.8	0.6	4.1	0.6	39.1	563.4	Clay		
RRMDD466	14.1	15.0	0.9	186.5	439.8	41.3	140.0	25.2	4.0	16.1	2.2	11.1	2.0	5.3	0.8	5.7	0.8	54.1	934.7	Clay		
RRMDD466	15.0	15.9	0.9	126.1	344.0	31.7	108.5	19.7	3.2	13.3	1.8	9.4	1.8	4.8	0.8	5.1	0.7	49.4	720.2	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
RRMDD466	15.9	16.8	0.9	143.1	357.5	45.5	159.2	30.4	5.0	18.8	2.6	12.5	2.1	5.4	0.8	5.2	0.7	55.2	844.0	Clay		
RRMDD466	16.8	17.7	0.9	202.9	458.2	45.4	154.5	28.5	4.9	19.8	2.9	15.6	2.8	8.0	1.2	8.1	1.1	80.0	1034.1	Clay		
RRMDD466	17.7	18.6	0.9	93.4	189.2	28.9	103.1	20.2	3.4	13.5	2.0	10.6	1.9	5.2	0.8	5.2	0.7	50.5	528.6	Upper Saprolite		
RRMDD466	18.6	19.5	0.9	97.1	188.6	30.2	106.5	21.2	3.8	14.8	2.2	12.1	2.0	6.0	0.8	5.4	0.8	54.0	545.2	Upper Saprolite		
RRMDD466	19.5	20.5	0.9	91.5	167.7	30.7	107.7	20.8	3.5	12.9	1.9	10.0	1.6	4.7	0.7	4.3	0.6	43.8	502.2	Upper Saprolite		
RRMDD466	20.5	21.4	0.9	181.8	262.9	40.1	131.8	23.8	4.3	16.3	2.3	11.1	1.7	4.6	0.7	4.3	0.6	42.2	728.3	Upper Saprolite		
RRMDD466	21.4	22.4	1.0	194.1	346.4	41.1	137.1	23.3	4.3	16.4	2.2	11.0	1.7	4.6	0.6	4.0	0.6	42.9	830.3	Upper Saprolite		
RRMDD466	22.4	23.0	0.6	124.9	283.8	34.2	120.1	23.9	4.6	21.3	3.4	20.9	4.0	12.2	1.7	10.9	1.5	132.7	800.2	Upper Saprolite		
RRMDD466	23.0	24.0	0.9	103.8	293.6	26.7	93.7	18.8	3.7	17.8	2.9	18.1	3.6	11.2	1.5	9.1	1.3	129.5	735.3	Upper Saprolite		
RRMDD466	24.0	24.9	0.9	63.6	116.6	18.5	66.0	11.9	2.2	8.2	1.2	5.8	1.0	3.0	0.4	2.9	0.4	27.8	329.4	Lower Saprolite		
RRMDD466	24.9	25.8	0.9	102.9	197.8	35.5	138.8	28.6	5.2	21.9	3.0	15.1	2.4	6.1	0.8	5.1	0.7	56.9	620.9	Lower Saprolite	20.4	648
RRMDD466	25.8	26.8	0.9	79.3	146.8	25.0	96.8	19.4	3.7	15.4	2.2	10.5	1.8	4.8	0.7	3.9	0.6	45.8	456.6	Saprock		
RRMDD466	26.8	27.6	0.9	181.2	326.8	57.6	239.1	49.9	10.6	61.5	9.4	57.8	11.6	35.3	4.7	28.2	4.1	440.7	1518.7	Saprock		
RRMDD466	27.6	28.5	0.9	205.2	308.3	48.1	198.9	38.7	8.2	49.1	7.2	45.0	9.2	28.0	3.8	22.1	3.2	374.6	1349.8	Saprock		
RRMDD467	0.0	1.8	1.8	72.8	319.4	14.8	48.9	8.4	1.6	6.4	1.1	6.5	1.3	3.9	0.6	4.5	0.7	34.8	525.6	Hardcap		
RRMDD467	1.8	3.6	1.8	94.9	1246.8	20.1	67.1	11.5	2.1	8.5	1.5	8.4	1.6	4.8	0.8	5.4	0.8	40.6	1514.9	Hardcap		
RRMDD467	3.6	5.4	1.8	86.8	767.8	17.9	60.3	10.6	1.9	7.9	1.3	7.4	1.5	4.3	0.7	4.9	0.7	37.8	1011.8	Transition		
RRMDD467	5.4	5.8	0.4	67.4	101.3	11.9	39.0	6.6	1.1	5.5	0.9	5.7	1.2	3.8	0.6	4.5	0.7	37.6	287.8	Clay		
RRMDD467	5.8	6.8	1.0	347.1	175.7	38.4	100.1	13.0	2.1	9.0	1.2	7.1	1.3	4.2	0.6	4.3	0.6	41.0	746.0	Clay		
RRMDD467	6.8	7.8	1.0	69.9	64.0	12.9	41.1	7.2	1.3	5.9	0.9	6.1	1.2	4.0	0.6	4.6	0.7	40.6	260.9	Clay		
RRMDD467	7.8	8.8	1.0	343.6	205.8	55.9	170.9	27.0	4.3	17.6	2.5	12.8	2.2	6.2	0.9	5.8	0.8	63.4	919.7	Clay		
RRMDD467	8.8	9.7	1.0	201.1	402.9	60.2	210.0	36.8	6.1	24.7	3.5	19.2	3.3	9.6	1.3	8.6	1.3	100.3	1088.9	Clay		
RRMDD467	9.7	10.7	1.0	256.8	819.3	76.0	270.6	47.8	8.3	34.8	5.0	27.7	4.9	14.3	2.0	12.8	1.8	152.4	1734.5	Clay		
RRMDD467	10.7	11.7	1.0	273.3	529.4	82.0	297.4	52.8	9.0	38.7	5.5	29.5	5.1	15.0	2.1	12.4	1.8	159.4	1513.4	Clay		
RRMDD467	11.7	12.6	0.9	252.2	304.6	70.9	257.8	45.8	7.8	34.2	4.8	26.3	4.7	13.3	1.9	11.6	1.7	146.0	1183.5	Clay		
RRMDD467	12.6	13.6	1.0	248.6	348.9	71.5	260.1	46.4	8.3	36.4	5.1	29.0	5.2	15.0	2.0	12.8	1.9	167.6	1258.9	Clay		
RRMDD467	13.6	14.5	0.9	151.9	187.9	41.2	147.0	25.7	4.6	19.8	2.8	15.6	2.8	8.3	1.1	7.5	1.1	85.1	702.3	Clay		
RRMDD467	14.5	15.5	0.9	167.7	202.1	44.8	161.0	27.6	4.9	22.9	3.1	17.6	3.2	9.5	1.3	8.2	1.2	102.0	777.2	Clay		
RRMDD467	15.5	16.4	0.9	215.8	358.7	61.9	229.8	42.1	7.6	36.5	5.4	32.4	6.3	19.4	2.7	16.6	2.5	224.1	1261.7	Clay		
RRMDD467	16.4	17.3	0.9	133.7	168.9	32.5	117.2	20.1	3.6	16.8	2.4	13.9	2.6	7.8	1.1	7.1	1.0	81.4	610.0	Clay		
RRMDD467	17.3	18.1	0.9	166.0	200.2	42.8	158.6	27.5	5.1	23.4	3.3	18.5	3.4	9.7	1.3	8.3	1.2	100.7	770.0	Clay		
RRMDD467	18.1	19.0	0.9	155.4	204.5	36.6	134.1	23.9	4.5	22.0	3.2	17.9	3.2	9.4	1.3	8.3	1.2	102.0	727.6	Clay		
RRMDD467	19.0	19.9	0.9	205.8	215.6	52.4	204.1	37.2	7.0	33.2	4.6	25.2	4.4	12.3	1.7	10.3	1.4	124.5	939.7	Clay		
RRMDD467	19.9	20.7	0.9	201.7	202.1	50.3	194.8	35.7	6.8	33.5	4.7	27.2	5.1	15.3	2.2	13.8	2.0	176.5	971.5	Clay		
RRMDD467	20.7	21.6	0.9	301.4	281.3	66.0	253.1	46.7	9.1	46.8	6.7	38.8	7.4	22.2	3.1	19.9	2.8	247.6	1353.0	Clay		
RRMDD467	21.6	22.4	0.8	255.7	227.9	52.7	205.9	37.2	7.4	38.5	5.3	30.8	5.6	16.2	2.2	13.7	2.0	172.1	1072.9	Upper Saprolite		
RRMDD467	22.4	23.2	0.8	259.2	195.9	48.4	196.5	37.2	8.1	44.3	6.7	39.8	8.7	24.7	3.4	21.4	3.0	293.3	1190.9	Upper Saprolite		
RRMDD467	23.2	24.1	0.8	283.8	216.8	55.1	222.8	43.0	9.4	52.9	8.1	49.0	10.8	30.6	4.3	26.5	3.9	378.4	1395.5	Upper Saprolite		
RRMDD467	24.1	24.9	0.8	382.3	219.9	62.1	279.9	59.8	15.7	119.9	18.7	125.7	32.4	97.1	13.2	76.9	12.4	1517.5	3033.6	Upper Saprolite		
RRMDD467	24.9	25.9	1.1	99.3	141.3	18.0	66.7	12.3	2.6	12.3	1.8	10.9	2.5	7.6	1.0	6.5	1.1	122.8	506.8	Lower Saprolite	20.1	1077
RRMDD467	25.9	27.0	1.1	71.0	139.4	16.1	57.5	10.6	2.2	8.7	1.3	7.5	1.6	4.3	0.6	4.2	0.6	52.6	377.9	Saprock		
RRMDD468	0.0	2.4	2.4	205.2	411.5	35.3	114.1	17.3	3.0	11.0	1.5	8.3	1.5	4.4	0.7	4.8	0.7	38.7	858.0	Transition		
RRMDD468	2.4	3.2	0.8	42.5	266.6	8.7	32.0	6.4	1.3	7.1	1.2	7.5	1.6	4.9	0.8	5.5	0.9	54.1	440.9	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
RRMDD468	3.2	4.1	0.9	100.7	143.1	26.6	104.4	22.8	4.8	25.1	4.2	25.9	5.9	16.9	2.4	14.8	2.2	227.9	727.8	Clay		
RRMDD468	4.1	4.9	0.8	122.6	212.5	36.0	141.1	31.2	5.9	25.9	3.8	20.9	4.1	11.4	1.6	10.2	1.5	132.1	760.9	Clay		
RRMDD468	4.9	5.7	0.8	119.6	211.9	34.7	137.6	30.1	5.5	25.2	3.6	20.0	4.0	10.7	1.5	9.7	1.4	126.2	741.9	Clay		
RRMDD468	5.7	6.4	0.7	117.0	207.0	34.4	134.7	28.6	5.5	23.9	3.6	19.0	3.8	10.2	1.5	9.2	1.4	117.3	717.3	Clay		
RRMDD468	6.4	7.3	0.9	167.7	1296.0	41.4	164.5	36.2	7.3	36.3	5.6	31.7	6.6	18.1	2.5	15.9	2.3	214.0	2046.0	Clay		
RRMDD468	7.3	8.1	0.9	168.3	157.2	43.5	176.7	38.8	7.7	41.0	6.4	38.6	8.4	23.8	3.3	20.0	3.0	298.4	1035.2	Clay		
RRMDD468	8.1	9.0	0.9	195.9	285.0	56.2	223.4	49.2	9.4	45.5	7.0	40.1	8.3	23.3	3.2	19.7	2.9	285.7	1254.7	Clay		
RRMDD468	9.0	9.8	0.9	208.2	357.5	59.0	239.1	52.8	10.5	51.3	7.6	43.7	9.0	24.9	3.4	20.8	3.1	317.5	1408.3	Clay		
RRMDD468	9.8	10.7	0.9	235.7	346.4	61.4	244.9	54.3	10.8	53.5	8.4	49.7	10.8	29.8	4.2	25.8	3.8	381.0	1520.5	Clay		
RRMDD468	10.7	11.4	0.7	315.5	436.1	76.6	297.4	65.6	12.0	56.9	8.3	45.8	9.2	24.5	3.3	20.5	3.0	311.1	1685.9	Clay		
RRMDD468	11.4	12.4	1.0	195.3	355.0	60.3	240.3	53.0	9.6	41.7	6.0	32.9	6.5	17.3	2.4	14.4	2.1	210.8	1247.5	Clay		
RRMDD468	12.4	12.8	0.5	77.6	172.0	19.6	72.2	14.0	2.8	11.5	1.7	9.6	1.8	4.7	0.6	3.8	0.5	53.3	445.9	Clay		
RRMDD468	12.8	13.7	0.9	73.3	176.3	17.2	61.5	11.3	2.2	8.5	1.2	6.5	1.4	3.7	0.6	3.6	0.5	41.9	409.6	Clay		
RRMDD468	13.7	14.6	0.9	82.6	161.5	20.7	75.0	14.1	2.7	10.7	1.4	8.0	1.5	4.1	0.6	3.8	0.6	47.9	435.2	Upper Saprolite		
RRMDD468	14.6	15.4	0.9	84.0	172.0	21.3	78.5	16.7	3.6	15.4	2.7	16.4	3.6	10.4	1.5	9.5	1.4	121.5	558.4	Upper Saprolite		
RRMDD468	15.4	16.3	0.9	72.6	164.0	17.3	61.6	11.7	2.2	9.0	1.3	7.2	1.5	4.1	0.6	3.7	0.6	46.0	403.4	Upper Saprolite		
RRMDD468	16.3	17.3	1.0	78.3	141.9	19.3	73.0	15.0	3.1	12.4	1.8	9.4	1.8	4.7	0.7	4.3	0.6	49.3	415.6	Lower Saprolite	14.1	936
RRMDD468	17.3	18.2	0.9	53.6	99.3	12.9	47.7	9.6	2.0	8.5	1.2	7.1	1.4	4.0	0.6	4.0	0.6	43.8	296.4	Lower Saprolite		
RRMDD468	18.2	19.2	1.0	49.1	78.4	11.6	44.0	8.8	1.9	8.3	1.2	7.0	1.4	4.1	0.6	4.1	0.6	43.7	264.8	Lower Saprolite		
RRMDD469	0.0	1.9	1.9	63.7	1159.6	11.1	35.0	6.4	1.2	5.1	1.0	5.3	1.1	3.2	0.5	3.8	0.5	27.8	1325.3	Hardcap		
RRMDD469	1.9	3.9	1.9	86.9	1296.0	16.9	55.5	9.5	1.7	7.2	1.2	7.1	1.4	4.1	0.7	4.4	0.7	38.5	1531.7	Hardcap		
RRMDD469	3.9	4.5	0.6	82.1	565.1	18.2	63.6	11.5	1.9	8.9	1.4	8.6	1.8	5.2	0.8	5.5	0.8	50.3	825.8	Transition		
RRMDD469	4.5	5.4	0.9	73.2	460.7	15.7	53.7	9.8	1.7	8.0	1.4	7.6	1.7	5.0	0.8	5.5	0.8	48.0	693.4	Mottled		
RRMDD469	5.4	6.3	0.9	88.4	62.0	16.0	53.5	9.1	1.7	7.6	1.2	7.3	1.6	4.8	0.7	4.8	0.7	49.1	308.7	Mottled		
RRMDD469	6.3	7.3	0.9	114.6	146.8	21.9	73.4	12.1	2.2	9.7	1.5	8.2	1.7	5.0	0.7	4.6	0.7	53.6	456.7	Mottled		
RRMDD469	7.3	8.1	0.8	185.3	304.6	48.7	167.4	28.6	4.7	18.7	2.6	13.6	2.5	6.6	0.9	5.8	0.8	76.7	867.7	Clay		
RRMDD469	8.1	8.9	0.8	205.8	324.3	51.0	179.0	28.8	5.1	21.0	2.8	14.3	2.7	7.2	0.9	5.9	0.8	79.6	929.2	Clay		
RRMDD469	8.9	9.7	0.8	272.1	316.9	74.2	258.9	41.9	7.0	28.0	3.6	17.7	3.2	8.5	1.1	6.4	0.9	91.1	1131.5	Upper Saprolite		
RRMDD469	9.7	10.4	0.8	217.6	305.9	46.8	157.5	24.2	4.1	16.5	2.4	10.7	2.1	5.5	0.7	4.6	0.6	60.2	859.4	Upper Saprolite		
RRMDD469	10.4	11.1	0.7	262.7	271.5	58.5	198.9	31.7	5.3	21.3	2.9	14.1	2.5	6.9	0.9	5.7	0.8	74.4	958.0	Lower Saprolite		
RRMDD469	11.1	11.7	0.7	136.6	148.0	32.7	115.9	19.4	3.5	15.0	2.2	10.8	2.0	5.6	0.7	4.7	0.6	60.3	558.2	Lower Saprolite		
RRMDD469	11.7	12.1	0.4	256.8	229.1	64.4	235.6	40.6	7.4	32.4	4.5	22.6	4.1	10.9	1.3	8.4	1.1	117.2	1036.5	Lower Saprolite	7.6	749
RRMDD470	0.0	1.8	1.8	146.0	453.3	24.4	76.7	11.2	2.0	7.7	1.1	6.6	1.3	3.6	0.6	3.9	0.6	33.7	772.7	Hardcap		
RRMDD470	1.8	3.5	1.8	151.9	718.6	24.0	71.5	10.8	1.9	7.2	1.2	6.5	1.2	3.5	0.6	4.1	0.6	30.5	1034.0	Hardcap		
RRMDD470	3.5	4.0	0.5	120.8	802.1	21.6	68.5	10.7	1.8	7.1	1.2	6.6	1.3	3.8	0.6	4.3	0.7	37.3	1088.5	Transition		
RRMDD470	4.0	4.9	0.9	36.9	57.5	7.6	26.2	4.7	0.8	3.9	0.7	4.2	1.0	3.2	0.5	3.8	0.6	30.0	181.8	Clay		
RRMDD470	4.9	5.8	0.9	47.3	72.4	10.4	36.5	6.5	1.1	5.6	0.9	5.3	1.2	3.6	0.6	4.0	0.6	37.0	232.8	Clay		
RRMDD470	5.8	6.7	0.9	84.0	171.4	21.3	73.2	13.3	2.2	9.1	1.4	7.8	1.6	4.7	0.7	5.0	0.7	50.8	447.3	Clay		
RRMDD470	6.7	7.6	0.9	194.7	493.8	35.6	114.1	19.5	3.1	12.8	1.9	10.0	1.9	5.4	0.8	5.6	0.8	58.5	958.5	Clay		
RRMDD470	7.6	8.5	0.9	99.6	207.6	31.9	117.8	25.0	4.7	22.6	3.7	21.3	4.6	12.8	1.8	10.8	1.6	172.7	738.4	Clay		
RRMDD470	8.5	9.4	0.9	126.1	654.7	38.2	137.6	26.7	4.5	19.1	3.0	16.6	3.4	9.7	1.4	8.7	1.3	117.1	1168.0	Clay		
RRMDD470	9.4	10.3	0.9	96.8	318.2	28.8	100.8	18.3	3.0	11.8	1.7	9.3	1.8	5.1	0.8	5.1	0.8	54.9	656.9	Clay		
RRMDD470	10.3	11.2	0.9	92.8	320.6	23.9	85.5	15.7	2.8	11.9	1.9	10.6	2.2	6.5	0.9	6.2	1.0	72.4	654.8	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
RRMDD470	11.2	12.1	0.9	124.3	229.7	36.7	137.1	25.9	4.4	19.9	3.0	16.7	3.4	9.6	1.4	8.9	1.3	114.0	736.2	Clay		
RRMDD470	12.1	13.0	0.9	103.3	202.7	28.3	104.5	19.4	3.4	15.6	2.3	13.6	2.8	8.1	1.2	7.6	1.1	91.9	605.8	Clay		
RRMDD470	13.0	13.7	0.8	102.7	255.5	31.8	120.1	22.6	3.9	17.6	2.6	13.8	2.8	7.8	1.1	7.1	1.0	88.6	679.2	Clay		
RRMDD470	13.7	14.5	0.8	148.4	340.3	45.3	163.3	29.0	4.9	19.2	2.7	14.6	2.7	7.3	1.1	6.9	1.0	85.0	871.6	Clay		
RRMDD470	14.5	15.3	0.8	129.6	266.6	43.3	159.2	29.5	5.2	20.8	3.0	16.0	3.1	8.5	1.3	7.7	1.1	95.1	789.9	Clay		
RRMDD470	15.3	16.2	0.9	255.7	379.6	79.3	295.1	61.5	11.1	50.1	7.7	43.3	8.7	23.9	3.1	18.4	2.6	337.8	1577.8	Clay		
RRMDD470	16.2	17.0	0.8	147.8	341.5	48.2	181.4	35.7	6.1	25.8	3.8	20.4	4.0	10.6	1.5	9.4	1.3	127.6	965.2	Clay		
RRMDD470	17.0	18.0	1.0	294.4	358.7	73.8	270.6	51.1	8.9	37.0	5.3	27.0	5.0	13.2	1.8	10.2	1.4	168.9	1327.4	Clay		
RRMDD470	18.0	19.0	1.0	150.1	203.9	49.4	189.0	36.4	6.1	24.9	3.7	19.1	3.5	9.2	1.3	7.7	1.0	100.2	805.5	Clay		
RRMDD470	19.0	20.0	1.0	320.2	429.9	55.8	193.0	32.8	5.8	24.3	3.3	16.8	3.1	8.3	1.1	7.0	1.0	92.8	1195.3	Clay		
RRMDD470	20.0	21.0	1.0	72.9	99.7	19.5	73.2	13.7	2.5	10.7	1.6	8.6	1.8	4.9	0.7	4.8	0.7	56.6	372.2	Clay		
RRMDD470	21.0	21.9	1.0	222.8	291.1	94.4	397.7	95.7	20.0	106.2	18.7	115.9	24.9	71.9	10.3	62.2	8.7	841.9	2382.5	Clay		
RRMDD470	21.9	22.9	1.0	246.3	385.7	86.1	360.4	74.9	13.7	59.7	8.5	41.4	6.9	16.4	2.2	12.6	1.6	164.5	1480.9	Clay		
RRMDD470	22.9	23.9	1.0	215.8	130.8	43.1	165.0	30.6	5.5	25.8	3.5	17.6	3.1	7.7	1.1	6.2	0.8	84.3	741.1	Clay		
RRMDD470	23.9	24.4	0.6	79.3	88.4	25.3	103.2	21.2	4.5	24.2	4.0	23.0	5.1	15.1	2.1	12.2	1.8	201.9	611.2	Clay		
RRMDD470	24.4	25.6	1.2	85.5	142.5	24.9	98.8	19.4	3.8	20.9	3.3	18.6	4.1	12.3	1.6	10.0	1.5	160.0	607.3	Upper Saprolite		
RRMDD470	25.6	26.3	0.7	130.8	309.6	34.1	123.6	20.9	3.8	17.5	2.5	12.4	2.4	6.6	0.9	5.7	0.9	72.4	744.0	Upper Saprolite		
RRMDD470	26.3	27.3	1.0	140.1	272.7	39.9	156.9	29.8	5.9	28.5	4.5	24.2	4.9	14.2	2.0	12.2	1.8	164.5	902.0	Lower Saprolite		
RRMDD470	27.3	28.2	1.0	75.2	107.4	20.7	77.2	13.7	2.4	10.4	1.5	7.3	1.3	3.8	0.5	3.7	0.5	39.0	364.6	Lower Saprolite		
RRMDD470	28.2	29.2	1.0	61.1	87.5	14.8	54.8	9.7	1.9	8.2	1.2	6.0	1.2	3.3	0.5	3.3	0.5	33.7	287.5	Lower Saprolite	23.4	880
RRMDD470	29.2	30.0	0.8	97.5	97.7	25.7	106.8	21.3	4.6	27.2	4.2	24.9	5.5	16.8	2.3	14.0	2.0	212.1	662.5	Saprock		
RRMDD471	0.0	2.1	2.1	64.5	105.9	12.3	40.4	7.2	1.3	6.1	1.0	6.5	1.3	3.9	0.7	4.7	0.7	40.0	296.6	Hardcap		
RRMDD471	2.1	4.1	2.1	61.3	345.2	11.8	39.2	6.6	1.2	5.5	1.0	6.0	1.2	3.7	0.6	4.3	0.7	34.0	522.5	Hardcap		
RRMDD471	4.1	6.2	2.1	64.4	732.1	12.7	42.3	7.6	1.3	5.6	1.0	5.9	1.2	3.5	0.6	4.3	0.6	30.7	913.9	Hardcap		
RRMDD471	6.2	7.0	0.8	53.6	46.7	10.6	35.9	5.8	1.0	5.1	0.9	5.3	1.2	3.9	0.6	4.3	0.6	36.7	212.3	Mottled		
RRMDD471	7.0	7.8	0.8	43.9	34.8	9.2	32.1	5.6	0.9	4.8	0.8	5.0	1.1	3.8	0.5	4.2	0.6	34.9	182.3	Mottled		
RRMDD471	7.8	8.6	0.9	42.8	42.6	9.0	31.0	5.3	0.9	4.5	0.8	4.9	1.1	3.7	0.6	4.2	0.6	33.7	185.6	Clay		
RRMDD471	8.6	9.5	0.9	52.9	63.9	12.8	44.4	7.5	1.3	5.7	0.9	5.4	1.2	3.7	0.6	4.4	0.6	34.2	239.6	Clay		
RRMDD471	9.5	10.3	0.9	51.6	71.2	12.5	42.2	7.0	1.2	5.5	0.9	4.8	1.1	3.4	0.5	3.8	0.6	30.0	236.3	Clay		
RRMDD471	10.3	11.2	0.8	75.8	190.4	18.5	63.7	10.3	1.8	7.7	1.2	6.5	1.3	4.1	0.6	4.3	0.6	38.1	424.9	Clay		
RRMDD471	11.2	12.1	1.0	78.9	122.8	18.6	63.3	10.1	1.7	7.7	1.1	6.1	1.3	4.1	0.6	4.3	0.6	38.0	359.3	Clay		
RRMDD471	12.1	13.1	1.0	78.2	117.9	18.7	62.9	10.1	1.9	7.6	1.1	6.1	1.2	3.8	0.5	4.0	0.6	34.4	349.1	Clay		
RRMDD471	13.1	14.1	1.0	98.9	151.7	25.0	86.5	14.6	2.7	10.3	1.5	7.7	1.5	4.4	0.6	4.5	0.6	42.2	452.8	Clay		
RRMDD471	14.1	15.1	1.0	93.8	138.8	23.3	80.0	13.2	2.3	9.2	1.4	7.1	1.4	4.3	0.6	4.4	0.6	41.5	421.9	Clay		
RRMDD471	15.1	16.1	1.0	97.6	140.0	23.8	79.9	13.2	2.4	9.5	1.4	7.2	1.4	4.3	0.6	4.3	0.6	41.3	427.4	Clay		
RRMDD471	16.1	17.0	1.0	95.1	133.3	23.1	77.7	12.9	2.3	9.6	1.4	7.4	1.6	4.7	0.7	4.8	0.7	44.7	420.0	Clay		
RRMDD471	17.0	18.0	1.0	91.2	103.9	21.5	74.1	12.1	2.1	9.7	1.4	7.9	1.6	5.1	0.7	5.1	0.7	50.5	387.7	Clay		
RRMDD471	18.0	19.0	1.0	105.4	164.6	27.5	93.4	15.4	2.8	11.6	1.7	8.9	1.8	5.3	0.7	5.2	0.7	52.4	497.6	Clay		
RRMDD471	19.0	19.9	0.9	132.5	180.0	38.3	131.8	22.3	3.9	14.9	2.2	11.0	2.1	5.8	0.8	5.5	0.8	56.5	608.3	Clay		
RRMDD471	19.9	20.8	0.9	115.6	131.4	30.3	103.8	17.3	3.1	12.2	1.7	9.2	1.8	5.4	0.8	5.1	0.8	52.8	491.3	Clay		
RRMDD471	20.8	21.7	0.9	110.2	116.0	28.4	97.4	16.2	2.9	11.5	1.7	8.8	1.7	5.1	0.7	4.9	0.7	49.7	455.9	Clay		
RRMDD471	21.7	22.6	0.9	99.3	116.7	25.7	89.2	14.7	2.6	10.9	1.5	8.2	1.6	4.6	0.6	4.3	0.6	46.1	426.7	Clay		
RRMDD471	22.6	23.4	0.9	122.6	145.6	33.8	116.6	19.7	3.5	13.4	2.0	9.8	1.9	5.5	0.7	4.9	0.7	50.7	531.2	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
RRMDD471	23.4	24.3	0.9	102.7	122.8	27.1	92.8	15.2	2.7	10.7	1.6	8.1	1.6	4.6	0.6	4.4	0.6	44.4	440.0	Clay		
RRMDD471	24.3	25.2	0.9	127.8	155.4	35.9	124.8	20.9	3.6	13.9	2.1	10.3	2.0	5.6	0.8	5.2	0.7	54.9	564.0	Clay		
RRMDD471	25.2	26.1	0.9	91.9	122.0	23.9	82.2	13.4	2.5	9.9	1.5	8.6	1.9	5.5	0.8	5.6	0.8	58.9	429.4	Clay		
RRMDD471	26.1	27.1	1.1	69.4	119.5	17.9	63.9	10.9	2.0	8.7	1.3	6.7	1.4	4.0	0.6	3.9	0.6	39.9	350.6	Clay		
RRMDD471	27.1	27.9	0.7	76.7	122.8	18.8	67.7	11.8	2.3	8.5	1.3	6.9	1.4	3.9	0.6	4.0	0.6	41.4	368.7	Clay		
RRMDD471	27.9	28.6	0.7	63.1	95.4	14.1	49.1	8.4	1.5	5.6	0.9	4.8	1.0	3.0	0.5	3.5	0.5	32.8	284.2	Clay		
RRMDD471	28.6	29.4	0.8	60.6	85.9	12.4	43.0	7.6	1.5	6.6	1.1	6.7	1.5	4.8	0.7	5.0	0.8	59.3	297.6	Clay		
RRMDD471	29.4	30.1	0.7	65.2	96.4	14.3	49.7	8.4	1.6	6.5	1.0	5.5	1.2	3.5	0.6	3.9	0.6	40.0	298.3	Clay		
RRMDD471	30.1	31.1	1.0	209.9	250.6	53.6	211.7	45.0	10.2	52.0	9.0	58.0	13.4	39.9	5.8	36.8	5.5	499.1	1500.5	Lower Saprolite		
RRMDD471	31.1	32.1	1.0	126.1	135.1	26.8	104.3	19.2	4.0	19.3	2.9	16.0	3.3	9.6	1.4	8.5	1.2	119.9	597.4	Lower Saprolite		
RRMDD471	32.1	33.3	1.2	130.8	150.5	25.0	100.2	18.7	4.0	20.9	3.1	18.1	4.0	11.2	1.6	10.2	1.5	144.8	644.5	Lower Saprolite	23.0	491
RRMDD472	0.0	1.7	1.7	84.9	372.2	16.1	52.8	9.6	1.7	8.1	1.4	8.4	1.6	5.0	0.8	5.1	0.8	47.0	615.5	Hardcap		
RRMDD472	1.7	3.3	1.7	99.5	947.1	20.0	65.6	11.5	2.0	9.0	1.5	8.3	1.7	5.1	0.8	5.0	0.8	42.2	1219.8	Hardcap		
RRMDD472	3.3	4.4	1.1	114.1	362.4	22.4	72.4	12.5	2.1	9.8	1.6	9.0	1.8	5.6	0.8	5.8	0.8	49.0	670.1	Transition		
RRMDD472	4.4	5.1	0.7	200.0	269.0	41.9	138.8	22.9	3.9	16.6	2.4	11.9	2.1	6.1	0.8	5.6	0.8	52.3	775.1	Mottled		
RRMDD472	5.1	5.9	0.8	169.5	207.6	38.4	124.2	20.4	3.3	14.0	1.9	10.3	1.9	5.4	0.8	5.4	0.8	48.6	652.6	Clay		
RRMDD472	5.9	6.7	0.8	129.6	202.1	32.5	115.5	20.8	3.7	16.0	2.4	13.7	2.6	7.8	1.1	7.2	1.1	70.9	626.8	Clay	2.4	682
RRMDD472	6.7	7.7	1.0	64.2	130.8	15.0	51.8	8.7	1.6	7.0	0.9	4.7	0.9	2.5	0.3	2.3	0.3	28.1	319.1	Saprock		
RRMDD473	0.0	1.7	1.7	73.8	551.6	12.3	39.3	6.9	1.3	5.6	1.0	5.7	1.1	3.4	0.6	3.9	0.6	32.9	739.7	Hardcap		
RRMDD473	1.7	3.5	1.7	83.7	544.2	15.2	48.5	8.2	1.5	6.6	1.1	6.6	1.3	3.9	0.7	4.6	0.7	38.2	765.1	Hardcap		
RRMDD473	3.5	5.2	1.7	101.2	757.9	18.2	58.6	9.8	1.8	7.8	1.3	7.7	1.5	4.7	0.8	5.4	0.8	44.6	1022.2	Transition		
RRMDD473	5.2	5.9	0.7	148.4	357.5	25.9	78.8	12.7	2.2	9.5	1.6	8.5	1.7	5.4	0.8	5.9	0.9	46.2	705.9	Mottled		
RRMDD473	5.9	6.6	0.7	268.6	335.4	41.8	120.1	18.0	3.1	13.9	2.2	11.8	2.4	7.4	1.1	7.4	1.1	71.5	905.7	Mottled		
RRMDD473	6.6	7.2	0.6	243.9	248.1	64.0	233.3	43.6	7.2	31.9	4.7	24.4	4.8	12.9	1.9	11.8	1.8	144.8	1079.3	Palid	2.0	891
RRMDD473	7.2	8.0	0.8	95.8	156.6	27.9	106.8	19.6	3.6	16.4	2.3	11.5	2.2	6.6	0.9	5.8	0.8	77.1	533.9	Saprock		
RRMDD473	8.0	8.8	0.8	76.8	154.8	17.5	63.2	11.6	2.1	9.4	1.4	6.9	1.3	3.9	0.5	3.7	0.5	43.2	396.8	Saprock		
RRMDD473	8.8	9.5	0.8	75.4	151.1	17.2	60.1	10.3	1.9	7.6	1.1	5.3	1.1	3.1	0.5	3.1	0.4	33.5	371.6	Saprock		
RRMDD473	9.5	10.3	0.8	65.1	147.4	17.5	68.1	14.4	3.0	14.6	2.5	15.4	3.5	11.7	1.8	12.0	1.7	117.1	495.7	Saprock		
RRMDD474	0.0	2.0	2.0	89.1	534.4	16.3	52.1	8.4	1.5	6.2	1.1	6.3	1.2	3.8	0.6	4.4	0.7	34.5	760.7	Hardcap		
RRMDD474	2.0	4.0	2.0	79.6	620.3	14.9	47.5	7.8	1.3	5.7	1.0	5.8	1.2	3.4	0.6	4.0	0.6	30.1	823.6	Hardcap		
RRMDD474	4.0	6.0	2.0	75.6	415.2	13.5	42.6	7.0	1.3	5.6	0.9	5.8	1.1	3.6	0.5	3.8	0.6	30.9	608.0	Transition		
RRMDD474	6.0	6.8	0.8	84.9	226.6	14.5	43.5	6.8	1.1	5.2	0.9	5.2	1.2	3.7	0.6	4.5	0.7	36.3	435.8	Mottled		
RRMDD474	6.8	7.6	0.8	72.7	78.7	13.2	40.0	6.3	1.0	5.0	0.8	4.4	1.0	3.3	0.5	3.8	0.6	31.5	262.9	Mottled		
RRMDD474	7.6	8.3	0.8	82.8	95.9	16.7	54.1	8.4	1.4	6.5	1.0	5.7	1.2	3.7	0.6	4.3	0.7	36.3	319.4	Mottled		
RRMDD474	8.3	9.2	0.9	119.0	149.3	29.6	102.6	17.4	2.8	11.1	1.6	8.2	1.5	4.5	0.7	4.3	0.7	44.4	497.8	Mottled		
RRMDD474	9.2	10.0	0.9	320.2	235.9	55.5	166.8	22.8	3.8	14.7	2.0	9.6	1.7	4.7	0.7	4.4	0.7	44.4	887.7	Mottled		
RRMDD474	10.0	10.9	0.9	70.7	81.4	15.5	52.4	8.6	1.6	7.2	1.1	6.3	1.4	4.4	0.6	4.5	0.7	46.1	302.5	Mottled		
RRMDD474	10.9	11.7	0.9	84.0	105.3	18.4	62.2	10.6	1.8	8.5	1.4	7.6	1.6	5.0	0.7	5.2	0.8	54.1	366.9	Clay		
RRMDD474	11.7	12.6	0.9	59.9	103.2	17.6	66.0	11.7	2.1	9.2	1.4	7.7	1.6	5.0	0.8	5.0	0.8	55.5	347.4	Clay		
RRMDD474	12.6	13.4	0.8	49.7	78.5	17.4	68.8	12.9	2.4	10.7	1.6	8.7	1.8	5.6	0.8	5.5	0.9	63.0	328.4	Clay		
RRMDD474	13.4	14.3	0.9	67.3	132.7	20.1	75.6	13.9	2.7	12.2	1.8	10.6	2.2	6.8	0.9	6.1	0.9	73.0	426.8	Clay		
RRMDD474	14.3	15.2	0.9	54.7	86.2	15.8	60.8	11.3	2.1	10.5	1.6	9.4	2.0	6.0	0.9	5.9	0.9	66.3	334.1	Clay		
RRMDD474	15.2	16.1	0.9	75.8	120.6	26.8	109.8	21.7	4.3	19.0	2.7	15.6	3.0	9.0	1.2	8.0	1.2	94.5	513.3	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
RRMDD474	16.1	17.0	0.9	134.9	297.3	57.6	231.5	45.2	8.6	35.5	5.0	26.7	5.0	14.5	1.9	12.1	1.6	153.0	1030.5	Clay		
RRMDD474	17.0	17.8	0.9	48.4	108.5	13.1	49.8	9.4	1.9	9.3	1.4	8.2	1.8	5.4	0.8	5.2	0.8	57.1	321.1	Clay		
RRMDD474	17.8	18.7	0.9	103.1	212.5	38.8	154.0	29.0	5.4	22.5	3.3	17.7	3.3	9.4	1.3	8.2	1.2	95.9	705.6	Clay		
RRMDD474	18.7	19.6	0.9	66.3	119.8	17.4	64.3	11.9	2.4	11.1	1.6	9.5	2.0	6.0	0.8	5.5	0.8	61.0	380.1	Clay		
RRMDD474	19.6	20.5	0.9	60.4	108.2	14.6	52.7	9.5	1.9	8.9	1.4	8.1	1.7	5.4	0.7	5.2	0.8	56.5	336.0	Clay		
RRMDD474	20.5	21.4	0.9	76.9	144.3	20.1	75.6	14.0	2.8	12.3	1.8	10.0	2.0	5.8	0.8	5.6	0.8	60.4	433.4	Clay		
RRMDD474	21.4	22.2	0.8	73.9	140.7	18.9	69.3	13.3	2.8	12.6	2.0	11.4	2.3	7.0	1.0	6.4	0.9	68.2	430.5	Upper Saprolite		
RRMDD474	22.2	23.1	0.9	65.6	126.5	23.6	97.6	21.3	4.6	21.6	3.4	19.4	3.8	11.3	1.5	9.6	1.4	106.7	517.8	Upper Saprolite		
RRMDD474	23.1	23.9	0.8	77.5	146.2	21.5	87.7	18.6	4.3	23.2	3.6	22.6	4.9	14.5	1.9	12.1	1.8	158.1	598.6	Upper Saprolite	17.9	467
RRMDD475	0.0	1.8	1.8	98.6	380.8	17.8	54.9	8.8	1.5	6.9	1.1	6.3	1.2	3.7	0.6	3.8	0.6	31.9	618.6	Hardcap		
RRMDD475	1.8	3.6	1.8	122.0	1045.4	21.6	66.8	10.9	1.8	7.7	1.3	7.3	1.3	4.1	0.6	4.3	0.6	32.5	1328.3	Hardcap		
RRMDD475	3.6	4.6	1.0	107.2	934.8	19.1	62.8	10.9	1.7	8.1	1.4	7.8	1.6	4.8	0.8	4.8	0.8	42.7	1209.2	Transition		
RRMDD475	4.6	5.4	0.8	99.9	228.5	19.3	63.8	10.8	1.8	8.7	1.3	7.6	1.6	4.9	0.8	5.0	0.8	48.3	502.9	Clay		
RRMDD475	5.4	6.2	0.8	144.3	160.3	24.0	74.8	11.9	2.0	9.3	1.4	7.8	1.7	5.0	0.7	5.0	0.8	51.9	500.8	Clay		
RRMDD475	6.2	7.0	0.8	125.5	202.7	21.8	69.4	11.6	1.8	8.6	1.2	7.5	1.6	4.8	0.7	5.0	0.8	48.4	511.4	Clay		
RRMDD475	7.0	7.9	0.8	129.0	189.2	23.0	73.7	12.2	2.1	9.3	1.4	8.6	1.8	5.5	0.8	5.8	0.9	55.9	519.3	Clay		
RRMDD475	7.9	8.7	0.8	134.3	246.9	26.1	84.9	14.0	2.4	10.3	1.4	7.9	1.6	4.9	0.7	4.8	0.7	47.6	588.4	Clay		
RRMDD475	8.7	9.5	0.8	120.2	312.0	25.1	81.6	13.3	2.2	9.2	1.3	7.5	1.5	4.4	0.7	4.7	0.7	44.8	629.5	Clay		
RRMDD475	9.5	10.3	0.8	135.5	265.3	27.2	87.4	14.7	2.4	9.8	1.4	7.4	1.5	4.2	0.7	4.5	0.7	42.5	605.2	Clay		
RRMDD475	10.3	11.1	0.8	155.4	278.8	31.9	104.9	17.7	3.0	11.9	1.6	8.6	1.6	4.5	0.7	4.3	0.6	42.8	668.6	Clay		
RRMDD475	11.1	11.9	0.8	87.8	183.6	18.7	61.0	10.5	1.7	7.0	1.0	5.4	1.1	3.4	0.5	3.7	0.6	32.0	418.2	Clay	7.4	549
RRMDD475	11.9	12.6	0.7	48.7	91.1	11.8	40.4	6.8	1.2	4.8	0.7	4.1	0.8	2.6	0.4	2.8	0.5	23.6	240.3	Clay		
RRMDD475	12.6	13.2	0.7	42.0	211.3	10.4	35.7	6.8	1.2	5.2	0.8	4.6	1.0	2.8	0.5	3.3	0.5	26.5	352.6	Clay		
RRMDD475	13.2	14.0	0.7	56.8	105.8	13.2	45.3	7.9	1.4	6.2	0.9	5.3	1.1	3.2	0.5	3.4	0.5	34.5	286.1	Clay		
RRMDD475	14.0	14.7	0.7	59.5	109.9	13.8	46.8	8.5	1.5	6.6	0.9	5.7	1.2	3.4	0.6	3.7	0.5	38.4	300.9	Clay		
RRMDD475	14.7	15.5	0.8	52.0	99.9	12.5	43.2	7.4	1.3	5.9	0.9	4.9	1.1	3.3	0.6	3.6	0.6	35.3	272.3	Clay		
RRMDD475	15.5	16.4	0.9	64.0	124.1	15.5	52.5	8.7	1.5	6.3	0.9	5.1	1.1	3.2	0.5	3.3	0.5	33.9	321.1	Clay		
RRMDD475	16.4	17.2	0.9	59.9	113.0	14.4	48.9	8.4	1.5	6.5	0.9	5.2	1.0	3.2	0.5	3.5	0.5	32.9	300.2	Clay		
RRMDD475	17.2	18.1	0.9	70.6	129.6	18.0	63.0	10.9	1.9	8.0	1.1	6.1	1.2	3.6	0.6	3.8	0.5	38.7	357.7	Clay		
RRMDD475	18.1	19.0	0.9	228.1	307.1	52.3	179.0	32.0	5.6	22.2	2.9	15.1	2.7	7.0	1.0	5.6	0.8	82.2	943.7	Clay		
RRMDD475	19.0	19.9	0.9	111.9	168.3	25.0	85.4	15.3	2.7	10.8	1.5	8.2	1.5	4.3	0.6	3.9	0.6	45.2	485.3	Clay		
RRMDD475	19.9	20.8	0.9	123.7	234.6	38.1	142.9	30.0	5.7	26.3	3.9	22.8	4.7	13.0	1.8	10.3	1.4	153.0	812.2	Clay		
RRMDD475	20.8	21.5	0.7	185.9	346.4	59.6	226.9	46.2	8.3	36.1	5.1	28.3	5.3	14.2	1.9	11.2	1.6	141.6	1118.5	Clay		
RRMDD475	21.5	22.4	0.9	341.3	488.9	97.4	386.1	75.8	14.9	73.7	10.3	58.3	11.7	31.8	4.2	22.9	3.3	406.4	2026.8	Upper Saprolite		
RRMDD475	22.4	23.1	0.8	154.8	289.9	42.4	156.9	31.9	6.1	26.2	3.9	22.9	4.4	11.9	1.7	10.4	1.5	116.2	881.1	Lower Saprolite		
RRMDD475	23.1	24.0	0.9	96.2	173.2	24.8	90.6	18.3	3.6	15.6	2.4	14.3	2.8	7.8	1.2	7.3	1.0	73.5	532.6	Lower Saprolite	6.8	888
RRMDD476	0.0	2.0	2.0	56.6	515.9	10.1	33.4	6.3	1.2	5.2	0.9	5.5	1.1	3.5	0.5	3.7	0.6	30.4	674.9	Hardcap		
RRMDD476	2.0	3.9	2.0	78.7	974.1	17.0	56.0	10.3	1.8	7.8	1.4	8.2	1.6	4.9	0.7	5.3	0.8	41.3	1209.8	Hardcap		
RRMDD476	3.9	4.4	0.5	77.1	979.0	18.3	58.1	11.4	1.9	8.0	1.5	8.3	1.6	5.2	0.8	5.6	0.8	39.2	1216.8	Transition		
RRMDD476	4.4	5.2	0.8	67.0	325.5	12.7	41.2	7.5	1.4	6.1	1.1	6.5	1.3	4.5	0.7	4.7	0.8	35.2	516.0	Mottled		
RRMDD476	5.2	6.0	0.8	73.3	282.5	15.0	50.5	9.5	1.8	7.7	1.4	7.9	1.6	5.0	0.8	5.4	0.8	41.9	505.0	Mottled		
RRMDD476	6.0	6.4	0.4	94.6	170.7	27.1	89.9	15.9	2.6	11.1	1.5	7.7	1.4	4.2	0.6	4.1	0.6	41.5	473.5	Clay		
RRMDD476	6.4	7.1	0.7	102.0	138.2	26.9	88.3	13.6	2.2	9.2	1.2	6.8	1.3	3.9	0.6	4.3	0.7	38.0	437.2	Palid		

																				>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
RRMDD476	7.1	8.1	1.0	191.2	291.1	46.0	151.6	24.1	4.0	16.1	2.1	11.3	2.0	5.8	0.8	5.5	0.8	56.5	809.1	Upper Saprolite		
RRMDD476	8.1	8.8	0.6	767.0	250.6	206.0	696.3	114.0	20.7	99.6	13.2	71.5	13.8	38.4	4.8	29.0	4.3	509.2	2838.5	Lower Saprolite		
RRMDD476	8.8	9.4	0.6	118.5	165.8	23.0	87.8	17.0	3.6	19.1	2.8	16.7	3.6	10.6	1.4	8.8	1.3	168.9	648.8	Lower Saprolite	4.2	942
RRMDD476	9.4	10.2	0.8	73.2	117.1	15.2	51.0	8.8	1.7	7.6	1.1	6.5	1.3	3.9	0.5	3.7	0.6	45.7	337.7	Saprock		
RRMDD477	0.0	1.7	1.7	65.6	220.5	12.9	42.9	8.0	1.4	6.8	1.1	7.1	1.4	4.3	0.7	4.5	0.7	38.9	416.7	Hardcap		
RRMDD477	1.7	3.5	1.7	93.5	627.7	18.3	59.1	10.3	2.0	7.9	1.3	7.5	1.5	4.5	0.7	4.6	0.7	37.6	877.0	Hardcap		
RRMDD477	3.5	4.3	0.8	78.0	171.4	21.0	70.5	11.8	2.1	9.2	1.4	8.0	1.6	4.6	0.7	4.5	0.7	47.4	432.8	Mottled		
RRMDD477	4.3	5.1	0.8	77.8	92.0	20.2	68.9	11.0	2.0	8.6	1.3	7.8	1.6	4.7	0.7	4.4	0.7	50.8	352.5	Mottled		
RRMDD477	5.1	6.0	0.8	120.2	127.8	30.9	104.6	16.9	3.1	13.4	2.0	11.3	2.2	6.6	0.9	5.9	0.9	74.0	520.7	Clay		
RRMDD477	6.0	6.8	0.8	233.4	184.3	57.9	200.6	31.7	5.9	26.3	3.8	20.8	4.2	11.4	1.5	9.3	1.4	139.7	932.1	Clay		
RRMDD477	6.8	7.6	0.8	1378.0	918.8	358.8	1242.2	190.8	35.7	145.2	20.6	107.7	19.6	49.9	6.4	37.2	5.2	571.5	5087.6	Clay		
RRMDD477	7.6	8.5	0.8	381.2	316.9	87.1	304.4	48.1	9.1	39.5	5.6	30.1	5.8	15.6	2.0	12.0	1.7	189.2	1448.2	Clay		
RRMDD477	8.5	9.3	0.8	448.0	390.6	97.5	338.3	54.2	10.3	43.8	6.5	35.1	6.9	18.6	2.5	14.5	2.2	235.6	1704.5	Clay		
RRMDD477	9.3	10.1	0.8	258.0	310.8	60.0	208.8	33.3	6.3	28.2	4.1	22.7	4.6	12.5	1.8	10.1	1.5	158.1	1120.9	Clay		
RRMDD477	10.1	10.9	0.8	187.1	175.7	41.8	148.1	23.7	4.6	22.1	3.3	19.1	4.0	11.1	1.5	9.1	1.4	144.1	796.7	Clay		
RRMDD477	10.9	11.7	0.8	346.0	308.3	84.2	302.1	49.7	9.6	43.7	6.2	32.9	6.3	16.3	2.1	12.4	1.8	197.5	1419.2	Clay		
RRMDD477	11.7	12.6	0.9	442.1	410.3	109.3	391.9	65.1	13.0	58.7	8.5	46.8	9.2	25.2	3.3	19.1	2.8	325.1	1930.4	Clay		
RRMDD477	12.6	13.4	0.9	313.1	283.8	67.5	247.3	40.1	8.2	39.3	5.9	34.0	7.1	19.4	2.7	15.3	2.4	255.2	1341.4	Clay		
RRMDD477	13.4	14.3	0.9	351.8	299.7	72.4	270.6	43.6	8.9	43.1	6.2	35.5	7.1	19.2	2.5	15.6	2.3	231.1	1409.7	Clay		
RRMDD477	14.3	15.1	0.9	275.6	235.9	49.4	182.5	29.5	6.0	29.5	4.2	22.6	4.4	11.8	1.6	9.7	1.5	134.6	998.7	Clay		
RRMDD477	15.1	16.0	0.9	173.0	181.8	32.6	118.4	18.6	4.0	19.1	2.8	15.7	3.2	8.8	1.3	7.6	1.2	101.2	689.2	Upper Saprolite		
RRMDD477	16.0	16.9	1.0	233.4	340.3	51.0	224.5	50.2	13.5	95.1	16.2	111.4	28.3	84.5	11.2	64.3	10.5	1225.5	2559.9	Lower Saprolite	13.5	1432
RRMDD477	16.9	17.6	0.7	89.5	178.1	17.8	59.1	8.7	1.9	8.1	1.2	7.3	1.6	4.9	0.7	4.2	0.7	66.0	449.8	Saprock		
RRMDD477	17.6	18.3	0.7	58.1	120.6	13.4	48.8	8.7	1.9	7.9	1.2	6.9	1.5	4.3	0.6	3.6	0.5	53.5	331.3	Saprock		
RRMDD478	0.0	1.4	1.4	55.0	832.9	10.0	32.5	6.1	1.1	5.0	0.9	5.3	1.0	3.2	0.5	3.2	0.5	29.7	987.1	Hardcap		
RRMDD478	1.4	2.9	1.4	143.7	986.4	17.9	52.0	9.0	1.5	6.9	1.3	7.2	1.4	4.2	0.7	4.5	0.7	37.5	1274.8	Hardcap		
RRMDD478	2.9	3.9	1.0	90.2	789.9	18.7	60.9	10.8	1.9	8.5	1.4	8.1	1.7	5.2	0.7	5.2	0.8	47.7	1051.7	Transition		
RRMDD478	3.9	4.9	1.0	72.6	738.3	15.1	49.9	8.8	1.5	7.1	1.2	6.9	1.4	4.6	0.6	4.6	0.7	41.0	954.3	Transition		
RRMDD478	4.9	5.7	0.8	127.2	156.0	28.6	96.2	15.4	2.5	11.9	1.7	9.2	1.8	5.4	0.7	4.8	0.7	55.7	517.9	Mottled		
RRMDD478	5.7	6.5	0.8	274.4	200.8	42.9	133.6	19.5	3.3	14.4	2.0	10.6	1.9	5.6	0.8	5.2	0.8	61.2	776.9	Mottled		
RRMDD478	6.5	7.1	0.6	207.6	238.3	49.5	168.5	28.5	4.8	19.8	2.5	13.0	2.4	6.0	0.9	5.2	0.8	69.0	816.7	Palid		
RRMDD478	7.1	8.0	0.9	239.3	171.4	53.9	184.3	30.8	5.3	22.0	2.7	13.2	2.3	5.7	0.8	4.8	0.7	63.9	800.9	Upper Saprolite		
RRMDD478	8.0	8.4	0.5	256.8	281.3	56.8	198.9	33.4	5.7	24.8	3.0	15.1	2.7	7.0	0.9	5.7	0.8	79.0	972.1	Upper Saprolite		
RRMDD478	8.4	9.4	0.9	442.1	280.1	107.0	395.4	70.3	13.1	62.8	8.1	41.5	7.7	19.6	2.6	14.7	2.2	243.8	1711.1	Lower Saprolite	4.5	947
RRMDD478	9.4	9.8	0.5	146.6	189.8	26.5	95.2	14.6	2.8	14.1	1.7	9.0	1.8	4.9	0.7	3.7	0.6	90.5	602.4	Saprock		
RRMDD479	0.0	1.4	1.4	62.6	1046.6	13.0	41.4	7.7	1.4	6.3	1.1	6.2	1.3	3.7	0.6	3.8	0.6	37.0	1233.1	Hardcap		
RRMDD479	1.4	2.8	1.4	73.9	1738.2	15.1	46.4	8.4	1.4	6.1	1.1	6.1	1.2	3.6	0.6	3.8	0.6	34.9	1941.4	Hardcap		
RRMDD479	2.8	3.5	0.7	108.1	820.6	20.2	66.5	10.4	1.7	8.3	1.4	8.4	1.8	5.1	0.8	4.8	0.8	54.4	1113.2	Transition		
RRMDD479	3.5	4.2	0.7	101.2	124.7	18.6	61.4	9.9	1.7	8.1	1.3	7.7	1.6	4.6	0.7	4.5	0.7	50.4	397.0	Clay		
RRMDD479	4.2	4.9	0.7	105.3	314.5	20.8	69.1	11.2	2.0	9.2	1.5	8.3	1.7	5.0	0.7	4.7	0.7	54.0	608.7	Clay		
RRMDD479	4.9	5.8	0.9	93.4	299.7	19.0	65.1	10.7	1.9	9.2	1.5	8.5	1.8	5.1	0.8	4.9	0.7	53.8	576.0	Clay		
RRMDD479	5.8	6.7	0.9	85.1	238.9	18.1	62.1	10.5	1.8	8.5	1.4	8.0	1.6	4.8	0.7	4.2	0.7	49.3	495.8	Clay		
RRMDD479	6.7	7.5	0.8	144.3	233.4	35.0	124.8	20.8	3.8	17.1	2.5	13.6	2.6	7.3	1.0	6.2	0.9	83.8	697.1	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
RRMDD479	7.5	8.3	0.8	139.0	176.9	33.8	120.7	20.4	3.8	16.9	2.5	13.5	2.7	7.2	1.0	6.1	0.9	84.4	629.8	Clay		
RRMDD479	8.3	9.0	0.7	273.3	232.2	63.3	224.5	37.3	7.2	30.3	4.1	21.1	4.0	10.1	1.3	7.8	1.1	123.1	1040.7	Palid		
RRMDD479	9.0	9.6	0.7	315.5	200.8	58.5	209.4	31.8	6.1	28.2	3.5	17.4	3.4	8.6	1.1	6.3	0.9	120.1	1011.7	Palid	6.1	670
RRMDD479	9.6	10.5	0.9	79.2	142.5	17.1	63.0	11.1	2.4	9.8	1.4	7.4	1.5	3.9	0.5	2.9	0.5	56.1	399.2	Saprock		
RRMDD479	10.5	11.3	0.8	44.3	86.2	10.4	36.4	6.1	1.2	4.3	0.6	3.0	0.6	1.6	0.2	1.6	0.3	17.1	213.9	Saprock		
RRMDD479	11.3	12.1	0.8	61.5	124.7	14.7	48.5	6.9	1.3	4.7	0.6	3.4	0.7	1.9	0.3	1.9	0.3	20.6	292.0	Saprock		
RRMDD479	12.1	12.8	0.7	56.3	117.4	13.4	48.4	8.9	1.8	7.0	1.0	5.7	1.1	2.9	0.4	2.5	0.4	32.4	299.6	Saprock		
RRMDD480	0.0	1.9	1.9	136.0	660.9	23.2	71.6	11.4	2.0	8.8	1.4	8.1	1.6	4.9	0.7	4.8	0.7	45.5	981.7	Hardcap		
RRMDD480	1.9	3.9	1.9	176.5	963.1	30.2	89.7	14.5	2.4	9.8	1.5	8.8	1.7	4.9	0.7	4.9	0.8	47.0	1356.5	Transition		
RRMDD480	3.9	4.8	0.9	122.0	599.5	23.4	77.2	11.6	2.0	9.3	1.4	8.4	1.7	5.1	0.8	5.3	0.8	54.4	922.9	Clay		
RRMDD480	4.8	5.6	0.9	146.6	245.1	24.2	72.8	9.8	1.8	7.1	1.0	6.1	1.3	4.0	0.6	4.2	0.6	39.5	564.7	Clay		
RRMDD480	5.6	6.5	0.9	86.8	148.6	16.3	51.6	7.5	1.4	5.8	0.9	5.6	1.2	3.9	0.6	3.8	0.6	37.0	371.4	Clay		
RRMDD480	6.5	7.4	0.9	74.0	215.0	16.9	56.8	9.7	1.8	8.2	1.3	7.4	1.6	4.7	0.7	4.2	0.7	50.5	453.4	Clay		
RRMDD480	7.4	8.2	0.9	122.6	260.4	27.9	92.0	14.7	2.7	11.6	1.7	9.4	2.0	5.8	0.8	5.1	0.8	64.1	621.5	Clay		
RRMDD480	8.2	9.0	0.8	107.4	153.6	28.3	100.2	16.8	3.4	16.4	2.4	13.8	3.0	8.6	1.2	6.9	1.1	116.7	579.6	Clay		
RRMDD480	9.0	9.9	0.9	137.2	185.5	31.9	107.5	16.5	3.1	13.1	1.9	10.5	2.1	6.1	0.8	5.1	0.8	75.4	597.6	Clay		
RRMDD480	9.9	10.7	0.9	166.5	189.8	33.5	107.8	16.4	3.0	12.9	1.8	10.5	2.2	6.2	0.9	5.1	0.8	75.4	632.7	Clay		
RRMDD480	10.7	11.6	0.9	143.1	202.1	40.6	144.1	24.6	4.5	20.5	3.0	16.8	3.4	9.3	1.3	7.5	1.1	117.6	739.5	Clay		
RRMDD480	11.6	12.4	0.8	167.7	238.3	47.7	172.0	28.2	5.2	22.2	3.2	17.3	3.3	9.1	1.2	7.0	1.1	108.6	832.3	Clay		
RRMDD480	12.4	13.3	0.8	301.4	339.0	84.3	311.4	53.3	10.3	46.1	6.8	37.6	7.3	19.2	2.5	14.7	2.1	215.9	1452.2	Upper Saprolite		
RRMDD480	13.3	13.9	0.6	933.5	999.9	282.7	1003.1	185.0	35.0	159.6	24.5	137.7	26.9	70.4	9.1	50.4	7.1	806.4	4731.4	Upper Saprolite		
RRMDD480	13.9	14.5	0.6	147.8	226.6	35.9	131.8	23.1	4.5	21.2	3.2	18.7	3.7	10.1	1.4	8.7	1.3	115.3	753.2	Upper Saprolite		
RRMDD480	14.5	15.3	0.9	117.3	187.9	23.5	83.0	14.3	3.0	16.8	2.5	15.5	3.5	10.3	1.4	8.3	1.3	135.9	624.6	Lower Saprolite	11.5	918
RRMDD480	15.3	16.2	0.9	103.3	199.0	21.5	70.6	11.3	2.0	8.6	1.2	6.4	1.3	3.6	0.5	3.3	0.5	43.8	477.0	Saprock		
RRMDD480	16.2	17.1	0.9	90.4	189.2	19.9	68.6	11.7	2.2	9.3	1.4	7.3	1.5	4.1	0.6	3.7	0.6	46.7	457.1	Saprock		
RRMDD480	17.1	17.6	0.6	76.5	151.1	17.3	60.0	10.3	2.0	7.7	1.2	6.3	1.2	3.4	0.5	3.3	0.5	36.8	378.1	Saprock		
RRMDD481	0.0	1.7	1.7	72.0	186.1	14.4	45.4	8.2	1.5	7.0	1.2	7.4	1.5	4.6	0.7	4.8	0.7	48.0	403.6	Hardcap		
RRMDD481	1.7	3.3	1.7	81.2	613.0	18.2	56.3	10.4	1.8	7.5	1.3	7.9	1.5	4.6	0.7	4.9	0.7	41.7	851.7	Hardcap		
RRMDD481	3.3	5.0	1.7	105.6	687.9	23.6	73.2	14.2	2.5	10.2	1.8	10.3	2.0	5.8	0.9	6.1	0.9	48.4	993.3	Transition		
RRMDD481	5.0	5.9	1.0	123.7	187.3	23.3	71.6	11.2	2.0	8.8	1.3	7.8	1.6	4.8	0.7	4.7	0.7	46.9	496.6	Mottled		
RRMDD481	5.9	6.9	1.0	426.9	337.8	57.5	146.4	18.6	3.0	11.5	1.7	9.2	1.7	4.9	0.7	4.8	0.7	47.5	1072.9	Mottled		
RRMDD481	6.9	7.9	1.0	130.2	202.7	24.8	76.2	11.2	2.0	8.4	1.3	7.5	1.6	4.7	0.7	4.9	0.8	47.4	524.2	Mottled		
RRMDD481	7.9	8.8	1.0	106.6	211.9	30.4	105.9	18.1	3.0	11.9	1.9	10.1	1.9	5.4	0.8	5.3	0.8	55.4	569.5	Mottled		
RRMDD481	8.8	9.5	0.6	94.2	239.5	24.0	81.8	13.5	2.4	9.8	1.6	8.5	1.8	5.0	0.8	5.0	0.8	53.3	541.8	Clay		
RRMDD481	9.5	10.1	0.6	90.9	181.8	22.1	75.0	12.3	2.2	9.3	1.5	8.5	1.7	5.0	0.7	4.8	0.7	50.5	467.0	Clay		
RRMDD481	10.1	10.6	0.6	81.9	121.6	23.3	82.2	14.4	2.5	10.5	1.6	8.8	1.8	5.0	0.7	4.7	0.7	49.3	409.0	Clay		
RRMDD481	10.6	11.1	0.5	777.6	550.3	127.5	377.9	52.0	9.1	33.1	4.4	20.9	3.5	8.4	1.1	6.7	1.0	84.2	2057.7	Clay		
RRMDD481	11.1	11.8	0.7	151.3	167.7	30.9	102.8	16.1	2.9	11.7	1.7	9.1	1.7	4.6	0.7	4.7	0.7	48.9	555.5	Clay		
RRMDD481	11.8	12.6	0.7	175.9	207.6	35.5	115.2	17.5	3.1	12.1	1.8	9.4	1.8	5.1	0.8	4.9	0.7	52.3	643.8	Clay		
RRMDD481	12.6	13.5	0.9	111.7	197.8	34.6	116.6	21.0	3.4	13.4	2.0	10.5	2.0	5.7	0.8	5.6	0.9	56.0	582.0	Clay		
RRMDD481	13.5	14.4	0.9	103.0	178.1	33.8	117.2	21.8	3.6	13.9	2.1	10.8	2.1	5.7	0.8	5.3	0.8	57.8	556.9	Clay		
RRMDD481	14.4	15.4	0.9	214.0	379.6	67.5	234.4	46.3	8.0	29.4	4.3	21.6	4.0	10.3	1.5	8.9	1.3	99.9	1130.9	Clay		
RRMDD481	15.4	15.9	0.6	194.1	337.8	73.8	274.1	56.4	10.2	45.3	7.2	42.1	8.9	26.0	3.7	22.4	3.4	302.2	1407.6	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
RRMDD481	15.9	16.5	0.6	349.5	506.1	92.1	314.9	57.3	9.9	40.0	5.9	31.7	6.2	17.0	2.4	14.3	2.2	231.1	1680.5	Clay		
RRMDD481	16.5	17.1	0.6	102.0	189.2	29.6	102.2	18.8	3.3	12.7	1.9	10.1	1.9	5.5	0.8	5.2	0.8	54.4	538.3	Upper Saprolite		
RRMDD481	17.1	18.1	1.0	117.9	202.7	32.6	110.9	20.9	3.5	14.5	2.1	11.4	2.2	6.1	0.9	5.8	0.9	65.5	597.8	Upper Saprolite		
RRMDD481	18.1	18.8	0.7	100.2	179.3	32.0	121.3	26.4	5.0	22.0	3.3	18.2	3.6	9.6	1.4	8.7	1.3	101.0	633.4	Upper Saprolite		
RRMDD481	18.8	19.4	0.7	136.6	195.9	47.1	187.2	40.8	7.4	32.4	4.6	25.1	4.8	12.5	1.7	10.8	1.5	139.1	847.6	Upper Saprolite		
RRMDD481	19.4	20.0	0.6	138.4	191.0	34.7	134.7	27.3	5.4	26.7	3.9	23.0	4.8	13.6	1.9	11.7	1.8	175.2	794.2	Lower Saprolite	15.0	764
RRMDD481	20.0	21.0	1.0	112.4	151.7	29.5	117.8	28.4	6.2	35.6	5.7	35.2	7.8	22.2	3.1	17.8	2.8	285.7	861.9	Saprock		
RRMDD481	21.0	22.2	1.2	76.0	132.1	16.6	57.7	10.3	2.1	10.1	1.4	8.1	1.8	5.3	0.7	4.2	0.7	102.5	429.8	Saprock		
RRMDD482	0.0	1.7	1.7	69.1	996.2	14.1	45.1	8.6	1.6	7.0	1.2	6.9	1.4	4.2	0.7	4.2	0.7	42.3	1203.4	Hardcap		
RRMDD482	1.7	3.3	1.7	58.9	862.3	13.5	43.3	8.3	1.4	6.2	1.1	6.5	1.4	4.1	0.7	4.2	0.7	38.2	1050.6	Hardcap		
RRMDD482	3.3	5.1	1.8	85.8	786.2	17.1	55.9	10.7	1.7	8.0	1.4	8.1	1.6	5.0	0.8	4.9	0.8	47.9	1035.7	Transition		
RRMDD482	5.1	5.7	0.5	51.3	426.3	11.5	37.3	7.0	1.1	5.2	0.8	4.8	1.0	3.0	0.4	2.8	0.4	27.9	580.9	Transition		
RRMDD482	5.7	6.5	0.9	130.8	212.5	25.5	82.5	14.7	2.4	11.2	1.7	9.6	1.9	5.5	0.8	5.1	0.7	57.8	562.8	Mottled		
RRMDD482	6.5	7.7	1.2	280.3	307.1	63.7	205.9	36.2	5.9	25.0	3.7	19.4	3.7	9.8	1.3	8.2	1.2	109.1	1080.4	Clay		
RRMDD482	7.7	8.8	1.2	162.4	164.6	38.1	120.7	20.8	3.3	14.0	1.9	9.8	1.8	4.8	0.7	4.4	0.6	54.2	602.2	Clay		
RRMDD482	8.8	9.4	0.6	258.0	128.4	39.3	126.6	24.4	4.3	18.0	2.8	15.5	2.9	7.9	1.2	6.9	1.0	84.6	721.5	Upper Saprolite		
RRMDD482	9.4	9.9	0.5	143.1	120.4	32.0	106.5	19.9	3.5	15.8	2.3	13.1	2.5	6.7	0.9	5.6	0.8	78.9	551.9	Upper Saprolite		
RRMDD482	9.9	10.8	0.9	209.9	154.2	43.4	159.2	27.9	5.2	28.9	4.0	22.0	4.5	11.8	1.6	8.9	1.4	158.1	841.2	Upper Saprolite		
RRMDD482	10.8	11.3	0.5	98.0	144.3	18.4	61.1	9.8	1.7	8.6	1.1	6.2	1.4	3.9	0.5	3.3	0.5	64.3	423.3	Lower Saprolite	5.6	729
RRMDD482	11.3	12.5	1.2	65.9	137.6	15.8	52.6	10.2	1.8	7.4	1.1	6.1	1.2	3.2	0.5	2.7	0.5	35.3	341.9	Saprock		
RRMDD482	12.5	13.7	1.2	65.9	140.0	16.1	53.9	10.9	2.0	8.2	1.2	6.3	1.2	3.3	0.5	2.9	0.4	36.1	349.0	Saprock		
RRMDD483	0.0	2.0	2.0	88.9	400.5	17.3	52.7	9.3	1.6	7.4	1.2	7.1	1.4	4.3	0.7	4.3	0.6	42.2	639.4	Hardcap		
RRMDD483	2.0	4.0	2.0	71.7	911.5	14.6	45.0	7.8	1.4	5.5	1.0	5.5	1.1	3.3	0.5	3.6	0.5	29.6	1102.6	Hardcap		
RRMDD483	4.0	4.7	0.7	112.5	921.3	26.9	88.5	16.7	2.6	11.9	2.0	10.9	2.2	6.4	1.0	6.3	0.9	61.8	1272.0	Transition		
RRMDD483	4.7	5.4	0.7	153.1	215.0	31.8	102.1	18.3	2.9	13.3	2.0	11.6	2.3	6.5	1.0	6.8	1.0	70.0	637.7	Mottled		
RRMDD483	5.4	6.2	0.8	267.4	164.0	49.1	152.2	25.2	4.0	18.6	2.7	14.9	2.9	8.3	1.2	7.4	1.1	95.2	814.3	Clay		
RRMDD483	6.2	7.0	0.8	220.5	216.2	44.7	144.6	23.8	3.9	18.4	2.8	15.2	3.1	8.8	1.3	7.9	1.2	99.7	812.0	Clay		
RRMDD483	7.0	7.8	0.8	175.3	124.7	43.6	145.2	25.3	4.1	19.8	3.0	16.9	3.4	9.6	1.4	8.7	1.3	114.0	696.4	Clay		
RRMDD483	7.8	8.6	0.8	275.6	512.2	53.2	163.9	27.4	4.4	20.2	3.0	15.8	3.2	8.9	1.3	8.4	1.2	97.0	1195.5	Clay		
RRMDD483	8.6	9.3	0.7	186.5	619.1	43.3	149.9	23.3	4.0	16.2	2.4	12.4	2.5	6.8	1.0	6.4	1.0	78.7	1153.4	Clay		
RRMDD483	9.3	10.2	0.9	127.8	495.0	30.6	104.7	16.4	2.8	11.6	1.8	9.3	1.9	5.3	0.9	5.8	0.9	61.7	876.6	Clay		
RRMDD483	10.2	11.2	0.9	144.3	213.1	32.9	111.4	17.7	3.1	12.2	1.8	9.6	2.0	5.5	0.9	5.8	0.9	63.2	624.3	Clay		
RRMDD483	11.2	12.1	0.9	129.0	287.4	29.2	99.0	15.3	2.5	10.6	1.5	7.8	1.5	4.4	0.7	4.6	0.8	47.7	642.1	Clay		
RRMDD483	12.1	13.0	0.9	138.4	321.8	30.8	102.6	15.7	2.6	10.2	1.4	7.3	1.5	4.0	0.7	4.3	0.7	44.7	686.6	Clay		
RRMDD483	13.0	14.0	0.9	94.5	398.0	25.4	91.2	16.1	2.7	10.2	1.6	8.2	1.6	4.3	0.7	4.5	0.7	43.0	702.8	Clay		
RRMDD483	14.0	14.9	0.9	51.1	563.8	12.4	43.2	7.8	1.4	5.5	0.9	5.0	1.1	3.3	0.6	3.8	0.6	32.4	732.7	Clay		
RRMDD483	14.9	15.8	0.9	59.6	119.6	15.0	51.6	8.8	1.5	6.1	0.9	5.5	1.1	3.2	0.5	3.3	0.5	36.3	313.5	Clay		
RRMDD483	15.8	16.8	0.9	66.3	158.5	16.5	57.6	9.5	1.7	7.1	1.1	5.9	1.2	3.4	0.5	3.4	0.5	40.1	373.4	Clay		
RRMDD483	16.8	17.7	0.9	90.1	168.3	25.0	88.6	14.8	2.6	10.5	1.6	8.3	1.6	4.4	0.7	4.5	0.7	53.7	475.5	Clay		
RRMDD483	17.7	18.5	0.9	102.6	163.4	30.9	112.9	19.9	3.6	15.2	2.4	13.1	2.7	7.4	1.1	6.3	1.0	95.4	577.9	Clay		
RRMDD483	18.5	19.4	0.9	218.7	304.6	72.3	263.6	47.2	8.2	30.9	4.3	21.4	3.9	9.8	1.3	7.6	1.1	119.0	1114.0	Clay		
RRMDD483	19.4	20.3	0.9	129.6	201.5	36.0	128.9	21.9	3.9	15.2	2.2	11.3	2.2	5.6	0.8	4.9	0.7	68.8	633.4	Upper Saprolite		
RRMDD483	20.3	21.2	0.9	86.1	135.7	21.7	76.4	12.2	2.2	9.0	1.3	7.4	1.5	4.0	0.6	3.7	0.6	48.5	410.9	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
RRMDD483	21.2	22.1	0.9	101.8	163.4	24.3	85.0	14.4	2.6	10.2	1.5	8.3	1.6	4.4	0.7	4.2	0.6	57.4	480.4	Lower Saprolite		
RRMDD483	22.1	22.9	0.9	281.5	426.3	81.3	277.6	53.0	9.5	34.0	4.9	24.3	4.2	10.5	1.5	8.2	1.1	102.2	1320.0	Lower Saprolite		
RRMDD483	22.9	23.9	1.0	109.4	193.5	32.0	120.1	22.0	4.0	15.3	2.3	11.6	2.2	5.7	0.8	4.9	0.7	59.4	583.9	Lower Saprolite	19.2	712
RRMDD483	23.9	25.2	1.3	108.5	197.8	26.2	91.4	14.8	2.8	11.1	1.7	9.3	1.9	5.3	0.8	4.8	0.7	59.4	536.6	Saprock		
RRMDD484	0.0	1.4	1.4	70.3	590.9	13.4	41.5	7.9	1.4	6.3	1.2	6.8	1.4	4.1	0.7	4.3	0.7	40.4	791.2	Hardcap		
RRMDD484	1.4	2.9	1.4	74.2	928.7	15.2	47.6	9.2	1.6	7.1	1.3	7.1	1.5	4.5	0.7	5.0	0.8	39.5	1143.9	Hardcap		
RRMDD484	2.9	4.3	1.4	81.7	961.8	15.9	49.2	9.4	1.6	7.0	1.3	7.6	1.5	4.5	0.7	5.0	0.8	41.3	1189.5	Hardcap		
RRMDD484	4.3	5.0	0.6	172.4	246.9	29.5	95.5	15.5	2.8	13.2	2.0	11.4	2.3	7.2	1.1	7.1	1.0	70.4	678.3	Clay		
RRMDD484	5.0	5.4	0.5	272.1	248.1	56.5	192.5	29.3	5.4	25.9	3.6	18.7	3.6	10.3	1.4	8.5	1.1	128.3	1005.4	Upper Saprolite		
RRMDD484	5.4	5.9	0.5	287.3	232.8	48.0	163.3	25.3	4.7	25.2	3.6	19.7	4.1	12.0	1.7	10.0	1.4	162.5	1001.7	Lower Saprolite	1.6	871
RRMDD484	5.9	6.6	0.7	96.1	168.9	21.6	78.0	14.7	3.2	15.3	2.3	12.8	2.7	8.1	1.1	6.5	0.9	98.7	530.8	Saprock		
RRMDD485	0.0	1.9	1.9	72.9	237.1	15.7	49.1	9.3	1.6	7.1	1.2	7.2	1.4	4.3	0.7	4.6	0.7	40.5	453.3	Hardcap		
RRMDD485	1.9	3.8	1.9	107.9	549.1	23.7	73.6	13.7	2.3	9.7	1.6	9.8	1.9	5.6	0.9	5.7	0.9	48.5	854.9	Hardcap		
RRMDD485	3.8	5.7	1.9	160.7	1253.0	32.1	96.0	17.7	3.0	12.3	2.1	11.8	2.3	6.5	1.0	6.9	1.0	55.6	1662.1	Hardcap		
RRMDD485	5.7	6.5	0.8	62.9	213.1	13.7	47.9	7.8	1.5	6.6	1.1	6.2	1.3	4.1	0.6	4.2	0.7	46.4	418.1	Clay		
RRMDD485	6.5	7.3	0.8	67.6	127.8	15.4	54.4	8.7	1.6	7.0	1.1	6.3	1.4	4.1	0.7	4.1	0.7	48.4	349.1	Clay		
RRMDD485	7.3	8.3	1.0	222.8	218.0	62.1	211.1	34.1	5.7	20.8	3.0	15.4	2.9	7.6	1.1	6.3	1.0	91.1	902.9	Clay		
RRMDD485	8.3	9.3	1.0	329.6	224.8	106.7	368.6	60.1	9.8	34.9	5.0	23.4	4.0	10.1	1.4	8.0	1.1	112.5	1300.0	Clay		
RRMDD485	9.3	10.3	1.0	445.7	259.2	63.7	203.5	30.3	5.3	20.7	3.0	15.1	2.8	7.4	1.1	6.5	1.0	86.9	1152.1	Clay		
RRMDD485	10.3	11.2	1.0	151.3	128.4	44.1	158.0	26.2	4.6	17.8	2.6	13.6	2.5	6.8	1.0	5.8	0.9	78.4	641.9	Clay		
RRMDD485	11.2	12.2	1.0	120.8	121.0	31.8	111.3	17.4	3.1	12.1	1.7	9.3	1.8	5.1	0.8	4.5	0.7	58.4	499.8	Clay		
RRMDD485	12.2	13.2	1.0	299.1	137.6	48.8	154.5	23.2	4.4	17.8	2.5	12.8	2.3	6.4	0.9	6.0	0.9	69.2	786.4	Clay		
RRMDD485	13.2	14.1	0.9	310.8	305.9	40.6	121.3	17.2	3.2	13.9	1.9	10.0	1.9	5.4	0.8	5.0	0.8	62.0	900.6	Clay		
RRMDD485	14.1	15.0	0.9	214.6	119.8	40.2	131.2	19.6	3.9	17.2	2.4	13.5	2.6	7.7	1.1	7.2	1.0	93.2	675.4	Clay		
RRMDD485	15.0	15.7	0.8	151.3	125.9	40.1	138.8	22.0	4.2	19.1	2.8	14.5	2.9	8.6	1.2	7.8	1.1	101.8	642.1	Clay		
RRMDD485	15.7	16.5	0.8	172.4	215.6	48.1	168.0	26.1	4.9	20.2	2.8	14.7	2.8	8.0	1.1	7.0	1.0	91.2	783.8	Clay		
RRMDD485	16.5	17.3	0.8	208.8	249.4	57.6	198.9	31.5	5.9	24.7	3.3	17.1	3.2	9.0	1.2	8.0	1.1	99.4	919.2	Clay		
RRMDD485	17.3	18.1	0.8	220.5	262.9	56.4	191.9	29.6	5.7	23.3	3.3	16.8	3.2	9.3	1.3	8.4	1.2	102.2	935.9	Clay		
RRMDD485	18.1	18.8	0.7	316.7	352.6	89.0	312.6	50.1	9.6	39.4	5.5	28.0	5.1	14.3	2.0	12.0	1.6	165.7	1404.2	Clay		
RRMDD485	18.8	19.3	0.5	231.6	328.0	59.0	198.3	30.5	5.7	22.1	3.1	15.4	2.8	7.8	1.1	7.1	1.0	81.1	994.5	Clay		
RRMDD485	19.3	20.0	0.7	239.3	260.4	64.0	223.9	37.0	7.2	29.7	4.2	20.7	3.7	10.3	1.4	9.0	1.2	102.1	1014.1	Clay		
RRMDD485	20.0	20.6	0.6	193.5	236.5	47.6	168.5	27.1	5.3	23.7	3.3	17.7	3.3	9.5	1.3	8.4	1.1	101.1	848.0	Clay		
RRMDD485	20.6	21.5	0.8	121.4	135.1	25.4	91.3	14.4	3.1	15.6	2.2	12.5	2.7	8.6	1.2	7.8	1.2	109.7	552.2	Upper Saprolite		
RRMDD485	21.5	22.3	0.8	123.1	153.6	26.5	94.8	16.2	3.5	17.8	2.8	16.0	3.4	10.4	1.5	9.7	1.4	120.3	600.8	Upper Saprolite		
RRMDD485	22.3	23.1	0.8	138.4	159.1	30.4	113.1	20.2	4.6	24.1	3.8	22.9	4.9	14.6	2.1	13.4	1.9	167.6	721.2	Upper Saprolite		
RRMDD485	23.1	23.9	0.8	214.0	228.5	44.1	168.0	30.0	7.1	40.3	6.2	36.6	8.0	24.5	3.3	20.9	3.1	312.4	1147.0	Upper Saprolite	18.2	825
RRMDD485	23.9	25.1	1.2	93.2	155.4	17.8	61.8	9.8	2.0	9.9	1.4	7.8	1.8	5.6	0.8	4.9	0.7	107.2	480.2	Saprock		
RRMDD486	0.0	1.7	1.7	51.4	592.1	11.5	37.8	7.7	1.4	6.1	1.1	6.5	1.3	4.0	0.6	4.2	0.6	36.4	762.8	Hardcap		
RRMDD486	1.7	3.4	1.7	89.7	965.5	16.5	49.5	9.4	1.6	6.9	1.3	7.2	1.5	4.3	0.7	4.9	0.7	39.4	1199.1	Hardcap		
RRMDD486	3.4	4.2	0.8	102.5	778.8	22.6	72.2	12.9	2.2	9.8	1.7	9.9	2.0	5.9	0.9	6.1	0.9	56.1	1084.4	Transition		
RRMDD486	4.2	5.0	0.8	94.2	880.8	21.7	68.6	13.0	2.3	9.8	1.7	9.8	2.0	5.9	0.9	5.9	0.9	54.7	1172.0	Transition		
RRMDD486	5.0	5.6	0.7	91.1	362.4	17.8	60.2	10.7	1.9	8.1	1.4	8.3	1.8	5.3	0.9	5.3	0.8	53.3	629.4	Mottled		
RRMDD486	5.6	6.3	0.7	102.4	195.9	19.3	66.1	11.1	2.1	9.2	1.5	8.9	2.0	5.7	0.9	5.6	0.9	62.5	494.1	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
RRMDD486	6.3	7.2	0.9	142.5	155.4	33.8	117.8	19.2	3.5	14.8	2.2	12.6	2.7	7.6	1.1	6.9	1.1	92.3	613.5	Clay		
RRMDD486	7.2	8.2	0.9	150.7	269.0	36.5	127.1	20.9	3.8	15.6	2.4	13.5	2.7	7.8	1.2	7.0	1.1	90.4	749.8	Clay		
RRMDD486	8.2	8.6	0.4	309.6	235.9	75.5	268.3	44.1	8.1	32.2	4.7	25.6	5.1	13.7	2.0	11.3	1.7	172.7	1210.4	Upper Saprolite	3.6	698
RRMDD486	8.6	9.1	0.5	154.8	172.6	32.6	121.3	20.6	4.2	19.1	2.8	15.5	3.4	9.3	1.3	7.4	1.2	133.3	699.4	Saprock		
RRMDD487	0.0	2.0	2.0	53.1	470.5	11.2	38.7	7.5	1.3	6.3	1.1	6.0	1.3	4.0	0.6	4.1	0.6	35.9	642.2	Hardcap		
RRMDD487	2.0	4.0	2.0	136.0	1042.9	25.1	87.0	15.4	2.7	12.1	2.0	10.1	1.9	5.7	0.8	5.4	0.8	49.9	1397.8	Hardcap		
RRMDD487	4.0	4.4	0.4	86.7	660.9	18.4	63.9	10.7	1.8	8.4	1.4	8.5	1.8	5.6	0.9	5.8	0.9	54.4	930.1	Transition		
RRMDD487	4.4	5.3	0.9	186.5	540.5	24.5	75.9	11.9	1.9	9.0	1.4	8.3	1.8	5.5	0.8	5.9	0.8	54.6	929.4	Mottled		
RRMDD487	5.3	6.2	0.9	109.5	282.5	23.7	81.2	12.7	2.2	10.2	1.5	8.7	1.9	5.4	0.8	5.4	0.8	60.8	607.4	Mottled		
RRMDD487	6.2	7.0	0.9	176.5	183.0	41.4	142.3	21.7	3.8	17.1	2.4	13.5	2.8	8.2	1.1	7.3	1.1	95.8	718.2	Clay		
RRMDD487	7.0	7.8	0.8	342.5	406.6	83.0	284.6	45.5	7.7	32.2	4.7	25.4	4.9	13.8	1.9	11.8	1.6	158.1	1424.2	Clay		
RRMDD487	7.8	8.5	0.7	424.6	291.1	107.4	374.4	62.5	10.6	43.8	6.4	33.5	6.5	18.4	2.5	15.5	2.1	200.0	1599.3	Clay	4.2	1027
RRMDD487	8.5	9.3	0.8	253.3	187.9	50.1	186.6	31.4	6.3	31.2	4.4	24.1	4.9	13.8	1.9	11.2	1.6	165.1	974.1	Saprock		
RRMDD487	9.3	10.4	1.1	81.5	160.9	17.9	64.6	11.8	2.3	10.2	1.5	8.4	1.8	5.4	0.7	4.6	0.7	69.3	441.5	Saprock		
RRMDD488	0.0	1.6	1.6	117.3	345.2	20.4	57.4	9.1	1.6	6.5	1.1	6.0	1.2	3.5	0.5	3.6	0.6	34.5	608.4	Hardcap		
RRMDD488	1.6	3.3	1.6	129.0	776.3	22.7	64.3	10.5	1.8	7.1	1.2	7.0	1.4	4.0	0.6	4.2	0.6	34.7	1065.4	Hardcap		
RRMDD488	3.3	4.9	1.6	155.4	832.9	26.1	75.6	12.3	2.2	8.4	1.4	7.8	1.5	4.3	0.7	4.4	0.7	40.4	1174.0	Hardcap		
RRMDD488	4.9	5.5	0.6	148.9	141.3	22.4	69.6	11.1	2.1	9.9	1.4	7.6	1.5	4.8	0.7	4.8	0.7	47.2	474.1	Clay		
RRMDD488	5.5	6.1	0.6	72.6	326.8	15.5	53.8	9.3	1.8	9.0	1.4	8.2	1.8	5.3	0.8	5.7	0.8	55.5	568.1	Clay		
RRMDD488	6.1	7.1	1.0	98.2	544.2	26.0	89.0	14.7	2.7	12.4	1.9	10.7	2.1	6.6	1.0	6.5	0.9	68.4	885.2	Clay		
RRMDD488	7.1	8.0	1.0	286.2	438.5	92.4	318.4	53.9	9.4	39.0	5.5	27.1	4.7	12.8	1.7	10.6	1.4	131.4	1433.0	Clay		
RRMDD488	8.0	9.0	1.0	245.1	504.9	74.9	250.8	41.3	7.1	29.7	4.2	21.5	3.9	10.7	1.5	9.6	1.3	115.1	1321.6	Clay		
RRMDD488	9.0	10.0	1.0	360.0	1084.7	111.4	402.4	72.1	13.2	54.3	7.5	36.0	6.1	15.8	2.0	12.8	1.6	166.4	2346.5	Clay		
RRMDD488	10.0	10.9	1.0	299.1	644.9	86.1	298.6	50.9	9.3	37.9	5.3	26.2	4.7	12.9	1.8	10.8	1.4	135.9	1625.8	Clay		
RRMDD488	10.9	11.9	1.0	171.2	496.3	47.0	157.5	24.9	4.5	18.3	2.6	13.3	2.4	6.9	1.0	6.6	1.0	75.1	1028.6	Clay		
RRMDD488	11.9	12.9	1.0	204.7	738.3	62.1	212.3	35.1	6.2	25.9	3.8	18.5	3.3	9.1	1.3	8.3	1.1	96.8	1426.7	Clay		
RRMDD488	12.9	13.8	1.0	187.1	702.6	49.7	172.6	27.8	4.7	19.1	2.7	13.8	2.6	7.6	1.1	6.9	1.0	77.8	1277.0	Clay		
RRMDD488	13.8	14.8	1.0	144.8	195.9	39.0	136.5	22.4	3.9	15.5	2.3	12.1	2.3	6.6	1.0	6.3	0.9	72.4	661.9	Clay		
RRMDD488	14.8	15.8	1.0	161.3	663.3	41.0	147.5	25.0	4.4	19.9	3.0	16.4	3.4	9.8	1.4	8.6	1.2	113.8	1220.1	Clay		
RRMDD488	15.8	16.8	1.0	184.7	221.1	44.2	162.1	27.4	5.0	24.4	3.6	20.4	4.3	12.7	1.7	11.0	1.6	153.0	877.4	Clay		
RRMDD488	16.8	17.7	1.0	158.3	425.0	39.9	144.6	24.2	4.3	20.2	3.0	16.6	3.4	9.9	1.4	8.7	1.3	117.1	978.0	Clay		
RRMDD488	17.7	18.7	1.0	175.9	178.7	42.5	156.3	26.3	5.0	24.0	3.6	20.2	4.2	12.6	1.8	10.8	1.6	154.3	818.0	Clay		
RRMDD488	18.7	19.7	1.0	205.8	162.8	44.5	165.6	27.9	5.4	28.2	4.2	24.7	5.3	15.5	2.1	13.0	1.9	198.7	905.7	Clay		
RRMDD488	19.7	20.6	1.0	206.4	165.2	44.1	164.5	27.6	5.2	27.4	4.2	24.2	5.2	15.5	2.1	12.7	1.8	200.6	906.8	Clay		
RRMDD488	20.6	21.6	1.0	184.1	130.2	40.8	154.5	26.2	5.0	26.6	4.1	23.5	5.2	15.0	2.1	12.8	1.9	197.5	829.7	Clay		
RRMDD488	21.6	22.6	1.0	181.2	116.1	39.4	151.0	25.3	5.0	27.7	4.2	25.1	5.5	16.2	2.3	13.4	2.0	207.6	821.9	Clay		
RRMDD488	22.6	23.6	1.0	167.7	123.5	36.6	138.8	23.0	4.6	24.9	3.8	22.4	4.9	14.6	2.0	12.3	1.8	191.8	772.8	Clay		
RRMDD488	23.6	24.6	1.0	175.3	207.6	37.7	142.3	25.2	5.0	26.0	3.9	23.0	5.0	14.4	2.0	12.4	1.8	181.6	863.0	Upper Saprolite		
RRMDD488	24.6	24.8	0.3	199.4	265.3	40.4	154.0	27.0	5.4	29.0	4.5	25.9	5.6	16.2	2.2	14.0	2.0	202.5	993.6	Upper Saprolite		
RRMDD488	24.8	25.4	0.5	215.2	278.8	46.6	172.6	29.6	5.5	26.9	4.0	22.6	4.7	13.7	1.9	12.0	1.7	167.6	1003.6	Upper Saprolite		
RRMDD488	25.4	26.1	0.8	255.7	404.1	56.5	212.3	36.5	7.1	33.9	5.0	27.4	5.6	16.0	2.2	13.3	1.9	188.6	1266.1	Upper Saprolite		
RRMDD488	26.1	27.0	0.9	221.1	253.1	50.6	194.8	36.6	7.6	40.6	6.4	38.4	8.2	24.0	3.3	20.0	2.9	301.0	1208.6	Lower Saprolite	22.1	1080
RRMDD489	0.0	2.0	2.0	40.5	275.2	9.0	32.7	6.5	1.1	5.6	1.0	5.5	1.2	3.7	0.6	4.0	0.6	32.4	419.5	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
RRMDD489	2.0	4.0	2.0	60.3	900.4	13.1	46.5	8.3	1.4	6.5	1.2	6.4	1.3	4.2	0.7	4.3	0.6	39.1	1094.2	Hardcap		
RRMDD489	4.0	4.8	0.8	62.5	116.8	13.3	45.7	7.7	1.4	7.1	1.1	6.7	1.5	4.7	0.7	4.6	0.7	48.1	322.6	Mottled		
RRMDD489	4.8	5.5	0.8	92.2	270.2	20.1	69.5	11.1	2.0	10.1	1.5	9.1	2.0	6.1	0.8	5.4	0.8	64.0	564.9	Mottled		
RRMDD489	5.5	6.4	0.9	88.3	139.4	20.8	69.1	11.1	2.0	8.7	1.2	7.3	1.6	4.8	0.7	4.4	0.6	46.1	406.1	Clay		
RRMDD489	6.4	7.1	0.7	163.0	432.4	41.4	138.2	22.6	3.9	15.8	2.2	11.3	2.1	6.0	0.8	5.0	0.7	56.9	902.4	Clay		
RRMDD489	7.1	8.2	1.1	320.2	248.1	69.5	241.4	40.2	7.5	33.1	4.4	24.7	4.7	12.9	1.6	9.6	1.3	139.1	1158.3	Clay		
RRMDD489	8.2	8.6	0.4	108.6	375.9	23.7	86.5	15.2	3.3	15.9	2.2	13.5	3.1	9.0	1.1	6.1	0.9	127.6	792.9	Upper Saprolite	4.6	707
RRMDD489	8.6	9.6	1.1	64.2	178.1	16.6	58.9	10.6	2.2	9.3	1.3	7.7	1.7	4.8	0.6	3.7	0.5	49.9	410.0	Saprock		
RRMDD489	9.6	10.7	1.1	83.3	304.6	18.3	59.7	9.5	1.8	7.0	1.0	5.4	1.1	3.2	0.5	2.9	0.4	33.8	532.2	Saprock		
RRMDD490	0.0	1.6	1.6	48.2	595.8	10.3	35.3	6.6	1.2	5.9	1.0	5.6	1.2	3.7	0.6	4.0	0.6	34.3	754.3	Hardcap		
RRMDD490	1.6	3.2	1.6	53.0	1050.3	12.0	41.1	7.9	1.3	6.1	1.1	6.0	1.2	3.9	0.6	4.1	0.6	33.7	1222.9	Hardcap		
RRMDD490	3.2	4.8	1.6	60.2	983.9	13.8	48.6	9.0	1.5	7.0	1.3	7.2	1.5	4.6	0.7	5.0	0.7	39.0	1184.0	Hardcap		
RRMDD490	4.8	5.6	0.7	51.3	934.8	11.8	40.8	7.6	1.3	6.4	1.1	6.8	1.5	4.3	0.7	5.0	0.7	39.5	1113.5	Transition		
RRMDD490	5.6	6.4	0.8	53.6	383.3	11.8	41.1	7.2	1.2	6.1	1.0	6.4	1.4	4.3	0.7	4.7	0.7	41.0	564.3	Clay		
RRMDD490	6.4	7.2	0.8	120.2	261.6	28.4	95.3	15.4	2.5	11.1	1.6	8.9	1.7	4.9	0.7	5.0	0.7	48.0	606.0	Clay		
RRMDD490	7.2	8.0	0.9	408.1	280.1	96.1	307.9	47.2	8.1	34.8	4.7	26.5	5.2	14.3	1.8	11.0	1.5	169.5	1416.8	Clay		
RRMDD490	8.0	9.0	0.9	363.6	226.0	65.8	241.4	39.5	7.7	40.5	5.6	33.3	7.4	20.4	2.5	14.5	2.1	292.1	1362.4	Upper Saprolite	2.6	1147
RRMDD490	9.0	9.8	0.8	86.6	164.6	19.8	70.8	12.8	2.6	11.9	1.7	10.3	2.2	6.1	0.8	4.3	0.6	80.1	475.2	Saprock		
RRMDD490	9.8	10.6	0.8	70.1	156.6	15.5	51.2	8.1	1.6	6.4	0.8	4.9	1.0	2.8	0.4	2.5	0.4	30.6	352.8	Saprock		
RRMDD491	0.0	1.9	1.9	110.8	347.6	20.2	62.9	9.4	1.5	6.1	1.0	5.4	1.1	3.3	0.5	3.6	0.5	28.2	602.1	Hardcap		
RRMDD491	1.9	3.7	1.9	156.0	486.4	25.1	73.8	10.3	1.6	6.5	1.0	5.2	1.0	3.0	0.5	3.4	0.5	26.8	801.2	Transition		
RRMDD491	3.7	4.7	1.0	62.3	91.0	11.7	38.8	6.4	1.1	5.4	0.9	5.2	1.2	3.7	0.6	4.2	0.6	36.3	269.5	Clay		
RRMDD491	4.7	5.7	1.0	55.0	77.1	13.2	48.2	8.6	1.5	7.2	1.1	6.2	1.4	4.2	0.7	4.4	0.7	43.6	273.0	Clay		
RRMDD491	5.7	6.7	1.0	102.7	291.1	27.3	95.2	15.9	2.7	11.7	1.7	9.0	1.8	5.4	0.8	5.4	0.8	58.2	629.6	Clay		
RRMDD491	6.7	7.7	1.0	100.5	837.8	25.1	89.0	14.7	2.6	11.8	1.8	9.8	2.1	6.0	0.9	5.9	0.9	66.0	1174.8	Clay		
RRMDD491	7.7	8.6	0.9	168.9	391.9	41.2	143.5	24.1	4.0	17.4	2.4	13.4	2.7	7.7	1.1	7.3	1.0	82.5	909.1	Clay		
RRMDD491	8.6	9.5	0.9	444.5	767.8	160.1	575.0	104.6	17.7	67.3	9.3	45.1	7.6	18.1	2.4	13.7	1.8	179.7	2414.5	Clay		
RRMDD491	9.5	10.3	0.8	316.7	475.4	86.1	298.6	50.8	8.8	35.6	5.0	26.4	4.9	13.4	1.9	10.9	1.6	158.1	1494.0	Clay		
RRMDD491	10.3	11.3	0.9	116.6	280.1	32.7	111.7	18.8	3.3	13.3	1.9	10.4	2.0	5.6	0.8	5.2	0.8	61.0	664.3	Clay		
RRMDD491	11.3	12.2	0.9	126.7	196.5	34.6	124.2	21.5	3.9	17.3	2.5	14.3	2.9	8.2	1.2	7.1	1.1	95.9	657.8	Clay		
RRMDD491	12.2	13.2	1.0	123.1	183.0	31.1	112.2	19.7	3.7	17.5	2.7	15.5	3.2	9.3	1.4	8.5	1.3	108.6	640.6	Clay		
RRMDD491	13.2	14.1	0.9	122.0	186.1	29.6	108.6	18.7	3.6	17.0	2.6	15.4	3.3	9.3	1.4	8.5	1.3	113.7	641.1	Clay		
RRMDD491	14.1	15.0	0.9	121.4	270.2	29.4	106.3	18.5	3.6	17.6	2.7	15.8	3.3	9.3	1.4	8.3	1.2	110.9	719.8	Clay		
RRMDD491	15.0	15.8	0.9	151.3	243.2	40.8	151.6	26.9	5.0	22.7	3.4	18.9	3.8	10.3	1.4	8.8	1.3	127.0	816.5	Clay		
RRMDD491	15.8	16.7	0.9	189.4	292.4	51.1	189.5	34.2	6.3	27.8	4.0	21.6	4.2	11.1	1.6	8.7	1.3	133.3	976.5	Clay		
RRMDD491	16.7	17.5	0.9	195.9	189.2	51.2	193.0	35.4	6.7	29.3	4.3	23.5	4.6	12.1	1.7	9.7	1.4	148.6	906.6	Clay		
RRMDD491	17.5	18.4	0.9	155.4	138.8	45.3	172.0	31.1	5.9	26.2	3.8	21.1	4.1	11.0	1.5	8.7	1.3	135.2	761.4	Clay		
RRMDD491	18.4	19.3	0.9	224.6	167.1	44.9	162.1	27.9	5.5	24.1	3.5	19.4	3.7	9.7	1.3	7.7	1.2	118.0	820.7	Clay		
RRMDD491	19.3	20.1	0.9	213.4	130.8	37.6	134.7	23.2	4.5	19.9	2.9	16.4	3.1	8.3	1.1	6.5	1.0	99.2	702.8	Clay		
RRMDD491	20.1	21.1	1.0	144.3	141.9	28.9	105.2	18.7	3.7	16.8	2.5	13.9	2.7	7.3	1.0	6.0	0.9	85.1	578.8	Clay		
RRMDD491	21.1	22.1	1.0	53.2	138.2	12.3	44.9	7.7	1.5	7.3	1.2	6.9	1.5	4.3	0.6	4.0	0.6	50.8	335.0	Clay		
RRMDD491	22.1	23.0	1.0	63.4	90.0	14.1	49.3	8.3	1.6	7.5	1.1	6.8	1.4	3.9	0.6	3.7	0.6	49.0	301.5	Clay		
RRMDD491	23.0	23.9	0.9	126.1	208.8	30.4	110.0	19.2	3.7	16.0	2.3	12.9	2.6	7.1	1.0	6.0	0.9	83.6	630.7	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
RRMDD491	23.9	24.8	0.9	129.6	157.2	34.8	130.6	23.8	4.5	20.7	3.1	17.2	3.5	9.5	1.3	7.6	1.1	114.3	658.9	Upper Saprolite		
RRMDD491	24.8	25.7	0.9	97.3	128.4	25.5	95.6	16.9	3.3	15.2	2.1	12.2	2.5	7.0	1.0	5.9	0.9	85.6	499.4	Upper Saprolite		
RRMDD491	25.7	26.6	0.9	186.5	334.1	46.8	174.4	32.1	6.3	30.1	4.5	25.1	5.1	14.1	1.9	11.3	1.7	177.8	1051.7	Upper Saprolite		
RRMDD491	26.6	27.5	0.9	107.0	145.0	26.3	96.9	17.2	3.4	15.2	2.1	12.0	2.3	6.2	0.9	5.4	0.8	73.5	514.1	Upper Saprolite		
RRMDD491	27.5	28.5	1.0	93.8	137.0	23.3	83.4	14.3	2.7	11.9	1.7	9.3	1.9	5.2	0.8	4.8	0.7	62.1	453.0	Upper Saprolite		
RRMDD491	28.5	29.5	1.0	235.7	373.4	44.8	163.9	29.0	5.9	28.6	4.1	23.2	4.8	13.0	1.8	10.4	1.6	175.9	1116.0	Upper Saprolite		
RRMDD491	29.5	30.5	1.0	102.9	234.0	22.4	77.1	12.9	2.3	10.3	1.4	7.4	1.5	4.0	0.6	3.8	0.6	47.1	528.2	Upper Saprolite		
RRMDD491	30.5	31.5	1.0	192.3	280.1	43.5	174.4	32.7	7.1	36.2	5.3	30.0	6.2	16.4	2.1	12.1	1.8	220.3	1060.3	Lower Saprolite		
RRMDD491	31.5	32.5	1.0	78.3	187.3	17.0	60.1	10.4	2.0	9.5	1.4	8.2	1.6	4.7	0.7	4.3	0.6	54.1	440.3	Lower Saprolite		
RRMDD491	32.5	33.5	1.1	70.8	140.0	15.3	54.1	9.6	1.9	10.1	1.5	8.9	1.9	5.5	0.8	5.3	0.8	61.8	388.3	Lower Saprolite		
RRMDD491	33.5	34.5	0.9	73.1	162.8	15.9	56.9	10.1	2.1	11.4	1.7	10.4	2.3	6.8	1.0	6.3	0.9	77.3	439.0	Lower Saprolite	28.7	763
RRMDD491	34.5	35.4	0.9	53.7	95.8	11.4	40.0	7.2	1.4	6.9	1.0	5.7	1.3	3.7	0.5	3.6	0.5	45.3	278.0	Saprock		
RRMDD491	35.4	36.4	0.9	56.4	145.6	13.0	47.9	8.8	1.8	8.4	1.2	6.8	1.3	3.8	0.5	3.5	0.5	46.4	345.9	Saprock		
RRMDD491	36.4	37.3	0.9	60.8	168.3	15.7	60.2	11.8	2.4	10.2	1.5	8.2	1.6	4.3	0.6	4.0	0.5	45.2	395.2	Saprock		
RRMDD491	37.3	37.9	0.6	50.8	99.1	11.6	43.3	8.0	1.6	7.2	1.1	6.3	1.3	3.8	0.5	3.8	0.5	45.3	284.2	Saprock		
RRMDD492	0.0	1.8	1.8	52.5	861.1	11.0	38.3	7.3	1.1	5.8	1.1	5.7	1.2	3.7	0.6	3.8	0.6	33.3	1027.0	Hardcap		
RRMDD492	1.8	3.6	1.8	65.6	1115.4	13.6	46.5	8.1	1.3	5.9	1.1	5.6	1.1	3.5	0.5	3.6	0.5	30.6	1303.1	Hardcap		
RRMDD492	3.6	4.2	0.6	95.1	230.9	20.9	73.9	12.2	1.9	10.0	1.5	8.4	1.8	5.4	0.7	4.7	0.7	58.5	526.7	Mottled		
RRMDD492	4.2	4.8	0.6	119.6	453.3	26.9	94.7	15.8	2.5	12.6	1.9	10.0	2.2	6.4	0.8	5.5	0.8	68.8	822.1	Mottled		
RRMDD492	4.8	5.4	0.6	132.5	280.1	30.1	108.4	18.3	2.8	14.3	2.2	12.2	2.7	7.7	1.0	6.4	0.9	79.9	699.6	Mottled		
RRMDD492	5.4	6.1	0.7	280.3	262.9	50.6	175.5	28.4	4.7	21.8	3.0	16.2	3.2	8.9	1.2	7.3	1.1	99.2	964.2	Mottled		
RRMDD492	6.1	6.9	0.7	127.2	190.4	29.0	104.4	17.6	2.7	13.1	2.0	10.6	2.3	6.2	0.9	5.4	0.8	70.6	583.3	Clay		
RRMDD492	6.9	7.6	0.7	235.7	554.0	54.9	193.6	32.7	5.1	23.5	3.3	17.4	3.6	9.7	1.3	7.6	1.1	106.3	1249.8	Clay		
RRMDD492	7.6	8.3	0.7	185.3	255.5	46.5	165.0	27.5	4.4	19.9	2.8	14.4	3.0	7.6	1.0	6.6	0.9	90.9	831.4	Clay		
RRMDD492	8.3	9.0	0.7	135.5	200.2	36.1	129.5	22.3	3.5	15.0	2.0	11.0	2.1	5.7	0.8	4.8	0.7	64.3	633.4	Clay		
RRMDD492	9.0	9.9	0.9	178.9	205.8	43.3	153.4	25.5	4.0	18.5	2.4	12.7	2.6	7.5	1.0	6.2	0.9	80.3	742.8	Upper Saprolite		
RRMDD492	9.9	10.8	0.9	137.8	152.3	32.6	116.4	19.1	3.1	13.4	1.9	9.5	1.9	5.4	0.8	4.6	0.7	59.8	559.4	Upper Saprolite		
RRMDD492	10.8	11.7	0.9	119.6	160.3	30.6	112.7	19.8	3.3	14.8	2.1	12.0	2.6	7.2	1.0	5.5	0.8	81.9	574.2	Upper Saprolite		
RRMDD492	11.7	12.5	0.9	120.2	155.4	27.2	97.3	16.5	2.7	12.4	1.8	9.4	1.9	5.2	0.7	4.2	0.7	62.2	517.8	Upper Saprolite		
RRMDD492	12.5	13.4	0.9	150.7	176.9	33.3	119.6	19.9	3.5	16.4	2.3	12.2	2.5	7.0	0.9	5.4	0.9	83.2	634.6	Lower Saprolite	9.8	712
RRMDD492	13.4	14.3	0.9	67.4	90.9	14.5	51.7	8.3	1.4	6.6	0.9	4.9	1.0	3.0	0.4	2.7	0.4	32.9	287.1	Lower Saprolite		
RRMDD492	14.3	15.3	1.0	69.0	166.4	15.0	51.0	7.9	1.3	5.7	0.8	4.1	0.9	2.7	0.4	2.4	0.4	31.4	359.2	Saprock		
RRMDD493	0.0	1.8	1.8	76.1	144.3	14.0	45.1	8.1	1.4	6.5	1.1	6.4	1.3	4.2	0.7	4.6	0.7	37.2	351.8	Hardcap		
RRMDD493	1.8	3.5	1.8	72.2	460.7	14.0	46.3	8.2	1.3	6.2	1.1	6.2	1.3	4.1	0.7	4.6	0.7	36.1	663.5	Hardcap		
RRMDD493	3.5	5.3	1.8	81.5	676.8	15.9	53.0	9.6	1.5	6.9	1.2	6.6	1.4	4.2	0.7	4.4	0.7	36.1	900.4	Hardcap		
RRMDD493	5.3	7.0	1.8	66.6	412.7	12.1	40.7	6.7	1.1	5.3	0.9	5.1	1.0	3.3	0.5	3.8	0.6	28.6	589.0	Transition		
RRMDD493	7.0	7.8	0.8	208.2	227.9	22.0	56.8	7.5	1.2	5.1	0.8	4.7	1.0	3.0	0.5	3.7	0.6	27.0	569.8	Mottled		
RRMDD493	7.8	8.7	0.8	56.1	130.2	8.1	24.4	4.1	0.7	3.3	0.5	3.6	0.8	2.6	0.4	3.6	0.6	23.2	262.3	Mottled		
RRMDD493	8.7	9.5	0.8	29.9	160.3	5.9	20.2	3.7	0.6	3.1	0.6	3.5	0.8	2.5	0.4	3.4	0.5	23.2	258.7	Mottled		
RRMDD493	9.5	10.3	0.8	92.5	145.0	22.1	72.3	12.2	2.0	8.3	1.2	6.6	1.2	3.6	0.6	4.1	0.6	35.8	408.1	Mottled		
RRMDD493	10.3	11.2	0.9	109.4	152.3	24.9	78.7	12.5	2.0	8.1	1.1	6.1	1.2	3.5	0.6	4.0	0.6	34.0	439.2	Mottled		
RRMDD493	11.2	12.1	0.9	102.2	165.2	23.6	77.8	12.7	2.0	8.6	1.2	6.9	1.3	3.9	0.6	4.5	0.7	40.4	451.7	Clay		
RRMDD493	12.1	13.0	0.9	57.5	168.3	13.7	45.5	7.5	1.3	6.4	1.0	5.8	1.3	3.8	0.6	4.4	0.6	40.1	357.8	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
RRMDD493	13.0	13.9	0.9	71.7	110.3	15.5	51.8	8.3	1.5	7.2	1.1	6.8	1.5	4.5	0.7	4.8	0.7	47.9	334.2	Clay		
RRMDD493	13.9	14.8	1.0	99.0	160.9	25.4	83.4	13.0	2.1	9.3	1.3	7.5	1.6	4.4	0.7	4.7	0.7	48.9	463.0	Clay		
RRMDD493	14.8	15.8	0.9	96.6	165.8	24.3	82.3	12.6	2.2	9.5	1.4	8.1	1.7	4.9	0.8	4.9	0.8	53.1	469.1	Clay		
RRMDD493	15.8	16.7	1.0	101.8	172.6	26.7	89.2	13.7	2.3	9.8	1.4	7.7	1.6	4.5	0.7	4.7	0.7	50.4	488.0	Clay		
RRMDD493	16.7	17.7	1.0	741.2	879.5	214.5	719.7	129.9	21.9	81.0	11.3	54.9	8.5	19.4	2.6	16.4	1.9	170.8	3073.4	Clay		
RRMDD493	17.7	18.2	0.5	629.8	864.8	198.1	748.8	142.1	27.0	125.6	18.2	103.5	20.3	55.7	8.0	51.2	7.2	607.0	3607.4	Clay		
RRMDD493	18.2	19.1	0.9	153.6	265.3	39.5	148.1	26.3	4.8	20.9	2.9	15.6	2.9	7.6	1.1	7.4	1.0	79.6	776.6	Clay		
RRMDD493	19.1	20.1	1.0	113.2	227.3	25.4	88.2	14.3	2.6	11.4	1.7	9.5	1.9	5.4	0.8	5.5	0.8	56.6	564.6	Upper Saprolite		
RRMDD493	20.1	21.1	1.0	95.7	188.6	22.1	78.5	13.3	2.5	11.3	1.7	9.6	2.0	5.7	0.9	5.8	0.9	59.4	498.0	Upper Saprolite		
RRMDD493	21.1	21.8	0.7	93.2	170.1	22.9	89.5	18.0	3.9	20.9	3.4	20.4	4.3	12.2	1.7	11.0	1.6	119.5	592.6	Upper Saprolite		
RRMDD493	21.8	22.7	0.9	82.3	144.3	20.3	84.3	18.4	4.4	26.6	4.2	26.9	6.2	18.0	2.5	16.2	2.4	229.9	686.9	Lower Saprolite		
RRMDD493	22.7	23.6	0.9	124.3	243.2	29.7	123.6	25.2	5.4	34.2	5.0	32.0	7.7	23.2	3.3	20.0	3.1	402.6	1082.7	Lower Saprolite		
RRMDD493	23.6	24.4	0.8	68.7	135.7	14.3	50.5	8.9	1.7	7.3	1.0	5.5	1.1	3.2	0.5	3.2	0.5	43.7	345.8	Lower Saprolite	17.4	740
RRMDD494	0.0	1.9	1.9	69.4	509.8	14.3	47.6	8.6	1.4	6.4	1.2	6.5	1.3	4.3	0.7	4.4	0.7	35.7	712.1	Hardcap		
RRMDD494	1.9	3.8	1.9	82.0	541.7	17.6	60.0	10.9	1.9	7.8	1.5	7.6	1.5	4.7	0.7	5.1	0.8	39.9	783.6	Hardcap		
RRMDD494	3.8	5.7	1.9	96.2	808.3	21.1	72.4	13.4	2.2	9.6	1.7	8.9	1.8	5.5	0.8	5.8	0.8	45.3	1093.8	Hardcap		
RRMDD494	5.7	6.5	0.8	95.5	1227.2	20.7	66.4	11.5	1.9	8.7	1.4	8.1	1.6	5.2	0.7	5.3	0.8	43.3	1498.3	Transition		
RRMDD494	6.5	7.4	0.9	78.6	341.5	15.5	50.4	8.3	1.5	7.1	1.1	6.6	1.5	4.8	0.7	4.9	0.8	45.1	568.2	Clay		
RRMDD494	7.4	8.4	1.0	74.6	165.8	14.1	47.1	8.0	1.4	6.3	1.0	6.1	1.3	4.1	0.6	4.4	0.7	37.0	372.6	Clay	1.9	470
RRMDD494	8.4	9.3	1.0	52.3	189.8	9.9	33.4	5.4	1.0	4.8	0.8	4.7	1.1	3.3	0.5	4.0	0.6	31.4	342.9	Clay		
RRMDD494	9.3	10.3	1.0	47.3	148.0	10.9	37.2	6.6	1.1	5.3	0.8	4.8	1.0	3.1	0.5	3.6	0.5	29.3	300.1	Clay		
RRMDD494	10.3	11.3	1.0	54.9	157.2	12.8	43.5	7.5	1.4	5.9	0.9	5.2	1.1	3.3	0.5	3.6	0.6	32.0	330.5	Clay		
RRMDD494	11.3	12.1	0.8	80.8	192.2	18.2	60.0	9.8	1.8	7.7	1.0	5.8	1.2	3.5	0.5	3.6	0.5	35.3	422.0	Clay		
RRMDD494	12.1	13.0	0.9	113.3	159.1	25.5	81.4	13.2	2.4	9.5	1.3	7.0	1.3	3.8	0.5	3.5	0.5	38.6	460.9	Clay		
RRMDD494	13.0	13.9	0.9	81.7	150.5	20.5	66.4	10.5	1.9	7.7	1.1	6.0	1.2	3.8	0.5	3.5	0.5	39.4	395.3	Clay		
RRMDD494	13.9	14.7	0.9	88.4	145.0	22.1	72.2	11.5	2.0	7.9	1.1	6.1	1.2	3.5	0.5	3.3	0.5	35.2	400.4	Clay		
RRMDD494	14.7	15.6	0.9	140.7	173.8	39.5	133.6	22.6	4.0	14.8	2.0	10.2	1.9	5.1	0.7	4.4	0.6	50.5	604.4	Clay		
RRMDD494	15.6	16.5	0.9	165.4	197.8	52.0	172.0	28.4	5.0	17.9	2.4	12.1	2.1	5.5	0.8	5.0	0.7	57.4	724.4	Clay		
RRMDD494	16.5	17.3	0.9	178.9	213.1	56.4	188.4	32.1	5.7	22.0	3.0	16.6	3.2	8.9	1.2	7.4	1.1	104.1	842.0	Clay		
RRMDD494	17.3	18.2	0.9	158.3	182.4	47.0	155.1	25.9	4.6	17.7	2.4	13.1	2.5	7.2	0.9	5.8	0.8	85.1	708.9	Clay		
RRMDD494	18.2	19.1	0.9	126.7	162.8	33.7	112.0	18.1	3.1	12.0	1.6	8.9	1.6	4.6	0.7	4.3	0.6	50.3	541.0	Clay		
RRMDD494	19.1	20.0	0.9	126.1	168.9	33.5	110.6	18.1	3.2	12.7	1.7	9.1	1.8	5.1	0.7	4.7	0.7	54.6	551.4	Clay		
RRMDD494	20.0	20.8	0.9	137.8	170.1	39.1	135.9	23.8	4.3	16.4	2.2	11.6	2.1	5.7	0.8	5.0	0.7	59.3	614.8	Clay		
RRMDD494	20.8	21.7	0.9	123.7	159.7	35.5	123.1	21.4	4.1	15.7	2.1	11.1	2.0	5.5	0.7	4.8	0.6	55.0	565.0	Clay		
RRMDD494	21.7	22.6	0.9	151.9	185.5	43.9	150.5	28.4	4.9	18.2	2.8	14.9	2.7	7.0	1.1	6.5	0.9	73.4	692.4	Clay		
RRMDD494	22.6	23.5	0.9	151.9	175.7	44.5	149.9	27.1	4.7	17.6	2.5	12.7	2.3	5.8	0.9	5.5	0.7	61.7	663.4	Upper Saprolite		
RRMDD494	23.5	24.6	1.1	96.8	118.0	23.4	77.9	13.6	2.4	10.2	1.5	7.9	1.5	4.1	0.7	4.6	0.7	44.8	408.3	Lower Saprolite	13.3	570
RRMDD495	0.0	1.6	1.6	110.8	255.5	20.8	67.9	11.4	1.9	8.8	1.4	8.2	1.6	5.0	0.8	5.2	0.8	47.1	547.4	Hardcap		
RRMDD495	1.6	3.1	1.6	207.0	1219.8	34.4	100.1	14.8	2.3	9.8	1.7	8.5	1.7	5.1	0.8	5.3	0.8	40.4	1652.4	Hardcap		
RRMDD495	3.1	4.7	1.6	165.4	1039.2	27.1	81.2	12.5	1.9	8.4	1.4	7.4	1.5	4.4	0.7	4.7	0.7	36.4	1392.8	Transition		
RRMDD495	4.7	5.4	0.7	46.4	266.6	9.8	31.1	5.9	1.0	5.2	0.9	5.5	1.1	3.4	0.6	4.3	0.6	33.0	415.5	Clay		
RRMDD495	5.4	6.2	0.7	46.8	237.7	10.6	35.3	6.9	1.3	5.9	1.0	5.9	1.3	3.8	0.6	4.4	0.7	37.1	399.2	Clay		
RRMDD495	6.2	7.1	0.9	383.5	326.8	64.8	189.0	29.5	4.7	18.8	2.6	13.4	2.5	6.7	1.0	6.7	0.9	75.2	1125.9	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
RRMDD495	7.1	8.0	0.9	1115.3	886.9	186.7	549.4	85.8	14.0	58.6	8.0	40.7	7.3	18.5	2.7	15.7	2.2	231.1	3222.9	Clay		
RRMDD495	8.0	8.9	0.9	143.1	156.6	28.5	90.2	15.5	2.7	12.7	1.9	10.5	2.2	6.2	0.9	6.0	0.9	75.8	553.8	Clay		
RRMDD495	8.9	9.7	0.9	115.3	149.3	24.1	80.1	14.0	2.4	11.5	1.7	9.4	2.0	5.5	0.8	5.8	0.8	66.2	488.7	Clay		
RRMDD495	9.7	10.4	0.6	128.4	195.3	42.3	147.0	27.5	4.6	20.1	2.9	15.2	2.9	7.5	1.1	7.3	1.0	89.0	692.1	Clay		
RRMDD495	10.4	11.0	0.6	445.7	533.1	123.2	424.6	79.8	13.1	55.6	7.9	41.1	7.7	19.3	2.8	16.6	2.3	245.7	2018.5	Clay		
RRMDD495	11.0	11.7	0.7	112.7	173.8	27.9	96.8	17.7	3.1	14.3	2.2	12.3	2.5	6.9	1.1	6.5	1.0	85.8	564.7	Clay		
RRMDD495	11.7	12.4	0.7	286.2	350.1	71.4	240.3	44.2	7.6	34.0	4.9	26.1	5.2	13.6	2.1	12.0	1.7	170.8	1269.9	Clay		
RRMDD495	12.4	13.1	0.7	146.6	218.0	38.7	133.0	23.9	4.1	18.8	2.7	14.7	3.0	7.8	1.2	7.3	1.0	95.4	716.1	Clay		
RRMDD495	13.1	14.0	0.9	245.1	394.3	80.3	288.1	56.4	8.9	37.0	5.2	26.3	4.6	11.9	1.7	10.0	1.4	135.9	1307.2	Clay		
RRMDD495	14.0	14.8	0.9	129.0	205.8	34.3	124.2	23.5	3.9	18.5	2.6	14.4	2.8	7.5	1.1	7.1	1.0	94.7	670.6	Clay		
RRMDD495	14.8	15.6	0.8	137.2	212.5	34.0	117.2	21.4	3.7	17.6	2.5	14.2	2.9	7.6	1.2	7.2	1.1	93.3	673.5	Clay		
RRMDD495	15.6	16.4	0.8	116.9	193.5	28.5	100.3	18.4	3.2	15.6	2.4	13.3	2.8	7.5	1.2	7.3	1.1	93.6	605.5	Clay		
RRMDD495	16.4	17.2	0.8	107.0	180.0	26.2	92.3	16.6	3.1	15.2	2.3	13.2	2.8	7.5	1.2	7.3	1.1	92.2	568.0	Clay		
RRMDD495	17.2	18.0	0.8	99.8	166.4	23.4	81.3	15.4	2.8	13.7	2.1	12.9	2.6	7.5	1.2	7.0	1.1	89.3	526.4	Clay		
RRMDD495	18.0	18.9	0.9	120.8	210.7	29.1	101.6	19.2	3.5	17.8	2.7	16.1	3.2	8.9	1.3	8.6	1.2	104.1	648.9	Lower Saprolite		
RRMDD495	18.9	19.8	0.9	132.5	238.3	35.5	128.9	26.2	4.9	22.9	3.6	20.7	4.2	11.4	1.7	10.9	1.6	128.9	772.3	Lower Saprolite		
RRMDD495	19.8	20.7	0.9	163.0	318.2	48.4	177.9	36.8	7.0	34.6	5.3	31.1	6.4	17.7	2.7	16.2	2.3	229.9	1097.3	Lower Saprolite	14.5	975
RRMDD496	0.0	1.8	1.8	154.2	734.6	24.1	70.7	10.3	1.7	6.9	1.2	6.2	1.2	3.7	0.6	3.9	0.6	32.6	1052.4	Hardcap		
RRMDD496	1.8	3.7	1.8	220.5	1121.5	37.6	116.2	16.8	2.8	11.4	1.9	9.4	1.9	5.7	0.8	5.7	0.8	51.0	1604.1	Hardcap		
RRMDD496	3.7	5.5	1.8	219.9	599.5	37.6	116.6	17.0	2.8	11.3	1.7	9.2	1.8	5.4	0.8	5.3	0.8	46.6	1076.0	Hardcap		
RRMDD496	5.5	6.5	1.0	47.1	54.2	11.2	42.6	7.7	1.3	7.0	1.1	6.9	1.5	4.5	0.8	4.9	0.8	48.0	239.5	Mottled		
RRMDD496	6.5	7.5	1.0	83.9	93.5	20.3	75.1	13.1	2.3	11.3	1.6	9.9	2.0	6.1	0.9	5.9	0.9	67.7	394.5	Mottled		
RRMDD496	7.5	8.5	1.0	119.0	168.9	31.5	114.2	19.7	3.3	13.9	2.0	11.5	2.2	6.1	0.9	5.8	0.8	67.6	567.4	Clay		
RRMDD496	8.5	9.5	1.0	164.2	192.9	41.8	149.9	25.5	4.3	18.8	2.7	15.5	2.9	8.4	1.2	7.5	1.1	93.6	730.2	Clay		
RRMDD496	9.5	10.4	0.9	178.3	201.5	46.4	164.5	28.3	4.8	19.6	2.9	16.2	3.1	8.6	1.2	7.6	1.1	93.3	777.2	Clay		
RRMDD496	10.4	11.3	0.9	262.7	293.6	53.5	186.6	31.4	5.3	22.2	3.0	16.2	2.9	7.9	1.1	7.1	1.0	88.5	983.1	Clay		
RRMDD496	11.3	12.2	0.9	268.6	411.5	70.1	248.4	43.0	7.0	27.8	4.0	21.8	4.0	10.9	1.6	10.0	1.4	118.4	1248.5	Clay		
RRMDD496	12.2	13.0	0.9	135.5	2407.7	38.1	135.3	24.7	4.1	16.8	2.7	14.7	2.7	7.6	1.1	7.4	1.0	74.8	2874.2	Clay		
RRMDD496	13.0	13.8	0.8	80.5	796.0	19.9	70.9	12.4	2.1	9.0	1.4	8.0	1.5	4.6	0.7	4.8	0.7	43.9	1056.2	Clay		
RRMDD496	13.8	14.7	0.8	322.5	417.7	66.2	234.4	40.1	7.2	27.5	3.8	19.6	3.1	7.6	1.1	6.8	1.0	75.1	1233.8	Clay		
RRMDD496	14.7	15.6	0.9	162.4	250.6	43.0	161.0	31.2	5.7	26.4	4.2	26.3	5.4	15.8	2.3	13.9	1.9	181.0	931.0	Clay		
RRMDD496	15.6	16.4	0.9	166.5	312.0	53.0	198.3	39.4	7.3	32.0	5.4	33.2	6.6	19.0	2.7	16.5	2.2	215.9	1109.9	Clay		
RRMDD496	16.4	17.3	0.8	140.1	202.1	44.6	165.6	30.3	5.1	20.7	3.0	16.1	2.9	8.2	1.1	7.3	1.0	92.2	740.3	Clay		
RRMDD496	17.3	18.1	0.8	161.8	255.5	51.3	190.1	35.0	6.0	24.8	3.5	18.0	3.4	9.5	1.3	7.6	1.1	95.6	864.6	Clay		
RRMDD496	18.1	18.9	0.8	131.9	208.2	44.6	172.0	32.8	5.7	22.9	3.2	16.1	3.0	7.8	1.1	6.8	1.0	80.1	737.2	Clay		
RRMDD496	18.9	19.6	0.7	134.3	309.6	42.6	163.3	30.6	5.1	21.6	3.1	15.9	3.1	8.1	1.2	7.1	1.0	85.6	832.1	Clay		
RRMDD496	19.6	20.6	1.0	139.0	251.8	44.0	167.4	32.0	5.3	21.9	3.2	16.0	3.1	8.4	1.1	7.3	1.0	85.3	786.8	Clay		
RRMDD496	20.6	21.6	1.0	120.2	422.6	38.7	149.9	28.5	4.7	19.5	2.9	14.7	2.8	7.7	1.1	6.5	1.0	79.7	900.5	Clay		
RRMDD496	21.6	22.1	0.5	80.2	282.5	20.9	77.0	13.9	2.3	9.8	1.4	7.3	1.4	4.0	0.6	3.6	0.5	38.2	543.7	Clay		
RRMDD496	22.1	22.5	0.4	81.6	249.4	19.6	69.8	11.6	1.9	8.1	1.1	5.8	1.2	3.5	0.5	3.5	0.6	34.0	492.3	Clay		
RRMDD496	22.5	23.4	0.9	57.8	96.7	15.6	61.1	12.0	2.2	10.1	1.5	8.4	1.7	4.6	0.7	4.2	0.6	51.0	328.2	Lower Saprolite		
RRMDD496	23.4	24.2	0.8	112.8	142.5	31.7	137.1	29.6	6.3	34.9	5.7	33.7	7.3	21.3	2.9	17.1	2.5	240.6	825.9	Lower Saprolite		
RRMDD496	24.2	25.1	0.9	130.2	111.4	30.2	134.1	28.2	6.4	41.7	6.6	38.7	9.1	26.4	3.5	20.2	3.1	349.2	938.9	Lower 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
RRMDD496	25.1	25.9	0.9	90.7	105.0	20.8	85.1	16.3	3.2	16.3	2.2	11.7	2.4	6.5	0.9	5.1	0.8	71.2	438.2	Lower Saprolite	19.5	891
RRMDD496	25.9	26.8	0.8	49.0	70.1	11.8	45.0	8.2	1.5	7.0	1.0	5.1	1.1	3.1	0.4	2.9	0.4	32.6	239.3	Lower Saprolite		
RRMDD496	26.8	27.7	0.9	42.7	62.9	10.6	40.6	7.2	1.4	5.9	0.9	4.5	0.9	2.6	0.4	2.6	0.4	26.0	209.5	Lower Saprolite		
RRMDD496	27.7	28.6	0.9	45.9	74.7	10.9	40.6	7.2	1.4	5.3	0.8	4.3	0.8	2.4	0.3	2.5	0.4	23.6	220.9	Lower Saprolite		
RRMDD496	28.6	29.0	0.5	56.2	94.7	13.2	48.3	8.8	1.7	7.5	1.1	5.9	1.2	3.5	0.5	3.2	0.5	38.6	284.8	Lower Saprolite		
RRMDD496	29.0	29.8	0.8	96.2	176.9	20.8	78.5	13.6	2.4	11.3	1.5	7.5	1.5	4.2	0.6	3.8	0.6	46.9	466.2	Lower Saprolite		
RRMDD496	29.8	30.5	0.8	82.9	160.3	18.2	67.2	12.5	2.5	13.0	1.9	10.7	2.5	7.2	1.0	6.0	0.9	88.9	475.7	Lower Saprolite		
RRMDD496	30.5	31.6	1.1	77.5	187.9	19.6	74.3	14.9	2.8	11.9	1.8	9.8	2.0	5.4	0.8	4.7	0.7	61.2	475.4	Lower Saprolite		
RRMDD497	0.0	1.6	1.6	67.4	402.9	12.4	42.1	8.0	1.4	6.3	1.1	6.2	1.3	4.0	0.6	4.4	0.6	34.8	593.6	Hardcap		
RRMDD497	1.6	3.2	1.6	108.2	792.3	20.3	67.0	12.2	1.9	8.9	1.6	8.6	1.7	5.3	0.8	5.8	0.9	44.4	1079.8	Hardcap		
RRMDD497	3.2	4.0	0.9	150.7	254.3	28.3	87.2	14.4	2.1	9.7	1.6	9.0	1.9	5.4	0.9	6.0	1.0	54.9	627.3	Mottled		
RRMDD497	4.0	4.9	0.9	143.7	218.0	25.6	76.2	12.6	1.9	8.9	1.4	8.3	1.8	5.0	0.9	6.1	0.9	51.2	562.5	Mottled		
RRMDD497	4.9	5.8	0.9	130.2	165.2	24.1	74.9	11.9	1.9	8.9	1.4	8.0	1.7	5.0	0.8	5.9	0.9	51.9	492.8	Mottled		
RRMDD497	5.8	6.6	0.9	107.1	197.2	22.7	74.4	13.1	2.0	9.7	1.6	9.4	2.0	5.8	1.0	7.1	1.1	59.6	513.8	Mottled		
RRMDD497	6.6	7.4	0.7	69.1	194.7	15.9	54.4	9.8	1.6	7.9	1.3	8.2	1.7	5.4	0.9	6.5	1.0	52.2	430.6	Clay		
RRMDD497	7.4	8.2	0.8	78.5	321.8	19.0	61.9	11.0	1.8	8.6	1.3	7.7	1.5	4.6	0.8	5.3	0.8	46.5	571.0	Clay		
RRMDD497	8.2	9.0	0.8	70.1	127.1	18.4	65.7	11.5	2.1	9.6	1.5	9.0	1.8	5.8	0.9	6.1	0.9	57.3	387.7	Clay		
RRMDD497	9.0	9.7	0.8	103.0	182.4	31.8	116.1	21.2	3.6	15.4	2.3	12.9	2.5	7.0	1.0	6.6	0.9	68.6	575.0	Clay		
RRMDD497	9.7	10.5	0.8	93.5	331.7	22.3	78.7	13.1	2.3	10.2	1.6	9.4	1.9	5.8	0.9	5.9	0.9	56.6	634.8	Clay		
RRMDD497	10.5	11.5	0.9	77.2	128.4	18.4	63.3	11.0	1.9	8.6	1.3	7.6	1.5	4.7	0.8	5.1	0.8	47.5	378.0	Clay		
RRMDD497	11.5	12.2	0.8	76.3	212.5	19.1	68.8	11.6	2.0	9.8	1.5	8.5	1.8	5.3	0.8	5.6	0.8	55.0	479.5	Upper Saprolite		
RRMDD497	12.2	13.0	0.8	93.8	604.4	24.6	87.4	14.5	2.6	11.8	1.9	10.8	2.1	6.0	0.9	6.0	0.9	64.6	932.3	Upper Saprolite		
RRMDD497	13.0	14.1	1.1	225.8	374.7	72.3	250.8	42.8	7.0	26.0	3.6	19.1	3.3	8.6	1.3	7.8	1.1	86.0	1129.9	Upper Saprolite		
RRMDD497	14.1	15.1	1.1	191.8	434.9	56.5	195.4	31.8	5.2	19.6	2.8	14.3	2.6	7.2	1.0	6.5	0.9	70.2	1040.7	Upper Saprolite		
RRMDD497	15.1	16.2	1.0	394.1	1090.8	122.6	442.1	75.4	12.4	46.8	6.4	31.4	5.2	13.0	1.7	10.7	1.4	122.0	2376.0	Upper Saprolite		
RRMDD497	16.2	16.8	0.6	236.9	335.4	61.6	230.9	40.7	7.3	30.3	4.2	22.6	4.0	10.8	1.5	9.5	1.3	102.7	1099.7	Upper Saprolite		
RRMDD497	16.8	17.5	0.6	162.4	328.0	40.0	142.3	24.4	4.3	17.8	2.5	13.1	2.4	6.4	0.9	6.2	0.8	66.5	817.9	Upper Saprolite		
RRMDD497	17.5	18.1	0.6	127.2	234.6	30.1	108.9	19.0	3.5	15.1	2.2	11.8	2.3	6.2	0.9	6.0	0.9	69.7	638.4	Upper Saprolite		
RRMDD497	18.1	18.7	0.6	141.9	239.5	34.0	125.4	21.6	4.2	18.3	2.6	14.7	2.8	7.4	1.0	6.4	0.9	75.7	696.4	Upper Saprolite		
RRMDD497	18.7	19.7	1.0	177.1	261.6	43.6	167.4	30.4	5.9	26.3	3.9	22.2	4.2	11.5	1.6	10.4	1.5	121.0	888.5	Upper Saprolite		
RRMDD497	19.7	20.3	0.6	115.4	208.8	27.2	101.1	18.9	3.7	17.5	2.7	16.4	3.3	9.5	1.4	8.7	1.3	107.3	643.2	Lower Saprolite	17.2	787
RRMDD497	20.3	21.0	0.6	127.2	152.9	28.8	113.5	20.5	4.2	21.1	3.0	17.7	3.4	9.7	1.3	8.3	1.2	107.2	620.0	Saprock		
RRMDD497	21.0	21.4	0.4	140.1	497.5	30.1	111.6	20.3	4.2	22.7	3.5	22.3	4.9	14.8	2.0	12.5	2.0	181.6	1070.1	Saprock		
RRMDD498	0.0	1.5	1.5	64.7	221.1	14.0	48.9	9.3	1.6	7.9	1.3	7.6	1.5	4.8	0.7	4.6	0.7	46.4	435.1	Hardcap		
RRMDD498	1.5	3.0	1.5	78.7	872.2	16.4	58.1	11.0	2.0	8.6	1.5	8.1	1.7	5.2	0.8	5.3	0.8	45.7	1115.9	Hardcap		
RRMDD498	3.0	4.5	1.5	127.8	1103.1	25.1	84.8	15.1	2.6	11.6	2.0	10.7	2.1	6.4	0.9	6.2	0.9	59.9	1459.4	Hardcap		
RRMDD498	4.5	5.4	0.9	73.3	135.7	13.8	46.9	8.3	1.4	6.8	1.1	6.0	1.3	3.6	0.5	3.2	0.5	36.4	338.8	Mottled		
RRMDD498	5.4	6.4	1.0	130.2	127.1	29.5	105.3	19.0	3.5	16.1	2.5	13.6	2.8	7.5	1.0	6.4	1.0	87.9	553.2	Clay		
RRMDD498	6.4	7.4	1.0	63.6	41.4	17.5	65.2	11.4	2.2	11.3	1.6	9.7	2.1	6.0	0.9	5.2	0.8	71.7	310.7	Clay		
RRMDD498	7.4	8.4	1.0	65.1	102.9	17.8	67.9	11.9	2.2	11.2	1.7	9.7	2.2	6.1	0.8	4.9	0.8	74.3	379.4	Clay		
RRMDD498	8.4	9.3	1.0	69.9	33.5	19.6	75.7	13.4	2.4	12.8	1.9	11.4	2.4	6.9	0.9	5.7	0.9	83.8	341.3	Clay		
RRMDD498	9.3	10.3	1.0	222.2	197.2	44.8	151.0	24.6	4.6	21.7	3.2	18.8	4.0	11.0	1.5	8.7	1.4	135.9	850.6	Clay		
RRMDD498	10.3	11.3	1.0	222.8	215.6	45.5	156.3	24.8	4.4	20.7	3.1	17.7	3.7	10.0	1.4	8.2	1.3	121.8	857.5	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
RRMDD498	11.3	12.3	1.0	390.5	390.6	62.5	198.3	30.0	5.4	23.6	3.5	19.3	3.9	10.6	1.5	8.4	1.3	131.4	1280.8	Clay		
RRMDD498	12.3	13.2	0.9	470.3	477.8	83.6	271.8	41.4	7.5	33.9	4.9	26.7	5.4	14.6	1.9	11.2	1.7	181.6	1634.3	Clay		
RRMDD498	13.2	14.1	0.9	490.2	615.4	109.6	390.7	66.3	11.8	55.0	8.0	44.5	9.1	24.4	3.0	17.3	2.6	326.4	2174.2	Clay		
RRMDD498	14.1	15.0	0.9	327.2	310.8	102.5	387.2	68.3	12.7	60.5	8.6	49.2	10.1	26.4	3.4	19.0	2.9	351.8	1740.6	Clay		
RRMDD498	15.0	16.0	0.9	241.6	165.8	72.5	277.6	49.3	9.5	45.3	6.8	39.0	8.0	21.5	2.7	15.4	2.3	279.4	1236.5	Clay		
RRMDD498	16.0	16.9	0.9	223.4	105.6	68.0	267.1	47.5	9.1	46.0	6.8	39.4	8.1	21.9	2.8	15.9	2.4	289.5	1153.6	Clay		
RRMDD498	16.9	17.8	0.9	25.2	40.2	7.1	26.8	5.4	1.1	4.8	0.8	4.6	1.0	2.8	0.4	2.8	0.4	29.5	153.0	Upper Saprolite		
RRMDD498	17.8	18.8	1.0	73.5	117.6	16.4	58.6	10.0	1.9	7.8	1.1	6.0	1.2	3.1	0.4	2.6	0.4	38.6	339.1	Upper Saprolite		
RRMDD498	18.8	19.7	1.0	125.5	218.7	26.2	89.3	13.9	2.6	10.7	1.5	7.7	1.4	3.8	0.5	3.2	0.5	44.6	550.1	Upper Saprolite		
RRMDD498	19.7	20.7	1.0	74.6	140.0	16.0	56.2	9.1	1.7	7.1	1.0	5.7	1.1	2.9	0.4	2.6	0.4	37.2	356.2	Upper Saprolite		
RRMDD498	20.7	21.7	1.0	63.7	136.4	14.2	50.2	8.6	1.6	7.3	1.1	6.3	1.4	3.6	0.5	3.2	0.5	43.9	342.3	Upper Saprolite		
RRMDD498	21.7	22.7	1.0	92.9	210.7	23.6	84.6	15.4	2.9	12.2	1.8	9.7	1.9	5.0	0.7	3.9	0.6	57.3	523.0	Upper Saprolite		
RRMDD498	22.7	23.4	0.7	79.4	143.7	18.8	69.1	13.2	2.6	10.8	1.5	9.2	1.8	4.6	0.6	3.7	0.6	53.2	412.8	Upper Saprolite		
RRMDD498	23.4	24.1	0.7	67.2	119.6	15.9	56.2	10.0	1.9	8.3	1.2	7.2	1.4	3.7	0.5	3.2	0.5	43.9	340.7	Upper Saprolite		
RRMDD498	24.1	24.7	0.6	100.9	160.3	28.3	109.1	22.5	4.8	19.7	3.1	17.0	3.3	8.6	1.1	6.3	1.0	96.9	582.8	Upper Saprolite		
RRMDD498	24.7	25.3	0.6	87.5	151.1	23.3	85.0	16.3	3.3	14.4	2.1	12.2	2.5	6.6	0.8	5.0	0.7	76.6	487.4	Upper Saprolite		
RRMDD498	25.3	26.1	0.8	96.6	166.4	22.2	84.1	14.7	2.8	13.7	1.9	11.0	2.3	6.2	0.8	4.7	0.7	88.3	516.5	Lower Saprolite		
RRMDD498	26.1	26.9	0.8	111.7	188.6	22.1	80.8	12.5	2.4	12.0	1.6	9.3	2.0	5.6	0.7	4.1	0.6	89.3	543.2	Lower Saprolite	22.5	728
RRMDD498	26.9	27.7	0.8	51.5	92.1	10.6	37.3	6.5	1.3	5.3	0.8	4.4	0.9	2.6	0.3	2.3	0.4	33.0	249.3	Lower Saprolite		
RRMDD498	27.7	28.6	0.8	63.4	114.2	12.2	40.4	6.5	1.1	4.5	0.7	3.7	0.7	2.0	0.3	2.0	0.3	25.8	277.8	Lower Saprolite		
RRMDD498	28.6	29.7	1.1	24.0	45.2	4.3	13.8	2.4	0.5	1.9	0.3	1.8	0.3	1.1	0.2	1.4	0.2	10.2	107.7	Lower Saprolite		
RRMDD499	0.0	1.9	1.9	106.1	318.2	19.3	61.1	10.4	1.7	7.7	1.3	6.9	1.4	4.4	0.7	4.8	0.7	38.9	583.4	Hardcap		
RRMDD499	1.9	3.7	1.8	155.4	733.4	27.3	80.8	13.0	2.1	9.5	1.5	7.8	1.5	4.6	0.7	5.1	0.7	37.8	1081.3	Transition		
RRMDD499	3.7	4.5	0.8	99.7	332.9	19.8	65.1	10.7	1.9	9.5	1.4	8.3	1.8	5.1	0.8	5.8	0.9	52.7	616.3	Mottled		
RRMDD499	4.5	5.2	0.8	112.9	184.3	22.0	66.1	10.5	1.9	8.9	1.4	8.5	1.7	5.3	0.8	5.4	0.9	53.1	483.9	Mottled		
RRMDD499	5.2	5.9	0.7	75.4	145.0	16.3	52.1	8.4	1.5	7.5	1.2	7.2	1.5	4.6	0.7	5.0	0.8	48.9	376.1	Clay		
RRMDD499	5.9	6.6	0.7	59.1	139.4	13.1	42.2	7.1	1.3	5.9	1.0	6.4	1.3	3.9	0.6	4.2	0.7	41.4	327.7	Clay		
RRMDD499	6.6	7.1	0.6	55.8	400.5	12.1	39.1	6.7	1.2	5.6	0.9	5.5	1.1	3.3	0.5	3.7	0.6	35.4	572.1	Clay		
RRMDD499	7.1	7.7	0.6	45.5	347.6	10.8	35.0	5.9	1.2	4.7	0.8	4.3	0.8	2.5	0.4	2.7	0.4	26.9	489.6	Clay		
RRMDD499	7.7	8.5	0.8	73.8	162.8	17.2	55.6	9.3	1.9	7.4	1.1	6.6	1.3	3.9	0.6	4.0	0.6	41.7	387.7	Clay		
RRMDD499	8.5	9.5	1.0	85.5	215.0	19.8	65.1	10.6	2.1	9.5	1.5	8.4	1.6	4.9	0.8	4.8	0.8	56.1	486.5	Clay		
RRMDD499	9.5	10.4	0.9	183.5	170.1	45.8	149.9	24.6	4.7	20.7	3.0	16.2	3.1	8.8	1.2	7.2	1.1	103.2	743.1	Clay		
RRMDD499	10.4	11.3	0.9	185.9	332.9	47.1	154.5	25.2	4.9	20.7	3.1	17.0	3.2	9.0	1.3	8.0	1.2	109.0	922.8	Clay		
RRMDD499	11.3	12.2	0.8	171.8	180.6	44.0	144.6	23.5	4.5	18.3	2.7	14.5	2.7	7.4	1.0	6.7	1.0	91.4	714.8	Clay		
RRMDD499	12.2	13.0	0.8	129.0	178.7	34.4	109.8	18.0	3.6	13.4	1.9	10.4	1.9	5.4	0.8	5.0	0.8	62.9	576.0	Clay		
RRMDD499	13.0	13.8	0.8	93.0	117.2	22.2	73.4	12.6	2.5	10.1	1.5	8.3	1.6	4.6	0.7	4.3	0.7	53.2	405.9	Clay		
RRMDD499	13.8	14.6	0.8	98.9	117.2	22.8	75.7	12.6	2.5	10.9	1.6	9.7	1.9	5.8	0.8	5.2	0.8	68.4	434.8	Clay		
RRMDD499	14.6	15.3	0.7	78.7	87.2	18.1	63.2	11.2	2.6	10.6	1.6	10.3	2.1	6.3	1.0	5.8	0.9	72.0	371.5	Clay		
RRMDD499	15.3	16.1	0.7	151.3	212.5	37.9	124.8	20.6	3.8	16.8	2.5	13.1	2.5	7.1	1.0	6.4	0.9	84.8	686.2	Clay		
RRMDD499	16.1	17.0	0.9	75.1	73.6	16.3	54.9	9.2	2.0	9.3	1.4	8.6	1.8	5.4	0.8	4.8	0.8	68.4	332.5	Clay		
RRMDD499	17.0	17.8	0.9	79.4	81.4	18.1	62.2	10.7	2.3	10.2	1.5	8.8	1.8	5.1	0.8	4.7	0.7	64.4	352.1	Clay		
RRMDD499	17.8	18.7	0.9	99.0	119.5	24.5	84.1	15.1	3.1	12.9	2.0	10.9	2.1	5.8	0.8	5.2	0.8	69.2	455.0	Clay		
RRMDD499	18.7	19.6	0.9	115.2	173.8	29.0	98.0	17.8	3.7	14.6	2.1	11.3	2.0	5.9	0.8	5.3	0.7	59.1	539.4	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
RRMDD499	19.6	20.3	0.7	104.3	218.0	25.5	85.0	15.3	3.2	12.3	1.8	10.0	1.8	5.1	0.8	4.7	0.7	54.1	542.5	Clay		
RRMDD499	20.3	21.2	0.9	116.1	291.1	26.8	90.2	15.1	3.1	12.2	1.8	9.6	1.7	5.0	0.7	4.5	0.7	51.2	629.8	Clay		
RRMDD499	21.2	22.1	0.9	110.0	272.7	25.0	81.2	14.0	2.8	10.9	1.5	8.5	1.5	4.5	0.6	4.1	0.6	48.4	586.5	Clay		
RRMDD499	22.1	22.9	0.9	99.7	226.6	22.4	72.6	11.7	2.4	9.7	1.4	7.3	1.4	3.8	0.6	3.9	0.6	42.4	506.4	Clay		
RRMDD499	22.9	23.7	0.7	67.7	135.1	16.5	55.9	10.3	2.1	8.2	1.2	6.9	1.3	4.0	0.6	4.0	0.6	42.5	356.9	Upper Saprolite		
RRMDD499	23.7	24.4	0.7	80.2	146.2	18.0	60.1	10.7	2.2	8.6	1.3	7.3	1.5	4.3	0.6	4.1	0.6	46.4	392.1	Lower Saprolite	20.7	516
RRMDD499	24.4	25.3	0.9	45.4	98.9	12.6	44.0	8.6	1.9	7.2	1.1	6.3	1.1	3.2	0.5	2.9	0.4	33.5	267.6	Lower Saprolite		
RRMDD499	25.3	26.2	0.9	53.2	109.5	12.7	42.2	7.4	1.5	5.6	0.8	4.3	0.9	2.5	0.4	2.6	0.4	27.3	271.3	Lower Saprolite		
RRMDD499	26.2	27.1	0.9	47.5	111.9	12.0	39.8	7.4	1.5	5.8	1.0	6.2	1.3	3.9	0.6	4.1	0.6	42.8	286.5	Lower Saprolite		
RRMDD499	27.1	27.9	0.8	72.8	141.3	16.4	57.0	9.9	2.0	9.0	1.2	7.6	1.6	5.1	0.7	4.5	0.8	60.2	390.1	Lower Saprolite	0.8	390
RRMDD499	27.9	28.7	0.8	60.9	114.6	12.9	44.8	7.4	1.6	6.4	0.9	5.5	1.1	3.3	0.5	3.3	0.5	38.0	301.6	Lower Saprolite		
RRMDD499	28.7	29.5	0.8	59.7	111.0	11.9	37.9	5.8	1.1	4.4	0.6	3.5	0.8	2.6	0.4	2.6	0.4	27.7	270.2	Lower Saprolite		
RRMDD499	29.5	30.8	1.3	74.6	189.8	18.5	64.9	12.2	2.5	9.7	1.4	7.8	1.5	4.3	0.6	3.9	0.6	48.1	440.5	Saprock		
RRMDD500	0.0	1.5	1.5	80.5	415.2	14.0	42.0	7.0	1.2	5.5	0.9	5.3	1.1	3.2	0.5	4.0	0.6	30.4	611.5	Hardcap		
RRMDD500	1.5	3.0	1.5	84.4	514.7	14.9	44.8	7.3	1.3	5.4	0.9	5.1	1.0	3.0	0.5	3.5	0.5	25.8	713.2	Hardcap		
RRMDD500	3.0	4.1	1.1	48.0	82.9	8.5	26.5	4.5	0.8	3.6	0.7	4.1	0.8	2.8	0.5	3.6	0.5	27.4	215.2	Mottled		
RRMDD500	4.1	5.0	0.9	71.3	594.5	14.6	46.1	7.8	1.2	5.7	0.9	5.0	1.1	3.4	0.5	3.9	0.6	32.6	789.4	Clay		
RRMDD500	5.0	5.9	0.9	97.7	313.2	24.2	79.1	13.0	2.3	9.3	1.3	7.8	1.5	4.6	0.7	4.9	0.8	47.0	607.3	Clay		
RRMDD500	5.9	6.8	0.9	113.9	560.2	26.7	86.9	14.3	2.4	10.2	1.5	8.5	1.7	5.0	0.7	5.0	0.8	50.8	888.4	Clay		
RRMDD500	6.8	7.9	1.0	153.1	377.1	41.8	137.6	23.9	3.9	15.1	2.1	11.4	2.1	6.1	0.8	5.5	0.8	60.8	842.1	Clay		
RRMDD500	7.9	8.9	1.1	222.2	285.0	44.5	141.1	23.2	4.1	15.8	2.2	11.1	2.1	5.7	0.9	5.5	0.8	61.8	826.0	Clay		
RRMDD500	8.9	9.8	0.9	129.6	210.1	33.0	110.5	18.4	3.1	12.3	1.8	9.9	1.9	5.6	0.8	5.4	0.8	58.8	602.0	Clay		
RRMDD500	9.8	10.8	0.9	129.0	229.1	37.1	128.3	22.7	3.9	15.6	2.2	12.7	2.4	6.7	1.0	6.3	0.9	72.9	670.8	Clay		
RRMDD500	10.8	11.7	0.9	133.7	233.4	35.8	122.5	21.2	3.5	14.8	2.1	11.8	2.2	6.3	0.9	6.4	0.9	69.1	664.4	Clay		
RRMDD500	11.7	12.6	0.9	114.3	177.5	28.5	96.9	15.9	2.8	12.1	1.7	9.9	2.0	5.6	0.8	5.4	0.8	61.8	536.3	Clay		
RRMDD500	12.6	13.5	0.9	127.2	232.2	34.9	118.4	20.2	3.5	14.8	2.1	11.5	2.2	6.3	0.9	5.8	0.9	67.6	648.4	Clay		
RRMDD500	13.5	14.4	0.9	193.5	358.7	59.9	213.5	37.7	6.5	27.7	3.8	20.3	3.8	10.4	1.4	8.6	1.2	111.0	1057.8	Clay		
RRMDD500	14.4	15.3	0.9	348.3	590.9	106.0	383.7	70.6	12.6	54.9	7.8	42.6	7.9	21.4	2.9	17.4	2.5	248.9	1918.2	Clay		
RRMDD500	15.3	16.2	0.9	159.5	293.6	45.9	159.2	29.5	5.4	22.7	3.5	20.0	4.0	11.4	1.7	10.5	1.5	126.1	894.4	Clay		
RRMDD500	16.2	17.0	0.8	122.6	237.7	29.8	102.2	18.0	3.2	15.0	2.1	12.4	2.5	7.1	0.9	6.7	1.0	75.7	636.8	Clay		
RRMDD500	17.0	18.0	1.0	135.5	253.1	33.5	120.1	22.6	4.5	22.1	3.4	20.8	4.4	12.5	1.8	11.4	1.7	144.1	791.4	Clay		
RRMDD500	18.0	18.9	0.9	168.3	296.0	42.9	154.0	28.3	5.3	25.1	3.7	21.5	4.4	12.2	1.7	10.4	1.6	143.5	918.8	Clay		
RRMDD500	18.9	19.8	0.9	140.1	270.2	34.2	121.3	21.7	4.0	17.6	2.5	14.3	2.7	7.9	1.1	7.2	1.0	79.2	725.2	Clay		
RRMDD500	19.8	20.7	0.9	190.6	353.8	51.3	189.0	34.0	6.1	26.4	3.8	19.7	3.6	9.7	1.4	8.5	1.2	98.7	997.5	Clay		
RRMDD500	20.7	21.5	0.9	78.5	129.6	20.0	76.9	14.9	2.9	12.6	1.8	9.9	1.9	5.1	0.7	4.9	0.7	55.0	415.3	Clay		
RRMDD500	21.5	22.4	0.9	123.1	291.1	28.8	99.6	17.3	3.3	13.1	1.9	11.3	2.2	6.2	1.0	6.0	0.9	69.5	675.4	Clay		
RRMDD500	22.4	23.3	0.9	65.7	122.5	14.7	51.0	8.7	1.5	6.8	1.0	5.7	1.2	3.4	0.5	3.7	0.6	38.1	324.9	Upper Saprolite		
RRMDD500	23.3	24.4	1.0	59.2	98.0	12.9	43.9	7.1	1.3	5.7	0.8	4.7	1.0	2.9	0.4	2.9	0.5	34.4	275.8	Upper Saprolite		
RRMDD500	24.4	25.4	1.0	71.5	110.8	16.1	55.9	9.6	1.7	7.5	1.0	5.8	1.2	3.3	0.5	3.4	0.6	37.1	326.0	Upper Saprolite		
RRMDD500	25.4	26.5	1.1	238.1	371.0	51.7	196.0	35.0	6.9	34.8	5.3	31.4	6.4	18.1	2.5	15.6	2.3	219.1	1234.2	Lower Saprolite		
RRMDD500	26.5	27.3	0.8	105.0	237.7	23.4	83.4	15.0	3.0	14.7	2.1	13.0	2.7	7.7	1.1	6.7	1.0	95.9	612.2	Lower Saprolite	22.3	755
RRMDD500	27.3	28.1	0.8	82.4	161.5	18.2	62.5	11.0	2.1	10.1	1.4	7.9	1.6	4.5	0.7	4.4	0.6	49.7	418.7	Saprock		
RRMDD500	28.1	28.9	0.8	109.0	237.7	23.6	82.0	13.2	2.7	12.0	1.6	9.6	1.8	5.6	0.8	5.2	0.8	54.7	560.3	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
RRMDD512	0.0	1.8	1.8	102.2	200.8	18.5	60.9	9.7	1.7	7.5	1.2	7.0	1.4	4.6	0.7	4.8	0.7	39.5	461.2	Hardcap		
RRMDD512	1.8	3.7	1.8	73.5	587.2	14.3	48.6	7.9	1.3	6.0	1.0	5.9	1.1	3.6	0.6	4.1	0.6	30.7	786.6	Hardcap		
RRMDD512	3.7	5.5	1.8	112.6	648.6	21.9	75.0	12.5	2.0	8.6	1.4	7.7	1.5	4.8	0.7	5.0	0.7	38.6	941.7	Hardcap		
RRMDD512	5.5	7.4	1.8	102.3	1004.8	20.1	67.7	11.8	1.9	8.6	1.5	8.2	1.5	4.8	0.8	5.3	0.8	38.1	1278.2	Transition		
RRMDD512	7.4	8.3	1.0	82.3	146.2	13.2	40.2	6.9	1.2	5.6	0.9	5.6	1.2	3.6	0.6	4.3	0.7	33.4	345.9	Mottled		
RRMDD512	8.3	9.2	0.9	59.9	183.0	10.5	33.5	5.6	1.1	4.8	0.8	4.9	1.0	3.3	0.5	3.8	0.6	30.1	343.5	Clay		
RRMDD512	9.2	10.1	0.9	154.2	175.0	19.9	54.1	7.5	1.3	5.5	0.8	4.8	0.9	2.9	0.4	3.3	0.5	27.0	458.3	Clay		
RRMDD512	10.1	11.0	0.9	356.5	344.0	50.0	144.1	19.4	3.2	13.1	1.6	7.5	1.2	3.4	0.5	3.3	0.5	32.1	980.4	Clay		
RRMDD512	11.0	11.9	0.9	67.7	137.6	15.3	51.3	8.4	1.4	5.7	0.8	4.4	0.9	2.6	0.4	2.8	0.4	24.8	324.5	Clay		
RRMDD512	11.9	12.7	0.9	88.3	152.3	20.4	66.7	10.8	1.8	7.1	1.0	5.2	1.0	2.8	0.4	3.1	0.5	27.4	388.8	Clay		
RRMDD512	12.7	13.6	0.9	80.2	160.9	23.4	79.8	13.3	2.2	8.9	1.2	6.7	1.3	3.5	0.5	3.5	0.5	35.4	421.4	Clay		
RRMDD512	13.6	14.5	0.9	111.7	204.5	28.4	95.4	15.9	2.7	10.5	1.5	7.6	1.4	3.9	0.5	3.7	0.5	38.4	526.6	Clay		
RRMDD512	14.5	15.3	0.8	336.6	366.1	91.8	309.1	52.2	8.3	30.4	4.0	18.8	3.1	7.5	1.0	6.0	0.8	75.9	1311.6	Clay		
RRMDD512	15.3	16.2	0.8	906.6	766.5	212.6	712.7	112.1	18.1	68.5	8.8	42.2	6.6	15.8	1.9	11.2	1.4	168.3	3053.3	Clay		
RRMDD512	16.2	17.0	0.8	517.2	491.4	134.1	433.9	73.3	11.9	47.5	6.2	29.7	4.9	11.9	1.5	8.8	1.1	134.6	1908.0	Clay		
RRMDD512	17.0	17.9	0.9	601.6	445.9	138.3	457.2	74.3	12.8	56.9	7.7	40.9	7.6	20.2	2.6	15.3	2.2	267.9	2151.5	Clay		
RRMDD512	17.9	18.7	0.9	149.5	201.5	34.3	120.7	20.2	3.5	14.1	1.9	9.9	1.7	4.5	0.6	3.9	0.6	47.6	614.5	Clay		
RRMDD512	18.7	19.6	0.8	123.1	151.1	29.4	100.4	16.5	2.8	11.6	1.6	8.1	1.5	4.0	0.6	3.7	0.6	42.8	497.7	Clay		
RRMDD512	19.6	20.4	0.9	86.2	130.2	18.9	64.6	10.5	1.9	7.9	1.1	5.9	1.1	3.3	0.5	3.2	0.5	33.5	369.2	Clay		
RRMDD512	20.4	21.3	0.9	60.3	93.0	15.0	54.0	9.0	1.6	6.7	1.0	5.4	1.1	3.1	0.5	3.3	0.5	33.4	287.8	Clay		
RRMDD512	21.3	22.2	0.8	65.1	98.3	16.1	55.6	9.5	1.6	6.8	1.0	5.2	1.0	3.1	0.5	3.3	0.5	32.8	300.4	Clay		
RRMDD512	22.2	23.2	1.0	70.5	275.2	19.0	66.3	12.2	2.1	9.0	1.4	7.4	1.5	4.1	0.6	4.4	0.7	37.0	511.4	Upper Saprolite		
RRMDD512	23.2	24.2	1.0	72.6	178.1	19.0	66.0	11.3	1.9	8.3	1.2	6.4	1.3	3.6	0.5	3.6	0.6	38.2	412.5	Upper Saprolite		
RRMDD512	24.2	25.2	1.0	68.0	140.0	18.1	65.7	12.0	2.2	9.9	1.5	8.7	1.8	5.1	0.8	4.9	0.7	55.1	394.6	Upper Saprolite		
RRMDD512	25.2	25.9	0.7	91.9	154.8	23.8	86.4	16.3	3.1	14.7	2.2	13.1	2.8	8.1	1.1	7.1	1.1	100.1	526.7	Lower Saprolite		
RRMDD512	25.9	26.6	0.7	163.0	240.8	54.1	222.8	48.0	10.3	59.0	9.4	58.6	12.8	36.8	4.9	29.4	4.4	497.8	1452.2	Lower Saprolite	17.4	823
RRMDD512	26.6	27.5	0.9	188.2	227.3	40.2	144.1	23.8	4.4	19.5	2.7	14.4	2.8	7.6	1.0	6.3	0.9	87.0	770.2	Lower Saprolite		
RRMDD512	27.5	28.4	0.9	73.1	147.4	17.7	65.6	12.6	2.5	11.2	1.7	9.8	1.9	5.6	0.8	5.4	0.8	54.5	410.6	Saprock		
RRMDD512	28.4	29.4	0.9	95.3	193.5	22.7	84.8	14.7	2.8	12.3	1.7	9.2	1.7	4.7	0.7	4.4	0.7	45.3	494.6	Saprock		
RRMDD512	29.4	30.3	0.9	74.7	152.9	18.2	68.2	12.6	2.5	12.3	1.8	11.0	2.3	7.0	1.0	6.7	1.0	72.5	444.7	Saprock		
RRMDD512	30.3	30.9	0.6	85.1	188.6	19.3	71.6	13.0	2.8	13.7	2.0	12.2	2.7	8.3	1.2	7.1	1.1	102.5	531.2	Saprock		
RRMDD513	0.0	2.1	2.1	114.1	350.1	22.3	75.5	11.6	1.9	7.7	1.2	7.3	1.4	4.3	0.7	4.9	0.7	33.4	637.1	Hardcap		
RRMDD513	2.1	2.9	0.9	51.7	83.4	10.7	40.1	7.5	1.3	6.1	1.0	6.0	1.2	3.9	0.6	4.5	0.7	37.5	256.4	Mottled		
RRMDD513	2.9	3.8	0.9	73.2	106.1	19.5	72.4	14.2	2.4	11.4	1.7	9.5	1.8	5.3	0.8	5.3	0.8	53.6	378.0	Mottled		
RRMDD513	3.8	4.4	0.6	80.9	121.1	24.3	90.6	17.8	3.0	13.1	1.9	10.9	2.1	5.7	0.8	5.7	0.8	60.3	439.1	Clay		
RRMDD513	4.4	5.1	0.6	81.2	395.5	20.8	77.2	15.1	2.6	12.0	1.9	11.1	2.3	6.6	1.0	6.7	1.0	67.1	702.1	Clay		
RRMDD513	5.1	5.9	0.8	80.1	135.1	22.7	83.9	16.1	2.7	12.5	1.8	10.2	2.0	5.6	0.8	5.4	0.8	59.2	438.9	Clay		
RRMDD513	5.9	6.7	0.8	91.8	227.9	28.5	102.5	20.4	3.5	15.3	2.2	11.5	2.2	6.1	0.9	5.9	0.8	62.7	582.4	Clay		
RRMDD513	6.7	7.6	0.9	106.8	159.1	33.5	120.7	24.6	4.3	18.6	2.7	14.0	2.8	7.5	1.1	7.2	1.0	78.5	582.2	Clay		
RRMDD513	7.6	8.5	0.9	153.1	245.7	52.9	198.3	50.4	11.0	73.2	13.4	89.5	23.0	67.9	9.3	56.0	8.3	1004.5	2056.6	Clay		
RRMDD513	8.5	9.4	0.9	174.2	303.4	59.4	223.9	51.1	9.7	50.8	8.8	54.3	12.7	37.2	5.2	32.3	4.7	445.7	1473.5	Clay		
RRMDD513	9.4	10.3	0.9	109.2	313.2	34.7	126.6	26.9	4.8	20.6	3.1	16.1	3.2	8.6	1.2	7.7	1.1	91.4	768.3	Clay		
RRMDD513	10.3	11.2	0.9	111.9	208.8	36.4	134.7	29.3	5.5	25.2	3.8	20.8	4.5	12.2	1.7	10.4	1.5	165.7	772.6	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
RRMDD513	11.2	12.1	0.9	83.4	142.5	23.9	87.5	18.0	3.4	15.9	2.4	13.5	3.0	8.5	1.2	7.6	1.1	105.0	516.8	Clay		
RRMDD513	12.1	13.0	0.9	70.8	116.3	19.1	66.1	12.5	2.4	10.0	1.5	8.1	1.7	4.9	0.7	4.8	0.7	54.2	373.9	Clay		
RRMDD513	13.0	13.9	0.9	86.6	164.6	22.5	77.3	15.1	2.7	11.0	1.6	8.4	1.7	4.8	0.7	4.6	0.6	49.0	451.1	Clay		
RRMDD513	13.9	14.6	0.7	99.8	213.7	27.5	96.9	19.5	3.6	15.0	2.3	11.9	2.4	6.5	0.9	6.1	0.9	71.5	578.7	Upper Saprolite		
RRMDD513	14.6	15.4	0.7	203.5	352.6	60.7	242.6	55.2	11.2	52.8	7.8	39.9	7.9	20.4	2.8	17.4	2.5	228.6	1305.7	Upper Saprolite		
RRMDD513	15.4	16.1	0.7	317.8	487.7	97.0	408.2	103.0	22.6	129.7	20.7	120.5	26.2	72.4	9.8	60.2	8.6	914.3	2798.9	Upper Saprolite		
RRMDD513	16.1	17.1	1.0	262.7	297.3	62.8	257.8	55.7	11.9	65.1	9.9	54.4	11.2	30.0	4.1	25.3	3.6	332.7	1484.4	Lower Saprolite		
RRMDD513	17.1	18.2	1.0	696.6	567.5	151.0	614.7	124.1	27.7	178.1	27.3	161.8	37.1	103.7	13.9	84.3	12.5	1301.6	4101.9	Lower Saprolite		
RRMDD513	18.2	19.2	1.0	192.9	192.9	26.7	105.3	17.9	4.0	28.1	3.7	21.5	5.4	15.3	2.0	11.4	1.8	262.9	891.9	Lower Saprolite	16.3	1126
RRMDD513	19.2	20.2	0.9	69.8	144.3	15.4	53.9	10.0	2.1	9.0	1.2	6.6	1.4	4.2	0.6	4.2	0.6	53.7	377.2	Saprock		
RRMDD513	20.2	21.1	1.0	59.1	122.5	14.1	49.1	9.1	1.9	7.7	1.1	5.9	1.3	3.7	0.5	3.7	0.6	38.5	318.9	Saprock		
RRMDD514	0.0	2.0	2.0	228.1	496.3	38.2	121.3	17.8	2.8	11.6	1.8	10.1	1.8	5.8	0.9	6.1	0.9	48.5	992.1	Hardcap		
RRMDD514	2.0	3.9	1.9	218.7	890.6	34.3	109.2	16.3	2.6	10.9	1.7	9.5	1.8	5.6	0.9	6.0	0.9	46.9	1355.7	Transition		
RRMDD514	3.9	4.6	0.7	74.5	496.3	13.2	41.4	6.6	1.0	4.8	0.8	4.9	1.0	3.3	0.6	4.1	0.6	32.1	685.2	Mottled		
RRMDD514	4.6	5.4	0.7	53.1	51.3	9.8	32.7	5.2	0.8	3.9	0.7	4.1	0.9	2.9	0.5	3.8	0.6	29.2	199.6	Mottled		
RRMDD514	5.4	6.1	0.7	53.7	52.1	9.5	30.9	5.2	0.8	4.0	0.7	4.1	1.0	3.0	0.5	3.8	0.6	30.2	200.1	Mottled		
RRMDD514	6.1	6.9	0.8	55.2	186.7	9.8	32.4	5.2	0.9	4.1	0.7	4.4	0.9	3.1	0.5	4.0	0.7	30.7	339.5	Mottled		
RRMDD514	6.9	7.7	0.8	46.0	130.2	8.7	29.6	5.1	0.9	3.9	0.7	4.1	0.9	2.9	0.5	3.7	0.6	28.8	266.7	Mottled		
RRMDD514	7.7	8.7	0.9	40.3	49.4	8.2	28.8	5.3	0.8	3.8	0.6	3.9	0.9	2.8	0.5	3.7	0.6	27.6	177.2	Mottled		
RRMDD514	8.7	9.6	0.9	36.4	127.8	7.5	25.5	4.5	0.8	3.5	0.6	4.0	0.8	2.5	0.4	3.4	0.6	24.5	242.8	Mottled		
RRMDD514	9.6	10.5	0.9	35.2	125.9	6.9	23.6	4.4	0.7	3.4	0.6	3.8	0.9	2.9	0.5	3.9	0.6	26.0	239.2	Clay		
RRMDD514	10.5	11.5	0.9	32.6	63.3	6.5	22.3	3.8	0.6	3.2	0.6	3.6	0.8	2.8	0.5	3.2	0.5	25.4	169.7	Clay		
RRMDD514	11.5	12.3	0.9	69.0	104.2	10.8	35.5	5.6	1.0	4.4	0.7	4.4	1.0	2.8	0.5	3.2	0.5	30.4	274.0	Clay		
RRMDD514	12.3	13.2	0.9	149.5	162.1	19.7	59.4	8.9	1.4	5.9	0.9	5.0	1.0	3.0	0.5	3.3	0.5	32.5	453.6	Clay		
RRMDD514	13.2	14.0	0.9	61.6	61.9	9.0	28.9	4.4	0.8	3.5	0.6	3.5	0.8	2.6	0.4	3.1	0.5	25.9	207.4	Clay		
RRMDD514	14.0	14.9	0.9	74.0	186.7	11.6	35.6	6.5	1.2	5.2	0.9	5.4	1.2	3.6	0.6	4.0	0.6	33.0	370.0	Clay		
RRMDD514	14.9	15.7	0.8	232.8	364.8	62.7	222.8	37.1	6.2	23.6	3.2	15.3	2.7	6.6	0.9	5.5	0.7	70.9	1055.9	Clay		
RRMDD514	15.7	16.5	0.8	248.6	412.7	83.2	312.6	59.5	10.3	39.2	5.6	27.5	4.7	11.7	1.6	9.6	1.3	112.3	1340.4	Clay		
RRMDD514	16.5	17.3	0.8	395.2	484.0	97.0	380.2	76.2	15.6	78.8	12.8	77.6	17.9	53.1	7.3	41.2	6.7	788.6	2532.2	Clay		
RRMDD514	17.3	18.1	0.9	457.4	598.2	127.5	505.1	100.1	19.3	91.5	13.9	76.9	15.7	42.5	5.9	33.1	4.9	571.5	2663.6	Clay		
RRMDD514	18.1	19.0	0.9	335.4	421.3	85.8	354.6	69.6	13.5	64.9	9.6	52.1	10.2	26.5	3.6	21.5	3.1	323.8	1795.5	Clay		
RRMDD514	19.0	19.9	0.9	323.7	396.8	84.2	356.9	71.8	15.5	82.5	12.9	75.9	16.5	46.1	6.5	38.1	6.0	586.7	2120.1	Clay		
RRMDD514	19.9	20.4	0.6	181.2	260.4	39.9	163.3	29.9	6.8	41.0	6.1	36.8	9.0	26.1	3.6	20.8	3.4	377.2	1205.5	Clay		
RRMDD514	20.4	21.0	0.6	105.7	163.4	22.1	86.1	16.3	3.5	20.6	3.1	18.6	4.5	13.2	1.9	10.8	1.8	203.2	674.6	Lower Saprolite	8.7	1336
RRMDD514	21.0	22.0	1.0	79.6	153.6	17.8	63.6	11.4	2.3	10.1	1.4	8.4	1.8	5.5	0.8	5.1	0.8	83.4	445.6	Saprock		
RRMDD514	22.0	23.0	1.0	57.8	122.8	13.8	47.5	8.2	1.8	6.3	1.0	5.4	1.1	3.0	0.4	3.0	0.5	34.4	307.2	Saprock		
RRMDD514	23.0	23.9	1.0	55.0	117.2	13.2	46.0	8.0	1.6	5.9	0.9	4.9	1.0	2.7	0.4	2.7	0.4	30.4	290.1	Saprock		
RRMDD514	23.9	24.9	1.0	52.9	113.5	12.3	41.5	7.3	1.6	5.6	0.8	4.7	1.0	3.0	0.5	3.1	0.5	31.4	279.6	Saprock		
RRMDD514	24.9	25.9	1.0	68.7	151.7	17.3	61.6	11.4	2.3	8.0	1.2	6.4	1.2	3.2	0.5	3.0	0.5	35.9	373.0	Saprock		
RRMDD514	25.9	26.9	1.0	50.5	105.5	11.5	37.7	6.3	1.3	4.0	0.6	3.3	0.7	1.9	0.3	2.0	0.3	19.0	245.0	Saprock		
RRMDD515	0.0	2.0	2.0	118.5	1030.6	22.4	72.3	11.9	1.8	8.4	1.3	7.6	1.5	4.5	0.7	4.9	0.7	38.5	1325.6	Hardcap		
RRMDD515	2.0	4.0	2.0	74.6	359.9	14.4	48.3	8.1	1.3	6.4	1.1	6.4	1.2	3.8	0.7	4.6	0.6	33.8	565.3	Hardcap		
RRMDD515	4.0	4.7	0.6	150.7	748.1	25.3	75.5	11.8	2.0	9.7	1.6	8.6	1.9	5.6	0.9	5.9	0.9	58.2	1106.8	Transition		

																				>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
RRMDD515	4.7	5.3	0.6	134.3	949.6	23.9	72.4	11.9	2.0	9.7	1.6	8.9	1.9	5.8	0.9	6.2	0.9	57.9	1288.0	Transition		
RRMDD515	5.3	6.2	0.9	78.7	258.0	15.6	49.1	8.1	1.5	7.0	1.1	6.9	1.5	4.8	0.8	5.2	0.8	46.2	485.2	Mottled		
RRMDD515	6.2	7.1	0.9	72.6	299.7	12.9	39.7	6.5	1.2	5.4	0.9	5.6	1.3	4.1	0.7	5.1	0.8	38.9	495.3	Mottled		
RRMDD515	7.1	8.0	0.9	53.1	216.2	10.9	35.1	6.0	1.1	5.3	0.9	5.5	1.3	4.4	0.8	5.6	0.9	41.7	388.6	Clay		
RRMDD515	8.0	8.9	0.9	45.6	2450.7	10.5	33.7	6.3	1.1	5.2	1.0	5.1	1.2	3.7	0.6	4.5	0.7	34.9	2605.0	Clay		
RRMDD515	8.9	9.8	0.9	70.0	385.7	14.0	44.7	7.6	1.3	5.9	1.0	5.3	1.2	3.8	0.6	4.3	0.7	36.2	582.2	Clay		
RRMDD515	9.8	10.7	0.9	65.1	175.7	13.9	43.6	7.3	1.3	5.6	0.9	5.3	1.2	3.7	0.6	4.5	0.7	35.0	364.4	Clay		
RRMDD515	10.7	11.5	0.9	50.3	117.4	10.8	34.5	6.0	1.0	4.9	0.8	4.4	1.0	3.1	0.5	3.6	0.6	30.7	269.8	Clay		
RRMDD515	11.5	12.4	0.8	41.5	178.7	9.7	32.2	6.1	1.1	5.1	0.9	5.2	1.2	3.6	0.6	4.5	0.7	32.1	323.3	Clay		
RRMDD515	12.4	13.2	0.8	650.9	980.3	143.8	457.2	75.5	12.3	38.6	4.5	18.4	2.6	5.5	0.7	4.6	0.6	50.2	2445.6	Clay		
RRMDD515	13.2	14.0	0.8	134.3	259.2	25.5	84.0	13.5	2.2	8.3	1.1	5.8	1.1	3.4	0.5	3.7	0.6	32.4	575.4	Clay	1.6	1511
RRMDD515	14.0	14.8	0.8	47.3	94.6	10.3	36.0	5.6	0.9	4.2	0.7	4.0	0.9	2.8	0.5	3.4	0.5	29.8	241.4	Clay		
RRMDD515	14.8	15.8	0.9	61.0	112.0	13.8	47.2	7.5	1.2	5.4	0.8	4.2	0.9	2.8	0.5	3.3	0.5	30.1	291.3	Clay		
RRMDD515	15.8	16.7	1.0	54.9	107.6	14.1	49.2	7.7	1.2	5.2	0.8	4.2	0.9	2.9	0.4	3.0	0.5	28.1	280.6	Clay		
RRMDD515	16.7	17.7	0.9	66.3	113.1	16.9	55.3	8.8	1.4	5.7	0.8	4.8	1.0	2.9	0.5	3.2	0.5	30.4	311.6	Clay		
RRMDD515	17.7	18.6	1.0	57.7	107.9	14.2	48.6	7.8	1.3	5.2	0.8	4.3	0.9	2.8	0.5	3.1	0.5	28.4	284.0	Clay		
RRMDD515	18.6	19.6	1.0	60.3	105.2	14.1	49.0	7.7	1.2	5.3	0.8	4.2	0.9	2.8	0.5	3.2	0.5	30.1	285.7	Clay		
RRMDD515	19.6	20.6	0.9	126.7	198.4	43.1	148.1	24.5	3.8	12.9	1.9	9.7	1.7	4.5	0.7	4.4	0.6	42.7	623.6	Upper Saprolite		
RRMDD515	20.6	21.4	0.9	23.9	41.6	5.6	21.1	4.0	0.7	3.4	0.6	3.7	0.8	2.8	0.5	3.1	0.5	27.9	140.2	Upper Saprolite		
RRMDD515	21.4	22.3	0.9	479.7	784.9	134.7	516.7	94.5	15.7	65.2	9.3	48.2	9.2	23.1	3.1	17.3	2.4	270.5	2474.6	Upper Saprolite		
RRMDD515	22.3	23.2	0.9	335.4	546.6	90.5	339.4	60.5	10.7	46.8	6.8	36.7	7.2	18.8	2.6	15.1	2.1	215.2	1734.6	Lower Saprolite		
RRMDD515	23.2	24.1	0.9	426.9	594.5	91.2	367.4	69.3	13.3	68.8	10.3	58.3	12.6	35.2	5.0	28.6	4.0	450.8	2236.3	Lower Saprolite		
RRMDD515	24.1	25.0	0.9	112.6	209.4	23.6	85.1	14.1	2.4	11.3	1.6	8.8	2.0	6.2	0.9	5.5	0.9	78.7	563.1	Lower Saprolite		
RRMDD515	25.0	25.6	0.6	104.8	224.8	24.4	85.7	12.5	2.1	7.7	1.0	5.0	1.0	2.7	0.4	2.7	0.4	34.5	509.9	Lower Saprolite	6.0	1211
RRMDD515	25.6	26.6	1.0	95.1	208.8	23.0	85.4	15.2	2.6	11.2	1.6	8.8	1.8	4.8	0.7	4.4	0.7	53.6	517.8	Saprock		
RRMDD515	26.6	27.6	1.0	91.0	198.4	21.4	76.7	13.2	2.1	8.5	1.2	6.5	1.2	3.4	0.5	3.4	0.5	37.5	465.5	Saprock		
RRMDD515	27.6	28.6	1.0	83.3	180.6	20.2	75.3	13.7	2.6	11.0	1.7	9.5	2.0	5.6	0.9	5.4	0.8	61.6	474.2	Saprock		
RRMDD516	0.0	1.6	1.6	89.0	621.6	16.7	55.6	9.6	1.6	7.2	1.2	7.3	1.4	4.5	0.7	4.9	0.7	37.3	859.6	Hardcap		
RRMDD516	1.6	3.2	1.6	97.7	939.7	18.5	64.9	12.2	2.0	9.1	1.6	9.5	1.8	5.7	0.9	6.5	0.9	42.0	1213.0	Hardcap		
RRMDD516	3.2	4.7	1.6	103.7	1014.7	21.5	74.5	12.9	2.1	10.3	1.7	9.4	1.8	6.0	0.9	6.2	0.9	50.2	1316.7	Transition		
RRMDD516	4.7	5.7	1.0	103.6	287.4	19.8	63.3	10.1	1.8	7.9	1.3	8.0	1.8	5.4	0.9	5.7	0.9	56.1	573.9	Clay		
RRMDD516	5.7	6.7	1.0	86.6	428.7	17.6	57.2	9.1	1.5	7.2	1.2	7.5	1.6	4.9	0.8	5.2	0.9	52.1	682.1	Clay		
RRMDD516	6.7	7.7	1.0	87.1	361.1	19.5	66.4	11.0	1.9	8.8	1.5	9.0	1.9	5.6	0.9	5.9	0.9	62.5	644.1	Clay		
RRMDD516	7.7	8.6	0.9	95.3	117.3	20.9	70.9	11.5	2.0	9.0	1.4	8.3	1.8	5.4	0.8	5.5	0.9	61.3	412.3	Clay		
RRMDD516	8.6	9.5	0.9	81.6	232.8	19.5	66.0	10.7	1.8	8.4	1.3	7.8	1.7	5.1	0.8	6.1	1.0	56.6	501.4	Clay		
RRMDD516	9.5	10.4	0.9	173.6	356.2	50.9	167.4	27.3	4.3	16.7	2.5	13.3	2.6	7.2	1.1	7.1	1.1	77.6	908.8	Clay		
RRMDD516	10.4	11.2	0.9	131.4	261.6	37.1	120.7	19.9	3.2	12.3	1.9	10.3	2.0	5.7	0.9	5.4	0.9	63.1	676.3	Clay		
RRMDD516	11.2	12.1	0.9	290.9	373.4	73.1	230.9	34.4	5.5	20.5	2.9	14.9	2.8	7.5	1.0	6.5	1.0	90.9	1156.3	Upper Saprolite		
RRMDD516	12.1	13.0	0.9	262.7	355.0	67.9	222.8	37.3	6.2	22.9	3.4	18.2	3.3	8.4	1.2	7.5	1.1	93.5	1111.6	Upper Saprolite		
RRMDD516	13.0	13.9	0.9	167.1	312.0	44.7	151.6	25.3	4.4	17.5	2.7	14.2	2.7	7.1	1.0	6.4	0.9	80.5	838.3	Upper Saprolite		
RRMDD516	13.9	14.8	0.9	265.1	357.5	62.2	207.0	33.4	5.7	23.4	3.4	17.4	3.3	8.7	1.2	7.4	1.1	104.1	1100.9	Upper Saprolite		
RRMDD516	14.8	15.4	0.6	267.4	493.8	64.5	215.8	35.0	6.2	24.2	3.6	19.5	3.9	10.6	1.5	8.7	1.3	145.4	1301.5	Lower Saprolite		
RRMDD516	15.4	15.9	0.5	484.4	395.5	96.7	346.4	58.1	10.8	50.5	7.2	39.5	8.0	21.0	2.8	16.2	2.4	304.8	1844.2	Lower 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
RRMDD516	15.9	16.7	0.8	643.9	477.8	150.4	556.4	105.2	20.7	97.5	15.2	86.3	17.2	46.3	6.3	37.9	5.5	500.3	2766.9	Lower Saprolite	12.0	983
RRMDD516	16.7	17.6	0.9	168.9	172.0	27.3	106.7	17.2	3.2	18.6	2.8	16.2	3.9	11.5	1.6	10.3	1.6	165.1	726.9	Saprock		
RRMDD516	17.6	18.5	0.9	83.5	173.8	19.8	72.3	12.4	2.3	10.1	1.5	8.8	1.8	5.4	0.8	5.4	0.8	58.4	457.1	Saprock		
RRMDD517	0.0	1.8	1.8	191.2	530.7	32.6	103.9	15.6	2.6	11.3	1.8	10.5	2.0	6.2	1.0	6.3	1.0	57.5	974.2	Hardcap		
RRMDD517	1.8	3.6	1.8	224.0	802.1	34.8	102.4	14.2	2.3	9.3	1.5	8.5	1.5	4.9	0.8	5.3	0.8	40.4	1252.7	Hardcap		
RRMDD517	3.6	5.4	1.8	222.2	534.4	35.9	109.8	15.0	2.4	9.9	1.6	9.0	1.7	5.1	0.8	5.6	0.8	45.7	999.9	Transition		
RRMDD517	5.4	6.3	1.0	154.2	167.7	25.5	75.0	10.0	1.6	7.0	1.1	6.5	1.4	4.0	0.7	4.6	0.7	41.3	501.2	Mottled		
RRMDD517	6.3	7.3	1.0	88.0	93.6	15.0	47.0	6.9	1.1	5.0	0.8	5.1	1.1	3.2	0.5	4.1	0.6	32.8	304.8	Mottled		
RRMDD517	7.3	8.1	0.8	103.2	1071.2	17.8	58.3	9.4	1.5	6.7	1.2	6.6	1.3	4.2	0.7	4.7	0.7	41.0	1328.5	Mottled		
RRMDD517	8.1	9.1	0.9	300.2	492.6	72.3	267.1	46.2	7.0	28.5	4.1	20.7	3.7	9.6	1.3	8.6	1.2	99.8	1362.9	Mottled		
RRMDD517	9.1	10.0	0.9	459.7	531.9	152.2	624.0	115.6	19.2	85.5	12.2	63.5	12.1	31.0	4.2	23.9	3.4	405.1	2543.5	Clay		
RRMDD517	10.0	11.0	1.0	363.6	391.9	109.1	449.1	80.5	13.3	58.2	8.3	43.6	8.1	20.5	2.8	16.3	2.3	266.7	1834.1	Clay		
RRMDD517	11.0	11.9	1.0	269.7	380.8	78.9	313.8	56.7	9.5	43.7	6.6	35.7	7.1	18.7	2.6	15.4	2.3	229.9	1471.3	Clay		
RRMDD517	11.9	12.9	1.0	324.9	382.0	74.8	297.4	52.2	8.8	44.8	6.8	39.0	8.1	21.7	2.9	17.2	2.6	328.9	1612.3	Clay		
RRMDD517	12.9	13.8	1.0	289.7	325.5	95.1	398.9	72.6	12.6	62.0	9.0	50.3	10.3	27.6	3.7	22.2	3.3	402.6	1785.2	Clay		
RRMDD517	13.8	14.8	1.0	75.6	99.3	21.4	87.8	16.4	2.9	13.6	2.2	12.3	2.5	7.1	1.1	6.9	1.1	74.4	424.6	Clay		
RRMDD517	14.8	15.8	1.0	218.7	270.2	62.2	278.8	59.8	12.4	67.4	10.8	62.2	13.1	35.6	4.9	29.4	4.3	441.9	1571.7	Clay		
RRMDD517	15.8	16.8	1.0	225.8	283.8	68.6	307.9	57.4	11.2	64.9	9.5	53.6	11.6	31.8	4.4	25.2	3.8	412.7	1572.1	Clay		
RRMDD517	16.8	17.8	1.0	156.0	243.2	36.4	154.5	25.6	5.2	30.1	4.3	25.8	6.2	17.7	2.4	13.4	2.3	320.0	1043.1	Clay		
RRMDD517	17.8	18.8	1.0	94.5	184.9	21.2	80.7	13.9	2.7	12.0	1.7	9.5	2.0	5.8	0.8	5.0	0.8	86.4	521.9	Upper Saprolite		
RRMDD517	18.8	19.8	1.0	82.6	176.9	20.1	73.0	12.8	2.4	9.6	1.4	7.6	1.5	4.0	0.6	3.9	0.6	48.8	445.7	Upper Saprolite		
RRMDD517	19.8	20.5	0.7	74.4	163.4	18.1	67.9	12.1	2.4	9.4	1.4	7.6	1.5	4.0	0.6	3.7	0.5	48.1	414.9	Lower Saprolite	15.1	1175
RRMDD517	20.5	21.3	0.8	76.1	164.6	18.1	65.8	11.0	2.0	8.0	1.2	6.6	1.3	3.6	0.5	3.5	0.5	38.7	401.5	Saprock		
RRMDD517	21.3	22.8	1.5	64.3	141.9	15.2	57.6	9.5	1.9	7.1	1.0	5.6	1.1	3.1	0.4	2.8	0.5	33.5	345.5	Saprock		
RRMDD517	22.8	24.2	1.4	63.3	139.4	15.2	56.6	10.1	1.9	7.3	1.1	6.3	1.2	3.4	0.5	3.2	0.5	38.7	348.7	Saprock		
RRMDD518	0.0	2.0	2.0	124.9	242.6	23.1	79.3	12.6	2.2	8.6	1.3	7.5	1.4	4.2	0.7	4.3	0.6	35.8	549.1	Hardcap		
RRMDD518	2.0	3.9	2.0	122.0	864.8	23.0	78.0	12.3	2.1	8.9	1.4	7.6	1.4	4.4	0.7	4.6	0.7	37.5	1169.4	Hardcap		
RRMDD518	3.9	5.4	1.5	105.4	933.6	21.4	73.9	12.5	2.2	9.9	1.6	8.8	1.7	5.4	0.8	5.7	0.8	46.4	1230.1	Transition		
RRMDD518	5.4	6.4	1.0	92.3	269.0	22.2	82.8	14.3	2.4	11.5	1.9	11.2	2.3	7.0	1.1	6.9	1.1	76.3	602.4	Mottled		
RRMDD518	6.4	7.3	1.0	219.3	305.9	53.5	194.2	30.8	5.1	24.0	3.5	19.3	4.0	11.1	1.6	9.8	1.5	127.0	1010.6	Mottled		
RRMDD518	7.3	8.3	1.0	199.4	246.9	47.2	166.8	25.9	4.1	18.8	2.7	15.2	3.1	8.7	1.3	8.2	1.2	100.7	850.2	Clay		
RRMDD518	8.3	9.2	1.0	124.3	98.9	33.2	126.0	21.4	3.4	16.5	2.6	14.8	3.2	8.6	1.3	8.5	1.3	107.1	570.9	Clay		
RRMDD518	9.2	10.2	1.0	120.8	192.9	37.2	141.1	24.6	4.0	18.6	3.0	16.6	3.4	9.3	1.4	8.7	1.3	106.4	689.3	Clay		
RRMDD518	10.2	11.0	0.8	49.1	90.2	14.9	58.4	10.3	1.8	8.7	1.4	8.7	1.8	5.2	0.8	5.1	0.8	60.6	317.8	Clay		
RRMDD518	11.0	11.5	0.5	231.6	490.1	90.7	321.9	54.5	8.1	31.9	4.3	21.3	3.7	9.3	1.2	7.5	1.1	102.0	1379.3	Clay		
RRMDD518	11.5	12.4	0.9	92.4	196.5	31.3	117.8	20.9	3.4	15.0	2.3	12.7	2.6	6.8	1.0	6.1	0.8	77.1	586.8	Clay		
RRMDD518	12.4	13.4	1.0	520.7	851.3	158.9	571.5	104.9	17.3	75.6	10.4	52.4	9.4	24.5	3.2	18.3	2.5	260.3	2681.2	Clay		
RRMDD518	13.4	14.4	1.0	1190.4	1147.3	186.1	599.5	97.9	16.8	87.1	12.8	72.8	15.2	44.7	6.1	35.3	5.2	577.8	4094.9	Clay		
RRMDD518	14.4	15.5	1.0	115.1	147.4	32.9	126.6	26.7	5.0	26.3	4.1	24.3	5.1	14.8	2.1	12.6	1.8	176.5	721.2	Upper Saprolite		
RRMDD518	15.5	16.3	0.9	134.9	203.3	39.3	149.9	31.8	5.7	28.4	4.3	24.9	5.2	14.9	2.1	12.4	1.7	163.2	821.8	Lower Saprolite		
RRMDD518	16.3	17.2	0.9	114.6	167.1	35.4	140.6	31.0	5.7	29.7	4.4	26.3	5.3	15.4	2.1	13.0	1.9	165.1	757.5	Lower Saprolite		
RRMDD518	17.2	18.0	0.9	145.4	221.1	45.8	185.5	40.2	7.4	39.3	6.0	33.9	7.1	20.8	2.9	16.9	2.4	222.9	997.4	Lower Saprolite		
RRMDD518	18.0	18.9	0.9	299.1	513.5	88.4	345.3	66.3	11.6	58.2	8.5	48.8	9.9	27.7	3.8	22.3	3.2	307.3	1813.8	Lower 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
RRMDD518	18.9	19.8	0.9	649.7	944.6	172.2	692.8	129.9	23.6	136.0	19.1	108.1	22.1	61.6	8.3	46.5	6.6	772.1	3793.2	Lower Saprolite		
RRMDD518	19.8	20.8	1.1	310.8	434.9	65.1	262.4	48.2	10.1	69.8	10.0	62.4	15.8	47.8	6.3	33.8	5.5	814.0	2197.0	Lower Saprolite		
RRMDD518	20.8	21.9	1.1	178.3	278.8	41.3	166.8	32.5	6.6	42.0	5.8	35.3	8.6	26.0	3.4	18.3	2.8	447.0	1293.5	Lower Saprolite	16.5	1424
RRMDD519	0.0	1.5	1.5	103.2	380.8	18.6	60.9	10.1	1.9	7.5	1.2	7.4	1.4	4.7	0.7	5.0	0.7	36.7	640.9	Hardcap		
RRMDD519	1.5	3.0	1.5	112.8	789.9	20.8	67.3	10.8	1.9	8.2	1.4	7.8	1.4	4.7	0.8	5.3	0.8	38.2	1072.1	Hardcap		
RRMDD519	3.0	4.6	1.5	111.3	1369.7	20.6	69.4	11.3	2.1	9.0	1.6	9.2	1.8	5.4	0.9	5.8	0.9	42.7	1661.5	Transition		
RRMDD519	4.6	5.4	0.9	45.5	649.8	9.3	33.0	6.0	1.1	5.6	1.0	5.9	1.2	4.1	0.6	4.5	0.7	37.8	806.3	Mottled		
RRMDD519	5.4	6.3	0.9	37.4	259.2	8.0	27.8	5.3	1.0	4.9	0.8	5.3	1.1	3.6	0.5	4.0	0.7	32.6	392.2	Mottled		
RRMDD519	6.3	7.1	0.9	36.5	240.2	8.0	28.9	5.3	0.9	4.8	0.8	5.1	1.0	3.6	0.6	4.0	0.7	33.9	374.2	Mottled		
RRMDD519	7.1	8.0	0.9	69.7	118.5	15.2	53.0	9.2	1.6	7.3	1.1	7.2	1.4	4.7	0.7	4.7	0.8	48.1	343.3	Mottled		
RRMDD519	8.0	8.9	0.9	85.8	124.1	19.1	64.9	10.9	1.9	9.0	1.3	8.2	1.6	5.1	0.8	5.2	0.9	53.3	392.2	Mottled		
RRMDD519	8.9	9.8	0.9	82.9	121.9	18.6	63.7	10.9	1.8	8.4	1.2	7.1	1.5	4.7	0.7	5.3	0.8	48.3	377.6	Clay		
RRMDD519	9.8	10.7	0.9	154.2	186.7	41.3	152.8	27.8	4.7	21.7	3.2	17.9	3.5	10.5	1.4	9.6	1.4	124.8	761.5	Clay		
RRMDD519	10.7	11.6	0.9	283.8	233.4	75.2	290.4	53.9	9.3	42.9	6.0	33.5	6.3	17.8	2.3	14.9	2.1	212.7	1284.6	Clay		
RRMDD519	11.6	12.5	0.9	234.0	197.8	54.2	211.1	40.1	7.4	35.5	5.0	28.6	5.2	14.9	2.0	13.0	1.8	166.4	1017.0	Clay		
RRMDD519	12.5	13.4	0.9	226.4	194.1	55.5	213.5	40.9	7.5	37.0	5.3	30.5	5.7	16.6	2.2	14.6	2.0	193.7	1045.5	Clay		
RRMDD519	13.4	14.0	0.6	173.0	175.7	38.7	155.1	33.5	7.0	39.3	6.2	38.6	7.7	22.8	3.0	19.6	2.8	253.3	976.3	Clay		
RRMDD519	14.0	14.8	0.8	216.4	191.0	39.0	158.0	31.2	6.7	41.4	6.1	38.2	8.1	24.4	3.2	20.2	2.9	318.7	1105.6	Upper Saprolite		
RRMDD519	14.8	15.6	0.8	125.5	159.7	23.6	90.7	16.5	3.5	21.3	3.0	19.2	4.4	13.4	1.8	11.1	1.7	193.7	689.1	Upper Saprolite		
RRMDD519	15.6	16.4	0.8	95.7	146.8	17.7	65.0	11.3	2.2	11.9	1.6	9.5	2.1	6.5	0.9	5.8	0.9	114.0	491.9	Upper Saprolite		
RRMDD519	16.4	17.4	1.0	60.3	128.4	14.7	54.0	9.9	2.0	8.5	1.2	7.1	1.4	4.1	0.6	4.1	0.6	45.2	342.0	Lower Saprolite		
RRMDD519	17.4	18.5	1.0	55.5	116.3	12.8	44.7	7.7	1.5	6.1	0.9	4.9	1.0	2.9	0.4	2.9	0.5	31.6	289.7	Lower Saprolite		
RRMDD519	18.5	19.5	1.0	59.8	129.0	14.5	52.7	9.5	1.9	7.9	1.1	6.7	1.3	4.1	0.6	3.9	0.6	42.7	336.2	Lower Saprolite	12.4	657
RRMDD520	0.0	1.5	1.5	117.9	383.3	20.1	64.9	9.7	1.7	6.8	1.1	5.9	1.1	3.5	0.5	3.8	0.5	30.1	650.8	Hardcap		
RRMDD520	1.5	2.9	1.5	139.6	958.2	24.3	77.6	12.1	2.0	8.3	1.3	7.0	1.3	4.0	0.6	3.9	0.6	31.7	1272.3	Hardcap		
RRMDD520	2.9	3.6	0.7	178.3	443.5	50.9	172.0	28.2	4.3	18.6	2.6	13.5	2.4	6.7	0.9	6.1	0.8	64.8	993.6	Mottled		
RRMDD520	3.6	4.5	0.9	146.6	286.2	37.6	127.7	19.8	3.1	14.1	2.0	10.7	2.0	5.8	0.9	5.6	0.8	63.2	726.2	Clay		
RRMDD520	4.5	5.4	0.9	336.6	648.6	97.9	328.9	54.6	8.5	34.0	4.6	24.0	4.0	10.6	1.4	9.1	1.2	104.0	1668.1	Clay		
RRMDD520	5.4	6.2	0.9	110.1	192.9	27.8	97.0	16.0	2.5	11.9	1.7	9.7	2.0	5.8	0.8	5.8	0.8	63.0	547.8	Clay		
RRMDD520	6.2	7.1	0.9	158.9	344.0	44.3	153.4	25.2	3.9	17.0	2.4	13.2	2.4	7.1	0.9	6.4	0.9	70.4	850.2	Clay		
RRMDD520	7.1	7.8	0.7	333.1	533.1	94.7	345.3	60.6	10.3	49.8	6.9	38.8	7.4	21.0	2.7	16.5	2.3	292.1	1814.6	Clay		
RRMDD520	7.8	8.8	1.0	466.8	723.5	136.5	495.7	87.5	14.7	70.9	9.8	53.7	10.3	28.7	3.7	21.9	3.0	407.6	2534.4	Clay		
RRMDD520	8.8	9.8	1.0	275.6	429.9	70.6	253.1	42.1	6.9	32.7	4.4	24.4	4.7	12.9	1.7	10.7	1.4	163.2	1334.4	Clay		
RRMDD520	9.8	10.5	0.7	164.8	266.6	40.6	149.3	24.2	4.2	20.9	2.9	16.4	3.1	9.2	1.2	8.0	1.1	108.1	820.6	Clay		
RRMDD520	10.5	11.3	0.7	2685.7	3980.0	792.6	2951.0	488.2	86.4	455.3	64.8	382.2	79.2	232.1	29.9	176.5	24.8	3327.1	15756	Clay		
RRMDD520	11.3	12.0	0.7	155.4	256.7	37.1	135.9	23.0	4.1	21.2	3.1	18.3	3.8	11.1	1.5	9.6	1.3	139.7	821.8	Clay		
RRMDD520	12.0	12.9	0.9	171.2	250.6	44.8	172.6	32.1	6.1	32.6	4.8	27.9	5.6	16.2	2.1	13.6	1.8	184.1	966.2	Clay		
RRMDD520	12.9	13.9	0.9	527.8	565.1	73.7	246.1	39.0	6.8	33.1	4.6	25.5	4.7	13.2	1.7	11.2	1.5	148.6	1702.5	Clay		
RRMDD520	13.9	14.8	0.9	191.8	292.4	44.7	168.5	32.0	6.2	31.6	4.7	28.7	5.6	16.5	2.2	14.1	1.9	170.2	1011.0	Clay		
RRMDD520	14.8	15.8	0.9	159.5	280.1	41.7	160.4	31.3	5.8	30.5	4.6	27.4	5.4	15.8	2.1	13.7	1.9	165.1	945.4	Upper Saprolite		
RRMDD520	15.8	16.8	1.0	166.0	294.8	43.7	168.5	33.2	6.4	33.4	5.1	30.9	6.1	17.6	2.3	15.6	2.1	181.0	1006.8	Upper Saprolite		
RRMDD520	16.8	17.8	1.0	136.6	242.6	34.6	135.3	26.0	4.9	25.9	3.9	24.2	4.8	14.0	2.0	12.7	1.8	152.4	821.7	Upper Saprolite		
RRMDD520	17.8	18.7	0.9	156.0	276.4	39.9	155.1	31.4	6.4	34.0	5.0	29.8	6.2	18.4	2.5	14.7	2.2	183.5	961.5	Upper 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
RRMDD520	18.7	19.6	0.9	143.1	264.1	34.6	128.9	24.1	4.8	24.4	3.6	20.9	4.5	13.1	1.7	10.4	1.5	134.6	814.4	Upper Saprolite		
RRMDD520	19.6	20.6	1.0	129.6	269.0	30.9	108.6	18.1	3.3	14.3	1.9	10.5	2.0	6.1	0.9	5.4	0.8	58.3	659.8	Upper Saprolite		
RRMDD520	20.6	21.5	1.0	123.7	250.6	28.2	98.1	16.7	3.0	12.7	1.6	8.7	1.7	4.9	0.7	4.5	0.7	47.4	603.2	Upper Saprolite		
RRMDD520	21.5	22.5	1.0	111.7	216.2	24.0	84.7	15.0	2.9	12.2	1.6	8.6	1.7	5.0	0.7	4.5	0.7	46.2	535.6	Upper Saprolite		
RRMDD520	22.5	23.5	1.0	105.3	227.9	23.8	82.9	14.8	3.0	13.3	1.8	10.0	2.1	6.2	0.9	5.4	0.8	63.4	561.4	Upper Saprolite		
RRMDD520	23.5	24.4	0.8	102.7	225.4	23.3	80.8	15.1	3.0	14.2	2.2	12.7	2.7	8.3	1.1	7.0	1.0	91.9	591.6	Upper Saprolite		
RRMDD520	24.4	25.2	0.8	91.5	191.6	20.5	72.0	13.0	2.5	10.9	1.5	8.0	1.6	4.8	0.7	4.2	0.6	50.2	473.7	Upper Saprolite		
RRMDD520	25.2	26.0	0.8	79.6	165.8	17.6	60.9	10.7	2.1	9.5	1.3	7.3	1.6	4.5	0.7	4.2	0.7	47.7	414.3	Upper Saprolite		
RRMDD520	26.0	26.7	0.7	80.6	169.5	18.8	66.6	12.2	2.4	10.3	1.4	7.1	1.4	4.2	0.6	3.9	0.6	44.6	424.2	Upper Saprolite		
RRMDD520	26.7	27.4	0.7	88.9	192.9	20.6	73.4	13.0	2.5	10.8	1.4	7.3	1.4	4.0	0.6	3.5	0.5	41.4	462.1	Upper Saprolite		
RRMDD520	27.4	28.2	0.8	82.0	172.6	18.4	65.3	12.6	2.7	14.2	2.3	14.2	3.2	10.1	1.4	8.2	1.3	127.0	535.6	Upper Saprolite		
RRMDD520	28.2	28.9	0.7	94.2	224.2	23.2	84.7	16.0	3.1	13.1	1.7	9.0	1.7	4.8	0.7	4.3	0.6	49.0	530.2	Upper Saprolite		
RRMDD520	28.9	29.9	1.0	105.7	258.0	23.9	80.8	13.6	2.6	10.8	1.5	8.5	1.7	5.0	0.7	4.7	0.7	52.6	570.7	Upper Saprolite		
RRMDD520	29.9	30.7	0.8	35.1	67.9	8.0	27.8	4.7	0.8	3.8	0.5	2.8	0.6	2.0	0.3	2.0	0.3	19.8	176.6	Lower Saprolite		
RRMDD520	30.7	31.4	0.8	69.9	167.1	19.5	72.4	14.8	2.8	11.8	1.6	8.1	1.5	4.1	0.6	3.6	0.5	39.5	417.6	Lower Saprolite	28.5	1250
RRMDD520	31.4	32.4	1.0	87.8	233.4	20.2	68.6	11.9	2.1	9.1	1.3	6.5	1.2	3.9	0.6	3.5	0.5	37.1	487.7	Saprock		
RRMDD520	32.4	33.4	1.0	93.8	208.2	21.2	71.5	12.2	2.1	9.3	1.3	6.7	1.3	3.8	0.5	3.5	0.5	38.0	473.9	Saprock		
RRMDD520	33.4	34.4	1.0	96.5	253.1	20.7	69.4	11.5	2.1	8.9	1.2	6.5	1.3	3.8	0.5	3.6	0.6	40.8	520.7	Saprock		
RRMDD520	34.4	35.4	1.0	73.8	148.0	17.5	60.5	11.3	2.1	8.6	1.2	6.1	1.1	3.3	0.4	2.7	0.4	29.5	366.5	Saprock		
RRMDD521	0.0	1.6	1.6	192.9	374.7	31.2	95.5	13.7	2.3	10.1	1.6	8.7	1.7	5.4	0.8	5.4	0.8	46.7	791.7	Hardcap		
RRMDD521	1.6	3.1	1.6	245.1	445.9	37.8	110.7	15.0	2.5	10.2	1.6	9.2	1.8	5.3	0.8	5.6	0.8	47.0	939.2	Hardcap		
RRMDD521	3.1	4.7	1.6	134.9	764.1	22.4	69.6	11.2	1.9	7.9	1.3	7.7	1.5	4.3	0.7	4.6	0.7	40.3	1073.0	Transition		
RRMDD521	4.7	5.7	1.0	96.3	112.8	18.4	59.6	10.4	1.9	9.4	1.4	8.3	1.7	5.6	0.8	5.4	0.9	53.8	386.6	Mottled		
RRMDD521	5.7	6.7	1.0	111.4	89.8	23.3	78.8	14.0	2.5	12.5	1.9	10.7	2.3	7.0	1.1	6.5	1.1	72.8	435.6	Mottled		
RRMDD521	6.7	7.7	1.0	496.1	502.4	111.8	372.1	64.2	10.3	41.1	5.6	27.9	5.0	13.6	1.8	10.6	1.5	127.6	1791.7	Mottled		
RRMDD521	7.7	8.5	0.9	142.5	190.4	42.0	155.7	29.5	5.0	21.2	3.0	15.5	2.9	8.0	1.1	6.6	0.9	77.0	701.1	Clay		
RRMDD521	8.5	9.4	0.8	445.7	550.3	143.8	562.2	107.8	18.7	77.7	10.4	51.8	8.9	23.6	3.0	17.2	2.4	212.1	2235.5	Clay		
RRMDD521	9.4	10.2	0.9	559.4	577.3	210.2	773.3	153.1	27.8	130.2	19.4	108.9	22.3	66.4	9.4	54.2	8.2	704.8	3425.0	Clay		
RRMDD521	10.2	11.1	0.8	267.4	278.8	101.0	421.1	84.2	15.3	71.2	9.6	49.9	9.2	25.0	3.3	18.7	2.7	264.1	1621.8	Clay		
RRMDD521	11.1	11.9	0.9	392.9	426.3	160.1	694.0	139.2	25.4	121.6	16.2	84.4	16.0	43.0	5.7	31.4	4.4	491.5	2651.9	Clay		
RRMDD521	11.9	12.8	0.9	188.2	256.7	65.6	272.9	53.3	9.8	45.0	6.3	32.0	6.2	16.8	2.3	12.8	1.9	177.8	1147.6	Palid		
RRMDD521	12.8	13.7	0.9	137.8	222.3	41.1	160.4	28.1	5.4	22.2	3.1	16.2	3.2	9.0	1.2	7.5	1.2	96.1	754.7	Palid		
RRMDD521	13.7	14.5	0.9	109.4	185.5	33.3	136.5	25.2	4.9	21.8	3.1	17.6	3.5	10.0	1.4	8.5	1.3	115.9	677.9	Palid		
RRMDD521	14.5	15.3	0.8	241.6	380.8	107.9	495.7	101.2	21.0	101.4	14.8	83.4	17.1	47.8	6.5	41.1	6.2	556.2	2222.9	Palid		
RRMDD521	15.3	16.1	0.8	126.1	225.4	45.3	183.1	35.0	6.9	29.0	4.1	23.2	4.6	12.8	1.8	10.8	1.6	143.5	853.3	Palid		
RRMDD521	16.1	17.0	0.9	190.6	335.4	74.8	326.6	62.9	13.0	60.9	8.8	51.2	10.5	29.6	4.2	25.5	3.8	348.0	1545.6	Clay		
RRMDD521	17.0	17.9	0.9	231.0	258.0	85.8	383.7	68.1	14.2	67.2	8.9	49.6	9.8	26.4	3.6	21.1	3.1	327.6	1558.1	Clay		
RRMDD521	17.9	18.9	1.0	113.9	160.3	32.6	155.1	33.4	8.5	61.7	8.6	54.3	13.5	38.8	4.9	26.2	4.4	678.1	1394.3	Upper Saprolite		
RRMDD521	18.9	19.9	1.0	91.8	154.8	21.5	86.5	15.1	3.5	18.8	2.4	14.6	3.4	9.5	1.3	6.9	1.1	181.6	612.9	Upper Saprolite		
RRMDD521	19.9	20.7	0.9	68.7	133.3	15.3	56.0	9.7	2.1	8.8	1.2	6.7	1.4	4.1	0.6	3.4	0.6	62.7	374.6	Upper Saprolite		
RRMDD521	20.7	21.6	0.8	56.6	119.4	13.5	48.1	8.7	1.8	7.3	1.0	5.7	1.2	3.4	0.5	3.0	0.5	40.8	311.4	Lower Saprolite		
RRMDD521	21.6	22.4	0.9	79.2	167.1	18.4	64.9	11.7	2.5	9.1	1.3	6.7	1.4	3.7	0.5	3.5	0.5	40.9	411.2	Lower Saprolite		
RRMDD521	22.4	23.3	0.9	73.4	159.7	17.4	63.1	11.0	2.3	8.3	1.2	6.4	1.2	3.4	0.4	3.2	0.5	36.6	388.0	Lower Saprolite	18.6	1200

																					>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
RRMDD521	23.3	23.8	0.5	54.9	120.6	13.0	45.3	8.0	1.7	5.8	0.9	4.9	1.0	2.9	0.4	3.0	0.4	29.5	292.3	Lower Saprolite		
RRMDD521	23.8	24.7	0.9	74.2	167.7	17.6	63.3	11.4	2.4	9.2	1.4	7.5	1.5	4.6	0.6	3.9	0.6	48.5	414.3	Saprock		
RRMDD521	24.7	25.5	0.9	67.6	150.5	16.0	56.0	10.0	2.1	7.4	1.1	6.3	1.3	3.6	0.5	3.4	0.5	41.0	367.3	Saprock		
RRMDD521	25.5	26.6	1.1	63.2	141.3	14.8	52.3	9.3	2.1	7.3	1.0	5.7	1.1	3.2	0.4	2.9	0.4	34.7	339.6	Saprock		
RRMDD522	0.0	1.7	1.7	107.2	227.3	19.5	63.1	10.5	1.7	7.6	1.2	7.4	1.5	4.4	0.7	4.5	0.7	40.5	497.6	Hardcap		
RRMDD522	1.7	3.4	1.7	110.0	528.2	20.2	65.3	10.7	1.7	7.1	1.1	6.5	1.3	3.7	0.6	3.8	0.6	31.7	792.5	Hardcap		
RRMDD522	3.4	5.1	1.7	86.8	1068.7	17.0	55.3	9.3	1.5	6.5	1.1	6.2	1.2	3.6	0.6	3.9	0.6	32.6	1294.8	Transition		
RRMDD522	5.1	6.0	0.9	94.4	329.2	16.0	50.5	8.0	1.5	6.2	1.0	6.3	1.4	4.4	0.7	4.7	0.8	41.5	566.6	Mottled		
RRMDD522	6.0	6.9	0.9	138.4	544.2	19.6	54.1	7.9	1.4	5.4	0.9	5.6	1.2	4.0	0.7	4.7	0.7	38.4	827.0	Clay		
RRMDD522	6.9	7.8	0.9	192.3	265.3	29.0	78.0	10.6	1.8	6.4	1.0	5.8	1.3	3.9	0.7	4.7	0.8	37.0	638.5	Clay		
RRMDD522	7.8	8.8	0.9	282.6	166.4	40.0	103.2	13.5	2.1	7.3	1.0	5.8	1.2	3.6	0.6	4.1	0.7	34.4	666.7	Clay		
RRMDD522	8.8	9.7	0.9	114.1	235.9	25.4	82.1	13.0	2.2	8.8	1.2	7.0	1.5	4.6	0.7	4.7	0.7	42.4	544.4	Clay		
RRMDD522	9.7	10.6	0.9	143.1	253.1	34.8	115.1	17.7	2.9	10.9	1.5	7.8	1.5	4.5	0.7	4.3	0.7	45.3	643.8	Clay		
RRMDD522	10.6	11.5	0.9	184.1	299.7	48.8	163.3	25.2	4.0	14.7	2.0	9.9	1.9	5.1	0.7	4.7	0.7	52.4	817.3	Clay		
RRMDD522	11.5	12.4	0.8	268.6	341.5	49.5	161.0	24.2	4.2	15.8	2.0	10.6	1.9	5.0	0.7	5.1	0.8	51.6	942.5	Clay		
RRMDD522	12.4	13.2	0.9	102.6	211.3	27.2	93.8	14.9	2.5	9.6	1.4	7.2	1.4	3.9	0.6	4.0	0.6	43.7	524.6	Clay		
RRMDD522	13.2	14.1	0.9	78.9	166.4	20.8	70.7	11.2	2.0	7.6	1.1	6.0	1.1	3.5	0.5	3.8	0.6	36.7	410.9	Clay		
RRMDD522	14.1	14.9	0.8	69.7	175.7	18.6	60.3	10.3	1.6	7.4	1.1	5.7	1.2	3.5	0.5	3.5	0.6	34.7	394.3	Clay		
RRMDD522	14.9	15.7	0.8	77.2	152.3	20.4	65.7	10.9	1.8	8.1	1.1	5.9	1.2	3.7	0.6	3.8	0.5	37.3	390.4	Clay		
RRMDD522	15.7	16.6	1.0	84.4	149.3	21.4	69.9	11.6	2.0	8.7	1.2	6.7	1.3	3.8	0.6	3.9	0.6	39.9	405.3	Upper Saprolite		
RRMDD522	16.6	17.6	1.0	68.6	132.7	16.7	53.5	8.8	1.5	6.8	1.0	5.3	1.1	3.4	0.5	3.6	0.5	35.2	339.1	Upper Saprolite		
RRMDD522	17.6	18.5	0.9	79.3	146.2	19.3	61.1	9.9	1.7	7.4	1.1	5.8	1.2	3.6	0.5	3.8	0.6	36.6	378.0	Upper Saprolite		
RRMDD522	18.5	19.5	1.0	90.9	171.4	22.4	70.8	12.0	2.0	9.0	1.3	6.6	1.3	3.8	0.5	3.7	0.5	37.8	434.1	Upper Saprolite		
RRMDD522	19.5	20.4	1.0	88.9	162.8	21.3	67.4	11.2	1.9	7.9	1.1	6.0	1.1	3.4	0.5	3.4	0.5	33.8	411.3	Upper Saprolite		
RRMDD522	20.4	21.4	1.0	220.5	298.5	65.4	236.8	47.5	9.1	40.3	6.1	31.1	5.6	15.1	2.0	12.2	1.5	135.2	1126.9	Upper Saprolite		
RRMDD522	21.4	22.4	1.0	171.2	258.0	37.5	131.8	23.8	4.8	25.7	4.0	22.7	4.9	14.3	1.9	11.6	1.7	158.1	871.9	Upper Saprolite		
RRMDD522	22.4	23.4	1.0	87.1	164.0	19.0	62.4	9.8	1.7	8.2	1.2	6.2	1.3	3.8	0.6	3.7	0.6	53.6	423.0	Upper Saprolite		
RRMDD522	23.4	24.4	1.0	83.7	182.4	20.5	68.4	11.9	2.2	9.7	1.4	7.1	1.4	4.1	0.6	3.8	0.5	45.3	443.1	Upper Saprolite		
RRMDD522	24.4	25.3	0.9	75.6	171.4	18.2	59.3	9.9	1.8	7.5	1.0	5.2	1.0	3.1	0.5	3.1	0.4	32.1	390.1	Upper Saprolite		
RRMDD522	25.3	26.2	0.9	87.7	194.1	21.7	73.4	14.1	2.7	11.6	1.7	9.0	1.8	5.4	0.8	4.8	0.7	57.0	486.3	Upper Saprolite		
RRMDD522	26.2	27.3	1.0	69.3	137.0	16.9	55.6	10.3	2.0	8.6	1.2	6.5	1.3	4.0	0.6	3.8	0.6	41.0	358.8	Lower Saprolite		
RRMDD522	27.3	28.3	1.0	64.3	130.2	16.1	53.0	9.9	1.8	7.9	1.2	5.9	1.2	3.4	0.5	3.6	0.5	36.6	335.9	Lower Saprolite		
RRMDD522	28.3	29.0	0.7	64.7	137.0	15.6	51.8	9.2	1.8	7.4	1.1	5.9	1.2	3.4	0.5	3.5	0.5	35.6	339.1	Lower Saprolite	23.9	543
RRMDD522	29.0	29.8	0.8	73.7	164.6	18.1	59.6	11.0	2.1	8.5	1.2	6.7	1.3	3.8	0.6	3.9	0.6	40.6	396.4	Saprock		
RRMDD522	29.8	30.6	0.8	65.6	152.3	16.1	52.8	9.8	1.9	7.8	1.1	5.7	1.1	3.2	0.5	3.3	0.5	33.7	355.3	Saprock		
RRMDD523	0.0	2.0	2.0	126.7	441.0	24.0	78.6	12.8	2.1	9.0	1.4	8.5	1.7	4.9	0.7	5.1	0.8	44.6	761.8	Hardcap		
RRMDD523	2.0	4.1	2.0	136.0	631.4	25.6	83.9	13.6	2.2	9.2	1.5	8.8	1.7	5.0	0.8	5.1	0.8	45.3	970.9	Hardcap		
RRMDD523	4.1	5.0	1.0	66.7	101.3	15.8	56.2	11.1	2.1	10.9	1.8	10.0	2.2	6.7	1.0	6.8	1.0	71.7	365.3	Mottled		
RRMDD523	5.0	6.0	1.0	99.6	108.2	24.0	84.3	16.6	3.1	15.8	2.4	13.8	2.8	8.5	1.2	8.2	1.2	96.3	485.9	Mottled		
RRMDD523	6.0	6.9	1.0	160.1	185.5	32.6	110.7	21.5	4.3	21.0	3.4	18.5	3.8	11.2	1.6	10.4	1.6	124.6	710.7	Mottled		
RRMDD523	6.9	7.9	1.0	206.4	868.5	59.3	210.0	41.7	8.0	38.4	5.8	32.1	6.5	19.2	2.7	17.5	2.5	191.8	1710.4	Clay		
RRMDD523	7.9	8.9	0.9	239.3	250.6	66.1	243.8	45.5	8.6	44.6	6.5	35.7	7.4	21.4	2.9	17.8	2.6	278.1	1270.8	Clay		
RRMDD523	8.9	9.8	1.0	486.7	275.2	79.3	249.6	42.7	8.0	38.0	5.5	29.5	6.0	17.1	2.3	14.6	2.1	211.4	1468.1	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
RRMDD523	9.8	10.9	1.1	648.6	492.6	196.3	681.2	124.7	22.5	95.4	13.1	63.1	11.2	29.4	3.8	22.4	3.0	323.8	2731.1	Clay		
RRMDD523	10.9	11.7	0.8	954.7	628.9	212.6	681.2	117.1	21.0	87.0	11.8	55.0	9.7	24.6	3.2	19.2	2.6	274.3	3102.8	Clay		
RRMDD523	11.7	12.5	0.8	767.0	480.3	124.4	398.9	68.0	12.2	53.7	7.4	37.1	6.7	18.2	2.4	14.7	2.1	198.7	2191.7	Clay		
RRMDD523	12.5	13.3	0.9	528.9	434.9	89.6	296.3	50.6	9.3	42.2	5.9	29.4	5.6	15.2	2.1	12.8	1.8	177.2	1701.6	Clay		
RRMDD523	13.3	14.2	0.9	229.9	215.0	47.6	166.2	30.4	6.0	29.4	4.2	23.1	4.7	13.4	1.8	11.3	1.7	156.8	941.6	Clay		
RRMDD523	14.2	14.9	0.7	382.3	275.2	53.3	172.0	27.1	5.2	23.4	3.4	19.3	4.0	10.8	1.5	9.2	1.4	132.1	1120.0	Clay		
RRMDD523	14.9	15.7	0.8	280.3	273.9	48.8	168.5	27.6	5.1	21.7	3.1	16.9	3.3	9.1	1.3	8.2	1.2	109.0	978.1	Clay		
RRMDD523	15.7	16.5	0.8	89.5	168.9	23.6	89.1	16.3	3.2	15.2	2.3	13.4	2.7	7.9	1.1	7.1	1.0	94.6	536.1	Clay		
RRMDD523	16.5	17.3	0.8	89.5	162.1	22.8	89.2	17.9	3.6	18.8	3.0	17.8	3.7	10.6	1.5	9.2	1.4	125.6	576.8	Clay		
RRMDD523	17.3	18.1	0.8	93.6	159.1	27.4	115.9	24.4	5.2	26.4	4.0	23.1	4.7	12.7	1.7	10.3	1.5	156.2	666.0	Clay		
RRMDD523	18.1	18.8	0.8	75.8	132.7	18.4	70.3	13.0	2.9	15.7	2.5	15.3	3.3	9.7	1.4	8.3	1.3	123.1	493.6	Upper Saprolite		
RRMDD523	18.8	19.4	0.6	103.8	176.9	32.7	142.3	32.0	7.2	39.8	6.4	38.4	8.4	23.4	3.2	19.4	2.9	306.0	943.1	Upper Saprolite		
RRMDD523	19.4	20.1	0.6	116.6	198.4	35.9	158.0	35.8	8.2	47.8	7.8	47.4	10.5	30.0	4.2	25.1	3.7	428.0	1157.3	Upper Saprolite		
RRMDD523	20.1	20.5	0.4	102.3	180.0	28.8	121.3	25.4	5.8	34.5	5.4	32.9	7.6	21.5	2.9	16.9	2.7	318.7	906.6	Lower Saprolite	16.4	1229
RRMDD523	20.5	21.2	0.7	70.5	129.6	16.6	63.7	11.8	2.5	13.7	2.0	11.6	2.8	8.2	1.1	6.3	1.0	151.8	493.0	Saprock		
RRMDD523	21.2	21.9	0.7	56.3	119.0	13.0	45.3	8.1	1.6	6.1	0.9	4.8	1.0	2.7	0.4	2.6	0.4	30.6	292.9	Saprock		
RRMDD523	21.9	22.9	0.9	57.0	121.9	13.7	50.4	9.7	2.0	7.9	1.1	6.3	1.3	3.4	0.5	3.1	0.5	39.1	317.9	Saprock		
RRMDD523	22.9	23.8	0.9	58.5	126.5	14.1	50.6	9.2	1.8	7.0	1.1	5.7	1.2	3.2	0.5	3.1	0.4	35.7	318.6	Saprock		
RRMDD524	0.0	1.7	1.7	107.1	246.9	21.8	75.8	13.6	2.3	11.4	1.8	10.7	2.2	6.3	0.9	6.2	0.9	66.4	574.3	Soil		
RRMDD524	1.7	3.3	1.7	115.1	281.3	23.6	83.2	13.9	2.4	10.9	1.8	10.6	2.2	6.2	0.9	5.9	0.9	63.4	622.2	Transition		
RRMDD524	3.3	4.2	0.9	107.5	159.1	22.6	77.0	13.0	2.4	10.7	1.7	10.3	2.2	6.2	1.0	6.0	1.0	68.3	488.9	Mottled		
RRMDD524	4.2	5.1	0.9	121.4	127.8	23.1	75.7	12.0	2.2	9.8	1.6	9.5	2.0	5.8	0.9	5.8	0.9	66.2	464.6	Mottled		
RRMDD524	5.1	5.7	0.6	88.2	100.1	17.6	60.2	10.6	2.0	8.4	1.4	8.1	1.7	5.1	0.8	5.4	0.8	57.1	367.7	Clay		
RRMDD524	5.7	6.3	0.6	75.3	99.1	17.2	59.1	10.5	2.0	8.9	1.4	8.4	1.8	5.3	0.8	5.2	0.9	58.7	354.6	Clay		
RRMDD524	6.3	7.2	0.9	114.2	150.5	20.6	66.4	11.2	2.1	8.5	1.4	8.0	1.7	5.2	0.8	5.5	0.9	55.7	452.6	Clay		
RRMDD524	7.2	8.1	0.9	124.9	207.0	26.9	86.7	14.0	2.5	10.2	1.6	9.2	1.9	5.3	0.9	5.6	0.9	61.6	559.3	Clay		
RRMDD524	8.1	9.1	1.0	107.0	157.2	22.4	74.9	13.1	2.5	10.2	1.7	9.4	2.0	5.7	0.9	5.6	0.9	63.7	477.1	Clay		
RRMDD524	9.1	10.1	1.0	156.0	178.1	25.3	75.1	12.9	2.5	9.6	1.6	9.3	1.9	5.2	0.9	5.3	0.9	57.4	541.8	Clay		
RRMDD524	10.1	11.0	0.9	99.0	191.0	27.4	94.5	15.8	2.9	10.6	1.7	9.6	1.9	5.2	0.8	5.2	0.8	60.7	527.0	Upper Saprolite		
RRMDD524	11.0	12.0	1.0	110.0	214.4	45.4	186.0	40.6	8.6	34.7	5.4	30.3	5.9	15.7	2.2	12.6	1.9	178.4	892.1	Lower Saprolite	8.7	526
RRMDD524	12.0	13.1	1.1	80.9	174.4	21.3	80.1	12.8	2.6	11.3	1.5	8.7	1.9	5.3	0.8	4.5	0.7	81.8	488.7	Saprock		
RRMDD525	0.0	1.7	1.7	89.8	170.7	16.6	53.5	8.9	1.5	6.7	1.1	6.7	1.4	4.1	0.6	4.4	0.7	38.6	405.4	Hardcap		
RRMDD525	1.7	3.3	1.7	82.6	646.1	14.7	45.8	7.4	1.2	5.2	0.9	5.3	1.1	3.3	0.5	3.6	0.5	28.6	846.9	Hardcap		
RRMDD525	3.3	5.0	1.7	83.2	728.4	15.9	51.4	8.2	1.3	5.5	1.0	5.7	1.1	3.4	0.5	3.7	0.5	30.7	940.7	Hardcap		
RRMDD525	5.0	6.7	1.7	86.6	734.6	17.2	54.6	8.8	1.4	6.1	1.0	6.0	1.2	3.5	0.5	3.9	0.6	31.9	957.9	Hardcap		
RRMDD525	6.7	8.1	1.5	59.5	93.2	8.7	24.6	3.6	0.6	2.6	0.4	2.5	0.5	1.5	0.2	1.8	0.3	15.6	215.6	Mottled		
RRMDD525	8.1	8.7	0.6	41.8	30.8	8.5	29.5	5.4	1.0	5.3	1.0	6.2	1.4	4.3	0.7	4.8	0.7	44.8	186.1	Mottled		
RRMDD525	8.7	9.2	0.6	70.4	62.2	12.7	42.2	6.7	1.2	5.9	0.9	5.7	1.2	3.7	0.6	4.1	0.6	39.5	257.7	Mottled		
RRMDD525	9.2	10.1	0.9	137.2	166.4	32.7	106.1	17.7	2.9	11.2	1.7	9.0	1.8	4.9	0.7	5.0	0.7	51.3	549.5	Clay		
RRMDD525	10.1	11.1	0.9	289.7	229.7	42.9	131.8	19.9	3.5	14.7	2.0	10.8	2.0	5.5	0.8	5.2	0.8	58.8	818.0	Clay		
RRMDD525	11.1	12.0	0.9	199.4	269.0	33.5	108.7	17.5	3.1	13.1	1.9	10.1	1.9	5.0	0.7	4.7	0.7	55.7	725.1	Clay		
RRMDD525	12.0	12.9	0.9	108.2	189.8	24.1	82.8	13.6	2.5	10.5	1.6	8.9	1.8	5.0	0.7	5.1	0.8	56.1	511.5	Clay		
RRMDD525	12.9	13.8	0.9	95.5	86.2	21.5	76.6	12.8	2.3	11.0	1.7	9.5	1.9	5.4	0.8	5.3	0.8	65.4	396.7	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
RRMDD525	13.8	14.7	0.9	125.5	66.5	31.4	109.6	18.4	3.1	14.8	2.1	12.4	2.5	7.1	1.0	6.2	0.9	83.4	485.1	Clay		
RRMDD525	14.7	15.6	0.9	169.5	81.6	41.9	147.0	25.3	4.4	19.9	3.0	16.4	3.4	9.2	1.4	8.2	1.2	112.5	644.8	Clay		
RRMDD525	15.6	16.4	0.9	163.0	75.7	37.9	137.1	22.8	4.2	20.2	3.0	17.2	3.6	9.8	1.4	8.5	1.3	119.5	625.1	Clay		
RRMDD525	16.4	17.3	0.9	155.4	58.8	35.8	130.1	22.0	4.0	19.8	2.9	16.6	3.5	9.6	1.4	8.6	1.3	119.4	589.1	Clay		
RRMDD525	17.3	18.1	0.8	166.0	77.3	42.2	148.1	25.0	4.4	19.7	2.9	16.6	3.3	9.1	1.3	8.3	1.2	108.3	633.7	Clay		
RRMDD525	18.1	19.1	1.0	289.7	250.6	86.1	313.8	57.7	11.0	48.4	7.8	45.9	9.7	27.1	3.8	23.3	3.4	355.6	1533.8	Clay		
RRMDD525	19.1	20.0	1.0	160.1	103.4	41.1	149.9	27.3	5.0	22.4	3.5	19.8	4.1	11.1	1.6	9.8	1.4	135.2	695.8	Clay		
RRMDD525	20.0	21.0	1.0	378.8	123.5	74.4	263.6	46.3	9.0	40.2	6.2	34.3	6.9	19.0	2.6	15.8	2.3	245.7	1268.6	Clay		
RRMDD525	21.0	22.0	1.0	336.6	154.2	90.5	324.3	57.2	9.9	41.3	6.2	33.1	6.1	16.0	2.2	14.1	1.9	181.6	1274.9	Clay		
RRMDD525	22.0	22.7	0.8	349.5	491.4	85.9	277.6	43.9	7.9	28.4	4.0	19.9	3.5	8.9	1.3	7.7	1.1	91.4	1422.2	Clay		
RRMDD525	22.7	23.5	0.8	156.0	110.2	39.9	130.1	22.2	3.9	15.0	2.2	11.2	2.1	5.9	0.8	5.1	0.8	56.4	561.8	Clay		
RRMDD525	23.5	24.3	0.8	134.3	113.0	34.1	110.5	18.3	3.4	12.9	1.8	9.5	1.7	4.6	0.7	4.3	0.7	45.6	495.3	Clay		
RRMDD525	24.3	25.3	1.0	126.7	297.3	30.9	103.9	18.8	3.6	13.7	2.1	12.1	2.4	7.0	1.0	6.5	1.0	65.9	692.9	Upper Saprolite		
RRMDD525	25.3	26.3	1.0	104.4	242.0	22.9	74.2	12.8	2.5	9.6	1.3	6.8	1.3	3.7	0.5	3.7	0.5	36.1	522.3	Upper Saprolite		
RRMDD525	26.3	27.3	1.0	91.8	201.5	20.2	66.1	11.1	2.2	9.3	1.3	7.7	1.7	5.1	0.8	4.9	0.8	56.9	481.3	Upper Saprolite		
RRMDD525	27.3	27.7	0.4	78.5	159.1	17.2	54.9	9.4	1.9	7.2	1.0	5.4	1.1	3.1	0.5	3.0	0.5	32.1	374.9	Upper Saprolite		
RRMDD525	27.7	28.7	0.9	82.2	180.6	18.4	60.4	10.3	2.1	8.1	1.2	6.4	1.3	3.8	0.6	3.7	0.5	45.5	425.0	Upper Saprolite		
RRMDD525	28.7	29.3	0.6	54.8	102.2	12.4	39.8	6.8	1.4	5.7	0.8	4.8	1.1	3.2	0.5	3.0	0.5	36.2	273.0	Upper Saprolite		
RRMDD525	29.3	29.9	0.6	45.4	87.7	11.7	42.6	10.7	2.9	15.3	3.1	22.6	5.3	15.1	2.1	12.5	1.9	196.2	475.1	Upper Saprolite		
RRMDD525	29.9	30.6	0.7	77.8	211.9	22.2	81.2	16.6	3.4	12.3	1.8	9.7	1.8	4.6	0.6	3.6	0.5	50.4	498.4	Lower Saprolite		
RRMDD525	30.6	31.5	0.9	180.0	271.5	47.4	165.6	30.6	5.8	25.7	3.9	22.6	4.6	12.2	1.7	10.4	1.6	141.0	924.5	Lower Saprolite		
RRMDD525	31.5	32.5	0.9	59.1	134.5	13.4	41.5	6.6	1.3	4.1	0.6	2.9	0.6	1.8	0.3	1.9	0.3	16.9	285.7	Lower Saprolite		
RRMDD525	32.5	33.4	1.0	63.6	118.8	16.0	54.2	10.0	2.1	7.2	1.1	6.0	1.1	3.2	0.5	3.1	0.5	32.1	319.5	Lower Saprolite		
RRMDD525	33.4	34.4	0.9	71.5	130.2	17.2	57.6	10.3	2.0	7.4	1.0	5.8	1.1	3.0	0.5	2.9	0.5	32.1	343.2	Lower Saprolite		
RRMDD525	34.4	35.4	1.0	68.3	132.7	16.3	54.7	10.0	2.0	7.1	1.1	5.8	1.2	3.4	0.5	3.2	0.5	37.2	343.8	Lower Saprolite	26.2	650
RRMDD525	35.4	36.6	1.2	58.8	111.3	13.3	42.1	7.2	1.3	4.8	0.7	3.7	0.7	2.1	0.3	2.1	0.3	22.0	270.7	Saprock		
RRMDD526	0.0	1.7	1.7	72.9	264.1	14.9	50.3	8.7	1.5	6.6	1.1	6.6	1.3	4.1	0.6	4.4	0.7	37.5	475.3	Hardcap		
RRMDD526	1.7	3.4	1.7	110.7	643.7	19.7	64.3	10.8	1.8	7.8	1.3	7.8	1.5	4.5	0.7	4.8	0.7	37.3	917.4	Transition		
RRMDD526	3.4	4.2	0.8	46.0	95.2	11.1	37.6	7.4	1.4	6.5	1.1	7.4	1.6	4.9	0.8	5.0	0.8	44.8	271.5	Mottled		
RRMDD526	4.2	5.0	0.8	39.8	68.2	9.1	31.3	6.1	1.1	4.8	0.8	5.4	1.2	3.6	0.6	4.0	0.6	32.1	208.7	Mottled		
RRMDD526	5.0	5.8	0.8	40.9	80.0	9.6	32.8	6.6	1.2	5.6	0.9	5.8	1.3	3.8	0.6	4.3	0.7	34.9	229.0	Mottled		
RRMDD526	5.8	6.8	1.0	77.9	162.8	18.5	63.9	11.7	2.0	8.6	1.4	7.9	1.6	4.6	0.7	4.7	0.7	46.1	413.1	Clay		
RRMDD526	6.8	7.7	1.0	96.4	218.7	26.7	89.2	16.6	3.1	12.7	2.0	11.4	2.5	7.2	1.1	6.6	1.0	83.7	578.8	Clay		
RRMDD526	7.7	8.6	0.8	87.7	154.2	24.2	81.2	15.6	2.7	12.0	1.9	10.8	2.4	7.0	1.0	6.4	1.0	81.9	490.0	Clay		
RRMDD526	8.6	9.4	0.8	119.6	195.9	34.3	124.8	23.7	4.3	18.6	2.9	17.2	3.6	10.6	1.5	9.3	1.4	128.3	696.2	Clay		
RRMDD526	9.4	10.4	1.0	80.8	140.7	22.1	79.0	14.6	2.5	9.7	1.4	8.3	1.6	4.8	0.7	4.6	0.7	52.3	423.7	Clay		
RRMDD526	10.4	11.2	0.8	86.8	167.7	23.7	85.5	15.1	2.5	9.3	1.3	7.0	1.3	3.7	0.5	3.7	0.6	35.2	443.9	Clay		
RRMDD526	11.2	11.9	0.8	123.1	192.2	35.2	129.5	24.5	4.1	14.6	2.1	10.5	1.8	4.9	0.7	4.2	0.6	44.1	592.1	Clay		
RRMDD526	11.9	12.7	0.8	161.3	178.1	37.9	140.0	27.3	4.7	19.1	2.9	16.2	3.2	9.0	1.3	7.8	1.1	101.5	711.4	Clay		
RRMDD526	12.7	13.6	0.9	141.9	126.5	31.8	107.0	19.7	3.4	12.1	1.8	8.4	1.5	3.7	0.5	3.5	0.5	36.2	498.4	Upper Saprolite		
RRMDD526	13.6	14.5	0.9	124.3	162.8	32.9	114.4	21.5	3.6	13.3	1.9	9.4	1.7	4.3	0.6	4.2	0.6	39.6	535.1	Upper Saprolite		
RRMDD526	14.5	15.5	1.0	154.8	170.7	43.6	182.0	39.5	8.0	38.3	6.1	35.8	6.9	19.7	2.8	17.3	2.5	207.0	934.9	Upper Saprolite		
RRMDD526	15.5	16.5	1.0	303.8	189.8	61.9	267.1	52.9	11.5	65.1	9.7	57.3	12.0	33.7	4.5	25.8	3.9	414.0	1513.0	Upper 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
RRMDD526	16.5	17.3	0.9	166.0	157.2	24.2	99.0	18.0	4.0	23.6	3.4	20.1	4.6	13.1	1.7	9.5	1.5	195.6	741.4	Lower Saprolite		
RRMDD526	17.3	18.2	0.9	119.6	138.8	22.2	88.1	15.5	3.8	20.7	3.3	18.7	4.3	12.4	1.7	10.5	1.6	184.1	645.3	Lower Saprolite		
RRMDD526	18.2	19.1	0.9	74.7	160.9	19.0	71.6	13.0	3.0	12.4	1.8	10.2	2.0	5.8	0.8	5.6	0.8	74.5	456.3	Lower Saprolite	13.3	651
RRMDD526	19.1	19.9	0.9	56.5	117.9	13.1	47.7	8.3	1.8	6.9	1.0	5.7	1.1	3.4	0.5	3.7	0.5	38.5	306.7	Lower Saprolite		
RRMDD526	19.9	20.8	0.9	58.6	137.6	13.0	44.8	7.2	1.6	5.8	0.9	4.9	1.0	2.8	0.5	3.0	0.5	30.2	312.5	Lower Saprolite		
RRMDD526	20.8	21.6	0.9	53.4	115.7	11.6	40.4	6.9	1.4	5.3	0.8	4.4	0.9	2.5	0.4	2.9	0.4	28.4	275.4	Lower Saprolite		
RRMDD526	21.6	22.5	0.9	50.3	110.9	12.0	43.0	7.5	1.6	6.0	0.9	4.8	1.0	2.8	0.4	3.1	0.5	30.7	275.7	Lower Saprolite		
RRMDD527	0.0	1.7	1.7	68.8	195.9	12.1	37.4	6.2	1.1	4.7	0.8	5.0	1.0	3.2	0.5	3.5	0.5	28.8	369.7	Hardcap		
RRMDD527	1.7	3.3	1.7	81.4	674.4	15.2	48.9	7.8	1.2	5.5	0.9	5.5	1.1	3.5	0.5	3.8	0.6	31.1	881.3	Hardcap		
RRMDD527	3.3	5.0	1.7	108.4	794.8	21.3	69.8	11.6	1.8	8.1	1.3	7.6	1.5	4.5	0.7	4.7	0.7	40.9	1077.5	Hardcap		
RRMDD527	5.0	5.8	0.8	57.9	466.8	11.6	38.4	6.4	1.1	5.2	0.8	4.6	1.0	3.0	0.5	3.2	0.5	30.7	631.8	Mottled		
RRMDD527	5.8	6.7	0.8	48.4	85.3	8.6	27.4	4.2	0.7	3.3	0.5	2.8	0.6	1.8	0.3	2.0	0.3	18.2	204.2	Clay		
RRMDD527	6.7	7.5	0.9	83.3	75.7	18.7	62.2	10.3	1.8	7.7	1.1	6.0	1.2	3.5	0.6	3.8	0.6	35.4	311.8	Clay		
RRMDD527	7.5	8.4	0.9	159.5	88.4	34.7	120.7	19.4	3.6	15.3	2.3	12.7	2.6	7.1	1.1	6.9	1.0	80.3	555.6	Clay		
RRMDD527	8.4	9.3	0.9	174.7	101.2	40.6	140.0	23.1	4.1	18.3	2.7	15.5	3.2	8.9	1.3	8.2	1.2	105.0	648.2	Clay		
RRMDD527	9.3	10.1	0.9	374.1	189.8	61.5	194.2	30.6	5.5	22.5	3.1	16.5	3.1	7.9	1.2	7.3	1.0	89.1	1007.5	Clay		
RRMDD527	10.1	11.0	0.9	156.6	174.4	39.6	130.6	21.6	3.5	14.1	1.9	10.2	1.9	5.1	0.8	5.0	0.8	54.5	620.7	Clay		
RRMDD527	11.0	11.9	0.9	95.6	130.8	21.4	73.9	12.4	2.1	8.4	1.2	6.4	1.3	3.6	0.6	3.8	0.6	37.7	399.9	Clay		
RRMDD527	11.9	12.8	0.9	108.5	140.7	25.7	86.9	14.0	2.6	9.5	1.4	7.4	1.4	4.2	0.7	4.3	0.7	43.6	451.5	Clay		
RRMDD527	12.8	13.8	0.9	84.1	110.3	19.8	68.7	11.3	2.1	8.1	1.2	6.2	1.3	3.6	0.6	3.8	0.6	38.1	359.8	Clay		
RRMDD527	13.8	14.6	0.9	93.9	253.1	22.0	73.0	11.8	2.1	7.3	1.0	5.0	1.0	2.6	0.5	3.0	0.5	27.7	504.3	Upper Saprolite		
RRMDD527	14.6	15.3	0.7	138.4	350.1	32.1	119.6	22.7	4.7	18.7	3.0	17.2	3.4	8.8	1.3	8.0	1.1	81.1	810.2	Upper Saprolite		
RRMDD527	15.3	15.9	0.6	219.3	502.4	58.4	239.1	51.5	10.8	45.5	7.2	42.8	8.2	21.8	3.1	18.0	2.4	219.7	1450.1	Upper Saprolite		
RRMDD527	15.9	16.7	0.9	82.7	213.1	21.3	85.4	18.0	3.9	19.8	3.1	19.5	4.2	11.6	1.8	10.4	1.6	135.2	631.7	Lower Saprolite		
RRMDD527	16.7	17.6	0.8	75.2	162.1	16.8	58.8	9.9	2.0	9.0	1.3	7.5	1.6	4.5	0.6	3.9	0.6	53.3	407.1	Lower Saprolite		
RRMDD527	17.6	18.4	0.9	69.9	149.3	15.4	54.2	9.2	1.8	7.7	1.0	5.6	1.2	3.5	0.5	3.2	0.5	45.8	369.0	Lower Saprolite		
RRMDD527	18.4	19.3	0.8	67.4	148.6	14.9	52.3	9.2	1.7	7.3	1.0	5.5	1.0	2.9	0.5	3.1	0.5	35.6	351.5	Lower Saprolite		
RRMDD527	19.3	20.2	0.9	70.6	172.0	18.4	69.4	13.9	2.7	11.2	1.6	8.9	1.7	4.6	0.7	4.3	0.6	54.6	435.2	Lower Saprolite	13.5	558
RRMDD527	20.2	21.2	1.1	61.3	121.2	13.8	47.8	8.7	1.6	6.5	0.9	5.1	1.0	2.9	0.4	3.2	0.5	31.7	306.8	Lower Saprolite		
RRMDD527	21.2	22.3	1.1	60.8	124.1	13.5	47.5	8.0	1.5	5.8	0.8	4.1	0.9	2.5	0.4	2.5	0.4	26.5	299.1	Lower Saprolite		
RRMDD527	22.3	23.4	1.1	56.9	114.4	12.4	42.0	7.1	1.3	5.1	0.7	3.7	0.8	2.2	0.4	2.4	0.4	23.2	273.0	Saprock		
RRMDD527	23.4	24.5	1.1	78.8	225.4	20.5	76.5	15.1	3.0	12.6	1.8	10.6	2.2	6.3	0.9	5.6	0.8	65.9	526.1	Saprock		
RRMDD528	0.0	2.1	2.1	74.2	227.9	13.9	44.1	7.5	1.3	5.5	0.9	5.9	1.1	3.4	0.5	3.9	0.6	29.3	420.2	Hardcap		
RRMDD528	2.1	4.2	2.1	66.1	701.4	13.3	44.2	8.0	1.4	6.6	1.2	7.6	1.5	4.5	0.7	4.9	0.7	40.6	902.9	Transition		
RRMDD528	4.2	4.8	0.6	48.6	184.3	9.7	32.4	5.6	1.1	5.5	0.9	5.6	1.3	4.1	0.7	4.8	0.7	43.4	348.7	Mottled		
RRMDD528	4.8	5.4	0.6	61.1	200.2	13.0	45.8	7.9	1.5	7.5	1.2	7.1	1.6	4.8	0.8	5.5	0.8	55.2	414.2	Mottled		
RRMDD528	5.4	6.2	0.8	59.2	278.8	13.8	50.7	8.7	1.6	7.6	1.2	7.2	1.6	4.8	0.8	5.0	0.8	51.3	493.3	Mottled		
RRMDD528	6.2	7.0	0.8	67.9	364.8	18.1	67.2	11.8	2.2	9.2	1.4	8.1	1.7	4.9	0.8	5.6	0.9	53.3	618.0	Mottled		
RRMDD528	7.0	7.8	0.8	76.8	194.1	19.1	70.2	12.3	2.3	10.4	1.6	8.6	1.8	5.1	0.8	5.6	0.9	55.6	465.4	Mottled		
RRMDD528	7.8	8.6	0.8	95.3	163.4	23.9	89.2	15.4	2.9	13.1	2.0	11.4	2.3	6.8	1.0	7.5	1.1	79.1	514.3	Clay		
RRMDD528	8.6	9.3	0.8	120.2	166.4	31.9	115.4	20.0	3.8	16.0	2.4	12.7	2.5	7.2	1.1	7.3	1.1	81.9	590.0	Clay		
RRMDD528	9.3	10.1	0.8	95.7	147.4	24.8	90.9	15.8	3.0	12.6	1.9	10.5	2.1	6.2	0.9	6.2	0.9	70.0	488.9	Clay		
RRMDD528	10.1	10.8	0.7	100.2	164.6	25.7	95.1	16.4	3.1	13.6	2.0	10.7	2.1	6.1	0.9	6.3	1.0	71.0	518.8	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
RRMDD528	10.8	11.7	0.9	137.8	182.4	35.8	131.8	22.8	4.3	18.6	2.7	14.6	2.9	8.5	1.2	8.0	1.2	96.0	668.7	Clay		
RRMDD528	11.7	12.5	0.9	139.6	210.1	36.5	135.9	23.9	4.6	19.3	2.8	15.2	3.0	8.4	1.3	8.2	1.2	101.2	711.1	Clay		
RRMDD528	12.5	13.4	0.9	124.3	189.2	30.7	116.3	19.3	3.8	16.7	2.5	13.5	2.7	7.6	1.2	7.6	1.1	92.8	629.3	Clay		
RRMDD528	13.4	14.2	0.9	120.8	192.2	28.8	107.1	18.3	3.8	16.0	2.5	13.5	2.7	7.6	1.2	7.9	1.2	91.3	614.7	Clay		
RRMDD528	14.2	15.1	0.9	108.5	164.0	24.2	87.5	14.6	3.0	13.7	2.0	11.1	2.5	7.1	1.1	7.2	1.1	85.5	532.9	Upper Saprolite		
RRMDD528	15.1	15.9	0.9	143.7	234.0	38.4	144.6	24.9	4.8	20.5	3.0	16.2	3.2	9.2	1.3	8.7	1.3	104.0	757.9	Upper Saprolite		
RRMDD528	15.9	16.8	0.9	187.6	242.0	48.8	183.7	32.5	6.1	26.0	4.0	21.4	4.2	11.9	1.7	11.2	1.7	135.9	918.8	Upper Saprolite		
RRMDD528	16.8	17.8	1.0	285.0	293.6	71.8	278.8	48.2	9.1	37.9	5.4	26.1	4.8	12.6	1.8	11.5	1.6	142.2	1230.2	Upper Saprolite		
RRMDD528	17.8	18.9	1.0	155.4	229.7	37.0	135.3	22.9	4.7	19.6	3.0	16.2	3.1	8.7	1.3	8.4	1.3	96.4	742.9	Upper Saprolite		
RRMDD528	18.9	19.5	0.7	146.0	191.0	34.9	137.6	26.7	5.7	27.4	4.4	24.8	5.1	14.4	2.1	13.6	2.0	161.3	796.9	Lower Saprolite		
RRMDD528	19.5	20.2	0.7	151.3	219.3	34.7	137.1	27.0	6.0	31.2	5.0	29.4	6.3	18.4	2.6	17.4	2.6	212.1	900.4	Lower Saprolite	15.4	676
RRMDD528	20.2	20.9	0.7	119.0	168.3	24.8	94.2	17.9	3.8	22.0	3.2	19.4	4.5	12.7	2.0	11.3	1.8	165.7	670.6	Saprock		
RRMDD528	20.9	21.6	0.7	85.6	145.0	16.7	59.6	10.3	2.0	10.1	1.3	7.8	1.8	5.4	0.8	4.9	0.8	87.6	439.7	Saprock		
RRMDD528	21.6	22.5	0.9	67.7	143.7	16.1	59.0	10.8	2.4	9.2	1.3	6.9	1.4	4.1	0.7	4.5	0.7	46.6	375.0	Saprock		
RRMDD528	22.5	23.4	0.9	65.4	141.3	15.8	57.0	10.6	2.3	8.9	1.2	7.0	1.4	4.0	0.7	4.3	0.7	43.2	363.7	Saprock		
RRMDD528	23.4	24.4	0.9	64.5	141.3	15.8	59.0	11.1	2.4	8.8	1.3	7.0	1.4	3.7	0.6	3.7	0.6	40.3	361.5	Saprock		
RRMDD528	24.4	25.3	0.9	59.8	129.0	13.9	50.3	8.9	1.8	6.5	0.9	5.1	1.0	2.7	0.4	2.7	0.4	30.5	313.9	Saprock		
RRMDD529	0.0	1.8	1.8	75.8	249.4	15.0	50.7	8.9	1.6	6.9	1.2	7.1	1.4	4.3	0.7	4.4	0.7	39.4	467.3	Hardcap		
RRMDD529	1.8	3.5	1.8	74.1	480.3	14.2	45.7	7.8	1.3	5.7	1.0	5.6	1.1	3.3	0.5	3.6	0.5	28.8	673.7	Transition		
RRMDD529	3.5	4.3	0.8	57.2	402.9	12.9	46.9	9.2	1.6	8.3	1.5	8.8	1.9	5.7	0.9	5.9	0.9	58.5	623.4	Mottled		
RRMDD529	4.3	5.1	0.8	276.8	242.6	46.2	164.5	28.2	5.1	28.2	4.1	25.5	5.6	15.6	2.3	13.5	2.1	227.9	1088.1	Mottled		
RRMDD529	5.1	5.8	0.8	438.6	784.9	81.8	312.6	64.8	14.5	95.8	16.2	103.5	23.7	66.7	9.0	50.4	7.6	920.7	2991.0	Mottled		
RRMDD529	5.8	6.6	0.8	192.9	225.4	46.0	169.7	29.3	5.0	24.4	3.7	20.9	4.3	12.1	1.8	10.7	1.6	142.2	890.2	Mottled		
RRMDD529	6.6	7.2	0.6	87.5	128.4	21.3	77.8	14.3	2.4	10.5	1.5	8.9	1.9	5.2	0.8	4.7	0.8	57.5	423.5	Clay		
RRMDD529	7.2	7.9	0.6	61.8	107.1	14.1	50.2	8.6	1.5	6.4	0.9	5.0	1.1	3.0	0.4	3.4	0.5	30.9	295.0	Clay		
RRMDD529	7.9	8.8	0.9	92.5	119.0	20.0	72.4	13.0	2.4	11.0	1.7	9.4	2.0	5.6	0.9	5.7	0.9	65.5	422.1	Clay		
RRMDD529	8.8	9.7	0.9	200.5	175.0	54.1	205.9	39.2	7.0	30.7	4.2	22.2	4.2	10.7	1.6	9.2	1.3	126.7	892.5	Clay		
RRMDD529	9.7	10.5	0.8	241.6	218.0	68.7	275.3	58.1	11.9	62.9	10.1	59.7	13.1	36.0	4.9	28.6	4.3	514.3	1607.5	Clay		
RRMDD529	10.5	11.1	0.6	168.3	150.5	43.7	169.1	31.7	5.7	25.2	3.7	20.2	3.8	10.4	1.4	8.3	1.3	117.7	761.1	Clay		
RRMDD529	11.1	11.7	0.6	150.7	282.5	38.7	151.6	27.9	5.3	24.0	3.6	19.0	3.7	10.0	1.4	8.5	1.4	114.7	843.0	Clay		
RRMDD529	11.7	12.6	0.9	167.7	157.8	43.0	164.5	30.0	5.4	24.2	3.4	18.7	3.7	9.6	1.3	8.2	1.3	113.9	752.7	Upper Saprolite		
RRMDD529	12.6	13.4	0.9	169.5	157.8	45.4	172.0	33.3	6.1	26.9	3.9	21.2	4.0	10.5	1.5	8.8	1.3	122.0	784.2	Upper Saprolite		
RRMDD529	13.4	14.3	0.9	143.1	137.0	37.5	144.1	27.9	5.3	24.6	3.7	20.4	4.0	10.8	1.6	9.8	1.5	118.2	689.2	Upper Saprolite		
RRMDD529	14.3	15.2	0.9	168.3	270.2	48.0	187.2	37.7	7.0	30.8	4.7	25.4	4.8	12.7	1.9	11.3	1.7	126.0	937.6	Upper Saprolite		
RRMDD529	15.2	15.8	0.6	57.6	46.6	15.8	61.2	11.6	2.1	8.6	1.1	6.0	1.0	2.7	0.4	2.6	0.4	25.9	243.7	Upper Saprolite		
RRMDD529	15.8	16.4	0.6	83.9	359.9	20.5	74.2	12.7	2.2	8.2	1.2	5.7	1.0	2.5	0.4	2.6	0.4	24.5	599.8	Upper Saprolite		
RRMDD529	16.4	17.2	0.8	64.2	113.9	14.5	52.3	8.9	1.7	6.8	1.0	5.0	1.0	2.7	0.4	3.0	0.5	27.3	303.0	Lower Saprolite		
RRMDD529	17.2	18.0	0.8	83.6	137.0	18.4	68.5	12.5	2.7	13.5	2.2	13.6	3.0	9.1	1.3	8.3	1.3	100.4	475.3	Lower Saprolite		
RRMDD529	18.0	18.8	0.8	105.1	129.6	21.0	85.0	17.5	4.0	25.5	4.0	25.8	6.1	16.6	2.4	13.8	2.2	241.9	700.4	Lower Saprolite		
RRMDD529	18.8	19.6	0.8	84.4	117.2	17.6	68.7	13.0	2.8	15.2	2.2	13.5	3.1	8.7	1.2	7.6	1.3	122.5	479.0	Lower Saprolite	16.1	813
RRMDD529	19.6	20.3	0.7	55.7	85.9	11.7	41.2	6.7	1.2	5.5	0.8	4.6	0.9	2.8	0.4	2.8	0.5	33.4	254.1	Lower Saprolite		
RRMDD529	20.3	21.1	0.8	40.7	70.1	8.8	31.1	5.0	0.9	3.7	0.5	3.1	0.6	1.8	0.3	1.9	0.3	18.4	187.4	Lower Saprolite		
RRMDD529	21.1	22.1	1.0	63.0	131.4	13.7	48.4	8.2	1.5	6.4	1.0	5.3	1.1	3.3	0.5	3.5	0.6	39.0	326.9	Lower 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
RRMDD529	22.1	23.0	1.0	63.1	134.5	15.0	54.7	10.4	2.0	8.2	1.3	7.0	1.4	4.3	0.7	4.3	0.7	50.0	357.5	Lower Saprolite		
RRMDD529	23.0	24.0	1.0	75.9	173.8	19.9	75.5	14.8	3.1	12.6	1.9	10.7	2.2	6.1	0.9	5.8	0.8	66.9	471.1	Lower Saprolite		
RRMDD529	24.0	25.0	1.0	59.0	120.8	13.9	51.1	9.3	1.9	7.2	1.1	6.4	1.3	3.8	0.6	3.9	0.6	40.9	321.8	Lower Saprolite		
RRMDD530	0.0	1.8	1.8	123.7	522.1	20.1	63.2	10.2	1.7	7.4	1.2	7.0	1.4	4.1	0.6	4.3	0.6	37.0	804.4	Hardcap		
RRMDD530	1.8	3.5	1.7	122.6	764.1	19.8	61.4	9.9	1.6	6.9	1.1	6.4	1.2	3.6	0.5	3.9	0.6	31.0	1034.4	Hardcap		
RRMDD530	3.5	5.2	1.8	176.5	963.1	28.2	87.6	13.7	2.4	9.5	1.5	8.1	1.5	4.2	0.7	4.5	0.7	38.4	1340.3	Hardcap		
RRMDD530	5.2	5.8	0.6	254.5	347.6	45.8	148.1	24.4	4.3	15.7	2.3	11.5	1.9	4.3	0.6	3.7	0.5	38.5	903.7	Mottled		
RRMDD530	5.8	6.7	0.9	47.9	125.9	10.5	37.1	6.6	1.2	5.8	0.9	5.5	1.2	3.6	0.6	3.8	0.6	37.5	288.4	Mottled		
RRMDD530	6.7	7.7	1.0	88.2	135.1	18.8	66.1	10.8	2.0	9.2	1.4	7.9	1.6	5.0	0.7	4.9	0.7	54.0	406.4	Mottled		
RRMDD530	7.7	8.6	0.9	120.8	186.7	33.0	115.1	19.8	3.3	14.0	2.0	10.8	2.2	5.8	0.9	5.5	0.9	64.0	584.7	Clay		
RRMDD530	8.6	9.6	0.9	140.7	203.3	42.6	152.2	25.5	4.5	18.0	2.5	13.9	2.7	7.4	1.1	6.6	1.0	80.5	702.6	Clay		
RRMDD530	9.6	10.4	0.8	172.4	278.8	58.5	200.0	35.5	5.9	21.3	3.0	16.1	2.9	7.9	1.1	6.5	1.0	85.3	896.3	Clay		
RRMDD530	10.4	11.2	0.8	116.1	162.1	32.0	113.0	20.1	3.6	14.7	2.1	11.8	2.3	6.6	1.0	5.7	0.9	74.3	566.4	Clay		
RRMDD530	11.2	12.0	0.8	101.1	143.7	22.9	80.2	13.6	2.5	11.5	1.8	10.4	2.1	6.2	0.9	5.8	0.9	73.9	477.6	Clay		
RRMDD530	12.0	12.8	0.8	88.0	122.8	19.3	68.7	11.9	2.2	10.8	1.7	9.7	2.1	6.2	0.9	5.6	0.8	72.6	423.4	Clay		
RRMDD530	12.8	13.7	0.8	243.9	344.0	74.3	263.6	49.1	8.5	33.9	5.0	26.3	5.1	13.0	1.9	10.7	1.5	152.4	1233.0	Clay		
RRMDD530	13.7	14.5	0.8	215.2	293.6	63.1	224.5	41.6	7.3	29.3	4.2	21.8	4.0	10.5	1.5	8.2	1.1	114.2	1040.0	Clay		
RRMDD530	14.5	15.3	0.8	126.7	178.1	32.5	115.2	20.7	3.7	16.5	2.4	14.3	2.9	8.2	1.2	7.3	1.1	98.9	629.7	Clay		
RRMDD530	15.3	16.1	0.9	229.9	350.1	63.8	233.3	43.0	7.7	30.8	4.4	24.0	4.6	11.8	1.7	9.4	1.3	139.1	1154.8	Upper Saprolite		
RRMDD530	16.1	17.1	1.0	164.8	267.8	48.6	177.9	33.7	6.1	24.1	3.5	18.7	3.5	9.1	1.3	7.7	1.1	101.5	869.4	Upper Saprolite		
RRMDD530	17.1	18.1	1.0	112.6	162.1	28.5	103.6	18.7	3.5	14.2	2.2	12.3	2.6	7.0	1.0	6.4	1.0	79.6	555.3	Upper Saprolite		
RRMDD530	18.1	19.1	1.0	125.5	196.5	36.2	132.4	24.4	4.5	17.2	2.5	13.9	2.7	7.2	1.0	6.2	0.9	77.7	648.8	Upper Saprolite		
RRMDD530	19.1	20.0	1.0	93.4	143.1	23.1	81.9	14.6	2.8	11.5	1.7	10.2	2.1	5.8	0.9	5.4	0.8	64.5	461.8	Upper Saprolite		
RRMDD530	20.0	21.0	1.0	108.4	195.9	25.6	90.6	16.1	3.1	12.9	2.0	11.3	2.3	6.5	1.0	6.0	0.9	71.0	553.6	Upper Saprolite		
RRMDD530	21.0	22.0	1.0	88.1	138.8	20.8	73.0	13.2	2.5	10.8	1.7	9.5	2.1	5.7	0.8	5.4	0.8	65.4	438.6	Lower Saprolite		
RRMDD530	22.0	22.9	0.9	100.0	129.6	23.0	84.1	14.8	3.0	13.8	2.2	12.9	2.9	8.6	1.2	7.3	1.1	109.6	514.0	Lower Saprolite		
RRMDD530	22.9	23.9	0.9	179.4	212.5	40.8	161.0	30.1	6.3	30.0	4.6	27.4	5.9	16.5	2.3	13.4	2.0	217.8	950.0	Lower Saprolite		
RRMDD530	23.9	24.8	0.9	249.8	296.0	55.5	222.8	44.1	9.5	48.5	7.7	46.4	10.4	28.7	4.0	23.1	3.4	398.7	1448.6	Lower Saprolite		
RRMDD530	24.8	25.8	1.0	99.5	165.2	21.6	78.3	14.0	3.0	14.0	2.2	13.3	2.8	8.0	1.2	7.3	1.1	85.8	517.2	Lower Saprolite		
RRMDD530	25.8	26.7	0.9	123.7	204.5	27.3	101.4	18.8	4.0	19.0	2.9	17.6	3.8	10.7	1.6	9.3	1.5	117.5	663.5	Lower Saprolite	21.5	697
RRMDD530	26.7	27.4	0.7	91.9	165.8	18.3	63.6	10.6	2.1	10.2	1.5	8.6	2.0	5.7	0.9	4.8	0.8	83.8	470.6	Saprock		
RRMDD530	27.4	28.1	0.7	79.9	151.7	16.0	55.1	9.3	1.7	8.1	1.1	6.2	1.4	4.0	0.6	3.5	0.6	69.5	408.6	Saprock		
RRMDD530	28.1	28.8	0.7	71.7	148.6	15.0	49.8	8.1	1.5	5.9	0.8	4.4	0.9	2.5	0.4	2.6	0.4	35.2	347.6	Saprock		
RRMDD531	0.0	1.3	1.3	90.9	395.5	18.7	64.7	11.4	1.9	9.0	1.5	9.0	1.8	5.4	0.8	5.6	0.8	51.6	668.6	Hardcap		
RRMDD531	1.3	2.6	1.3	80.9	437.3	15.8	51.9	8.5	1.4	6.3	1.0	6.1	1.2	3.6	0.5	3.6	0.5	30.2	648.9	Hardcap		
RRMDD531	2.6	3.3	0.7	43.3	560.2	10.2	38.0	7.2	1.4	6.7	1.2	7.3	1.5	4.6	0.8	4.8	0.7	44.2	732.0	Mottled		
RRMDD531	3.3	4.0	0.7	82.6	121.0	22.4	84.0	16.4	2.9	12.6	2.0	11.4	2.3	6.8	1.0	6.4	1.0	70.2	443.0	Mottled		
RRMDD531	4.0	4.9	1.0	136.6	194.1	34.6	123.1	22.2	3.8	16.7	2.5	13.3	2.7	7.4	1.1	6.4	1.0	87.0	652.2	Clay		
RRMDD531	4.9	5.9	0.9	221.7	298.5	58.8	220.4	40.0	6.7	27.7	4.0	21.9	4.2	11.1	1.6	9.1	1.3	126.0	1053.0	Clay		
RRMDD531	5.9	6.9	1.0	847.9	587.2	265.8	1034.6	197.7	35.3	166.0	25.9	146.3	29.9	82.3	11.5	66.0	9.9	971.5	4477.9	Clay		
RRMDD531	6.9	7.8	1.0	387.0	331.7	104.5	410.6	80.5	14.8	65.6	9.3	48.7	9.2	23.0	3.1	17.5	2.5	276.8	1784.7	Clay		
RRMDD531	7.8	8.7	0.9	152.5	168.9	39.1	142.3	25.0	4.2	18.2	2.7	14.4	2.9	7.9	1.1	6.8	1.1	92.7	679.9	Clay		
RRMDD531	8.7	9.5	0.9	130.8	170.1	32.0	115.0	20.4	3.5	15.0	2.2	12.2	2.5	7.0	1.0	6.1	0.9	83.2	601.9	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
RRMDD531	9.5	10.4	0.9	126.7	145.6	28.0	102.1	18.2	3.1	14.3	2.1	11.4	2.3	6.3	0.9	5.5	0.8	78.1	545.3	Clay		
RRMDD531	10.4	11.1	0.7	139.6	158.5	32.7	121.9	22.7	4.1	18.6	2.7	15.1	2.9	7.5	1.1	6.7	1.1	93.0	628.1	Upper Saprolite		
RRMDD531	11.1	11.8	0.7	183.5	178.1	47.7	186.0	35.9	6.4	27.2	4.0	22.4	4.1	10.6	1.5	9.1	1.3	121.9	839.9	Upper Saprolite		
RRMDD531	11.8	12.6	0.9	242.8	283.8	58.2	228.0	45.3	8.3	37.3	5.5	30.2	5.4	14.2	2.0	12.0	1.7	155.6	1130.4	Lower Saprolite		
RRMDD531	12.6	13.7	1.1	137.2	129.6	32.6	125.4	24.6	4.5	20.5	3.1	17.2	3.2	8.8	1.3	7.8	1.2	101.0	617.8	Lower Saprolite		
RRMDD531	13.7	14.7	1.1	120.8	116.5	24.8	95.3	17.5	3.3	16.3	2.4	14.0	2.7	7.5	1.1	7.0	1.0	88.8	518.8	Lower Saprolite		
RRMDD531	14.7	15.4	0.7	145.4	132.1	27.8	108.6	19.7	3.9	20.2	3.0	16.8	3.4	10.0	1.4	9.0	1.4	120.5	623.2	Lower Saprolite		
RRMDD531	15.4	16.1	0.7	94.4	106.7	17.0	63.8	11.2	2.2	11.4	1.6	9.4	2.0	5.7	0.9	5.7	0.9	74.4	407.4	Lower Saprolite		
RRMDD531	16.1	17.0	0.9	78.5	145.0	14.6	52.8	9.3	1.8	8.5	1.2	7.3	1.5	4.7	0.7	5.1	0.8	55.1	387.0	Lower Saprolite		
RRMDD531	17.0	17.9	0.9	56.4	90.9	10.4	36.7	6.4	1.2	5.6	0.8	5.1	1.1	3.5	0.6	4.1	0.7	41.4	265.0	Lower Saprolite		
RRMDD531	17.9	18.8	0.9	76.3	460.7	18.4	68.8	13.3	2.6	10.0	1.5	8.1	1.5	4.2	0.7	4.3	0.6	42.4	713.4	Lower Saprolite	15.5	942
RRMDD531	18.8	19.8	1.0	52.0	129.0	11.2	38.1	6.7	1.3	4.9	0.7	4.1	0.9	2.6	0.4	3.2	0.5	30.0	285.5	Lower Saprolite		
RRMDD531	19.8	20.9	1.0	58.9	127.1	13.0	44.6	7.6	1.4	5.4	0.8	4.2	0.8	2.3	0.4	2.7	0.4	25.4	294.9	Lower Saprolite		
RRMDD531	20.9	21.9	1.0	63.9	151.7	13.4	45.6	7.7	1.3	5.1	0.7	4.1	0.8	2.5	0.4	2.7	0.4	25.8	326.2	Lower Saprolite		
RRMDD531	21.9	22.9	1.0	50.4	101.3	10.8	36.6	6.2	1.2	4.1	0.6	3.5	0.7	2.0	0.3	2.2	0.4	20.4	240.9	Saprock		
RRMDD531	22.9	23.9	1.0	66.1	131.4	14.2	49.8	8.5	1.7	6.5	1.0	5.4	1.1	3.2	0.5	3.3	0.5	37.6	330.9	Saprock		
RRMDD531	23.9	25.0	1.0	62.0	127.1	13.8	49.3	9.4	1.9	7.6	1.1	6.3	1.3	3.6	0.5	3.6	0.6	43.7	332.0	Saprock		
RRMDD531	25.0	26.0	1.0	63.2	137.0	15.2	56.8	10.9	2.3	8.7	1.3	7.6	1.5	4.2	0.6	3.9	0.6	50.5	364.4	Saprock		
RRMDD531	26.0	27.0	1.0	53.4	104.3	10.7	36.3	6.2	1.2	4.7	0.7	3.7	0.7	2.3	0.4	2.6	0.4	24.4	251.8	Saprock		
RRMDD532	0.0	1.7	1.7	88.7	249.4	16.3	52.7	8.8	1.5	6.4	1.0	6.2	1.2	3.5	0.5	3.8	0.5	31.4	471.8	Hardcap		
RRMDD532	1.7	3.3	1.7	62.4	296.0	10.9	35.1	5.6	0.9	4.1	0.7	4.1	0.8	2.4	0.4	2.6	0.4	21.0	447.3	Hardcap		
RRMDD532	3.3	4.2	0.8	60.9	399.2	12.6	43.7	8.7	1.5	6.8	1.2	6.8	1.4	4.3	0.7	4.7	0.8	45.6	598.9	Mottled		
RRMDD532	4.2	5.0	0.8	67.9	140.0	14.9	54.8	10.5	1.9	8.9	1.4	8.7	1.8	5.7	0.9	5.8	0.9	65.4	389.5	Mottled		
RRMDD532	5.0	5.9	0.9	161.3	178.7	32.3	116.3	20.6	3.6	16.9	2.6	14.7	3.0	8.4	1.2	7.7	1.2	104.6	673.2	Clay		
RRMDD532	5.9	6.8	0.9	85.6	132.7	21.8	82.6	16.3	3.0	14.0	2.2	12.9	2.6	7.8	1.1	7.4	1.1	94.9	485.8	Clay		
RRMDD532	6.8	7.7	0.9	96.1	230.3	26.1	101.7	19.7	3.7	17.4	2.7	16.1	3.3	9.5	1.4	8.7	1.4	120.1	658.2	Clay		
RRMDD532	7.7	8.6	0.9	108.7	162.1	25.5	98.3	18.3	3.5	17.2	2.7	15.9	3.3	9.7	1.4	8.8	1.4	122.0	598.8	Clay		
RRMDD532	8.6	9.5	0.9	112.7	213.1	27.4	106.4	20.0	3.8	17.8	2.8	16.6	3.3	9.6	1.4	8.7	1.3	124.8	669.7	Clay		
RRMDD532	9.5	10.4	0.8	124.9	173.8	29.0	109.9	20.3	3.8	18.4	2.9	16.8	3.4	10.0	1.5	9.1	1.5	125.6	650.7	Clay		
RRMDD532	10.4	11.2	0.8	140.7	188.6	38.4	149.3	28.5	5.1	23.5	3.4	19.2	3.8	10.5	1.5	8.8	1.4	141.0	763.7	Clay		
RRMDD532	11.2	12.0	0.8	115.2	165.8	34.3	137.6	27.3	5.0	24.3	3.6	20.0	4.0	11.7	1.6	9.5	1.5	130.8	692.2	Clay		
RRMDD532	12.0	12.6	0.6	2052.4	1689.1	488.1	1854.6	334.0	60.0	291.6	40.0	218.6	44.0	122.9	16.7	95.4	13.8	1511.2	8832.3	Upper Saprolite		
RRMDD532	12.6	13.2	0.6	181.2	250.6	45.8	176.7	32.6	5.8	28.2	3.9	21.1	4.5	12.9	1.8	10.9	1.6	158.7	936.4	Upper Saprolite		
RRMDD532	13.2	14.1	0.9	144.3	194.1	39.0	158.6	32.5	6.2	30.9	4.6	25.6	5.2	15.4	2.1	13.1	1.9	181.0	854.5	Lower Saprolite		
RRMDD532	14.1	15.1	1.0	150.1	190.4	38.9	158.6	32.8	6.3	32.2	4.7	27.5	5.7	16.7	2.4	14.4	2.1	189.9	872.8	Lower Saprolite		
RRMDD532	15.1	16.0	0.9	118.5	161.5	31.7	128.9	27.4	5.3	27.8	4.1	24.1	4.9	14.8	2.0	13.0	1.9	161.3	727.2	Lower Saprolite		
RRMDD532	16.0	17.0	0.9	89.8	127.8	22.2	86.0	18.3	4.0	18.9	3.2	19.9	4.2	11.7	1.8	11.2	1.8	129.5	550.0	Lower Saprolite		
RRMDD532	17.0	17.9	0.9	497.3	406.6	111.9	479.4	89.6	19.0	106.5	15.8	93.2	20.7	59.0	8.5	48.9	7.9	844.5	2808.7	Lower Saprolite		
RRMDD532	17.9	18.7	0.8	133.1	164.6	27.4	109.4	19.8	4.3	25.1	3.7	21.7	5.2	15.3	2.2	12.3	2.1	233.7	779.9	Saprock		
RRMDD532	18.7	19.5	0.8	71.3	132.1	15.3	54.1	9.5	1.9	7.9	1.2	6.5	1.4	3.8	0.6	3.5	0.6	58.4	368.0	Saprock	15.3	1105
RRMDD533	0.0	1.5	1.5	130.2	690.4	20.8	64.3	10.1	1.7	7.1	1.2	6.6	1.3	3.8	0.6	4.1	0.6	33.8	976.4	Hardcap		
RRMDD533	1.5	3.1	1.5	187.6	1063.8	30.2	91.7	13.7	2.2	9.0	1.4	7.9	1.5	4.4	0.7	4.6	0.7	38.2	1457.8	Hardcap		
RRMDD533	3.1	3.9	0.9	82.3	395.5	17.4	56.5	9.8	1.7	7.3	1.2	6.7	1.4	4.0	0.7	4.4	0.7	42.5	632.2	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
RRMDD533	3.9	4.8	0.9	89.0	222.3	22.0	74.2	12.8	2.2	8.8	1.4	7.7	1.6	4.5	0.7	4.9	0.8	47.0	499.9	Mottled		
RRMDD533	4.8	5.7	0.9	90.9	159.7	26.1	89.9	15.8	2.7	11.1	1.6	8.6	1.7	4.9	0.8	4.9	0.8	51.3	470.7	Mottled		
RRMDD533	5.7	6.6	0.8	108.4	192.2	29.8	105.0	18.7	3.2	13.8	2.2	12.3	2.5	7.0	1.1	6.8	1.1	81.9	585.8	Clay		
RRMDD533	6.6	7.4	0.8	772.9	1117.8	242.8	872.5	162.3	29.6	126.8	18.9	99.3	18.2	48.3	7.0	40.5	5.6	535.9	4098.5	Clay		
RRMDD533	7.4	8.3	0.9	594.6	708.8	155.3	599.5	112.5	21.2	98.1	14.6	79.4	15.1	39.6	5.9	34.0	4.9	434.3	2917.8	Clay		
RRMDD533	8.3	9.2	0.9	151.9	258.0	34.9	123.6	21.2	4.1	19.3	3.1	18.1	3.9	11.7	1.8	11.6	1.8	137.8	802.7	Clay		
RRMDD533	9.2	10.0	0.8	246.3	379.6	66.3	241.4	44.8	8.4	37.7	5.8	32.8	6.7	19.2	2.8	17.1	2.6	222.9	1334.3	Clay		
RRMDD533	10.0	10.8	0.8	198.8	309.6	48.1	175.5	32.9	6.4	30.9	4.9	30.1	6.3	18.0	2.7	17.0	2.6	201.3	1085.2	Clay		
RRMDD533	10.8	11.7	0.9	150.1	215.6	35.6	137.6	27.7	6.1	32.6	5.5	35.5	7.9	23.0	3.5	21.9	3.4	266.7	972.8	Upper Saprolite		
RRMDD533	11.7	12.6	0.9	151.9	211.3	32.4	125.4	23.8	5.1	30.5	4.8	30.8	7.3	21.6	3.1	18.3	3.0	314.9	984.1	Lower Saprolite	9.6	1296
RRMDD533	12.6	13.3	0.7	90.7	151.1	17.5	61.6	10.3	1.9	8.9	1.2	6.5	1.4	3.9	0.6	3.2	0.6	78.9	438.2	Saprock		
RRMDD533	13.3	14.0	0.7	67.8	140.7	15.8	54.5	9.0	1.7	6.3	0.9	4.4	0.8	2.2	0.3	2.4	0.4	28.6	335.8	Saprock		
RRMDD534	0.0	1.5	1.5	188.2	1034.3	30.7	93.8	13.7	2.3	8.5	1.5	7.9	1.5	4.4	0.7	4.4	0.7	39.4	1432.0	Hardcap		
RRMDD534	1.5	3.0	1.5	204.7	912.7	32.0	96.3	13.2	2.1	8.1	1.3	7.3	1.5	4.1	0.6	4.5	0.6	38.2	1327.2	Transition		
RRMDD534	3.0	3.9	0.8	295.5	309.6	46.8	131.2	19.7	3.4	11.6	1.6	7.8	1.3	3.6	0.5	3.6	0.6	34.4	871.3	Mottled		
RRMDD534	3.9	4.7	0.8	57.6	68.1	10.1	29.7	4.8	0.9	3.4	0.5	3.4	0.7	2.4	0.4	3.0	0.5	23.2	208.9	Mottled		
RRMDD534	4.7	5.5	0.8	114.2	145.0	22.8	69.9	11.4	1.9	7.3	1.0	5.1	1.0	2.9	0.5	3.2	0.5	29.6	416.2	Clay		
RRMDD534	5.5	6.3	0.8	95.6	183.6	33.0	111.4	19.8	3.2	11.0	1.6	8.3	1.5	4.1	0.6	4.0	0.6	42.2	520.6	Clay		
RRMDD534	6.3	7.1	0.8	74.6	121.5	23.0	77.4	13.6	2.3	8.7	1.2	6.8	1.3	3.6	0.5	3.4	0.5	38.5	377.0	Clay		
RRMDD534	7.1	8.0	0.8	64.0	104.4	17.8	60.9	10.6	1.9	7.3	1.1	6.1	1.1	3.2	0.5	3.3	0.5	35.6	318.3	Clay		
RRMDD534	8.0	8.8	0.8	77.6	127.1	24.1	82.5	14.3	2.5	9.3	1.4	6.9	1.4	3.8	0.6	3.5	0.5	39.4	394.7	Clay		
RRMDD534	8.8	9.6	0.8	70.3	116.9	21.1	72.1	12.2	2.0	8.1	1.1	6.1	1.2	3.4	0.5	3.4	0.5	36.6	355.7	Clay		
RRMDD534	9.6	10.5	0.8	70.3	121.0	22.0	73.5	12.4	2.0	7.3	1.0	5.4	1.0	3.0	0.5	3.0	0.5	31.1	353.9	Clay		
RRMDD534	10.5	11.3	0.8	138.4	242.6	50.6	177.3	32.2	5.5	21.0	3.1	17.2	3.3	9.1	1.3	8.0	1.1	107.4	818.2	Clay		
RRMDD534	11.3	12.3	1.0	194.7	340.3	68.0	235.6	42.0	7.2	26.2	3.7	18.9	3.3	8.3	1.1	7.0	1.0	88.4	1045.6	Upper Saprolite		
RRMDD534	12.3	13.2	1.0	161.8	286.2	54.6	189.5	34.0	5.9	22.4	3.3	18.1	3.4	8.9	1.3	7.4	1.1	102.6	900.5	Upper Saprolite		
RRMDD534	13.2	14.2	1.0	204.1	345.2	64.5	224.5	40.8	7.3	28.5	4.3	23.8	4.6	12.4	1.8	10.7	1.6	137.1	1111.1	Upper Saprolite		
RRMDD534	14.2	15.2	1.0	741.2	1026.9	246.5	902.8	174.5	32.3	132.5	20.8	114.8	21.4	56.1	7.9	48.3	6.6	556.2	4089.0	Upper Saprolite		
RRMDD534	15.2	16.1	1.0	686.1	809.5	177.0	682.3	136.8	29.8	167.1	28.7	184.8	42.0	123.5	17.8	109.0	16.9	1428.6	4640.1	Upper Saprolite		
RRMDD534	16.1	16.9	0.7	340.1	301.0	59.7	234.4	42.7	9.1	52.6	7.7	45.7	10.1	28.2	3.9	22.7	3.5	391.1	1552.5	Lower Saprolite	13.8	1185
RRMDD534	16.9	17.8	0.9	140.7	146.8	21.3	82.7	15.0	3.2	19.5	2.7	16.6	4.0	11.4	1.6	9.1	1.5	194.9	671.0	Saprock		
RRMDD534	17.8	18.7	0.9	66.1	129.0	15.0	51.4	9.0	1.9	7.4	1.2	6.5	1.4	3.7	0.6	3.8	0.6	46.0	343.6	Saprock		
RRMDD535	0.0	1.8	1.8	133.1	534.4	24.1	77.8	11.9	1.9	8.0	1.4	7.8	1.5	4.3	0.7	5.0	0.7	40.6	853.3	Hardcap		
RRMDD535	1.8	3.7	1.8	129.0	659.7	21.6	64.4	10.1	1.6	6.9	1.2	6.5	1.3	3.7	0.6	4.0	0.6	31.6	942.8	Hardcap		
RRMDD535	3.7	4.3	0.6	46.2	85.5	10.3	36.5	6.6	1.3	6.7	1.1	6.5	1.5	4.6	0.7	4.6	0.8	48.8	261.6	Mottled		
RRMDD535	4.3	5.0	0.6	95.3	131.4	29.0	105.1	20.1	3.3	14.8	2.2	12.6	2.5	7.0	1.0	6.7	1.0	78.5	510.5	Mottled		
RRMDD535	5.0	5.9	1.0	297.9	500.0	85.3	307.9	59.0	10.6	44.0	6.2	33.1	6.3	16.5	2.3	13.7	2.0	193.7	1578.5	Clay		
RRMDD535	5.9	6.9	1.0	219.3	313.2	67.7	236.8	44.5	7.4	28.5	4.0	20.7	3.7	9.6	1.3	8.2	1.2	106.0	1072.1	Clay		
RRMDD535	6.9	7.9	1.0	202.3	611.7	58.5	210.0	39.0	6.6	27.0	3.9	21.1	3.8	10.5	1.5	9.0	1.4	116.7	1322.9	Clay		
RRMDD535	7.9	8.8	1.0	320.2	340.3	93.5	337.1	61.8	10.9	43.8	6.2	31.2	5.9	15.1	2.1	12.4	1.9	176.5	1458.8	Clay		
RRMDD535	8.8	9.8	1.0	331.9	600.7	95.8	352.3	65.7	11.9	49.4	7.4	40.7	7.9	21.4	3.1	18.3	2.7	231.1	1840.5	Clay		
RRMDD535	9.8	10.4	0.6	502.0	428.7	157.1	579.7	110.0	20.1	83.8	12.7	70.1	13.7	37.3	5.3	32.0	4.8	420.3	2477.8	Clay		
RRMDD535	10.4	11.1	0.6	324.9	496.3	94.7	341.8	63.7	11.8	51.1	7.8	45.7	9.2	25.6	3.7	22.6	3.4	290.8	1792.9	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
RRMDD535	11.1	12.1	1.0	253.3	251.8	67.4	242.6	45.7	8.7	41.7	6.4	38.1	8.1	23.2	3.3	19.6	3.1	279.4	1292.5	Clay		
RRMDD535	12.1	13.1	1.0	180.6	212.5	44.9	160.4	29.7	5.6	24.1	3.6	20.8	4.2	11.4	1.6	9.9	1.5	130.8	841.6	Upper Saprolite		
RRMDD535	13.1	14.1	1.0	361.2	253.1	78.2	313.8	58.7	12.9	68.8	10.2	61.6	13.2	37.7	5.0	31.1	4.8	491.5	1801.7	Upper Saprolite		
RRMDD535	14.1	15.1	1.0	224.6	187.9	47.7	183.1	33.2	6.9	34.5	4.9	27.9	5.8	15.7	2.1	13.2	1.9	195.6	985.1	Upper Saprolite		
RRMDD535	15.1	16.1	1.0	171.2	262.9	37.5	140.0	25.4	5.3	25.0	3.7	21.1	4.4	11.9	1.7	10.6	1.6	150.5	872.7	Upper Saprolite		
RRMDD535	16.1	16.9	0.7	143.7	146.8	30.2	113.6	20.3	4.2	21.4	3.1	18.2	3.9	10.7	1.4	9.6	1.5	142.2	670.7	Lower Saprolite		
RRMDD535	16.9	17.6	0.7	110.6	137.6	21.2	78.5	14.0	2.9	14.5	2.1	12.6	2.8	7.9	1.1	7.3	1.1	107.7	522.0	Lower Saprolite		
RRMDD535	17.6	18.6	1.0	100.9	219.9	21.9	80.4	14.6	3.0	14.0	2.0	12.3	2.6	7.0	1.0	6.4	1.0	91.4	578.4	Lower Saprolite		
RRMDD535	18.6	19.5	0.9	82.6	196.5	17.3	58.8	9.9	1.9	7.9	1.1	6.5	1.4	4.1	0.6	3.9	0.6	53.7	447.0	Lower Saprolite	15.2	1171
RRMDD535	19.5	20.6	1.1	56.4	104.7	11.8	38.6	6.3	1.3	4.6	0.6	4.0	0.8	2.4	0.4	2.8	0.4	28.2	263.3	Saprock		
RRMDD535	20.6	21.7	1.1	53.4	98.9	11.5	38.6	6.5	1.3	4.7	0.7	3.6	0.8	2.3	0.4	2.6	0.4	24.5	249.9	Saprock		
RRMDD536	0.0	1.9	1.9	63.9	168.3	11.8	38.6	6.5	1.1	5.3	0.9	5.3	1.1	3.3	0.5	3.4	0.5	31.9	342.4	Soil		
RRMDD536	1.9	3.8	1.9	174.2	469.2	31.5	95.9	14.9	2.4	10.1	1.8	9.7	1.8	5.4	0.9	5.9	0.9	45.7	870.4	Hardcap		
RRMDD536	3.8	4.8	0.9	394.1	482.8	95.7	291.6	37.5	5.9	20.7	2.9	15.8	2.9	7.7	1.1	7.0	1.0	80.0	1446.6	Mottled		
RRMDD536	4.8	5.7	0.9	205.8	292.4	59.9	197.1	30.3	5.3	19.0	2.5	13.5	2.5	6.5	0.9	6.1	0.9	66.9	909.5	Clay		
RRMDD536	5.7	6.6	0.9	185.9	280.1	58.0	187.8	25.4	4.2	15.6	2.3	12.2	2.3	6.1	0.9	5.8	0.8	62.1	849.4	Clay		
RRMDD536	6.6	7.5	0.9	180.6	308.3	57.0	193.0	28.5	5.0	17.6	2.4	12.4	2.3	6.1	0.8	5.4	0.8	62.7	883.0	Clay		
RRMDD536	7.5	8.4	0.9	46.9	77.8	13.9	51.0	9.5	1.8	7.7	1.3	7.9	1.6	4.7	0.7	4.7	0.7	45.5	275.5	Clay		
RRMDD536	8.4	9.4	0.9	52.0	355.0	16.3	64.2	12.8	2.4	11.0	1.8	10.7	2.2	6.3	0.9	6.1	0.9	65.1	607.7	Clay		
RRMDD536	9.4	10.3	0.9	73.2	143.7	19.3	72.1	13.7	2.7	11.7	1.9	11.3	2.3	6.5	0.9	6.5	0.9	70.4	437.0	Clay		
RRMDD536	10.3	11.3	1.0	78.0	198.4	25.1	105.8	21.5	4.2	19.4	2.8	16.2	3.4	9.3	1.3	7.9	1.2	122.4	617.0	Clay		
RRMDD536	11.3	12.3	1.0	73.9	156.0	24.0	101.1	21.2	4.1	18.9	2.9	16.4	3.4	9.5	1.3	8.4	1.2	113.5	556.0	Clay		
RRMDD536	12.3	13.3	1.0	67.9	181.8	22.7	96.2	19.9	3.8	16.7	2.5	13.5	2.8	7.5	1.0	6.4	1.0	89.7	533.2	Clay		
RRMDD536	13.3	14.3	1.0	208.8	373.4	80.0	373.2	66.3	12.3	61.4	8.1	44.0	8.4	21.6	2.7	16.2	2.3	303.5	1582.3	Upper Saprolite		
RRMDD536	14.3	15.4	1.0	148.4	282.5	50.6	250.8	63.2	13.7	82.8	12.4	72.9	15.9	43.3	5.7	33.5	5.0	608.3	1688.8	Lower Saprolite		
RRMDD536	15.4	16.4	1.0	85.0	180.0	26.1	127.7	40.0	9.4	54.6	9.1	56.4	12.1	33.2	4.4	26.9	3.9	398.7	1067.5	Lower Saprolite	12.5	887
RRMDD536	16.4	17.5	1.1	53.7	121.6	16.6	76.4	17.2	3.8	24.8	3.6	22.4	5.9	17.9	2.7	17.7	2.9	290.8	677.9	Saprock		
RRMDD537	0.0	1.8	1.8	188.2	565.1	28.9	86.1	12.7	2.1	9.0	1.5	8.1	1.6	4.7	0.7	5.3	0.8	45.1	959.8	Hardcap		
RRMDD537	1.8	3.7	1.8	195.3	1099.4	31.7	93.7	13.6	2.1	8.8	1.6	8.2	1.6	4.6	0.7	5.0	0.8	39.0	1505.9	Hardcap		
RRMDD537	3.7	4.4	0.8	50.7	187.9	10.5	35.9	6.3	1.1	5.7	0.9	6.0	1.3	4.2	0.7	4.5	0.7	43.2	359.6	Mottled		
RRMDD537	4.4	5.2	0.8	32.3	1114.2	7.9	27.2	5.2	1.0	4.2	0.8	4.6	1.0	3.0	0.5	3.6	0.5	28.1	1233.8	Mottled		
RRMDD537	5.2	6.1	0.9	25.6	56.9	5.7	20.6	3.8	0.7	3.3	0.6	3.8	0.8	2.6	0.4	3.3	0.5	26.9	155.6	Clay		
RRMDD537	6.1	6.9	0.9	137.2	151.1	41.2	149.9	27.6	5.0	19.2	2.7	14.0	2.6	6.7	0.9	6.2	0.9	67.1	632.2	Clay		
RRMDD537	6.9	7.8	0.9	107.0	98.4	30.0	107.0	18.9	3.4	13.8	2.0	11.1	2.2	5.8	0.8	5.7	0.8	63.2	470.0	Clay		
RRMDD537	7.8	8.7	0.9	136.0	129.6	41.3	146.4	26.1	4.7	17.6	2.5	13.2	2.3	6.4	0.9	5.8	0.8	66.0	599.7	Clay		
RRMDD537	8.7	9.5	0.9	196.4	209.4	56.4	203.0	36.6	6.7	25.6	3.7	19.2	3.5	9.0	1.3	7.9	1.1	96.9	876.8	Clay		
RRMDD537	9.5	10.4	0.9	177.7	283.8	53.9	191.9	35.8	6.4	24.2	3.5	18.4	3.3	8.8	1.2	7.5	1.1	89.3	906.8	Clay		
RRMDD537	10.4	11.3	0.9	156.6	383.3	49.2	177.9	33.7	6.3	24.6	3.5	18.4	3.4	8.9	1.2	7.8	1.1	94.2	970.1	Clay		
RRMDD537	11.3	12.1	0.8	111.2	119.3	28.8	102.4	18.4	3.4	13.5	2.0	10.9	2.1	5.9	0.9	5.4	0.9	63.4	488.3	Clay		
RRMDD537	12.1	12.9	0.8	99.8	122.5	26.5	92.8	16.7	3.1	11.9	1.7	9.2	1.7	4.7	0.7	4.6	0.7	50.0	446.6	Clay		
RRMDD537	12.9	13.8	0.8	88.8	88.8	23.4	82.0	14.5	2.6	9.8	1.4	7.6	1.4	4.1	0.6	4.0	0.6	41.8	371.6	Clay		
RRMDD537	13.8	14.6	0.8	70.6	77.9	17.3	60.3	11.0	2.0	8.2	1.3	7.0	1.4	4.1	0.6	4.2	0.6	43.7	310.2	Clay		
RRMDD537	14.6	15.6	1.0	72.5	81.4	19.5	69.8	12.7	2.4	10.1	1.6	9.4	1.9	5.6	0.8	5.6	0.9	66.0	360.3	Upper 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
RRMDD537	15.6	16.6	1.0	73.5	73.7	19.7	71.2	13.2	2.4	9.5	1.3	7.0	1.3	3.5	0.5	3.5	0.5	36.2	317.1	Upper Saprolite		
RRMDD537	16.6	17.3	0.7	150.1	144.3	37.3	140.6	27.9	6.1	32.6	5.2	31.8	7.2	20.4	2.7	15.8	2.5	317.5	942.1	Upper Saprolite		
RRMDD537	17.3	18.0	0.7	134.3	133.9	31.7	115.1	20.1	3.8	15.8	2.2	11.5	2.1	5.4	0.8	4.8	0.7	59.7	541.8	Lower Saprolite		
RRMDD537	18.0	18.7	0.7	99.2	131.4	22.1	78.6	14.0	2.7	11.8	1.7	9.9	1.9	5.4	0.8	5.2	0.8	54.5	440.1	Lower Saprolite		
RRMDD537	18.7	19.4	0.8	116.3	144.3	27.4	103.8	19.2	3.9	17.9	2.7	14.7	2.8	7.6	1.1	7.0	1.0	80.3	550.2	Lower Saprolite		
RRMDD537	19.4	20.2	0.8	120.8	164.6	27.1	107.9	20.5	4.5	21.2	2.9	15.7	2.8	7.0	0.9	6.2	0.8	78.6	581.6	Lower Saprolite		
RRMDD537	20.2	21.0	0.9	149.5	258.0	27.9	109.8	21.6	5.2	35.8	5.8	38.4	9.5	26.9	3.8	21.0	3.4	424.1	1140.8	Lower Saprolite		
RRMDD537	21.0	21.9	0.9	93.8	147.4	17.8	64.9	11.6	2.3	10.3	1.4	7.4	1.5	3.8	0.6	3.3	0.5	54.0	420.6	Lower Saprolite		
RRMDD537	21.9	23.0	1.1	78.0	135.7	15.8	52.8	8.6	1.6	6.8	1.0	5.5	1.2	3.4	0.5	3.2	0.5	48.1	362.8	Lower Saprolite	16.9	578
RRMDD537	23.0	24.1	1.1	58.8	113.1	13.9	48.4	8.4	1.8	6.7	0.9	5.4	1.1	2.9	0.5	2.9	0.5	34.3	299.6	Lower Saprolite		
RRMDD537	24.1	25.1	1.1	52.3	96.8	11.9	42.0	7.6	1.5	5.9	0.8	4.9	1.0	2.7	0.4	2.5	0.4	30.6	261.3	Lower Saprolite		
RRMDD537	25.1	26.2	1.1	52.4	90.0	11.6	39.4	6.9	1.4	5.2	0.8	4.3	0.9	2.5	0.4	2.7	0.4	26.2	245.1	Lower Saprolite		
RRMDD537	26.2	27.3	1.1	66.4	174.4	13.7	44.6	7.0	1.4	4.8	0.7	3.6	0.7	2.2	0.3	2.4	0.4	22.1	344.6	Saprock		
RRMDD537	27.3	28.4	1.1	70.8	232.2	19.8	73.9	14.6	3.1	12.0	1.9	11.2	2.3	6.4	1.0	6.3	0.9	67.3	523.7	Saprock		
RRMDD537	28.4	29.5	1.1	54.8	107.9	11.4	36.4	5.7	1.1	4.1	0.6	3.2	0.6	1.9	0.3	2.2	0.3	19.3	249.8	Saprock		
RRMDD538	0.0	1.9	1.9	153.6	624.0	23.5	69.3	10.1	1.7	7.2	1.2	6.6	1.3	3.8	0.6	4.2	0.7	34.7	942.5	Hardcap		
RRMDD538	1.9	3.7	1.9	178.3	894.3	25.1	73.1	10.9	1.8	7.4	1.3	6.9	1.3	3.9	0.6	4.4	0.7	36.4	1246.5	Hardcap		
RRMDD538	3.7	4.7	1.0	88.8	351.3	18.5	60.8	10.3	1.8	8.6	1.4	8.3	1.8	5.1	0.8	5.7	0.8	52.6	616.7	Mottled		
RRMDD538	4.7	5.5	0.8	79.9	235.2	18.4	61.2	9.9	1.7	7.8	1.2	6.8	1.5	4.1	0.7	4.4	0.7	45.0	478.5	Clay		
RRMDD538	5.5	6.3	0.8	105.2	240.8	24.3	81.2	13.5	2.4	10.1	1.5	8.8	1.8	5.4	0.8	5.5	0.8	56.0	557.9	Clay		
RRMDD538	6.3	7.2	0.9	183.0	385.7	55.7	185.5	31.3	5.2	19.5	2.8	14.1	2.6	7.0	1.1	6.5	0.9	75.6	976.4	Clay		
RRMDD538	7.2	8.2	0.9	217.6	329.2	63.2	211.1	35.4	6.1	22.0	3.0	15.1	2.7	7.1	1.0	6.5	0.9	75.4	996.2	Clay		
RRMDD538	8.2	9.1	0.9	112.2	107.7	30.2	101.5	16.7	2.9	11.4	1.6	8.4	1.6	4.6	0.7	4.6	0.7	49.3	454.2	Clay		
RRMDD538	9.1	10.1	0.9	141.9	119.5	36.4	116.4	19.4	3.6	14.5	2.1	11.3	2.2	6.4	0.9	5.8	0.9	66.7	548.1	Clay		
RRMDD538	10.1	11.0	0.9	208.8	254.3	59.9	187.8	31.4	5.4	20.3	3.0	15.3	2.9	7.9	1.1	6.8	1.0	80.3	886.3	Clay		
RRMDD538	11.0	11.9	0.9	226.4	312.0	61.6	203.5	35.1	6.4	24.7	3.3	16.8	3.1	8.3	1.1	6.7	1.0	85.6	995.7	Clay		
RRMDD538	11.9	12.9	0.9	158.3	215.6	46.2	149.9	26.2	4.7	16.9	2.4	12.1	2.2	5.8	0.8	5.2	0.8	58.7	705.8	Clay		
RRMDD538	12.9	13.8	0.9	130.2	237.7	35.8	115.4	20.3	3.7	13.7	2.0	10.5	1.9	5.3	0.8	4.8	0.7	51.4	634.3	Clay		
RRMDD538	13.8	14.8	0.9	105.4	145.6	26.8	86.9	14.6	2.7	10.2	1.4	7.2	1.4	3.9	0.6	3.9	0.6	36.2	447.4	Clay		
RRMDD538	14.8	15.7	0.9	86.4	103.7	22.1	72.1	12.6	2.5	8.8	1.2	6.4	1.2	3.3	0.5	3.5	0.5	31.6	356.4	Clay		
RRMDD538	15.7	16.6	0.9	77.8	159.1	19.3	64.0	11.0	2.2	8.2	1.1	6.3	1.2	3.4	0.5	3.5	0.6	31.5	389.6	Clay		
RRMDD538	16.6	17.6	0.9	94.9	135.1	25.1	83.2	14.7	2.8	10.9	1.6	8.6	1.6	4.4	0.7	4.3	0.6	40.6	429.0	Clay		
RRMDD538	17.6	18.5	0.9	121.4	254.3	34.6	117.8	21.4	4.2	17.1	2.6	14.8	2.8	7.8	1.1	7.4	1.1	75.7	683.9	Clay		
RRMDD538	18.5	19.4	0.9	106.0	157.2	27.1	90.5	15.8	3.1	12.0	1.8	9.6	1.8	5.2	0.7	4.7	0.7	51.2	487.5	Clay		
RRMDD538	19.4	20.4	0.9	137.8	155.4	36.1	121.3	21.5	4.2	17.2	2.6	14.1	2.7	7.6	1.1	6.7	1.0	82.4	611.8	Upper Saprolite		
RRMDD538	20.4	21.3	0.9	225.8	319.4	53.6	183.1	34.0	7.0	30.1	4.5	24.1	4.9	13.8	1.8	11.1	1.7	166.4	1081.2	Upper Saprolite		
RRMDD538	21.3	22.2	0.9	116.0	150.5	28.0	95.2	17.7	3.4	13.4	2.0	10.4	1.9	5.0	0.7	4.6	0.7	50.5	500.0	Upper Saprolite		
RRMDD538	22.2	23.2	0.9	116.2	146.8	27.4	94.6	17.2	3.5	14.0	2.0	10.5	1.9	4.9	0.7	4.4	0.6	46.4	491.1	Upper Saprolite		
RRMDD538	23.2	24.1	0.9	99.9	134.5	23.6	81.8	15.2	3.2	12.8	1.8	9.7	1.8	4.7	0.7	4.4	0.7	44.6	439.4	Upper Saprolite		
RRMDD538	24.1	24.9	0.8	139.0	289.9	32.3	114.7	22.0	4.7	19.7	3.0	16.1	3.1	8.2	1.1	7.2	1.0	75.8	737.6	Lower Saprolite	21.2	631
RRMDD538	24.9	26.1	1.2	77.1	180.6	17.1	57.5	11.0	2.5	12.2	2.0	12.9	2.9	8.5	1.2	7.7	1.2	103.5	497.8	Saprock		
RRMDD539	0.0	1.7	1.7	189.4	745.6	32.7	104.5	15.2	2.4	9.8	1.6	8.6	1.6	4.7	0.7	5.1	0.8	42.5	1165.3	Hardcap		
RRMDD539	1.7	3.4	1.7	252.2	950.8	43.6	137.6	20.6	3.1	12.6	2.0	10.0	1.9	5.5	0.9	6.1	0.9	53.1	1501.0	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
RRMDD539	3.4	4.3	1.0	51.1	59.2	11.3	39.1	6.9	1.4	6.6	1.1	6.8	1.5	4.5	0.7	4.6	0.8	47.7	243.4	Mottled		
RRMDD539	4.3	5.2	0.9	137.2	83.2	31.3	108.6	19.7	3.9	19.0	3.0	17.9	3.8	11.0	1.5	9.2	1.5	126.5	577.1	Mottled		
RRMDD539	5.2	6.0	0.9	940.6	1057.7	297.2	1033.4	189.6	36.1	151.0	22.3	118.2	21.9	55.8	7.3	41.6	5.8	579.1	4557.5	Mottled		
RRMDD539	6.0	6.7	0.7	405.8	368.5	99.6	339.4	60.6	11.4	50.0	7.2	38.7	7.4	19.2	2.5	14.9	2.1	205.7	1633.1	Mottled		
RRMDD539	6.7	7.7	1.0	475.0	457.0	111.8	374.4	69.2	13.0	56.7	8.3	45.0	8.6	23.1	3.1	17.9	2.6	259.1	1924.7	Clay		
RRMDD539	7.7	8.7	1.0	247.5	225.4	48.4	163.3	27.8	5.2	23.7	3.4	18.4	3.6	9.7	1.3	8.3	1.3	106.9	894.4	Clay		
RRMDD539	8.7	9.6	0.9	124.3	169.5	24.8	80.6	13.7	2.6	12.0	1.9	11.2	2.4	6.9	1.0	6.3	1.0	74.7	532.9	Clay		
RRMDD539	9.6	10.5	0.9	146.6	233.4	32.1	106.6	18.4	3.5	15.9	2.5	14.2	3.0	8.8	1.2	7.6	1.2	91.2	686.3	Clay		
RRMDD539	10.5	11.4	0.9	210.5	344.0	50.7	166.2	29.0	5.5	22.1	3.4	19.6	4.0	11.2	1.6	10.0	1.5	116.2	995.5	Clay		
RRMDD539	11.4	12.3	1.0	232.8	287.4	58.6	196.5	36.4	6.6	26.0	3.7	19.1	3.5	9.3	1.3	7.9	1.1	90.2	980.6	Upper Saprolite		
RRMDD539	12.3	13.3	0.9	381.2	266.6	83.5	324.3	66.4	15.5	87.9	13.5	83.1	18.6	51.9	6.8	38.1	6.0	709.9	2153.3	Upper Saprolite	8.9	1476
RRMDD539	13.3	14.0	0.8	86.1	164.0	19.3	73.8	15.0	3.4	14.6	2.3	13.1	2.6	7.0	1.0	6.6	1.0	109.1	519.0	Saprock		
RRMDD539	14.0	14.8	0.8	70.6	152.9	16.1	54.6	8.1	1.4	5.2	0.7	3.8	0.7	2.0	0.3	2.3	0.4	22.6	341.7	Saprock		
RRMDD540	0.0	1.6	1.6	103.1	841.5	17.5	54.4	8.3	1.4	6.1	1.1	5.9	1.2	3.5	0.6	4.0	0.6	32.8	1081.9	Hardcap		
RRMDD540	1.6	3.1	1.6	144.3	414.0	24.2	76.4	11.8	2.0	8.5	1.5	7.9	1.6	4.5	0.7	5.2	0.8	40.4	743.7	Hardcap		
RRMDD540	3.1	4.7	1.6	148.9	289.9	24.6	78.6	12.3	2.1	8.3	1.5	7.9	1.5	4.4	0.7	5.0	0.8	40.5	627.2	Hardcap		
RRMDD540	4.7	5.7	1.0	72.6	168.9	18.2	66.5	12.6	2.3	11.4	1.9	11.4	2.4	7.0	1.0	7.2	1.1	81.1	465.6	Mottled		
RRMDD540	5.7	6.7	1.0	117.3	680.5	24.2	81.8	14.5	2.6	11.4	1.8	10.2	2.1	5.9	0.9	6.2	0.9	66.0	1026.2	Clay		
RRMDD540	6.7	7.6	1.0	69.9	383.3	17.2	62.6	11.3	2.1	9.1	1.5	8.4	1.8	5.1	0.7	5.6	0.8	57.1	636.6	Clay		
RRMDD540	7.6	8.6	1.0	61.6	520.8	15.2	56.1	10.7	2.0	9.3	1.6	9.0	1.9	5.6	0.9	6.0	0.9	58.7	760.3	Clay		
RRMDD540	8.6	9.6	1.0	103.3	949.6	28.3	98.7	17.9	3.4	13.4	2.1	11.4	2.2	6.2	0.9	6.5	0.9	62.5	1307.3	Clay		
RRMDD540	9.6	10.6	1.0	94.6	348.9	25.7	91.7	16.6	3.0	12.3	1.9	10.5	2.1	5.9	0.9	6.1	0.9	63.4	684.4	Clay		
RRMDD540	10.6	11.5	0.9	133.7	329.2	37.1	135.9	25.3	4.6	19.0	3.0	16.5	3.4	9.0	1.3	8.9	1.3	108.3	836.4	Clay		
RRMDD540	11.5	12.5	0.9	246.3	245.1	76.4	276.4	51.5	9.5	38.4	5.9	33.5	6.7	18.0	2.6	16.7	2.3	224.1	1253.4	Clay		
RRMDD540	12.5	13.4	0.9	268.6	173.8	82.4	303.3	55.1	10.0	40.1	5.9	31.4	6.1	16.4	2.3	14.2	2.0	188.6	1200.2	Clay		
RRMDD540	13.4	14.3	0.9	197.0	145.6	56.1	205.9	37.6	6.8	27.3	4.0	21.2	4.0	10.6	1.5	9.9	1.4	123.1	851.8	Clay		
RRMDD540	14.3	15.3	0.9	202.9	175.7	59.7	221.6	40.6	7.5	30.4	4.6	24.7	4.7	12.6	1.8	11.7	1.6	149.2	949.3	Clay		
RRMDD540	15.3	16.2	0.9	171.2	142.5	47.5	176.7	32.0	6.0	23.9	3.5	19.1	3.6	9.7	1.4	9.1	1.3	111.4	758.9	Clay		
RRMDD540	16.2	17.2	1.0	100.2	97.2	26.2	96.9	17.5	3.3	13.5	2.0	10.8	2.2	5.8	0.8	5.9	0.8	64.4	447.4	Clay		
RRMDD540	17.2	18.1	0.9	158.3	146.2	42.9	160.4	29.6	5.5	22.8	3.4	19.0	3.7	10.2	1.5	9.8	1.4	119.9	734.5	Clay		
RRMDD540	18.1	19.1	0.9	145.4	153.6	39.6	146.4	27.3	4.9	19.9	2.9	16.0	3.1	8.6	1.2	8.1	1.2	96.3	674.3	Clay		
RRMDD540	19.1	20.0	0.9	115.6	135.7	30.8	115.5	20.9	3.9	15.2	2.3	12.5	2.5	6.5	0.9	6.5	0.9	71.6	541.3	Clay		
RRMDD540	20.0	20.8	0.8	134.3	174.4	36.2	134.7	24.2	4.7	17.9	2.6	14.2	2.7	7.1	1.1	7.0	1.0	76.1	638.3	Clay		
RRMDD540	20.8	21.6	0.8	137.8	197.2	36.7	135.3	24.5	4.7	19.0	2.8	15.6	3.1	8.4	1.2	8.1	1.1	93.6	689.0	Clay		
RRMDD540	21.6	22.3	0.8	136.6	226.6	35.6	131.2	23.5	4.9	18.3	2.7	13.8	2.5	6.7	1.0	6.5	0.9	67.3	678.1	Clay		
RRMDD540	22.3	23.3	1.0	124.9	255.5	31.5	115.9	20.6	3.7	13.9	1.9	10.0	1.8	4.7	0.7	5.0	0.7	47.9	638.8	Clay		
RRMDD540	23.3	24.3	1.0	76.0	132.1	17.2	61.2	10.2	1.9	7.4	1.0	5.6	1.1	3.0	0.5	3.5	0.5	30.5	351.7	Clay		
RRMDD540	24.3	25.3	1.0	106.1	191.6	24.6	90.0	16.6	3.3	12.5	1.8	9.2	1.7	4.4	0.7	4.7	0.6	45.2	513.1	Clay		
RRMDD540	25.3	26.3	1.0	118.5	215.0	26.3	98.6	17.3	3.6	13.8	1.9	10.2	1.9	5.0	0.8	5.2	0.7	55.2	573.8	Clay		
RRMDD540	26.3	27.2	0.9	98.0	153.6	20.9	75.6	13.3	2.8	11.0	1.6	8.0	1.5	4.0	0.6	4.1	0.6	43.0	438.6	Clay		
RRMDD540	27.2	28.2	1.0	98.9	160.9	20.8	75.7	13.5	2.9	12.3	1.8	10.4	2.0	5.5	0.8	5.5	0.8	59.1	470.8	Clay		
RRMDD540	28.2	29.1	0.9	114.5	248.1	25.9	98.1	18.6	3.9	16.7	2.4	14.0	2.7	7.5	1.1	7.2	1.0	84.4	646.1	Clay		
RRMDD540	29.1	29.8	0.6	99.0	204.5	23.2	89.5	17.3	3.8	15.8	2.3	12.6	2.5	6.2	0.9	5.9	0.8	72.3	556.6	Lower Saprolite	25.1	718

																					>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
RRMDD540	29.8	30.8	1.0	69.3	137.6	14.9	51.7	8.8	1.9	6.9	1.0	5.3	1.1	3.0	0.4	3.0	0.5	32.6	337.8	Saprock		
RRMDD540	30.8	31.8	1.0	54.7	119.6	14.9	54.5	10.7	2.2	8.3	1.3	6.5	1.2	3.3	0.5	3.2	0.5	35.6	316.7	Saprock		
RRMDD540	31.8	32.8	1.0	50.1	88.1	10.5	34.2	5.4	1.1	3.8	0.6	3.2	0.7	2.0	0.3	2.2	0.4	21.3	223.8	Saprock		
RRMDD540	32.8	33.8	1.0	39.8	69.9	9.5	32.4	5.3	1.1	3.7	0.6	3.1	0.6	1.9	0.3	2.2	0.4	18.8	189.4	Saprock		
RRMDD541	0.0	1.5	1.5	67.8	245.7	14.6	51.7	9.1	1.7	7.6	1.3	7.3	1.5	4.3	0.7	4.5	0.7	46.7	465.1	Transition		
RRMDD541	1.5	2.9	1.5	75.3	273.9	16.1	57.5	10.0	1.6	7.6	1.2	7.1	1.5	4.6	0.7	4.4	0.7	46.9	509.1	Transition		
RRMDD541	2.9	3.8	0.9	90.1	138.2	20.4	71.2	11.8	2.3	9.8	1.6	9.4	2.0	5.9	0.9	5.5	0.8	63.6	433.4	Mottled		
RRMDD541	3.8	4.6	0.9	76.7	98.3	18.6	65.9	12.0	2.2	9.8	1.7	9.7	2.0	5.8	0.9	5.5	0.9	63.1	372.9	Mottled		
RRMDD541	4.6	5.5	0.9	96.9	102.0	19.3	65.3	11.3	2.1	9.6	1.5	8.9	1.9	5.3	0.8	5.4	0.8	62.5	393.6	Mottled		
RRMDD541	5.5	6.3	0.9	135.5	133.3	24.8	81.5	14.1	2.5	10.8	1.8	9.8	2.0	5.6	0.8	5.2	0.8	64.0	492.5	Clay		
RRMDD541	6.3	7.2	0.9	89.6	90.8	20.6	72.0	13.3	2.5	11.3	1.8	10.4	2.1	6.2	0.9	5.5	0.9	70.6	398.4	Clay		
RRMDD541	7.2	8.1	0.9	152.5	130.8	28.5	99.0	17.6	3.4	14.4	2.2	12.3	2.5	7.1	1.0	6.1	1.0	84.4	562.8	Clay		
RRMDD541	8.1	8.6	0.6	107.3	108.7	26.9	97.4	17.6	3.5	15.3	2.3	13.3	2.8	7.4	1.1	6.3	1.0	96.3	507.2	Clay		
RRMDD541	8.6	9.2	0.6	101.9	111.0	25.6	92.4	16.9	3.2	14.5	2.3	13.0	2.6	7.1	1.0	6.1	1.0	91.9	490.5	Clay		
RRMDD541	9.2	10.1	0.9	114.2	121.7	28.8	103.6	18.5	3.7	16.3	2.5	13.6	2.7	7.4	1.0	6.0	0.9	98.3	539.2	Upper Saprolite		
RRMDD541	10.1	11.0	0.9	114.8	113.7	28.3	103.3	18.6	3.7	15.7	2.4	12.9	2.7	6.9	1.0	5.6	0.8	94.4	524.8	Upper Saprolite		
RRMDD541	11.0	12.0	0.9	110.6	146.2	27.3	97.6	17.7	3.4	15.0	2.2	12.5	2.6	6.6	0.9	5.2	0.8	89.3	538.0	Upper Saprolite		
RRMDD541	12.0	12.8	0.9	123.7	133.9	30.3	109.2	19.6	3.8	16.4	2.5	13.3	2.7	7.2	1.0	5.6	0.8	93.5	563.5	Upper Saprolite		
RRMDD541	12.8	13.6	0.8	100.4	66.8	25.0	89.3	16.4	3.3	13.8	2.1	11.6	2.4	6.3	0.9	4.9	0.8	79.9	423.9	Upper Saprolite		
RRMDD541	13.6	14.4	0.8	101.2	78.2	26.7	98.6	18.3	3.7	15.2	2.3	12.6	2.5	6.7	0.9	5.4	0.8	85.6	458.7	Upper Saprolite		
RRMDD541	14.4	15.2	0.8	131.9	222.3	31.5	112.8	20.9	4.2	15.7	2.4	12.7	2.5	6.4	0.9	5.2	0.8	80.8	651.0	Lower Saprolite		
RRMDD541	15.2	16.1	0.9	111.3	214.4	33.0	121.9	25.2	5.4	20.8	3.2	17.2	3.4	8.6	1.1	6.4	0.9	104.3	677.0	Lower Saprolite		
RRMDD541	16.1	17.0	0.9	92.1	137.0	23.3	84.7	16.2	3.3	13.6	2.1	11.4	2.3	5.9	0.8	4.6	0.7	77.0	474.9	Lower Saprolite		
RRMDD541	17.0	18.0	0.9	127.2	211.9	28.4	100.7	17.7	3.7	15.3	2.3	12.6	2.5	6.4	0.9	5.1	0.7	87.2	622.7	Lower Saprolite		
RRMDD541	18.0	18.9	0.9	122.0	234.0	25.6	89.8	16.7	3.3	13.0	2.0	10.4	2.0	5.2	0.7	4.2	0.6	70.6	600.3	Lower Saprolite	16.0	514
RRMDD541	18.9	19.5	0.6	81.5	166.4	19.2	71.2	13.5	2.9	11.0	1.7	9.5	1.9	4.9	0.7	3.9	0.6	63.9	452.8	Saprock		
RRMDD542	0.0	1.1	1.1	208.8	671.9	36.9	115.7	15.0	2.4	9.4	1.5	8.0	1.6	4.4	0.7	5.2	0.8	42.9	1125.2	Hardcap		
RRMDD542	1.1	2.2	1.1	259.2	1240.7	40.0	117.2	15.6	2.5	10.1	1.7	8.7	1.7	4.9	0.8	5.8	0.9	46.9	1756.6	Transition		
RRMDD542	2.2	3.1	0.9	25.6	45.1	5.7	19.5	3.6	0.6	3.0	0.5	3.5	0.8	2.6	0.4	3.0	0.5	24.9	139.3	Mottled		
RRMDD542	3.1	4.0	0.9	37.1	267.8	8.8	31.1	5.5	1.0	4.7	0.7	4.6	1.0	2.9	0.5	3.2	0.5	30.5	399.7	Mottled		
RRMDD542	4.0	4.9	0.8	78.9	85.7	21.0	73.8	12.7	2.3	9.7	1.5	8.4	1.7	4.9	0.7	4.6	0.7	53.7	360.4	Clay		
RRMDD542	4.9	5.7	0.8	127.2	151.1	34.1	119.0	20.8	3.8	15.1	2.3	12.4	2.4	6.9	1.0	6.0	0.9	74.9	577.9	Clay		
RRMDD542	5.7	6.6	0.9	148.9	179.3	39.7	137.6	24.1	4.3	17.5	2.6	14.2	2.7	7.5	1.1	6.7	1.0	84.6	672.0	Clay		
RRMDD542	6.6	7.5	0.9	152.5	182.4	42.2	145.2	25.5	4.8	18.7	2.8	14.9	2.9	7.8	1.1	7.0	1.1	86.1	694.9	Clay		
RRMDD542	7.5	8.4	0.9	155.4	178.1	43.1	145.8	25.4	4.6	18.3	2.7	14.7	2.8	7.6	1.1	6.9	1.0	85.0	692.7	Clay		
RRMDD542	8.4	9.2	0.8	153.6	177.5	39.6	137.6	23.9	4.4	18.2	2.8	14.5	2.8	7.8	1.1	7.0	1.1	87.6	679.6	Clay		
RRMDD542	9.2	10.0	0.8	159.5	192.9	43.5	148.1	25.7	4.8	18.7	2.8	14.7	2.8	7.7	1.1	7.0	1.0	84.8	715.2	Upper Saprolite		
RRMDD542	10.0	10.7	0.8	168.9	220.5	48.7	168.0	29.1	5.2	19.4	3.0	15.8	3.1	8.2	1.3	7.7	1.2	92.4	792.5	Upper Saprolite		
RRMDD542	10.7	11.5	0.8	289.7	434.9	77.7	268.3	47.7	8.5	30.4	4.6	22.8	4.1	11.9	1.9	13.4	2.1	107.8	1325.7	Upper Saprolite		
RRMDD542	11.5	12.1	0.6	197.6	401.7	49.4	166.2	27.4	4.9	17.6	2.5	13.0	2.3	6.1	0.9	5.1	0.8	63.5	958.9	Upper Saprolite		
RRMDD542	12.1	13.0	0.9	177.1	305.9	50.1	174.4	28.9	5.3	18.3	2.6	12.5	2.0	5.1	0.7	4.3	0.6	49.0	836.8	Upper Saprolite		
RRMDD542	13.0	13.9	0.9	109.3	138.8	26.3	96.9	17.7	3.6	15.3	2.4	13.9	2.9	8.2	1.2	7.7	1.2	91.3	536.7	Upper Saprolite		
RRMDD542	13.9	14.9	1.0	141.9	152.3	32.9	124.8	22.8	5.0	24.3	3.7	22.0	4.6	13.4	1.9	12.0	1.8	157.5	720.9	Lower 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
RRMDD542	14.9	15.9	1.0	147.2	146.2	29.0	112.0	20.4	4.6	24.1	3.6	21.7	5.0	14.1	2.0	12.0	1.9	193.7	737.4	Lower Saprolite		
RRMDD542	15.9	16.9	1.0	289.7	194.1	47.7	184.9	29.2	6.5	34.1	4.6	25.0	5.4	14.5	1.9	10.6	1.6	210.8	1060.7	Lower Saprolite		
RRMDD542	16.9	17.9	1.0	79.9	132.1	16.9	60.8	10.7	2.3	10.0	1.4	8.1	1.7	5.0	0.7	4.6	0.7	68.6	403.4	Lower Saprolite		
RRMDD542	17.9	19.0	1.0	64.4	130.8	14.5	50.5	8.8	1.8	6.7	1.1	5.9	1.2	3.4	0.5	3.4	0.5	40.1	333.6	Lower Saprolite		
RRMDD542	19.0	20.0	1.0	62.4	135.7	15.8	56.1	10.5	2.2	8.0	1.2	6.7	1.4	3.8	0.6	3.7	0.6	40.9	349.4	Lower Saprolite	15.9	679
RRMDD542	20.0	21.0	1.0	57.1	117.1	12.0	38.0	6.2	1.2	4.1	0.6	3.2	0.6	1.8	0.3	2.2	0.4	20.1	264.9	Lower Saprolite		
RRMDD542	21.0	22.0	1.0	67.6	157.8	18.7	69.9	13.7	3.1	11.6	2.0	12.1	2.6	7.8	1.1	7.1	1.1	82.9	459.1	Saprock		
RRMDD542	22.0	23.0	1.0	55.6	123.5	13.2	47.1	8.7	1.8	6.7	1.0	5.6	1.2	3.4	0.5	3.4	0.6	34.7	306.8	Saprock		
RRMDD543	0.0	1.1	1.1	124.9	337.8	25.1	84.7	13.0	2.0	8.0	1.2	6.8	1.3	3.8	0.6	4.1	0.6	36.4	650.3	Hardcap		
RRMDD543	1.1	2.3	1.1	87.3	592.1	18.6	65.0	10.6	1.7	6.7	1.2	6.4	1.3	4.0	0.6	4.2	0.6	33.1	833.3	Hardcap		
RRMDD543	2.3	3.1	0.9	50.8	112.3	11.1	38.5	6.6	1.2	5.9	1.0	6.0	1.3	3.9	0.6	4.4	0.7	38.6	283.0	Mottled		
RRMDD543	3.1	4.0	0.9	37.6	130.2	8.5	31.0	5.4	1.0	4.7	0.8	4.9	1.1	3.2	0.5	3.9	0.6	31.2	264.9	Mottled		
RRMDD543	4.0	4.8	0.8	36.8	67.8	11.3	44.6	8.4	1.6	7.8	1.3	7.6	1.7	4.9	0.8	5.4	0.8	53.3	254.1	Mottled		
RRMDD543	4.8	5.6	0.8	56.6	100.2	19.5	79.3	15.1	2.9	14.1	2.3	13.3	2.8	8.1	1.2	7.7	1.3	89.0	413.5	Mottled		
RRMDD543	5.6	6.4	0.8	89.1	196.5	27.2	106.4	20.2	3.9	18.3	2.9	17.6	3.7	10.6	1.6	10.3	1.6	116.6	626.5	Clay		
RRMDD543	6.4	7.1	0.8	98.5	180.0	29.4	112.6	20.6	3.9	18.1	2.9	16.3	3.4	9.8	1.5	9.7	1.4	109.2	617.3	Clay		
RRMDD543	7.1	7.9	0.7	396.4	536.8	101.2	376.7	70.4	13.4	59.8	9.5	53.4	10.8	30.2	4.3	25.6	3.8	378.4	2070.8	Clay		
RRMDD543	7.9	8.6	0.7	279.1	350.1	56.8	201.2	33.7	6.3	26.5	3.9	21.2	4.1	11.0	1.6	10.2	1.5	116.2	1123.4	Clay		
RRMDD543	8.6	9.3	0.7	261.5	380.8	63.6	236.8	43.5	8.5	40.9	6.9	42.7	9.2	26.2	3.8	24.5	3.7	294.6	1447.2	Clay		
RRMDD543	9.3	10.2	0.9	123.1	254.3	37.2	142.9	25.9	5.1	25.2	4.2	25.0	5.4	15.8	2.3	14.2	2.2	187.9	870.7	Clay		
RRMDD543	10.2	11.1	0.9	122.6	214.4	33.7	123.1	20.2	3.8	16.8	2.5	13.9	2.9	8.0	1.2	7.3	1.1	92.6	664.0	Clay		
RRMDD543	11.1	12.0	0.9	91.0	267.8	26.6	100.3	17.6	3.4	15.6	2.4	14.5	3.0	8.6	1.3	8.0	1.2	98.9	660.3	Clay		
RRMDD543	12.0	12.9	0.9	154.8	314.5	40.7	152.2	26.7	5.2	25.4	4.1	25.2	5.5	16.0	2.3	14.7	2.2	181.6	971.1	Clay		
RRMDD543	12.9	13.8	0.9	97.3	148.6	29.6	117.2	21.7	4.4	20.5	3.4	19.7	4.2	12.2	1.8	11.3	1.7	138.4	632.1	Clay		
RRMDD543	13.8	14.7	0.9	128.4	220.5	42.9	171.5	32.2	6.2	26.3	3.9	20.8	4.0	10.6	1.5	9.0	1.4	115.4	794.7	Clay		
RRMDD543	14.7	15.5	0.9	112.6	192.9	36.0	146.4	27.5	5.6	24.9	3.8	22.0	4.4	11.9	1.8	11.0	1.7	137.8	740.2	Clay		
RRMDD543	15.5	16.4	0.9	133.1	258.0	45.4	189.5	36.4	7.4	35.3	5.2	29.7	5.8	15.5	2.2	13.2	2.0	168.3	947.1	Clay		
RRMDD543	16.4	17.4	1.0	215.8	273.9	71.0	317.3	68.5	15.6	84.5	13.6	81.1	17.2	47.5	6.7	39.9	6.1	568.9	1827.7	Clay		
RRMDD543	17.4	18.3	0.9	181.8	238.9	58.1	257.8	55.2	12.9	72.4	11.2	67.0	14.0	38.0	5.4	32.0	4.7	458.4	1507.8	Clay		
RRMDD543	18.3	19.0	0.7	161.3	270.2	48.4	205.9	40.8	9.3	54.5	8.4	50.0	10.9	29.6	4.1	24.7	3.8	345.4	1267.3	Clay		
RRMDD543	19.0	19.6	0.6	126.1	226.0	33.6	135.9	23.3	5.0	31.4	4.5	26.5	6.1	16.6	2.3	13.0	2.1	215.2	867.7	Upper Saprolite		
RRMDD543	19.6	20.7	1.1	106.4	183.6	26.2	109.1	21.4	4.7	26.7	4.1	24.1	5.9	17.1	2.4	13.6	2.1	256.5	803.9	Upper Saprolite	15.9	987
RRMDD543	20.7	21.0	0.4	56.6	90.4	9.7	31.3	3.9	0.7	3.4	0.5	2.9	0.7	2.1	0.3	2.4	0.4	25.0	230.3	Lower Saprolite		
RRMDD543	21.0	21.8	0.7	63.8	140.7	14.7	49.1	7.5	1.4	5.8	0.8	4.5	1.0	2.9	0.4	3.1	0.5	36.6	332.7	Lower Saprolite		
RRMDD543	21.8	22.4	0.7	67.3	147.4	15.5	52.5	8.6	1.7	6.9	0.9	5.2	1.1	3.0	0.5	2.9	0.5	37.0	350.8	Lower Saprolite		
RRMDD543	22.4	23.1	0.7	57.1	124.1	12.7	42.5	6.7	1.2	4.6	0.7	3.4	0.7	1.9	0.3	2.1	0.3	20.1	278.3	Saprock		
RRMDD544	0.0	2.0	2.0	98.9	482.8	17.2	54.7	8.2	1.3	5.7	1.0	5.4	1.1	3.2	0.5	3.4	0.5	31.2	715.0	Hardcap		
RRMDD544	2.0	3.9	2.0	136.6	541.7	22.6	70.5	10.2	1.6	6.8	1.2	6.3	1.3	3.7	0.6	3.7	0.6	35.6	842.9	Hardcap		
RRMDD544	3.9	5.9	2.0	116.2	523.3	20.5	65.9	10.1	1.6	6.2	1.0	6.0	1.1	3.2	0.5	3.4	0.5	30.5	790.0	Hardcap		
RRMDD544	5.9	6.4	0.6	142.5	187.9	27.3	88.1	13.7	2.4	9.9	1.5	7.8	1.5	4.3	0.6	4.1	0.6	42.0	534.4	Mottled		
RRMDD544	6.4	7.0	0.6	52.5	36.1	12.9	45.1	7.5	1.3	7.0	1.1	6.3	1.4	4.0	0.6	4.1	0.7	42.8	223.4	Mottled		
RRMDD544	7.0	7.7	0.7	54.4	31.1	13.5	49.1	8.4	1.4	7.4	1.2	6.9	1.5	4.6	0.7	4.7	0.8	48.5	234.2	Mottled		
RRMDD544	7.7	8.5	0.8	270.9	401.7	42.9	135.3	21.3	3.7	14.5	2.1	10.5	2.0	5.0	0.8	5.0	0.8	52.6	969.0	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
RRMDD544	8.5	9.3	0.8	91.7	82.1	22.1	78.8	13.3	2.3	11.2	1.7	9.7	2.0	5.7	0.9	5.5	0.9	64.3	392.0	Mottled		
RRMDD544	9.3	10.3	1.0	139.0	176.3	39.0	138.8	23.4	3.9	17.9	2.6	14.0	2.8	8.1	1.1	7.3	1.1	91.7	667.0	Clay		
RRMDD544	10.3	11.4	1.0	300.2	922.5	56.9	182.0	30.8	5.5	23.0	3.4	18.5	3.3	8.6	1.2	7.4	1.1	86.4	1650.8	Clay		
RRMDD544	11.4	12.3	0.9	125.5	525.8	28.0	85.3	12.1	1.9	7.3	1.0	5.1	0.8	2.1	0.3	1.9	0.3	19.6	816.9	Clay		
RRMDD544	12.3	13.3	0.9	73.8	76.9	17.7	58.2	9.0	1.5	6.1	0.8	4.2	0.7	1.9	0.3	1.9	0.3	18.7	271.9	Clay		
RRMDD544	13.3	14.2	1.0	71.0	103.6	16.7	57.4	9.1	1.7	6.9	1.0	5.1	1.0	3.0	0.4	2.9	0.4	32.5	312.6	Clay		
RRMDD544	14.2	15.2	1.0	67.8	112.0	18.3	66.0	10.8	2.0	8.6	1.3	6.7	1.5	4.1	0.6	3.7	0.6	47.7	351.7	Clay		
RRMDD544	15.2	16.2	1.0	61.7	110.8	16.7	60.5	10.0	1.8	8.2	1.2	6.7	1.4	3.8	0.6	3.7	0.5	44.2	332.0	Clay		
RRMDD544	16.2	17.1	1.0	65.6	118.0	18.3	65.6	11.2	2.1	8.9	1.3	6.9	1.4	4.0	0.6	3.7	0.5	44.7	352.8	Clay		
RRMDD544	17.1	18.0	0.9	72.0	133.9	20.7	77.9	13.3	2.5	11.6	1.7	9.1	1.9	5.3	0.7	4.6	0.7	61.7	417.6	Clay		
RRMDD544	18.0	18.9	0.9	69.4	146.8	18.5	67.1	11.4	2.2	9.8	1.4	7.6	1.6	4.4	0.7	4.2	0.6	53.6	399.3	Clay		
RRMDD544	18.9	19.8	0.9	58.9	109.3	13.0	46.8	8.0	1.6	7.9	1.3	7.0	1.5	4.4	0.6	4.2	0.6	50.7	315.9	Clay		
RRMDD544	19.8	20.7	0.9	185.3	186.7	37.5	144.6	25.4	5.6	28.9	4.2	21.9	4.4	11.5	1.6	9.4	1.3	142.2	810.7	Clay		
RRMDD544	20.7	21.5	0.9	195.3	176.3	37.3	142.3	24.9	5.2	25.0	3.3	16.1	2.9	6.9	0.9	5.4	0.8	85.8	728.4	Clay		
RRMDD544	21.5	22.5	0.9	97.8	148.6	25.5	104.3	21.5	5.1	30.7	5.1	31.6	7.5	21.2	2.9	17.7	2.6	309.9	832.0	Upper Saprolite		
RRMDD544	22.5	23.4	1.0	82.0	132.1	20.7	79.4	14.5	2.9	13.1	2.0	10.3	2.1	5.7	0.8	4.9	0.7	64.5	435.7	Upper Saprolite		
RRMDD544	23.4	24.4	0.9	54.5	88.9	13.7	53.7	9.9	1.9	9.0	1.3	6.9	1.4	3.8	0.6	3.5	0.6	44.3	294.0	Upper Saprolite	18.5	554
RRMDD544	24.4	25.3	0.9	42.8	73.1	10.1	36.4	5.9	1.1	5.2	0.7	4.0	0.8	2.5	0.4	2.4	0.3	26.3	212.1	Upper Saprolite		
RRMDD544	25.3	26.3	0.9	48.9	94.2	11.2	38.1	6.1	1.2	4.8	0.6	3.2	0.7	1.9	0.3	2.1	0.3	21.2	235.0	Upper Saprolite		
RRMDD544	26.3	27.2	0.9	50.0	98.5	12.0	41.9	7.3	1.5	6.8	1.0	5.4	1.1	3.4	0.5	3.4	0.5	36.4	269.7	Upper Saprolite		
RRMDD544	27.2	28.2	1.0	47.6	89.8	11.4	41.2	7.4	1.6	6.8	1.0	5.6	1.2	3.5	0.6	3.6	0.6	42.2	264.2	Upper Saprolite		
RRMDD544	28.2	29.1	0.9	40.7	75.7	9.4	31.6	5.5	1.1	4.2	0.6	3.6	0.7	2.3	0.4	2.6	0.4	24.4	203.2	Upper Saprolite		
RRMDD544	29.1	30.1	0.9	39.6	74.8	9.0	30.1	5.0	0.9	3.5	0.5	2.8	0.6	1.7	0.3	2.0	0.4	18.0	189.1	Upper Saprolite		
RRMDD544	30.1	31.0	0.9	55.0	150.5	13.2	44.6	7.7	1.4	5.0	0.7	3.7	0.7	2.0	0.3	2.1	0.3	21.3	308.7	Upper Saprolite		
RRMDD544	31.0	32.0	0.9	58.6	168.9	13.0	42.6	7.1	1.3	4.8	0.7	3.6	0.7	2.0	0.3	2.1	0.3	21.7	327.8	Upper Saprolite		
RRMDD544	32.0	32.9	0.9	48.8	121.1	11.7	38.6	7.0	1.4	4.6	0.6	3.4	0.6	1.7	0.3	1.9	0.3	17.9	259.9	Upper Saprolite		
RRMDD544	32.9	34.0	1.0	46.6	101.7	10.0	32.1	5.2	0.9	3.3	0.4	2.4	0.5	1.4	0.3	1.8	0.3	14.1	220.9	Upper Saprolite		
RRMDD544	34.0	34.7	0.7	84.7	197.8	19.4	64.5	11.8	2.3	8.3	1.2	6.5	1.2	3.2	0.5	3.2	0.5	33.8	438.8	Lower Saprolite		
RRMDD544	34.7	35.4	0.7	62.5	137.6	13.9	46.0	7.9	1.6	5.8	0.9	5.2	1.0	2.9	0.5	3.3	0.5	30.7	320.2	Lower Saprolite		
RRMDD544	35.4	36.3	1.0	59.7	148.0	13.5	44.9	7.8	1.7	6.4	1.1	6.2	1.2	3.4	0.5	3.7	0.6	35.4	334.2	Lower Saprolite		
RRMDD544	36.3	37.3	1.0	92.9	197.8	21.7	79.7	16.2	3.9	18.8	3.2	20.7	4.7	13.5	1.9	11.0	1.6	187.3	674.8	Lower Saprolite		
RRMDD544	37.3	38.3	1.0	76.7	181.8	17.3	61.9	11.1	2.4	9.7	1.4	8.4	1.7	4.8	0.7	4.1	0.6	69.0	451.6	Lower Saprolite		
RRMDD544	38.3	39.2	0.9	55.6	113.0	13.2	44.7	8.4	1.7	6.4	0.9	5.3	1.0	3.1	0.5	3.0	0.5	38.5	295.8	Lower Saprolite		
RRMDD544	39.2	40.1	1.0	55.1	109.0	12.3	40.9	7.1	1.4	5.5	0.8	4.5	0.9	2.5	0.4	2.8	0.4	30.6	274.2	Lower Saprolite		
RRMDD544	40.1	41.1	1.0	65.2	147.4	13.5	43.4	7.2	1.4	4.8	0.6	3.5	0.7	1.8	0.3	2.1	0.3	21.5	313.9	Lower Saprolite		
RRMDD544	41.1	42.0	0.9	59.5	124.7	11.9	37.4	5.8	1.1	3.8	0.5	2.9	0.6	1.7	0.3	1.9	0.3	17.8	270.1	Lower Saprolite		
RRMDD544	42.0	42.8	0.7	42.9	79.8	9.2	30.2	5.1	1.0	3.8	0.5	3.1	0.7	1.9	0.3	2.2	0.4	21.1	202.3	Saprock		
RRMDD544	42.8	43.5	0.7	48.8	110.6	14.5	55.1	11.2	2.4	9.1	1.4	7.8	1.6	4.2	0.6	3.4	0.5	49.8	320.8	Saprock		
RRMDD544	43.5	44.2	0.7	62.2	132.7	13.8	46.2	8.1	1.7	6.1	0.9	5.0	1.0	2.7	0.4	2.5	0.4	31.5	315.0	Saprock		
RRMDD545	0.0	2.0	2.0	79.5	278.8	16.4	57.6	10.7	1.8	8.6	1.4	8.3	1.7	4.8	0.7	4.8	0.8	49.3	525.3	Hardcap		
RRMDD545	2.0	4.0	2.0	69.1	315.7	15.5	57.9	10.5	1.8	8.1	1.4	7.7	1.6	4.5	0.7	4.6	0.7	46.6	546.3	Transition		
RRMDD545	4.0	4.7	0.8	107.9	132.7	25.5	88.9	15.4	3.1	14.1	2.2	13.3	2.8	7.9	1.1	7.1	1.1	93.5	516.4	Mottled		
RRMDD545	4.7	5.5	0.8	107.0	132.7	26.9	94.7	16.9	3.2	14.9	2.3	14.1	2.9	7.9	1.1	7.0	1.1	97.1	529.8	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
RRMDD545	5.5	6.3	0.8	220.5	216.2	46.2	155.1	26.4	5.3	22.2	3.4	20.0	4.0	10.8	1.5	9.0	1.4	134.0	875.9	Mottled		
RRMDD545	6.3	7.0	0.8	91.5	143.7	23.9	84.0	15.2	3.0	13.0	2.1	12.6	2.6	7.4	1.1	6.8	1.0	88.4	496.4	Mottled		
RRMDD545	7.0	8.0	0.9	32.0	30.0	10.8	40.1	8.3	1.7	6.9	1.2	7.0	1.4	4.0	0.5	3.7	0.5	41.8	189.9	Clay		
RRMDD545	8.0	8.9	0.9	35.3	51.1	10.4	38.3	7.9	1.5	7.0	1.1	6.6	1.3	3.8	0.6	3.3	0.5	42.7	211.4	Clay		
RRMDD545	8.9	9.9	0.9	37.9	42.3	12.4	47.7	10.3	2.4	10.1	1.7	10.2	2.1	5.7	0.8	4.8	0.8	70.5	259.5	Clay		
RRMDD545	9.9	10.8	0.9	35.2	66.0	8.9	32.3	6.1	1.4	6.2	0.9	5.8	1.3	3.6	0.5	3.3	0.5	48.6	220.6	Clay		
RRMDD545	10.8	11.8	0.9	55.5	128.4	13.5	47.0	8.5	1.9	7.2	1.1	6.2	1.3	3.6	0.5	3.2	0.5	49.7	328.1	Clay		
RRMDD545	11.8	12.7	1.0	71.4	155.4	17.9	62.1	11.8	2.6	9.4	1.5	8.2	1.6	3.9	0.5	3.4	0.5	54.4	404.5	Upper Saprolite		
RRMDD545	12.7	13.7	0.9	51.6	77.1	11.9	43.5	8.1	1.9	7.7	1.2	7.1	1.5	4.1	0.6	3.4	0.6	55.2	275.5	Upper Saprolite		
RRMDD545	13.7	14.6	0.9	58.1	73.6	11.8	44.7	8.7	2.0	8.7	1.3	7.9	1.7	4.8	0.7	3.9	0.6	60.2	288.6	Upper Saprolite		
RRMDD545	14.6	15.6	1.0	50.0	63.4	10.9	42.5	8.1	1.9	8.9	1.3	8.3	1.7	5.0	0.7	4.2	0.7	64.1	271.6	Upper Saprolite		
RRMDD545	15.6	16.5	1.0	30.4	102.7	7.2	29.4	6.0	1.5	6.9	1.1	6.6	1.4	4.0	0.5	3.5	0.5	48.4	250.0	Upper Saprolite		
RRMDD545	16.5	17.3	0.8	241.6	399.2	64.8	232.1	41.9	8.5	30.5	4.2	22.3	4.2	10.6	1.4	7.8	1.1	135.2	1205.4	Upper Saprolite		
RRMDD545	17.3	18.1	0.8	369.4	412.7	55.7	195.4	34.6	7.3	28.8	4.0	22.2	4.5	11.8	1.5	8.4	1.3	172.7	1330.3	Upper Saprolite		
RRMDD545	18.1	18.8	0.6	15.4	23.7	3.7	14.6	3.1	0.8	3.1	0.5	2.9	0.6	1.7	0.3	1.8	0.3	19.2	91.6	Upper Saprolite		
RRMDD545	18.8	19.6	0.8	78.0	112.3	16.4	58.7	10.0	2.2	8.7	1.3	7.3	1.5	4.0	0.6	3.6	0.6	50.4	355.5	Upper Saprolite		
RRMDD545	19.6	20.5	0.9	160.1	348.9	37.2	135.3	24.2	5.2	18.6	2.6	14.2	2.8	7.3	1.0	5.7	0.9	87.4	851.3	Upper Saprolite		
RRMDD545	20.5	21.3	0.8	75.8	167.1	15.3	56.2	10.0	2.2	8.5	1.2	7.0	1.4	4.0	0.5	3.5	0.6	47.1	400.5	Upper Saprolite		
RRMDD545	21.3	21.8	0.5	13.4	15.6	3.0	11.5	2.2	0.5	2.1	0.3	1.9	0.4	1.3	0.2	1.3	0.2	14.3	68.3	Upper Saprolite		
RRMDD545	21.8	22.7	0.9	64.6	85.5	14.3	51.6	9.5	2.1	7.7	1.1	6.7	1.3	3.7	0.5	3.3	0.5	43.3	295.8	Upper Saprolite	17.9	433
RRMDD545	22.7	23.5	0.8	19.2	45.1	4.5	14.1	1.6	0.3	0.9	0.1	0.8	0.2	0.5	0.1	0.5	0.1	5.1	93.2	Upper Saprolite		
RRMDD545	23.5	24.3	0.8	4.8	11.3	1.0	3.3	0.6	0.1	0.3	0.1	0.5	0.1	0.3	0.1	0.5	0.1	3.3	26.3	Upper Saprolite		
RRMDD545	24.3	25.1	0.8	4.6	15.6	1.0	3.5	0.6	0.1	0.5	0.1	0.6	0.1	0.4	0.1	0.5	0.1	3.8	31.6	Upper Saprolite		
RRMDD545	25.1	25.7	0.6	87.0	199.0	22.5	77.4	13.5	2.8	9.2	1.2	7.2	1.4	3.6	0.5	3.3	0.5	33.9	463.1	Upper Saprolite		
RRMDD545	25.7	26.8	1.2	21.8	45.6	5.3	18.2	2.9	0.6	1.9	0.3	1.8	0.4	1.0	0.2	1.1	0.2	10.4	111.5	Upper Saprolite		
RRMDD545	26.8	27.7	0.8	33.1	78.4	8.7	31.3	6.7	1.4	4.7	0.7	4.2	0.8	2.1	0.3	2.1	0.3	20.4	195.2	Upper Saprolite		
RRMDD545	27.7	28.5	0.8	59.5	136.4	15.0	55.4	10.5	2.2	8.4	1.2	6.9	1.4	3.5	0.5	3.0	0.5	43.0	347.3	Saprock		
RRMDD545	28.5	29.3	0.8	128.4	283.8	28.6	104.7	19.5	4.4	17.9	2.5	13.1	2.5	6.2	0.8	4.5	0.7	70.2	687.8	Saprock		
RRMDD545	29.3	30.2	0.8	95.6	216.8	23.1	92.8	19.8	4.7	20.2	2.9	16.2	3.0	7.9	1.1	5.7	0.9	93.3	604.0	Saprock		
RRMDD545	30.2	31.0	0.8	52.7	117.6	12.5	46.7	9.5	2.1	7.7	1.2	6.1	1.1	2.9	0.4	2.6	0.4	32.8	296.3	Saprock		
RRMDD546	0.0	2.0	2.0	111.7	250.6	23.3	82.3	13.9	2.4	9.4	1.6	9.3	1.8	5.3	0.8	5.8	0.8	44.8	563.9	Hardcap		
RRMDD546	2.0	3.9	2.0	85.7	1461.8	17.9	61.7	10.7	1.8	7.4	1.4	7.8	1.6	4.7	0.7	4.9	0.8	41.4	1710.1	Transition		
RRMDD546	3.9	4.6	0.7	115.3	145.0	28.4	104.0	19.7	3.5	18.3	2.8	16.8	3.5	10.2	1.5	9.8	1.5	122.9	603.4	Mottled		
RRMDD546	4.6	5.4	0.7	180.0	201.5	48.7	175.0	33.4	6.1	26.7	4.1	22.6	4.5	12.6	1.9	11.4	1.8	146.0	876.2	Mottled		
RRMDD546	5.4	6.1	0.7	785.8	574.9	160.1	544.7	97.5	16.6	65.8	9.4	47.6	8.5	22.1	3.2	18.7	2.7	239.4	2597.0	Mottled		
RRMDD546	6.1	6.7	0.6	227.5	192.2	56.8	204.7	39.1	7.1	31.4	4.9	25.7	5.3	14.5	2.2	13.2	2.0	172.1	998.6	Clay		
RRMDD546	6.7	7.3	0.6	180.0	203.9	42.9	149.9	27.0	4.8	22.3	3.5	20.0	4.2	11.9	1.8	11.3	1.7	145.4	830.6	Clay		
RRMDD546	7.3	7.9	0.6	174.7	253.1	44.0	152.2	27.4	4.8	21.4	3.3	18.0	3.7	10.4	1.6	9.7	1.5	128.3	854.0	Clay		
RRMDD546	7.9	8.8	0.9	231.0	276.4	63.4	228.0	42.8	7.4	30.7	4.6	23.9	4.7	12.3	1.8	11.4	1.7	144.1	1084.3	Clay		
RRMDD546	8.8	9.7	0.9	251.0	314.5	64.2	225.7	40.9	7.0	27.8	4.2	21.8	4.1	11.0	1.6	10.2	1.5	122.5	1107.9	Clay		
RRMDD546	9.7	10.6	0.9	185.9	254.3	46.5	163.3	29.2	5.1	22.1	3.2	17.0	3.5	9.7	1.4	8.8	1.3	112.5	863.8	Clay		
RRMDD546	10.6	11.5	0.9	314.3	362.4	73.6	263.6	48.8	8.4	33.8	4.9	24.8	4.6	11.8	1.7	10.4	1.5	136.5	1301.1	Clay		
RRMDD546	11.5	12.5	0.9	249.8	308.3	56.8	201.8	36.9	6.4	27.1	3.8	20.0	3.8	10.0	1.5	9.0	1.3	112.4	1048.9	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
RRMDD546	12.5	13.5	1.0	122.0	208.8	28.4	106.3	18.1	3.6	18.6	2.8	17.0	3.7	10.2	1.5	9.7	1.5	124.2	676.3	Upper Saprolite		
RRMDD546	13.5	14.2	0.7	170.6	189.2	39.9	170.3	32.9	7.6	47.5	7.1	43.0	9.7	27.2	3.8	21.9	3.5	398.7	1172.9	Lower Saprolite	10.3	1076
RRMDD546	14.2	15.0	0.8	70.5	143.1	15.9	56.7	9.9	2.1	8.2	1.2	6.7	1.3	3.7	0.5	3.3	0.5	48.1	371.9	Saprock		

JORC Code, 2012 Edition – Table 1 report

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.*

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 ± 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.

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		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.

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		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.

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	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.

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		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.