14 February 2023

ASX Announcement

Thick, shallow and high grade REE[1] mineralisation discovered at the new Jody and Marvin Prospects

Mount Ridley Mines Limited (ASX: **MRD**, "**Mt Ridley**" or "**the Company**") is pleased to provide an update for its 100% owned Mount Ridley REE Project, located approximately 50km north of the Port of Esperance, Western Australia and with an area of approximately 3,400km^2 (Figure 1).

Highlights

On-going regional aircore (AC) drilling intersects thick zones of high grade (>1,000ppm) total Rare Earth Oxide (TREO) mineralisation at the new Jody and Marvelous Marvin Prospects

New results include:

- ***MRAC1125: 6m at 3,182ppm TREO (33% MagREO[2]) from 24m***
- ***MRAC1161: 20m at 1,514ppm TREO[3] (25% MagREO) from 12m and***
- ***MRAC1162: 35m at 1,999ppm TREO (26% MagREO) from 18m at the new Jodi Prospect.***
- ***MRAC1077: 15m at 1,736ppm TREO (23% MagREO) from 36m and***
- ***MRAC1082: 21m at 1,906ppm TREO (18% MagREO) from 45m at the new Marvelous Marvin Prospect.***
- ***MRAC0995: 8m at 1,493ppm TREO (23% MagREO) from 18m and***
- ***MRAC1003: 12m at 1,180ppm TREO (30% MagREO) from 36m at the Jules Prospect***

Mount Ridley's Chairman Mr. Peter Christie commented:

"With the Company having identified 11 quality targets, each with multiple high grade drilling intersections, the emphasis for drilling will shift to mineral resource-focus drilling, starting at the Mia Prospect this week.

"Each prospect has been ranked based on a number of criteria, including the type of host clay, TREO grade, depth of cover and proportion of MagREO, to determine the priority for drilling.

"The Mt Ridley Project is clearly very large with multiple mineralised REE systems and we are extremely encouraged that new, quality Prospects such as Jody and Marvelous Marvin are still emerging.

"Based on the results to date, the Company has committed to more than 50,000m of drilling, intended to take this outstanding REE project towards a maiden REE resource in 2023."

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1 REE means the 14 common rare earth elements; cerium (Ce), dysprosium (Dy), erbium (Er), europium (Eu), gadolinium (Gd), holmium (Ho), lanthanum (La), lutetium (Lu), neodymium (Nd), praseodymium (Pr), samarium (Sm), terbium (Tb), thulium (Tm), ytterbium (Yb). Yttrium (Y) is usually included with REE.

2 Magnet REO or MagREO means magnet rare earth oxides; the sum of Dy_2O_3, Nd_2O_3, Pr_6O_{11} and Tb_4O_7

3 TREO means the sum of the 14 REE+Y, each converted to its respective stoichiometric element oxide.

Overview

Drilling assay results have been received for 1,479 samples (excluding quality control samples) from 88 aircore drill holes[4]. Significant TREO (above 500ppm) mineralisation extended 4 previously identified prospects and two new prospects; Jodi and Marvelous Marvin, were discovered. Of the 88 holes assayed, 77 returned significant TREO.

Drilling was carried out along existing tracks which form project-wide network, with drillholes spaced 400m apart.

Collar locations are listed in Table 3 below and shown in Figure 5 (above 500ppm) mineralisation with selected intersections in Table 1.

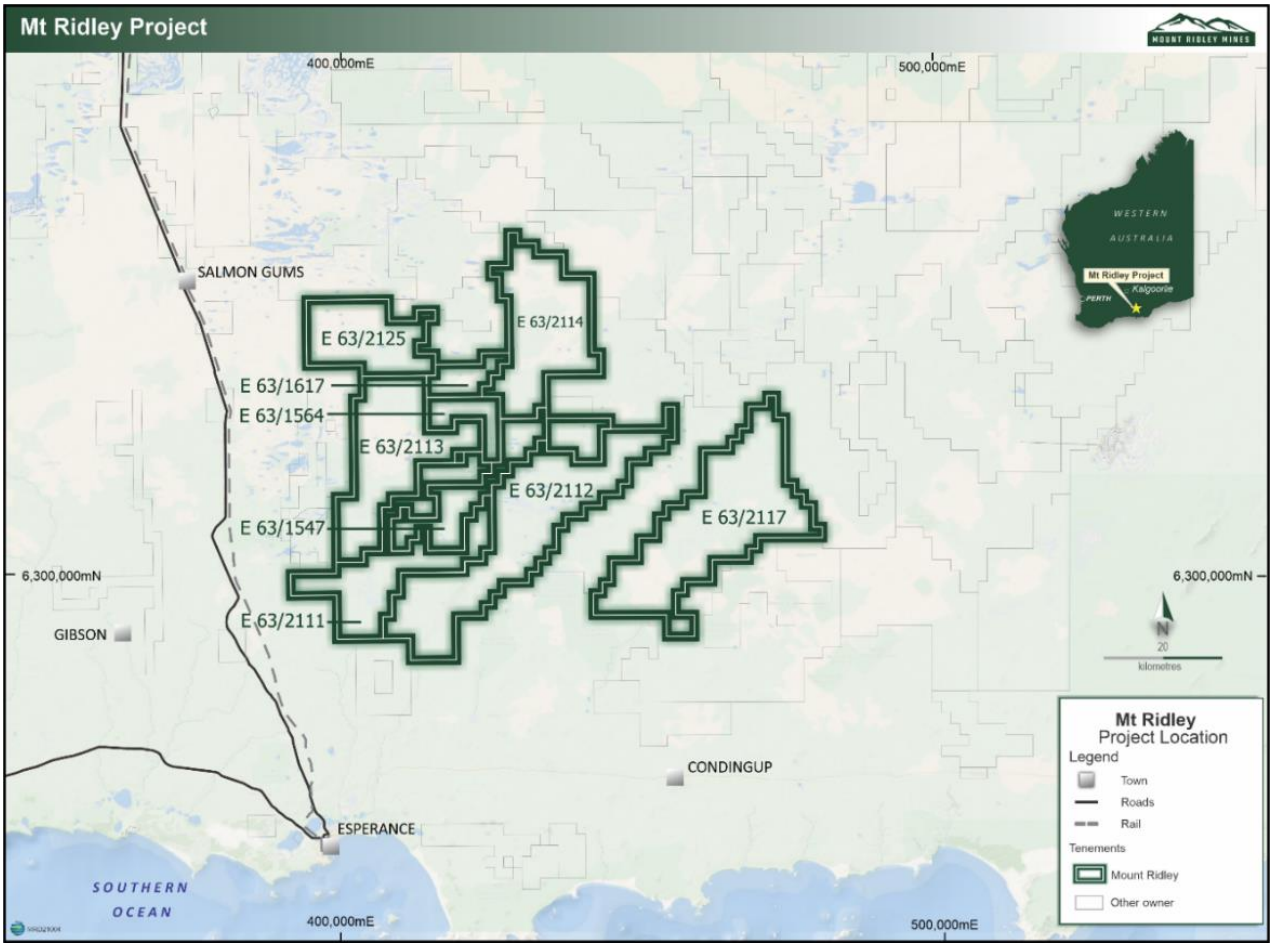

Figure 1: The Mount Ridley REE Project comprises 9 granted exploration licences in south-west Western Australia with an area of approximately 3,400km^2.

4 MRAC0978 to MRAC1010, MRAC1018 to MRAC1022, MRAC 1070 to MRAC 1090, MRAC1115 to MRAC1128, MRAC1156 to MRAC1170.

Additional aircore drilling results and emerging new prospects (Jody and Marvelous Marvin)

New prospects at Jody and Marvelous Marvin were discovered (Figure 2), with each displaying relatively shallow (less than 20m of cover), widespread, thick, high-grade TREO intervals containing up to 33% MagREO. Individual assays of higher grade (above 1,000ppm) TREO were common. (Table 1 and Figures 2 - 4).

Significant drilling intersections include:

Jody Prospect

- MRAC1115: 16m at 904ppm TREO from 29m including 240ppm MREO
  and 12m at 789ppm TREO from 51m including 157ppm MREO
- **MRCA1120: 6m at 2,128ppm TREO from 42m including 638ppm MREO**
- **MRAC1121: 24m at 1,060ppm TREO from 21m including 252ppm MREO**
- **MRCA1123: 6m at 2,002ppm TREO from 12m including 604ppm MREO**
- **MRAC1125: 6m at 3,182ppm TREO from 24m including 1,056ppm MREO**
- **MRAC1126: 3m at 1,091ppm TREO from 15m including 249ppm MREO**
- MRAC1159: 21m at 717ppm TREO from 21m including 160ppm MREO
- **MRAC1161: 20m at 1,514ppm TREO from 12m including 381ppm MREO**
- **MRAC1162: 35m at 1,999ppm TREO from 18m including 512ppm MREO**
- MRAC1163: 12m at 771ppm TREO from 25m including 227ppm MREO

Marvelous Marvin Prospect

- MRAC1070: 18m at 819ppm TREO from 36m including 214ppm MREO
- MRAC1074: 17m at 808ppm TREO from 39m including 180ppm MREO
- **MRAC1075: 23m at 974ppm TREO from 36m including 246ppm MREO**
- **MRAC1077: 15m at 1,736ppm TREO from 36m including 399ppm MREO**
- **MRAC1082: 21m at 1,906ppm TREO from 45m including 349ppm MREO**
- MRAC1090: 31m at 650ppm TREO from 36m including 140ppm MREO

Jules Prospect

- MRAC0992: 6m at 749ppm TREO from 14m including 176ppm MREO
- **MRAC0995: 8m at 1,493ppm TREO from 18m including 337ppm MREO**
- **MRAC1003: 12m at 1,180ppm TREO from 36m including 358ppm MREO**

Butch Prospect

- MRAC1010: 5m at 790ppm TREO from 48m including 191ppm MREO
- MRAC1019: 9m at 888ppm TREO from 51m including 228ppm MREO
- MRAC1022: 12m at 746ppm TREO from 21m including 168ppm MREO

Keiths Prospect

- MRAC0980: 3m at 3,389ppm TREO from 51m including 553ppm MREO
- MRAC0982: 3m at 1,172ppm TREO from 48m including 177ppm MREO
- MRAC0982: 6m at 686ppm TREO from 27m including 165ppm MREO
- MRAC0989: 5m at 878ppm TREO from 42m including 222ppm MREO

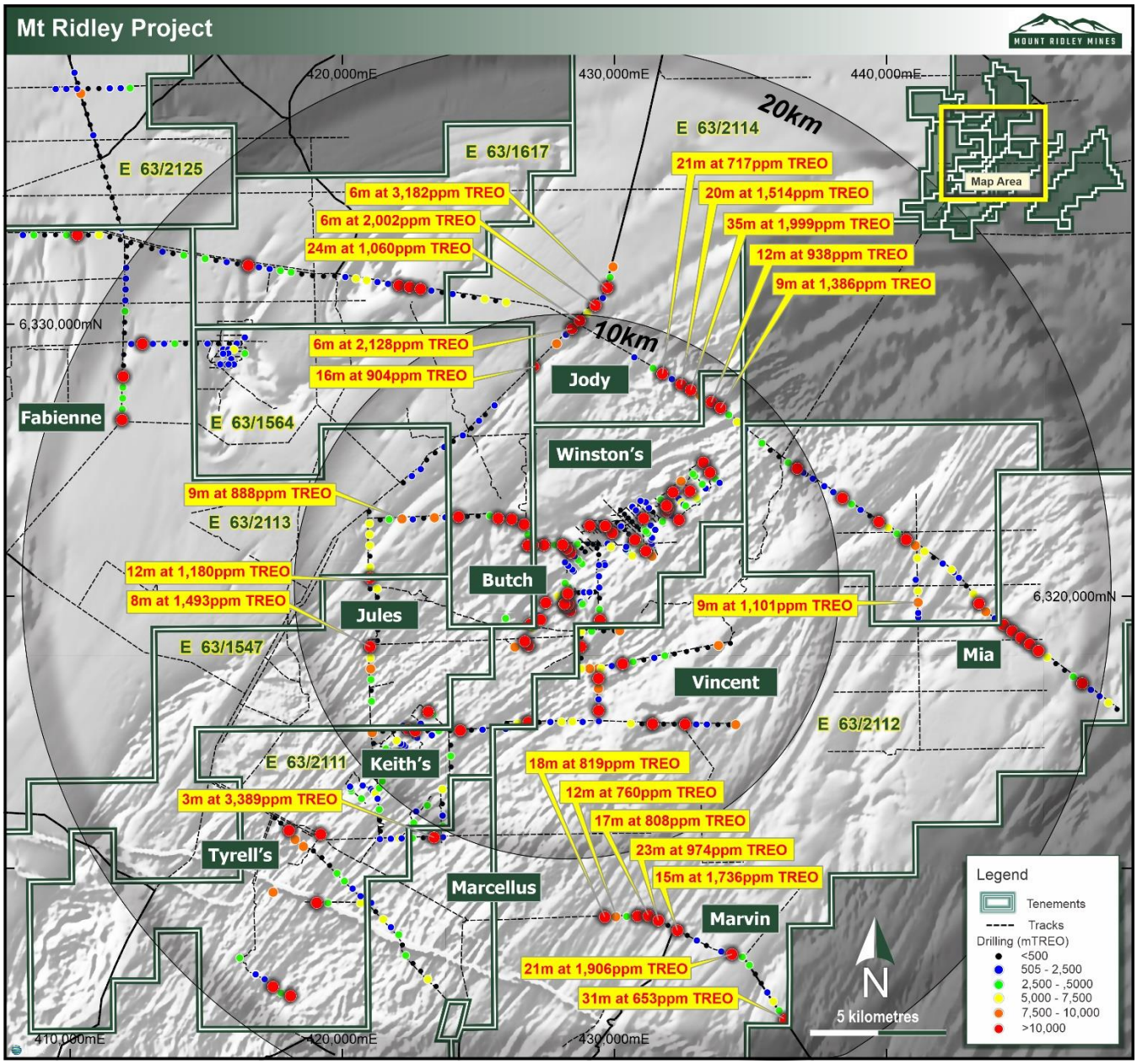

Figure 2: Significant drilling intersections from the latest results (intersections calculated using 500ppm TREO as the lower cut-off), with all DH locations coloured by grade thickness (mTREO) and showing Prospect locations. The field of view is approximately 40km by 40km.

The latest drill results have expanded the mineralisation footprint to at least 1,500km2 and resulted in the discovery of:

- **The Jodi Prospect,** where new mineralisation is within a 5km long and 5km wide area, located approximately 3km north of previous drilling. Mineralisation is relatively shallow, starting from 6m depth (average 24m), with an average thickness of 13m (above 500ppm TREO) and average MREO content of 25%. Mineralisation is open in all directions.

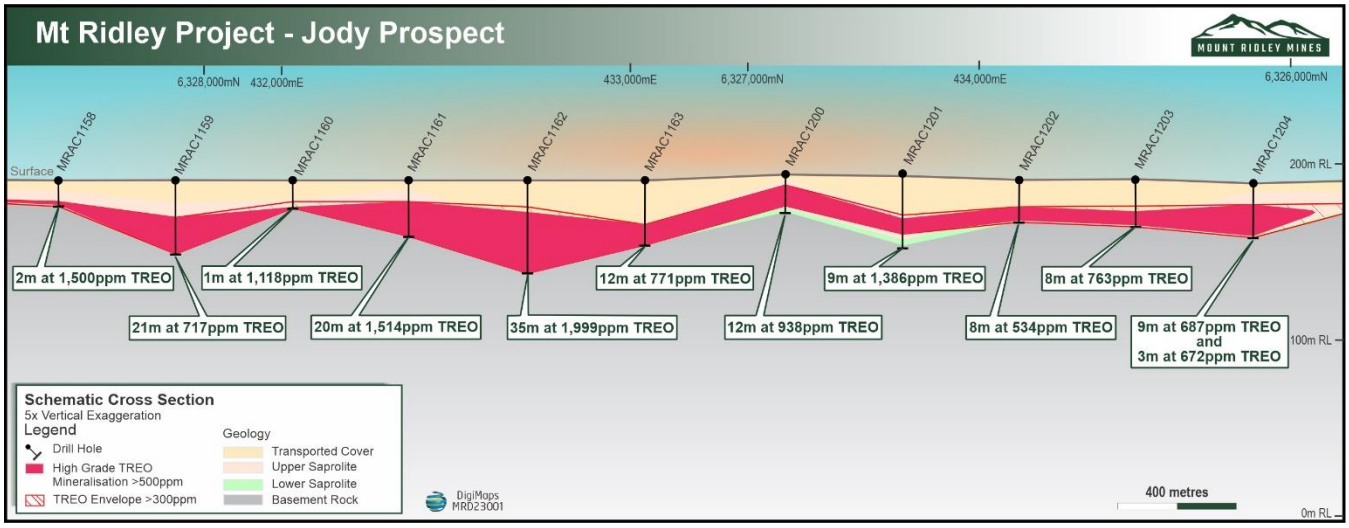

Figure 3: Cross section through the new Jody Prospect. Note drill holes are spaced 400m apart. The section is 4.8km wide.

- **The Marvelous Marvin Prospect,** where new mineralisation (above500ppm TREO) has been intersected along an 8km-long regional traverse approximately 15km southwest of the Mia Prospect. Average thickness of significant TREO mineralisation is 11m from a depth of 21m. Using aeromagnetic imagery, the Marvelous Marvin Prospect can be interpreted as a southern extension to the REE mineralisation intersected at the Mia Prospect, indicating a prospective corridor that exceeds 20km in length. This target will be tested first when drilling resumes in February.

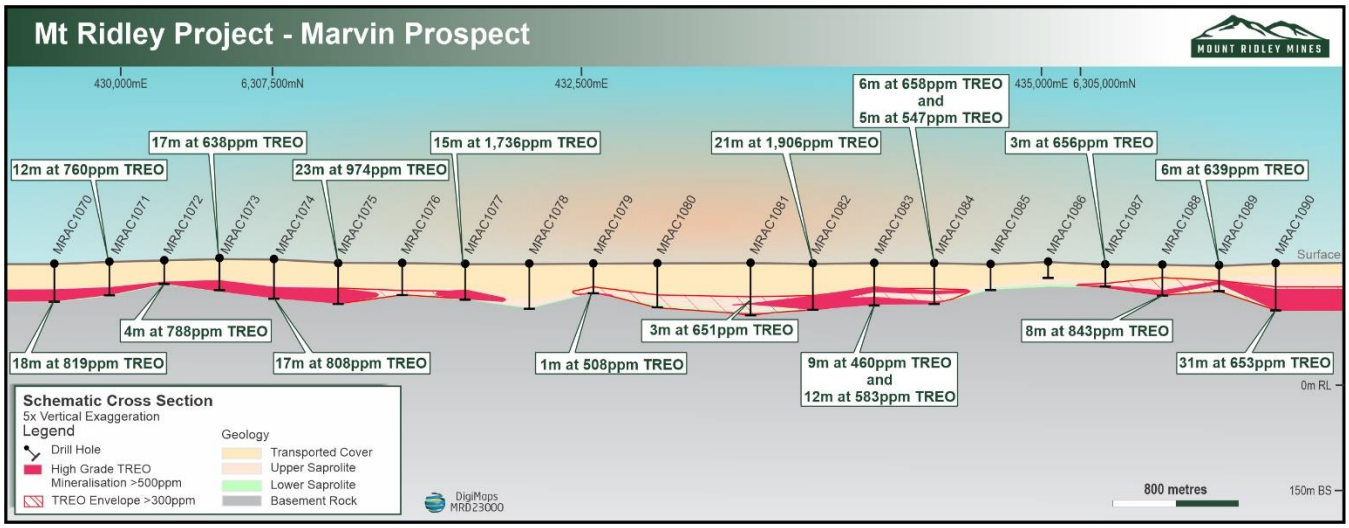

Figure 4: Cross section through the new Marvelous Marvin Prospect. The section is 8km wide.

Outlook

Primary Target Expansion Drilling: The Company is about to embark on its next drilling phase, progressively testing the 11 prospects identified in previous years' drilling.

Drilling will start at the Mia Prospect, a high priority target area due to the relatively shallow overburden, thick drilling intersections and consistently high TREO grades (above 1,000ppm TREO) with a high portion of MagREO.

The Mia Prospect and target zone, which heads southwest towards the Marvelous Marvin Prospect, sits within a prospective 6km wide, 20km long geological domain of felsic gneiss when interpreted using magnetic imagery (Figure 2).

All drilling to date has been along existing bush tracks, and within vacant crown land. The Company has adopted a policy to avoid the adjoining cultivated farmland.

Table 1: Selected Rare Earth Oxide Intersections (>500ppm TREO) and Group Distribution by Prospect											
Hole ID	From (m)	To (m)	Interval (m)	TREO (ppm)	MREO (ppm)	MREO (%)	HREO (ppm)	HREO (%)	CREO (ppm)	LREO (ppm)	NdPr (ppm)
Keiths Prospect											
MRAC0980	51	54	3	3389	553	16%	2440	72%	2218	949	365
MRAC0982	48	51	3	1172	177	15%	886	76%	765	286	101
MRAC0983	27	33	6	686	165	24%	151	22%	211	535	149
MRAC0985	44	51	7	794	241	30%	380	48%	422	414	201
MRAC0989	42	47	5	878	222	25%	442	50%	463	436	179
Jules Prospect											
MRAC0992	14	20	6	749	176	23%	409	55%	415	340	139
MRAC0993	15	30	15	566	126	22%	232	41%	246	334	103
MRAC0994	33	43	10	567	147	26%	136	24%	189	431	133
MRAC0995	18	26	8	1493	337	23%	849	57%	859	644	266
MRAC1001	48	60	12	612	160	26%	265	43%	290	347	132
MRAC1003	36	48	12	1180	358	30%	538	46%	601	642	298
MRAC1006	28	37	9	630	148	23%	64	10%	143	566	141
MRAC1007	31	42	11	623	131	21%	70	11%	133	553	123
MRAC1008	30	42	12	594	105	18%	89	15%	129	504	95
Butch Prospect											
MRAC1010	48	53	5	790	191	24%	105	13%	204	686	181
MRAC1018	51	60	9	549	152	28%	225	41%	260	325	129
MRAC1018	69	75	6	545	111	20%	66	12%	118	479	105
MRAC1019	51	60	9	888	228	26%	495	56%	501	393	182
MRAC1022	21	33	12	746	168	23%	66	9%	159	680	162
Marvin Prospect											
MRAC1070	36	54	18	819	214	26%	239	29%	307	579	189
MRAC1071	36	48	12	760	198	26%	181	24%	253	579	178
MRAC1072	30	34	4	788	185	23%	207	26%	263	581	163
MRAC1073	30	47	17	638	140	22%	132	21%	183	506	126
MRAC1074	39	56	17	808	180	22%	245	30%	295	562	157
MRAC1075	36	59	23	974	246	25%	220	23%	318	754	224
MRAC1077	36	51	15	1736	399	23%	266	15%	452	1471	371
MRAC1082	45	66	21	1906	349	18%	159	8%	343	1748	335
MRAC1083	48	60	12	583	169	29%	158	27%	219	425	153
MRAC1084	39	45	6	658	148	22%	99	15%	163	559	137
MRAC1087	30	33	3	656	155	24%	93	14%	165	563	145
MRAC1088	36	44	8	843	145	17%	49	6%	128	794	140
MRAC1089	21	27	6	639	95	15%	65	10%	107	574	88
MRAC1090	36	67	31	653	140	21%	77	12%	147	575	132

Table 1: Selected Rare Earth Oxide Intersections (>500ppm TREO) and Group Distribution by Prospect											
Hole ID	From (m)	To (m)	Interval (m)	TREO (ppm)	MREO (ppm)	MREO (%)	HREO (ppm)	HREO (%)	CREO (ppm)	LREO (ppm)	NdPr (ppm)
Jody Prospect											
MRAC1115	29	45	16	904	240	27%	110	12%	240	794	229
MRAC1115	51	63	12	789	157	20%	113	14%	191	676	148
MRAC1118	48	60	12	730	202	28%	310	42%	356	420	173
MRAC1119	30	42	12	600	156	26%	121	20%	188	479	144
MRAC1120	42	48	6	2128	638	30%	963	45%	1089	1164	544
MRAC1121	21	45	24	1060	252	24%	196	18%	305	864	233
MRAC1122	12	21	9	669	176	26%	115	17%	196	554	165
MRAC1123	12	18	6	2002	604	30%	541	27%	765	1461	545
MRAC1125	24	30	6	3182	1056	33%	1697	53%	1832	1485	875
MRAC1126	6	9	3	961	229	24%	123	13%	230	838	214
MRAC1126	15	18	3	1091	249	23%	165	15%	282	925	235
MRAC1127	9	21	12	665	170	26%	72	11%	165	593	164
MRAC1158	12	14	2	1500	253	17%	88	6%	222	1412	244
MRAC1159	21	42	21	717	160	22%	281	39%	303	436	132
MRAC1160	15	16	1	1118	250	22%	86	8%	225	1032	243
MRAC1161	12	32	20	1514	381	25%	148	10%	358	1366	367
MRAC1162	18	53	35	1999	512	26%	394	20%	629	1605	477
MRAC1163	25	37	12	771	227	29%	343	44%	382	428	188
Mia (West) Prospect											
MRAC1165	27	39	12	615	135	22%	172	28%	212	443	119
MRAC1168	42	54	12	527	121	23%	91	17%	142	436	111
MRAC1169	24	33	9	1101	224	20%	72	7%	198	1029	217

About the Mount Ridley REE Project

The Company announced on 1 July 2021 that laterally extensive REE mineralisation had been identified at its namesake Mount Ridley Project.

The Mount Ridley Project is located from approximately 50 kilometres northeast of the deep-water port of Esperance, a town with approximately 12,000 people and a hub for tourism, agriculture, and fishing (Figure 1). The Port exports minerals including nickel sulphide, iron ore and spodumene.

The Project is approximately 20 kilometres east of the sealed Goldfields Esperance Highway and infrastructure corridor which includes the Kalgoorlie-Esperance railway line and gas pipeline. The Esperance airport is located at Gibson Soak, approximately 20 kilometres from the Project.

Work undertaken to date

- Samples from over 3,500m of Company drilling from 2017-2018 were analysed for REE using a 'total digest' fusion technique ("Fusion"), designed to report the total amount of REE in each sample.
- A second analysis of higher grade REE samples was completed using a weak aqua regia digestion technique intended to take into solution soluble REE. This test indicated that at a grade of approximately 800ppm TREO, 80% of light REO 76% of heavy HREO and 80% of CREO were taken into solution under the conditions trialled.
- Since March 2022, the Company has drilled 510 AC holes for 23,159m along clear tracks. 10,067 samples were taken and results for 8,901 samples (including quality control samples) from 438 holes have been received. The remaining samples are at various stages of analytical processing.
- Twenty (20) DDH's for a total of 961.5m were complete across the Project in December 2022. The core will be used for stage 1 metallurgical test work. The core processing is underway.
- 880 drill pulps have been analysed using a short wave infra-red ("SWIR") instrument to help map clay mineral distribution as a component of an ongoing Research and Development project studying the REE mineralisation genesis.

- 344 samples of near fresh rock stubs from the bottom of aircore holes drilled in 2014 were scanned using a Bruker M4 Tornado micro-XRF analyser. From 2022 drilling a further 409 samples have been analysed and results are being processed at present. This is a Research and Development project.

The Company acknowledges the Esperance Nyungar People, custodians of the Project area.
This announcement has been authorised for release by the Company's board of directors.

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About Mount Ridley Mines Limited

Mount Ridley is a company targeting demand driven metals in Western Australia.
Its namesake Mount Ridley Project, located within a Fraser Range sub-basin, was initially acquired for its nickel and copper sulphides potential, and is now recognised as being prospective for clay hosted REE deposits.
The Company also holds approximately 18% of the Weld Ranges in the mid-west of Western Australia. Areas of the tenements are prospective iron and gold.

Competent Person

The information in this report that relates to exploration strategy and results is based on information supplied to and compiled by Mr David Crook. Mr Crook is a consulting geologist retained by Mount Ridley Limited. Mr Crook is a member of The Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists and has sufficient experience which is relevant to the exploration processes undertaken to qualify as a Competent Person as defined in the 2012 Editions of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'.
With respect to JORC Table 1 included in MRD announcements to ASX dated:

- 2 August 2021. "REE Potential Unveiled at Mount Ridley."
- 13 September 2021. "REE Targets Extended."
- 21 October 2021. "Encouraging Rare Earth Extraction Results."
- 2 August 2022. "Excellent Drilling Results Expand Rare Earth Mineralisation Footprint at the Mt Ridley Project."
- 6 October 2022. "Highest grades to date returned from Mt Ridley Rare Earth Project, Mineralised footprint extended to more than 1,200km^2."

Mount Ridley confirms that it is not aware of any new information or data that materially affects the information included in these announcements and that all material assumptions and technical parameters underpinning the exploration results continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not been materially modified from the original market announcement.

Caution Regarding Forward Looking Information

This announcement may contain forward-looking statements that may involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions, and estimates should change or to reflect other future developments.

Appendix 1

A. Drill Hole Collar Locations for Reported Holes.

Table 2: Drill hole Collar Locations					
Hole ID	Hole Type	Easting m	Northing m	RL m	Total Depth m
MRAC0978	AC	422561	6311075	175	51
MRAC0979	AC	422964	6311086	177	53
MRAC0980	AC	423361	6311100	179	70
MRAC0981	AC	423691	6311109	180	66
MRAC0982	AC	423679	6311513	178	51
MRAC0983	AC	423676	6311902	174	50
MRAC0984	AC	423665	6312334	175	45
MRAC0985	AC	423672	6312871	175	55
MRAC0986	AC	424001	6312890	175	49
MRAC0987	AC	423994	6313284	177	55
MRAC0988	AC	423986	6313690	176	51
MRAC0989	AC	423977	6314092	177	47
MRAC0990	AC	423970	6314492	176	42
MRAC0991	AC	421048	6316500	184	16
MRAC0992	AC	421039	6316902	183	20
MRAC0993	AC	421029	6317300	181	32
MRAC0994	AC	421019	6317698	183	43
MRAC0995	AC	421011	6318115	183	26
MRAC0996	AC	421283	6318333	183	38
MRAC0997	AC	421290	6318725	183	32
MRAC0998	AC	421286	6319130	183	51
MRAC0999	AC	421281	6319569	186	31
MRAC1000	AC	421278	6319932	187	54
MRAC1001	AC	421269	6320240	188	60
MRAC1002	AC	421010	6320241	188	25
MRAC1003	AC	421007	6320637	189	58
MRAC1004	AC	421005	6321029	189	53
MRAC1005	AC	421001	6321442	193	32
MRAC1006	AC	420996	6321840	191	37
MRAC1007	AC	420991	6322241	190	51
MRAC1008	AC	420984	6322644	194	45
MRAC1009	AC	420966	6323080	195	76
MRAC1010	AC	426806	6322233	188	53
MRAC1018	AC	423777	6322871	192	75

Table 2: Drill hole Collar Locations					
Hole ID	Hole Type	Easting m	Northing m	RL m	Total Depth m
MRAC1019	AC	423376	6322857	193	68
MRAC1020	AC	422979	6322839	188	55
MRAC1021	AC	422581	6322799	188	46
MRAC1022	AC	422183	6322812	189	33
MRAC1070	AC	429642	6308173	174	54
MRAC1071	AC	430043	6308183	177	48
MRAC1072	AC	430444	6308194	179	34
MRAC1073	AC	430849	6308208	181	47
MRAC1074	AC	431247	6308220	180	56
MRAC1075	AC	431610	6308046	175	59
MRAC1076	AC	431966	6307862	175	46
MRAC1077	AC	432315	6307680	173	51
MRAC1078	AC	432671	6307497	174	64
MRAC1079	AC	433025	6307310	174	42
MRAC1080	AC	433379	6307123	175	64
MRAC1081	AC	433925	6306903	175	75
MRAC1082	AC	434315	6306803	174	66
MRAC1083	AC	434700	6306704	175	60
MRAC1084	AC	434959	6306402	175	59
MRAC1085	AC	435177	6306073	173	37
MRAC1086	AC	435394	6305734	176	23
MRAC1087	AC	435618	6305399	173	33
MRAC1088	AC	435837	6305064	172	44
MRAC1089	AC	436055	6304730	171	37
MRAC1090	AC	436271	6304395	174	67
MRAC1115	AC	427015	6328413	191	64
MRAC1116	AC	427300	6328694	191	38
MRAC1117	AC	427583	6328973	191	17
MRAC1118	AC	427869	6329255	191	65
MRAC1119	AC	428209	6329589	191	58
MRAC1120	AC	428435	6329813	191	54
MRAC1121	AC	428722	6330101	191	47
MRAC1122	AC	429008	6330382	191	28
MRAC1123	AC	429293	6330663	191	48
MRAC1124	AC	429569	6330938	191	46
MRAC1125	AC	429738	6331312	191	37
MRAC1126	AC	429838	6331698	191	24
MRAC1127	AC	429943	6332083	191	27

Table 2: Drill hole Collar Locations					
Hole ID	Hole Type	Easting m	Northing m	RL m	Total Depth m
MRAC1128	AC	430047	6332468	191	51
MRAC1156	AC	430726	6328756	191	35
MRAC1157	AC	431071	6328555	191	13
MRAC1158	AC	431417	6328354	191	15
MRAC1159	AC	431761	6328152	191	42
MRAC1160	AC	432109	6327955	191	16
MRAC1161	AC	432449	6327754	191	32
MRAC1162	AC	432800	6327551	191	53
MRAC1163	AC	433144	6327349	191	37
MRAC1164	AC	435120	6325853	191	15
MRAC1165	AC	441136	6321369	191	44
MRAC1166	AC	441144	6320959	191	38
MRAC1167	AC	441077	6320575	191	42
MRAC1168	AC	441156	6320167	191	54
MRAC1169	AC	441163	6319744	191	67
MRAC1170	AC	441169	6319354	191	47

- Grid is GDA94-51
- Coordinates by hand-held GPS with a presumed accuracy within +-5m
- All holes drilled vertically (dip = -90°, azimuth = 0°)

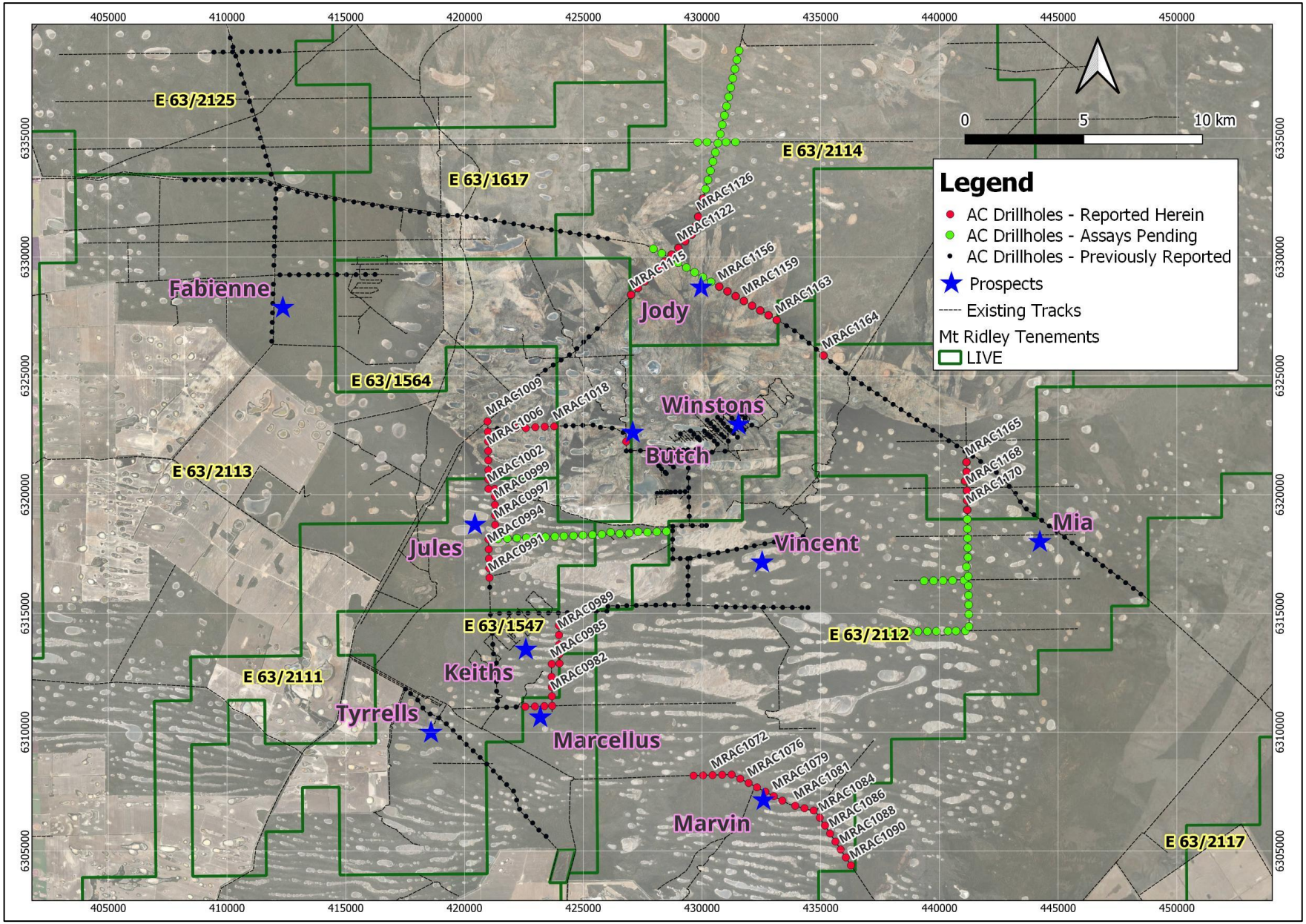

Figure 5: Drill hole location plan for reported drill holes and holes with assays pending.

Appendix 1

B. Assay Results.

Table 4:
Assay Results for Samples with Total Rare Earth Element (TREE) >500ppm.

Hole ID	Sample ID	From m	To m	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREE ppm
MRAC0978	MRM003231	48	50	158.5	39.5	22.3	12.8	41.9	7.97	95.8	2.56	147	31.8	38	6.53	3.01	189.5	18.4	816
MRAC0978	MRM003232	50	51	151	35.6	20.6	11.75	38.2	7.3	93	2.46	136.5	29.5	35.2	5.86	2.87	185	17.6	772
MRAC0980	MRM003273	51	54	318	144	114	26.5	119	34.9	165.5	14.65	261	49.9	68.1	19.2	14.9	1335	92.7	2777
MRAC0982	MRM003323	48	50	108	58.7	45.9	9.65	41.2	14.85	41.4	6.71	70.5	14.55	22.8	8.01	6.65	471	41.6	962
MRAC0982	MRM003324	50	51	115.5	56.6	44.1	9.31	41	14.6	44.5	6.15	72.4	14.9	22.1	7.68	6.27	465	39.3	959
MRAC0983	MRM003326	3	6	90.6	26.3	20.1	4.63	20.2	6.73	32.4	2.81	41.9	9.7	11.6	3.69	2.96	217	18.1	509
MRAC0983	MRM003336	27	30	232	10.25	5.47	3.61	12.4	1.92	94.5	0.75	92.4	26.5	17.7	1.9	0.82	49.5	4.84	555
MRAC0983	MRM003337	30	33	240	13.45	7.83	4.15	15.3	2.78	68.7	1.02	109	26.3	20.7	2.28	1.25	65.2	7.58	586
MRAC0983	MRM003341	39	42	168	17	10.75	4.46	17.55	3.87	78.8	1.43	70.7	17.85	14.7	2.84	1.53	118.5	9.24	537
MRAC0985	MRM003379	44	45	109	43.4	20.1	18.25	51.8	7.4	123.5	2.17	250	51.8	64.3	7.69	2.58	161.5	16.95	930
MRAC0985	MRM003380	45	48	93.3	36	19.45	11.8	38.8	6.81	104.5	2.21	162.5	33.3	39.5	5.75	2.46	200	16.05	772
MRAC0989	MRM003459	42	45	113.5	36.2	20.9	10.45	40.5	7.1	134.5	2.16	148.5	33.2	36	5.68	2.51	230	14.7	836
MRAC0989	MRM003461	45	46	80.9	25.6	16	6.7	27	5.29	86.8	1.8	92.3	20	22.8	4.08	1.94	176.5	11.7	579
MRAC0989	MRM003462	46	47	78.4	26	15.6	6.45	26.3	5.1	81.2	1.85	86.5	18.85	20.9	3.82	1.96	174.5	11.55	559
MRAC0992	MRM003491	14	15	181.5	60.6	30.1	21.5	68.6	10.85	154.5	3.39	280	58.9	67.4	9.81	3.81	271	24.3	1246
MRAC0992	MRM003492	15	18	102	25.5	20.1	5.55	23.5	6.33	49.4	2.5	62.3	13.65	15.1	3.58	2.4	257	14.8	604
MRAC0993	MRM003502	18	19	167.5	25.1	14.15	7.89	25.7	4.73	78.6	1.8	108	24.4	24.9	3.82	1.84	127	12.35	628
MRAC0993	MRM003503	19	21	127.5	21.2	12.4	5.95	22.6	4.31	66.2	1.63	81.9	18.15	18.55	3.15	1.61	110.5	11.3	507
MRAC0994	MRM003521	33	36	145.5	12.55	6.47	5.88	15.85	2.42	118	0.84	108.5	28.5	21.5	2.37	0.88	50.6	6.09	526
MRAC0994	MRM003523	39	42	215	10.35	7.29	5.22	14.05	2.26	105	1.01	103	25.4	18.5	1.9	0.97	65.2	6.52	582
MRAC0995	MRM003535	21	24	129	68	46	14.95	79	15.8	252	4.09	239	48.3	55	11.4	5.23	627	28.2	1623
MRAC0995	MRM003536	24	25	124	110	63.1	27	127.5	23.5	419	5.82	410	101.5	98.6	18.1	7.35	755	39.3	2330
MRAC0995	MRM003537	25	26	87.9	59.2	34.1	13.95	67.1	12.35	224	3.19	207	50.1	47.5	9.24	3.97	422	21.3	1263
MRAC1001	MRM003640	57	59	78.6	42.6	23.8	9.27	39.8	8.51	109.5	2.55	142	33.1	35.6	6.49	2.78	257	16.95	809

Table 4:
Assay Results for Samples with Total Rare Earth Element (TREE) >500ppm.

Hole ID	Sample ID	From m	To m	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREE ppm
MRAC1001	MRM003641	59	60	62.8	37.4	21.5	8.19	35.7	7.54	94.4	2.2	127.5	29.2	31.6	5.9	2.63	234	15.95	717
MRAC1003	MRM003668	39	42	192	86.3	44.9	30.6	103	16.1	313	5.3	446	103	96.2	14.95	5.74	407	38.6	1903
MRAC1003	MRM003669	42	45	99.1	56.9	32.9	15.8	60.4	11.05	196	3.8	221	50.7	49	9.35	4.13	309	27.8	1147
MRAC1006	MRM003752	33	36	250	5.5	2.16	2.46	8.28	0.86	151	0.2	101	29	14	1.01	0.28	22.4	1.47	590
MRAC1006	MRM003753	36	37	329	4.81	2.08	2.46	8.28	0.82	142	0.22	95.5	27.7	14.05	0.99	0.28	22.4	1.76	652
MRAC1007	MRM003732	33	36	340	7.98	2.93	3.5	12.95	1.22	127	0.23	109	28.8	19.75	1.67	0.35	24.2	2.01	682
MRAC1007	MRM003735	39	42	225	6.26	2.31	2.75	9.74	0.97	104	0.3	83.1	22.7	15.55	1.19	0.32	23.6	2.05	500
MRAC1008	MRM003713	30	33	345	4.44	2.53	1.34	5.37	0.8	63.1	0.36	41.5	12.25	6.68	0.79	0.33	18.3	2.37	505
MRAC1008	MRM003714	33	36	279	8.7	4.6	2.58	11.55	1.58	94.3	0.6	75.3	20.1	13.25	1.55	0.6	36.7	4.24	555
MRAC1010	MRM003918	50	51	361	8.53	4.19	7.54	15.25	1.52	179.5	0.45	159	41	23.4	1.72	0.5	41.5	3.13	848
MRAC1010	MRM003919	51	52	344	7.79	3.93	7.17	14.05	1.54	172.5	0.4	153.5	38.8	22.4	1.48	0.53	41.6	3.3	813
MRAC1010	MRM003920	52	53	315	7.17	3.34	6.59	12.4	1.42	156.5	0.41	138	35.9	20.3	1.27	0.48	36.2	2.61	738
MRAC1018	MRM004235	57	60	85.9	26	13.6	7.09	29.1	4.66	165	1.72	150.5	38.8	29.7	3.92	1.72	138.5	11.1	707
MRAC1019	MRM004261	51	54	44.1	30.7	16.8	9.56	36.4	6.16	136.5	1.88	131	33.1	33	5.18	2.3	191	14.55	692
MRAC1019	MRM004262	54	57	39.1	38.5	24.6	9.3	37.1	8.12	132.5	3.38	122.5	31.8	32.8	5.99	3.6	278	23.1	790
MRAC1019	MRM004263	57	60	48.6	34.6	21	9.6	35.7	7.22	131.5	2.88	118	28.8	29	5.28	2.95	239	18.65	733
MRAC1021	MRM004305	42	45	202	7.2	3.93	3.19	8.35	1.44	113.5	0.52	86.8	24.1	12.6	1.16	0.62	34.4	3.6	503
MRAC1022	MRM004315	24	27	337	3.76	1.33	3.38	8.05	0.6	171.5	0.17	109.5	31.2	15.45	0.8	0.18	15.1	1.07	699
MRAC1022	MRM004316	27	30	257	5.49	2.13	3.64	10.7	0.89	191.5	0.2	126.5	35.2	17.3	1.08	0.27	21.7	1.48	675
MRAC1022	MRM004317	30	32	279	5.06	2.44	3.31	9.7	0.96	158	0.25	113.5	30.1	16.3	1.08	0.41	27.9	1.96	650
MRAC1022	MRM004318	32	33	284	4.25	1.96	3	8.35	0.75	147	0.22	100	27.4	13.75	0.79	0.26	21.9	1.54	615
MRAC1070	MRM006943	36	39	110	12.4	7.49	3.18	14.15	2.59	119.5	1.06	108	29.5	19.1	2.22	1.07	75.1	7	512
MRAC1070	MRM006944	39	42	111	14.85	8.63	4.15	17.1	3.17	122	1.21	116.5	30.3	21.3	2.64	1.24	81.5	8.13	544
MRAC1070	MRM006945	42	45	320	28.9	15.6	7.3	33.1	5.63	173.5	1.83	197.5	48.6	37.8	5.11	2.19	133	13.45	1024
MRAC1070	MRM006946	45	48	224	18.45	10.8	4.56	21.3	3.86	122.5	1.41	131	32.5	25.5	3.14	1.59	102.5	9.34	712
MRAC1070	MRM006947	48	51	231	19.3	11.65	4.57	21.4	4.02	118.5	1.66	123	29	22.8	3.1	1.69	117.5	10.35	720
MRAC1070	MRM006948	51	53	185	15.95	9.29	3.56	16.9	3.34	92.7	1.27	95.2	23.2	18.5	2.63	1.41	87.9	8.55	565
MRAC1070	MRM006949	53	54	199.5	16.2	10.1	3.94	18.4	3.39	99.9	1.36	102.5	25.5	19.2	2.8	1.42	93.3	8.83	606

Table 4: Assay Results for Samples with Total Rare Earth Element (TREE) >500ppm.																			
Hole ID	Sample ID	From m	To m	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREE ppm
MRAC1071	MRM006964	36	39	245	8.76	4.15	3.57	11.95	1.59	99.7	0.48	98.8	27.8	18.1	1.68	0.56	36.7	3.62	562
MRAC1071	MRM006965	39	42	231	22.3	11.45	7.26	27.8	4.23	181	1.29	178	48.3	32.8	3.92	1.5	105	9.04	865
MRAC1071	MRM006967	42	45	194.5	16.5	8.45	5.41	19.1	3.14	128.5	1.02	121.5	33.3	23.9	2.95	1.11	78.6	6.87	645
MRAC1072	MRM006981	32	33	304	22.7	13.05	6.32	23.6	4.41	159.5	1.73	149.5	41.1	29.8	3.71	1.87	116.5	11.95	890
MRAC1072	MRM006982	33	34	267	21.1	12	5.51	21.7	4.17	145	1.7	131.5	36	26.2	3.38	1.71	114	11	802
MRAC1073	MRM006994	30	33	294	12.05	5.72	3.62	14.6	2.19	102.5	0.71	105.5	28.1	20.5	2.27	0.83	54.1	5.07	652
MRAC1073	MRM006995	33	36	222	10.55	4.84	2.99	12.45	1.86	78.1	0.56	83.1	22.3	16.3	2.02	0.66	45.7	4.57	508
MRAC1073	MRM006997	39	42	216	10.55	5.3	2.9	12.5	2.02	109.5	0.64	84.1	23.3	15.45	1.94	0.75	59.5	4.47	549
MRAC1073	MRM007000	45	46	199.5	10.5	5.53	2.74	11.65	2.07	95.6	0.7	77.1	21.5	14.75	1.86	0.79	59.8	5.16	509
MRAC1073	MRM007001	46	47	208	10.9	6.14	2.77	12.45	2.13	100.5	0.75	80.6	22.5	14.8	1.91	0.86	62.2	5.42	532
MRAC1074	MRM007015	39	42	174	18.1	10.5	4.45	22.3	3.68	135.5	1.22	125.5	32.5	24.1	3.31	1.47	117.5	8.84	683
MRAC1074	MRM007016	42	45	352	31.6	19.1	6.44	33.5	6.7	182	2.34	170	43.7	32.5	5.06	2.88	218	16.4	1122
MRAC1074	MRM007017	45	48	292	20.5	11.95	4.56	22	4.24	131.5	1.45	121.5	31	23.8	3.53	1.66	141.5	10.5	822
MRAC1075	MRM007037	36	39	136.5	15.45	8.22	6.36	19	2.97	187	1.11	152.5	41.9	26.1	2.7	1.17	82.7	7.77	691
MRAC1075	MRM007038	39	42	190	23.8	12.8	8.63	29.1	4.61	263	1.79	221	58.3	38.2	4.06	1.92	136	12.35	1006
MRAC1075	MRM007039	42	45	193	13.6	7.65	5.25	16.9	2.66	168.5	1.04	133.5	35.9	22.3	2.3	1.1	77.1	7.12	688
MRAC1075	MRM007040	45	48	219	13.65	7.43	5.19	16.5	2.69	164	1.02	133	35.6	22.5	2.32	1.06	77.7	6.98	709
MRAC1075	MRM007041	48	51	273	14.7	8.07	5.3	17.5	2.9	155	1.05	130.5	35.4	22.3	2.49	1.14	83.5	7.67	761
MRAC1075	MRM007042	51	54	272	14.15	8.21	4.91	16.85	2.82	134	1.11	118	31.2	20.7	2.41	1.22	85.1	7.58	720
MRAC1075	MRM007043	54	57	335	13.9	7.5	4.76	16.85	2.69	158	1.01	126	34.4	20.7	2.33	1.09	79.7	7.2	811
MRAC1075	MRM007044	57	58	550	20.5	10.1	7.48	27.5	3.83	303	1.33	220	59.2	35.3	3.66	1.47	109.5	9.39	1362
MRAC1075	MRM007045	58	59	461	18.85	9.85	6.47	23	3.31	254	1.16	192	50.7	30.2	3.04	1.34	95.5	8.41	1159
MRAC1077	MRM007078	36	39	469	11.35	5.17	5.16	15.05	2.06	206	0.38	158	46	22	1.88	0.62	46.2	3.52	992
MRAC1077	MRM007079	39	42	594	20.4	10.1	8.59	25.1	3.53	260	0.66	217	59.8	33.4	3.37	1.2	94.3	6.39	1338
MRAC1077	MRM007080	42	45	1060	25.7	12.05	14.45	38.7	4.64	463	1.12	410	112.5	63.6	4.82	1.56	115.5	9.51	2337
MRAC1077	MRM007081	45	48	644	27.1	15.15	11.55	35.2	5.17	299	1.79	295	75.4	47.6	4.46	2.07	143.5	13.55	1621
MRAC1077	MRM007082	48	50	360	15.85	8.98	6.42	20.4	3.02	170	1	159	41.7	25.9	2.63	1.16	83.6	7.43	907
MRAC1077	MRM007083	50	51	388	17.4	9.65	6.95	21.7	3.36	183	1.17	171	45.2	28	2.8	1.34	97.1	8.66	985

Table 4:
Assay Results for Samples with Total Rare Earth Element (TREE) >500ppm.

Hole ID	Sample ID	From m	To m	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREE ppm
MRAC1081	MRM007168	57	60	228	6.6	3.17	3.37	9.35	1.14	113	0.38	97.8	25.4	15.75	1.25	0.39	33.7	2.72	542
MRAC1082	MRM007192	45	48	2930	24	10.85	8.84	51.4	3.87	1835	1.08	813	258	97.6	5.08	1.12	122	7.64	6169
MRAC1082	MRM007193	48	51	862	8.84	3.83	3.72	16.9	1.36	456	0.35	242	74.2	31.9	1.94	0.46	40.8	2.64	1747
MRAC1082	MRM007194	51	54	612	9.17	4.47	4.25	14.9	1.58	335	0.37	184.5	56.6	26.4	1.8	0.47	42.2	3.14	1297
MRAC1082	MRM007195	54	57	300	5.89	2.92	2.32	9.11	0.99	160.5	0.27	92.7	28.3	14.55	1.08	0.31	24.8	2.06	646
MRAC1082	MRM007200	65	66	216	9.4	6.72	3.05	11.9	2.13	107.5	0.84	84.3	22.7	14.95	1.7	0.9	63.7	5.85	552
MRAC1083	MRM007219	54	57	73.7	15.8	7.72	6.23	24.2	2.83	97.9	1	149.5	33.9	30.8	2.83	1	64.5	6.85	519
MRAC1083	MRM007220	57	59	110.5	24.4	13.95	6.96	29.9	4.58	101	1.71	164	35.4	33.4	4.07	1.81	145	11.45	688
MRAC1083	MRM007221	59	60	117.5	21.3	11.95	6.81	27.5	4.15	93.6	1.5	144	32.5	30.9	3.61	1.6	122.5	9.53	629
MRAC1084	MRM007238	42	45	262	9.65	3.84	2.67	13.6	1.6	139.5	0.34	104	29.6	19.1	1.95	0.45	42.5	2.68	633
MRAC1087	MRM007279	30	32	204	7.32	3.56	2.31	10	1.16	136	0.4	92.8	26.8	14.9	1.38	0.46	30.9	2.82	535
MRAC1087	MRM007280	32	33	217	7.39	3.72	2.36	11	1.26	144.5	0.42	101.5	28.6	14.95	1.48	0.43	34.5	3.01	572
MRAC1088	MRM007294	36	39	222	2.61	1.37	1.19	5.11	0.47	160.5	0.23	66.5	22.8	9.26	0.57	0.19	13.4	1.38	508
MRAC1088	MRM007295	39	42	528	3.32	1.62	1.74	6.93	0.5	200	0.22	110	35.4	14.45	0.65	0.21	14.2	1.36	919
MRAC1088	MRM007296	42	43	360	3.38	1.57	1.85	6.66	0.61	196	0.2	105.5	35.4	14.65	0.68	0.2	16.2	1.41	744
MRAC1088	MRM007297	43	44	277	2.76	1.3	1.56	5.27	0.44	159.5	0.18	83.3	26.5	10.95	0.58	0.15	12.8	1.2	583
MRAC1089	MRM007307	21	24	413	3.85	1.82	1.28	5.15	0.63	85.9	0.24	53.9	17	8.05	0.64	0.25	17.2	1.69	611
MRAC1090	MRM007326	36	39	328	8.21	3.3	3.9	12.25	1.35	194	0.34	134.5	39.1	20.9	1.53	0.42	32.7	2.64	783
MRAC1090	MRM007327	39	42	454	12.3	5.26	5.25	15.85	1.92	223	0.55	158	44.1	24.2	2.18	0.76	50.4	4.26	1002
MRAC1090	MRM007328	42	45	249	6.5	3.05	3.08	9.47	1.14	120.5	0.4	94.3	26	13.2	1.21	0.41	28.3	2.62	559
MRAC1090	MRM007329	45	48	216	5.47	2.53	2.52	8.46	0.93	124.5	0.24	86.6	23.8	13.7	1.06	0.34	25	1.78	513
MRAC1090	MRM007337	63	66	301	5.36	2.52	2.79	9.06	0.96	130.5	0.28	96.5	26.9	14.8	1.09	0.32	28.4	1.95	622
MRAC1115	MRM008661	29	30	300	5.55	2.6	3.19	8.03	0.86	121	0.4	107.5	30.1	14.7	1.07	0.39	17.4	3.12	616
MRAC1115	MRM008662	30	33	253	9.41	3.9	5.64	15.35	1.38	231	0.46	202	55.4	27.7	1.84	0.52	31.5	3.33	842
MRAC1115	MRM008663	33	36	185	7.83	4.11	4.82	14.2	1.39	213	0.53	177.5	47.3	23.8	1.56	0.55	45	3.7	730
MRAC1115	MRM008664	36	39	273	8.7	4.12	4.68	14.95	1.47	274	0.47	184.5	52.7	23.4	1.68	0.5	43.9	3.32	891
MRAC1115	MRM008665	39	42	309	6.96	3.75	3.13	10.55	1.26	158	0.41	110	30.7	15.15	1.36	0.45	43.6	2.88	697
MRAC1115	MRM008667	42	45	293	5.16	2.33	2.64	8.71	0.88	172.5	0.23	104	30.8	13.25	1.06	0.28	28.1	1.72	665

Table 4:
Assay Results for Samples with Total Rare Earth Element (TREE) >500ppm.

Hole ID	Sample ID	From m	To m	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREE ppm
MRAC1115	MRM008670	51	54	256	5.36	4.01	2.1	6.76	1.2	148	0.63	82.8	25.1	9.97	0.81	0.55	50.1	3.88	597
MRAC1115	MRM008671	54	57	210	6.1	5.54	1.88	6.21	1.5	120.5	0.75	76.7	22.1	9.91	0.89	0.76	66.5	4.93	534
MRAC1115	MRM008672	57	60	316	8.13	5.26	3.33	12.05	1.68	174	0.7	119	33.5	15.65	1.4	0.73	66.1	4.6	762
MRAC1115	MRM008673	60	63	335	5.26	2.03	2.52	9.53	0.81	187	0.21	112.5	33.4	15.4	1.14	0.22	23.6	1.56	730
MRAC1118	MRM008718	54	57	100	36.2	23.9	9.59	38.7	7.36	168	2.89	193.5	44.6	39.8	5.76	3.34	246	21.1	941
MRAC1118	MRM008719	57	60	88.3	27.9	18.8	6.78	30.5	6.16	123.5	2.34	130	28.4	26.3	4.5	2.59	216	16.3	728
MRAC1119	MRM008731	21	24	258	8.59	3.71	2.92	9.41	1.42	78.8	0.48	81.5	20.3	13.65	1.49	0.58	35.4	3.88	520
MRAC1119	MRM008736	33	36	208	9.78	5.09	3.26	13.1	1.66	119	0.78	114.5	28.3	21.1	1.72	0.72	49.6	5.24	582
MRAC1119	MRM008738	39	42	141.5	10.7	5.93	4.42	14.05	1.86	119.5	0.72	119.5	29	19.9	1.93	0.73	57.2	5.38	532
MRAC1120	MRM008759	42	45	368	86.2	51.8	25.4	97	17.25	469	6.78	580	145	118.5	14.4	7.17	411	50.1	2448
MRAC1120	MRM008761	45	48	33.8	54.1	41.6	9.92	53	12.8	168	5.16	164.5	36.7	35	8.26	5.6	440	35	1103
MRAC1121	MRM008774	21	24	296	4.85	2.46	1.84	7	0.89	101	0.37	81.2	23.8	12.95	0.99	0.38	22	2.81	559
MRAC1121	MRM008775	24	27	753	10.15	4.41	5.77	14.8	1.7	207	0.54	172	49.8	27.5	2	0.61	38.2	3.92	1291
MRAC1121	MRM008776	27	30	909	31.2	16.1	17.2	46.4	5.85	491	1.54	384	103.5	62.1	5.93	2.02	158	11.65	2245
MRAC1121	MRM008777	30	33	150.5	16.05	9.36	7.74	19.9	3.28	182.5	1.16	186	49.1	30.7	2.84	1.36	112.5	7.84	781
MRAC1121	MRM008778	33	36	136.5	20.5	11.25	9.55	27.4	3.86	185.5	1.35	189	47	32.3	3.68	1.52	100	10.5	780
MRAC1121	MRM008779	36	39	155	14.25	8.9	4.94	18.75	2.92	129	1.18	109	27.5	18.7	2.48	1.2	91.2	7.69	593
MRAC1122	MRM008788	12	15	280	4.48	1.78	1.55	10.5	0.74	126	0.26	115.5	31	17.9	1.12	0.25	18.2	1.62	611
MRAC1122	MRM008789	15	18	270	5.44	2.43	2.64	10.65	0.97	129.5	0.3	122.5	33.6	19.7	1.26	0.36	19.6	2.21	621
MRAC1123	MRM008801	12	15	468	62.7	34.2	21.9	61.9	12.6	369	5.18	483	126	93.9	10.6	5.38	283	35.2	2073
MRAC1123	MRM008802	15	18	442	24.6	12.75	10.05	27.5	4.75	240	1.43	250	69.2	45.7	4.34	1.84	126.5	11	1272
MRAC1125	MRM008840	24	27	106	57.8	38.2	12.3	63.9	14.05	397	3.51	259	64.5	52.8	9.51	4.68	588	23	1694
MRAC1125	MRM008841	27	30	175.5	213	126.5	56.3	187	42.3	349	18.1	937	229	256	34.2	19.3	851	128.5	3623
MRAC1126	MRM008848	6	9	143.5	11.1	4.88	5.2	13.15	1.86	382	0.54	135	46.9	19.15	2	0.64	40.2	3.86	810
MRAC1126	MRM008851	15	18	353	10.3	6.87	4.85	15.2	2.14	219	0.98	155	44.8	23.5	1.95	0.94	64.1	5.91	909
MRAC1127	MRM008861	12	15	213	4.19	2.53	2.1	6.16	0.84	143.5	0.37	98	33	11.8	0.85	0.35	24.4	2.55	544
MRAC1127	MRM008862	15	18	268	5.45	2.74	3.43	8.13	0.96	171	0.33	157.5	49.6	17.05	1.05	0.39	25.8	2.51	714
MRAC1127	MRM008863	18	21	202	5.49	3.04	2.03	7.88	1.16	126.5	0.4	103.5	29.8	13.1	1.05	0.45	31.5	3.01	531

Table 4:
Assay Results for Samples with Total Rare Earth Element (TREE) >500ppm.

Hole ID	Sample ID	From m	To m	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREE ppm
MRAC1158	MRM009336	12	14	537	6.3	2.2	3.91	11.15	0.93	433	0.21	154.5	53.1	23.5	1.38	0.26	22.4	1.72	1252
MRAC1159	MRM009346	21	24	309	10.3	4.92	4.4	13.05	1.88	91.1	0.53	89.4	22.9	16.1	1.73	0.59	45.9	3.64	615
MRAC1159	MRM009348	27	30	281	28.1	14.4	10.6	34.3	5.77	126.5	1.78	169.5	40.9	35.9	4.72	1.86	163	11.9	930
MRAC1159	MRM009350	33	36	131.5	23.4	15.45	5.75	20.4	5.24	33.1	2.51	69.8	15.2	18.8	3.36	2.24	139	16.3	502
MRAC1159	MRM009351	36	39	163.5	29.4	18.25	7.48	28.3	6.55	59.1	2.59	95.2	21.7	23.7	4.47	2.55	194	17.15	674
MRAC1159	MRM009352	39	41	136.5	34.2	22.9	7.36	31	8.13	56.1	3.58	90.9	19.6	22.3	4.96	3.36	254	22.8	718
MRAC1160	MRM009361	15	16	409	5.69	2.15	3.67	10.55	0.88	245	0.26	155.5	50.6	20.6	1.17	0.27	24.7	1.9	932
MRAC1161	MRM009368	12	15	406	7.04	2.11	6.71	14.9	0.99	734	0.3	336	123.5	34.9	1.55	0.29	19.5	1.52	1689
MRAC1161	MRM009369	15	18	381	7.91	3.16	5.61	13.95	1.28	310	0.33	196.5	62.9	26.9	1.73	0.4	27.5	2.35	1042
MRAC1161	MRM009370	18	21	232	8.68	3.63	6.44	17.05	1.43	187	0.37	216	57.5	34.1	1.94	0.43	32.9	2.53	802
MRAC1161	MRM009371	21	24	692	11.6	4.46	7.74	20.3	1.83	295	0.46	263	73.1	39.1	2.54	0.55	39.1	3.56	1454
MRAC1161	MRM009372	24	27	708	15.7	6.68	10.45	31	2.69	405	0.69	337	87.5	52.1	3.51	0.77	69.7	4.64	1735
MRAC1161	MRM009373	27	30	473	8.93	4.67	4.54	14.5	1.76	207	0.54	150.5	42	20.5	1.75	0.53	69	3.54	1003
MRAC1161	MRM009374	30	31	391	7.65	3.73	4.19	11.6	1.46	175.5	0.42	119	34.1	15.95	1.44	0.5	42.4	3.06	812
MRAC1161	MRM009375	31	32	632	10.5	5.01	5.96	15.85	1.98	292	0.58	197.5	57.9	24.5	1.93	0.71	57.3	4.06	1308
MRAC1162	MRM009382	18	21	675	26.6	13.6	11.8	39.4	4.92	385	1.56	383	103	62	5.17	1.7	141.5	10.8	1865
MRAC1162	MRM009383	21	24	497	49.6	28.4	20.2	69.8	9.92	548	3.25	577	143.5	98.2	9.09	3.51	319	22.1	2399
MRAC1162	MRM009384	24	26	641	113.5	71.1	35.4	149.5	24.5	881	8.74	906	211	156.5	19.85	8.96	866	55.4	4148
MRAC1162	MRM009385	26	27	634	16.1	7.99	7.47	24.2	3.03	432	0.98	262	77.7	35.3	2.94	1.2	87.7	6.26	1599
MRAC1162	MRM009386	27	30	587	17.1	8.49	8.06	25.8	3.27	297	0.9	244	64.9	36.6	3.11	1.16	98.2	6.62	1402
MRAC1162	MRM009387	30	33	421	12.15	5.73	6.38	19.55	2.21	228	0.63	196.5	52.1	29.6	2.3	0.76	67.6	4.39	1049
MRAC1162	MRM009388	33	36	352	8.82	4.01	5.57	15.45	1.56	245	0.39	182	49.9	25.5	1.77	0.51	46.5	2.8	942
MRAC1162	MRM009389	36	39	555	23.3	13.85	9.38	32.6	4.86	298	1.56	255	64.4	40.6	4.18	1.71	148.5	10.85	1464
MRAC1162	MRM009391	39	42	370	13.65	5.69	6.25	20.7	2.34	198.5	0.51	175	44.8	28	2.6	0.67	58.8	4.06	932
MRAC1162	MRM009392	42	45	681	23.9	12.05	10.15	35.9	4.7	337	1.32	282	72.9	45.2	4.51	1.66	143.5	9.06	1665
MRAC1162	MRM009393	45	48	722	19.2	8.5	9.59	33.6	3.63	344	0.73	297	77.3	43.8	3.9	1	110	5.36	1680
MRAC1162	MRM009394	48	51	803	18.4	7.62	9.34	34.2	3.14	375	0.61	332	83	51.7	3.9	0.83	95.1	4.82	1823
MRAC1162	MRM009395	51	52	729	16.6	6.36	8.42	29	2.82	360	0.47	281	75.6	41.9	3.19	0.73	76.2	3.77	1635

Table 4: Assay Results for Samples with Total Rare Earth Element (TREE) >500ppm.																			
Hole ID	Sample ID	From m	To m	Ce ppm	Dy ppm	Er ppm	Eu ppm	Gd ppm	Ho ppm	La ppm	Lu ppm	Nd ppm	Pr ppm	Sm ppm	Tb ppm	Tm ppm	Y ppm	Yb ppm	TREE ppm
MRAC1162	MRM009396	52	53	509	10.05	4.14	5.4	17.65	1.7	247	0.38	187	52	27.5	1.99	0.52	48.7	2.81	1116
MRAC1163	MRM009407	25	27	178.5	61.1	25.9	28.9	59	9.33	144.5	3.28	352	80.7	98.2	10.7	3.62	143	25.1	1224
MRAC1163	MRM009408	27	30	107.5	27	16.1	7.44	25.3	5.28	89.6	1.91	101	23.4	25.8	4.1	2.01	116.5	12.9	566
MRAC1163	MRM009409	30	33	122	27	16.4	7.67	30.6	5.86	136.5	1.68	128	28.9	24.8	4.09	2	196.5	11.1	743
MRAC1165	MRM009429	30	33	203	14	8.22	2.44	14.8	2.91	101.5	1.18	89.8	24	16.05	2.3	1.16	88.2	7.54	577
MRAC1165	MRM009431	33	34	177.5	12.4	7.9	2.28	13.3	2.66	92.1	1.16	79.9	21.6	14.55	2.17	1.07	80.6	6.89	516
MRAC1167	MRM009467	39	40	198.5	10.9	6.05	3.79	12.45	2.19	98.2	0.81	90	23.6	16.8	1.82	0.8	57.3	5.27	528
MRAC1168	MRM009488	53	54	257	13.3	6.79	3.99	16.05	2.7	136	0.88	134.5	35.1	23.1	2.39	1	68.2	6.7	708
MRAC1169	MRM009498	24	27	203	2.47	1.36	1.42	3.61	0.43	216	0.23	101.5	38.7	11.4	0.51	0.19	9.1	1.3	591
MRAC1169	MRM009500	27	30	566	7.77	3.2	3.52	12.05	1.32	544	0.32	217	74.8	23.5	1.44	0.45	31	2.68	1489
MRAC1169	MRM009501	30	31	465	7.05	3.31	2.48	9.35	1.2	230	0.37	129	40.5	16.85	1.22	0.49	32.1	2.68	942
MRAC1169	MRM009502	31	33	300	5.02	2.58	1.61	5.77	0.85	95.7	0.3	74.5	20.6	11.1	0.86	0.36	22.3	2.44	544

Appendix 2
JORC Code, 2012 Edition – Table 1 Report for the Mount Ridley Project
Section 1 Sampling Techniques and Data: Aircore Drilling
(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.	Mount Ridley Mines Limited (ASX: MRD) is reporting results carried out from Aircore (AC) drilling. Samples of drill chips were collected through a cyclone as 1m piles laid out consecutively on the ground then sampled as 1m or 3m composite spear samples.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	The bulk sample from the cyclone was placed into neat piles on the ground in rows of 10 samples where possible.
	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.	Aircore drilling to deliver 1m interval sample piles. Samples of between 1 metre and 3 composited metres taken for analysis. The size of the sample submitted to the laboratory was 2-4kg in weight, which was dried, pulverised, and packaged in a computer-coded packet. A sub-sample was analysed, and the coded packet then stored. Analyses reported herein by ALS Laboratory's ME-MS81, a lithium borate fusion with ICP-MS finish. Selected samples were also analysed by the ALS ME-ICP06 whole rock package.
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).	Aircore. A type of reverse circulation drilling using slim rods and a 100mm blade bit drilled to refusal (saprock to fresh rock).
Drill sample recovery	Method of recording and assessing core and chip sample recoveries and results assessed.	Recovery was visually assessed, recorded on drill logs, and considered to be acceptable within industry standards.
	Measures taken to maximise sample recovery and ensure representative nature of the samples.	The majority of sample were of good quality. Samples were visually checked for recovery, moisture, and contamination. A cyclone was

		used to deliver the sample into buckets.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Unknown at this stage.
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.	Geological logging was complete in full for every hole, this includes lithology, weathering, oxidation state, alteration, veining, mineralisation if present. Considered appropriate for this style of drilling and the stage of the project. All holes were chipped for the entire hole for a complete chip tray record.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.	Geological logging is inherently qualitative. More specific logging may be undertaken if chemical analyses warrant it.
	The total length and percentage of the relevant intersections logged.	All holes were logged for the entire length of the hole.
Sub-sampling techniques and sample preparation	If core, whether cut or sawn and whether quarter, half or all core taken.	Not applicable, no core drilling was complete.
	If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.	Original aircore samples were collected via a cyclone into a bucket and laid out in rows as single 1m piles. Im or up to 3m composite samples were 'speared' from the sample piles for an approximately 2.5 - 3.5kg sample.
	For all sample types, the nature, quality, and appropriateness of the sample preparation technique.	Sampling technique is appropriate for the drilling method and stage of the project.
	Quality control procedures adopted for all sub-sampling stages to maximize representivity of samples.	Duplicates and certified reference material (CRM) were routinely inserted within the sampling sequence approximately one in every thirty samples. CRM material was selected form a range of REE grade populations.
	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.	Field QAQC procedures included the insertion of field duplicates and CRM's at pre-specified intervals at the time of drilling. All duplicate samples were speared for single metre samples and composite sampling, the size/quantity of the samples were kept consistent (approx. 2 kg). This is considered fit for purpose at this stage of the project.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Sample size is considered appropriate for the grainsize of the sampled material and is considered industry standard.
Quality of assay data and	The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is	Analyses reported herein by ALS Laboratory's ME-MS81, a lithium borate fusion with ICP-MS finish.

laboratory tests	considered partial or total.	Selected samples were also analysed by the ALS ME-ICP06 whole rock package. A suite of 15 Rare Earth Elements was targeted, plus whole rock analysis to assist with identifying the underlying geological units. The analytical techniques were recommended by the Company's geochemical consultant, and nominated as appropriate by ALS.
	For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	None used, not applicable.
	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.	Standards and laboratory checks have been assessed and show results within acceptable limits of accuracy, with good precision in most cases. ALS analysed 6 different standards, which were predominantly 3rd party independently manufactured.
Verification of sampling and assaying	The verification of significant intersections by either independent or alternative company personnel.	Significant intersections are calculated by experienced geologists and verified by an independent consultant.
	The use of twinned holes.	None, not applicable.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	All collected data stored in a commercially managed database.
	Discuss any adjustment to assay data.	Raw assays are stored in the commercially managed database with elemental values calculated to oxide for 15 REE's see Section 2 – Data Aggregation Methods.
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.	Drill hole collar locations noted in Table 6 were surveyed using a hand-held GPS with +- 3m accuracy. No down-hole surveys were carried out, drillholes were also vertical. This is considered satisfactory for the stage of the project.
	Specification of the grid system used.	GDA94-51
	Quality and adequacy of topographic control.	RL's estimated from a digital elevation model with points gained as a component of an aeromagnetic survey. The datum may have some error, but RL of holes should be relative to each other and fit for purpose on a hole to hole basis.
Data spacing and distribution	Data spacing for reporting of Exploration Results.	Variable, generally 400 x 200m within prospects. Occasional infills 200m x 200m, and additional regional traverses with drillholes spaced 400m apart on a network of exploration tracks of various

		orientations.
	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.	There is insufficient data collected for a Mineral Resource Estimate.
	Whether sample compositing has been applied.	Both 1m intervals and 3m composites analysed.
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.	Not determined yet. Likely unbiased as vertical holes are sampling a horizontal mineralised feature.
	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.	Unlikely to be biased as the mineralisation is represented as flat lying lenses and the drilling orientation is perpendicular to mineralisation.
Sample security	The measures taken to ensure sample security.	Standard industry practice is used when collecting, transporting, and storing samples for analysis. Calico samples are sealed into poly weave bags, labelled and cable tied. These are then sealed in labelled bulka bags and transported to the laboratory in Perth by established freight companies. Chain of custody is known at all stages of the process. Drilling pulps are retained and stored off site in a designated storage facility.
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	Sampling techniques are consistent with industry standards. A third-party geochemical specialist is reviewing the data. Drilling results and geological logging are also cross checked by project geologists.

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.	Tenements E 63/1547, E 63/1564, E 63/1564, E 63/1564, E 63/1564, E 63/1617, E 63/2111, E 63/2112, E 63/2113, E 63/2114, E 63/2117 and E 63/2125 located from 35km northwest of Esperance, Western Australia. Registered Holder is Mount Ridley Mines Limited (Company) (100%). Odette One Pty Ltd has a 15% free-carried beneficial interest in E 63/2117. The Project is subject to a Full Determination of Native Title: which is held by the Esperance Nyungars NNTT Number: WC2004/010, Federal Court Number: WAD28/2019.
	The security of the tenure held at the time of reporting along with any known impediments to obtaining a license to operate in the area.	The tenements are in good standing, and there are no impediments to operating in the targeted areas other than requirements of the DMIRS, DBCA and Heritage Protection Agreements, all of which are industry-standard.
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	Many parties, including Government organisations, private and public companies, have explored the area. A substantial compilation of work prior to Mount Ridley was by Bishop who was the first to research and champion the potential of Grass Patch, interpreted as a large, crudely layered, amphibolite-gabbro complex beneath shallow cover sediments. The mafic complex is considered to have the potential to host nickel-copper sulphide deposits and PGE deposits. completed detailed litho-geochemistry interpretation from 'best available' end of hole assays, development of a geological map based on this information. Additional drilling tested the models but didn't return assays of commercial consequence. Mount Ridley has completed a large complement of geophysical surveys and drilling, aimed at nickel sulphides and gold. The

<table>
<tr><td></td><td></td><td>samples reported herein were generated during the search for nickel sulphides.
Nearby, Salazar Gold Pty Ltd were the first company to search for REE in the Great Southern, identifying the Splinter REE deposit. Work started in 2010 and continues now.</td></tr>
<tr><td>Geology</td><td>Deposit type, geological setting, and style of mineralisation.</td><td>Clay-hosted rare earth deposit.</td></tr>
<tr><td>Drill hole Information</td><td>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.</td><td>All relevant data for the drilling conducted is tabulated in Appendix 1 of this announcement.
It should be noted that RL is estimated from a digital elevation model gained during an aeromagnetic survey.</td></tr>
<tr><td>Data aggregation methods</td><td>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.
Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.
The assumptions used for any reporting of metal equivalent values should be clearly stated.</td><td>Assay results not reported. Significant intersections are calculated using a minimum 1m thickness, minimum 300ppm TREO cut-off, maximum internal dilution of 3m, no external dilution.
No metal equivalent values have been used.
Conversions from elements to oxides:
<table>
<tr><td>Ce_ppm</td><td>1.2284</td><td>CeO2_ppm</td></tr>
<tr><td>Dy_ppm</td><td>1.1477</td><td>Dy2O3_ppm</td></tr>
<tr><td>Er_ppm</td><td>1.1435</td><td>Er2O3_ppm</td></tr>
<tr><td>Eu_ppm</td><td>1.1579</td><td>Eu2O3_ppm</td></tr>
<tr><td>Gd_ppm</td><td>1.1526</td><td>Gd2O3_ppm</td></tr>
<tr><td>Ho_ppm</td><td>1.1455</td><td>Ho2O3_ppm</td></tr>
<tr><td>La_ppm</td><td>1.1728</td><td>La2O3_ppm</td></tr>
<tr><td>Lu_ppm</td><td>1.1372</td><td>Lu2O3_ppm</td></tr>
<tr><td>Nd_ppm</td><td>1.1664</td><td>Nd2O3_ppm</td></tr>
<tr><td>Pr_ppm</td><td>1.2082</td><td>Pr6O11_ppm</td></tr>
</table></td></tr>
</table>

		Sm_ppm 1.1596 Sm2O3_ppm Tb_ppm 1.1762 Tb4O7_ppm Tm_ppm 1.1421 Tm2O3_ppm Y_ppm 1.2695 Y2O3_ppm Yb_ppm 1.1387 Yb2O3_ppm Source: Element-to-stoichiometric oxide conversion factors – JCU Australia. TREO: the sum of Sm_2O_3, Dy_2O_3, Er_2O_3, Eu_2O_3, Gd_2O_3, Ho_2O_3, Lu_2O_3, Tb_4O_7, Tm_2O_3, Y_2O_3, Yb_2O_3, Ce_2O_3, La_2O_3, Nd_2O_3, and Pr_2O_3. HREO: the sum of Sm_2O_3, Dy_2O_3, Er_2O_3, Eu_2O_3, Gd_2O_3, Ho_2O_3, Lu_2O_3, Tb_4O_7, Tm_2O_3, Y_2O_3, and Yb_2O_3. LREO: the sum of Ce_2O_3, La_2O_3, Nd_2O_3, and Pr_2O_3. CREO: the sum of Dy_2O_3, Eu_2O_3, Nd_2O_3, Tb_4O_7, and Y_2O_3. MREO: the the sum of Dy2O3, Nd2O3, Dy2O3 and Tb4O7.
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').	The interdependence of mineralisation width and length has not been established. To date the targeted mineralisation seems to be a flat-lying sheet, so vertical drilling suggests true width is similar to downhole width. The sheet margins have not been determined.
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 maps, tables and figures in this report.
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.	Selected composite sapmles reported in Table 1. Assay results as received (except TREO, which is calculated) where TREO > 500ppm, are reported in Table 5.
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	All new, meaningful, and material exploration data has been reported.

	results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	
Further work	The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).	Analysis of additional samples is progressing and will be reported when received. Metallurgical testwork has commenced and will be ongoing. 3D geological modelling and mineralisation studies are being carried out. Additional drilling is planned.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	