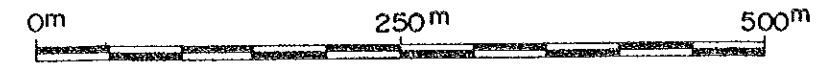
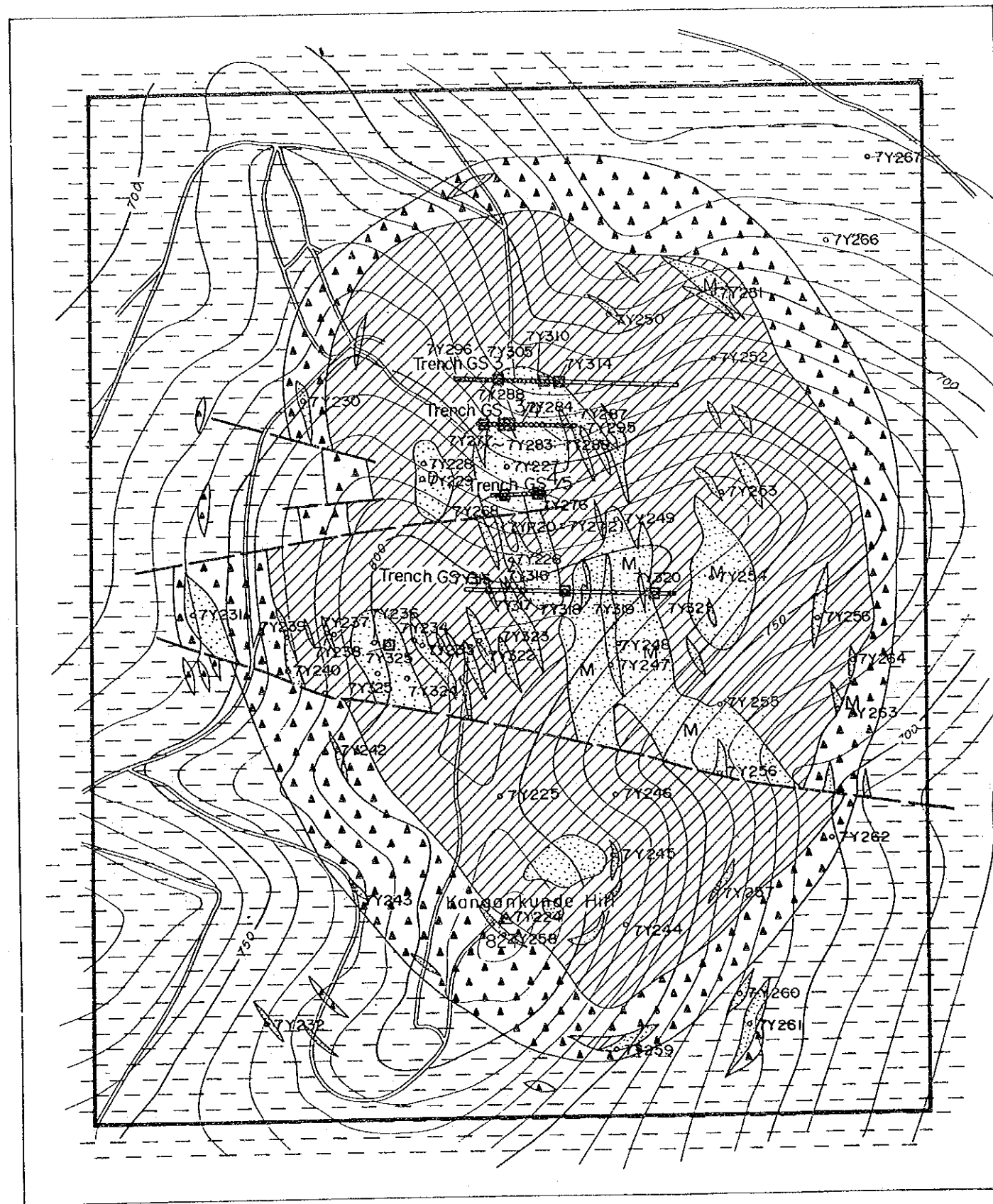


### 3-4 Discussion

From the results of geological, geochemical, drilling and previous surveys done by the Geological Survey Department, the following facts on Kangankunde Hill have been established:

1. Carbonatites are distributed mainly in Kangankunde Hill. small outcrops of carbonatites are found to the south and north of Kangankunde Hill.
2. Constituent rocks are almost the same as those of Tundulu and Songwe sectors except the absence of nepheline syenite.
3. Geochemical survey suggests that REE and phosphorus mineralized zones are concentrated on the northern and western slopes of Kangankunde Hill.
4. REE patterns of carbonatites in this sector have tendency to decrease from La to Tb (Fig. 10).
5. In Kangankunde Hill, drilling, trench survey and underground survey have been conducted by Geological Survey of Malawi and private enterprises, especially in the area where the anomalous values are known to be concentrated. Holt (1965) reported that considerable REE reserves of 324,500t, in which monazite and strontianite had grade of 5.58% and 17.9% respectively, were concentrated to the depth of 33m.



Scale 1 : 5,000

### LEGEND



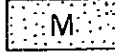

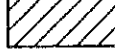
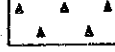
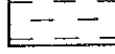

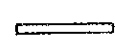
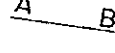
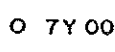
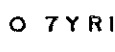
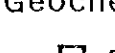

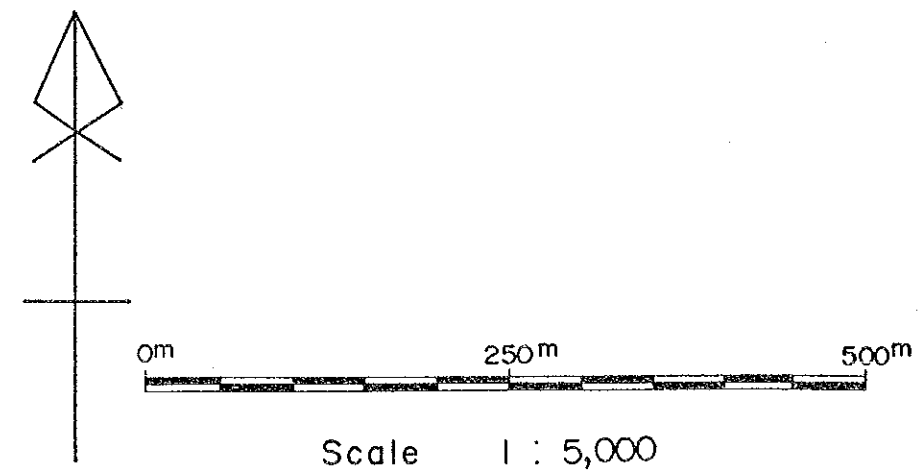
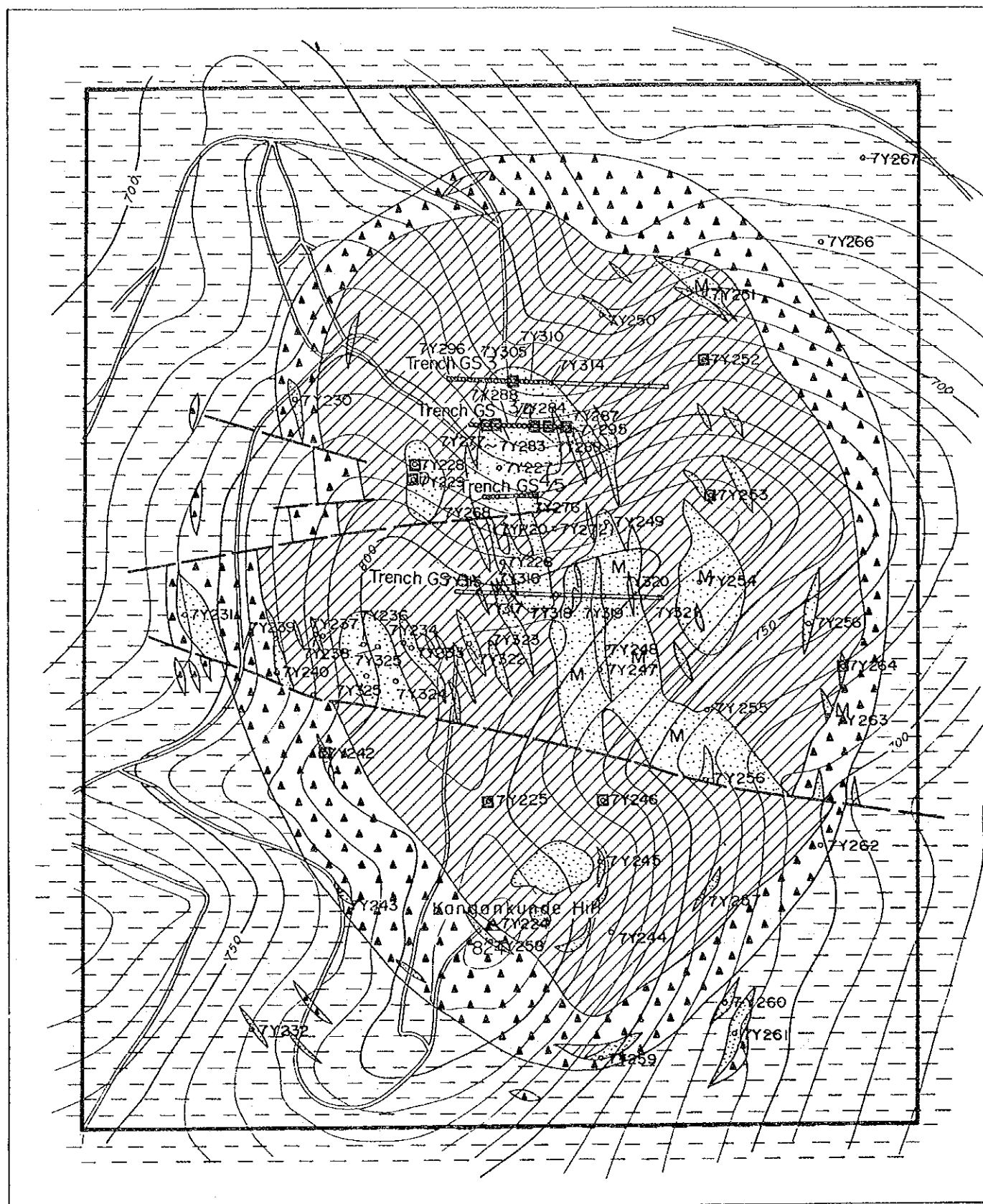
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-  Carbonatite
-  Manganiferous carbonatite
-  Dolomitic carbonatite
-  Carbonatized feldspathic rock / agglomerate
-  Agglomerate / feldspathic rock
-  Fenitized syenite / gneiss
-  Fault
-  Trench (1987)
-  Profile line
-  7Y001 Geochemical sample
-  7YR1 Rock sample
-  Geochemical anomaly
-  REO > 31958ppm

Fig.17-1 Distribution map of geochemical anomalies, Kangankunde (REO)



LEGEND

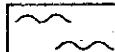
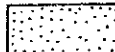
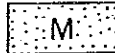


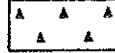
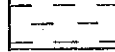

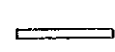
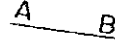
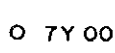
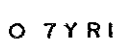
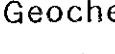

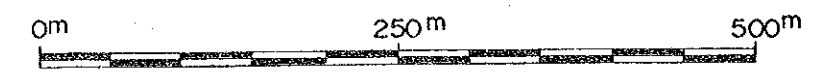
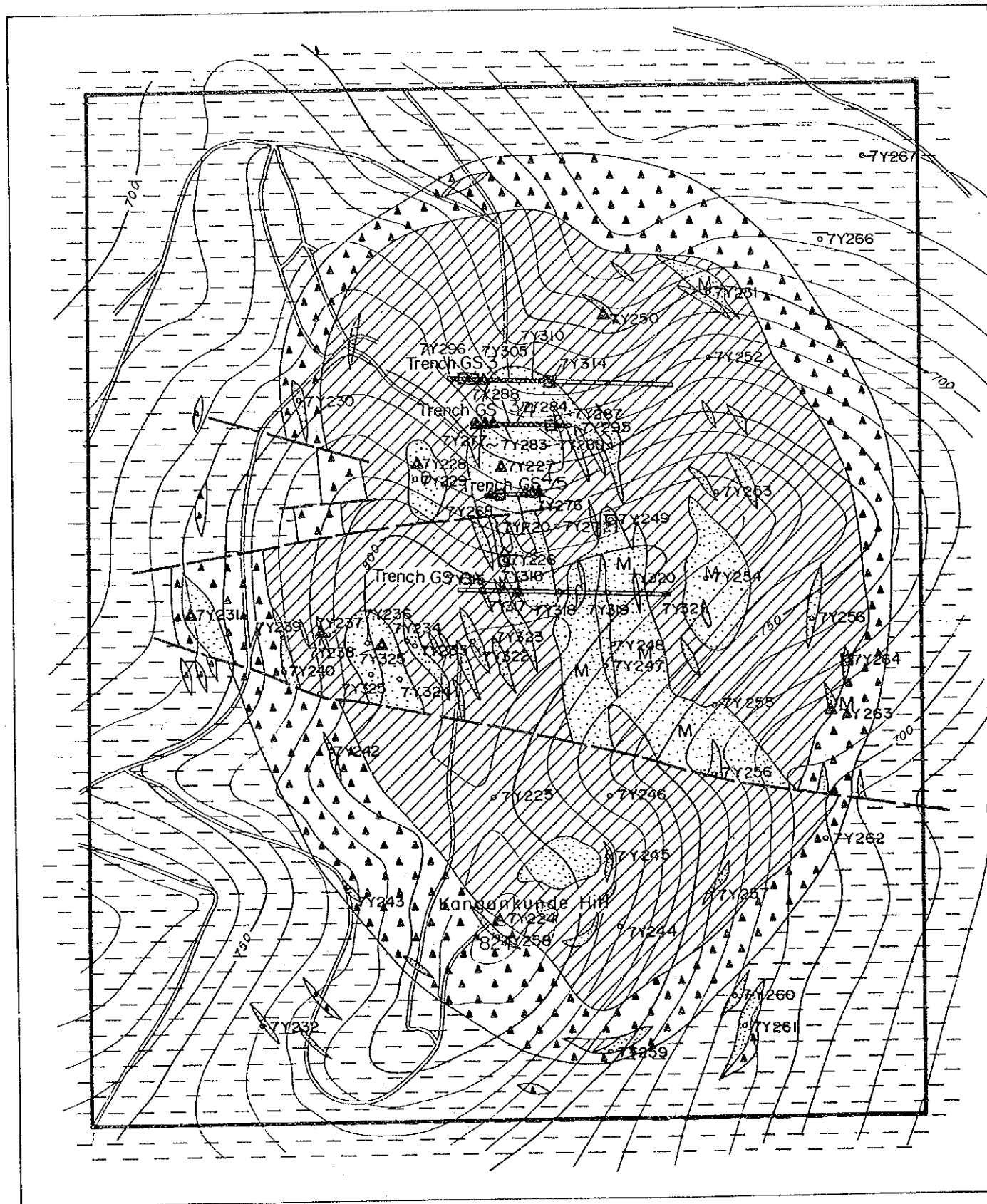
-  Drift
-  Carbonatite
-  Manganiferous carbonatite
-  Dolomitic carbonatite
-  Carbonatized feldspathic rock / agglomerate
-  Agglomerate / feldspathic rock
-  Fenitized syenite / gneiss
-  Fault
-  Trench (1987)
-  Profile line
-  7Y 001 Geochemical sample
-  7Y R1 Rock sample
-  Geochemical anomaly
-  P > 26058ppm

Fig.17-2 Distribution map of geochemical anomalies, Kangankunde ( P )



Scale 1 : 5,000

### LEGEND

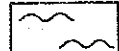
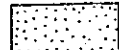
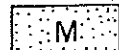
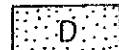
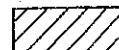

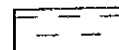







-  Drift
-  Carbonatite
-  Manganiferous carbonatite
-  Dolomitic carbonatite
-  Carbonatized feldspathic rock / agglomerate
-  Agglomerate / feldspathic rock
-  Fenitized syenite / gneiss
-  Fault
-  Trench (1987)
-  Profile line
-  7Y001 Geochemical sample
-  7YR1 Rock sample
-  Geochemical anomaly  
Nb > 976 ppm
-  Sr > 97833 ppm

Fig.17-3 Distribution map of geochemical anomalies, Kangankunde (Nb, Sr)



Tab. 18 Mineral resources related carbonatite/alkaline complexes

Name of Complex	Lithology	Type of Carbonatite	Age(Ma)	Mineralization Reserve(mil. t)	Ore Grade(%)
Araxa(Brazil)	glimmerite, phoscorite	beforsite sovite	91	niobium 462 phosphate 460 rare earth 463	2.48 Nb <sub>2</sub> O <sub>5</sub> 15.01 P <sub>2</sub> O <sub>5</sub> 20.67 BaSO <sub>4</sub>
Tapira(Brazil)	pyroxenite, peridotite, uncompahgrite, syenite	sovite	70	phosphate 921 titanium 95 niobium 166	8.32 P <sub>2</sub> O <sub>5</sub> 17.68 TiO <sub>2</sub> 1.18 Nb <sub>2</sub> O <sub>5</sub>
Catalao(Brazil)	peridotite, pyroxenite, glimmerite, phoscorite	beforsite	83	phosphate 306 niobium 19 titanium 6 rare earth 2	7.96 P <sub>2</sub> O <sub>5</sub> 1.08 Nb <sub>2</sub> O <sub>5</sub> 19.90 TiO <sub>2</sub> 12.20 RE <sub>2</sub> O <sub>3</sub>
Jacupiranga (Brazil)	peridotite, jacupiran- gite, ijolite, nephe- line syenite	sovite beforsite	130	phosphate 89 nickel 3	6.15 P <sub>2</sub> O <sub>5</sub> 1.39 Ni
Ipanema(Brazil)	glimmerite, pyroxenite, pulaskite, nordmarkite	sovite	123	phosphate 117	6.73 P <sub>2</sub> O <sub>5</sub>
Anitapolis (Brazil)	pyroxenite, urtite, ijolite, melteigite, glimmerite, syenite	sovite	129	phosphate; residual 53 primary 206	8.20 P <sub>2</sub> O <sub>5</sub> 4.00 P <sub>2</sub> O <sub>5</sub>
Oka(Canada)	melteijite, ijolite, urtite, okaite	sovite	122	niobium 122 rare earth 122	0.45 Nb <sub>2</sub> O <sub>5</sub> 0.2 RE <sub>2</sub> O <sub>3</sub>
Mountain Pass (USA)	shonkinite, syenite	calcitic, ankeritic & dolomitic carbonatite	1400	rare earth 5 mill t (RE <sub>2</sub> O <sub>3</sub> )	
Amba Dongar (India)	nephelinite, phonolite	ankeritic carbonatite, sovite dyke	37.5-76	fluorine 116 rare earth	30.0 CaF <sub>2</sub> 3 RE <sub>2</sub> O <sub>3</sub>
Bayan Obo (China)	alkali gabbro, trachyte	dolomitic carbonatite	1400	iron 1150 rare earth 35 niobium 0.78	iron ore RE <sub>2</sub> O <sub>3</sub> ore Nb <sub>2</sub> O <sub>5</sub>
Palabora (Rep.S.Africa)	pyroxenite, phoscorite	sovite	2060	copper 315 uranium zirconium -	0.69 Cu 0.15 ZrO <sub>2</sub>
Sukulu(Uganda)	ijolite, nepheline syenite	carbonatite	24-26	phosphorus 200 niobium 130	13.0 P <sub>2</sub> O <sub>5</sub> 0.25 Nb <sub>2</sub> O <sub>5</sub>
Khibiny(USSR)	ijolite, melteigite, neph. syenite, urtite	-	up.Carb.- low.Perm.	phosphorus 2700 with REE	18.0 P <sub>2</sub> O <sub>5</sub>
Kovdor(USSR)	nepheline pyroxenite, ijolite, melteigite, olivinite, phoscorite	small carbonatite vein	370	iron, phospho- 708 rus, zirconium	50 T.Fe 6.6 P <sub>2</sub> O <sub>5</sub>
Synnyr(USSR)	-	-	-	phosphorus 500 with REE	4.0-4.5 P <sub>2</sub> O <sub>5</sub>
Siilinjarvi (Finland)	glimmerite, phoscolite	sovite	1785-2530	phosphorus 465	4.0 P <sub>2</sub> O <sub>5</sub>

(after GSJ and DNEP, 1987)



## Chapter 4 General discussion

Results of geochemical and core samples from Tundulu, Songwe and Kangankunde sectors are listed in Tab. 17.

Tab. 17 Comparison of assay result

Sample Sector (mineral)	Mean of Geochemical samples						Core samples					
	REO	Light REO	Medium REO	P <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	SrCO <sub>3</sub>	REO	Light REO	Medium REO	P <sub>2</sub> O <sub>5</sub>	Nb <sub>2</sub> O <sub>5</sub>	SrCO <sub>3</sub>
Tundulu (Bastnaesite Synchysite Pyrochlore Apatite)	6,080	5,444	306	14,252	262	7,836	36,791	36,281	509	6,593	883	63,201
JMT-22(41.1m)												
Songwe (Bastnaesite Synchysite Pyrochlore Apatite)	8,679	7,815	573	7,661	850	7,045	21,004	19,548	1,456	18,030	2,141	17,307
JMS-4(15.2m+α)												
Kangankunde (Monazite Strontianite Apatite)	8,989	8,693	144	27,760	216	62,353	Light REE...La, Ce, Nd Medium REE...Sm, Eu, Tb, Y					

Reserves and content of major carbonatite deposits in the world are listed in Tab. 18 as a reference.

REO content in Kangankunde sector is highest among the three sectors. This is caused by high content of light REE (La, Ce and Nd). Medium REE (Sm, Eu, Tb and Y) content in Songwe sector is double that of Tundulu sector and quadruple that of Kangankunde sector.

REO content in core samples from Tundulu sector is 1.5 times higher than that from Songwe sector. It is caused by high content of light REE in Tundulu sector. Medium REE content in Songwe sector is about triple that of Tundulu sector.

REE content of core samples from mineralized zone is 1.8 times higher in Tundulu sector and about the same in Songwe sector compared with that of Mountain Pass Mine, USA, which produces bastnaesite. Rear earth pattern (Fig. 10) shows that medium REE content in Songwe sector is higher than those in Tundulu and Kangankunde sectors and Mountain Pass Mine. Phosphorus content is arranged in descending order Kangankunde sector, Tundulu sector and Songwe sector. In Kangankunde sector, carbonatite from the north slope of Kangankunde Hill has higher



phosphorus content in mainly monazite and apatite. In Tundulu sector, phosphorus content in apatite rock and carbonatite in the eastern slope of Nathace Hill is high. Phosphorus contents of core samples between 3.4m and 17.8m from JMT-7 is 7.3% (16.7% in  $P_2O_5$  equivalent). Its phosphorus content is about the same as those from Araxa, Brazil (15%) and from Sukulu, Uganda (13%).

Recently REE consumption decreased after 1983. But consumption of highly purified REE has increased. Light REE, such as lanthanum oxide and cerium oxide, is over supplied but medium REE, such as samarium oxide and europium oxide is rather under supplied.

## **PART III CONCLUSION AND RECOMMENDATION**



## Chapter 1 Conclusion

During the second phase, geological and geochemical surveys and drilling have been done in Tundulu and Songwe sectors, geological and geochemical surveys in Kangankunde sector.

The following are the results of the surveys.

### (1) Tundulu Sector

#### Geological Survey

Main bodies of carbonatites are distributed in Tundulu and Nathace Hills.

In Tundulu Hill, sövitic carbonatite is predominant, while in Nathace Hill ankeritic and sideritic carbonatites are widely developed, associated with apatite rock.

Main useful minerals in this sector are bastnaesite, synchysite, monazite, strontianite, apatite and pyrochlore.

#### Geochemical Survey

Anomalous values of elements such as La, Ce, Nd, Sm, Eu, Tb, Nb, Sr, Y and P are concentrated in Nathare Hill. In Tundulu Hill, however, no anomalous value is found.

#### Drilling survey

REE mineralized zones, defined as having over 1.0% REO content have been recognized at JMT-7, 14, 15, 16, 17, 18, 20, 21, 22, 23 and 24. The largest body is recognized at JMT-22 where the thickness is 41.1 m and REO content is 3.68%. As phosphorus mineralized zone, defined as having over 2.2% P content and over 2.0m of thickness, a zone with 14.8m of thickness and 7.3% P contents (16.7%  $P_2O_5$  equivalent) are recognized at JMT-7.

As a result of these surveys, it is inferred that Nathace Hill, especially its eastern part, has the highest potential in this sector for REE and phosphorus resources.

(2) Songwe Sector

Geological Survey

Main bodies of carbonatites are distributed in Songwe Hill. They are composed mainly of sövitic and ankeritic. Main useful minerals are bastnaesite, synchysite, strontianite and apatite.

Geochemical survey

Anomalous values of REE are concentrated around JMS-4 and 5 of the northern slope of Songwe Hill.

Drilling survey

REE mineralized zones have been recognized at JMS-1, 2, 3, 4, 5, 6, 7, 9 and 10. The largest one is recognized at JMS-4 where the thickness is 15.2m and REO content is 2.10%. The zone in this sector is characterized by higher contents of Sm and Eu, each value of which is 300-600 ppm and 60-160 ppm respectively.

From the results of the survey, it is inferred that mineralized zones with comparatively high contents of Sm and Eu are recognized on the northern slope of Songwe Hill. The carbonatite body on the slope (lower than 850m asl) has the highest potential for REE resources.

(3) Kangankunde sector

Geological survey

In this sector, carbonatites rich in monazite, strontianite and apatite are developed.

They are composed mainly of ankeritic and dolomitic with lesser amount of manganese one.

The former two are distributed mainly on the northern and western slopes of Kangankunde Hill.

Geochemical survey

The carbonatites of ankeritic and dolomitic mentioned above show anomalous values of REE, Nb, Sr and P.

From the results of surveys and previous works, it is inferred that there exist mineralized zones characterized by abundance of monazite, strontianite and apatite on the northern and western slopes of Kangankunde Hill. In this hill, the slopes have the highest potential for REE and phosphorus resources.

Among the three sectors, potential of carbonatite ore deposits is in REE and phosphorus of eastern slope of Nathace Hill in Tundulu sector, in REE with high medium REE content of the slope of Songwe Hill (below 850m asl) in Songwe sector and in carbonatite body with REE and phosphorus in Kangankunde sector.

## Chapter 2 Recommendation for third phase survey

Integrated interpretation of the results of the second phase survey and the first phase survey recommends the follows to evaluate potential of REE resources and phosphorus resources in the survey sector.

The similar survey as second phase survey, which comprises geological, geochemical and drilling surveys, shall be carried out in Chilwa Island sector which was chosen as a highly potential area for carbonatite deposits by the first phase survey, together with Tundulu, Songwe and Kangankunde.

Detailed geological survey and drilling survey shall be carried out to define extent and grade of ore deposits in Nathace Hill of Tundulu sector and Songwe sector where REE mineralization and phosphorus mineralization were detected by the second phase survey.

Kangankunde sector is excluded from the third phase survey. Because BRGM of France has been given a licence for exclusive prospecting right in the sector.

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## Appendices



## Appendix 1

### Assay results (Geochemical samples)

#### Abbreviation

	OCC
Area	1 : massive 2 : sheet
S : Songwe	3 : dyke 4 : agglomerate
T : Tundulu	5 : breccia
K : Kangankunde	
	REO
Rock	$La_2O_3 + CeO_2 + Nd_2O_3 + Sm_2O_3$
10 : carbonatite	$+ Eu_2O_3 + Tb_2O_3 + Y_2O_3$
20 : others (Alkaline rock)	Units
30 : others	ppm



NO	AREA	ROCK	ALT	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
7Y	1	S	1	4602.0	7470.0	1844.0	294.70	73.70	27.10	1643.0	3128.0	407.0	4922.0	17696.7
7Y	1	1	1	1809.0	4484.0	2091.0	350.20	92.00	28.80	150.0	2544.0	501.0	2305.0	11248.6
7Y	2	S	3	1327.0	3021.0	1361.0	265.30	64.20	8.05	138.0	1144.0	185.0	1345.0	7470.4
7Y	3	S	11	10374.0	13973.0	2880.0	472.40	112.70	13.10	116.0	4640.0	459.0	9059.0	33962.1
7Y	5	S	11	2749.0	6068.0	2414.0	385.00	96.70	26.10	251.0	2461.0	401.0	3840.0	14588.7
7Y	6	S	11	2697.0	4856.0	1574.0	228.40	55.50	11.70	59.0	4194.0	261.0	3102.0	11636.2
7Y	7	S	11	2593.0	4519.0	1437.0	243.40	65.00	46.20	534.0	2170.0	360.0	8227.0	11134.5
7Y	8	S	16	166.0	209.0	2.5	9.80	.05	.05	642.0	1079.0	24.0	972.0	496.2
7Y	9	S	11	2316.0	5215.0	2179.0	389.10	101.10	29.70	520.0	2966.0	619.0	3777.0	13038.7
7Y	10	S	11	3052.0	6833.0	2938.0	476.20	111.40	9.50	700.0	11459.0	467.0	2806.0	16682.0
7Y	11	S	16	289.0	487.0	117.0	19.10	1.20	.05	241.0	3172.0	28.0	2528.0	1109.2
7Y	12	S	11	1462.0	3478.0	1464.0	291.50	104.20	26.40	603.0	9735.0	382.0	822.0	8667.3
7Y	13	S	10	2430.0	5409.0	2218.0	365.50	88.00	17.30	1533.0	13758.0	490.0	4144.0	13246.9
7Y	14	S	30	204.0	386.0	107.0	25.10	9.30	28.20	111.0	2357.0	105.0	14269.0	1043.8
7Y	15	S	11	1805.0	4173.0	1724.0	298.90	83.00	23.20	723.0	12789.0	391.0	1447.0	10218.0
7Y	16	S	11	2088.0	4763.0	2138.0	397.40	99.80	15.30	197.0	9224.0	308.0	657.0	11788.1
7Y	17	S	11	1510.0	3102.0	1055.0	167.40	47.40	13.00	2331.0	1074.0	288.0	366.0	7440.4
7Y	18	S	11	2117.0	3245.0	826.0	155.60	46.70	14.80	78.0	8593.0	239.0	104.0	7988.4
7Y	19	S	20	417.0	767.0	307.0	91.10	24.80	11.50	539.0	505.0	177.0	3066.0	2161.4
7Y	20	S	5	1570.0	2722.0	913.0	185.90	43.70	17.40	276.0	467.0	204.0	489.0	6794.1
7Y	21	S	20	1579.0	924.0	460.0	125.50	34.30	3.90	570.0	986.0	102.0	1439.0	2669.5
7Y	22	S	13	2594.0	6127.0	2346.0	424.10	94.20	29.50	458.0	1251.0	222.0	5724.0	14219.1
7Y	23	S	13	3274.0	6994.0	2749.0	487.80	100.10	22.60	1257.0	3723.0	305.0	6675.0	16729.5
7Y	24	S	13	2004.0	4200.0	1190.0	269.90	71.70	34.10	312.0	4047.0	629.0	13588.0	10130.0
7Y	25	S	20	150.0	249.0	50.0	9.10	3.00	.03	551.0	1032.0	118.0	4672.0	704.0
7Y	26	S	14	1357.0	2686.0	904.0	145.10	35.30	9.70	56.0	1422.0	129.0	594.0	6340.7
7Y	27	S	20	1985.0	3601.0	1157.0	188.90	37.20	8.80	261.0	4626.0	238.0	6689.0	8674.1
7Y	28	S	30	111.0	230.0	57.0	9.30	3.50	.05	287.0	584.0	87.0	1013.0	604.5
7Y	29	S	20	33.0	53.0	15.0	4.20	1.80	.05	136.0	1746.0	11.0	236.0	142.3
7Y	30	S	1	144.0	186.0	2.5	9.70	3.30	.05	340.0	513.0	33.0	1158.0	457.3
7Y	31	S	11	811.0	1713.0	652.0	68.80	21.00	14.20	726.0	1384.0	104.0	1206.0	4067.6
7Y	32	S	11	277.0	657.0	228.0	15.50	8.10	15.70	385.0	1167.0	20.0	1307.0	1468.4
7Y	33	S	11	1560.0	4143.0	1457.0	222.80	65.70	33.40	652.0	2098.0	384.0	13260.0	9477.0
7Y	34	S	11	312.0	664.0	287.0	22.30	10.30	32.80	780.0	1903.0	46.0	1753.0	1650.0
7Y	35	S	11	1780.0	4055.0	1348.0	179.00	56.50	25.40	254.0	2345.0	291.0	1678.0	9311.1
7Y	36	S	13	505.0	447.0	144.0	9.90	7.20	20.30	1041.0	1913.0	42.0	6501.0	1406.7
7Y	37	S	13	169.0	366.0	136.0	1.90	5.40	27.60	168.0	5025.0	19.0	1133.0	870.6
7Y	38	S	13	1816.0	4056.0	1503.0	225.00	57.20	28.10	1269.0	2449.0	263.0	642.0	9557.0
7Y	39	S	13	1735.0	3914.0	2285.0	273.20	83.60	29.80	486.0	2717.0	594.0	6917.0	10684.9
7Y	40	S	13	1270.0	2933.0	1543.0	174.00	47.20	13.00	2054.0	3205.0	186.0	859.0	7398.3
7Y	41	S	20	1523.0	2819.0	1408.0	174.90	45.80	14.10	436.0	402.0	105.0	314.0	7293.1
7Y	42	S	11	392.0	837.0	238.0	15.80	11.90	26.80	203.0	9907.0	77.0	1865.0	1925.9
7Y	43	S	11	232.0	526.0	205.0	16.20	13.20	36.60	49.0	2341.0	127.0	6883.0	1393.4
7Y	44	S	20	1284.0	2054.0	1038.0	172.10	42.00	18.00	448.0	1886.0	394.0	8567.0	5996.3
7Y	45	S	20	466.0	956.0	392.0	107.90	45.30	48.70	403.0	2493.0	490.0	19108.0	3033.6
7Y	46	S	20	4255.0	2615.0	820.0	155.30	36.40	18.10	740.0	864.0	141.0	2372.0	6061.7
7Y	47	S	11	4801.0	7078.0	2294.0	203.70	47.20	16.90	245.0	1555.0	49.0	181.0	17370.8
7Y	48	S	11	4450.0	7662.0	3652.0	415.50	109.30	42.10	1124.0	9113.0	771.0	50399.0	20523.2
7Y	49	S	11	2245.0	4484.0	2476.0	255.00	66.80	25.10	2076.0	1807.0	210.0	4131.0	11695.3
7Y	50	S	11	103.0	162.0	44.0	.05	3.70	20.10	2657.0	2622.0	10.0	13989.0	411.2



NO	AREA	ROCK	CCC	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
7Y	51	S	11	680.0	1435.0	698.0	61.70	21.70	48.80	2215.0	2246.0	135.0	12480.0	3698.0
7Y	52	S	11	376.0	1084.0	455.0	33.10	16.30	21.10	420.0	5422.0	61.0	3167.0	2461.8
7Y	53	S	11	1323.0	2664.0	1629.0	182.10	47.30	49.40	723.0	7957.0	197.0	2628.0	7272.5
7Y	54	S	11	1530.0	3000.0	1591.0	110.90	34.80	45.00	971.0	15255.0	176.0	1475.0	7778.1
7Y	55	S	11	2201.0	4620.0	2465.0	233.50	70.50	30.20	1189.0	1980.0	225.0	199.0	11802.3
7Y	56	S	11	221.0	459.0	223.0	1.20	5.30	6.20	1520.0	12547.0	26.0	895.0	1130.6
7Y	57	S	11	688.0	1346.0	437.0	94.00	24.30	7.30	1792.0	623.0	148.0	1597.0	3303.0
7Y	58	S	20	759.0	1501.0	449.0	97.40	33.00	52.70	892.0	712.0	202.0	9159.0	3725.5
7Y	59	S	20	1403.0	1146.0	1019.0	187.40	46.00	33.50	1042.0	1101.0	332.0	4188.0	4937.2
7Y	60	S	20	298.0	595.0	207.0	32.20	11.20	8.40	1713.0	775.0	88.0	11041.0	1494.5
7Y	61	S	20	490.0	829.0	328.0	61.90	15.50	5.90	1285.0	319.0	90.0	2372.0	2186.1
7Y	62	S	20	276.0	876.0	198.0	41.70	11.00	5.40	835.0	200.0	45.0	1080.0	1754.8
7Y	63	S	20	1380.0	2980.0	1107.0	221.30	59.10	35.50	724.0	788.0	243.0	3785.0	7243.6
7Y	64	S	20	1388.0	2710.0	1123.0	274.80	77.60	81.90	730.0	4098.0	648.0	15490.0	7591.3
7Y	65	S	20	1192.0	2455.0	757.0	170.90	37.10	38.50	1033.0	634.0	69.0	1019.0	5668.8
7Y	66	S	20	5088.0	10918.0	3023.0	455.50	97.20	110.70	511.0	4500.0	1316.0	22483.0	25340.0
7Y	67	S	20	616.0	384.0	320.0	39.50	11.40	1.10	796.0	298.0	78.0	298.0	1726.6
7Y	68	S	20	395.0	1664.0	231.0	47.00	9.50	28.10	697.0	400.0	36.0	904.0	2919.7
7Y	69	S	20	1093.0	919.0	426.0	90.00	27.30	10.70	737.0	321.0	119.0	1258.0	3206.8
7Y	70	S	20	574.0	630.0	281.0	56.90	19.80	8.40	892.0	816.0	129.0	4884.0	2037.0
7Y	71	S	11	2755.0	4913.0	1883.0	308.90	65.90	45.40	349.0	7080.0	96.0	2888.0	12069.2
7Y	72	S	11	3356.0	5369.0	1246.0	195.00	50.00	49.20	1046.0	11801.0	305.0	3088.0	12710.6
7Y	73	S	11	1351.0	2304.0	573.0	97.70	30.80	25.60	681.0	3384.0	395.0	12966.0	5762.3
7Y	74	S	11	3172.0	6468.0	2358.0	682.90	194.20	97.40	950.0	3428.0	825.0	18478.0	16589.8
7Y	75	S	11	2985.0	7279.0	3042.0	601.60	194.40	71.30	271.0	4720.0	503.0	1026.0	17630.8
7Y	76	S	13	3098.0	7801.0	3723.0	822.00	235.40	81.10	45.0	2895.0	631.0	3952.0	19675.4
7Y	77	S	13	2644.0	5899.0	2174.0	344.00	90.60	52.10	1252.0	9442.0	536.0	6449.0	14124.9
7Y	78	S	13	7738.0	10436.0	1851.0	248.10	54.00	28.90	1173.0	23146.0	172.0	80.0	24652.4
7Y	79	S	14	937.0	2077.0	766.0	191.10	66.10	99.40	1500.0	2066.0	776.0	14423.0	5941.0
7Y	80	S	20	496.0	1182.0	459.0	122.10	35.10	13.80	909.0	1067.0	339.0	8137.0	3197.2
7Y	81	S	20	391.0	722.0	270.0	81.70	25.50	7.50	1029.0	460.0	221.0	5006.0	2073.7
7Y	82	S	20	1938.0	3602.0	814.0	137.70	29.90	15.80	906.0	214.0	56.0	2124.0	7929.3
7Y	83	S	20	298.0	808.0	245.0	47.60	13.30	0.05	853.0	269.0	131.0	1030.0	1864.5
7Y	84	S	20	1282.0	2737.0	899.0	111.10	26.80	2.90	501.0	1655.0	108.0	1196.0	6213.5
7Y	85	S	20	227.0	446.0	135.0	15.50	6.90	0.05	850.0	2277.0	64.0	10373.0	1078.7
7Y	86	S	11	1794.0	4277.0	1590.0	269.30	83.30	27.00	37156.0	704.0	704.0	12503.0	10544.5
7Y	87	S	20	90.0	250.0	31.0	1.40	3.80	0.05	385.0	542.0	39.0	853.0	504.3
7Y	88	S	12	2443.0	5301.0	2096.0	294.80	86.30	9.10	55.0	7035.0	370.0	1738.0	12741.5
7Y	89	S	12	1656.0	3587.0	1481.0	219.40	66.00	21.40	133.0	12382.0	912.0	37649.0	9588.0
7Y	90	S	20	198.0	387.0	125.0	46.30	17.90	0.05	315.0	1200.0	135.0	39867.0	1138.5
7Y	91	S	20	101.0	206.0	73.0	32.60	13.70	0.05	247.0	284.0	93.0	1304.0	628.4
7Y	92	S	20	1046.0	1676.0	480.0	101.90	24.80	27.60	1545.0	507.0	211.0	1561.0	4291.4
7Y	93	S	30	7305.0	12723.0	6246.0	944.00	181.20	62.30	281.0	773.0	336.0	1433.0	33278.7
7Y	94	S	20	550.0	1690.0	384.0	106.70	26.90	0.20	667.0	507.0	137.0	1852.0	3497.4
7Y	95	S	20	1225.0	2002.0	837.0	245.80	67.70	4.70	1383.0	603.0	236.0	3076.0	5541.1
7Y	96	S	20	548.0	1069.0	433.0	137.10	44.20	6.40	412.0	683.0	274.0	2490.0	3026.0
7Y	97	S	20	681.0	1419.0	571.0	192.70	53.30	12.00	533.0	689.0	258.0	3575.0	3833.9
7Y	98	S	20	996.0	1383.0	607.0	216.80	62.30	15.60	853.0	1507.0	442.0	5256.0	4477.3
7Y	99	S	20	1063.0	1735.0	1005.0	268.10	69.10	20.70	292.0	251.0	220.0	2199.0	5243.5
7Y	100	S	20	557.0	592.0	404.0	82.70	21.60	0.05	984.0	289.0	82.0	1443.0	2076.5

NO AREA ROCK OCC.	La	Ce	Nd	Sm	Eu	Tb	Nb	St	Y	P	REO	
7Y 101 S	20	1897.0	2710.0	1803.0	430.20	120.80	17.00	830.0	776.0	700.0	5697.0	9202.8
7Y 102 S	20	549.0	1464.0	594.0	176.00	40.30	7.00	1752.0	400.0	150.0	610.0	3573.2
7Y 103 S	20	2445.0	1925.0	2226.0	432.50	123.80	44.30	534.0	744.0	991.0	5694.0	9782.0
7Y 104 S	20	2700.0	10788.0	4079.0	681.60	118.80	27.60	457.0	827.0	154.0	2626.0	22326.5
7Y 105 S	20	806.0	1446.0	673.0	131.90	29.80	2.40	2454.0	456.0	147.0	841.0	3882.8
7Y 106 S	30	1582.0	2518.0	1503.0	269.90	60.20	63.60	5.5	894.0	203.0	2012.0	7414.1
7Y 107 S	30	4232.0	7967.0	2473.0	378.60	72.60	29.60	58.0	1193.0	185.0	2.5	18423.4
7Y 108 S	20	2781.0	4173.0	1913.0	369.80	94.10	46.80	415.0	5493.0	1200.0	17713.0	12732.9
7Y 109 S	20	1701.0	1668.0	1206.0	228.40	52.20	31.10	625.0	966.0	178.0	2157.0	6037.0
7Y 110 S	20	381.0	752.0	224.0	64.30	17.60	0.5	1391.0	288.0	139.0	491.0	1903.1
7Y 111 S	20	1497.0	2389.0	999.0	164.80	42.20	47.90	1184.0	1297.0	388.0	5269.0	6642.4
7Y 112 S	11	6084.0	8975.0	2219.0	286.90	66.40	17.60	282.0	21375.0	463.0	11378.0	21763.1
7Y 113 S	11	3408.0	7403.0	2949.0	607.80	160.80	50.50	168.0	2219.0	565.0	669.0	18193.9
7Y 114 S	30	374.0	599.0	592.0	160.70	47.40	36.00	76.0	2249.0	232.0	350.0	2441.9
7Y 115 S	20	3870.0	7151.0	2860.0	431.50	86.40	54.10	99.0	2828.0	297.0	3158.0	17695.7
7Y 116 S	20	1024.0	1741.0	677.0	152.80	51.20	30.20	971.0	2143.0	608.0	10882.0	5171.9
7Y 117 S	20	379.0	798.0	267.0	64.80	17.50	1.70	505.0	492.0	88.0	1281.0	1945.0
7Y 118 S	20	1387.0	2717.0	1117.0	205.10	63.10	45.80	689.0	2766.0	761.0	16703.0	7596.0
7Y 119 S	13	580.0	1327.0	576.0	119.60	33.20	37.90	1207.0	2155.0	239.0	3928.0	3505.8
7Y 120 S	13	2376.0	5295.0	2352.0	389.20	107.70	26.10	238.0	14518.0	467.0	2498.0	15231.1
7Y 121 S	13	2031.0	4814.0	1737.0	228.20	81.50	30.90	168.0	12003.0	715.0	11356.0	11621.9
7Y 122 S	13	1713.0	3686.0	1323.0	229.90	68.00	23.10	310.0	16487.0	540.0	16746.0	9136.2
7Y 123 S	13	3465.0	7695.0	3042.0	661.00	213.40	111.20	216.0	6133.0	2587.0	105248.0	21488.2
7Y 124 S	13	2360.0	5955.0	2543.0	569.80	170.20	137.70	579.0	8117.0	2457.0	107982.0	17183.1
7Y 125 S	20	665.0	1894.0	904.0	185.40	43.30	14.30	680.0	4035.0	184.0	4213.0	4675.3
7Y 126 S	20	1487.0	3145.0	1257.0	287.20	86.90	153.90	3851.0	2414.0	1224.0	19256.0	9237.4
7Y 127 S	11	2981.0	5170.0	1464.0	244.70	60.90	101.20	902.0	2136.0	392.0	7654.0	12521.2
7Y 128 S	20	311.0	559.0	174.0	36.10	10.60	0.5	522.0	702.0	103.0	4412.0	1439.2
7Y 129 S	20	1517.0	4053.0	1766.0	317.50	74.60	81.20	192.0	1253.0	296.0	9776.0	9739.7
7Y 130 S	11	3438.0	5466.0	1893.0	234.90	58.30	21.00	2225.0	1611.0	169.0	362.0	13531.1
7Y 131 S	11	4534.0	5945.0	1374.0	181.30	33.20	11.50	1057.0	17216.0	53.0	212.0	14550.2
7Y 132 S	20	3292.0	4763.0	1338.0	192.20	41.70	74.60	1349.0	12513.0	151.0	1275.0	11819.5
7Y 133 S	20	586.0	883.0	444.0	105.70	29.20	0.5	1037.0	1890.0	5.0	13312.0	2452.8
7Y 134 S	11	14949.0	16970.0	5034.0	602.90	137.10	52.70	1100.0	43085.0	575.0	9572.0	45893.0
7Y 135 S	11	14414.0	18252.0	3781.0	340.80	64.90	25.30	4263.0	2090.0	310.0	4270.0	44623.0
7Y 136 S	11	7331.0	10353.0	2698.0	418.10	102.70	35.50	1836.0	9552.0	524.0	6257.0	25768.9
7Y 137 S	20	701.0	1386.0	502.0	112.00	34.20	38.20	689.0	2394.0	479.0	13214.0	3931.4
7Y 138 S	11	6087.0	11061.0	3087.0	438.80	87.70	107.90	206.0	1513.0	181.0	754.0	25287.0
7Y 139 S	11	5881.0	10035.0	2641.0	354.90	84.70	30.80	804.0	1427.0	316.0	2090.0	23247.3
7Y 140 S	11	1447.0	3115.0	1131.0	231.80	51.10	22.60	1375.0	2461.0	108.0	4430.0	7332.5
7Y 141 S	11	5872.0	10061.0	2961.0	505.60	106.50	45.20	850.0	2831.0	203.0	3211.0	23714.9
7Y 142 S	11	4083.0	7084.0	1899.0	354.90	70.70	34.70	823.0	2008.0	239.0	2272.0	16539.8
7Y 143 S	11	4	2907.0	861.0	184.70	43.50	62.00	1553.0	4261.0	98.0	9357.0	6845.9
7Y 144 S	11	3209.0	6217.0	2076.0	337.50	79.70	82.40	7001.0	3835.0	161.0	5062.0	14602.4
7Y 145 S	11	1082.0	2375.0	873.0	177.60	48.20	43.70	1358.0	1864.0	129.0	3440.0	5679.6
7Y 146 S	20	1	1054.0	682.0	133.10	32.50	10.60	1564.0	1116.0	174.0	2238.0	5125.2
7Y 147 S	20	1314.0	2716.0	789.0	152.10	30.20	13.60	1933.0	728.0	54.0	368.0	6068.9
7Y 148 S	20	1	2863.0	1590.0	278.40	74.60	31.80	3633.0	5986.0	486.0	10106.0	12589.8
7Y 149 S	11	1419.0	3034.0	1193.0	265.50	82.00	173.40	1461.0	5936.0	746.0	96765.0	8331.2
7Y 150 S	11	1970.0	4250.0	1598.0	434.30	142.70	67.70	3968.0	5906.0	1376.0	52069.0	11887.6
7Y 151 S	20	465.0	1102.0	262.0	71.50	17.10	17.60	668.0	1622.0	148.0	13469.0	2515.2

NO	AREA	ROCK	OCC	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
7Y 152 T	12	1	620.0	1439.0	413.0	57.90	17.30	28.10	533.0	22718.0	93.0	21908.0	3213.6	
7Y 153 T	12	1	730.0	1301.0	388.0	45.20	15.60	.05	5470.0	5	99.0	842.0	3102.6	
7Y 154 T	12	1	566.0	1182.0	328.0	28.60	13.50	.05	22578.0	66.0	86.0	4350.0	2655.9	
7Y 155 T	12	1	508.0	1083.0	288.0	28.60	12.40	5.10	8821.0	88.0	81.0	4374.0	2417.9	
7Y 156 T	12	1	826.0	1785.0	566.0	74.30	21.90	20.00	1337.0	6138.0	104.0	31760.0	4086.3	
7Y 157 T	12	1	846.0	1734.0	462.0	53.60	18.20	.05	96.0	907.0	98.0	1945.0	3868.2	
7Y 158 T	12	1	734.0	1548.0	457.0	45.90	17.50	29.70	194.0	3679.0	87.0	12826.0	3513.0	
7Y 159 T	20	5	557.0	1164.0	264.0	42.40	8.60	5.90	255.0	421.0	59.0	5736.0	2531.4	
7Y 160 T	20	1	1.0	1.0	2.5	.05	.05	.05	1509.0	5	5.0	34.0	11.3	
7Y 161 T	11	2	1505.0	2822.0	767.0	94.20	21.80	8.90	26.0	2032.0	277.0	11117.0	6621.7	
7Y 162 T	11	2	2176.0	3960.0	1110.0	146.40	27.60	4.70	39.0	1122.0	71.0	382.0	9007.0	
7Y 163 T	13	1	2558.0	5725.0	2024.0	362.80	79.70	13.50	261.0	370.0	137.0	327.0	13090.0	
7Y 164 T	13	1	1730.0	3993.0	1676.0	391.00	97.10	29.00	132.0	1310.0	135.0	268.0	9657.7	
7Y 165 T	12	1	563.0	1404.0	565.0	81.50	27.00	43.90	287.0	3597.0	166.0	25762.0	3430.5	
7Y 166 T	12	1	376.0	884.0	321.0	29.60	14.70	4.10	53.0	1553.0	56.0	1490.0	2028.1	
7Y 167 T	11	1	107.0	214.0	2.5	6.70	3.20	.05	123.0	503.0	26.0	4176.0	435.8	
7Y 168 T	11	1	1100.0	2057.0	689.0	81.50	23.50	15.80	145.0	794.0	42.0	1998.0	4812.9	
7Y 169 T	11	1	472.0	933.0	297.0	30.80	11.50	46.60	1029.0	12778.0	67.0	7863.0	2233.5	
7Y 170 T	30	1	296.0	570.0	122.0	38.10	4.40	5.10	184.0	955.0	15.0	5128.0	1263.6	
7Y 171 T	11	1	405.0	850.0	273.0	26.50	12.30	7.30	34.0	17188.0	71.0	10592.0	1980.7	
7Y 172 T	11	1	673.0	1363.0	477.0	49.50	15.50	39.00	97.0	17912.0	84.0	22505.0	3188.0	
7Y 173 T	11	1	1246.0	2731.0	1076.0	109.60	26.00	12.50	367.0	1103.0	31.0	414.0	6280.8	
7Y 174 T	30	1	133.0	237.0	52.0	19.90	3.90	.05	763.0	4128.0	21.0	583.0	562.0	
7Y 175 T	11	1	1326.0	2398.0	742.0	148.50	54.40	77.90	485.0	4610.0	843.0	95748.0	6760.8	
7Y 176 T	14	1	4761.0	6779.0	1349.0	169.90	26.60	7.05	13417.0	31417.0	39.0	372.0	15756.2	
7Y 177 T	14	1	2716.0	4424.0	1034.0	130.10	24.30	7.40	1355.0	17531.0	24.0	352.0	10042.2	
7Y 178 T	20	3	79.0	148.0	49.0	18.70	5.00	.05	90.0	1024.0	49.0	7221.0	421.3	
7Y 179 T	11	2	3830.0	7865.0	2802.0	402.50	87.10	41.70	2267.0	7299.0	439.0	42094.0	18591.2	
7Y 180 T	11	2	4382.0	5565.0	1158.0	127.60	24.10	7.00	490.0	23746.0	74.0	339.0	13602.1	
7Y 181 T	30	1	1904.0	2649.0	617.0	144.30	47.50	16.20	586.0	10493.0	463.0	46674.0	7034.8	
7Y 182 T	11	1	1834.0	2604.0	1386.0	187.70	52.70	7.60	19.0	48842.0	175.0	8524.0	7474.8	
7Y 183 T	14	1	1124.0	1973.0	735.0	161.10	51.80	25.30	316.0	2570.0	541.0	34822.0	5549.7	
7Y 184 T	14	1	15464.0	15265.0	2233.0	282.60	50.50	20.70	443.0	10696.0	141.0	7339.0	40077.6	
7Y 185 T	14	1	3319.0	4362.0	1074.0	218.20	54.20	17.80	481.0	14923.0	371.0	15367.0	11309.5	
7Y 186 T	30	3	23.0	58.0	14.0	3.30	1.70	.05	5.0	240.0	5.0	399.0	126.7	
7Y 187 T	30	1	819.0	1478.0	574.0	151.70	66.50	62.90	21.0	4638.0	1962.0	124135.0	6262.1	
7Y 188 T	12	1	738.0	1233.0	429.0	49.30	14.40	2.80	25.0	3887.0	85.0	2031.0	3065.0	
7Y 189 T	12	1	687.0	1199.0	419.0	46.30	13.30	3.70	13.0	3845.0	78.0	2059.0	2939.2	
7Y 190 T	12	1	989.0	1702.0	539.0	74.90	18.90	1.90	28.0	3579.0	69.0	2528.0	4135.5	
7Y 191 T	12	1	376.0	709.0	184.0	32.80	5.80	.05	40.0	856.0	42.0	4487.0	1589.4	
7Y 192 T	12	1	578.0	1058.0	409.0	43.10	13.00	11.70	46.0	22267.0	79.0	8631.0	2633.0	
7Y 193 T	12	1	3972.0	7384.0	2597.0	373.00	81.80	6.20	432.0	1253.0	129.0	36.0	17441.5	
7Y 194 T	12	1	3365.0	7535.0	3083.0	457.00	106.70	29.90	205.0	910.0	177.0	2218.0	17713.6	
7Y 195 T	12	1	1726.0	3421.0	1146.0	135.40	21.70	.05	648.0	831.0	67.0	171.0	7829.2	
7Y 196 T	12	1	17569.0	25316.0	6304.0	822.70	134.90	27.10	1588.0	2554.0	432.0	24516.0	60737.3	
7Y 197 T	12	1	823.0	1290.0	519.0	56.70	15.90	.05	9.0	26286.0	80.0	1175.0	3340.5	
7Y 198 T	12	1	3473.0	7209.0	2518.0	297.40	49.30	13.50	63.0	535.0	114.0	1727.0	16424.9	
7Y 199 T	20	1	843.0	1547.0	628.0	97.40	17.80	9.60	263.0	518.0	64.0	1270.0	3845.7	
7Y 200 T	11	1	512.0	939.0	466.0	64.20	18.00	7.00	687.0	1307.0	78.0	3629.0	2499.5	

NO	AREA	ROCK	OCC	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
7Y 201 T	11	447.0	970.0	322.0	36.00	11.90	.05	283.0	10886.0	94.0	12507.0	2265.9		
7Y 202 T	20	70.0	118.0	39.0	8.00	1.70	.05	474.0	753.0	12.0	1148.0	299.0		
7Y 203 T	12	409.0	762.0	241.0	20.30	9.60	6.60	23.0	18511.0	72.0	4307.0	1930.2		
7Y 204 T	12	1279.0	2228.0	951.0	140.50	32.70	9.20	21.0	30071.0	129.0	6098.0	5720.4		
7Y 205 T	12	317.0	582.0	183.0	11.30	7.60	.05	.5	22377.0	78.0	272.0	1420.9		
7Y 206 T	20	15.0	25.0	2.5	5.80	.05	.05	250.0	820.0	5.0	1091.0	64.4		
7Y 207 T	30	39.0	64.0	5.0	6.30	.80	1.10	196.0	1910.0	10.0	992.0	152.4		
7Y 208 T	11	790.0	1301.0	644.0	84.40	21.60	12.20	635.0	1201.0	105.0	5653.0	3545.5		
7Y 209 T	30	4	72.0	29.0	11.00	.50	.05	399.0	240.0	5.0	827.0	367.7		
7Y 210 T	30	4	332.0	579.0	187.0	47.10	3.70	262.0	678.0	268.0	7340.0	1700.3		
7Y 211 T	14	5691.0	6680.0	1209.0	149.00	17.20	1.50	1304.0	35733.0	16.0	2.5	16503.1		
7Y 212 T	30	1	26.0	48.0	19.0	6.40	.05	19.0	406.0	20.0	1123.0	144.5		
7Y 213 T	30	3	720.0	1235.0	388.0	96.30	70.60	72.0	998.0	51.0	3215.0	3094.9		
7Y 214 T	20	3	34.0	92.0	11.0	1.50	.05	334.0	594.0	5.0	592.0	173.9		
7Y 215 T	15	2	9862.0	18293.0	4115.0	437.20	49.30	48.0	33875.0	681.0	9185.0	40368.7		
7Y 216 T	15	2	899.0	1580.0	683.0	94.10	27.30	568.0	11063.0	355.0	14567.0	4417.3		
7Y 217 T	20	4	424.0	781.0	210.0	48.60	1.70	106.0	2548.0	99.0	5620.0	1895.8		
7Y 218 T	20	1	11.0	24.0	2.5	11.60	.05	44.0	2271.0	5.0	2450.0	66.3		
7Y 219 T	11	1	312.0	429.0	99.0	11.40	2.20	551.0	497.0	5.0	1031.0	1056.2		
7Y 220 T	30	3	17.0	19.0	2.5	1.80	.05	35.0	120.0	5.0	372.0	54.7		
7Y 221 T	14	3	166.0	346.0	163.0	22.30	7.50	47.80	2876.0	113.0	27169.0	1042.7		
7Y 222 T	11	1	18.0	21.0	2.5	.05	.05	130.0	8126.0	5.0	4100.0	64.3		
7Y 223 T	30	1	197.0	440.0	222.0	53.40	112.20	15.0	2207.0	362.0	80624.0	1703.1		

NO	AREA	ROCK	OCC	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
20	7Y	326	T	514.0	939.0	342.0	51.00	12.50	.05	197.0	1752.0	88.0	11693.0	2340.2
11	7Y	327	T	2016.0	4354.0	1571.0	348.20	95.00	26.30	1870.0	4700.0	1210.0	127714.0	11824.2
30	7Y	328	T	817.0	1983.0	926.0	131.20	24.70	.05	17.0	463.0	146.0	9268.0	4839.5
11	7Y	329	T	998.0	1678.0	627.0	135.60	36.50	.05	60.0	2683.0	343.0	37374.0	4537.6
11	7Y	330	T	1134.0	2150.0	1146.0	354.00	130.80	65.30	13.0	55738.0	1393.0	92582.0	7720.6
11	7Y	331	T	15084.0	19555.0	4204.0	865.70	186.70	47.00	1192.0	43325.0	1202.0	65520.0	49374.8
11	7Y	332	T	1896.0	3239.0	939.0	196.10	45.50	20.50	7854.0	5957.0	355.0	20040.0	801.0
14	7Y	333	T	14149.0	16154.0	2318.0	361.40	32.70	.05	1063.0	71308.0	34.0	968.0	39637.0
11	7Y	334	T	14152.0	17796.0	3200.0	745.00	170.10	58.60	835.0	5962.0	1493.0	101093.0	45209.7
14	7Y	335	T	14164.0	16064.0	2253.0	373.50	30.20	.05	25.0	45887.0	33.0	2423.0	39478.2
30	7Y	336	T	166.0	377.0	70.0	24.30	.05	.05	.5	367.0	5.0	606.0	773.9
14	7Y	337	T	2963.0	5522.0	1774.0	514.00	142.90	36.70	348.0	4123.0	1383.0	91284.0	14885.5
11	7Y	338	T	1562.0	3073.0	1102.0	296.50	85.50	16.20	104.0	5279.0	1052.0	68031.0	8688.4
11	7Y	339	T	2758.0	5977.0	2086.0	518.50	135.10	35.10	9467.0	4749.0	1528.0	120719.0	15745.0
11	7Y	340	T	2027.0	4133.0	1497.0	371.50	105.10	48.30	4931.0	4710.0	1298.0	118058.0	11455.2
11	7Y	341	T	2412.0	5145.0	1786.0	399.80	100.20	91.60	1061.0	5172.0	1178.0	120817.0	13411.1
11	7Y	342	T	1923.0	4059.0	1499.0	350.60	92.50	12.00	336.0	4351.0	836.0	84726.0	10577.3
11	7Y	343	T	1824.0	3749.0	1324.0	303.40	80.20	37.50	43.0	4306.0	767.0	106309.0	9749.2
11	7Y	344	T	4084.0	7862.0	2400.0	556.70	139.00	62.80	958.0	3427.0	1119.0	104669.0	19495.8
11	7Y	345	T	293.0	549.0	168.0	41.60	7.80	.05	359.0	1866.0	114.0	20817.0	1414.7
11	7Y	346	T	1325.0	1944.0	455.0	93.90	23.90	.05	381.0	1964.0	329.0	35299.0	5026.5
11	7Y	347	T	77.0	186.0	26.0	2.30	.05	.05	733.0	203.0	5.0	1219.0	358.2
11	7Y	348	T	2113.0	3317.0	856.0	179.10	31.50	8.70	352.0	1430.0	286.0	18665.0	8174.4
11	7Y	349	T	1376.0	2207.0	564.0	123.30	29.30	.05	490.0	1351.0	308.0	20603.0	5551.3
11	7Y	350	T	1272.0	1907.0	564.0	111.10	29.80	15.00	276.0	1399.0	371.0	31816.0	5143.3
11	7Y	351	T	1866.0	2816.0	786.0	190.50	40.80	4.40	309.0	2026.0	574.0	57755.0	7565.6
11	7Y	352	T	470.0	746.0	187.0	153.30	7.00	.05	237.0	399.0	104.0	9547.0	2003.5
14	7Y	353	T	11843.0	16369.0	3509.0	449.50	69.70	31.00	3097.0	2572.0	120.0	3197.0	38887.4
14	7Y	354	T	14951.0	23325.0	5142.0	645.70	88.60	27.20	46.0	139015.0	59.0	85.0	53134.0
14	7Y	355	T	294.0	632.0	123.0	20.70	.05	.05	275.0	1007.0	30.0	1071.0	1326.6
14	7Y	356	T	4812.0	8134.0	1812.0	251.50	38.90	.05	11.0	2656.0	58.0	62.0	18156.3
11	7Y	357	T	1643.0	2677.0	764.0	132.10	32.10	1.70	29.0	3020.0	335.0	39022.0	6733.2
11	7Y	358	T	3785.0	7234.0	2104.0	404.60	104.70	3.80	464.0	4348.0	888.0	123901.0	17499.1
11	7Y	359	T	218.0	360.0	90.0	19.00	2.50	.20	192.0	2155.0	45.0	6188.0	885.0
11	7Y	360	T	150.0	239.0	42.0	5.30	.80	.05	195.0	1033.0	5.0	2159.0	531.9
30	7Y	361	T	18698.0	24731.0	4873.0	657.90	71.70	.05	1175.0	48820.0	62.0	466.0	59035.9
11	7Y	362	T	353.0	523.0	109.0	19.90	2.40	.05	227.0	2106.0	35.0	11179.0	1235.0
11	7Y	363	T	770.0	1096.0	175.0	28.70	1.70	.05	253.0	1742.0	5.0	332.0	2454.8
14	7Y	364	T	6733.0	8265.0	1134.0	160.50	14.90	9.20	80.0	33758.0	13.0	288.0	19600.0
14	7Y	365	T	6613.0	7555.0	1068.0	147.00	11.80	.05	30.0	35698.0	13.0	592.0	18480.6
11	7Y	366	T	12298.0	14386.0	2781.0	481.80	95.60	9.60	782.0	3104.0	569.0	41979.0	36737.5
11	7Y	367	T	6836.0	11549.0	2360.0	631.10	162.80	40.10	4445.0	4044.0	1051.0	96673.0	27933.7
11	7Y	368	T	29556.0	5793.0	1008.0	395.40	112.10	50.90	1076.0	4306.0	1407.0	145772.0	15123.3
30	7Y	369	T	5833.0	8383.0	1490.0	203.60	25.90	.05	282.0	1520.0	90.0	1585.0	19370.9
30	7Y	370	T	261.0	528.0	77.0	15.50	1.20	.05	429.0	427.0	22.0	1262.0	1091.7
30	7Y	371	T	565.0	858.0	220.0	45.40	13.30	12.80	547.0	2224.0	155.0	68938.0	2240.8
11	7Y	372	T	760.0	1308.0	549.0	168.20	56.60	38.80	337.0	2732.0	812.0	63480.0	4474.4
11	7Y	373	T	765.0	1212.0	440.0	98.80	30.80	5.30	153.0	1749.0	326.0	23745.0	3469.1
11	7Y	374	T	48.0	74.0	2.5	5.90	.05	.05	109.0	1149.0	5.0	426.0	163.4
11	7Y	375	T	214.0	258.0	64.0	5.70	1.40	.05	198.0	1231.0	36.0	2332.0	666.5

NO AREA ROCK OCC	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
7Y 376 T	11	702.0	1172.0	343.0	66.90	18.00	.05	2440.0	201.0	14126.0	3016.4
7Y 377 T	30	386.0	528.0	151.0	33.90	8.70	.05	1090.0	145.0	12246.0	1452.2
7Y 378 T	11	652.0	927.0	287.0	73.50	22.10	.05	2388.0	302.0	20877.0	2732.2
7Y 379 T	11	10817.0	12712.0	2085.0	406.70	82.90	26.10	6398.0	672.0	47399.0	32181.0
7Y 380 T	14	5449.0	9461.0	1847.0	280.90	43.30	.05	2590.0	66.0	784.0	20623.5
7Y 381 T	14	1775.0	3159.0	716.0	80.40	4.10	.05	1583.0	5.0	232.0	6900.6
7Y 382 T	14	1973.0	4117.0	1055.0	130.50	16.80	.05	2384.0	24.0	2951.0	8801.5
7Y 383 T	11	2006.0	4945.0	1344.0	341.80	101.20	26.70	6260.0	1141.0	108790.0	11249.3
7Y 384 T	11	3400.0	5646.0	1500.0	306.70	98.40	14.30	7133.0	1152.0	111477.0	14620.9
7Y 385 T	11	2345.0	4934.0	1636.0	378.30	118.20	70.20	4351.0	1666.0	136541.0	13362.5
7Y 386 T	14	22610.0	26527.0	3412.0	468.40	41.60	317.60	90645.0	32.0	822.0	64072.8
7Y 387 T	12	508.0	748.0	230.0	.05	6.40	.05	16885.0	97.0	5701.0	1313.3
7Y 388 T	11	1684.0	3705.0	1269.0	278.30	88.00	48.90	4071.0	1294.0	103707.0	10016.0
7Y 389 T	14	8440.0	11560.0	1704.0	203.70	21.50	3.10	41626.0	17.0	334.0	26369.0
7Y 390 T	12	436.0	681.0	211.0	.05	4.20	.05	15506.0	70.0	8341.0	1687.6
7Y 391 T	30	15.0	43.0	2.5	.05	.05	.05	82.0	5.0	72.0	79.8
7Y 392 T	30	128.0	161.0	92.0	2.50	2.80	1.90	314.0	42.0	319.0	516.8
7Y 393 T	30	33.0	93.0	6.0	9.90	.05	34.50	132.0	5.0	574.0	217.5
7Y 394 T	30	67.0	133.0	17.0	12.50	.05	.05	120.0	5.0	898.0	282.7
7Y 395 T	30	24.0	29.0	2.5	11.80	.05	.05	147.0	5.0	962.0	86.8
7Y 396 T	30	49.0	115.0	27.0	7.50	.05	.05	121.0	5.0	217.0	245.3
7Y 397 T	30	71.0	185.0	31.0	23.60	.40	5.00	70.0	5.0	232.0	386.6
7Y 398 T	30	247.0	441.0	154.0	27.60	3.30	.05	118.0	15.0	390.0	1065.8
7Y 399 T	30	636.0	751.0	354.0	75.70	16.50	.05	445.0	485.0	6642.0	2803.9
7Y 400 T	30	159.0	193.0	116.0	32.40	2.90	25.00	129.0	16.0	556.0	648.8
7Y 401 T	30	98.0	225.0	31.0	32.30	.05	.05	79.0	10.0	466.0	477.7
7Y 402 T	30	36.0	19.0	2.5	17.60	.05	.05	271.0	5.0	626.0	95.4
7Y 403 T	30	81.0	89.0	53.0	9.70	1.20	17.90	263.0	14.0	523.0	317.1
7Y 404 T	30	281.0	327.0	186.0	50.10	5.80	4.30	191.0	58.0	687.0	1031.5
7Y 405 T	30	63.0	401.0	47.0	24.20	1.50	.05	64.0	5.0	279.0	657.3

NO AREA	ROCK	OCC.	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
7Y 224 K	11	4	156.0	246.0	76.0	1.40	1.60	6.40	6.0	12103.0	5.0	2132.0	590.9
7Y 225 K	30	4	293.0	587.0	269.0	24.10	2.70	42.40	54.0	15814.0	5.0	26688.0	1469.0
7Y 226 K	11	1	353.0	510.0	140.0	10.00	6.90	18.00	1027.0	130698.0	14.0	18534.0	1257.0
7Y 227 K	11	1	556.0	853.0	242.0	16.70	4.10	29.50	110.0	124636.0	5.0	15563.0	2046.3
7Y 228 K	30	1	497.0	736.0	261.0	25.10	6.10	6.40	110.0	244639.0	5.0	31862.0	1841.0
7Y 229 K	30	1	153.0	333.0	135.0	17.60	5.50	39.70	412.0	5252.0	21.0	36460.0	845.0
7Y 230 K	11	3	114.0	133.0	18.0	.05	.05	1.20	387.0	64990.0	5.0	9211.0	325.9
7Y 231 K	11	3	710.0	1258.0	358.0	24.70	1.80	6.60	12.0	104755.0	5.0	17098.0	2839.8
7Y 232 K	11	3	124.0	163.0	18.0	.05	.05	4.90	62.0	3140.0	5.0	6214.0	379.9
7Y 233 K	11	3	484.0	832.0	211.0	18.50	.80	1.30	470.0	30161.0	5.0	8618.0	1865.7
7Y 234 K	11	3	267.0	514.0	198.0	18.90	4.50	2.90	38.0	23028.0	5.0	24875.0	1212.1
7Y 235 K	11	3	428.0	584.0	133.0	8.90	.05	.20	7.0	7895.0	5.0	10427.0	1391.2
7Y 236 K	11	3	250.0	369.0	72.0	.05	.05	2.40	141.0	10786.0	5.0	14102.0	839.6
7Y 237 K	11	3	728.0	1205.0	265.0	23.00	2.00	.05	723.0	12856.0	5.0	7361.0	2678.1
7Y 238 K	11	3	247.0	324.0	77.0	1.00	.05	6.10	4.0	120020.0	5.0	13624.0	792.0
7Y 239 K	11	3	711.0	1323.0	347.0	36.40	3.70	15.00	124.0	38805.0	5.0	15885.0	2933.4
7Y 240 K	11	3	1081.0	1476.0	324.0	26.40	2.80	11.40	401.0	55833.0	5.0	11053.0	3511.7
7Y 241 K	11	3	382.0	557.0	129.0	7.10	.05	5.80	26.0	70412.0	5.0	8834.0	1303.8
7Y 242 K	11	3	973.0	1380.0	368.0	45.60	7.80	12.10	133.0	79714.0	21.0	31107.0	3367.6
7Y 243 K	11	3	344.0	707.0	305.0	35.80	4.60	23.20	3.0	61442.0	5.0	12911.0	1707.2
7Y 244 K	11	3	367.0	679.0	266.0	21.00	3.60	5.90	587.0	29923.0	5.0	7183.0	1616.1
7Y 245 K	11	1	678.0	1419.0	468.0	48.30	6.80	12.30	338.0	31018.0	5.0	14586.0	3166.9
7Y 246 K	11	1	180.0	419.0	209.0	32.80	6.80	20.60	809.0	5969.0	12.0	27319.0	1054.2
7Y 247 K	11	1	393.0	738.0	286.0	26.90	5.10	11.80	334.0	19223.0	5.0	12361.0	1757.8
7Y 248 K	11	1	1314.0	2731.0	929.0	98.30	12.70	91.70	178.0	24321.0	5.0	17087.0	6218.8
7Y 249 K	11	1	4418.0	8120.0	2129.0	204.90	25.80	6.70	1382.0	33474.0	5.0	17235.0	17917.7
7Y 250 K	11	3	1281.0	2745.0	1078.0	144.70	22.50	11.50	7.0	143257.0	13.0	6554.0	6354.1
7Y 251 K	11	1	2857.0	6491.0	2831.0	348.40	59.20	12.70	11.0	31742.0	24.0	9055.0	15199.3
7Y 252 K	11	1	4536.0	9105.0	3308.0	321.00	43.60	9.80	110.0	46907.0	13.0	28928.0	20809.4
7Y 253 K	11	1	516.0	1468.0	487.0	69.80	12.30	30.10	522.0	7141.0	15.0	40037.0	3124.7
7Y 254 K	11	1	4779.0	10045.0	3904.0	360.00	55.80	10.40	236.0	37150.0	22.0	21215.0	23015.2
7Y 255 K	20	3	964.0	2058.0	782.0	87.90	15.20	20.30	894.0	5965.0	25.0	20266.0	4721.2
7Y 256 K	11	3	2049.0	4679.0	2085.0	237.00	44.90	6.60	177.0	31917.0	31.0	12230.0	10931.0
7Y 257 K	11	3	5260.0	8886.0	2533.0	220.90	29.20	12.70	40.0	115435.0	21.0	15509.0	20366.8
7Y 258 K	11	3	650.0	1248.0	473.0	46.80	6.40	3.30	36.0	45562.0	5.0	1748.0	2918.4
7Y 259 K	30	3	300.0	1146.0	449.0	72.70	11.80	5.20	326.0	1706.0	5.0	5148.0	2393.1
7Y 260 K	11	3	2477.0	4279.0	1474.0	141.30	24.30	14.00	7.0	44514.0	13.0	33502.0	10033.5
7Y 261 K	12	3	1080.0	1830.0	607.0	63.80	9.80	20.60	1.0	153229.0	5.0	3136.0	4337.3
7Y 262 K	11	3	3139.0	6418.0	2472.0	260.60	44.80	19.30	18.0	56295.0	27.0	10428.0	14856.4
7Y 263 K	11	3	1024.0	1756.0	507.0	45.80	6.80	2.90	.5	126488.0	5.0	5100.0	4019.4
7Y 264 K	11	3	2043.0	4323.0	1709.0	196.00	31.90	20.70	6322.0	26252.0	10.0	30709.0	9988.6
7Y 265 K	11	3	4174.0	9161.0	3614.0	385.00	66.80	14.40	83.0	4371.0	43.0	9891.0	20954.9
7Y 266 K	11	3	1484.0	2821.0	1093.0	141.00	50.90	11.70	574.0	14865.0	71.0	5966.0	6712.4
7Y 267 K	30	3	4069.0	8679.0	3313.0	357.20	59.10	.60	18.0	1369.0	50.0	4988.0	19840.7
7Y 268 K	11	1	3220.0	6305.0	1934.0	155.70	21.50	.05	164.0	28459.0	18.0	6135.0	14120.4
7Y 269 K	11	1	3280.0	6319.0	1861.0	142.80	19.20	1.60	379.0	21028.0	11.0	7486.0	13984.3
7Y 270 K	11	1	13142.0	21134.0	5061.0	445.80	58.50	17.10	321.0	106673.0	16.0	12113.0	47903.3
7Y 271 K	11	3	1306.0	2353.0	613.0	48.60	7.00	.05	1247.0	33561.0	23.0	4207.0	5217.2
7Y 272 K	11	1	6552.0	10866.0	2717.0	234.90	30.50	.05	281.0	67282.0	18.0	6691.0	24527.7
7Y 273 K	11	1	7644.0	14468.0	3729.0	349.70	47.10	11.50	342.0	109222.0	24.0	16255.0	31585.0

NO AREA ROCK OCC	La	Ce	Nd	Sm	Eu	Tb	Nb	Str	Y	P	REO
7Y 274 K	15906.0	30407.0	8506.0	781.70	108.20	12.70	92.0	136351.0	45.0	2077.0	67018.2
7Y 275 K	25912.0	34763.0	6955.0	706.20	93.40	.60	155.0	272811.0	58.0	24908.0	81491.2
7Y 276 K	2824.0	5105.0	1397.0	113.80	14.70	16.60	73.0	86085.0	15.0	5032.0	11397.6
7Y 277 K	2486.0	4889.0	1684.0	139.20	18.10	4.40	957.0	16031.0	5.0	5573.0	11077.2
7Y 278 K	9745.0	19458.0	5151.0	480.00	70.30	9.60	97.0	99476.0	27.0	17212.0	42014.9
7Y 279 K	4588.0	8150.0	2545.0	219.90	33.90	4.10	86.0	57337.0	13.0	15449.0	18673.0
7Y 280 K	16816.0	33549.0	9478.0	910.50	128.60	12.90	968.0	163288.0	25.0	19459.0	73226.4
7Y 281 K	18890.0	31495.0	7947.0	659.70	94.10	2.10	37.0	285777.0	32.0	26635.0	71017.3
7Y 282 K	2204.0	3655.0	928.0	92.70	18.30	1.20	10.0	63104.0	54.0	42179.0	8354.4
7Y 283 K	8755.0	17883.0	4511.0	420.40	94.50	12.30	181.0	53188.0	26.0	15662.0	38134.0
7Y 284 K	4369.0	9043.0	2969.0	274.50	43.00	27.50	441.0	8891.0	13.0	16036.0	20107.9
7Y 285 K	3470.0	6858.0	2177.0	180.30	26.20	66.10	38.0	33382.0	5.0	13856.0	15352.2
7Y 286 K	6214.0	12874.0	3434.0	282.10	41.20	8.70	307.0	58334.0	21.0	13368.0	27268.4
7Y 287 K	2178.0	4389.0	1426.0	113.90	18.00	4.20	570.0	43636.0	12.0	24883.0	9780.2
7Y 288 K	3261.0	6341.0	2189.0	182.10	27.70	17.40	891.0	20121.0	5.0	9627.0	14656.2
7Y 289 K	3513.0	6993.0	2405.0	229.10	36.80	4.10	625.0	33616.0	15.0	15591.0	15844.5
7Y 290 K	4281.0	13209.0	5549.0	653.40	124.90	127.80	119.0	17440.0	70.0	53559.0	28851.0
7Y 291 K	804.0	1936.0	877.0	82.20	15.60	.05	4.0	4566.0	5.0	1468.0	4462.9
7Y 292 K	1195.0	2641.0	1014.0	128.90	27.20	85.50	730.0	11578.0	117.0	50991.0	6255.2
7Y 293 K	295.0	699.0	257.0	46.80	15.10	32.40	1049.0	10957.0	273.0	90003.0	1959.8
7Y 294 K	1388.0	2381.0	769.0	86.60	19.90	.05	432.0	22126.0	35.0	7402.0	5616.7
7Y 295 K	1252.0	2682.0	1025.0	148.80	37.40	19.40	871.0	21226.0	189.0	83636.0	6433.5
7Y 296 K	2941.0	5967.0	1896.0	155.40	21.00	49.40	493.0	16546.0	5.0	25650.8	13255.8
7Y 297 K	3578.0	7354.0	2400.0	185.10	26.50	16.30	777.0	30332.0	5.0	16213.0	16295.6
7Y 298 K	3319.0	6687.0	2010.0	146.60	20.60	9.30	2575.0	44792.0	5.0	5311.0	14659.4
7Y 299 K	3521.0	6899.0	2106.0	195.40	28.40	.05	1284.0	18070.0	5.0	11292.0	15323.7
7Y 300 K	732.0	1440.0	597.0	45.50	8.70	1.50	1383.0	14161.0	5.0	1731.0	3394.0
7Y 301 K	2662.0	5200.0	1604.0	123.30	17.00	.05	993.0	29012.0	5.0	11547.5	11547.5
7Y 302 K	16125.0	23876.0	4697.0	397.30	50.20	8.60	110.0	104926.0	31.0	11836.0	54279.3
7Y 303 K	606.0	1049.0	280.0	15.70	3.10	.05	3.0	12638.0	5.0	3023.0	2363.7
7Y 304 K	3091.0	6285.0	1917.0	153.30	22.30	17.10	508.0	12861.0	5.0	9639.0	13843.6
7Y 305 K	3115.0	6072.0	1839.0	144.80	20.50	6.60	327.0	26855.0	5.0	17205.0	13459.1
7Y 306 K	4563.0	7274.0	2164.0	155.40	23.60	5.90	57.0	79198.0	5.0	14327.0	17017.1
7Y 307 K	1876.0	3753.0	1324.0	90.30	14.30	.05	450.0	21261.0	5.0	18146.0	8480.7
7Y 308 K	5764.0	11477.0	3694.0	312.60	42.40	5.80	838.0	52643.0	13.0	6630.0	25597.0
7Y 309 K	3506.0	6779.0	2217.0	171.70	22.00	.05	186.0	29207.0	5.0	7199.0	15020.0
7Y 310 K	5627.0	8979.0	2768.0	218.60	27.70	8.40	230.0	56548.0	12.0	14482.0	21164.7
7Y 311 K	7352.0	13990.0	4998.0	452.10	62.00	52.20	196.0	81044.0	20.0	27378.0	32313.0
7Y 312 K	4059.0	7380.0	2399.0	212.90	28.50	.05	832.0	26321.0	17.0	13295.0	16852.7
7Y 313 K	2772.0	4543.0	1283.0	121.10	18.20	7.60	1025.0	5395.0	14.0	3133.0	10514.4
7Y 314 K	14219.0	26309.0	8505.0	828.60	107.90	8.70	549.0	65133.0	34.0	17009.0	60392.3
7Y 315 K	1945.0	3813.0	1159.0	112.50	13.40	23.40	583.0	15193.0	5.0	13268.0	8494.5
7Y 316 K	6489.0	10756.0	2363.0	310.30	43.90	21.70	173.0	44308.0	23.0	12286.0	23566.8
7Y 317 K	16198.0	10448.0	2348.0	284.20	37.80	9.40	26.0	344408.0	37.0	7230.0	2399.0
7Y 318 K	8189.0	14580.0	4231.0	396.60	52.70	7.10	26.0	65840.0	25.0	16458.0	32945.6
7Y 319 K	5361.0	10548.0	3434.0	333.80	49.80	3.90	22.0	36931.0	20.0	10708.0	23720.2
7Y 320 K	15138.0	27653.0	8175.0	757.90	106.00	18.70	89.0	150472.0	28.0	24027.0	62305.8
7Y 321 K	1768.0	3681.0	1240.0	114.10	17.10	28.60	753.0	19618.0	20.0	17857.0	8250.4
7Y 322 K	3324.0	5519.0	1367.0	78.20	16.70	4.30	1504.0	40061.0	6.0	5725.0	12332.9
7Y 323 K	5210.0	9228.0	2670.0	428.90	35.10	.05	51.0	32867.0	18.0	6787.0	21117.6
7Y 324 K	6390.0	7971.0	1630.0	160.90	19.30	1.50	188.0	47731.0	10.0	4288.0	19407.9
7Y 325 K	19198.0	26794.0	6354.0	582.60	75.10	6.10	53.0	115900.0	31.0	19818.0	63640.2





## Appendix 2

### Assay results (Drilling core samples)

#### Abbreviation

NO.	REO
S01~S11 :JMS-1~JMS-11	$\text{La}_2\text{O}_3 + \text{CeO}_2 + \text{Nd}_2\text{O}_3 + \text{Sm}_2\text{O}_3$
T01~T24 :JMT-1~JMT-24	$+ \text{Eu}_2\text{O}_3 + \text{Tb}_2\text{O}_3 + \text{Y}_2\text{O}_3$

#### Location

Depth 1 : shallow part (m)

Depth 2 : deep part (m)



NO	DEPTH	DEPTH2	THICK	La	Ce	Nd	Sm	Eu	Tb	Nb	Sf	Y	P	REO
S 101	10.0	13.9	3.9	1315.0	2761.0	942.0	156.00	41.00	15.00	637.0	1566.0	202.0	3154.0	6534.8
S 102	13.9	17.1	3.2	1385.0	2934.0	1176.0	182.10	52.40	16.00	1612.0	4550.0	295.0	4185.0	7275.5
S 103	17.1	19.9	2.8	1628.0	656.0	656.0	151.10	38.60	12.80	890.0	1653.0	168.0	2153.0	4162.3
S 104	19.9	21.9	2.0	2743.0	5345.0	2038.0	306.80	78.90	17.50	1711.0	2054.0	395.0	2298.0	3126.6
S 105	21.9	24.0	2.1	2366.0	4601.0	1718.0	262.10	62.40	.05	1177.0	1639.0	238.0	1191.0	11107.1
S 106	24.0	24.9	.9	2402.0	4667.0	1603.0	263.80	64.70	14.30	449.0	5328.0	325.0	2545.0	11277.9
S 107	24.9	26.7	1.8	6365.0	11908.0	4139.0	686.70	157.80	22.90	130.0	3862.0	475.0	1914.0	28524.2
S 108	26.7	27.8	1.1	1177.0	2995.0	1036.0	143.60	40.00	26.80	2471.0	3868.0	331.0	8728.0	6439.4
S 109	27.8	29.0	1.2	1370.0	2819.0	1063.0	199.40	51.10	5.00	2893.0	1823.0	251.0	2594.0	6923.2
S 110	29.0	31.9	2.9	2256.0	4324.0	1442.0	228.10	57.60	13.90	914.0	2009.0	274.0	3014.0	10332.2
S 111	31.9	33.6	1.7	1190.0	2617.0	1227.0	232.20	58.40	.05	690.0	2268.0	370.0	6085.0	6847.2
S 112	33.6	36.6	3.0	1084.0	2392.0	840.0	172.50	46.00	14.40	687.0	1830.0	442.0	7804.0	5774.0
S 113	36.6	38.1	1.5	1761.0	3724.0	1469.0	238.40	63.60	29.90	831.0	2328.0	362.0	4117.0	9395.9
S 114	38.1	40.9	2.8	1814.0	3800.0	1855.0	357.90	90.40	36.30	396.0	1855.0	673.0	8571.0	10873.5
S 115	44.0	47.8	3.8	19.0	39.0	7.0	2.90	.05	.05	7.0	475.0	5.0	4.0	88.2
S 201	17.0	19.9	2.9	2834.0	5861.0	1655.0	278.20	70.70	23.70	401.0	3707.0	318.0	6473.0	12140.4
S 202	19.9	22.3	2.4	3793.0	7716.0	2664.0	353.10	73.30	14.30	290.0	2930.0	270.0	2086.0	17872.8
S 203	22.3	24.4	2.1	3093.0	6016.0	2315.0	451.60	123.80	40.10	2033.0	3298.0	536.0	5475.0	15109.1
S 204	24.4	26.1	1.7	3666.0	6660.0	2265.0	469.40	141.90	31.00	1750.0	3515.0	659.0	5903.0	16578.3
S 205	26.1	29.0	2.9	2310.0	4322.0	1520.0	288.40	82.20	24.50	1219.0	2902.0	528.0	10070.0	10917.9
S 206	37.6	40.5	3.0	5042.0	9243.0	3159.0	514.00	130.00	63.30	863.0	3947.0	556.0	11545.0	22473.8
S 207	40.6	44.4	3.8	2477.0	4344.0	1476.0	256.90	60.30	17.60	660.0	2060.0	162.0	2977.0	10654.8
S 208	49.4	50.1	.7	1056.0	1846.0	541.0	93.40	22.20	15.30	478.0	2294.0	134.0	5357.0	4458.5
S 301	3.1	3.7	.6	2298.0	4566.0	1602.0	395.60	110.10	36.90	1406.0	1337.0	298.0	6702.0	10932.3
S 302	5.4	5.9	.5	6300.0	10302.0	3425.0	469.30	101.80	32.80	138.0	9376.0	203.0	1504.0	2492.1
S 303	13.5	14.0	.5	3822.0	6420.0	1894.0	264.90	61.10	22.80	2823.0	4335.0	367.0	8554.0	15421.6
S 304	16.4	16.6	2.4	3509.0	5838.0	1734.0	233.70	65.10	21.40	1307.0	11312.0	348.0	12018.0	14144.2
S 305	16.4	16.6	.2	180.0	3724.0	1160.0	184.60	53.70	36.00	703.0	7814.0	567.0	51670.0	9274.4
S 306	16.6	20.8	4.2	9108.0	13307.0	3283.0	501.80	113.70	25.70	1667.0	28889.0	405.0	12486.0	32177.3
S 307	29.0	31.4	2.4	1315.0	2620.0	867.0	165.00	39.20	7.10	824.0	991.0	95.0	2003.0	6137.7
S 308	39.0	40.5	1.5	1397.0	3602.0	996.0	170.90	44.60	10.60	726.0	2162.0	247.0	4498.0	8380.1
S 309	49.1	51.2	2.1	1375.0	2694.0	920.0	157.40	48.40	14.00	597.0	7332.0	377.0	8990.0	627.4
S 310	51.2	53.1	1.9	1061.0	2046.0	646.0	105.90	33.10	2.50	741.0	6644.0	238.0	6063.0	476.6
S 311	54.3	54.8	1.5	1206.0	2659.0	885.0	154.40	45.50	14.60	690.0	8147.0	207.0	1208.0	6224.4
S 312	54.8	56.0	1.2	764.0	1764.0	573.0	105.30	30.90	8.70	555.0	5916.0	192.0	2721.0	4142.3
S 401	5.1	6.4	1.3	1922.0	4264.0	1733.0	373.70	110.40	46.60	691.0	4563.0	431.0	1938.0	10931.2
S 402	9.0	10.8	1.8	1983.0	4910.0	2365.0	551.50	158.50	89.80	35.0	19311.0	603.0	4233.0	12805.6
S 403	27.8	30.4	2.6	2020.0	4884.0	2416.0	493.80	132.30	79.50	25.0	4055.0	477.0	1454.0	12607.4
S 404	30.4	33.0	2.6	2688.0	5097.0	3046.0	738.40	205.60	80.60	25.0	9445.0	695.0	3075.0	16261.8
S 405	33.0	35.0	2.0	4519.0	8327.0	3279.0	518.90	107.90	39.90	28.0	2034.0	333.0	1566.0	20339.6
S 406	38.1	41.2	3.1	3650.0	7266.0	2763.0	449.60	108.40	79.50	1574.0	2471.0	769.0	10265.0	18141.0
S 407	41.2	44.2	3.0	3434.0	6681.0	2498.0	355.70	96.80	75.80	1468.0	2511.0	646.0	7404.0	16487.8
S 408	44.2	47.2	3.0	3033.0	6841.0	2778.0	430.90	116.00	70.10	1897.0	2551.0	863.0	6593.0	17003.4
S 409	47.2	50.4	3.2	10017.0	13245.0	2969.0	436.00	90.00	49.80	648.0	34293.0	412.0	3223.0	32667.2
S 410	50.4	53.3	2.9	5550.0	8081.0	2102.0	301.00	74.40	33.00	1967.0	19154.0	50.0	12323.0	20005.5
S 501	13.2	13.9	.7	2111.0	4529.0	1855.0	351.20	88.90	34.80	2418.0	3756.0	570.0	15040.0	11671.2
S 502	16.1	17.8	1.7	3197.0	6539.0	2414.0	395.50	86.10	38.50	1070.0	2773.0	276.0	4701.0	15348.0
S 503	18.6	21.0	2.4	2527.0	4967.0	1933.0	314.30	78.00	54.10	1065.0	3120.0	395.0	10953.0	12386.4
S 504	21.6	25.9	4.3	2078.0	3954.0	1506.0	263.80	70.40	43.80	1375.0	7255.0	264.0	6115.0	9822.2
S 505	29.1	33.5	4.4	2310.0	4653.0	1893.0	299.60	77.40	70.80	1272.0	7834.0	409.0	15398.0	11632.6
S 506	35.0	40.0	5.0	2322.0	4541.0	1893.0	287.00	81.70	84.40	1887.0	4678.0	498.0	10920.0	11560.5
S 507	40.0	43.7	3.7	2234.0	4308.0	1809.0	290.00	73.20	52.60	1214.0	2674.0	351.0	7601.0	10947.5
S 508	43.7	46.2	2.5	1575.0	3256.0	1518.0	246.00	65.80	57.10	1943.0	2694.0	239.0	5760.0	8346.6
S 509	46.2	50.7	4.5	3365.0	6156.0	2396.0	381.50	102.40	69.30	1463.0	5836.0	403.0	13653.0	15453.1
S 510	50.7	52.0	1.3	1447.0	2953.0	1325.0	211.20	69.70	67.10	274.0	11071.0	809.0	96676.0	8298.9
S 601	6.3	7.4	1.1	2081.0	4416.0	2083.0	316.70	90.70	55.80	3369.0	2178.0	377.0	374.0	11231.9

NO	DEPTH	DEPTH2	THICK	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	RbO
S 602	7.4	9.3	1.9	1500.0	3046.0	1426.0	220.70	68.10	50.60	887.0	3849.0	330.0	3539.0	7974.9
S 603	9.3	10.2	.9	864.0	1874.0	750.0	141.50	42.40	31.90	473.0	1840.0	262.0	9901.0	4526.3
S 604	10.2	13.5	3.3	1402.0	2867.0	1184.0	246.10	73.40	62.70	463.0	2670.0	631.0	9631.0	7789.8
S 605	13.5	14.6	1.1	1305.0	2870.0	2146.0	477.80	106.30	111.40	.5	1320.0	121.0	86.0	9499.0
S 606	14.6	16.6	2.0	973.0	2243.0	1248.0	298.80	87.40	54.40	684.0	2595.0	517.0	6999.0	6517.3
S 607	19.2	19.9	.7	771.0	1700.0	865.0	205.60	74.30	71.20	882.0	2350.0	555.0	11334.0	5111.9
S 608	22.9	25.2	1.3	1432.0	3121.0	1470.0	324.10	93.90	35.70	426.0	1711.0	291.0	1112.0	8121.7
S 609	33.5	33.0	.5	1031.0	2423.0	1300.0	309.10	92.40	28.40	597.0	1331.0	312.0	710.0	6496.9
S 610	36.1	39.9	1.8	1798.0	3897.0	1853.0	432.40	118.80	61.60	520.0	2107.0	468.0	3881.0	10359.6
S 701	3.9	4.2	.3	1783.0	3591.0	1361.0	252.60	54.70	23.20	3270.0	2303.0	285.0	1389.0	8772.1
S 702	6.0	8.0	2.0	2265.0	4776.0	2045.0	319.20	88.20	41.90	800.0	12697.0	476.0	6120.0	12031.4
S 703	8.0	9.8	1.8	1570.0	3376.0	1435.0	236.00	65.20	53.60	8058.0	6814.0	468.0	19790.0	8667.0
S 704	31.7	33.8	2.1	455.0	775.0	237.0	64.10	20.20	1.60	725.0	737.0	161.0	7578.0	2077.3
S 705	33.8	35.8	2.0	285.0	701.0	335.0	98.00	27.80	9.40	596.0	674.0	221.0	5349.0	2020.8
S 801	1.7	2.6	.9	1783.0	3591.0	1495.0	212.50	58.50	36.90	730.0	10947.0	566.0	8612.0	9319.9
S 802	2.6	4.3	1.7	1679.0	3360.0	1456.0	208.50	60.10	46.20	690.0	9918.0	670.0	8905.0	9008.8
S 803	6.0	8.2	2.2	1625.0	3237.0	1550.0	289.90	85.90	42.10	1562.0	2675.0	765.0	5365.0	9217.9
S 804	8.2	10.8	2.6	820.0	1675.0	630.0	156.40	47.00	6.20	733.0	1469.0	301.0	1901.0	4378.6
S 805	10.8	12.7	1.9	798.0	1864.0	662.0	130.70	37.60	14.90	1225.0	1951.0	314.0	2619.0	4608.0
S 806	12.7	14.3	1.6	625.0	1507.0	538.0	98.10	32.40	12.50	1504.0	1663.0	440.0	6119.0	3935.5
S 807	14.3	16.3	2.0	1263.0	1748.0	366.0	92.50	29.80	5.60	295.0	786.0	277.0	2329.0	4554.8
S 808	19.7	21.7	2.0	574.0	775.0	150.0	50.80	17.00	39.50	445.0	608.0	73.0	1081.0	2016.7
S 901	4.0	5.3	1.3	1662.0	3639.0	1725.0	335.70	91.60	36.20	793.0	1756.0	377.0	1156.0	9479.9
S 902	9.8	11.0	1.2	2197.0	4012.0	1595.0	280.10	79.60	51.70	426.0	1987.0	433.0	3391.0	10415.5
S 903	34.6	37.1	2.5	2087.0	4148.0	1886.0	303.40	76.00	32.70	1296.0	1784.0	434.0	5866.0	10536.4
S 904	41.1	41.6	.5	2387.0	4746.0	1935.0	347.00	87.30	62.80	119.0	2853.0	689.0	7609.0	12335.2
S 905	44.8	45.8	1.0	2148.0	4204.0	1946.0	396.00	136.10	145.90	514.0	3827.0	1887.0	2893.0	13095.6
S 906	47.2	49.6	2.4	2564.0	5207.0	2123.0	321.00	81.30	25.80	633.0	2103.0	332.0	1033.0	12834.2
S1001	6.7	8.9	2.2	2776.0	5313.0	2354.0	238.90	84.40	63.10	2838.0	2482.0	510.0	10940.0	13990.2
S1002	11.8	13.0	1.2	4705.0	8044.0	2312.0	337.40	81.70	67.10	661.0	3371.0	509.0	15339.0	19524.0
S1003	13.0	14.3	1.3	3080.0	6161.0	2889.0	390.30	97.30	52.30	235.0	18024.0	733.0	18999.0	15792.0
S1004	14.3	17.9	3.6	2704.0	5709.0	2298.0	493.80	105.20	192.00	966.0	15019.0	1082.0	33256.0	15047.3
S1005	18.9	23.5	4.6	2773.0	5977.0	2370.0	345.00	89.30	145.90	2328.0	11252.0	674.0	11468.0	14883.4
S1006	23.5	25.4	1.9	1816.0	3556.0	1384.0	232.10	66.70	81.80	544.0	12903.0	500.0	7593.0	9521.1
S1007	25.7	29.4	3.7	1759.0	3630.0	1440.0	203.70	59.30	66.90	963.0	13864.0	522.0	7388.0	9477.2
S1008	29.4	32.8	3.4	2954.0	4710.0	1490.0	228.60	60.80	66.50	8376.0	8376.0	539.0	9332.0	12109.5
S1009	32.8	35.8	3.0	3175.0	4424.0	1317.0	171.40	46.70	39.40	603.0	14527.0	484.0	7255.0	11463.5
S1010	35.8	38.8	3.0	2883.0	3794.0	1339.0	224.50	67.20	93.90	1573.0	7795.0	535.0	10425.0	10850.5
S1011	38.8	42.9	4.1	7712.0	9454.0	2266.0	305.70	71.10	110.80	1032.0	4513.0	583.0	12215.0	24602.7
S1012	42.9	45.3	2.4	1629.0	2777.0	906.0	142.60	43.70	72.50	256.0	9460.0	495.0	12678.0	7305.5
S1013	45.3	46.6	1.3	1725.0	2847.0	896.0	132.10	49.70	35.80	795.0	10527.0	394.0	7358.0	7336.6
S1014	46.6	48.5	1.9	1131.0	2333.0	843.0	122.60	36.80	33.20	1239.0	12401.0	332.0	8143.0	5306.9
S1015	48.6	51.0	2.3	1523.0	3157.0	1134.0	118.50	32.80	44.00	859.0	12917.0	417.0	10913.0	7830.5
S1101	7.4	4.3	3.6	1398.0	2848.0	1134.0	138.80	32.50	23.20	2739.0	1509.0	139.0	7638.0	6852.5
S1102	4.3	7.0	2.7	2506.0	5888.0	2371.0	21.00	73.80	32.30	455.0	2698.0	451.0	32545.0	13886.4
S1103	7.0	11.0	4.0	1793.0	4592.0	2041.0	300.50	67.30	16.70	295.0	1212.0	293.0	1413.0	10817.2
S1104	11.0	14.0	3.0	2224.0	4662.0	1884.0	244.10	56.80	32.20	2503.0	1401.0	373.0	10336.0	11401.8
S1105	14.0	17.0	3.0	665.0	1465.0	558.0	84.10	23.70	23.30	442.0	1309.0	230.0	15188.0	3683.2
S1106	17.0	20.0	3.0	2289.0	5182.0	2488.0	232.60	71.20	23.70	558.0	1036.0	325.0	3246.0	12505.8
S1107	20.0	23.0	3.0	2205.0	4504.0	1822.0	235.30	56.90	24.00	2400.0	1365.0	306.0	6860.0	10950.3
S1108	23.0	26.0	3.0	2552.0	5104.0	1964.0	236.00	55.90	22.10	793.0	2212.0	254.0	6310.0	12237.7
S1109	26.0	29.0	3.0	2344.0	5205.0	1969.0	231.10	75.20	33.10	660.0	3827.0	435.0	5018.0	12544.7
S1110	29.0	33.4	4.4	2351.0	5186.0	2118.0	216.20	71.60	31.90	2677.0	2346.0	388.0	6310.0	12447.8
S1111	44.3	47.3	3.0	1247.0	2839.0	1193.0	32.50	48.30	28.40	1711.0	1724.0	236.0	13211.0	7004.6
T 101	3.9	6.9	3.0	427.0	770.0	202.0	32.50	5.00	12.05	353.0	12229.0	55.0	5779.0	179.4
T 102	6.9	9.9	3.0	519.0	1043.0	336.0	12.70	9.20	12.20	1037.0	13717.0	70.0	7295.0	2409.7

NO	DEPTH1	DEPTH2	THICK	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
T 103	9.9	12.9	3.0	472.0	873.0	234.0	32.10	6.60	17.10	342.0	7351.0	53.0	4656.0	2053.7
T 104	12.9	17.9	5.0	408.0	736.0	188.0	29.70	6.10	6.60	449.0	2968.0	55.0	5233.0	1720.6
T 105	17.9	21.1	3.2	470.0	877.0	252.0	26.90	6.90	8.70	762.0	9966.0	61.0	5224.0	2060.4
T 106	21.1	22.6	1.5	577.0	1137.0	335.0	45.30	10.40	.05	304.0	10907.0	71.0	7382.0	2618.5
T 107	22.6	25.6	3.0	547.0	1012.0	290.0	39.20	7.80	1.40	290.0	7810.0	60.0	8332.0	2354.8
T 108	25.6	28.6	3.0	465.0	880.0	238.0	34.10	7.40	4.10	240.0	6550.0	52.0	5370.0	2022.5
T 109	28.6	31.6	3.0	1305.0	2450.0	756.0	104.10	22.80	.05	166.0	4342.0	77.0	2514.0	5665.9
T 110	31.6	34.6	3.0	477.0	860.0	221.0	35.10	6.60	.05	186.0	7348.0	57.0	6090.0	1984.1
T 111	34.6	37.6	3.0	594.0	1134.0	311.0	40.40	8.40	.05	208.0	6839.0	62.0	7423.0	2587.3
T 112	37.6	40.6	3.0	444.0	868.0	126.0	36.20	7.30	.05	176.0	11961.0	63.0	5651.0	2025.1
T 113	40.6	44.3	3.7	547.0	886.0	304.0	35.10	8.40	33.10	101.0	13282.0	67.0	7688.0	2380.5
T 114	44.3	48.6	4.3	478.0	859.0	228.0	34.70	7.10	26.90	304.0	9913.0	55.0	4926.0	2029.5
T 115	48.6	50.3	1.7	425.0	795.0	240.0	33.40	7.50	28.00	314.0	11315.0	59.0	5748.0	1909.2
T 201	1.1	4.1	3.0	414.0	720.0	243.0	19.50	4.40	7.90	374.0	3459.0	24.0	1525.0	1727.7
T 202	4.1	7.1	3.0	698.0	1444.0	493.0	60.60	15.40	3.40	722.0	4550.0	86.0	1831.0	3368.1
T 203	7.1	10.1	3.0	762.0	1590.0	537.0	68.70	17.10	5.40	217.0	7193.0	97.0	19925.0	3701.4
T 204	10.1	13.1	3.0	710.0	1538.0	532.0	65.40	16.40	22.80	245.0	4412.0	99.0	16203.0	3588.6
T 205	13.1	16.1	3.0	994.0	1966.0	652.0	87.20	19.90	3.70	623.0	2989.0	90.0	8715.0	4883.2
T 206	16.1	19.1	3.0	813.0	1640.0	566.0	72.90	16.70	36.40	567.0	4447.0	97.0	26319.0	3896.5
T 207	19.1	22.1	3.0	893.0	1823.0	647.0	84.40	19.60	10.30	459.0	7451.0	116.0	31727.0	4320.3
T 208	22.1	25.1	3.0	561.0	1064.0	338.0	42.40	9.70	11.80	76.0	19205.0	37.0	2455.0	2479.7
T 209	25.1	28.1	3.0	973.0	1819.0	652.0	79.00	20.20	5.10	420.0	8431.0	101.0	32087.0	4384.5
T 210	28.1	31.1	3.0	743.0	1347.0	461.0	59.90	14.60	21.90	261.0	4347.0	85.0	14542.0	3283.6
T 301	0.0	3.0	3.0	617.0	1064.0	380.0	42.50	12.60	5.80	1399.0	15231.0	79.0	18020.0	2631.3
T 302	3.0	6.0	3.0	738.0	1412.0	501.0	67.80	16.80	63.40	381.0	14581.0	74.0	41502.0	3448.8
T 303	6.0	9.0	3.0	592.0	1080.0	387.0	53.10	12.40	55.70	1280.0	12010.0	86.0	19794.0	2721.2
T 304	9.0	12.0	3.0	541.0	1060.0	255.0	42.10	10.00	.05	839.0	8328.0	78.0	13563.0	2393.1
T 305	12.0	15.0	3.0	511.0	1007.0	295.0	47.30	10.10	39.00	938.0	7509.0	69.0	16802.0	2379.1
T 306	15.0	18.0	3.0	550.0	1173.0	382.0	60.50	11.50	66.20	753.0	5205.0	64.0	30437.0	2772.0
T 307	18.0	21.0	3.0	400.0	687.0	198.0	34.90	8.00	2.00	533.0	4564.0	35.0	52037.0	1636.7
T 401	1.5	5.0	3.5	459.0	814.0	283.0	34.10	6.90	.05	190.0	2170.0	42.0	4604.0	1967.8
T 402	5.0	7.8	2.8	179.0	379.0	104.0	21.70	2.80	.05	506.0	937.0	18.0	3086.0	848.0
T 403	9.5	11.7	2.2	509.0	923.0	351.0	52.60	9.40	18.90	256.0	3403.0	64.0	8328.0	2314.7
T 404	13.0	15.2	2.2	511.0	864.0	312.0	42.50	7.80	3.90	389.0	9785.0	42.0	4317.0	2140.3
T 405	16.5	18.7	2.2	443.0	982.0	373.0	55.20	9.50	19.00	459.0	3225.0	64.0	7371.0	2338.4
T 406	19.5	21.7	2.2	627.0	1244.0	414.0	56.20	10.90	37.10	489.0	5392.0	71.0	8123.0	2956.5
T 407	22.5	24.7	2.2	867.0	1614.0	603.0	82.60	17.00	10.20	283.0	7750.0	92.0	9942.0	3946.2
T 408	25.5	27.7	2.2	636.0	1294.0	422.0	54.80	11.60	6.80	122.0	5955.0	66.0	7068.0	2995.8
T 409	28.5	30.7	2.2	598.0	1277.0	423.0	55.30	11.90	8.40	333.0	4440.0	77.0	8892.0	2948.2
T 501	11.3	12.1	.8	1207.0	2595.0	892.0	143.90	21.80	48.90	331.0	1582.0	139.0	1632.0	6131.0
T 502	12.1	15.4	3.3	1752.0	3198.0	933.0	121.50	17.50	.05	100.0	1159.0	128.0	9641.0	7393.9
T 503	15.4	18.7	3.3	1326.0	2524.0	863.0	93.90	12.40	.30	143.0	1742.0	44.0	3057.0	5607.4
T 504	18.7	21.9	3.2	295.0	499.0	97.0	5.20	.80	.05	20.0	1177.0	17.0	756.0	1100.5
T 505	21.9	25.2	3.3	56.0	57.0	8.0	.05	.05	.05	3.0	1250.0	5.0	119.0	151.5
T 506	25.2	28.4	3.2	2406.0	4508.0	1436.0	208.50	35.30	103.30	459.0	735.0	99.0	5285.0	10659.8
T 507	28.4	31.3	2.9	4485.0	7988.0	2260.0	334.90	57.40	9.20	470.0	912.0	251.0	9744.0	18489.6
T 601	1.2	4.2	3.0	596.0	1245.0	450.0	60.30	13.10	.05	57.0	11352.0	69.0	1412.0	2925.3
T 602	4.2	7.2	3.0	742.0	1563.0	582.0	76.50	17.20	.80	155.0	19003.0	87.0	17355.0	3638.4
T 603	7.2	10.4	3.2	620.0	1286.0	432.0	61.60	12.40	.05	739.0	14721.0	66.0	12016.0	2979.9
T 604	10.4	13.6	3.2	489.0	974.0	333.0	47.10	9.60	10.40	591.0	7757.0	57.0	8818.0	2308.1
T 605	13.6	16.8	3.2	432.0	831.0	266.0	48.10	7.10	.05	609.0	7820.0	46.0	7642.0	1959.9
T 606	16.8	19.9	3.1	445.0	842.0	289.0	48.40	7.40	6.30	422.0	8555.0	40.0	5254.0	1982.4
T 607	19.9	23.0	3.1	397.0	715.0	227.0	49.30	6.90	11.80	645.0	4554.0	42.0	6140.0	1740.5
T 608	23.0	26.1	3.1	423.0	636.0	236.0	38.60	7.90	.05	582.0	6289.0	49.0	6330.0	1847.9
T 609	26.1	29.2	3.1	441.0	818.0	240.0	39.10	7.20	.05	486.0	6327.0	43.0	5939.0	1910.0
T 701	2.0	3.0	1.0	2663.0	5802.0	1307.0	346.20	111.10	60.40	2038.0	4841.0	1478.0	31976.0	14249.3

NO	DEPTH1	DEPTH2	THICK	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
T 702	3.4	7.2	3.8	2837.0	6232.0	1300.0	327.70	100.00	55.30	2659.0	8482.0	1304.0	140981.0	14712.2
T 703	7.2	9.0	1.8	3131.0	6648.0	1468.0	348.00	102.80	63.60	3257.0	4630.0	1349.0	110990.0	15740.7
T 704	9.0	11.6	2.6	1794.0	3220.0	690.0	133.30	35.00	.05	546.0	9675.0	726.0	66347.0	7968.7
T 705	11.6	14.2	2.6	212.0	397.0	123.0	22.10	2.90	.05	267.0	3129.0	48.0	7281.0	969.6
T 706	14.2	17.8	3.6	5109.0	7303.0	922.0	214.80	55.60	28.60	746.0	23229.0	495.0	34290.0	17011.1
T 707	17.8	22.4	4.6	7471.0	10182.0	1079.0	189.30	24.20	.05	390.0	38635.0	104.0	5157.0	22831.2
T 708	24.5	26.2	1.7	125.0	237.0	66.0	15.50	1.80	.05	251.0	2411.0	28.0	4999.0	570.3
T 709	40.0	43.2	3.2	409.0	638.0	225.0	52.10	11.00	10.80	265.0	2325.0	135.0	12144.0	1807.2
T 801	6.6	9.6	3.0	702.0	1130.0	278.0	42.00	6.60	.05	210.0	855.0	66.0	2368.0	2675.5
T 802	9.6	12.8	3.2	665.0	989.0	207.0	12.50	5.70	.05	269.0	507.0	54.0	1377.0	2325.6
T 803	12.8	17.0	4.2	724.0	1124.0	232.0	39.60	6.60	.05	244.0	448.0	64.0	1869.0	2635.0
T 804	17.0	22.0	5.0	557.0	854.0	175.0	25.70	4.00	.05	274.0	473.0	56.0	1864.0	2011.7
T 805	22.0	26.3	4.3	857.0	966.0	191.0	30.90	5.80	.05	213.0	1128.0	74.0	3119.0	2269.3
T 806	26.8	31.2	4.4	587.0	843.0	175.0	26.60	3.20	.05	147.0	5716.0	38.0	527.0	2010.7
T 807	31.2	34.8	3.6	410.0	652.0	111.0	10.00	3.20	.05	182.0	869.0	50.0	1938.0	1489.9
T 808	35.7	40.6	4.9	481.0	622.0	184.0	26.60	3.90	.05	181.0	8677.0	43.0	309.0	1694.0
T 809	40.6	44.9	4.3	706.0	1023.0	264.0	40.60	7.40	.05	251.0	4045.0	65.0	671.0	2530.5
T 810	44.9	50.2	5.3	711.0	1041.0	227.0	28.60	6.10	.05	191.0	1094.0	52.0	1263.0	2483.4
T 901	1.3	4.3	3.0	362.0	734.0	263.0	46.40	13.10	.05	465.0	1006.0	66.0	5913.0	1785.5
T 902	4.3	7.3	3.0	388.0	774.0	324.0	42.80	12.20	30.60	440.0	938.0	79.0	5434.0	1982.7
T 903	7.3	10.3	3.0	399.0	791.0	317.0	48.40	9.00	.05	447.0	1239.0	67.0	5355.0	1960.7
T 904	10.3	13.3	3.0	288.0	591.0	203.0	44.80	7.90	.05	444.0	933.0	42.0	4399.0	1414.8
T 905	13.3	15.1	1.8	438.0	488.0	181.0	29.80	6.40	.05	667.0	995.0	57.0	6133.0	1222.7
T 906	35.0	38.9	3.9	357.0	807.0	318.0	48.10	9.60	.05	471.0	1351.0	74.0	6734.0	1953.2
T 907	38.9	41.9	3.0	382.0	809.0	306.0	53.60	11.70	.05	379.0	1733.0	80.0	5242.0	1975.2
T 908	41.9	43.9	2.0	369.0	735.0	242.0	48.50	8.50	.05	473.0	2003.0	53.0	4115.0	1773.2
T1001	14.3	16.8	2.5	493.0	1123.0	507.0	92.10	21.10	9.00	250.0	511.0	101.0	3360.0	2824.2
T1002	16.8	19.5	2.7	2623.0	6616.0	2656.0	394.80	88.10	139.10	96.0	664.0	124.0	3770.0	15152.5
T1003	19.5	23.8	4.3	2518.0	6188.0	2150.0	421.30	67.30	42.60	220.0	664.0	107.0	4069.0	14511.7
T1004	23.8	27.9	4.1	1004.0	2200.0	754.0	114.00	20.40	205.90	61.0	768.0	62.0	556.0	5230.1
T1005	27.9	29.8	1.9	2539.0	6280.0	2064.0	273.40	45.60	2.90	63.0	635.0	61.0	170.0	13522.9
T1006	29.8	32.2	2.4	701.0	1318.0	332.0	60.50	10.50	362.00	31.0	848.0	43.0	3381.5	3381.5
T1007	32.2	36.2	4.0	1582.0	3866.0	1406.0	185.50	31.20	.05	365.0	636.0	59.0	98.0	8568.8
T1008	36.2	40.2	4.0	1121.0	2662.0	1020.0	128.80	22.40	.05	446.0	518.0	37.0	53.0	5955.6
T1009	40.2	43.0	2.8	1022.0	2294.0	815.0	110.00	19.40	.05	511.0	456.0	38.0	135.0	5152.2
T1010	43.0	45.5	2.5	1117.0	2767.0	1062.0	150.20	25.90	.05	491.0	512.0	44.0	579.0	6206.6
T1011	45.5	50.1	4.6	1314.0	3446.0	1179.0	156.00	28.70	.05	214.0	577.0	51.0	475.0	7426.7
T1101	0.0	3.0	3.0	566.0	1213.0	408.0	73.80	12.00	5.70	420.0	773.0	41.0	4575.0	2787.3
T1102	4.5	7.5	3.0	790.0	1782.0	555.0	95.00	17.40	3.10	1045.0	1194.0	63.0	10057.0	3976.8
T1103	11.2	15.1	3.9	1577.0	3878.0	1758.0	266.40	60.30	14.80	1023.0	1022.0	133.0	4079.0	9226.6
T1104	15.1	18.9	3.8	1291.0	3161.0	1460.0	248.50	61.70	6.10	981.0	1021.0	152.0	4236.0	7658.2
T1105	20.2	24.8	4.6	1510.0	3717.0	1661.0	258.90	62.50	6.50	942.0	931.0	77.0	695.0	8750.4
T1106	26.8	29.2	2.4	822.0	2073.0	734.0	144.30	34.00	7.90	462.0	886.0	53.0	428.0	4648.9
T1107	29.2	33.5	4.3	1320.0	3419.0	1405.0	243.40	54.20	18.60	863.0	641.0	123.0	3150.0	7907.8
T1108	33.5	38.7	5.2	913.0	2363.0	846.0	141.50	29.50	18.50	656.0	803.0	120.0	6368.0	5206.8
T1201	3.2	6.0	2.8	345.0	1741.0	603.0	83.30	18.90	11.40	1561.0	15094.0	89.0	30673.0	4084.8
T1202	6.0	9.0	3.0	682.0	1344.0	489.0	64.00	14.80	6.80	877.0	1884.0	78.0	21738.0	3182.0
T1203	9.0	12.0	3.0	734.0	1381.0	516.0	67.00	16.30	8.40	1052.0	19327.0	88.0	23249.0	3376.5
T1204	12.0	15.0	3.0	866.0	1582.0	617.0	83.90	19.20	36.60	482.0	19069.0	94.0	32109.0	3947.3
T1205	15.0	18.0	3.0	782.0	1460.0	550.0	79.40	17.90	12.40	1801.0	18393.0	88.0	26341.0	3589.6
T1206	18.0	21.0	3.0	870.0	1766.0	649.0	90.40	20.20	19.40	1851.0	18412.0	95.0	37038.0	4144.0
T1207	21.0	24.0	3.0	890.0	1566.0	633.0	82.40	19.20	11.30	633.0	19354.0	98.0	33883.0	3871.7
T1208	24.0	27.0	3.0	647.0	1172.0	437.0	52.20	13.00	7.90	736.0	20429.0	82.0	13760.0	2895.5
T1209	27.0	30.0	3.0	651.0	1119.0	438.0	59.10	12.00	4.50	223.0	17627.0	78.0	18268.0	3080.8
T1210	30.0	33.0	3.0	651.0	1168.0	416.0	52.40	12.50	1.60	160.0	20394.0	83.0	8821.0	2865.5
T1211	33.0	36.0	3.0	590.0	1009.0	361.0	43.90	11.10	3.20	520.0	17568.0	75.0	8208.0	2514.8

NO	DEPTH1	DEPTH2	THICK	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REO
T1212	36.0	39.0	3.0	665.0	1257.0	449.0	51.80	13.30	7.70	674.0	21074.0	84.0	16460.0	3038.2
T1213	39.0	42.0	3.0	647.0	1201.0	457.0	55.00	14.10	8.10	1022.0	19593.0	81.0	18157.0	2860.1
T1214	42.0	45.0	3.0	710.0	1378.0	496.0	68.10	17.20	18.70	1925.0	18502.0	88.0	30168.0	3335.6
T1215	45.0	48.5	1.5	864.0	1767.0	749.0	90.80	21.00	9.40	1775.0	18438.0	120.0	45333.0	4349.5
T1216	48.5	50.2	3.7	659.0	1172.0	421.0	72.90	14.30	7.10	2482.0	10464.0	79.0	31535.0	2312.7
T1301	1.3	4.2	2.9	518.0	550.0	169.0	31.20	5.80	10.80	961.0	1791.0	40.0	10331.0	1351.7
T1302	4.2	7.2	3.0	271.0	475.0	115.0	20.00	3.70	7.60	541.0	2258.0	35.0	34869.0	1116.0
T1303	7.2	10.0	2.8	275.0	483.0	127.0	20.80	3.90	9.90	498.0	1519.0	29.0	2793.0	1139.7
T1304	10.0	12.1	2.1	274.0	516.0	137.0	17.30	3.90	5.00	656.0	4117.0	38.0	4006.0	1193.4
T1305	14.4	17.2	2.8	308.0	545.0	137.0	21.10	4.70	1.60	1016.0	13244.0	50.0	3273.0	1285.5
T1306	19.2	20.2	1.0	398.0	580.0	121.0	33.10	4.60	27.70	148.0	8649.0	41.0	7410.0	1449.0
T1307	28.5	33.0	3.5	211.0	382.0	109.0	16.30	2.90	8.10	274.0	11894.0	35.0	2846.0	919.7
T1308	33.0	36.0	3.0	233.0	434.0	125.0	22.60	.70	3.90	337.0	8508.0	32.0	4910.0	1024.2
T1309	47.3	50.3	3.0	176.0	290.0	59.0	15.20	.05	20.60	240.0	7019.0	21.0	2882.0	699.4
T1401	0.0	2.4	2.4	8292.0	11476.0	2372.0	334.10	63.90	.05	524.0	42235.0	297.0	14123.0	27423.6
T1402	2.4	6.2	3.8	2749.0	5049.0	1577.0	21.50	69.80	17.90	959.0	25020.0	373.0	18569.0	1130.5
T1403	6.2	10.4	4.2	2195.0	4224.0	1407.0	237.20	66.60	40.40	2922.0	13091.0	397.0	21399.0	10305.3
T1404	10.4	14.0	3.6	1474.0	2877.0	1061.0	226.90	72.50	35.40	5354.0	5948.0	663.0	41912.0	7729.0
T1405	14.0	17.3	3.3	4439.0	6633.0	1956.0	304.80	67.00	10.00	809.0	22086.0	305.0	14401.0	18463.0
T1406	21.3	25.3	4.0	2065.0	4297.0	1390.0	273.10	86.10	40.00	4603.0	20012.0	532.0	36120.0	16334.1
T1407	25.3	29.3	4.0	2565.0	5061.0	1841.0	256.00	59.10	8.60	1329.0	7833.0	284.0	11959.0	11873.0
T1408	29.3	32.0	2.7	2109.0	4209.0	1366.0	222.40	53.90	3.60	2591.0	1866.0	334.0	16516.0	10211.3
T1409	32.0	35.3	3.3	2985.0	4817.0	1822.0	183.60	37.30	17.10	832.0	3581.0	205.0	8445.0	11424.4
T1410	35.3	38.7	3.4	2638.0	3656.0	834.0	133.40	24.70	3.10	1449.0	2445.0	109.0	4842.0	8870.1
T1411	39.7	43.6	3.9	20623.0	23232.0	3442.0	491.00	50.10	.05	4360.0	55315.0	80.0	2482.0	57501.2
T1501	0.0	3.1	3.1	3666.0	5385.0	1132.0	152.30	20.70	7.80	297.0	30750.0	47.0	146.0	13525.5
T1502	3.1	6.3	3.2	838.0	1330.0	332.0	74.30	16.70	4.00	439.0	10494.0	114.0	7398.0	3252.4
T1503	6.3	9.8	3.5	426.0	636.0	135.0	20.40	3.50	.05	257.0	1993.0	45.0	3749.0	1523.0
T1504	9.8	12.9	3.1	2205.0	3044.0	542.0	85.50	16.00	.05	997.0	6061.0	88.0	7333.0	1786.0
T1505	12.9	19.5	6.6	1328.0	2228.0	460.0	75.50	14.00	25.30	251.0	11940.0	69.0	4719.0	5050.6
T1506	19.5	24.1	4.6	1251.0	1956.0	420.0	70.20	12.70	.05	352.0	13393.0	71.0	3229.0	4555.6
T1507	24.1	28.3	4.2	956.0	1499.0	362.0	58.30	7.50	.05	538.0	5233.0	29.0	3251.0	3450.5
T1508	28.3	30.6	2.3	2535.0	4093.0	1003.0	131.30	22.50	.05	312.0	2097.0	68.0	3256.0	9441.4
T1509	30.6	34.0	3.4	5711.0	8922.0	1972.0	290.90	43.30	.05	182.0	8965.0	72.0	465.0	20433.7
T1510	34.0	37.3	3.3	3053.0	1208.0	345.0	47.20	10.20	1.50	249.0	6193.0	89.0	4543.0	3093.9
T1511	37.3	41.4	4.1	3076.0	4508.0	965.0	138.50	21.20	1.50	244.0	8834.0	90.0	2836.0	10543.4
T1512	41.4	45.4	4.0	2554.0	4236.0	1087.0	171.80	25.20	.05	436.0	10863.0	90.0	3476.0	9832.5
T1513	45.4	49.4	4.0	2253.0	3173.0	741.0	128.30	23.30	1.05	578.0	5274.0	122.0	6606.0	7735.4
T1601	1.0	3.0	2.0	1417.0	2032.0	506.0	98.30	21.00	.05	550.0	13986.0	157.0	6345.0	5159.6
T1602	3.0	6.5	3.3	1828.0	2878.0	751.0	120.70	20.70	.05	571.0	5577.0	101.0	2190.0	6478.0
T1603	6.5	9.5	3.0	2410.0	3135.0	742.0	135.90	22.50	.05	503.0	1831.0	118.0	2665.0	7875.5
T1604	9.5	13.8	4.3	2086.0	2815.0	702.0	121.00	20.50	.05	492.0	2477.0	108.0	2211.0	7023.5
T1605	14.7	18.4	3.7	1693.0	2303.0	579.0	109.60	24.30	.05	380.0	3126.0	175.0	6899.0	5866.7
T1606	18.4	21.2	2.8	182.0	2672.0	606.0	94.20	13.00	.05	445.0	28434.0	60.0	2173.0	6314.6
T1607	21.2	24.5	3.3	3980.0	5856.0	1007.0	181.10	26.10	.05	241.0	41510.0	75.0	3058.0	13369.5
T1608	24.5	27.8	3.3	4000.0	6062.0	1524.0	209.10	28.40	.05	318.0	22272.0	40.0	126.0	14239.4
T1609	29.5	44.2	4.7	3190.0	4345.0	940.0	133.00	20.30	15.20	478.0	18667.0	79.0	1858.0	10470.4
T1610	44.2	48.1	3.9	4232.0	5424.0	1053.0	163.30	26.30	7.80	841.0	8617.0	83.0	1257.0	13186.9
T1611	48.1	50.1	2.0	862.0	1444.0	341.0	63.30	12.50	.05	258.0	12332.0	106.0	6613.0	3182.4
T1701	2.3	5.2	2.3	1667.0	2358.0	665.0	170.10	50.80	35.50	441.0	28908.0	337.0	28908.0	6482.6
T1702	5.2	17.7	2.7	2134.0	3551.0	631.0	102.40	14.20	.05	719.0	1287.0	34.0	1049.0	7678.7
T1703	17.7	20.7	3.0	4824.0	6110.0	1162.0	173.60	26.20	.05	1382.0	20774.0	36.0	654.0	14782.4
T1704	20.7	23.7	3.0	6424.0	8340.0	1420.0	219.80	30.90	7.20	717.0	35046.0	54.0	1636.0	19677.4
T1705	23.7	26.7	3.0	7514.0	9432.0	2191.0	335.50	54.60	14.30	1347.0	39107.0	56.0	338.0	23491.1
T1706	26.7	29.0	2.3	10459.0	14322.0	2759.0	385.20	58.10	.05	2939.0	45170.0	50.0	1129.0	33792.6
T1707	29.6	33.2	3.6	3040.0	5072.0	1098.0	184.70	28.90	1.90	1889.0	15696.0	46.0	768.0	11382.9



NO	DEPTH1	DEPTH2	THICK	La	Ce	Nd	Sm	Eu	Tb	Nb	Sr	Y	P	REC
T1708	33.2	35.2	2.0	9936.0	13812.0	2946.0	398.50	62.80	30.30	3164.0	42502.0	38.0	159.0	32670.4
T1709	36.2	39.4	3.2	3720.0	5094.0	1061.0	180.70	21.90	.05	1940.0	15164.0	30.0	230.0	12136.2
T1710	39.4	42.9	3.5	17513.0	21716.0	3333.0	502.30	69.10	4.20	2760.0	65149.0	54.0	149.0	51855.7
T1711	42.9	46.3	3.4	14713.0	19349.0	3214.0	470.30	65.10	3.90	1828.0	58355.0	35.0	136.0	45436.3
T1712	46.3	50.1	3.8	11476.0	21737.0	3398.0	497.60	68.00	.30	1064.0	60992.0	35.0	20.0	51365.2
T1801	.2	3.3	3.1	1174.0	1814.0	507.0	108.00	28.20	18.80	210.0	16705.0	209.0	12096.0	4637.4
T1802	3.3	7.9	4.6	1074.0	1951.0	423.0	100.00	24.90	.05	229.0	10872.0	256.0	15084.0	4618.9
T1803	7.9	12.0	4.1	1618.0	2820.0	636.0	114.10	23.50	.05	304.0	12170.0	202.0	11990.0	6483.6
T1804	12.0	15.1	3.1	1045.0	1561.0	457.0	106.40	27.20	.05	258.0	6255.0	279.0	15631.0	4184.9
T1805	15.1	17.4	2.3	569.0	936.0	287.0	65.30	17.70	31.00	126.0	24135.0	202.0	14475.0	2540.0
T1806	17.4	20.4	3.0	643.0	1076.0	315.0	87.40	23.70	.05	163.0	15953.0	271.0	16180.0	2315.9
T1807	20.4	24.4	4.0	873.0	1422.0	332.0	76.70	13.10	.05	213.0	22404.0	84.0	4787.0	3414.9
T1808	24.4	30.1	5.7	7900.0	9198.0	2838.0	436.30	96.70	90.30	348.0	11623.0	810.0	46799.0	25621.7
T1901	1.3	4.8	3.5	879.0	1630.0	581.0	140.90	47.10	49.50	82.0	4460.0	1510.0	122165.0	5902.8
T1902	12.4	14.6	2.2	708.0	1445.0	591.0	196.00	80.40	51.20	121.0	4457.0	1473.0	105549.0	5544.2
T1903	17.7	20.9	3.2	429.0	812.0	284.0	62.30	18.00	31.50	110.0	2668.0	258.0	38815.0	2295.2
T1904	20.9	24.7	3.8	544.0	890.0	287.0	56.50	14.60	20.70	135.0	2195.0	242.0	35595.0	2456.0
T1905	33.6	34.3	.7	363.0	672.0	236.0	60.20	21.30	31.10	236.0	2257.0	386.0	27938.0	2145.5
T1906	46.3	47.1	.8	148.0	270.0	76.0	21.80	5.10	32.90	158.0	1453.0	100.0	11734.0	790.0
T1907	47.1	50.1	3.0	109.0	191.0	33.0	17.60	1.70	.05	134.0	2094.0	46.0	5841.0	484.1
T2001	1.6	4.6	3.0	1580.0	2602.0	802.0	198.50	75.30	20.20	390.0	3250.0	743.0	61020.0	7288.0
T2002	4.6	7.6	3.0	2131.0	3446.0	868.0	166.70	40.90	.05	386.0	11727.0	752.0	16918.0	8939.3
T2003	7.6	10.6	3.0	1544.0	2410.0	567.0	83.60	17.70	10.40	308.0	5847.0	133.0	7763.0	5730.1
T2004	10.6	13.3	2.7	1837.0	2834.0	711.0	99.70	16.70	.05	281.0	7746.0	91.0	4516.0	6738.1
T2005	16.8	19.6	2.8	851.0	1353.0	354.0	37.80	10.10	6.20	140.0	12944.0	69.0	4371.0	3222.8
T2006	25.2	28.4	2.2	2932.0	4821.0	1388.0	235.50	43.30	5.30	194.0	45964.0	141.0	6907.0	11369.0
T2007	29.4	33.5	4.1	1936.0	3313.0	997.0	163.80	29.80	1.10	255.0	26008.0	135.0	7560.0	7899.0
T2008	33.8	36.4	2.6	1355.0	2822.0	798.0	121.70	23.90	.05	235.0	3158.0	141.0	10263.0	6587.9
T2009	36.4	39.9	3.5	869.0	1660.0	411.0	76.70	15.60	.05	274.0	4903.0	119.0	9087.0	3795.3
T2010	39.9	43.1	3.2	1267.0	2205.0	631.0	105.30	21.60	11.80	231.0	10579.0	141.0	16005.0	5270.7
T2011	43.1	46.6	3.5	718.0	1287.0	320.0	64.00	12.00	.05	287.0	9881.0	87.0	8321.0	2994.5
T2012	46.6	50.2	3.6	925.0	1675.0	463.0	91.40	21.10	.05	471.0	4930.0	209.0	19832.0	4077.7
T2101	0.0	4.1	4.1	1836.0	3137.0	975.0	192.60	54.20	9.80	461.0	7822.0	582.0	48055.0	8253.0
T2102	4.1	8.6	4.5	971.0	694.0	200.0	38.60	6.00	12.40	233.0	1330.0	65.0	8232.0	1669.2
T2103	8.6	12.1	3.5	170.0	301.0	71.0	23.60	2.90	13.30	239.0	275.0	44.0	8925.0	753.7
T2104	14.7	16.3	1.6	274.0	445.0	8.0	30.20	6.10	13.10	283.0	1599.0	107.0	17847.0	1070.3
T2105	16.3	20.0	3.7	660.0	1067.0	246.0	55.40	10.80	4.50	345.0	1515.0	88.0	9859.0	2565.0
T2106	21.7	24.8	3.1	1270.0	1858.0	409.0	70.50	12.90	1.40	286.0	6852.0	100.0	7489.0	4473.6
T2107	24.8	29.2	4.4	252.0	452.0	145.0	28.40	4.50	.05	237.0	7755.0	50.0	3983.0	1121.4
T2108	33.7	38.0	4.3	1456.0	2410.0	610.0	134.00	39.60	.90	850.0	9956.0	430.0	24813.0	6127.1
T2109	38.0	42.2	4.2	2121.0	3532.0	1195.0	342.50	135.30	89.80	1930.0	4302.0	1147.0	61602.0	10332.6
T2110	47.5	50.1	2.6	853.0	1504.0	420.0	94.70	26.50	10.00	339.0	2037.0	299.0	17155.0	3869.0
T2201	8.7	13.3	4.6	10602.0	11920.0	1741.0	222.60	19.90	.05	198.0	26985.0	23.0	323.0	29414.4
T2202	13.5	16.5	3.0	5388.0	6114.0	873.0	124.70	10.00	.20	108.0	39862.0	14.0	65.0	15020.3
T2203	16.5	19.5	3.0	15984.0	17886.0	2442.0	333.00	31.40	.05	134.0	34195.0	40.0	146.0	44034.1
T2204	19.5	22.0	2.5	18051.0	19865.0	2784.0	374.10	35.50	.05	191.0	20821.0	38.0	273.0	49337.6
T2205	22.0	27.1	5.1	27002.0	32048.0	5395.0	712.90	83.60	2.10	1311.0	12659.0	125.0	4109.0	78403.8
T2206	27.1	30.1	3.0	14053.0	15673.0	2252.0	332.60	37.30	.05	338.0	92302.0	64.0	2002.0	38866.8
T2207	30.1	33.4	3.3	12366.0	13486.0	1820.0	241.40	21.80	17.40	178.0	49473.0	22.0	21.0	33154.4
T2208	33.4	36.9	3.5	11295.0	12876.0	1807.0	226.70	19.20	.05	78.0	45792.0	17.0	22.0	31229.0
T2209	36.9	40.4	3.5	3474.0	4930.0	1207.0	187.50	36.80	23.90	218.0	11720.0	245.0	13713.0	12135.2
T2210	40.4	44.8	4.4	15205.0	17426.0	2547.0	324.00	30.30	7.90	2204.0	60327.0	34.0	627.0	42667.6
T2211	44.8	49.8	5.0	7045.0	8777.0	1217.0	257.30	38.40	4.10	865.0	33268.0	155.0	7515.0	21005.5
T2301	4.3	8.3	4.0	979.0	1482.0	370.0	70.50	14.70	.05	292.0	1971.0	149.0	13408.0	3687.8
T2302	8.3	11.3	3.0	847.0	1349.0	318.0	74.20	8.90	9.50	315.0	1197.0	62.0	3357.0	3206.9
T2303	11.3	14.3	3.0	657.0	981.0	218.0	19.60	5.40	.05	173.0	5321.0	38.0	1437.0	2306.8

NO	DEPTH1	DEPTH2	THICK	La	Ce	Nd	Sm	Eu	Tb	Nb	St	Y	P	REO
T2304	14.3	18.6	4.3	1945.0	2876.0	600.0	81.80	13.50	.05	318.0	4195.0	67.0	1424.0	6708.5
T2305	18.6	22.9	4.3	505.0	805.0	180.0	35.30	6.90	.05	297.0	1729.0	66.0	7094.0	1823.6
T2306	23.9	26.2	2.3	455.0	738.0	191.0	33.90	7.90	.05	306.0	2184.0	64.0	6213.0	1792.5
T2307	28.6	33.0	4.4	213.0	1248.0	265.0	55.70	9.80	10.90	319.0	1860.0	120.0	9426.0	3036.1
T2308	33.0	37.4	4.4	2108.0	3097.0	648.0	108.80	16.00	.05	345.0	5046.0	58.0	1893.0	7249.8
T2309	39.7	44.7	5.0	592.0	3524.0	1750.0	254.60	34.70	1.00	410.0	2237.0	103.0	2630.0	20004.1
T2310	44.7	50.2	5.5	914.0	1247.0	267.0	45.00	7.10	.05	395.0	3191.0	72.0	3048.0	2949.4
T2401	1.0	2.9	1.9	3834.0	5318.0	1361.0	274.70	71.90	13.70	983.0	4189.0	977.0	7854.0	1423.2
T2402	2.9	4.9	2.0	3833.0	5139.0	1204.0	204.20	48.50	31.70	567.0	7364.0	608.0	45655.0	1332.3
T2403	6.3	8.2	1.9	196.0	325.0	54.0	23.20	2.70	168.10	272.0	1941.0	38.0	6436.0	963.8
T2404	8.2	12.9	4.7	4860.0	6891.0	1384.0	258.40	54.00	.05	1834.0	3372.0	640.0	43271.0	16951.8
T2405	12.9	15.9	3.0	264.0	426.0	104.0	13.30	3.80	.05	281.0	5364.0	53.0	4478.0	1041.3
T2406	15.9	18.9	3.0	297.0	491.0	117.0	26.90	4.00	.05	222.0	7331.0	42.0	3708.0	1177.0
T2407	18.9	21.9	3.0	784.0	1157.0	295.0	47.70	8.00	.05	301.0	5096.0	39.0	2775.0	2798.6
T2408	21.9	24.9	3.0	276.0	458.0	127.0	23.50	3.80	28.90	254.0	3301.0	26.0	1626.0	1132.2
T2409	27.6	32.4	4.8	578.0	949.0	294.0	51.10	13.10	.05	307.0	2887.0	135.0	12720.0	2432.1
T2410	32.4	37.2	4.8	914.0	1355.0	408.0	81.10	15.40	95.70	367.0	8645.0	156.0	14473.0	3632.0

