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Technical Report of Exploration and Updated Resource Estimates of the Halleck Creek Rare Earths Project

Compiled by
American Rare Earths Geologic Staff
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1 Summary

1.1 Project Synopsis

The Halleck Creek Rare Earth Elements Project is a rare earths exploration project located in the central Laramie Mountain range of southeastern Wyoming about 70 km northeast of Laramie, WY, and 30 km southwest of Wheatland, WY (Figure 1). American Rare Earths, Limited (ASX: ARR, OTCQB: ARRNF) (ARR or 'the Company'), through its wholly owned subsidiary Wyoming Rare (USA) Inc. controls 367 unpatented lode mining claims and 4 Wyoming State Mineral Leases.

ARR is performing ongoing exploration mapping, surface sampling and exploration drilling at Halleck Creek for the purposes of developing mineable rare earth elements. This report presents in-situ rare earth resource estimated based on additional drilling data collected in 2023. These resources are being used by Stantec to develop a JORC Scoping Study at Halleck Creek during Q1 2024.

1.2 Location, Access, and Tenure

The Halleck Creek REE Project resides in the Central Laramie Mountains, approximately 70 km northeast of Laramie, and 30 km southwest of Wheatland, Wyoming (Figure 2). Road access from Wheatland is via Wyoming State Highway 34 southwest for about 29 km and then an additional 10 km west on County maintained gravel road number 720.

The Burlington Northern Santa Fe railroad mainline runs through the town of Wheatland, WY. Interstate 25 also runs through the town of Wheatland. These transportation corridors link Wheatland to the entire United States.

Residential power runs along county road 720 through the project area. A 46 kv substation is located along Highway 34 and is approximately 3.7 km from the western side of Halleck Creek state mineral leases.

The climate is semi-arid and continental. The region experiences four seasons and is drier and windier in comparison to most of the United States with greater temperature extremes. Fall is the mildest time of year with little moisture and generally warm days. The prevailing vegetation consists of prairie grasses and sage brush.

The local economy is based largely on tourism and ranching. The town of Wheatland (pop. 3560; 39 km east by road) offers modest facilities including food, lodging, and fuel. Cell phone coverage is available throughout most of the area, including limited portions of the claim block. The I-25 freeway north-south transportation corridor passes through the town of Wheatland. A major east-west rail and I-80 freeway route passes through the town of Laramie located to the southwest of the property.

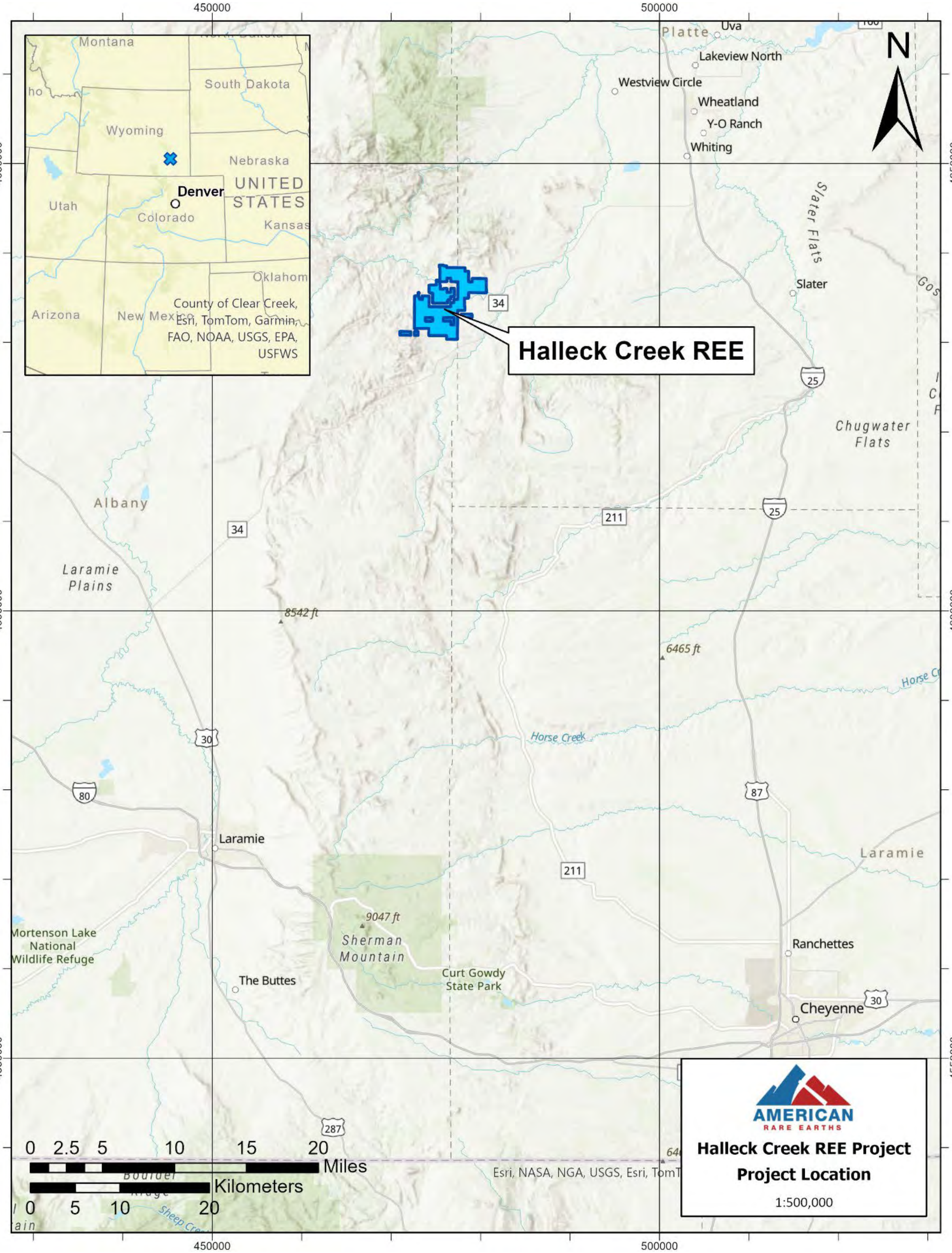


Figure 1 – Project Location

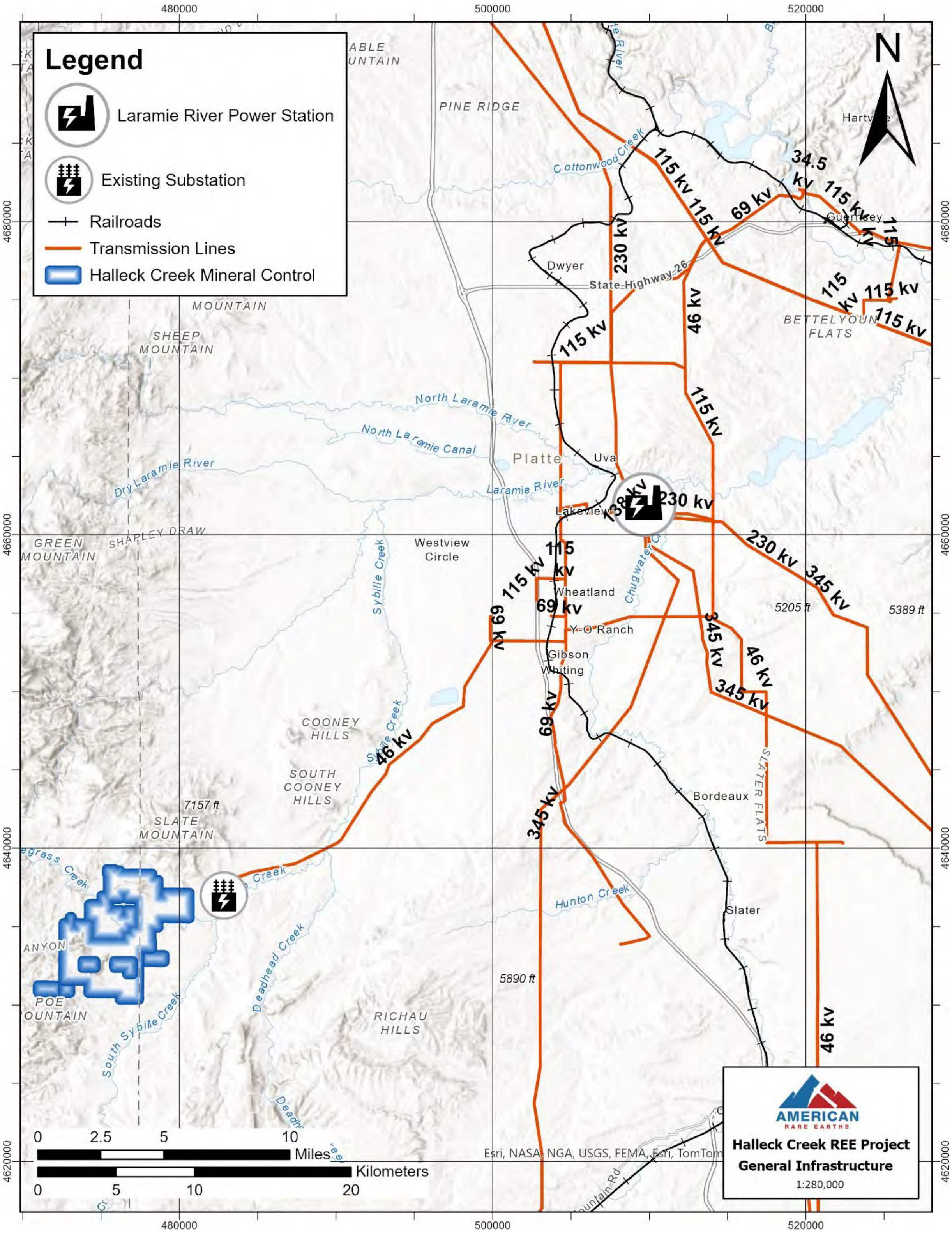


Figure 2 - General Infrastructure

Wyoming Rare (USA) Inc. a wholly owned subsidiary of American Rare Earths, Inc., controls 367 unpatented lode mining claims totaling 6,320 acres (2,558 ha) across the Halleck Creek Project area. ARR controls an additional 4 Wyoming State Mineral Leases which total 1,844 acres (745 ha). Total mineral control held by ARR in the Halleck Creek district is 8,165 acres (3,304 ha).

1.3 History

During the 1950s uranium prospecting rush, a number of Rare Earth Element (REE), thorium, and uranium occurrences were discovered in nearby pegmatite bodies and throughout the Laramie range. None of these were seriously explored (drilling, trenching, etc.) and apparently none were mined. The region has received little attention since.

In 2010 Blackfire minerals acquired State mineral leases at Halleck Creek for REE exploration activities. In 2011 after initial sampling was completed, Blackfire dropped the state leases due to low REE prices.

In 2018, the project was re-activated by Zenith Minerals, Ltd. (Zenith), an Australian Mining Company who re-acquired the State leases formerly held by Blackfire. Zenith also staked 5 unpatented Federal lode claims on BLM owned land. ARR acquired the mining claims and state leases in 2020.

1.4 Geology

Halleck Creek resides in Red Mountain Pluton (RMP) as part of the 1.43 Ga Laramie anorthosite complex (LAC) in the Laramie Mountains, a Laramide aged uplift, in southeastern Wyoming.

Primary rare earth bearing rock types within the RMP consist of clinopyroxene quartz monzonite (CQM), and biotite-hornblende quartz syenite (BHS). Allanite is the primary rare earth element (REE) host mineral at the Halleck Creek project. Allanite is a sorosilicate within the epidote group which contains a significant number of REEs in its primary mineral structure. Allanite usually occurs in association with clinopyroxene, hornblende, olivine and zircon agglomerated as “mafic clots” within CQM.

1.5 Exploration

Maiden exploration drilling at the Halleck Creek Resource Area during March and April of 2022 consisted of nine core holes, with five drilled on Overton Mountain and four on Red Mountain. Total length drilled resulted in 3,008 ft (917 meters), and a total of 822 core samples were collected and sent to American Assay Labs, NV for assay.

A larger reverse circulation (RC) exploration program from October to December 2022 consisted of 38 RC holes and a total length drilled of 5,574.5 m (18,292 ft). 18 holes were drilled on Red Mountain, and 20 were drilled on Overton Mountain. RC samples were collected at 1.5-meter intervals and sent to ALS Global for REE analysis.

During 2023, Company geologists conducted mapping and sampling in the County Line, Trail Creek, and Red Mountain prospect areas. Contemporaneous with the geologic mapping effort, ARR geologists collected 189 surface samples which were analyzed using XRF and assayed by ALS global.

ARR conducted a reverse circulation and diamond core drilling program at the Halleck Creek Project during Q3 and Q4 of 2023. ARR completed a total of fifteen (15) RC holes with a total length drilled of 1,530 m (5019.69 ft). ARR completed eight (8) core holes to the depths shown below. One core hole was completed to a depth of 302 m (990.81 ft). All assay samples were sent to ALS Global for REE analysis.

1.6 Geological Modeling

Geological models and grade models were updated to include all drilling at Halleck Creek. Since April 2022 through October 2023 ARR has drilled 53 RC and 17 Core holes for a total 70 holes and 9,031 meters (Table 1). All holes have been included in geological resource models.

Table 1 - Halleck Creek Drilling Statistics

Area	Hole Type	No. Holes	Meters
Overton Mountain	HQ core	13	1394.5
	RC	35	4,530
Total		48	5,925
Red Mountain	HQ core	4	381
	RC	18	2,726
Total		22	3,106
Total		**70**	**9,031**

Drill holes were sampled at 1.5 m (~5ft) intervals, with detailed samples collected at lithological breaks. ARR developed a strict Qa/Qc program using certified reference materials (CRM) from CDN Labs for blanks and REE standards. Duplicate samples were also systematically inserted as sample assays.

Core samples from the maiden core drilling in 2022 were assayed by American Assay Labs in Reno, NV. RC and Core samples from subsequent drilling were assayed by ALS Global. Both laboratories are fully certified. Approximately 6066 samples were used in resource models.

Odessa Resources Ltd., from Perth Australia, updated the Halleck Creek resource model using Leapfrog Edge. Using all drill hole data variograms and block model parameters were updated. Grade estimation was carried out using an Ordinary Kriging (OK) interpolant.

1.7 Mineral Resources

1.7.1 Resource Classification

The resource is classified as either measured, indicated, or inferred. Subject to the application of "modifying factors" the measured plus indicated component of the resource may allow for a formal evaluation of its economics with the potential to be converted to a Probable Ore Reserve. Therefore, a high degree of conservatism has been adopted as the underlying premise of the resource classification and, in particular, the indicated component.

Resource classification at Halleck Creek is based on the following key attributes:

1. Geological continuity between drillholes
   - Mineralization is controlled by batholith-scale fractionation. Hence, both empirical observations and statistical analysis confirm a very high degree of continuity with the respective rock masses at Overton Mountain and Red Mountain.
   - This is supported by variography.
2. Drill spacing and drill density
   - The drill pattern is mostly irregular with drill spacing of approximately 200m.
   - At Overton Mountain, an area has been infilled on a systematic grid spacing of approximately 90m. The Competent Person considers this spacing to be adequate to support a measured classification.

1.7.2 Cut Off Grade

A cut-off grade of 1,000 ppm TREO was used to estimate in-situ resources. In January 2024, Stantec calculated a net smelter return (NSR) value based on saleable rare earth element oxides: La_2O_3, Nd_2O_3, Pr_6O_{11}, Sm_2O_3, Dy_2O_3, and Tb_4O_7. The NSR value demonstrates that a 1,000ppm TREO cut-off grade meets the conditions for reporting of a Mineral Resource with reasonable prospects of eventual economic extraction.

1.7.3 Resource Estimate

Using the 1,000 ppm TREO cut-off grade the estimated in-situ resource estimate at Halleck Creek is 2.34 billion tonnes with an average grade of 3,195 ppm (0.32%) TREO (Table 2 and Figure). This is an increase of 64% in in-situ tonnes compared to the March 2023 maiden resource estimate for Halleck Creek. The estimated average Magnet Rare Earth Oxide (MREO) comprises 24% of TREO. The total in-situ measured and indicated resources at Halleck Creek are 1.4 billion tonnes with an average TREO grade of 3,295 ppm (0.33%).

It should be clearly noted that Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Areas where ARR does not control mineral resources have been excluded from resource estimates.

Between 2024 and 2023, total estimated resources increased by approximately 0.91 billion tonnes (64%). The estimated TREO grade decreased by 133 ppm TREO (-3%). Measured + Indicated resource increased by 0.79 billion tonnes (128%). Inferred resources increased by 0.18 billion tonnes (15%).

Table 2 - Estimated Rare Earth Resources at Halleck Creek (1000ppm TREO cut off)

Classification	Tonnage	*Grade*				*Contained Material*			
		TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
	t	ppm	ppm	ppm	ppm	t	t	t	t
Measured	206,716,068	3,720	3,352	370	904	769,018	692,935	76,550	186,836
Indicated	1,210,173,301	3,223	2,838	349	780	3,899,931	3,434,947	422,124	943,421
Meas + Ind	**1,416,889,369**	**3,295**	**2,913**	**352**	**798**	**4,668,949**	**4,127,881**	**498,674**	**1,130,257**
Inferred	924,698,618	3,041	2,696	339	737	2,812,121	2,493,178	313,187	681,138
Total	**2,341,587,986**	**3,195**	**2,828**	**347**	**774**	**7,481,070**	**6,621,059**	**811,861**	**1,811,395**
Rounded	**2,342,000,000**	**3,195**	**2,828**	**347**	**774**	**7,481,000**	**6,621,000**	**812,000**	**1,811,000**

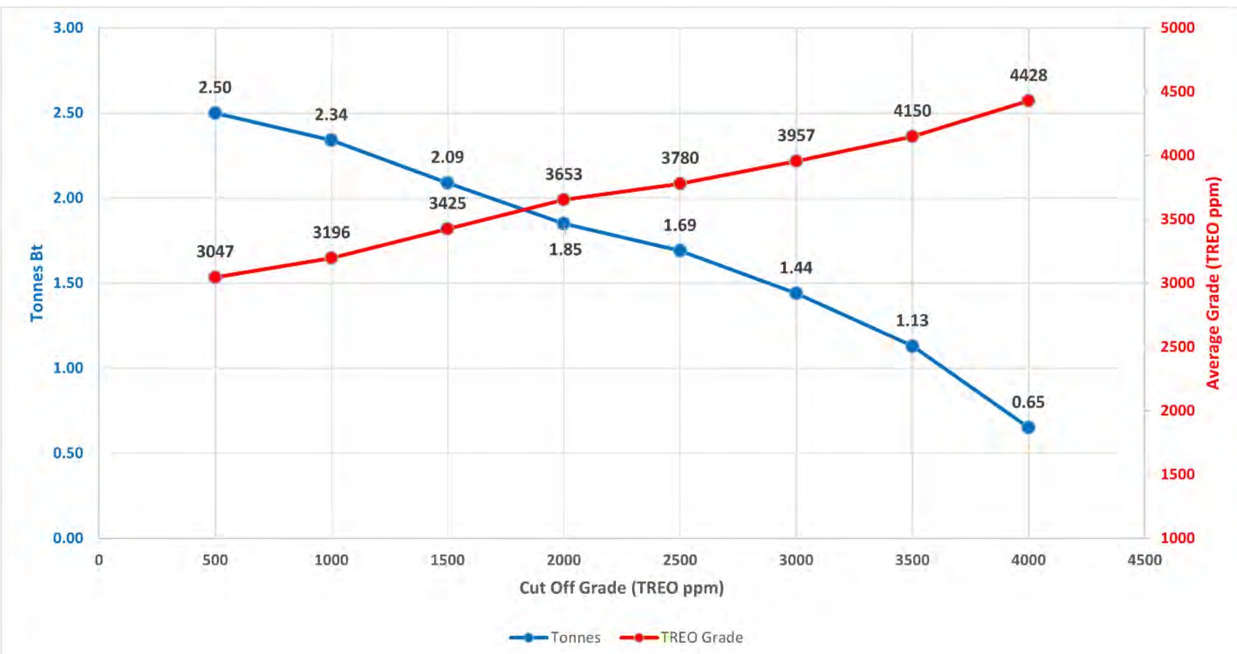


Figure 3 - Grade v. Tonnage curve for updated Halleck Creek resource estimate

1.8 Reserve Estimate

The Halleck Creek REE project is still in the preliminary stages of exploration and development, and as such, no mineral reserves have been defined, calculated, or implied.

1.9 Mining Methods

Rare earth mineralization occurs at surface and continues to depths of at least 300 meters. Open pit surface mining with shovel and truck fleets will be used if mining commences at Halleck Creek. Stantec is compiling a JORC Scoping Study for Halleck Creek. This scoping study will contain details about potential mining methods for the project. The JORC scoping study will be completed during Q1 2024.

1.10 Environmental And Permitting

This is an early state exploration project and as such no mining related environmental studies or permitting have been undertaken. Exploration permits have been applied for and obtained by the Wyoming Department of Environmental Quality, and the US Bureau of Land Management. The social impact of the project is currently unknown.

ARR is developing needs assessments for developing potential mines at Halleck Creek focusing permitting on Wyoming state mineral leases.

1.11 Markets

Presently, this project is still in the preliminary stages of exploration and development, and as such, market studies and potential off-take agreements have yet to be performed. Stantec and ARR are compiling market data as part of the JORC Scoping Study.

1.12 Project Economics

Presently, this project is still in the preliminary stages of exploration and development, and as such, definitive economic studies have yet to be performed. Preliminary financial models and estimates are being developed by Stantec as part of the JORC Scoping Study.

1.13 Risks

ARR is developing a comprehensive risk register as part of conceptual studies being performed for the Halleck Creek project. The risk register outlines potential risks for each component of the project, the level of severity to adversely affect the project, and the primary strategy to mitigate each risk.

1.14 Conclusions And Recommendations

The Halleck Creek Rare Earths Project is unique in that it contains large areas of near surface, moderately high-grade values of critical, magnet rare earths. ARR has claims and mineral leases covering the mineralized areas at Halleck Creek. Exploration drilling demonstrates that rare earth mineralization, in CQM and BHS rocks, is widespread, consistent at depth and that the deposit remains open at depth and toward additional prospect areas within the Halleck Creek district.

Mineralogical characterization confirmed that allanite is the primary rare earth bearing mineral at Halleck Creek. The mineralogy showed that allanite can be liberated from the coarse-grained material. Metamict alteration of allanite might benefit REE recovery during acid leaching.

Preliminary metallurgical testwork determined the specific gravity of ore material at 2.7. Grinding and comminution results using SMC testwork, Bond abrasion index testing, and Bond mill work testing indicate that Halleck Creek ore should be suitable for processing in a SAG-Ball mill configuration without the need for pebble crushing and could also be processed in a single stage SAG mill.

Heavy Liquid Separation demonstrated that more than 77% of waste can be rejected from REE bearing material at a specific gravity of 2.7. Additional testing showed that additional waste can be rejected using WHIMS as a secondary beneficiation process.

Geologic domains were interpreted into 70 drill holes across Halleck Creek. Geological domain, lithology and grade models were created across Halleck Creek. Geostatistical analysis determined resource boundaries and indicated and inferred resource classes.

Using the geological models, an updated in-situ resource of 2.34 billion tonnes with an average TREO grade of 3,196 ppm (using a 1000 ppm cutoff) was compiled for Halleck Creek. The 2.34 billion tonne resource estimate at Halleck Creek provides ARR with additional data and information to continue developing technical, social, and economic components needed to evaluate the full value of Halleck Creek.

1.15 Continued Project Development

On behalf of ARR, Stantec is performing a JORC compliant scoping study for the Halleck Creek project. The scoping study will provide the first comprehensive review of mine design and mine planning, plant design and ore processing, mine dumps and tailings, commodity marketing, associated costs, financial modeling, community impacts and environmental impacts. The scoping study will be completed in Q1 2024. These conceptual studies will hopefully lead to a prefeasibility assessment for Halleck Creek.

Plans for infill drilling to increase resource confidence and to provide baseline data for permitting activities are being developed for the Red Mountain resource area. Detailed field plans for mapping and XRF analysis across the western Halleck Creek claim areas have been made for the summer of 2024.

Detailed plans for baseline environmental data collection are being developed. ARR is also developing opportunities for community engagement and collaborations with the University of Wyoming, the Wyoming State Geological Survey, and various state funding sources.

Applications for bulk sample collection and collaborative opportunities for a pilot plant are also being defined.

2 Introduction

2.1 Terms Of Reference

All measurements herein will be given in Metric system units (meters, metric tons, degrees centigrade, etc.) except where they are designated as US customary units (Table 3). All currency values are in United States Dollars except where designated otherwise. Also shown is a conversion table (Table 4) showing Rare Earth Elements converted to Rare Earth Oxides. Table 5 shows the conversion of uranium and thorium to oxides.

Table 3 - List of Abbreviations

Abbreviation	Description	Abbreviation	Description
°C	Degree Celsius	Ltd	Limited
°F	Degree Fahrenheit	M	Meter
ac	Acre	mm	Millimeter
AXS	Australian Stock Exchange	MREE	Magnet Rare Earths Elements
ATV	All-terrain vehicle	MREO	Magnet Rare Earth Oxides
BLM	Bureau of Land Management	mt	Metric ton
cm	Centimeter	ppm	Part per million
CREE	Critical Rare Earth Elements	REE	Rare Earth Elements
CREO	Critical Rare Earth Oxides	REO	Rare Earth Oxides
ft	Foot	st	Short ton
‘	Feet	t	Metric ton
g	Gram	TREE	Total Rare Earths Elements
g/t	Gram per ton	TREO	Total Rare Earths Oxides
ha	Hectare	USGS	United States Geological Survey
HREE	Heavy Rare Earths Elements	WSGS	Wyoming State Geologic Survey
HREO	Heavy Rare Earths Oxides	WY	Wyoming
kg	Kilogram	Yr	Year
km	Kilometer	Gauss	unit of magnetic induction
LREE	Light Rare Earths Elements	SEG	Samarium, Europium, Gadolinium
LREO	Light Rare Earths Oxides	NSR	Net Smelter Return

Table 4 – REE to REO Conversion and Type REO

Rare Earth Element	Symbol	Heavy	Light	Critical	Magnet	Oxide	Conversion Factor*
		HREO	LREO	CREO	MREO		
Scandium	Sc					Sc_2O_3	1.5334
Lanthanum	La		X			La_2O_3	1.1728
Cerium	Ce		X			CeO_2	1.2284
Praseodymium	Pr		X		X	Pr_6O_{11}	1.2082
Neodymium	Nd		X	X	X	Nd_2O_3	1.1664
Samarium	Sm		X		X	Sm_2O_3	1.1596
Yttrium	Y	X		X		Y_2O_3	1.2699
Europium	Eu	X		X		Eu_2O_3	1.1579
Gadolinium	Gd	X				Gd_2O_3	1.1526
Terbium	Tb	X		X	X	Tb_4O_7	1.1762
Dysprosium	Dy	X		X	X	Dy_2O_3	1.1477
Holmium	Ho	X				Ho_2O_3	1.1455
Erbium	Er	X				Er_2O_3	1.1435
Thulium	Tm	X				Tm_2O_3	1.1421
Ytterbium	Yb	X				Yb_2O_3	1.1387
Lutetium	Lu	X				Lu_2O_3	1.1372

* PPM Element X Conversion Factor = PPM Oxide

[The factor is calculated by taking the formula weight divided by the atomic mass of the element within that formula. Example Dy_2O_3 formula weight is 372.997, and Dy atomic weight is 162.5.
However, there are two Dy per unit (Dy_2O_3), so total Dy mass is 325 per unit. 372.997/325 = 1.1477]

Table 5 – Uranium and Thorium Conversion to Oxides

Element	Symbol	Oxide	Conversion Factor*
Uranium	U	U_3O_8	1.1792
Uranium	U	UO2	1.1344
Thorium	Th	ThO_2	1.1379

* PPM Element X Conversion Factor = PPM Oxide

2.2 Report Purpose

The purpose of this Report is to provide ARR, its investors and potential investors with a clear summary of the In-Situ Resource Estimates at the Halleck Creek Rare Earths Project. Included in this summary are recommendations for further exploration.

This report presents in-situ rare earth resource estimate based on additional drilling data collected in 2023. These resources are being used by Stantec to develop a JORC Scoping Study at Halleck Creek during Q1 2024.

2.3 Qualifications of Qualified Persons

The Consultants preparing this Technical Report are specialists in the fields of geology, exploration, mineral resource estimation and classification, geotechnical, environmental, permitting, metallurgical testing, mineral processing, capital and operating cost estimation, and mineral economics.

None of the Consultants or any associates employed in the preparation of this Technical Report has any beneficial interest in American ARR or its subsidiary Wyoming Rare (USA) Inc. The Consultants are not insiders, associates, or affiliates of ARR.

Details of qualifications and consent of qualified persons can be found in Section .

2.4 Contributing Authors

Contributing authors include Company geologists Sara Stotter, Kayla Young, and Chief Technical Officer Dwight Kinnes.

2.5 Sources Of Information

The data in this Report comes from multiple sources. The data and information supplied herein are legal property of the Company. The Authors have reviewed, verified, interpreted, and analyzed the data presented in this Report. Other data was extracted and relied upon from the Wyoming State Geological Survey and Academic Reports which are given in the Reference Section.

It is believed that the underlying information contained herein is reliable, based on the systematic data verification procedures (including field examination of pertinent geologic features) performed by other Company geologists.

The results and opinions expressed in this Report are conditional upon the aforementioned technical and legal information being current, accurate, and complete as of the date of this Report and the understanding that no information has been withheld that would affect the conclusion made herein.

2.6 Units Of Measure

Unless otherwise noted, the following measurement units, formats and systems are used throughout this Technical Report.

- Measurement Units: all references to measurement units use the System International (SI, or metric) for measurement. The primary linear distance unit, unless otherwise noted, are metres (m).
- General Orientation: all references to orientation and coordinates in this report are presented as UTM (NAD 1983 Zone 13N).
- Currencies outlined in the Technical Report are stated in U.S. dollars (US$) unless otherwise noted.

3 Reliance on Other Experts

The Consultants' opinions contained herein are based on information provided to the Consultants by ARR throughout the course of the investigations. The Company relied on the following experts to aid in the completion of sections of this Technical Report.

ARR relied on World Industrial Minerals (WIM) to review the technical report.

ARR relied on Odessa Resources Pty Ltd (Odessa) to perform geological modeling, grade modeling, geostatistical analysis, and to compile in-situ resource estimates – Section 13.

ARR relied on Mr. Kelton Smith of Tetra-Tech for sections pertaining to metallurgical characterization at Halleck Creek – Section 12.

4 Property Description and Location

4.1 Location

The Halleck Creek REE Project is in the Central Laramie Mountains, approximately 70 km northeast of Laramie, a sparsely populated area of Albany and the Platte Counties in Southeastern Wyoming (Figure 1).

The project is comprised of 368 unpatented federal lode mining claims totaling 6,320 acres (2,558 ha) and are located as follows:

- Township 22 North, Range 71 West Sections 13, 23, 24, 25, 26, 35
- Township 22 North, Range 70 West Sections 07, 18, 19, 30, 31
- Township 21 North, Range 70 West Section 06

in Albany County.

- Township 22 North, Range 70 West Sections 08, 17, 20, 29

in Platte County.

Additionally, the Company controls 4 Wyoming State Mineral Leases totaling 1,844 acres (746 has) and are located as Follows:

- Township 22 North, Range 70 West Section 31
- Township 22 North, Range 71 West Sections 26, 34, 36
- Township 21 North, Range 70 West Sections Section 6

in Albany County.

- Township 22 North, Range 70 West Sections 16, 28

in Platte County.

4.2 Surface Control

The surface lands within the Halleck Creek project area are predominantly privately owned, however a small portion of land in the region is administered by the Bureau of Land Management (BLM) (Figure 4).

4.3 Mineral Control

Most of the mineral lands within the Halleck Creek project area belong to the US Federal government, administered by the BLM. Other mineral lands at Halleck Creek belong to the state of Wyoming (Figure 5).

4.3.1 Unpatented Federal Lode Claims

Wyoming Rare (USA) Inc. a wholly owned subsidiary of Western Rare Earths, Inc. who is in turn a wholly owned subsidiary of ARR controls 368 unpatented lode mining claims totaling 6,320 acres (2,558 ha) across the Halleck Creek Project area (Figure 5). ARR controls an additional 4 Wyoming State Mineral Leases which total 1,844 acres (745 ha) (Figure 5 and Table 6).

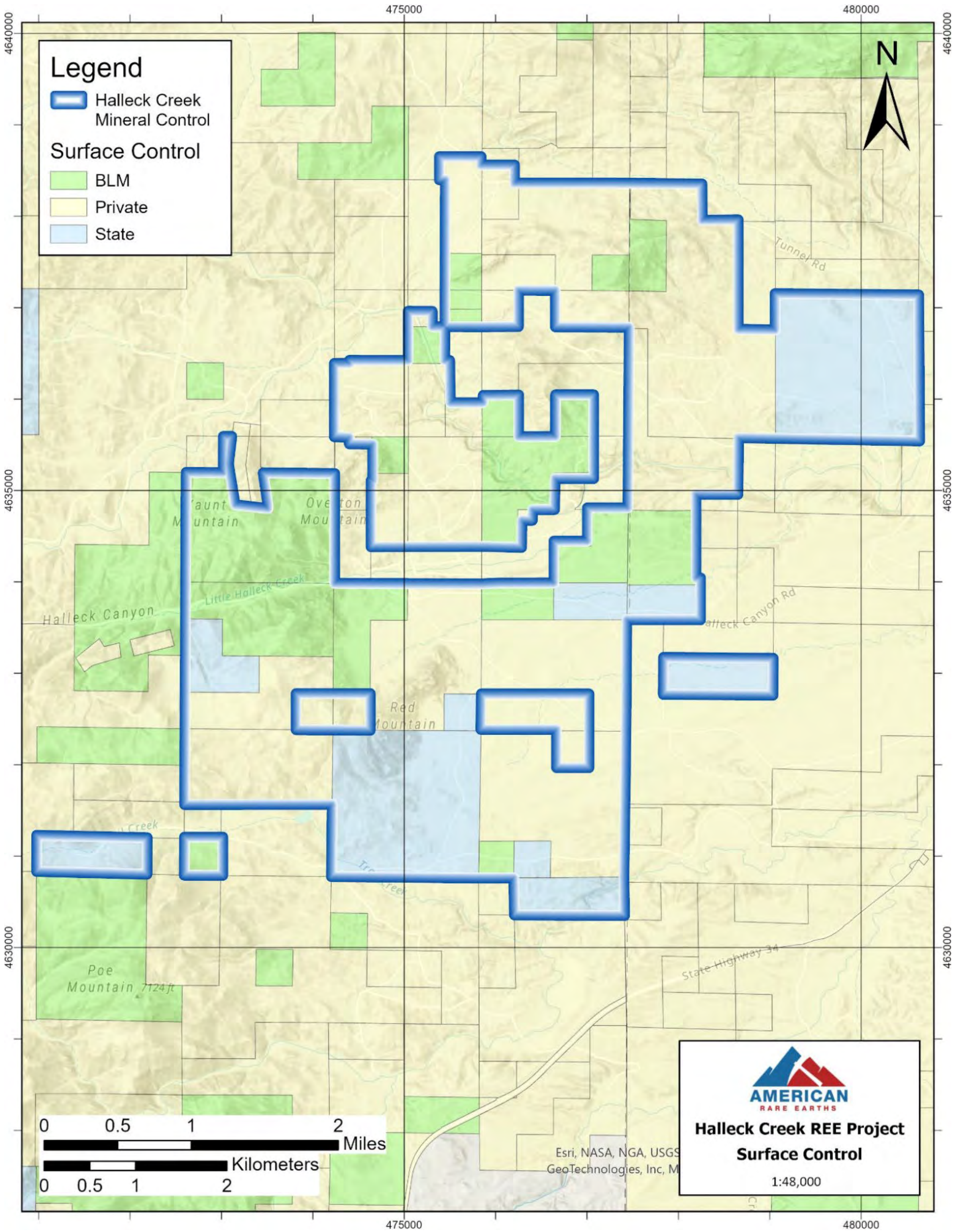


Figure 4 – Surface Ownership

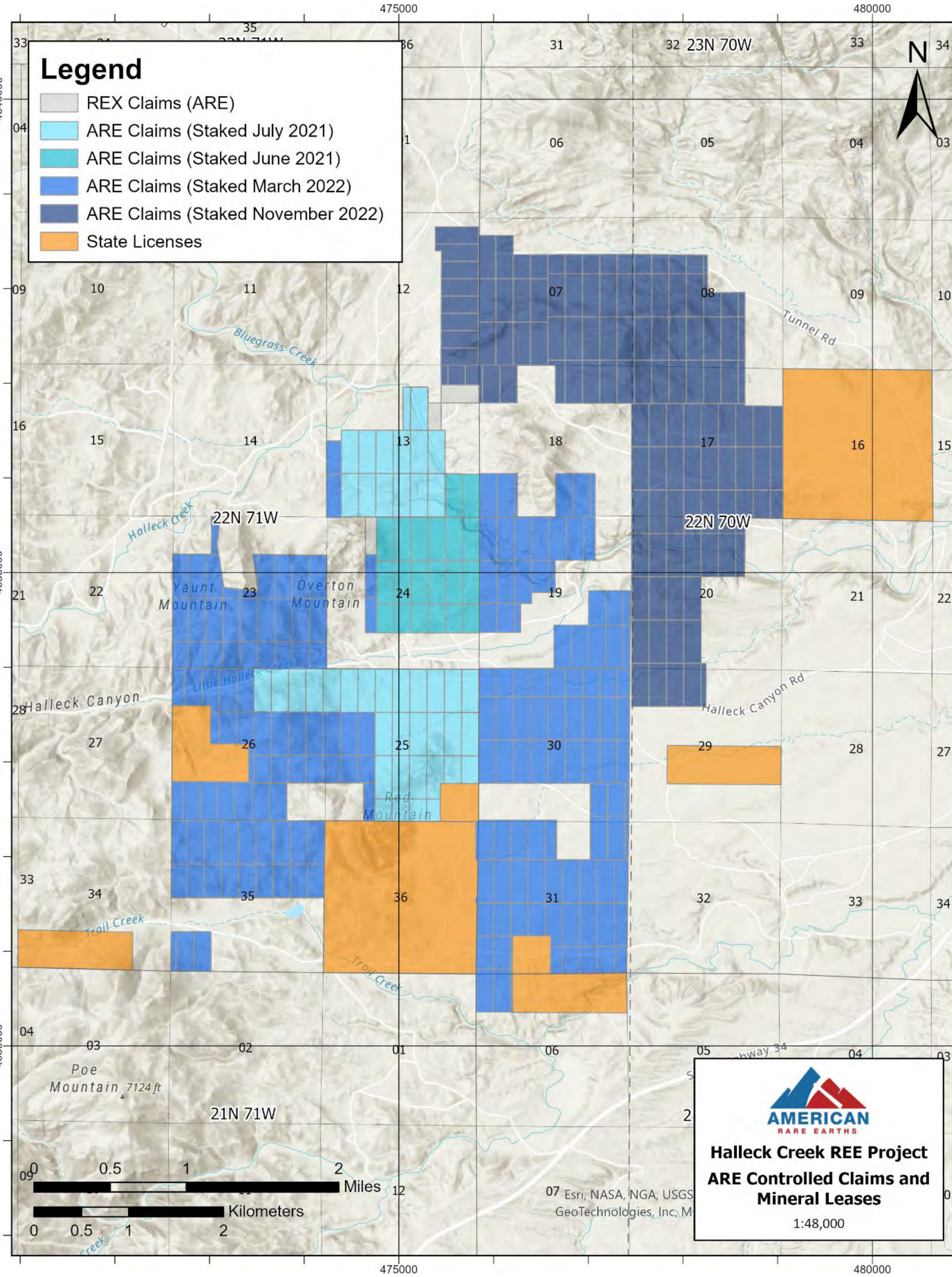


Figure 5 – Halleck Creek Claims and Mineral Leases

Table 6 – Summary of Halleck Mineral Claims and Leases

Serial Number	Claim Name	Claimant Name	Beneficial Interest %	Serial Number	Claim Name	Claimant Name
WY101766644 – WY101766648	REX-1 – REX-5	Wyoming Rare (USA) Inc	100%	WY101766644 – WY101766648	REX-1 – REX-5	Wyoming Rare (USA) Inc
WY105250218 – WY105250231	REX 10 – REX 23	Wyoming Rare (USA) Inc	100%	WY105250218 – WY105250231	REX 10 – REX 23	Wyoming Rare (USA) Inc
WY105260482 – WY105260501	REX 25 – REX 43	Wyoming Rare (USA) Inc	100%	WY105260482 – WY105260501	REX 25 – REX 43	Wyoming Rare (USA) Inc
WY105250232 – WY105250260	REX 44 – REX 72	Wyoming Rare (USA) Inc	100%	WY105250232 – WY105250260	REX 44 – REX 72	Wyoming Rare (USA) Inc
WY105772327 – WY105772255*	REX 75 – REX 165	Wyoming Rare (USA) Inc	100%	WY105772327 – WY105772255*	REX 75 – REX 165	Wyoming Rare (USA) Inc
WY105772203 – WY105772278*	REX 167 – REX 176	Wyoming Rare (USA) Inc	100%	WY105772203 – WY105772278*	REX 167 – REX 176	Wyoming Rare (USA) Inc
WY105772299 – WY105772326*	REX 178 – REX 257	Wyoming Rare (USA) Inc	100%	WY105772299 – WY105772326*	REX 178 – REX 257	Wyoming Rare (USA) Inc
WY105804752 – WY105804869	REX 258 – REX 375	Wyoming Rare (USA) Inc	100%	WY105804752 – WY105804869	REX 258 – REX 375	Wyoming Rare (USA) Inc
0-43568 – 0-43571	Halleck Creek	Wyoming Rare (USA) Inc	100%	0-43568 – 0-43571	Halleck Creek	Wyoming Rare (USA) Inc

*Non-inclusive range

Total mineral control held by ARR in the Halleck Creek district is 8,165 acres (3,304 ha).

Federal unpatented lode claims can be held in perpetuity provided an annual claim holding fee of $165.00 per claim is paid on or before September 1 of each calendar year the claims are held. Failure to pay this annual holding cost or paying late will result in the voiding of the claim. Additionally, claims must be recorded annually in the County in which they were staked. The federal lode claims are in Albany County and Platte County, Wyoming.

Once claims are staked and fees paid, the claim holder has a right of access to the claims and the right to explore once all required exploration permitting requirements are met. Other than the right to explore and develop the claims for their mining content, the claim holder has no other rights to the property.

Other than failing to pay the annual holding costs or paying late, which results in voiding of the claims, there are no other significant factors and risks discussed in this report that may affect access, title, or the right to ability to perform work on the property.

4.3.3 Wyoming State Mineral Leases

Wyoming Rare (USA) Inc. a wholly owned subsidiary of American Rare Earths, Inc. controls 4 additional Wyoming State Mining Leases (Figure 5):

Lease 0-43568 consisting of 640 acres located in T22N R70W Section 16 all in Platte County Wyoming

Lease 0-43569 consisting of 283.72 acres located in T22N R70W Section 29 NESW:N2SE; Section 31 SESW; T21N R70 W Section 6 Lot1:L2:L3 in Platte and Albany Counties Wyoming

Lease 0-43570 consisting of 640 acres located in T22N R71W Section 36 all in Albany County Wyoming

Lease 0-43571 consisting of 280 acres located in T22N R71W Section 25 SESE; T22N R71W; Section 26 SWNW:N2SW; T22N R71W Section 34 S2SW:SWSE Albany County Wyoming

State Lease acreage totals 1,842.73 acres (744.5 has).

The overall fee structure is as follows: One dollar ($1) per acre for the first through the fifth years; Two dollars ($2) per acre for the sixth through tenth years of the primary lease term and for any renewal year within a second ten (10) year term; Three dollars ($3) per acre for renewal for third ten-year term; Four dollars ($4) per acre for each year for renewals for a fourth ten (10) year term.

5 Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1 Accessibility

The Halleck Creek Project is located in eastern Albany County and western Platte County in southeastern Wyoming (Figure 1). By air, the Project is approximately 70 km northeast of Laramie, Wyoming and 30km southwest of Wheatland, Wyoming. Road access from Wheatland is via Wyoming State Highway 34 southwest for about 29 km and then an additional 10 km west on a County maintained gravel road number 720 (Figure 2).

5.2 Climate

The climate is semi-arid and continental. The region experiences four seasons and is drier and windier in comparison to most of the United States with greater temperature extremes. Summers in Wyoming are warm and dry with July high temperatures averaging between 29 and 35 °C in most of the state. Winters are cold and moderately snowy averaging around 381 mm of moisture with temperatures ranging from -15 °C to +2 °C. Spring can be variably mild to very snowy. Fall is the mildest time of year with little moisture and generally warm days. The prevailing vegetation consists of pine trees, prairie grasses and sage brush.

5.3 Local Resources and Infrastructure

The local economy is based largely on tourism and ranching. The town of Wheatland (pop. 3560; 39 km east by road) offers modest facilities including food, lodging, and fuel. Cell phone coverage is available throughout most of the area, including limited portions of the claim block. The I-25 interstate freeway north-south transportation corridor passes through the town of Wheatland. The BNSF mainline rail line also passes through Wheatland. The Union Pacific mainline rail line and the I-80 interstate freeway route pass through the town of Laramie located to the southwest of the property.

5.4 Physiography

The project is located at the edge of the high plains of Wyoming characterized by short grass and sparse sagebrush. Elevations range from over 2,135 meters on mountain tops (Overton Mountain, Red Mountain) to 1,900 meters on average in the rolling hills portion of the project.

The project is located on split estate lands: public lands with the minerals administered by the U.S. Bureau of Land Management (BLM). The surface is privately owned with restricted access.

6 Project History and Prior Work

6.1 Prior Ownership

Prior ownership in the Halleck Creek project area was originally exercised by Blackfire Minerals in 2010, who were the first to acquire the current set of State mineral Leases ARR now controls. Blackfire Minerals let the leases lapse. In 2018, Zenith applied for the same Sate leases and staked 5 federal unpatented lode claims on BLM owned land and minerals. ARR acquired the state mineral leases and BLM claims from Zenith in 2021.

6.2 Summary of Previous Exploration

In the 1960s or 1970s a small mine, extracting fuchsite (ornamental stone), operated to the northwest of the Halleck Creek claim area. Otherwise, no mining is known to have taken place in this portion of the Laramie range historically. During the 1950s uranium prospecting rush, several REE-thorium, and uranium occurrences were discovered in pegmatite bodies and throughout the Laramie range. None of these were seriously explored (drilling, trenching, etc.) and apparently none were mined. The region has received little attention since.

In 2010 Blackfire minerals acquired the current set of State Leases ARR now controls for the purpose of REE exploration activities. Based on research completed by WIM, areas of anomalous REE values were discovered in Red Mountain as part of a PhD thesis (Anderson, 1995). Much of Red Mountain was covered by a State Mineral Lease that was subsequently acquired. Initial sampling was completed on this and other leases. In 2011 after initial sampling was completed the project was subsequently dropped due to low REE prices.

In 2018, the project was re-activated by Zenith who applied for the same State leases that Blackfire held. Zenith also staked 5 unpatented federal lode claims on land in which the BLM owned both the surface and minerals. Zenith performed additional sampling on the state leases and the mining claims. Results from 87 samples collected from 2019 showed broad areas of RE mineralization exceeding 2000 ppm TREO.

6.3 Historical Resources

Previous exploration in the region was limited and never amounted to the development of a mineral resource.

7 Geological Setting, Mineralization, and Deposit

7.1 Deposit Type

In general, there are two categories of rare earth element (REE) deposits: primary and secondary. Primary REE deposits form by magmatic, hydrothermal, and/or metamorphic processes. Secondary REE deposits form by erosion and weathering. Examples of primary deposits include carbonatites and alkaline igneous complexes, typically emplaced within extensional tectonic settings. Host rocks can range from nepheline syenites and trachytes to peralkaline granites. In most cases, REEs are present in accessory and trace minerals, of which the most common include bastnäsite, eudialyte, synchysite, monazite, xenotime, zircon, and allanite. Secondary deposit types include placers, laterites, bauxites, and ionic absorption clays.

The Red Mountain pluton (RMP) of the Halleck Creek Rare Earths Project is an example of a magmatic allanite hosted REE deposit composed of rocks ranging in composition from monzonitic to syenitic.

A-type granites are formed by the partial melting of mantle rock which occurs within stable continental blocks or rift zones. As mantle magma ascends through the crust, it changes chemically in response to a variety of factors including temperature, pressure, and chemistry of wall rock. The term alkaline infers that the parent magma has a primary enrichment of Na_2O and K_2O, and as such contains abundant Na- and K- bearing minerals such as feldspathoids, alkali pyroxenes, and alkali amphiboles. These magmas are not only enriched in REEs, but are typically enriched in zirconium, niobium, strontium, barium, and lithium (Balaram, 2019). Primary alkaline deposits are commonly associated with elevated levels of uranium and thorium. The RMP deposit, however, is unusually depleted of radioactive elements.

It is also common for the primary magmatic mineralization to be overprinted by late magmatic and/or hydrothermal fluids (Balaram, 2019). Hydrothermal alteration at the RMP deposit is minimal and has not affected REE mineralization.

REE mineralization in deposits such as observed at Halleck Creek is directly attributed to fractional crystallization in the late stages of magma body evolution.

7.2 Regional Geology

The Halleck Creek project is located within the Red Mountain pluton, which is a residual granitic melt associated with the Laramie anorthosite complex (LAC). The LAC represents the northernmost component of widespread 1.4 Ga magmatism in the western United States. The LAC was emplaced ca. 1437 ± 2.4 Ma and forms the core of the central Laramie Range, a Laramide-aged uplift in southeastern Wyoming (Anderson et al., 2003).

The LAC was intruded into and obscures the trace of the Cheyenne Belt, which is a major terrane boundary that juxtaposes Archean rocks of the Wyoming Province to the north with accreted rocks of the Proterozoic Colorado Province to the south. This collisional event is known as the Medicine Bow Orogeny and occurred between 1.78-1.76 Ga. Along its north and northwestern margins, the

LAC intruded through the Archean Elmers Rock Greenstone Belt (ERBG) and other Archean granitic gneisses and supracrustal rocks. Along its southern margin, magmas navigated through predominantly Proterozoic rocks which intruded the 1.76 Ga Horse Creek anorthosite complex. To the south and southeast, the LAC is bordered by the 1.43-1.44 Ga Sherman batholith (Anderson et al., 2003).

The LAC consists of three major anorthositic intrusions (Frost et al., 2010):

- Chugwater anorthosite (ca. 1435.95 ± 0.687 Ma)
- Poe Mountain anorthosite (ca. 1434.4 ± 0.5 Ma)
- Snow Creek anorthosite (ca. 1432-1434 Ma)

These three bodies are rimmed by associated monzonitic intrusions which include (Frost et al, 2010):

- Sybille intrusion (1435.7 ± 2.2 Ma)
- Maloin Ranch pluton (1434.3 ± 2.1 Ma to 1435.6 ± 2.5 Ma)
- Red Mountain pluton (1431.3 ± 1.4 Ma)

Slightly predating the LAC is the northern Sherman batholith, which is composed of fayalite granite with minor monzodiorite. The southern lobe of the Sherman batholith was contemporaneously emplaced with the final intrusions of the LAC (1437.8 ± 3.2 Ma to 1430.6 ± 2.5 Ma) and is dominated by biotite-hornblende granite with minor monzodiorite, fayalite, and pyroxene granites.

The Halleck Creek project area is located within the Red Mountain pluton, which is the youngest and smallest monzonitic intrusion associated with the Laramie anorthosite complex (Anderson et al., 2003).

A regional geology map is provided in Figure 6.

7.3 Local Geology

7.3.1 Lithology

The four primary rock units that comprise the Red Mountain pluton include a fayalite monzonite (FM) (zircon dated at 1431.3 ± 1.4 Ma), clinopyroxene quartz monzonite (CQM), biotite-hornblende quartz syenite (BHS), and the Red Mountain granite (RMG). The FM, CQM, and BHS are nearly indistinguishable from one another in the field, being equigranular, medium-grained, and red-weathering. The RMG is the only readily distinguishable unit and forms a steeply dipping ring around the northern margin of the pluton. Three types of dikes also occur within the pluton, including fine quartz monzonite, medium quartz monzonite, and biotite-hornblende monzonite (Anderson et al., 2003).

The CQM and BHS units are the primary REE bearing lithotypes at the Halleck Creek project.

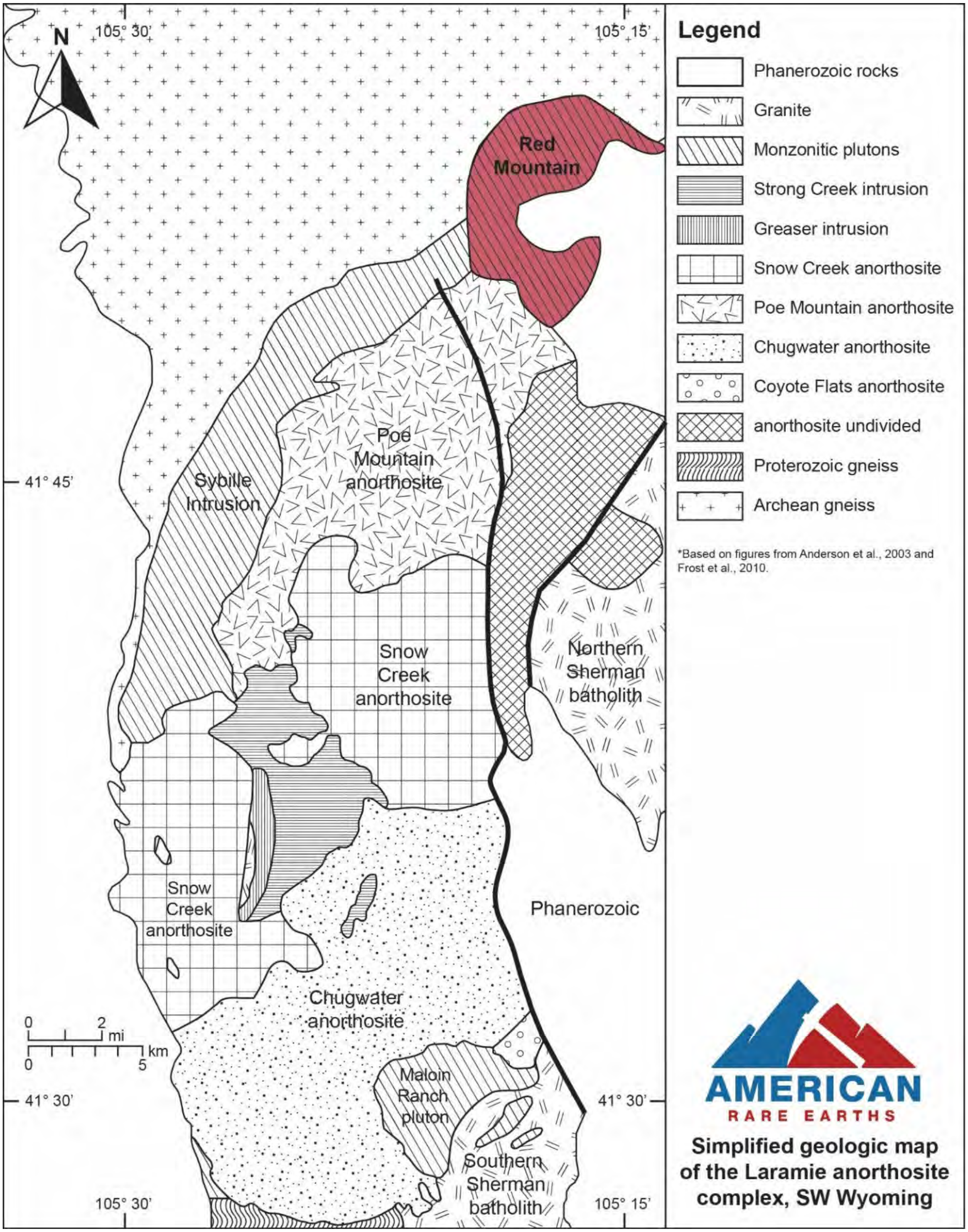


Figure 6 - Simplified geologic map of the Laramie anorthosite complex

The fayalite monzonite occurs as a discontinuous rim around the margin of the RMP, and is dominantly composed of olivine, clinopyroxene, hornblende, and perthitic microcline. Olivine and clinopyroxene occur as individual grains but also as glomerocryst (commonly called mafic clots) which are typically rimmed by hornblende. Trace biotite is secondary after hornblende. Zircon is abundant, whereas quartz and allanite occur in trace amounts. Ilmenite has been identified as the only Fe-Ti oxide within the unit (Anderson et al., 2003).

Historically, the clinopyroxene quartz monzonite (CQM), similar to the FM, also forms a discontinuous rim around the pluton (Anderson et al., 2003). The literature has previously stated that the FM and CQM represent less than 10% of outcrop exposed at surface within the RMP. The CQM is nearly petrographically identical to the FM, however the CQM lacks the presence of fayalite. The CQM also has a greater abundance of biotite, quartz, and allanite (Anderson et al., 2003).

The most abundant rock type found within the RMP is the biotite-hornblende quartz syenite (BHS). It is more quartz-rich than both the CQM and the FM, and the only ferromagnesian minerals present within the unit are hornblende and biotite. Similar to the other units, perthitic microcline is the dominant alkali feldspar phase and ilmenite is the only Fe-Ti oxide present (Anderson et al., 2003).

The fourth rock type, the Red Mountain Granite (RMG), resides at the outer margin of the RMP where it forms dikes and bodies concordant with the pluton margins (Anderson et al., 2003). The RMG is easily distinguished from the other three units due to its abundance of quartz. The RMG also has lower abundances of hornblende, biotite, plagioclase, and allanite than the FM, CQM, and BHS (Anderson et al., 2003).

As mentioned above, CQM and BHS are the primary REE bearing units within the RMP. The FM unit contains variable levels of REE, and the RMG is typically devoid of REE enrichment. In the Red Mountain Pluton, REE abundances correlate with modal abundances of allanite and zircon. The CQM typically contains the highest abundances of these minerals, whereas the BHS and FM contain lesser, but still significant, amounts.

The RMP intrudes rocks of the Archean (ca. 2.6 Ga) Elmer's Rock Greenstone Belt (ERGB) to the west and north. The ERGB consists of amphibolite facies supracrustal rocks, which include marble, calc-silicate, amphibolite, pelitic gneiss, granite gneiss, quartzites, banded iron formation, and minor amounts of ultramafic rock (Anderson, 1995). Marble, calc-silicate, and pelitic gneisses are most common near the RMP contact (Spicuzza, 1990). To the south and southwest, the RMP is in direct contact with the Sybille intrusion (ca. 1.434 Ga; Scoates et al., 1996). Historically, the contact between the two plutons has been noted as sharp. However, recent work has shown that this contact may be gradational in nature. Regardless, the lack of evidence of brittle deformation at the contact indicates that the Sybille Formation was still hot at the time of the RMP intrusion (Anderson, 1995). To the east, the RMP is covered by tertiary sediments which consist of unconsolidated gravels and fine-grained sediments derived from LAC sources (Anderson, 1995). A geologic map of the project area can be observed in Figure 7, and a detailed stratigraphic column is provided in Figure 8. Geological cross sections can be observed in Figure 9 through Figure 11.

7.3.2 Structure

The contacts of the Red Mountain Pluton are strictly intrusive in nature. There are few country rock inclusions within the RMP, and the foliations in the surrounding Archean schists of the ERGB concordantly wrap the pluton. This suggests that the RMP was most likely emplaced by forcibly shouldering aside the country rock as part of late-stage development of the pluton (Anderson et al., 2003).

The only prominent structure in the region is the Halleck Canyon fault which generally parallels county road 720, bisecting the Halleck Creek project area.

7.4 Deposit Evolution

Monzonitic plutons, such as the RMP, are believed to be the result of open-system fractionation of a ferrodioritic parent magma, which is a typical residuum subsequent to the crystallization of the primary anorthosite bodies (Anderson et al., 2003). Scoates et al., 1996 conducted crystallization experiments using one of the Laramie anorthosite complex (LAC) ferrodiorites and demonstrated that potassium rich monzonitic liquids can be produced by extensive crystallization of a ferrodioritic parent magma. As such, based on isotopic similarities between the RMP and the least-contaminated rocks of the LAC, it is believed that a similar ferrodioritic parental magma is appropriate for the RMP (Anderson et al., 2003).

Continued fractional crystallization played a critical role in the formation of the Red Mountain Pluton and its various units. The liquid line of descent (LLD) from monzodiorite to fayalite monzonite was driven by the crystallization of olivine, clinopyroxene, plagioclase, apatite, magnetite, and ilmenite. The crystallization sequence for the REE bearing units of the RMP is zircon, apatite, olivine, clinopyroxene, allanite, plagioclase, K-feldspar, hornblende, biotite, and quartz (Anderson et al., 2003). Petrographic work suggests that olivine, clinopyroxene, plagioclase, apatite, zircon, and allanite are accumulative, whereas alkali feldspar, hornblende, biotite, and quartz crystallized from intercumulus liquid (Anderson et al., 2003).

Allanite is the primary REE host mineral at the Halleck Creek project. Allanite is a sorosilicate within the epidote group which contains a significant number of REEs in its primary mineral structure. The presence of allanite is the main reason that the RMP has higher REE content than any of the coeval monzonitic bodies in southeastern Wyoming. In other regional plutons, REEs were carried in phosphates, primarily apatite (Anderson et al., 2003). It is speculated that the reason the REEs went into allanite as opposed to apatite is due to increased water and lower P_2O_5 content relative to other monzonitic plutons in the region. The major chemical constraint on the formation of allanite within the RMP is the abundance of Fe_2O_3 in the parent magma. Ilmenite is typically the major competing phase for Fe_2O_3, however, the RMP contains low amounts of TiO_2 and as such iron is more widely available for allanite formation (Anderson et al., 2003).

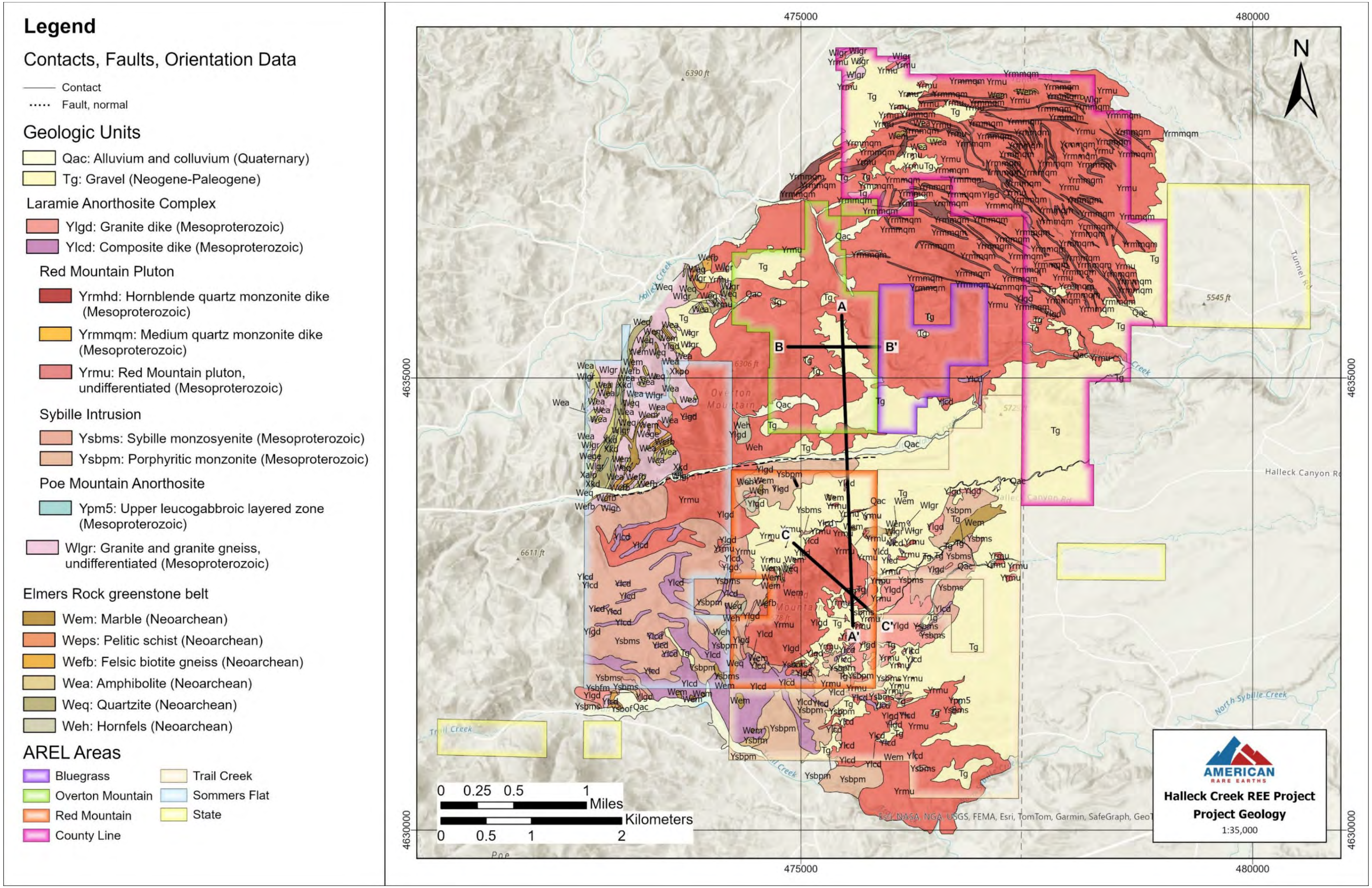


Figure 7 - Halleck Creek project geology

Eon	Period	Formation			Code	Lithology
Cenozoic	Quaternary	Alluvium and colluvium			Qac	Consists of silt, sand, and gravel; may contain well-rounded clasts dominated by resistant Precambrian lithologies.
	Neogene-Paleogene	Gravel			Tg	Poorly exposed, unconsolidated to weakly consolidated, poorly sorted gravels and boulders in a silty and sandy matrix; locally tuffaceous.
Major unconformity						
Proterozoic	Mesoproterozoic	Laramie Anorthosite Complex ca. 1.43 Ga	Granite dike		Ylgd	Includes pink leucogranite dikes and irregular small intrusions as well as several large inclusions of coarse-grained biotite-hornblende granite in the Sybille monzosyenite.
			Composite dike		Ylcd	Pink granite dike similar to Ylgd but contains pillows and irregular blobs of fine-grained, mafic monzonitic magma. Various degrees of mixing between the two melts common. Inlcudes isolated K-feldspar megacrysts in the mafic magma and dispersed grains of biotite and hornblende extending from the mafic magma into the granitic magma.
			Red Mountain Pluton 1,431.3 ± 1.4 Ma (Scoates and Chamberlain, 2003)	Biotite-hornblende monzonite dike	Yrmhd	Typically red-brown in color, markedly darker than the main pluton constituents. Very fine-grained, with an average grain size of 0.25 mm. Contains high modal abundances of hornblende and biotite. Petrographically similar to the BHS, but is much more fine-grained and contains lower modal quartz.
				Fine quartz monzonite dike	Yrmfqm	Mineralogically similar to the CQM, with slightly increased abundances of hornblende and biotite. Typical grain size of 0.5-0.75 mm.
				Medium quartz monzonite dike	Yrmmqm	Nearly mineralogically identical to the FQM dikes, but with slightly lower modal plagioclase. Mean grain size of >1.0 mm.
				Fayalite monzonite	Yrmfm	Red weathering, equigranular, and medium grained. Olivine and clinopyroxene occur as individual grains or glomerocrysts associated with hornblende. Minor biotite is secondary after hornblende. Quartz and allanite may be present in small quantities, whereas zircon is abundant. Orthoclase and microline often appear perthitic.
				Clinopyroxene quartz monzonite	Yrmcqm	Red weathering, equigranular, and medium grained. Petrographically similar to the fayalite monzonite, but allanite is more abundant and olivine is absent. Glomerocrysts of clinopyroxene, hornblende, and allanite are observed. Zircon and ilmenite are rare, but increased biotite, quartz and microcline in comparison to fayalite monzonite.
				Biotite hornblende quartz syenite	Yrmbhs	Dominant rock type within the RMP. The BHS lacks fayalite and clinopyroxene: the only ferromagnesian phases present are hornblende and bioltite. As with the other units, perthitic microcline is the major alkali feldspar.
				Red Mountain granite	Yrmg	Occurs as concordant ring-like dikes interleaved with supracryustal rocks on the north and northwest margins of the pluton. Red weathering, equigranular, and medium-grained similar to other RMP rocks, but has high abundance of quiartz. The unit also exhibits more abundant microcline and increased perthite. Clinopyroxene tends to be rare, occuring only as relict cores in hornblende.
			Sybille Intrusion 1,435.6 ± 2.5 Ma (Scoates and Chamberlain, 2003)	Sybille monzosyenite	Ysbms	Orange-weathering rock that is black on fresh surfaces, consisting of interlocking alkali-feldspar megacrysts. Ferromagnesian minerals include fayalite, hedenbergite, and rarely hornblende which occur in the interstices between the megacrysts. Contains about 5% quartz, but is seldom seen in hand specimen.
				Sybille porphyritic monzonite	Ysbpm	Brown-weathering rock that is black on fresh surfaces consisting of alkali feldspar megacrysts in a finer-grained matrix of plagioclase, alkali feldspar, olivine, and hedenbergite. Rarely contains quartz.
				Ferromonzonite or ferrodiorite	Ysbfm	Fine-grained, dark-brown-weathering rock that is black on fresh surfaces consisting of interlocking feldspars. Proportions of feldspars range from mainly plagioclase to an equal proportion of plagioclase and highly exsolved alkali feldspar. In a few occurences, the alkali feldspars from small phenocrysts identifiable in hand sample. Ferromagnesian minerals present may be ferroaugite, olivine, and in some rocks pigeonite.
				Oxide ferrodiorite	Ysbof	Fine-grained, black rock on both weathered and fresh surfaces, rich in Fe-Ti oxides. Plagioclase, olivine, ferroaugite, and rarely pigeonite are identifiable in thin section.
Archean	Neoarchean	Granite and granite gneiss			Wlgr	Medium- to coarse-grained, massive to highly foliated granitic gneisses that are pink on both weathered and fresh surfaces. Biotite is prominent and muscovite might be present locally. Includes large, partially melted inclusions within the Sybille intrusion.
		Elmers Rock Greenstone Belt 2,637 ±10 Ma (Snyder et al., 1998)	Marble		Wem	White, coarse-grained marble. Locally may contain cm-scale blades of tremolite.
			Pelitic schist		Weps	Quartz, biotite, and muscovite schist, generally black to dark brown on fresh and weathered surfaces. Outside the contact aureole of the Sybille intrusion the schist commonly has the assemblage kyanite, sillimanite, and garnet, but within the aureole, it contains andalusite and cordierite. Adjacent to the intrusion it has melted and may contain streaks of granitic melt.
			Felsic biotite gneiss		Wefb	Speckled gray feldspar, quartz, and biotite gneiss and schist, possibly derived from clay bearing silts, sands, or gravels.
			Amphibolite		Wea	Medium-grained, green to black, layered amphibolite. In low-strain areas, pillow structures may be observed. Commonly interlayrered with calc-silicate rocks. In the contact aureole of the Sybille pluton, the amphibolite has been converted to a fine-grained brown hornfels with the assemblage orthopyroxene, clinopyroxene, hornblende, and plagioclase.
			Quartzite		Weq	Massive white, greenish-white, or brown quartzite.
			Hornfels		Weh	Undifferentiated fragments of the Elmers Rock greenstone belt that occur as inclusions in the Sybille monzosyenite and Red Mountain pluton. Protolith for these rocks may include pelitic, semi-leitic, calc-pelitic, or mafic lithologies.
			Calc-silicate hornfels		Wecs	White to pale-green weathering hornfels consisting of calcite, dolomite, and pale-green sperentine. The serpentine was produced by hydration of olivine.

Figure 8 - Stratigraphic column for Halleck Creek project area

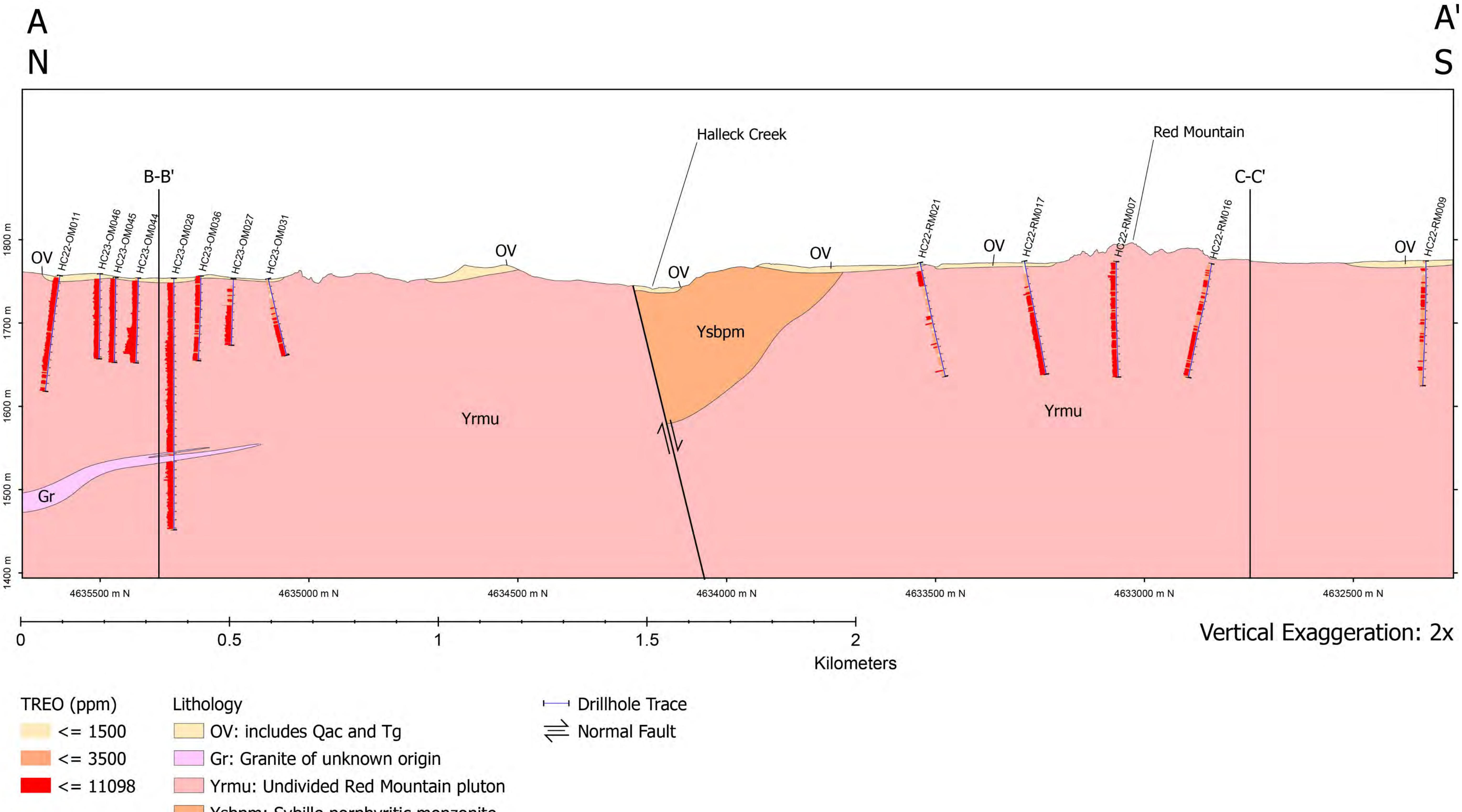


Figure 9 - Cross section of the Halleck Creek project area: A to A'

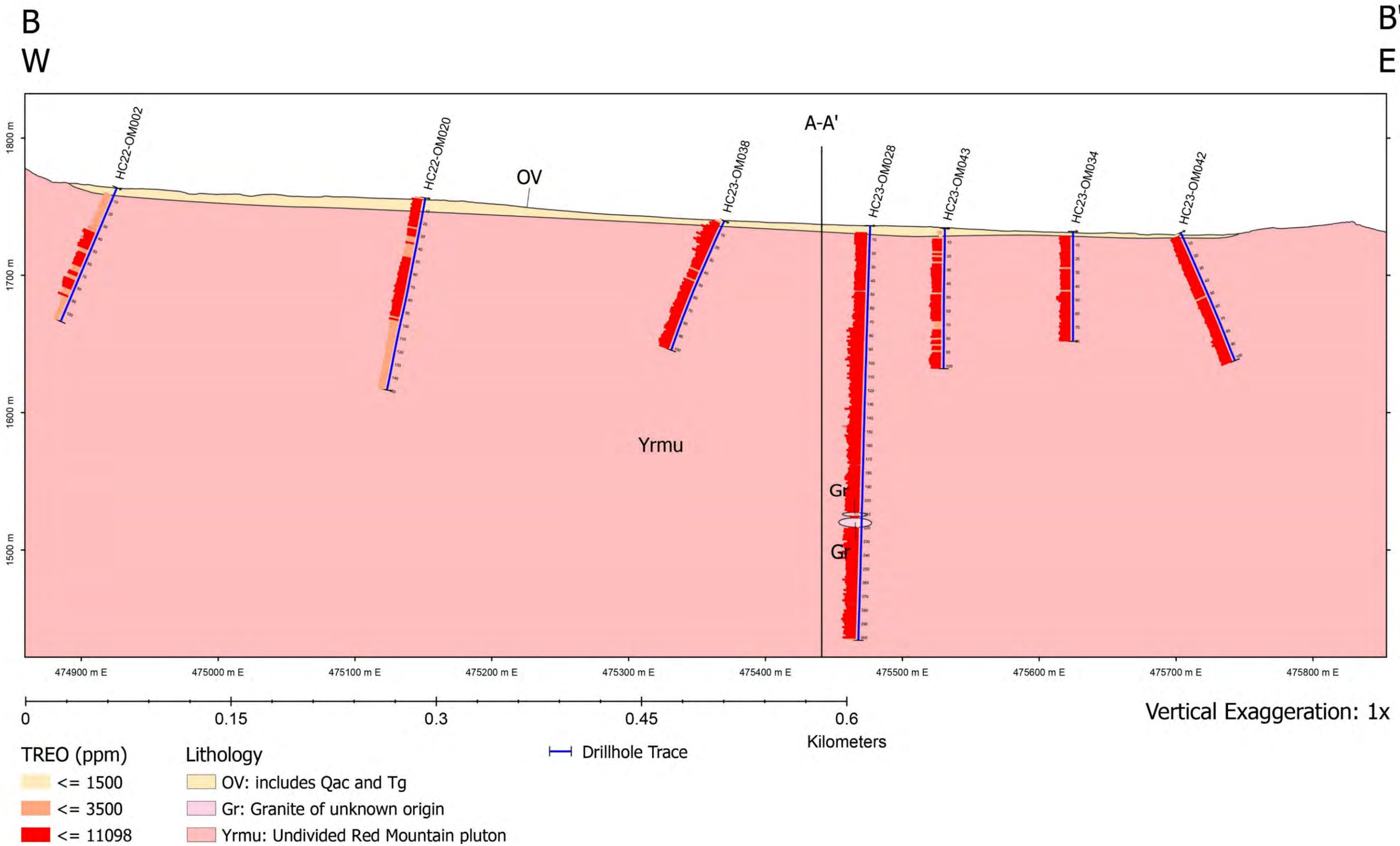


Figure 10 - Cross section of the Halleck Creek project area: B to B'

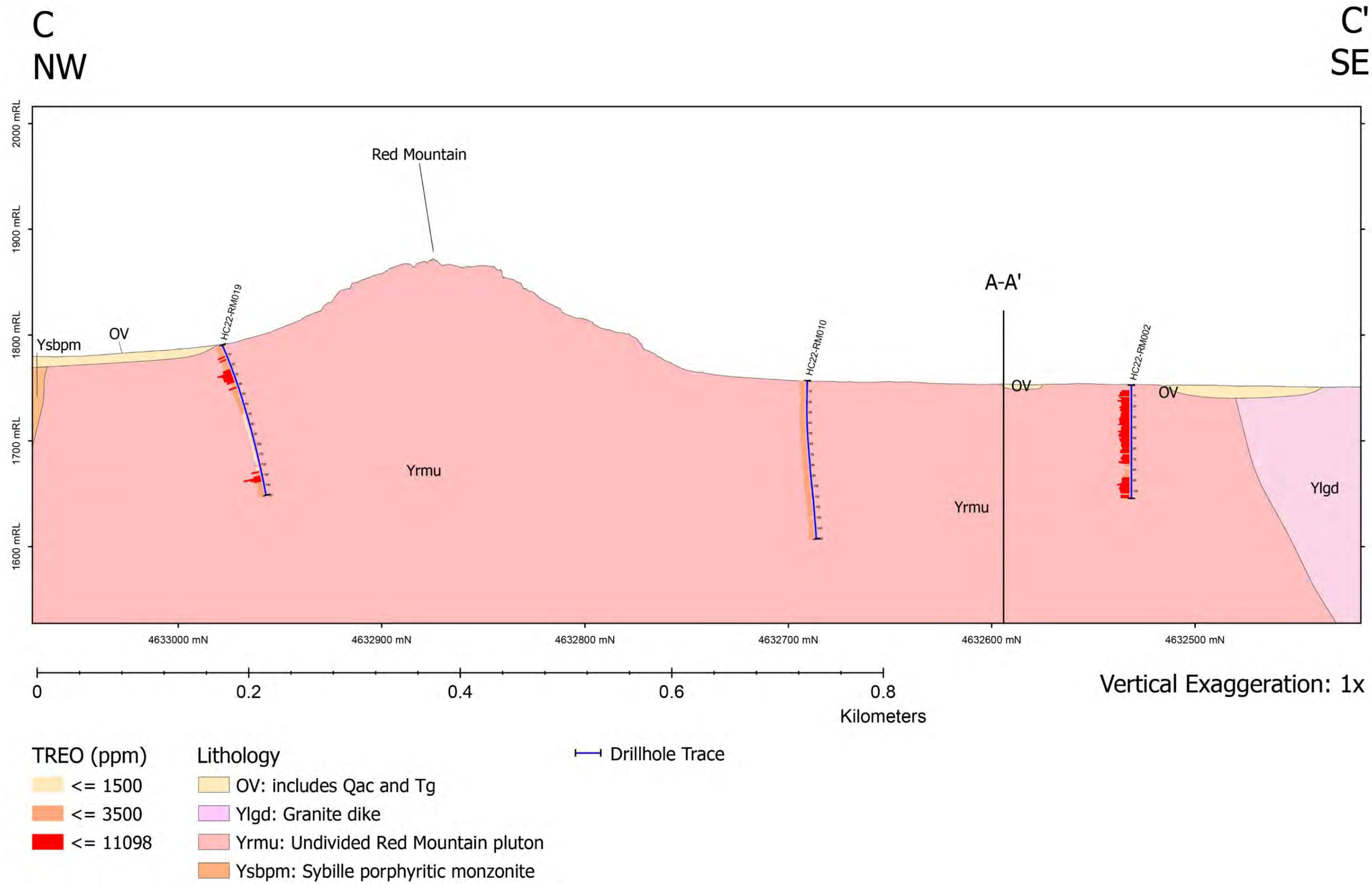


Figure 11 - Cross section of the Halleck Creek project area: C to C'

7.5 Property Geology

7.5.1 Deposit Dimensions

The deposit can be subdivided into two project areas: Overton Mountain and Red Mountain. The deposit at the Red Mountain project area is approximately 1,620 m x 1,610 m, and the deposit at the Overton Mountain project area is approximately 2,335 m x 1,075 m. Both deposits remain open at depth: mineralization has been observed to a depth of 302 m at Overton Mountain, and 150 m at Red Mountain.

7.5.2 Lithologies

The three major mineralized phases within the Red Mountain pluton are the clinopyroxene quartz monzonite, the biotite-hornblende quartz syenite, and the fayalite monzonite. The lesser mineralized phases include the medium quartz monzonite dikes and the biotite-hornblende monzonite dikes. Detailed unit descriptions can be observed in Section 6.3.1 or in stratigraphic column in Figure 7.

7.5.3 Structure

Mineralization in the Red Mountain pluton is not structurally controlled. However, the deposit does exhibit significant jointing and minor faulting associated with Laramide aged uplift as well as general exfoliation of the monzonitic body.

7.5.4 Alteration

The Red Mountain pluton exhibits differing types of alteration of varying intensity. Most observed alteration is low to moderate. Alteration has not been shown to affect grade. More work is required to determine an exact relationship between alteration and grade, but preliminary results show there is no effect.

Regardless, the prominent style of alteration observed throughout the pluton is weak potassic alteration and oxidation. Lesser amounts of epidote alteration have been observed. Alteration is most prevalent along joint and minor fault surfaces.

7.5.5 Mineralization

Rare earth element mineralization within the pluton is hosted within allanite, a sorosilicate of the epidote group, and zircon. Mineralization occurred due to fractional crystallization of the RMP bodies over time.

7.5.6 Petrography

The following mineralogic description is based on limited petrographic work. Most allanite grains occur as inclusions in and around aggregates of fractured amphibole. Allanite measurements range from 400 µm up to 2.5 mm in diameter. Allanite occasionally exhibits thin rinds of epidote or iron-oxide as well as metamict, isotropic cores. Metamict allanite often exhibits radial fracturing in the surrounding minerals due to hydration of the crystal structure during metamictization.

Feldspars are the dominant silicate phase in all units within the RMP. Late-stage grid twinned microcline is most commonly observed followed by plagioclase, which is often weakly sericitized. Microcline ranges in composition from Or_{65} to Or_{95}, and plagioclase ranges in composition from An_7 to An_{24} (Anderson et al., 2003). Microcline is typically anhedral, and ranges in diameter from 500 µm to 4 mm, whereas plagioclase occurs as anhedral to subhedral grains which vary in size from 500 µm to 5.5 mm (DCM, 2019).

Green amphibole is the second most abundant silicate, and typically comprises no more than 25% of the samples by volume. Amphibole typically occurs as aggregates and prisms up to 5 mm in size and exhibits mild to moderate decay to iron-oxide along cleavage planes.

Quartz content comprises no more than 10-15% in the thin section observed. Typically, anhedral/rounded grains occur interstitially between feldspar and amphibole. Myrmekitic quartz is present yet confined to the margins of smaller plagioclase grains.

Zircon is common throughout the RMP as fractured euhedral prisms and is commonly hosted within amphibole and is less commonly included in feldspars (DCM, 2019). Zircons range in diameter from 50-600 µm. Trace, rounded apatite occurs as inclusions within feldspar and quartz. Trace biotite occurs as aggregates associated with amphibole. Trace pyrite or pyrrhotite was observed in one sample and was identified using EDS spectrometry. Sulfides, when present, typically occur around the edges of allanite grains (DCM, 2019).

All examined petrographic samples exhibit varying amounts of Fe-oxide which occur as fracture fill or as replacement of amphibole. Ilmenite is the most common variety observed, albeit in trace amounts.

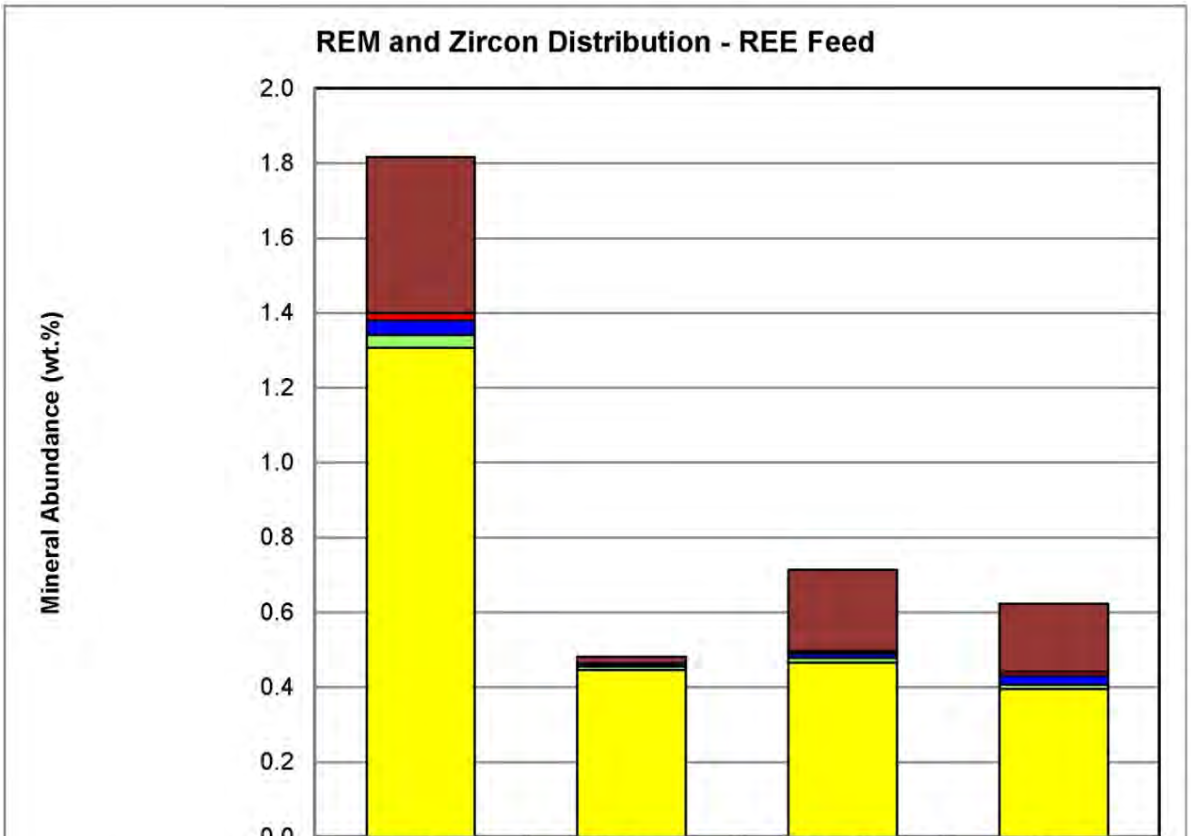
7.6 Mineralogical Characterization

In 2022, ARR sent a set of drill core samples to the SGS metallurgical facility in Lakefield, Ontario for detailed mineralogical characterization of some of the highest REE bearing samples observed during the maiden drilling program to determine liberation and association attributes of the REE. Work completed included TESCAN integrated mineralogical analyzer (TIMA-X), electron probe micro-analysis (EMPA), X-ray diffraction analysis (XRD), an electron-microscope, and chemical assays.

XRD analysis revealed the bulk crystalline mineralogy of the clinopyroxene-rich quartz monzonite to be albite (30%), microcline (34%), actinolite (12%), quartz (9%), and lower amounts of other silicates, Fe-(Ti) oxides, and carbonates (Figure 12). Modal mineralogy from TIMA-X analysis revealed similar results with orthoclase (39.9%), plagioclase (29.6%), amphibole (16.3%; includes minor pyroxene), quartz (6.6%), garnets/epidote (2.3%), biotite (1.2%), and trace amounts of carbonates, other silicates, apatite, sulphides, Fe-oxides, ilmenite, and other minerals.

Allanite $[Ce,Ca,Y,La)_2(Al,Fe^{+3})_3(SiO_4)_3(OH)]$ is the dominant REE-bearing mineral, and approximately 87.5% of all allanite occurred as free, pure, or liberated forms (due to grinding). The remaining 12.5% of the allanite was associated with matrix minerals, such as intergrowths with silicate gangue. The free, pure and liberated allanite percentage increased to 90.2% for material exceeding 212 µm. Other minor REE bearing minerals were observed: Synchysite/bastnasite comprised 0.02% of modal mineralogy, and chevkinite/tornebohmite comprised about 0.07% (Figure 12).

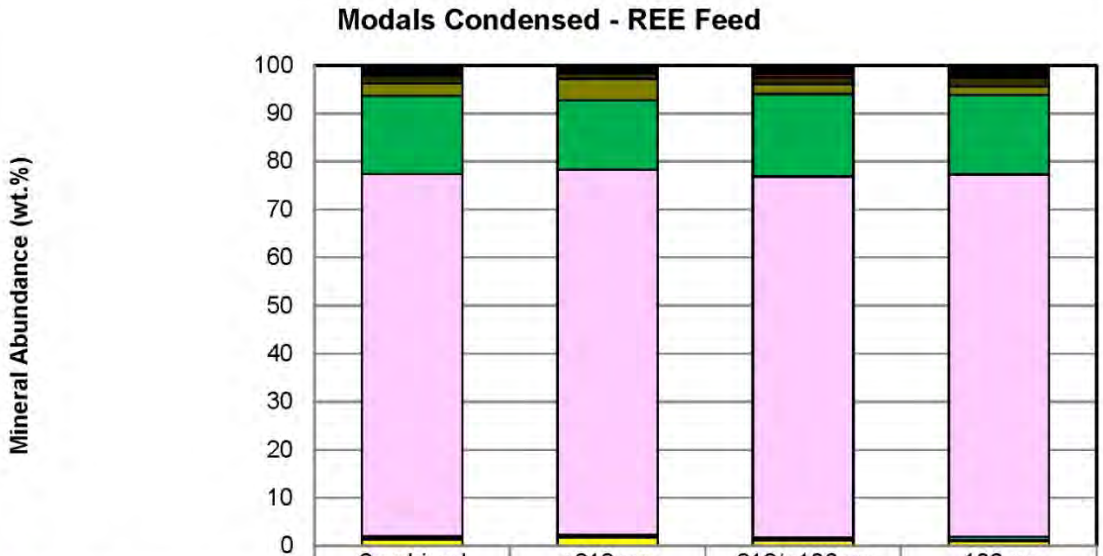
Liberated (pure, free, and liberated) allanite accounted for 87.5% of the samples, and the remainder occurred as complex particles (2.4%), middlings with quartz/feldspars (5.4%), amphibole (1.1%) and other minerals in trace amounts (<1%). Liberated chevkinite/tornebohmite accounted for 50.2% in the samples, and synchysite/bastnasite for 23% (Figure 13).



	Combined	+212 um	-212/+106 um	-106 um
Zircon	0.42	0.02	0.22	0.18
Synchysite/bastnasite	0.02	0.00	0.01	0.01
Tornebohmite	0.04	0.00	0.01	0.02
Chevkinite	0.03	0.01	0.01	0.01
Allanite	1.31	0.45	0.46	0.40

Note: Figure prepared by SGS, 2022.

Figure 12 – REE mineral and zircon mineral mass by size fraction and calculated head



	Combined	+212 um	-212/+106 um	-106 um
Other Minerals	0.16	0.14	0.15	0.18
Fe-(Ti)-Oxides	1.53	1.20	1.67	1.60
Zircon	0.42	0.07	0.57	0.49
Apatite	0.18	0.14	0.12	0.25
Other Silicates	1.53	1.22	1.40	1.88
Garnets/Epidote	2.52	4.42	2.04	1.76
Amphibole	16.3	14.5	17.2	16.5
Quartz/Feldspars	75.5	76.1	75.1	75.4
Carbonates	0.51	0.35	0.42	0.70
Niobates	0.00	0.00	0.00	0.00
Other REM	0.00	0.00	0.00	0.00
Synchysite/Bastnasite	0.02	0.01	0.02	0.03
Xenotime/Monazite	0.00	0.00	0.00	0.00
Chevkinite/Tornebohmite	0.07	0.06	0.06	0.09
Allanite	1.31	1.81	1.22	1.07

Note: Figure prepared by SGS, 2022.

Figure 13 – Modal mineralogy by size and calculated head

8 Exploration

8.1 Exploration Projects Over Time

As of January 2024, the Company has conducted three drilling campaigns as well as several surface sampling campaigns. To date 70 drill holes have been drilled at Halleck Creek (Table 7). Figure 15 shows the locations of all drill holes.

Table 7 - Halleck Creek Drilling Statistics

Area	Hole Type	No. Holes	Meters
Overton Mountain	HQ core	13	1394.5
	RC	35	4,530
Total		**48**	**5,925**
Red Mountain	HQ core	4	381
	RC	18	2,726
Total		**22**	**3,106**
Total		**70**	**9,031**

8.1.1 November 2023 Red Mountain Surface Sampling and Mapping Update

In November of 2023, Company geologists conducted large-scale mapping and outcrop sampling of the Red Mountain resource area (Figure 14). The mapping and sampling focused on covering the regions to the south and east of Red Mountain proper at a finer scale. The sampling better delineated grades in these regions to support future drill hole planning.

In total, 95 samples were sent for analysis at ALS Global, including 5 Qa/Qc samples of standards, blanks, and duplicates. Six samples of the RMP assayed at over 5000 ppm TREO with grades of up to 6221 TREO (Table 8 and Figure 14). Some granites were also sampled, and these showed grades of 92-915 ppm TREO. The granites are easily distinguished from the RMP by the increase in quartz content and the decrease in mafic content. However, many of the granites sampled at grades of over 300 ppm TREO, which indicates that some of the TREO enrichment from the RMP may be incorporated into the younger granites via magma mixing or assimilation.

Table 8 - Statistical Summary of November 2023 Sampling Initiative

	Total Rare Earth Oxide ppm (TREO)	Magnetic Rare Earth Oxide ppm (MREO)	Light Rare Earth Oxide ppm (LREO)	Heavy Rare Earth Oxide ppm (HREO)
Minimum	92	23	50	28
Maximum	6221	1692	5683	578
Average	2872	777	2539	333

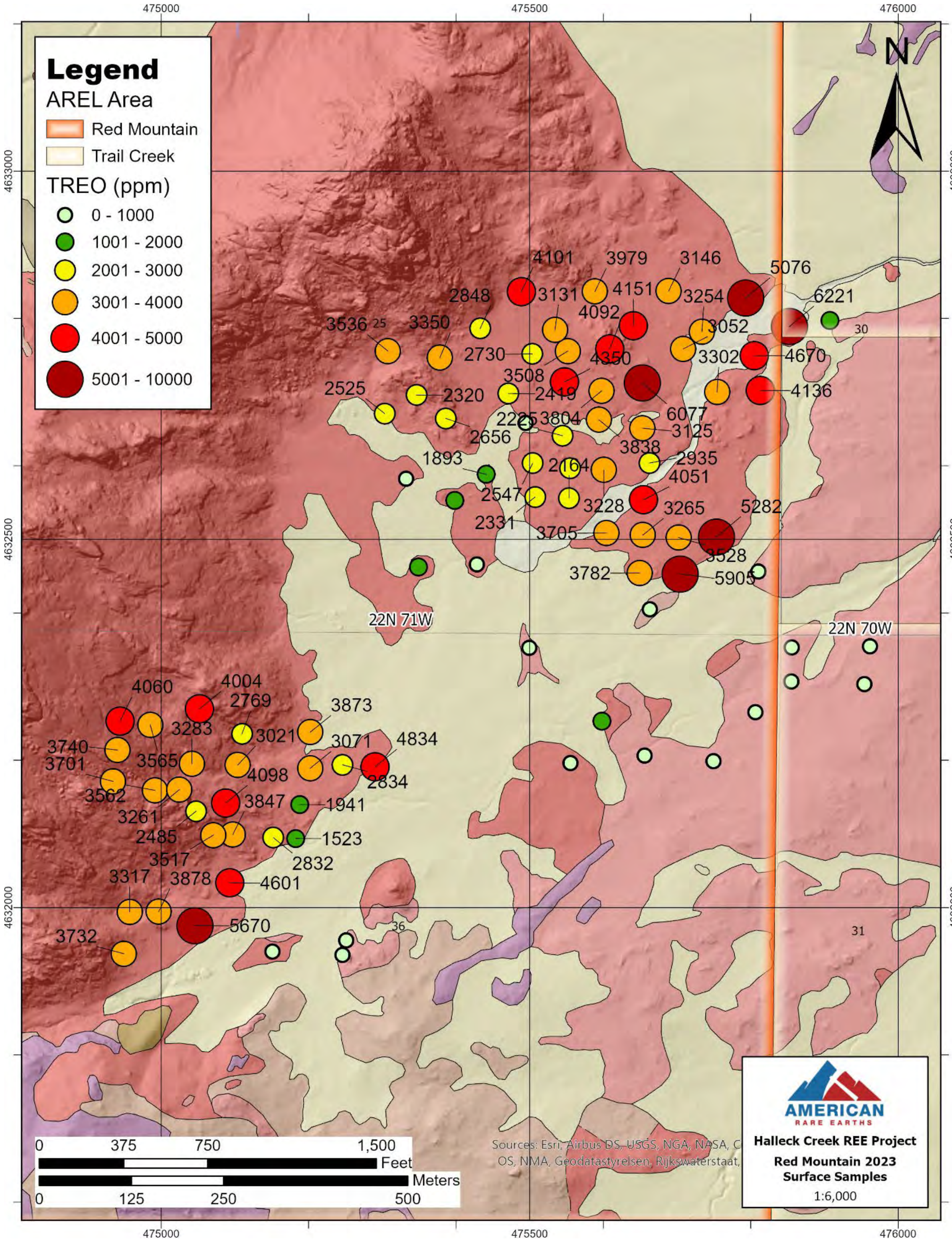


Figure 14 **- Sample Locations from November 2023 Red Mountain Mapping**

Table 9 - Summary of average REO values using a 1,500 ppm cutoff

Count	Total Rare Earth Oxide ppm (TREO)	Magnetic Rare Earth Oxide ppm (MREO)	Light Rare Earth Oxide ppm (LREO)	Heavy Rare Earth Oxide ppm (HREO)
68	3529	956	3133	396

The mapping refined contacts between the RMP and surrounding granites, as well as granite dikes that have intruded the pluton. The quaternary sediments and tertiary gravels that overlay the bedrock were also better constrained. This mapping modified the map created during the 2023 Summer Mapping initiative.

8.1.2 Fall 2023 RC and Diamond Core Drilling Program

The Company conducted a reverse circulation (RC) and diamond core drilling program at the Halleck Creek Project during Q3 and Q4 of 2023. The drilling program included 23 holes, eight of which are diamond core holes, and 15 of which are RC holes. All holes are located at the Overton Mountain resource area (Figure 15, Figure16, Table10, and Table 11). The objectives of the program were as follows:

1. Define significant measured resources in the highest-grade areas at the Overton Mountain project to provide data for a scoping study/PEA.
2. Collect core material for Stage 2 metallurgical testwork.
3. Collect core data and materials for geotechnical and geomechanical testing for pit stability and pit design.
4. Provide core materials for a long-term enviro-engineering study to determine how the exposed rock weathers and if the rocks create potential acid-mine drainage.
5. Drill a deep core hole (305 m, or ~1000 ft) to determine the extent of mineralization.

The program began on September 16th, 2023, and concluded on October 22nd, 2023. A total of 37 days were worked between four geologists and two drill crews, one for each rig. FTE Drilling Services (FTE) out of Sherbrooke, Quebec performed the RC and diamond drilling on behalf of ARR.

ARR completed a total of fifteen (15) RC holes with a total length drilled of 1,530 m (5019.69 ft) (Table 10). ARR completed eight (8) core holes to the depths shown below (Table 11). One core hole was completed to a depth of 302 m (990.81 ft). Core hole (HC23-OM028) is the deepest hole drilled to date at the Halleck Creek project.

8.1.3 Assay Results

A total of 657 samples were assayed for all 23 holes as part of the Fall 2023 drilling campaign. The average TREO for all holes was 4,179 ppm, however individual hole averages can be found in summary Table 12 and Table 13. Strip logs can be observed in Figure 20 through Figure 23. All assays from the drilling program can be observed in Appendix C.

Average ThO_2 and UO_2 values remain exceptionally low, at 62 ppm and 7 ppm, respectively.

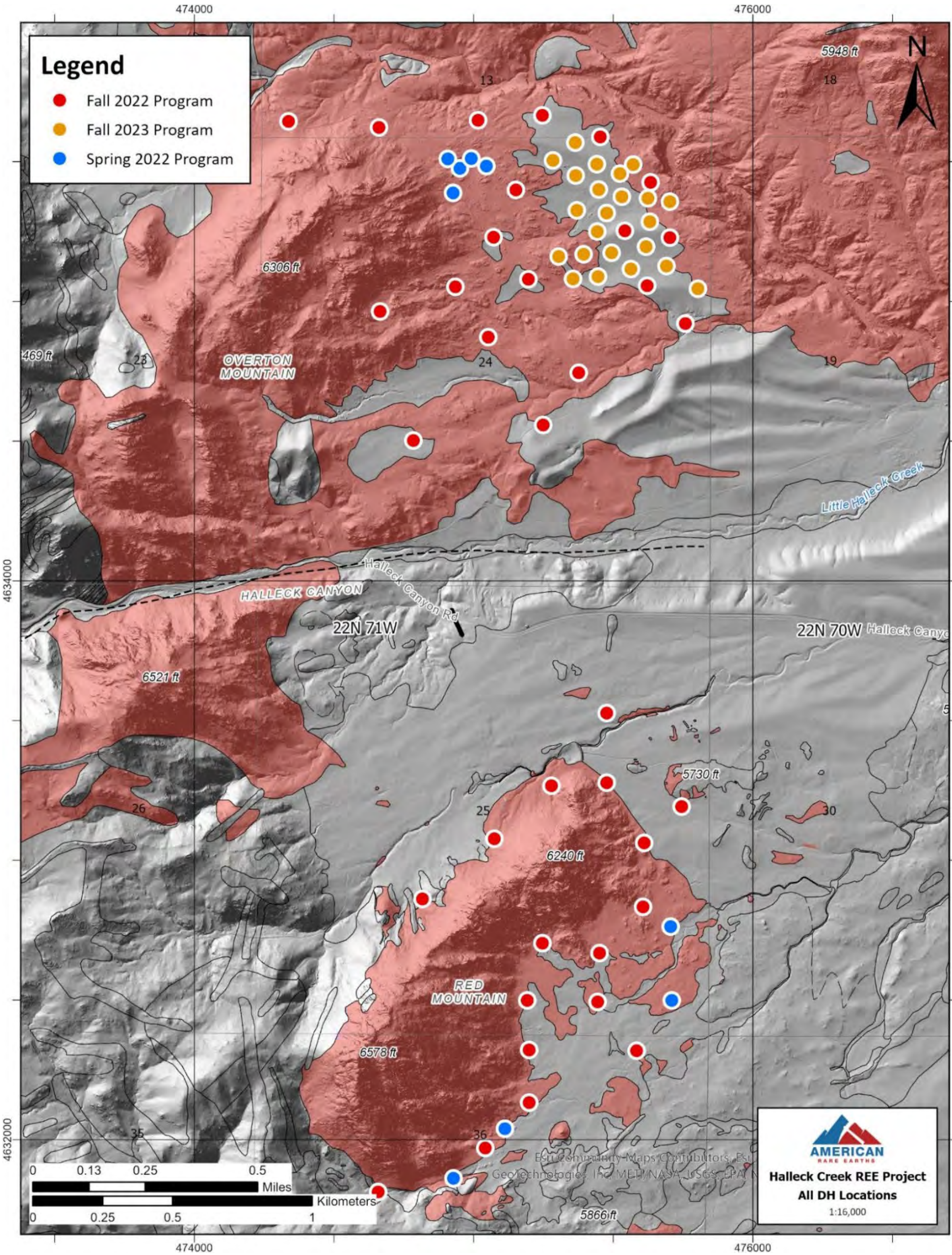


Figure 15 – Halleck Creek Drill hole locations

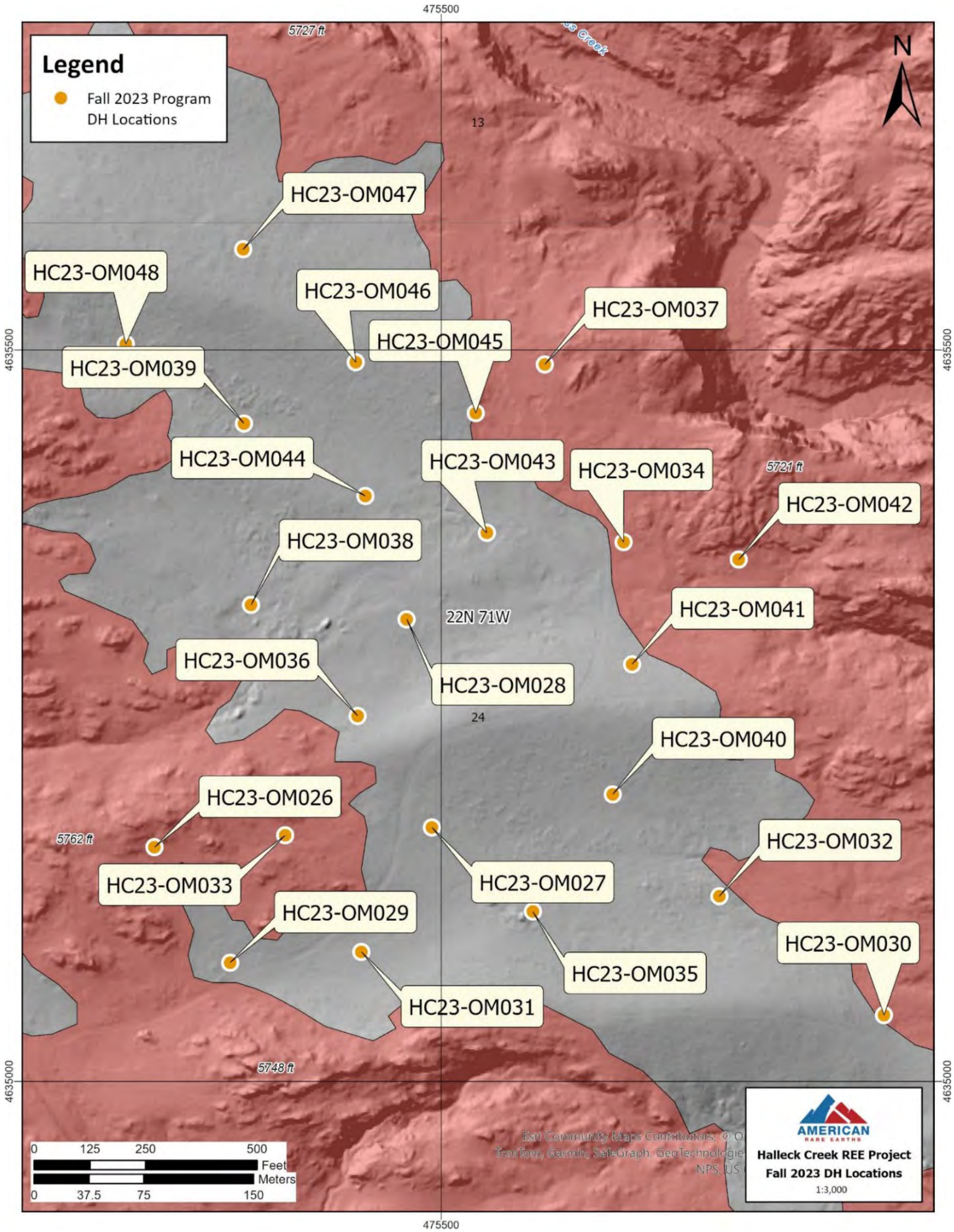


Figure 16 - Fall 2023 drill hole locations

Table 10 - Summary of Halleck Creek Fall 2023 RC Infill Drilling

Drill Hole ID	Date Started	Date Ended	Easting*	Northing*	Azimuth/ Dip	Depth Drilled (m)	Depth Drilled (ft)	Samples Collected**
HC23-OM029	10/1/23	10/3/23	475,355.55	4,635,081.26	--, -90	102	334.65	68
HC23-OM031	10/4/23	10/5/23	475,445.43	4,635,088.63	180, -65	102	334.65	68
HC23-OM033	10/5/23	10/6/23	475,393.26	4,635,168.15	--, -90	102	334.65	68
HC23-OM035	10/7/23	10/7/23	475,562.59	4,635,116.15	--, -90	102	334.65	68
HC23-OM036	10/8/23	10/8/23	475,442.81	4,635,249.93	--, -90	102	334.65	68
HC23-OM038	10/10/23	10/10/23	475,369.93	4,635,325.68	270, -90	102	334.65	68
HC23-OM040	10/11/23	10/11/23	475,617.24	4,635,196.31	--, -90	102	334.65	68
HC23-OM041	10/12/23	10/13/23	475,630.42	4,635,285.11	--, -90	102	334.65	68
HC23-OM042	10/13/23	10/15/23	475,703.43	4,635,356.82	70, -65	102	334.65	68
HC23-OM043	10/16/23	10/16/23	475,531.06	4,635,374.94	--, -90	102	334.65	68
HC23-OM044	10/17/23	10/17/23	475,447.99	4,635,400.30	--, -90	102	334.65	68
HC23-OM045	10/18/23	10/19/23	475,523.63	4,635,456.93	--, -90	102	334.65	68
HC23-OM046	10/19/23	10/20/23	475,441.63	4,635,491.54	--, -90	102	334.65	68
HC23-OM047	10/20/23	10/21/23	475,364.51	4,635,568.71	--, -90	102	334.65	68
HC23-OM048	10/21/23	10/22/23	475,284.26	4,635,504.06	270, -65	102	334.65	68
Totals						**1,530**	**5,020**	**1,020**

*UTM NAD 1983, Zone 13
**Excluding internal QA/QC

Table 11 - Summary of Halleck Creek Fall 2023 Diamond Drilling

Drill Hole ID	Date Started	Date Ended	Easting*	Northing*	Azimuth/ Dip	Depth Drilled (m)	Depth Drilled (ft)	Samples Collected**
HC23-OM026	9/18/23	9/20/23	475,303.92	4,635,160.13	--, -90	80	262.47	56
HC23-OM027	9/21/23	9/23/23	475,493.66	4,635,173.59	--, -90	80	262.47	57
HC23-OM028	9/24/23	10/2/23	475,476.43	4,635,315.94	--, -90	302	990.81	227
HC23-OM030	10/3/23	10/4/23	475,802.81	4,635,045.38	--, -90	80	262.47	62
HC23-OM032	10/4/23	10/6/23	475,690.08	4,635,126.55	--, -90	76.5	250.98	54
HC23-OM034	10/7/23	10/8/23	475,624.71	4,635,368.70	--, -90	80	262.47	57
HC23-OM037	10/9/23	10/10/23	475,570.90	4,635,490.21	--, -90	80	262.47	58
HC23-OM039	10/11/23	10/11/23	475,365.10	4,635,449.80	--, -90	80	262.47	55
Totals						**858.5**	**2,817**	**626**

*UTM NAD 1983, Zone 13
**Excluding internal QA/QC

Magnet REE (Nd, Pr, Dy, Tb, Sm) comprise approximately 27.1% of the total RE distribution. Distribution in TREO for the magnet REEs are: Nd_2O_3 at 630.9 ppm (18%), Pr_6O_{11} at 171.6 ppm (4.9%), Sm_2O_3 at 97.5 ppm (2.8%), Dy_2O_2 at 42.4 ppm (1.2%), and Tb_4O_7 at 8.5 ppm (0.2%). The ratio of Nd_2O_3: Pr_6O_{11} is 368% or 3.68:1 (Figure 17). (2.8%), Dy_2O_2 at 42.4 ppm (1.2%), and Tb_4O_7 at 8.5 ppm (0.2%). The ratio of Nd_2O_3: Pr_6O_{11} is 368% or 3.68:1.

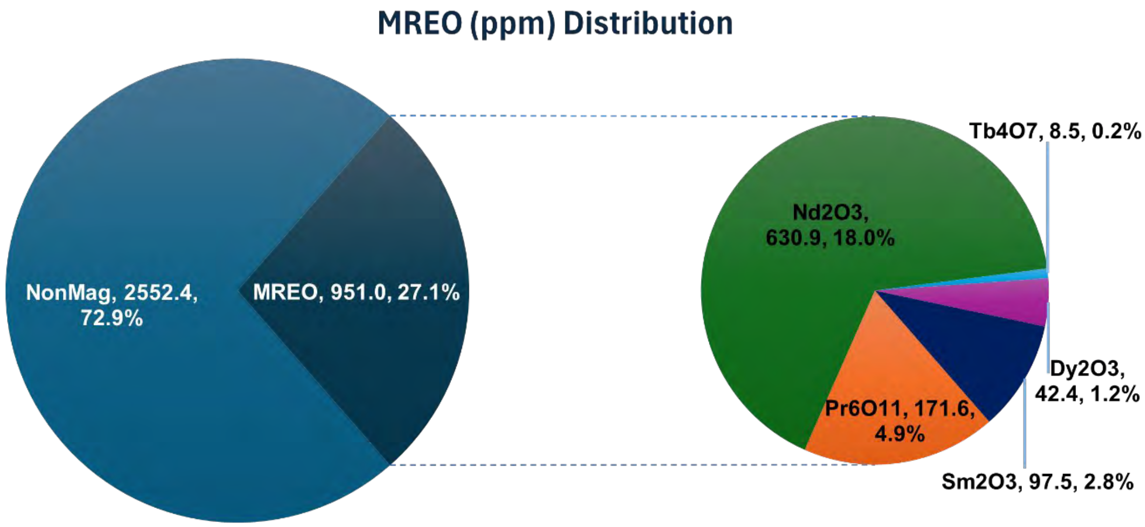


Figure 17 - MREO distribution for all drill data

The two dominant REOs across the 38 RC holes from the CQM are cerium and lanthanum, comprising 43% and 21% of all TREO, respectively. Light Rare Earth Oxides (LREO) comprise approximately 90% of TREO. Heavy Rare Earth Oxides comprise approximately 10% of TREO (Figure 18, Figure 19).

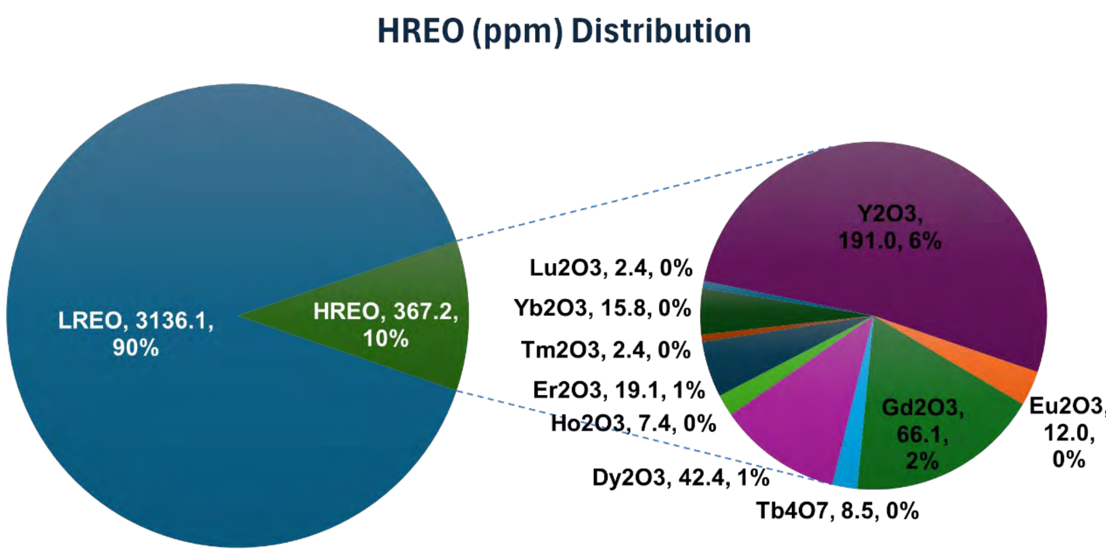


Figure 18 - HREO distribution for all drill data

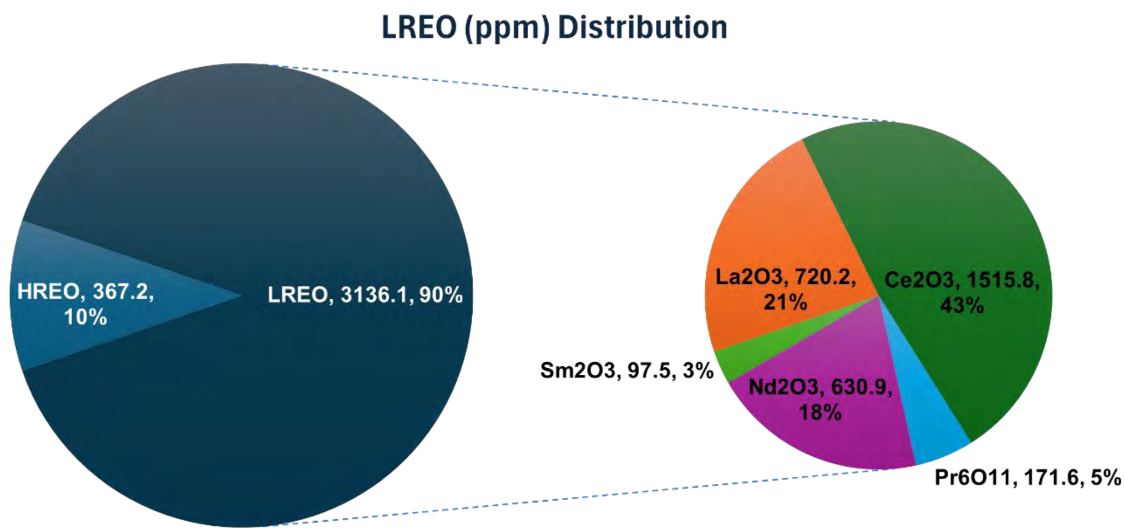


Figure 19 - LREO distribution for all drill data

Table 12 - Summary of RC Assays from Fall 2023 drilling*

DHID	Sample Count	Total Thick (m)	TREO			MREO			LREO			HREO		
			Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
HC23-OM029	68	99	3963	2423	5950	1037	92	1614	3483	304	5391	382	58	559
HC23-OM031	68	91.5	3228	1525	4246	814	180	1155	2677	598	3814	358	98	432
HC23-OM033	68	102	4291	2449	6575	1147	662	1784	3904	2190	6020	387	228	590
HC23-OM035	68	96	3453	1505	4943	883	328	1283	2968	951	4563	362	245	525
HC23-OM036	68	102	3823	2677	4534	987	680	1205	3467	2397	4163	356	280	421
HC23-OM038	68	100.5	4493	2500	7436	1215	320	2015	4033	1149	6829	412	123	697
HC23-OM040	68	96	4404	2683	9009	1143	82	2526	3779	255	8141	396	62	868
HC23-OM041	68	97.5	4228	3259	4779	1083	84	1274	3690	255	4359	374	75	431
HC23-OM042	68	100.5	4281	2413	5393	1130	355	1456	3848	1180	4884	390	166	509
HC23-OM043	68	99	3791	1770	4891	971	309	1300	3322	1022	4386	393	142	593
HC23-OM044	68	102	5472	1890	11054	1487	481	3071	4993	1668	10192	479	222	862
HC23-OM045	68	100.5	4217	3689	5187	1117	207	1413	3803	674	4791	364	104	444
HC23-OM046	68	96	4299	3492	5645	1095	92	1510	3702	261	5214	368	74	481
HC23-OM047	68	96	4119	2837	5270	1036	80	1353	3567	242	4839	339	66	433
HC23-OM048	68	102	3329	1632	4764	879	423	1240	2990	1468	4385	339	164	391
Grand Total	**1,020**	**1480.5**	**4099**	**1505**	**11054**	**1068**	**80**	**3071**	**3615**	**242**	**10192**	**380**	**58**	**868**

TREO: Total rare earth oxide, MREO: Magnetic rare earth oxide, LREO: Light rare earth oxide, HREO: Heavy rare earth oxide
*TREO 1,500 ppm cut-off

Table 13 - Summary of Diamond Core Assays from Fall 2023 drilling*

DHID	Sample Count	Total Thick (m)	TREO			MREO			LREO			HREO		
			Mean	Min	Max	Mean	Min	Max	Mean	Min	Max	Mean	Min	Max
HC23-OM026	56	71.42	4972	3545	9881	1319	78	2799	4426	240	8979	463	66	902
HC23-OM027	57	71.5	4396	1906	8867	1173	487	2427	3961	1686	8029	434	220	838
HC23-OM028	227	287.63	5088	1513	8067	1311	51	2153	4455	154	7502	433	29	641
HC23-OM030	62	77.05	4282	2393	6138	1145	617	1672	3787	2047	5594	495	295	631
HC23-OM032	54	72.99	3834	1762	5078	1018	43	1383	3334	104	4649	384	48	497
HC23-OM034	57	76.8	4204	3241	5657	1092	24	1530	3766	62	5184	367	27	473
HC23-OM037	58	75.15	4082	1616	6684	1059	1	1769	3648	6	6195	371	180	515
HC23-OM039	55	74.35	4252	1906	9189	1107	318	2515	3774	1081	8449	423	163	740
Grand Total	**626**	**806.89**	**4575**	**1513**	**9881**	**1196**	**1**	**1769**	**4047**	**6**	**8979**	**425**	**27**	**902**

TREO: Total rare earth oxide, MREO: Magnetic rare earth oxide, LREO: Light rare earth oxide, HREO: Heavy rare earth oxide
*TREO 1,500 ppm cut-off

Figure 20 - Strip logs of 2023 Diamond Core Holes

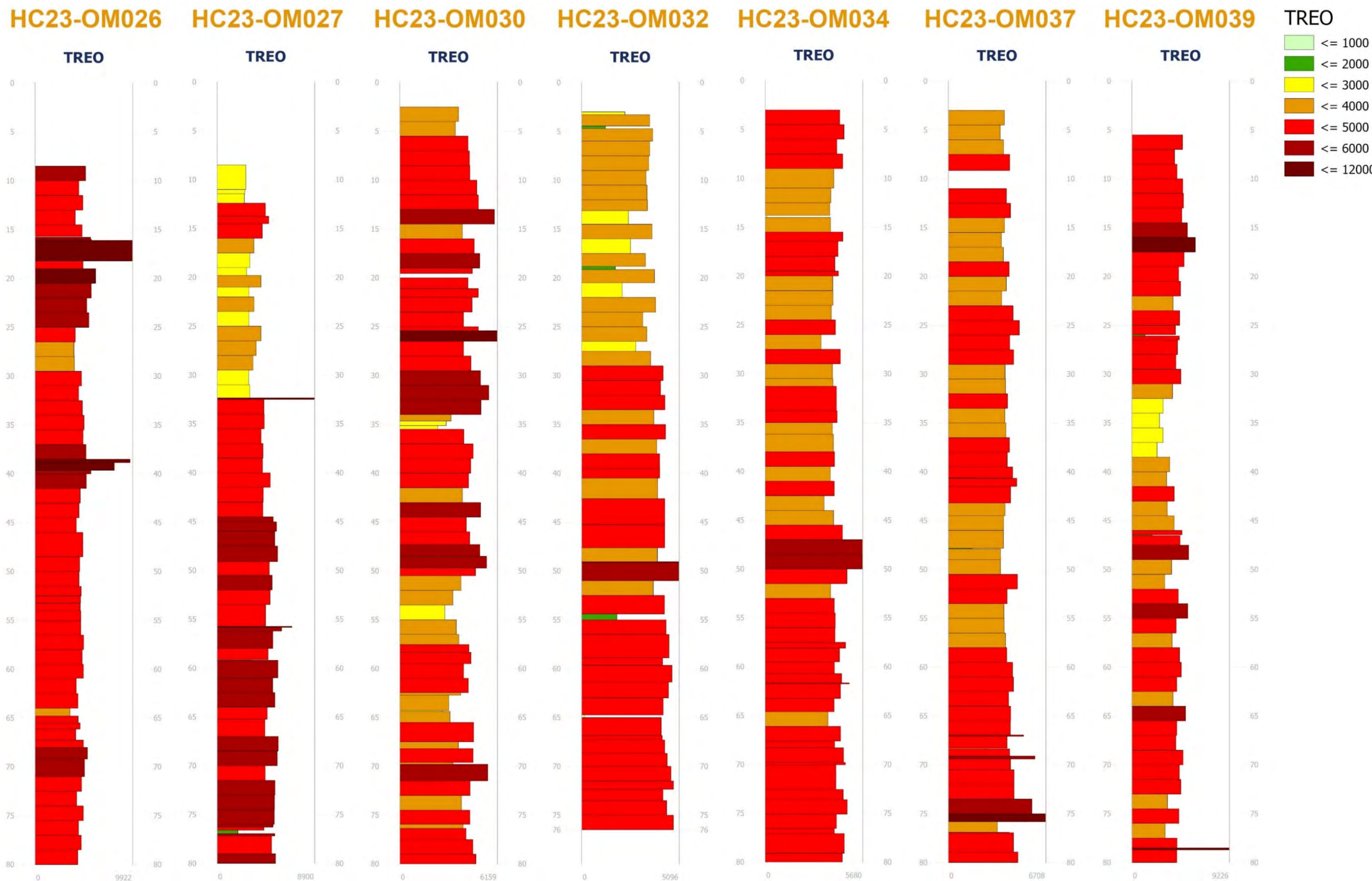


Figure 21 - Strip log of diamond core hole HC23-OM028

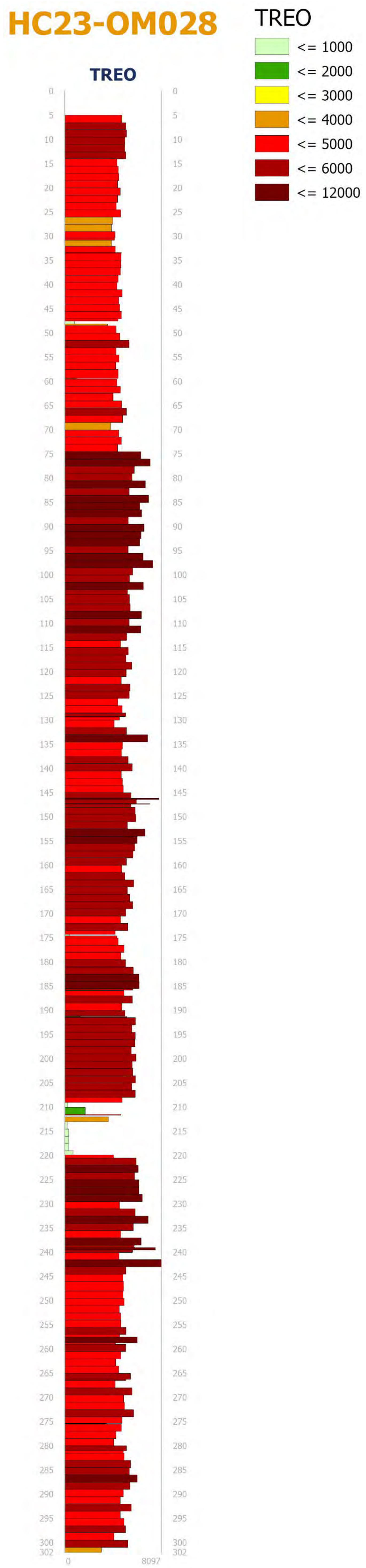


Figure 22 - Strip logs of RC holes Part 1

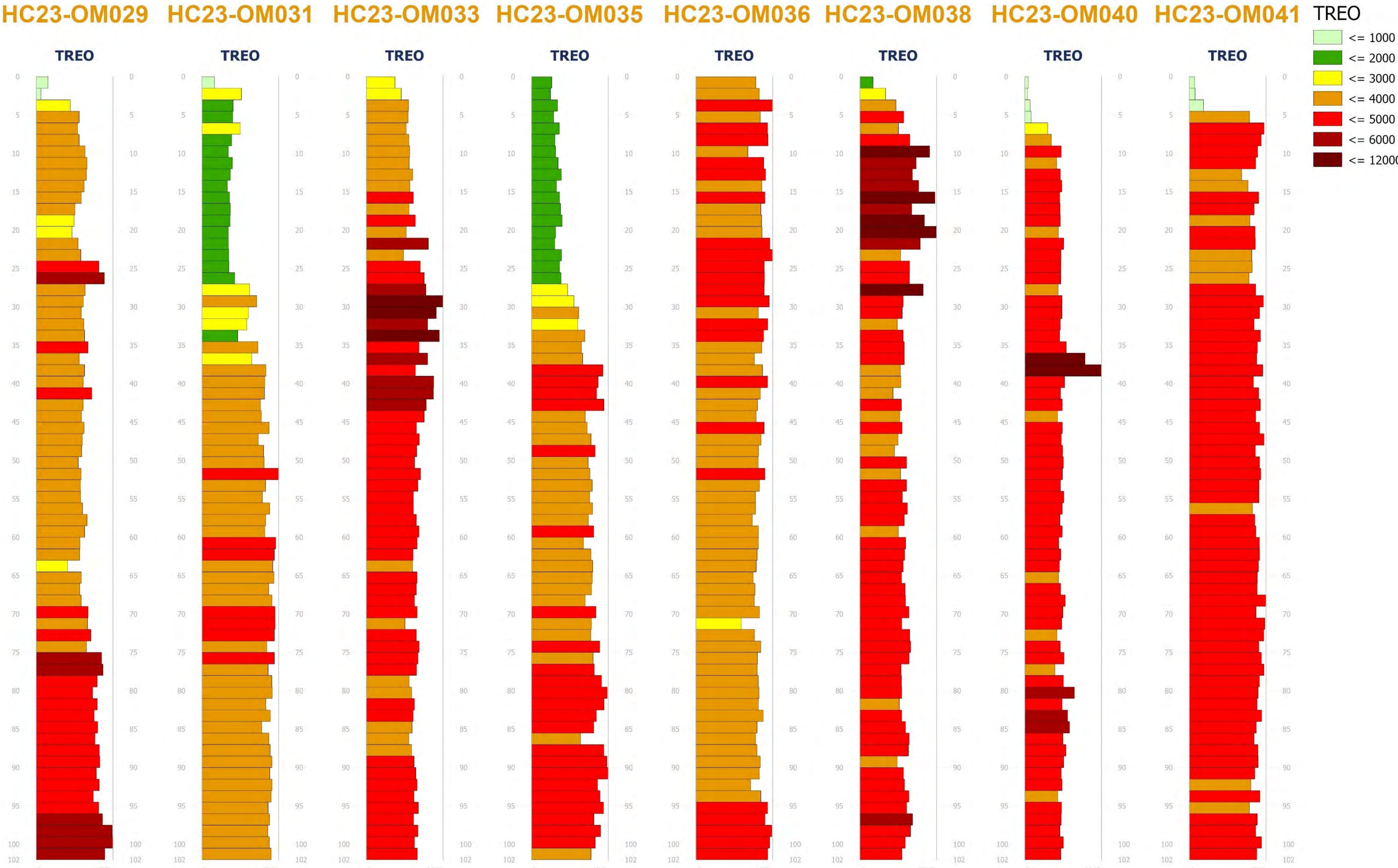
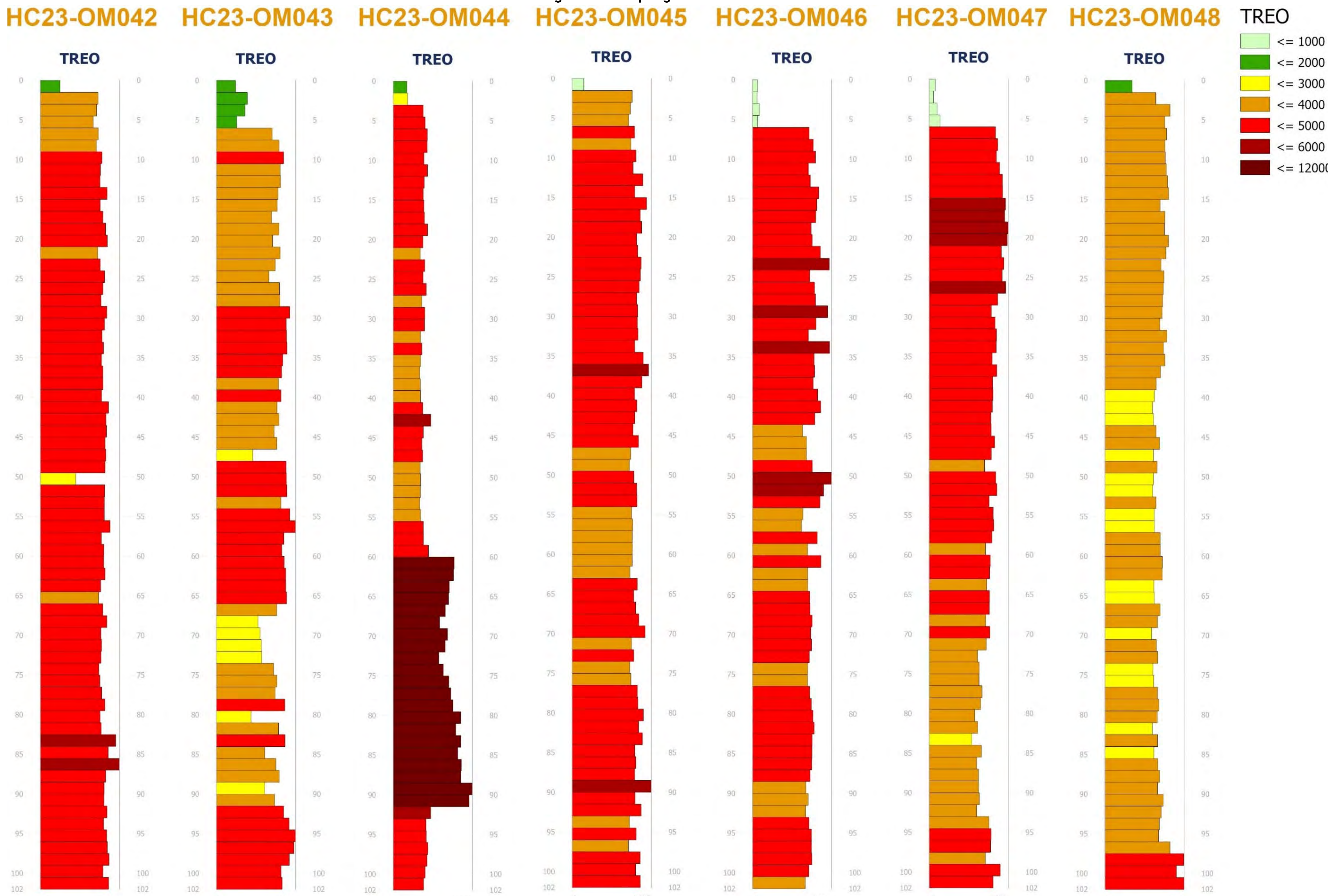


Figure 23 - Strip logs of RC holes Part 2



8.1.4 2023 Summer Surface Sampling and Geologic Mapping

During the Summer of 2023, Company geologists conducted mapping and sampling of the Halleck Creek resource area. The campaign focused on further characterizing and locating the rare earth element-enriched Red Mountain Pluton. Mapping and sampling focused on ARR claim areas where previous geologic mapping was sparse and speculative. Specifically, mapping occurred in the County Line, Trail Creek and Red Mountain prospect areas (Figure 7). Contemporaneous with the geologic mapping effort, ARR geologists collected 189 surface samples which were analyzed using XRF and assayed by ALS Global (Figure 24, Figure 25).

8.1.4.1 Geologic Mapping

Historic maps of the Red Mountain Pluton (RMP) lacked detail necessary for mineral exploration. As such, ARR geologists re-mapped much of the RMP at a finer scale. Mapping areas were chosen based on historic maps that showed the presence of RMP rocks. Over the summer, ARR geologists significantly improved the understanding and extent of the REE mineralization within the RMP. ARR geologists also tightly constrained important contacts and boundaries between the RMP and surrounding rocks.

The general difference between the new mapping and previous mapping is the location of geologic contacts between units (Figure 7). While the geology is generally the same, ARR geologists found that previous geologic contacts were not well located. ARR geologists determined tighter constraints on contact locations between geologic units. The new mapping was completed with a GPS, whereas the historic maps were completed by pacing or by aerial imagery, so the locations of observations are more accurate. Some of these map differences may also be attributed to original mapping at a 1:24,000 scale, which prohibits a certain level of detail, whereas company Geologists have been mapping at an infinite scale. Importantly, GPS-confirmed geology will help provide greater accuracy when choosing new drillhole locations and will aid in the placement of conceptual mine facilities.

In the field or in hand sample, it is difficult to distinguish the various facies of the RMP: clinopyroxene quartz monzonite, fayalite monzonite, and biotite hornblende syenite. These rocks are primarily diagnosed from minerals that cannot be classified with the naked eye. Therefore, for mapping purposes, all the rocks of the RMP were grouped together, except for the RMP dikes which are easy to discern from the primary RMP host. All the rocks of the RMP carry REE grade; the clinopyroxene quartz monzonite is the most enriched.

Mapping revealed that there are no major structural features or controls within the mapped areas, except for prominent joint sets within the RMP rocks. The strike and dip measurements of the joint sets were recorded during mapping (Figure 26). The remaining joint measurements which fall outside of the conjugate set are presumed to be associated with exfoliation of the intrusive body. One minor fault within the Sybille Intrusion to the north of Red Mountain was observed. Stereonets reveal a prominent conjugate joint set, as well as jointing related to exfoliation of the Red Mountain body (Figure 27). All mapped features are assumed to be in igneous contacts and not structural contacts.

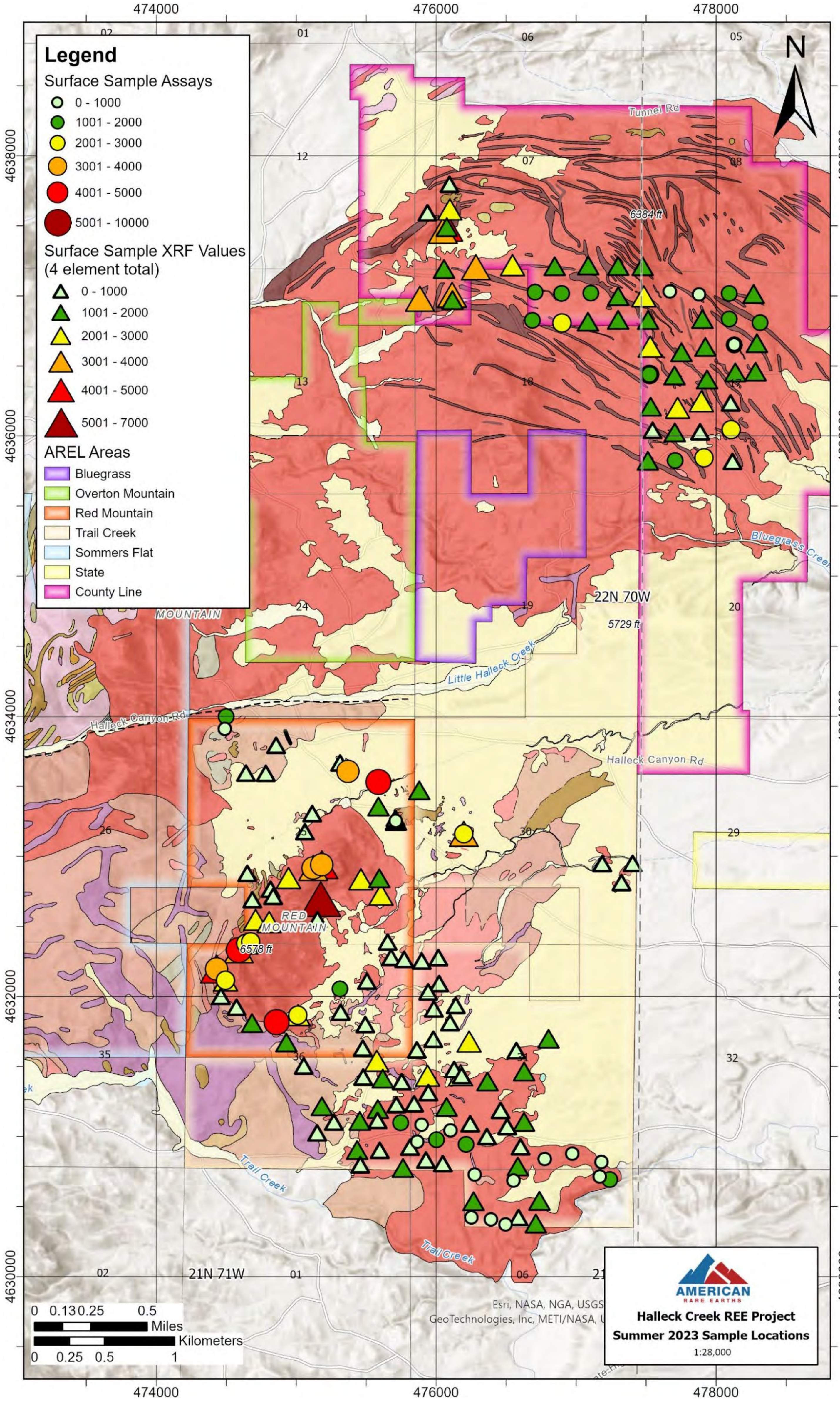


Figure 24 - Location of surface samples from Summer 2023 Mapping

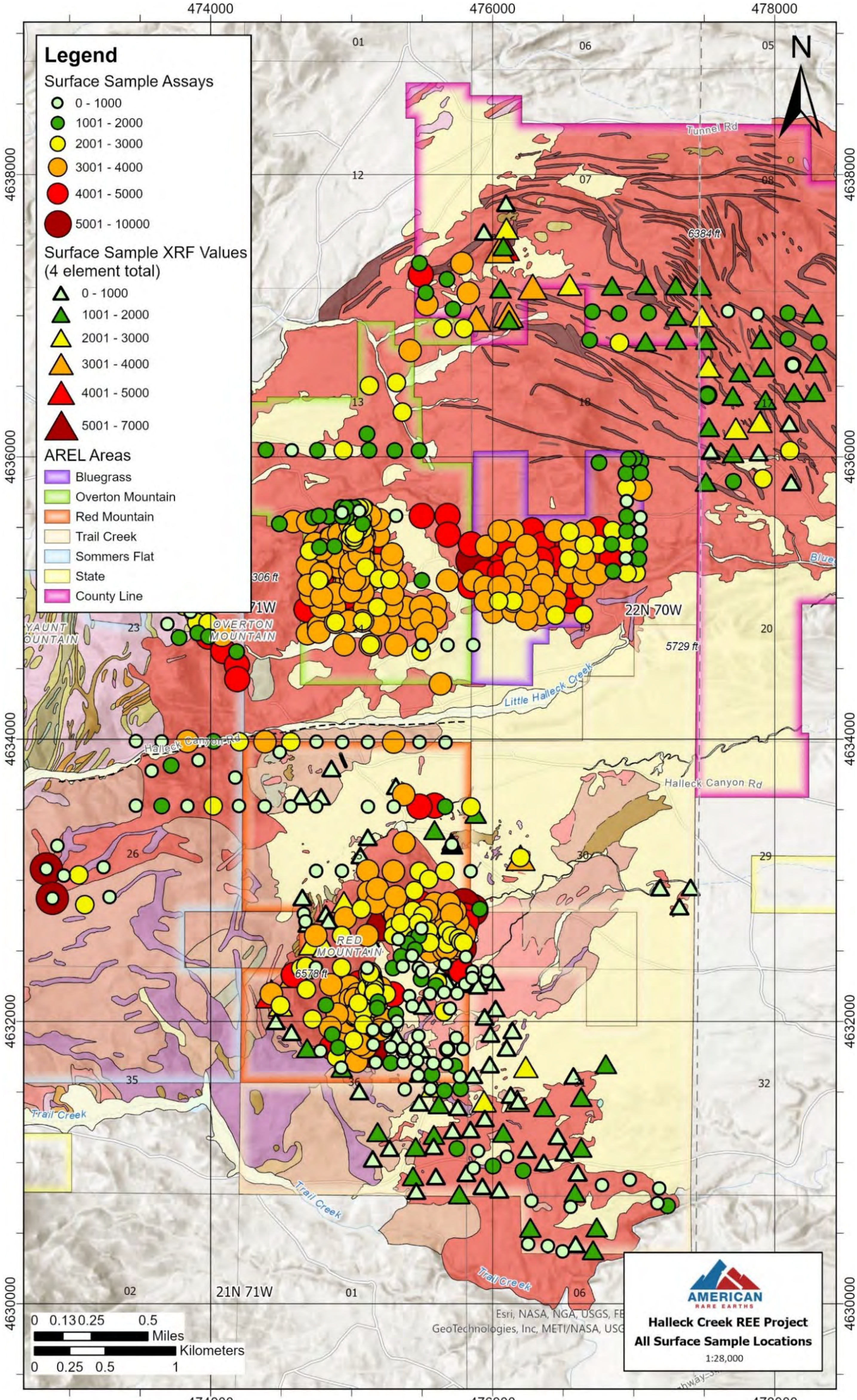


Figure 25 - Location of all surface samples at Halleck Creek project area

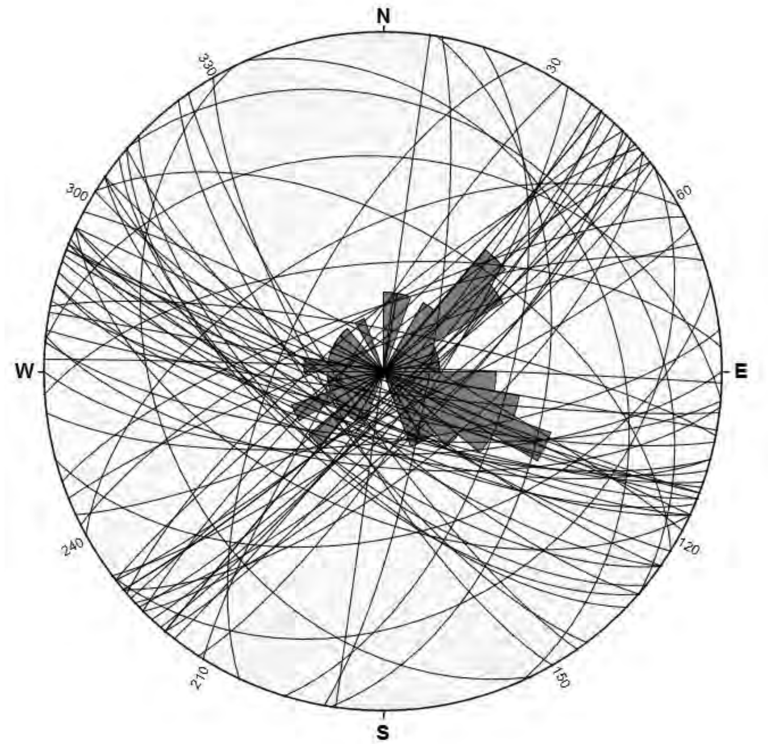


Figure 26 - Stereonet exhibiting all joint measurements and associated rose diagram.

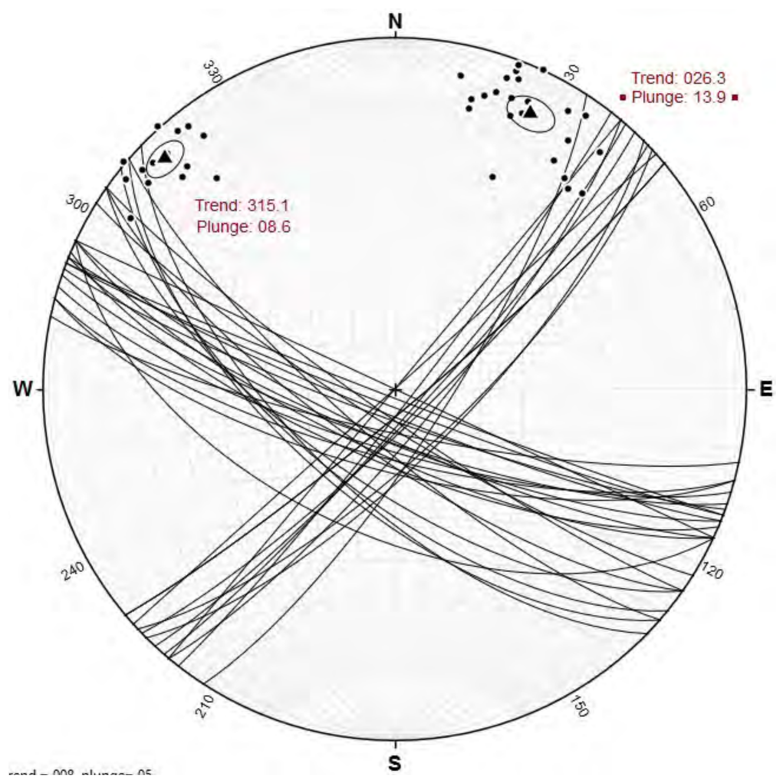


Figure 27 - Stereonet exhibiting joint set, poles to planes, and mean vectors

8.1.4.2 Sampling and XRF/Assay

While mapping, 189 surface samples from bedrock were collected. The samples were collected in a 200 m grid pattern where outcrop of the RMP was abundant, otherwise, samples were collected at exposed or accessible outcrops. Figure 24 and Figure25 show the sample locations from the Summer 2023 program, as well as their assay or Ce + La +

Nd + Pr total. Areas of higher grades (> 4000 ppm Ce + La + Nd + Pr) can be seen in Red Mountain Proper and Red Mountain North. The County Line area shows middling grades of 1000-3000 ppm Ce + La + Nd + Pr, and the grades appear inconsistent. The dike samples are not consistently high, and the host RMP samples are not consistently low. Where dike and host RMP was sampled in the same location, the dikes are higher in REEs, but even in these locations the dikes are lower grade than in other areas of the Halleck Creek resource area. Outcrop mapped in the Trail Creek area consists mostly of low grade RMP and RMG.

8.1.5 Fall 2022 RC Drilling Program

The company conducted a reverse circulation (RC) drilling program at the Halleck Creek Rare Earth's Project during Q4 of 2022. The drilling program included 38 holes, with 18 drilled on Red Mountain and 20 drilled on Overton Mountain. The primary objective of the program was to define a maiden resource estimate within the encompassing Halleck Creek Project Area.

The program began on October 5th, 2022, and concluded on December 11th, 2022. A total of 67 days split between five hitches were worked between three geologists and two drill crews. FTE Drilling Services (FTE) out of Canada performed the drilling on behalf of the Company. Total length drilled resulted in 5,575.5 ft (18,292.3 meters), and a total of 3,814 rock chip samples were collected and sent to ALS Global for assay.

Complete details of the Fall 2022 drilling program are presented in the report "Technical Report of Exploration and Maiden Resource Estimates of the Halleck Creek Rare Earths Project", March 2023.

8.1.6 2022 Maiden Drilling Program

The Company executed its maiden exploration drilling program at the Halleck Creek Resource Area during March and April 2022. The drilling program included nine core holes, with five drilled on Overton Mountain and four on Red Mountain. A total of 27 days split between three hitches were worked between two geologists and two drill crews. Total length drilled resulted in 3,008 ft (917 meters), and a total of 822 core samples were collected and sent to American Assay Labs, NV for assay.

The average TREO for all core samples from the maiden drilling at Overton Mountain is approximately 3,138 ppm, and the average TREO for core samples from the maiden drilling at Red Mountain (HC22-RM001, HC22-RM002, HC22-003) is approximately 4,252 ppm. HC22-RM004 was excluded from this average because the hole is dominated by non-REE bearing Sybille Pluton.

9 Drilling

9.1 Equipment

The 2022 maiden drilling program was drilled by Authentic Drilling, based out of Kiowa, Colorado. Two rigs utilized included an Acker CME 55/300 rubber track rig and an Acker CME 550X buggy rig. Support vehicles included Ford F550s and a Morooka 600MST rubber track carrier.

FTE Drilling Services, based out of Canada, was contracted for RC drilling for the Fall 2022 drilling program and the Fall 2023 RC and Core drilling program. For the Fall 2022 program, the RC rig utilized was a Schramm T450 Series hydraulic rubber track rig. The same RC rig was used during the Fall 2023 program, in addition to a Versadrill 14-412 wireline core rig. Support vehicles included Ford F550s and additional air compressors.

9.2 Protocols

Personal protective equipment (PPE) was required by all drillers and on-site geologists and included the following: hard hats, hi-vis reflective vests, eye protection, ear plugs, gloves, steel toed boots, and long pants. Additional safety measures included GPS communicators held by both the drillers and geologists in the field, wheel chocks for the truck, tire plug and repair kits, first aid kits, fire extinguishers, and daily safety meetings held at the core logging site each morning. Supplied air, full-face respirators were employed when dusty conditions occurred.

Planned drill hole locations were initially located using a handheld Garmin GPSMap 66i device and marked with wooden stakes. A tracked excavator and skid steer was used to construct the drill pads for the core program which had dimensions of approximately 50x50 ft. Drill pads were not constructed for the RC program unless necessary to facilitate the drill rig. For angled holes, a geological compass was used to sight in the drill to the planned azimuth and inclination. Final drill hole locations were surveyed by a professional land surveyor based out of Laramie, Wyoming.

Overburden was cased in all drill holes to varying depths, and all core was drilled as HQ-sized core. During the operation, the core was retrieved from the core barrel and laid sequentially into wax-impregnated core boxes by the drilling contractor and/or geologists on site. Once each box was full, the ends and top of the box were labelled with drill hole identification, the sequential box number, and to-and-from depths. Upon completing a box, it was stacked on a truck bed at the drill rig and was subsequently transported to the on-site core logging location.

For the RC program, overburden was also cased in all drill holes to varying depths. Samples were collected in 1.5 m (4.92 ft) homogenized intervals. Each sample bag was laid out in sequential order for each drill hole as they were collected. Geologists came to collect sample bags at site each morning and transported them directly to the logging facility in Laramie, WY.

Abandonment of the drill holes for both drilling programs consisted of cementing from total depth to surface. Surface completion included inserting a piece of metal wire attached to a key ring tag into the cement cap while it was drying. The key ring tag contains drill hole identification, which is to be used for reclamation purposes. The cement plug was then buried with topsoil with the key ring ID sticking out above ground.

9.2.1 Chip Logging Protocol

Rock chips were collected in 1.5 m intervals for each hole during drilling and placed into chip trays pre-labelled with the unique sample number for each depth interval. Chip logs of alteration and lithology were produced for each hole which included attention to alteration, mineralogy, and secondary mineralization by depth. Photographs of intervals at depths of 24-25.5 m, 49.5-51 m, 75-76.5 m, 99-100.5 m, 124.5-126 m, and 148.5 to 150 m were taken for each drill hole using a stereo microscope.

9.2.2 Core Logging Protocol

After core boxes were delivered to the core logging site, boxes were arranged on tables in downhole order. The following procedures followed:

- Rinsing the core and reconstructing the core at major fractures if necessary.
- Collecting rock quality designation (RQD) data.
    - This also included reconciling the length cored vs. length recovered, documenting fracture type and fracture conditioning, determining the hardness of rock in the core interval, and noting any other important structural features observed.
- Completing the lithologic log sheet.
    - This included documenting the rock type, noting alteration (oxidation, argillation, silicification, sulfidic, epidote, chlorite), logging any additional structures observed in the lithologic interval, and writing a thorough geologic description.
- Sampling the core: this will be discussed in detail in Section 11.
- Taking high resolution photos of the annotated core, both wet and dry.
- Boxing up completely processed core and placing sequentially on pallets in the logging yard to be shipped to the assay lab.

10 Sample Preparation, Analysis and Security

10.1 Sampling Methods and Protocols

10.1.1 Core Sample Preparation

Rock core was typically divided into 1.5 m (~5 ft) sample intervals, except for when lithologic breaks occurred down hole. As a result, sample intervals never crossed lithology boundaries to ensure assays accurately reflected potential differences in REE mineralization associated with different rock types within the RMP. Each sample was given a unique sample ID and tag, labeled with the drill hole ID number, sample number, and labelled with sample interval depths.

10.1.2 RC Chip Sampling Preparation

Rock chips were collected in 1.5 m (~5 ft) intervals. Using a rotary sample splitter, the RC drilling produced three separate rock chip samples for each 1.5 m (~5 ft) of depth of the drill hole. These included a sample for the chip trays, one sample for in-house XRF analysis, and one sample for external REE assay. Each sample interval was given a unique, pre-labeled sample ID that is shared between the identical chip tray, XRF, and lab assay samples. Chip trays and XRF samples have been retained and stored for ARR records and future usage. Rock chip trays and assay samples were retrieved from the drill sites daily to be logged and prepared for shipment, respectively. Samples were stored within locked storage units, or in ARR offices at all times until shipped by bonded carrier to ALS Global labs.

10.2 Laboratories

For the maiden drilling program, core samples were sent for assay at American Assay Laboratories (AAL) in Sparks, Nevada which has ISO 17025 Accreditation and is approved by the Nevada Division of Environmental Protection.

Subsequent rock chip and core samples from 2022 and 2023 were sent to ALS Global in Twin Falls, ID for processing and sample prep, but were subsequently assayed at ALS Global in Vancouver, British Columbia. ALS Vancouver has an ISO 17025 Accreditation and is also accredited by the Canadian Association for Laboratory Accreditation, Inc. Core samples from the 2023 program were sent to ALS Global in Reno, Nevada for splitting and sample preparation. Like the RC samples, the core samples were then assayed by ALS Global in Vancouver, British Columbia.

10.3 Sample Preparation and Analyses

Methods for core sample preparation are provided by AAL, and can be observed below:

- Samples are prepared by milling to >90% passing 150 mesh.
- Sample pulps are weighted with QC controls, blanks, CRMs, and sample duplicates.
- Entire batch of samples digested and brought up to working volume with inclusion of HF, $HClO_4$, HNO_3, HCl, and H_3BO_3 and DI H_2O.

- Samples are analysed on ICP-OES and ICP-MS for ICP-5AM60/REE-5AM60 packages.

Methods for RC chip and core sample preparation are provided by ALS, and can be observed below:

- Samples undergo fine crushing to 70% passing 2 mm.
- Excessively wet samples undergo drying in drying ovens.
- Samples are pulverised up to 250g to 85% passing 75 µm.
- Samples marked for duplicates are split using a riffle splitter.
- Samples undergo lithium borate fusion prior to acid dissolution.
- Samples are analysed on ICP-MS for ME-MS81 package.

10.4 Security

Prior to sample shipping, all drill cores resided in the storage yard which was securely locked when there were no ARR employees on site.

RC chips were stored in a locked shipping container prior shipment.

Core and RC were shipped to the labs via bonded carrier. ARR personnel prepared each shipment and supervised the loading of each shipment.

11 Data Verification and Data Management

11.1 QA/QC Analysis for Fall 2023 Drilling Program

11.1.1 Internal QA/QC Analysis

Qa/Qc protocols were similar for both the RC and diamond core drilling portions of the Fall 2023 drilling program. Certified reference materials (CRMs) were inserted at a rate of 5.12% (1 CRM per 20 samples) for the RC samples and were inserted at a rate of 4.94% (1 CRM per 20 or 21 samples) for the diamond core samples (Table 14 and Table 15).

Table 14 - CRM insertion rates for RC drilling

Qa/Qc type	Number of each	Insertion rate
CDN-RE-1201	9	0.84%
Blank	19	1.68%
Duplicate	17	1.58%
CDN-RE-1202	9	0.84%
TOTAL	**53**	**4.94%**

Table 15 - CRM insertion rates for diamond core drilling

Qa/Qc type	Number of each	Insertion rate
CDN-RE-1201	8	1.28%
Blank	8	1.28%
Duplicate	8	1.28%
CDN-RE-1202	8	1.28%
TOTAL	**32**	**5.12%**

11.1.1.1 Blanks

ARR sourced blank material for the Fall 2023 Drilling Campaign from OREAS North America in Sudbury, Ontario CA. The blank material, OREAS-22h, is a quartz sand blank to which 0.5% Fe-oxide has been added to produce a pale grey pulp. The blanks contain very low levels of REEs (Figure 28). Only one sample exhibited possible contamination. Regardless, the potential contamination of that sample (M032900) only exhibited low REE concentrations and is not cause for concern (Figure 29 through Figure 32). The red lines on the following graph represent the indicative value as reported by OREAS.

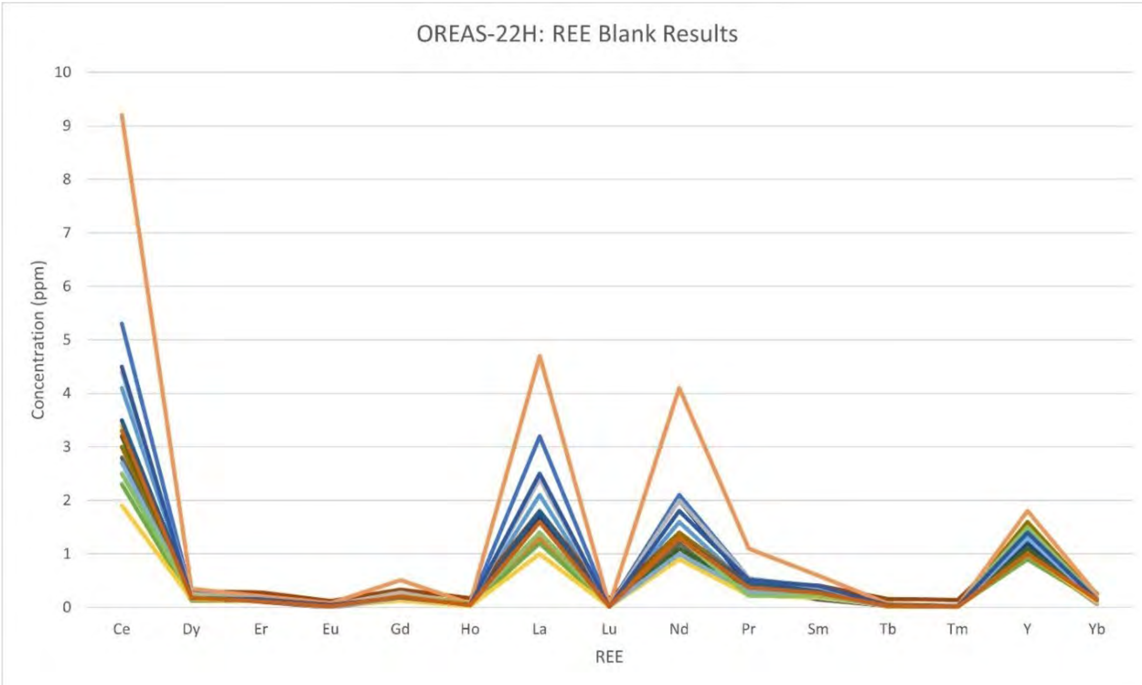


Figure 28 - OREAS-22h All REE Values for Internal Qa/Qc

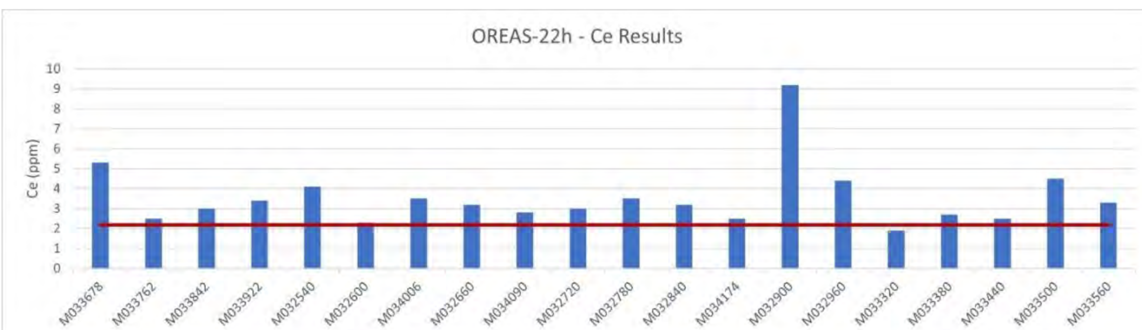


Figure 29 - Chart of internal OREAS-22H Blank for Ce

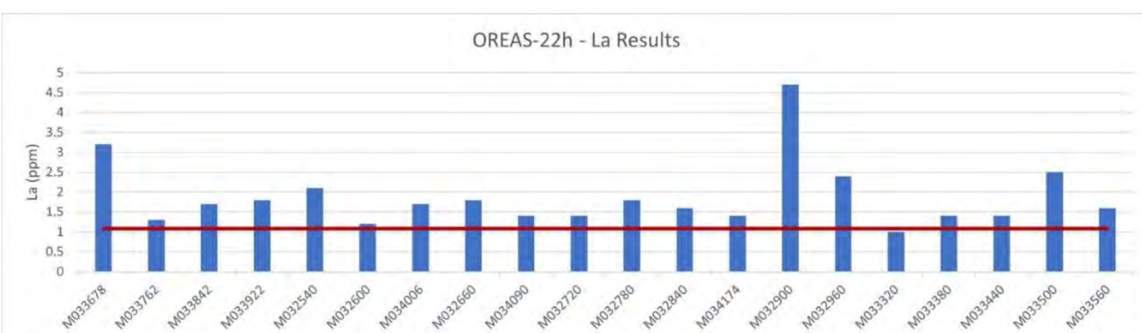


Figure 30 - Chart of internal OREAS-22H Blank for La

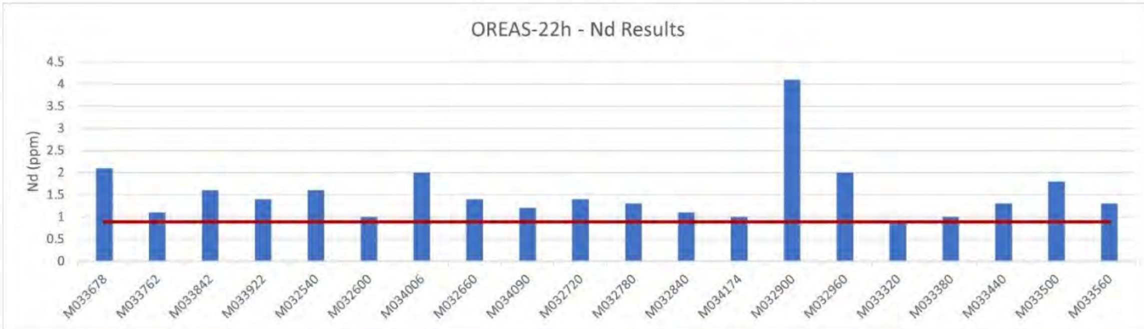


Figure 31 **- Chart of internal OREAS-22H Blank for Nd**

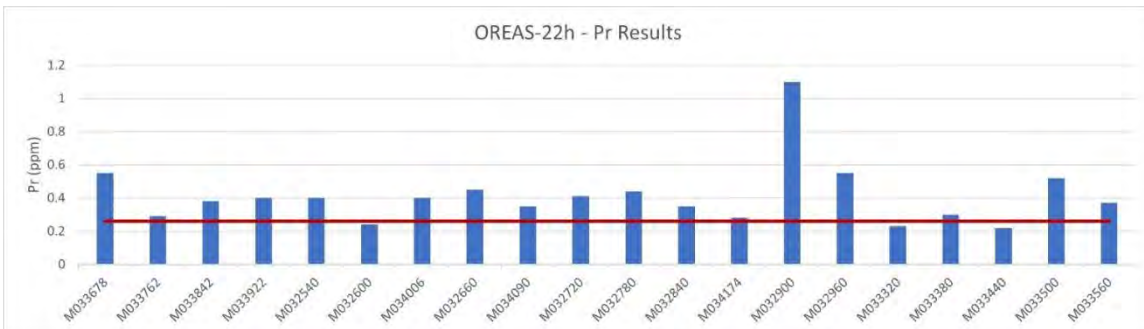


Figure 32 - Chart of internal OREAS-22h Blank for Pr

11.1.1.2 Duplicates

Riffle splits of coarse rejects were taken for duplicate samples indicated by ARR. The results show that the duplicates indicate acceptable precision with minor variance on the high and low ends. ARR plotted a regression curve and R^2 factor for TREE, Ce, La, Nd, and Pr shown in Figure 33 through Figure 35. The R^2 value exceeded 0.95 for all factors and elements, indicating a very high level of correlation in the duplicate samples.

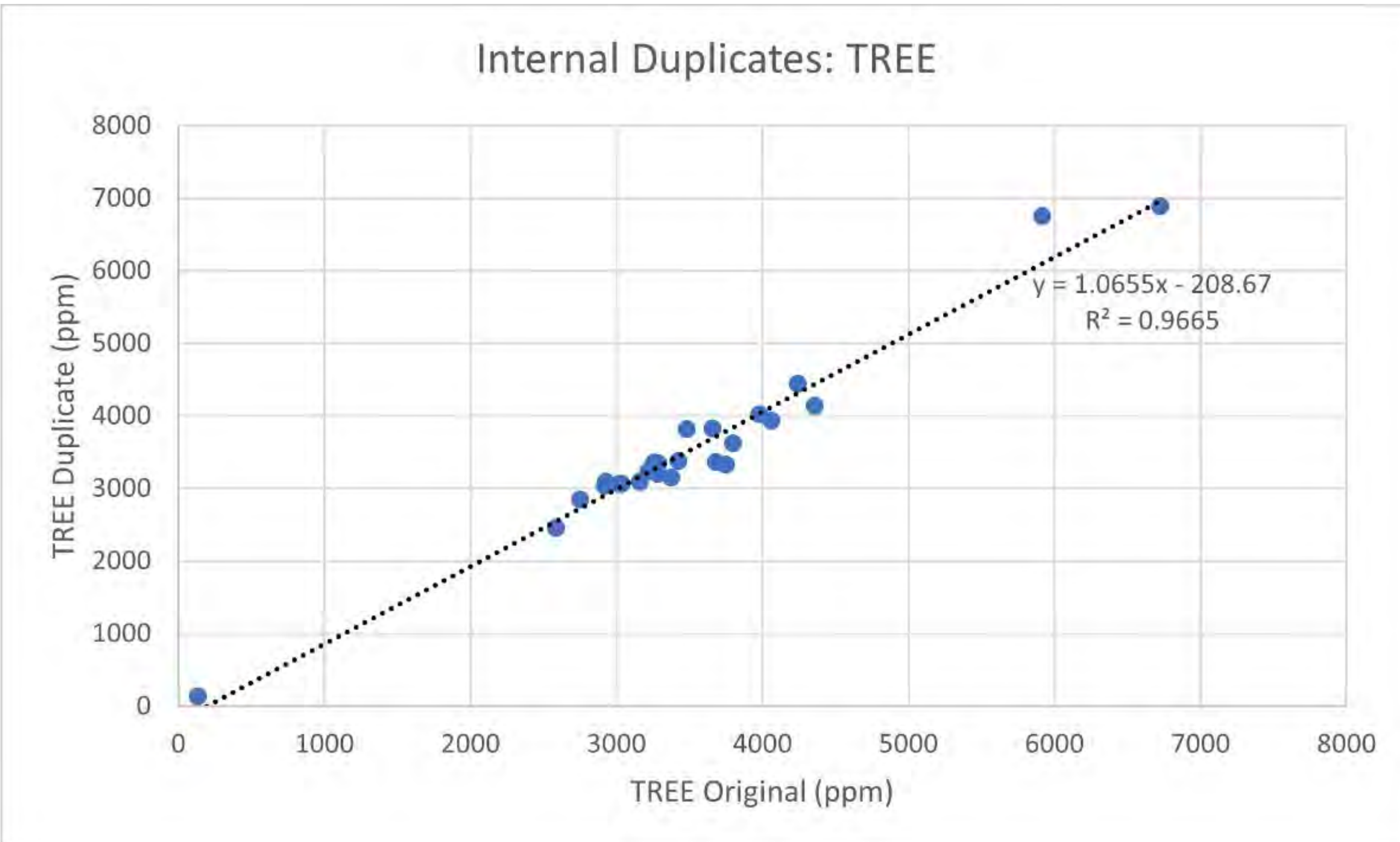


Figure 33 - Chart of internal duplicates for TREE

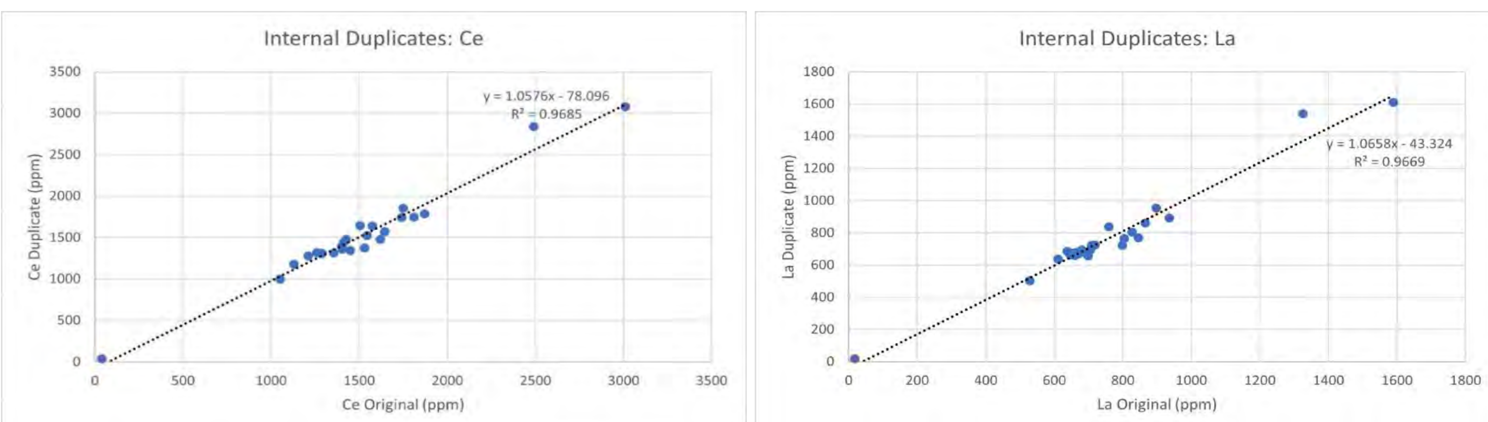


Figure 34 - Chart of internal duplicates for Ce and La

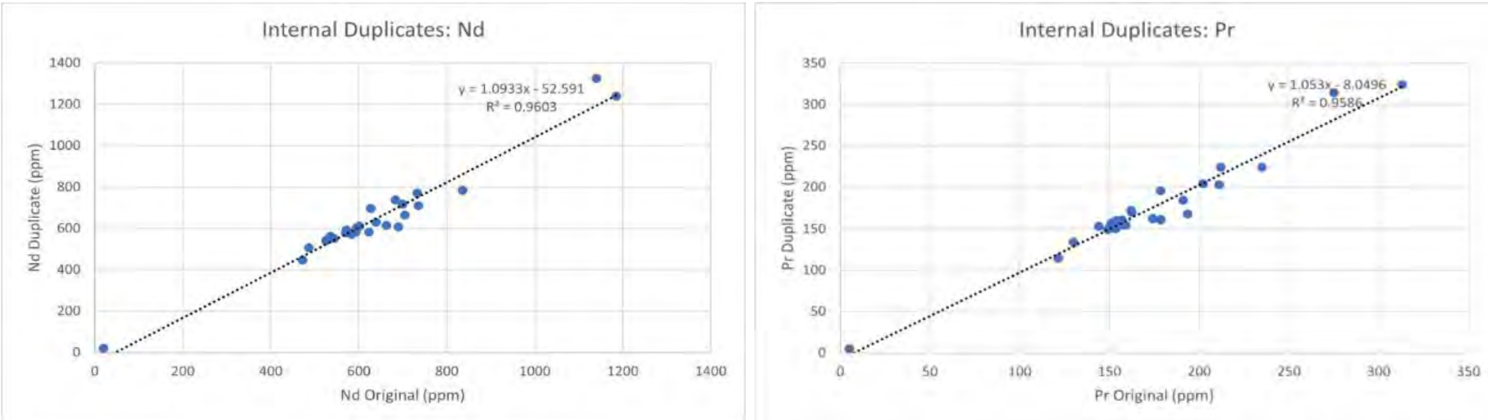


Figure 35 - Chart of internal duplicates for Nd and Pr

11.1.1.3 CRM Standards

ARR acquired rare earth standard certified reference material (CRM) from CDN Labs in Langley, British Columbia. The two REE standards used were CDN-RE-1201 and CDN-RE-1202. CDN-RE-1201 is most representative of the grades observed in the Red Mountain Pluton, whereas CDN-RE-1202 is slightly higher grade. The majority of all CRM standards from internal Qa/Qc fell within an acceptable range, with the exception of a few minor outliers as observed in Figure 36 through Figure 39.

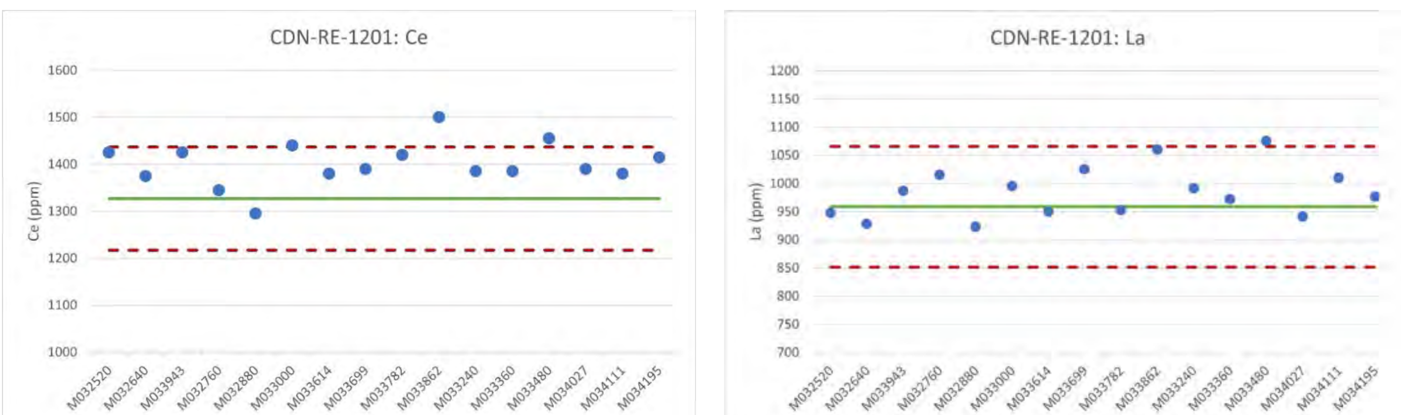


Figure 36 - Graphs of internal CRM tolerances for Ce and La: CDN-RE-1201

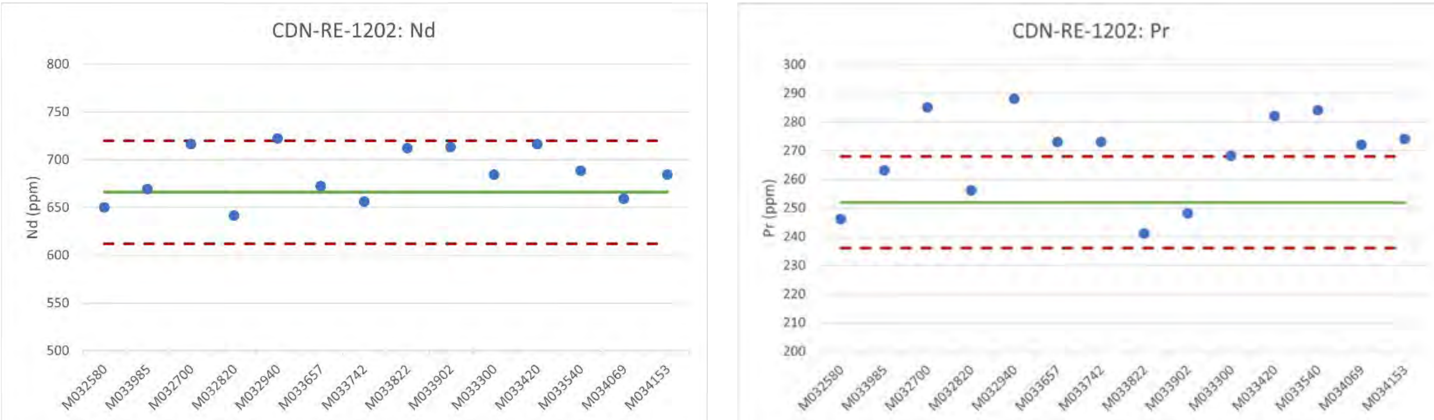


Figure 37 - Graphs of internal CRM tolerances for Nd and Pr: CDN-RE-1201

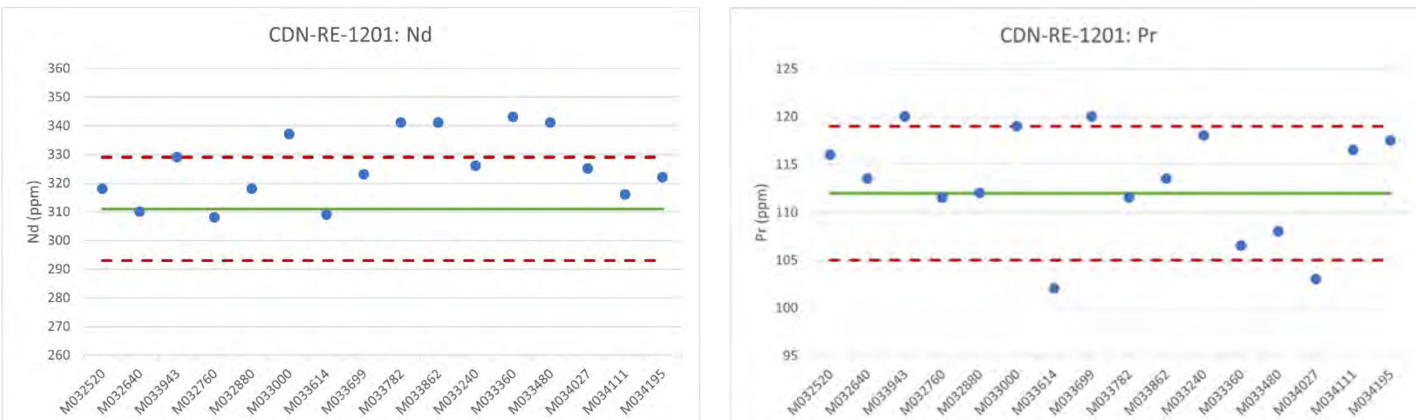


Figure 38 - Graphs of internal CRM tolerances for Ce and La: CDN-RE-1202

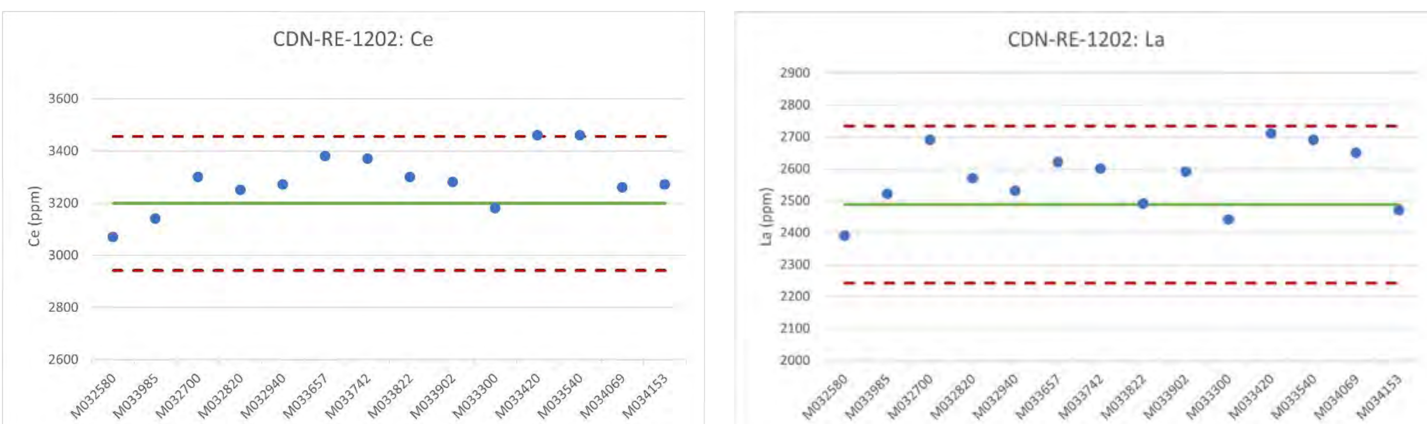


Figure 39 - Graphs of internal CRM tolerances for Nd and Pr: CDN-RE-1202

11.1.2 Laboratory QA/QC Analysis

11.1.2.1 Blanks

ALS Laboratories in Vancouver, British Columbia, utilized their own internal Qa/Qc procedures and inserted blanks into the sample stream. The blanks utilized by ALS also contain very low quantities of REEs. All ALS blanks were within acceptable tolerances (Figure 40).

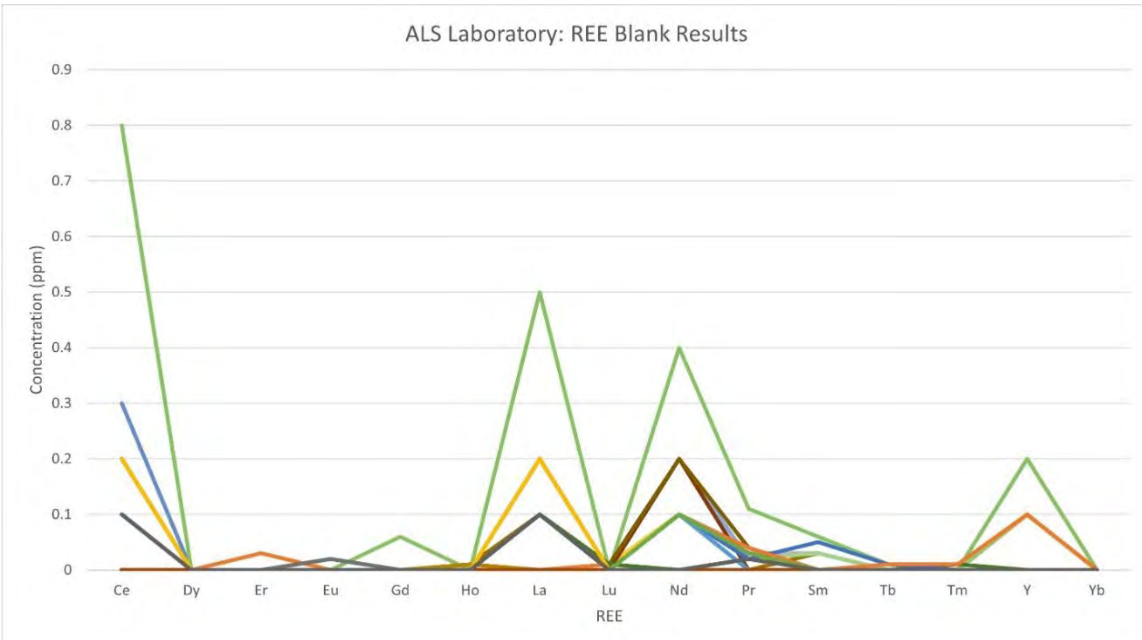


Figure 40 - ALS Blanks: All REE values for QA/QC

11.1.2.2 Duplicates

ALS created their own, internal duplicates from randomized samples for each sample batch submitted. These duplicates, similar to the ones requested by ARR, were also made from coarse sample rejects utilizing a riffle splitter. ARR plotted a regression curve and R^2 factor for TREE, Ce, La, Nd, and Pr shown in Figure 41 through Figure 43. The R^2 value exceeded 0.99 for all factors and elements, further indicating a very high level of correlation in the duplicate samples.

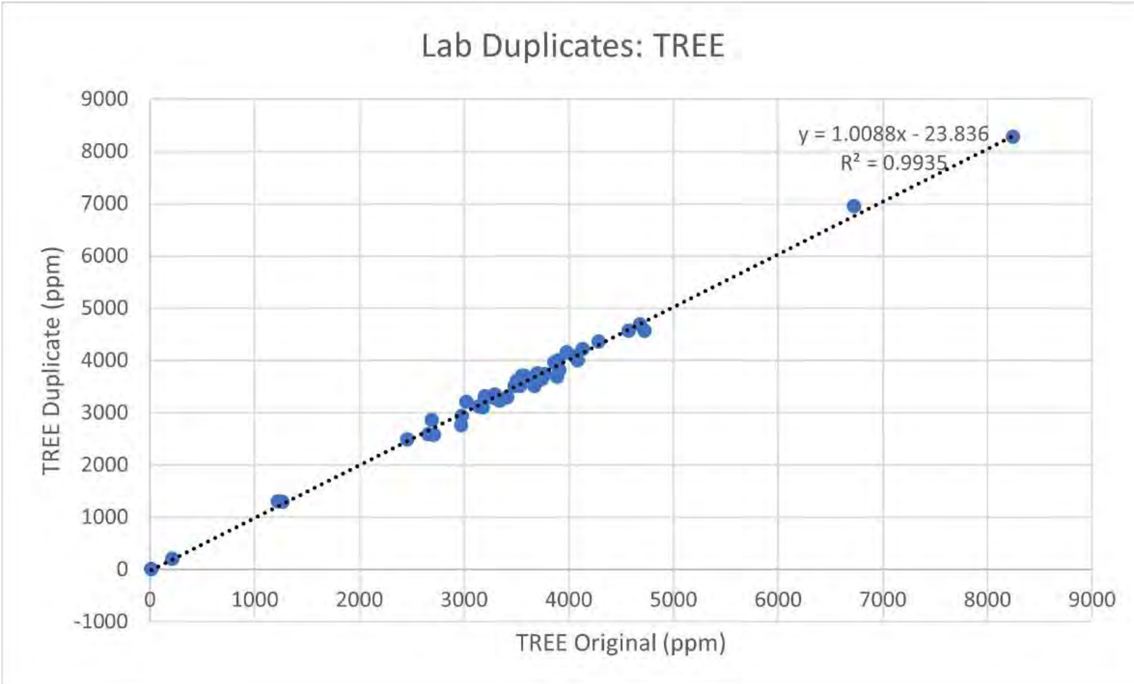


Figure 41 - Chart of ALS duplicates for TREE

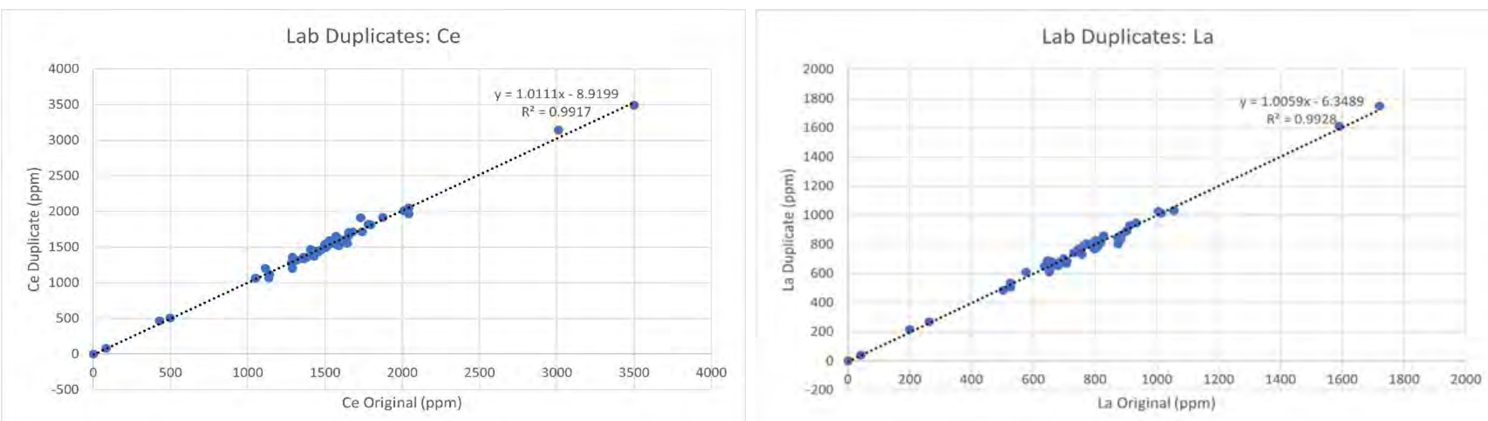


Figure 42 - Chart of ALS duplicates for Ce and La

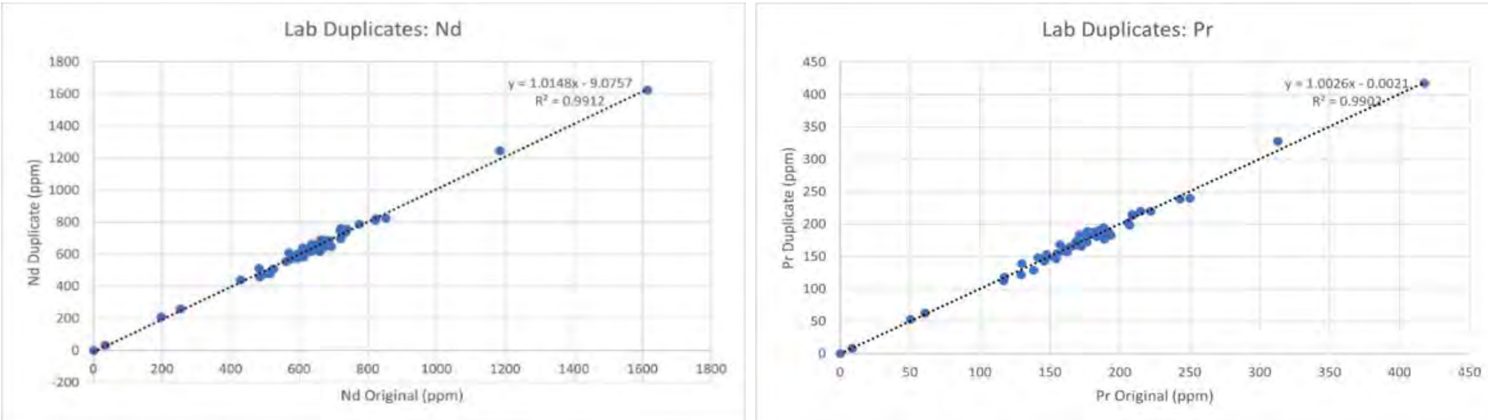


Figure 43 - Chart of ALS duplicates for Nd and Pr

11.1.2.3 CRM Standards

ALS additionally utilized their own CRM's to insert into the sample stream. These CRMs include AMIS0304, OREAS-101b, OREAS-146, and SY-5. Most CRM standards from internal Qa/Qc fell within an acceptable range, with the exception of a few minor outliers as observed in Figure 44 through Figure 51. All ALS CRMs were within acceptable limits. The dashed red lines in the following figures represent upper and lower tolerances as provided by ALS.

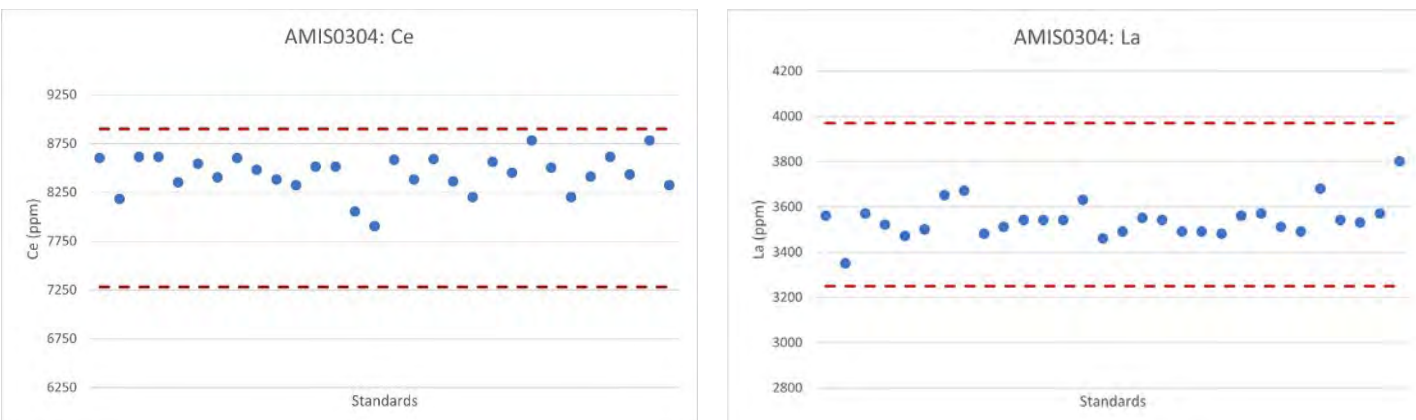


Figure 44 - Graphs of external CRM tolerances for Ce and La: AMIS0304

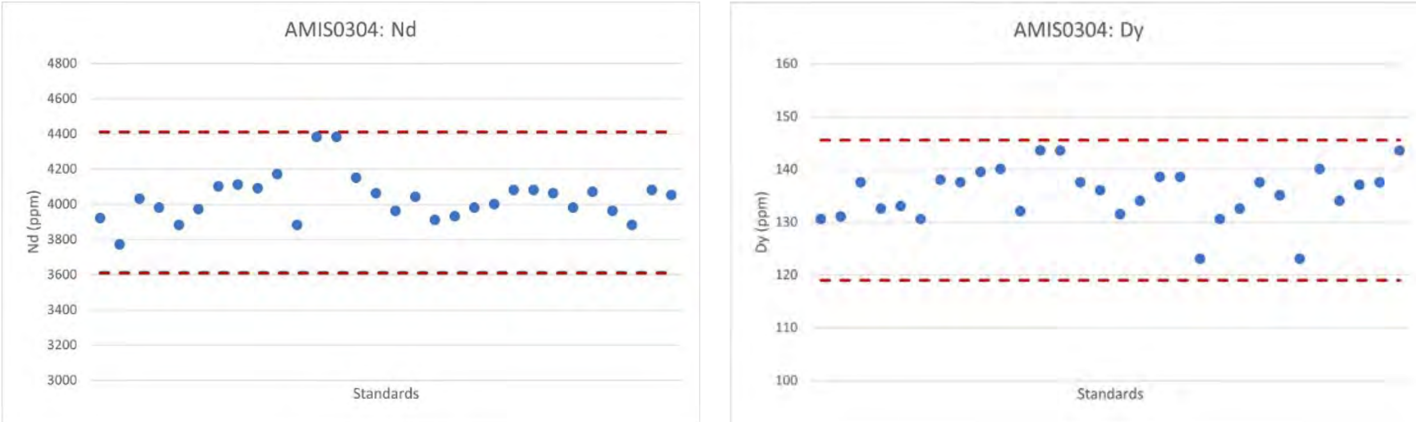


Figure 45 - Graphs of external CRM tolerances for Nd and Dy: AMIS0304

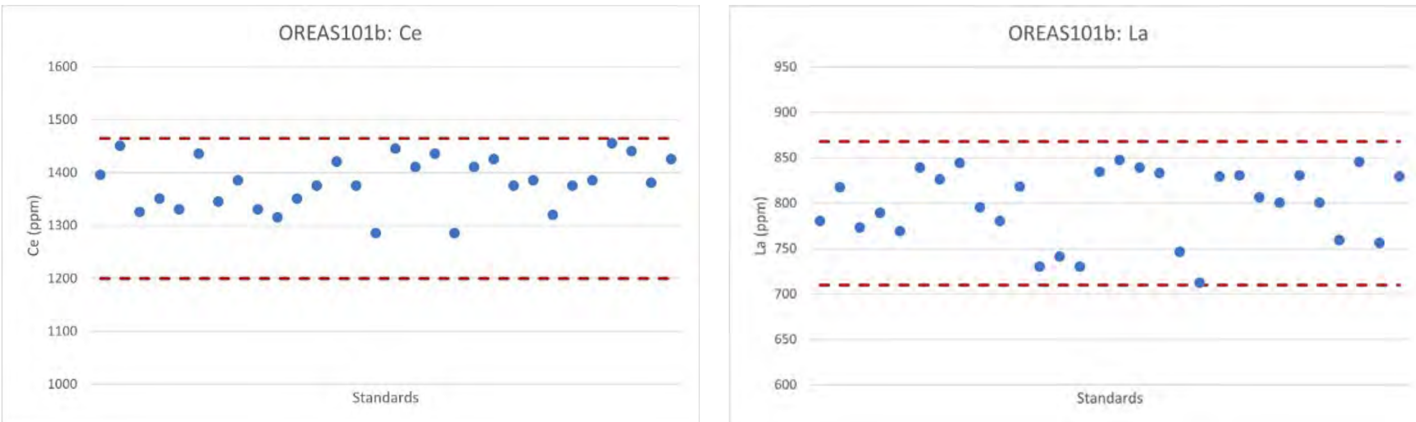


Figure 46 - Graphs of external CRM tolerances for Ce and La: OREAS-101b

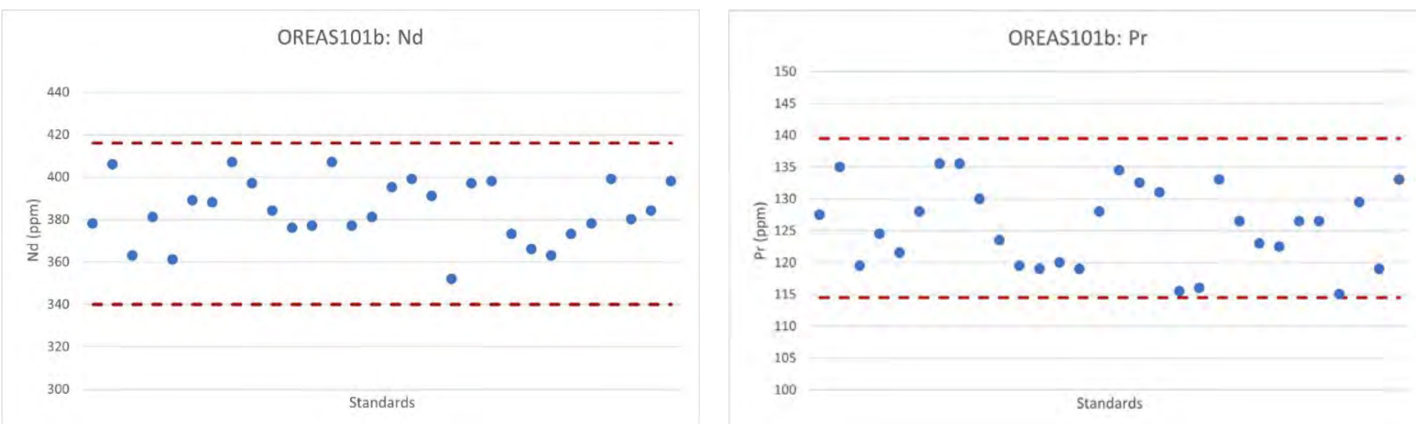


Figure 47 - Graphs of external CRM tolerances for Nd and Pr: OREAS-101b

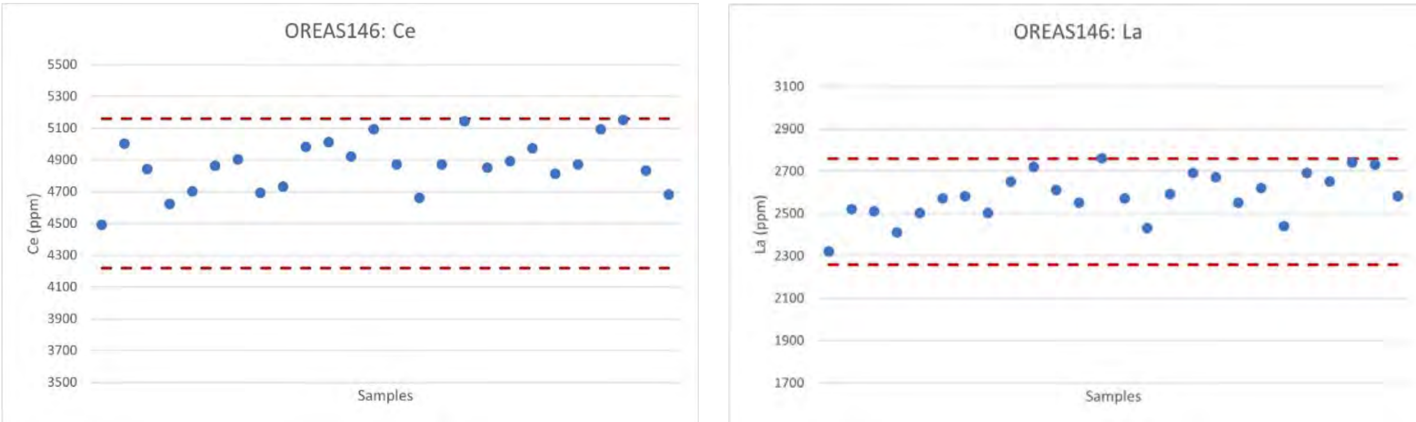


Figure 48 - Graphs of external CRM tolerances for Ce and La: OREAS-146

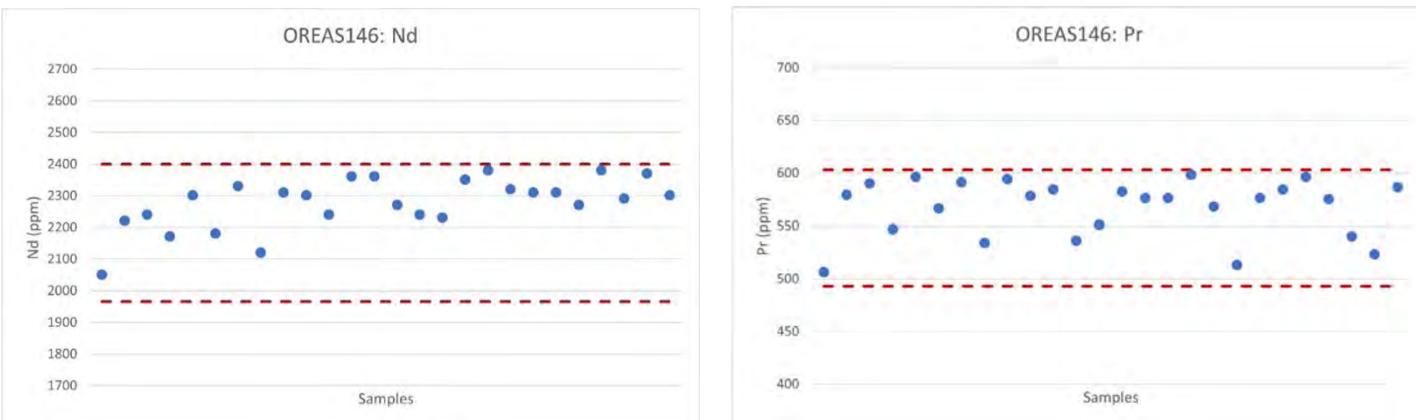


Figure 49 - Graphs of external CRM tolerances for Nd and Pr: OREAS-146

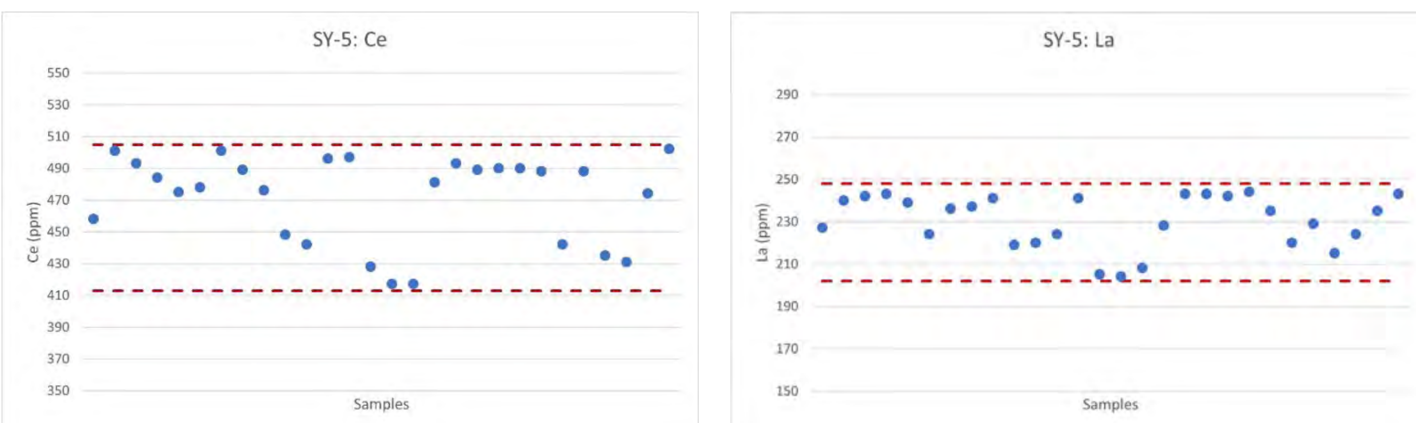
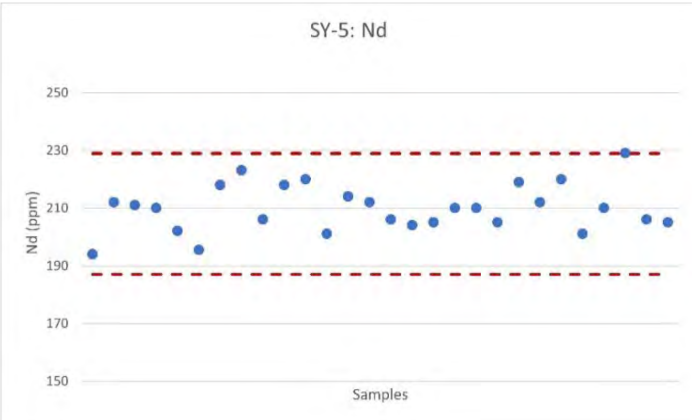


Figure 50 - Graphs of external CRM tolerances for Ce and La: SY-5



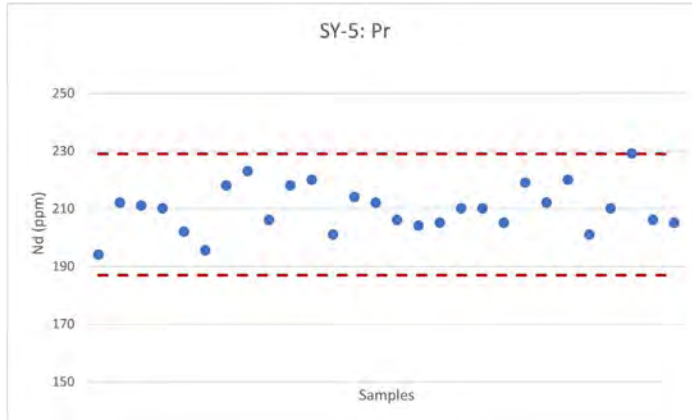


Figure 51 - Graphs of external CRM tolerances for Nd and Pr: SY-5

11.2 QA/QC Analysis for Fall 2022 RC Drilling Program

Certified reference material was inserted at a rate of 1.64% (1 standard per 20 samples), blanks were inserted at a rate of 1.67 % (1 blank per 20 samples), and duplicates were inserted at a rate of 1.67 % (1 duplicate per 20 samples).

Details of QA/QC data for the Fall 2022 drilling program are presented in the report “Technical Report of Exploration and Maiden Resource Estimates of the Halleck Creek Rare Earths Project”, March 2023.

11.2.1 Blanks

ARR sourced blank material for the fall 2022 RC drilling campaign from OREAS North America in Sudbury, Ontario CA. The blank material, OREAS-22h, is a quartz sand blank to which 0.5% Fe-oxide has been added to produce a pale grey pulp. The blanks contain very low levels of REEs. Only one sample exhibited possible contamination. Regardless, the potential contamination of that sample (HC22-1569) only exhibited low REE concentrations and is not cause for concern.

As part of ALS’s internal Qa/Qc, additional blank material was inserted into the sample stream. The blanks utilized by ALS also contain very low quantities of REEs, and only one sample was shown to be above upper acceptable bounds as determined by the lab.

11.2.2 Duplicates

Riffle splits of coarse rejects were taken for duplicate samples indicated by ARR and by ALS for internal Qa/Qc purposes. The results show that the duplicates indicate acceptable precision with minor variance on the high and low ends. ARR plotted a regression curve and R^2 factor for TREE, Ce, La, Nd, and Pr.

ALS prepared riffle splits of coarse rejects for select samples from each work order received. In total, ALS analyzed 120 duplicates. Their results also indicate acceptable precision with minor variance for higher grade samples. ARR plotted a regression curve and R^2 factor for TREE, Ce, La, Nd, and Pr.

11.2.3 CRM Standards

ARR acquired rare earth standard certified reference material (CRM) from CDN Labs in Langley, British Columbia. ARR inserted CRM standards for low, and medium rare earths (RE-1201 and RE-1202) at a rate of 5.2%. ALS inserted rare earth CRM material from multiple sources including African Mineral Standards (AMiS), OREAS labs, and from the Canadian Certified Reference Materials Project (CCRMP).

The majority of all CRM standards from both internal and laboratory Qa/Qc fell within acceptable standards, with the exception of few minor outliers.

11.3 QA/QC Analysis for Spring 2022 Maiden Drilling Program

Qa/Qa analysis for Rare Earths is at an early stage. Available standards are generally carbonatite sourced and may impact the controls on analysis methodology for silicate-based matrices.

Standards were inserted at a rate of 5.2% (1 standard per 25 samples), blanks were inserted at a rate of 12.6% (1 blank per 10 samples), and duplicates were inserted at a rate of 4.1% (1 duplicate per 25 samples).

Details of Qa/Qc data for the Spring 2022 drilling program are presented in the report "Technical Report of Exploration and Maiden Resource Estimates of the Halleck Creek Rare Earths Project", March 2023.

11.3.1 Blanks

ARR sourced blank material for the spring 2022 core drilling from CDN Labs in Langley, British Columbia. This blank material, CDN-BL-10, is a blank for gold and precious metals and derived from a granitic source rock. However, this blank material appears to contain low levels of rare earth elements. As a result, the sample results for the blanks are not as conclusive as ARR would prefer. New sources of blank material exclusive of rare earth elements are being used for future exploration programs.

As part of AAL's internal Qa/Qc, company geologists inserted blank material into the sample stream. The blank material used by AAL is coarse river gravel sourced from the Reno area. The assay results using the AAL river gravel show the absence of rare earth elements.

11.3.2 Duplicates

Riffle splits of the coarse rejects were taken for the duplicate samples by AAL and analyzed for the same methods. The results below show that overall, the duplicates indicate acceptable precision with some minor variance on the high and low ends. R^2 values in regression analyses were very high for all elements, except Tb, indicating a very high level of correlation in the duplicate samples. Tb values at Halleck Creek are very low, most times at or below detection limits. As a result, the Tb values are slightly skewed.

11.3.3 CRM Standards

ARR acquired rare earth standard certified reference material (CRM) from CDN Labs in Langley, British Columbia. ARR inserted CRM standards for low, medium and high rare earths (RE-1201, RE-1202, RE-1203) at a rate of 5.2%. As with the blanks and duplicates, the very low Tb values cause disruptions on the CRM charts.

AAL inserted rare earth CRM material from OREAS labs as part of their internal Qa/Qc procedures. OREAS 600b was the most common CRM used by AAL.

11.4 Database

All drill hole and surface sample data for the Halleck Creek project was imported into the DHDB drill hole database system. DHDB was written and maintained by Dwight Kinnes formerly of Highland GeoComputing, LLC, and has been in used by various mining companies since 2004. Highland GeoComputing, LLC tailored DHDB to store and process rare earth element data. The DHDB database provides complete access to all drilling records, scanned field logs, analytical data and allows for processing and reporting of the Halleck Creek drill hole data (Table 16).

Table 16 - Data Type and Counts in DHDB

Data Type	Number
Core Holes	17
Reverse Circulation Holes	53
Channel Samples	14
Surface Samples	792
Core Assays	1,301
RC Chip Assays	5,146
Blanks (ARR/Lab)	280
Duplicates (ARR/Lab)	271
CRM Standards (ARR/Lab)	345

11.5 Data Management

DHDB provides secure user access and audit tracking within the database.

Assay and Qa/Qc data are imported directly from certified data supplied by laboratories. Therefore, data entry errors are minimal.

Detailed validation queries are applied to the drill hole data to minimize data entry errors. Validation includes:

- Checking for gaps and overlaps in lithology, alteration and assay data.
- Cross-referencing total depths of collar and lithologic data
- Cross-referencing to data dictionaries to restrict data entry to approved values.

Original field logs, core and chip sample photos, certified assay certificates, and other drill hole specific data are stored with DHDB and cross-referenced with each drill hole. This data is directly accessible from DHDB.

11.6 General Database Components

Drill hole, trench and surface sample locations are stored in DHDB using the NAD 1983, UTM Zone 13 coordinate system. WGS 1984 latitude and longitude coordinates are stored as secondary coordinates in DHDB.

Lithologic and Assay sample depths are stored in feet and meters.

Assay data is stored in DHDB as elemental data in units of parts per million (ppm). Conversion of rare earth elemental data to rare earth oxide data is performed using the values listed in the conversion Table 4 above.

12 Mineral Processing and Metallurgical Testing

12.1 Historic Metallurgical Testwork of Surface Samples

Preliminary metallurgical testwork has been performed at the Halleck Creek project area on surface channel samples. The preliminary testwork was performed by Nagrom on behalf Zenith who owned the Halleck Creek project prior to ARR.

Nagrom performed preliminary processing and metallurgical tests on sample pulps from 87 surface samples and channel samples collected at Halleck Creek in 2019 (Table 17).

Table 17 - Metallurgical Testwork performed by Zenith

Company	Testwork
Townsend Mineral Laboratory	Optical/SEM of four allanite bearing products
Townsend Australia	Semi-quantitative XRD analysis
Nagrom	Sizing and Wet High Intensity Magnetic Separation (WHIMS)

In a press release from February 11, 2020, Zenith stated that “mineral separation by magnetic methods recovered 87% of the REE minerals into 27% of the mass whilst rejecting 73% of the waste material at a crush size of -0.5mm. The magnetic separation results were from rougher magnetic separation and two scavenger passes.

Zenith also stated that “mineral separation using gravity methods recovered 76% of the REE minerals into 22% of the mass whilst rejecting 78% of the waste material at a crush size of -2mm.”

12.2 Current Metallurgical Testwork

In September 2022, ARR commissioned Wood PLC, Perth, Western Australia, Australia to oversee detailed processing testwork on Halleck Creek Core samples. The objective of the testwork is to develop preliminary processing flowsheets for use in planning, development, and economic evaluation of the Halleck Creek project.

The scope of the metallurgical testwork includes:

- Hydrostatic testing of core to determine specific gravity
- Mineralogical Characterization (performed by SGS Lakefield)
- Grinding and Comminution
- Magnetic Separation (WHIMS)
- Flotation
- Leaching

Wood Australia provided project management for the testwork. Nagrom Labs in Perth, WA performed hydrostatic testing, grinding and comminution, magnetic separation, and leach testing. SGS, in Lakefield Ontario, performed mineralogical characterization testing, described in Section 7 above. Auralia Metallurgy, also in Perth WA, performed flotation. Wood provided ARR with a summary report entitled “Halleck Creek Rare Earths Project - Preliminary Testwork Interpretation”, December 2023. Brief summaries of this report follow in the sections below, the complete report is available upon request from ARR.

12.2.1 Core Samples

ARR selected approximately 21 core samples from four drill holes for the metallurgical testwork. ARR shipped approximately 648.4 kg of core to Nagrom (Table 18). The core samples were CQM rocks representative of the rock material in the Red Mountain and Overton Mountain resource areas.

Table 18 - Core Samples for Metallurgical Testwork

Drill Hole ID	Mass (kg)	Drill Hole ID	Mass (kg)
HC22-RM002	29.58	HC22-OM003	28.60
HC22-RM002	27.46	HC22-OM003	31.10
HC22-RM002	34.04	HC22-OM003	43.42
HC22-RM002	29.12	HC22-OM003	26.94
HC22-RM003	35.88	HC22-OM003	32.26
HC22-RM003	32.50	HC22-OM003	31.16
HC22-RM003	32.78	HC22-OM004	30.90
HC22-RM003	21.90	HC22-OM004	36.86
HC22-RM003	28.58	HC22-OM004	31.78
		HC22-OM004	15.98
		HC22-OM004	32.66
		HC22-OM004	34.90
Subtotal	**271.84**		**376.56**
Total			**648.40**

12.2.2 Hydrostatic Testing

Nagrom performed hydrostatic testing on 10 core samples to determine the specific gravity of the Halleck Creek core. Specific gravity was determined for untreated and wax impregnated samples. Table 19 summarizes the results of the hydrostatic testing.

Table 19 - Specific Gravity Determination

Sample ID	Bag No.	Mass (kg)	SG	SG RPT	SG (Wax)	SG (Wax) RPT
HC22-RM002	1	0.50	2.68		2.69	
HC22-RM002	3	0.49	2.67		2.64	
HC22-RM003	5	0.31	2.66	2.68	2.65	2.64
HC22-RM003	7	0.38	2.71		2.75	
HC22-RM003	9	0.31	2.68		2.65	
HC22-OM003	11	0.59	2.79	2.79	2.78	2.77
HC22-OM003	13	0.40	2.69		2.67	
HC22-OM003	15	0.37	2.70		2.70	
HC22-OM004	17	0.37	2.72	2.71	2.69	2.70
HC22-OM004	19	0.35	2.68		2.66	
Wt. Avg.		**4.05**	**2.70**	**2.74**	**2.69**	**2.72**

Overall, the range of specific gravity values was very low. This is because the rock types at Halleck Creek are very homogeneous. Based on the results of hydrostatic testing ARR will use a specific gravity of 2.70 to compute tonnage from volumetric estimates compiled in Section 14.

12.2.3 Grinding and Comminution Testing

SMC testing was performed by JKTech, a research laboratory and consultant arm of the University of Queensland, to produce data for the sizing of SAG mills.

The SMC testwork results indicate low ore competency which would translate to low specific energy consumption in a SAG mill. Compared to SMCT's global database of over 2000 deposits, Halleck Creek was rated in the 14th percentile for ore competency. The Bond abrasion index test returned a value of 0.24, which is below the average of Wood Australia's database. The Bond ball mill work index test result of 15.6 kWh/t is close to average hardness relative to Wood's database.

The SMC test results indicate there could be significant energy savings due to the ore's low competency and likely coarse primary grind as indicated by mineralogy. Apart from energy savings, the less abrasive ore will lead to reduced wear and tear on equipment and lower maintenance costs.

12.2.4 Magnetic Separation

Wood oversaw Wet High Intensity Magnetic Separation (WHIMS) testing on the Halleck Creek core samples. A series of WHIMS batch tests and continuous feed tests were performed for Sub-samples crushed using wet rod mill grinding to three P_{80} grind sizes – 500, 250 and 106 microns.

Wood states "The overall mass balance for WHIMS processing is provided in Table 1.1, indicating 69.2% TREO recovery into 16.1% concentrate yield relative to new feed, at a grade of 1.51% TREO. Compared to other rare earth projects, this level of upgrade and recovery is considered exceptional and is a function of the high degree of liberation of allanite at coarse grain sizes. Iron also enriches with TREOs, with the concentrate containing 24% iron, attributed primarily to the amphibole mineral hastingsite, but also to allanite which contains iron."

Table 20 - Bulk Primary and Secondary WHIMS Mass and Elemental Deportment Summary

PRODUCT	Yield	TREO + Y2O3		NdPrO		SiO2		Fe		Al2O3	
Fraction	**%**	**ppm**	**Dist, %**	**ppm**	**Dist, %**	**%**	**Dist, %**	**%**	**Dist, %**	**%**	**Dist, %**
Primary WHIMS											
Ro Magnetic	7.6	10580	23.1	2638	24.3	43.9	5.3	21.4	33.2	9.0	4.3
Scav 1 Mags	5.9	11317	19.2	2747	19.6	47.1	4.4	18.0	21.6	10.6	3.9
Scav 2 Mags	5.3	11693	17.9	2772	17.8	50.0	4.2	15.1	16.4	11.9	3.9
Scav 3 Mags	4.6	9146	12.1	2165	12.1	56.5	4.1	9.7	9.1	14.1	4.1
Scav 3 Non-Mags	76.7	1247	27.7	280	26.20	66.5	81.9	1.3	19.7	17.4	83.8
Total Primary WHIMS Mags	**23.4**	**10736**	**72.3**	**2603**	**73.8**	**49**	**18.0**	**17**	**80.3**	**11**	**16.2**
Secondary WHIMS											
Cl Magnetic	3.6	8206	8.3	1862	8.3	36.9	2.1	28.0	20.2	6.8	1.5
Cl-Sc 1 Mags	8.3	16632	39.3	3789	39.6	39.9	5.3	23.7	39.8	8.6	4.5
Cl-Sc 2 Mags	3.0	17696	14.9	4138	15.4	41.5	2.0	22.1	13.3	9.2	1.7
Cl-Sc 3 Mags	1.3	18404	6.8	3704	6.0	44.4	0.9	19.5	5.1	10.2	0.8
Cl-Sc 3 Non-mags	7.3	1974	4.1	453	4.1	66.7	7.8	1.8	2.6	16.2	7.4
Total Secondary WHIMS Mags	**16.1**	**15105**	**69.2**	**3420**	**69.3**	**39.9**	**10.3**	**24.0**	**78.4**	**8.46**	**8.59**
Combined WHIMS non-mags	83.9		30.8		30.7		89.7		21.6		91.4

12.2.5 Flotation Separation

Wood oversaw extensive flotation separation testwork performed by Auralia Metallurgy. Testing on feed material produced poor selectivity due to the high proportion of feldspars and silica and was abandoned early in the ore testing part of the program.

12.2.6 Dense Media/ Heavy Liquid Separation

The University of Kentucky (UK) performed heavy liquid separation (HLS) testing to determine if dense media separation (DMS) might be an alternative primary separation mechanism to WHIMS. UK prepared core material by crushing to -1,000x500 um, 500x250 um, 250x150um, and -150um. UK performed HLS using specific gravities of 2.7, 2.9, 3.1, 3.4, and 3.5. The combined results of the size fractions, greater than 150um, showed that 77.16% of mass feed can be separated from REE material with an estimated REE recovery of 87.68% (Table 21).

Results of the HLS showed great potential for DMS for primary mineral separation with WHIMS for secondary mineral separation of -150 micron material and 3.5 specific gravity float material.

Table 21 - Combined HLS results for -1000 + 150 microns

Specific Gravity		Incremental			Cumulative Float					Cumulative Sink				
		Weight	Total REE	Iron	Weight	Total REE	Iron	REE Recovery	Iron Recovery	Weight	Total REE	Iron	REE Recovery	Iron Recovery
Sink	Float	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
2.65	2.7	77.16	0.06	0.94	77.16	0.06	0.94	12.32	13.57	100.00	0.39	5.37	100.00	100.00
2.7	2.9	4.58	0.60	13.31	81.74	0.09	1.64	19.42	24.92	22.84	1.48	20.31	87.68	86.43
2.9	3.1	5.17	0.98	15.90	86.91	0.14	2.48	32.51	40.24	18.26	1.70	22.06	80.58	75.08
3.1	3.4	5.05	1.69	24.15	91.96	0.23	3.68	54.69	62.98	13.09	1.99	24.50	67.49	59.76
3.4	3.5	5.05	1.20	26.18	97.01	0.28	4.85	70.33	87.60	8.04	2.18	24.71	45.31	37.02
3.5		2.99	3.83	22.24	100.00	0.39	5.37	100.00	100.00	2.99	3.83	22.24	29.67	12.40
Total		100.00	0.3860	5.367										

12.2.7 Leach Testing

Wood supervised various testing programs performed by ALS Global. Leach tests included:

- Acid bake-water leach (ABWL)
- High pressure acid leach (HPAL)
- Alkali bake-water leach-HCl leach
- Sulphuric acid tank leach
- Proprietary leaching from Watts & Fisher

Table 22 summarizes the best results for each leach test. While ABWL provided the highest recoveries of key elements, acid tank leach also provided high recoveries without the capital intensity associated with ABWL.

Table 22 - Comparison of Best Results by Leaching Option

Parameter	Unit	ABWL	HPAL	Acid Tank Leach	Watts & Fisher
Bake temperature	°C	225	-	-	-
Bake duration	mins	60	-	-	-
Leach temperature	°C	90	90	360	0.5
Leach duration	mins	120	240	90	260
Acid dosage	kg/t	1500	250	250	5602
Extractions					
Nd	%	91.8	39.7	82.8	90
Pr	%	92.5	42.7	86.2	91
Y	%	74.5	24.6	32.7	80
Si	%	0.8	2	4.4	n/a
Fe	%	54.4	34	22.3	n/a

12.2.8 Preliminary Flowsheet

Based on work perform by Wood and UK the preliminary flowsheet shown in Figure 52 shows that primary DMS and secondary WHIMS can likely produce a rare earth concentrate rejecting approximately 93% of waste while upgrading TREE concentrations by 12-times and 84% recovery.

ARR plans to use the preliminary flowsheet for conceptual mining, processing, and economic analysis.

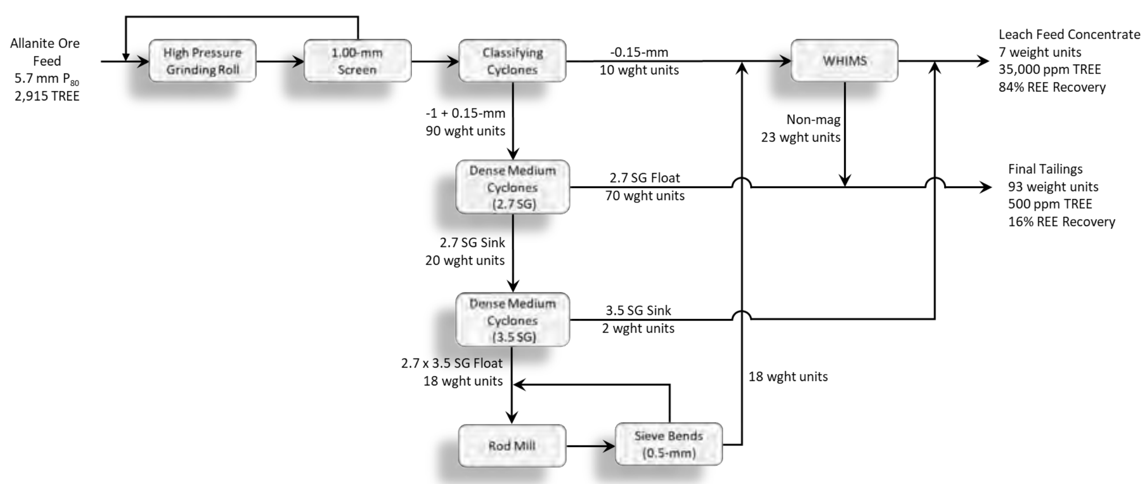


Figure 52 - Preliminary Beneficiation Process Flowsheet

13 Mineral Resource Estimates

13.1 Overview

An additional 15 RC holes and 8 diamond core holes were added to the Halleck Creek project in 2023. ARR has 70 drill holes as known data points to determine an updated JORC resource estimate for the Halleck Creek project (Figure 15).

ARR contracted Odessa Resources Pty Ltd (Odessa) in Perth, WA to update geological and rare earth grade models at Halleck Creek. Mr. Alf Gillman of Odessa is a Chartered Professional (Geology) and Fellow of The Australasian Institute of Mining and Metallurgy or the Australian Institute (AusIMM), number 107303. Mr. Gillman is a Competent Person as defined by the JORC Code 2012 Edition, having sufficient experience that is relevant to the style of mineralization and type of deposit described in this report.

Odessa prepared a summary report detailing the resource models and Halleck Creek resource estimates entitled “Halleck Creek REE Project, Wyoming Update Report Methodology and Resource Estimation Report”, January 2024. Excerpts of this report are presented in the sections below and are enclosed by quotations. ARR made minor changes in spelling, due to regional differences, figure numbers and table numbers. Odessa’s complete resource report resides in Appendix E.

13.2 Geological Data

13.2.1 Drill Hole Data

ARR extracted drill hole data from DHDB and provided the data to Odessa. Drill hole data included collar locations, down hole surveys, lithological data, domain data, alteration data, and complete assay data for 70 drill holes in the project area. No drill holes were excluded from the data provided to Odessa.

ARR also provided detailed drilling reports and project photographs to Odessa (Appendix B).

13.2.2 Surface Samples

ARR exported locations, lithologic descriptions, and assay data for 734 surface samples across the Halleck Creek project area. While surface samples are not valid data points for resource estimation, they are used to improve modeling geological domains and build rare earth grades models.

The degree to which surface samples were utilized in the geological model and in grade models was at the sole discretion and professional opinion of Odessa.

13.2.3 Assay Data

ARR provided Odessa with comprehensive assay data for Halleck Creek. All drill hole assay data included the drill hole ID, domain, from depth, to depth, sample type, and rare earth element oxides. The complete assay results for the core drilling and RC drilling are located Appendix C.

Rare earth elements and other elements used for grade modeling include:
TREO, LREO, HREO, MREO, La_2O_3, Ce_2O_3, Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Eu_2O_3, Gd_2O_3, Tb_4O_7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, Lu_2O_3, Y_2O_3, ThO_2, and UO_2

Where:
TREO: Total Rare Earth Oxide
LREO: Light Rare Earth Oxide including La_2O_3, Ce_2O_3, Pr_6O_{11}, Nd_2O_3, and Sm_2O_3
HREO: Heavy Rare Earth Oxide including Eu_2O_3, Gd_2O_3, Tb_4O7, Dy_2O_3, Ho_2O_3, Er_2O_3, Tm_2O_3, Yb_2O_3, and Lu_2O_3
MREO: Magnet Rare Earth Oxide including Pr_6O_{11}, Nd_2O_3, Sm_2O_3, Tb_4O_7, and Dy_2O_3

13.3 Geological Modeling

13.3.1 Topographic Modeling

ARR acquired LiDAR topographic data from the USGS. This data was released to the public in August 2022 as part of the USGS Earth MRI project.

ARR personnel processed LiDAR imagery to prepare high resolution topographic models across Halleck Creek for use in ArcGIS and Leapfrog geological modeling software.

13.3.2 Geological Modeling Parameters and Domains

ARR Geologists interpreted lithological units and modeling domains within the drill hole data. The modeling domains are the primary geological units being modeled by Odessa.

The primary modeling domains consist of:
- QAL - Quaternary alluvium
- DM1 – Higher grade CQM and BHS
- DM2 – Lower grade CQM, BHS, and FM
- DM3 – non-grade ERGB
- DM4 – low grade Sybille

13.3.3 Modeling Mineralized Domains

Odessa stated, “Rare earth mineralization is evenly distributed throughout the rock mass due to fractional crystallization of allanite in syenitic rocks of the Red Mountain Pluton. Mineralization is not structurally controlled. Thus, it can be reasonably assumed that the entire rock mass, comprising mostly domains DM1 and DM2, is mineralized to the same extent as the specific areas that have been drill-tested.”

“This being the case, the following strategy was adopted to limit the estimate to areas that are specifically drill-informed:
Resource limits comprising hard boundaries defined by:

- the contacts between the mineralised domains (DM1 and DM2) and unmineralized lithologies (DM3 and DM4).
- A digitized limiting string determined by the CP to be reasonable limiting boundary given

the drill spacing, drill density and geological/grade continuity."

"At Overton Mountain the spatial limits were increased toward the east on the basis of the additional drilling in this vicinity. This increase is supported by surface geochemical results that show the mineralized trend continuing over 800m towards the east and 400m towards the southwest (Figure53).

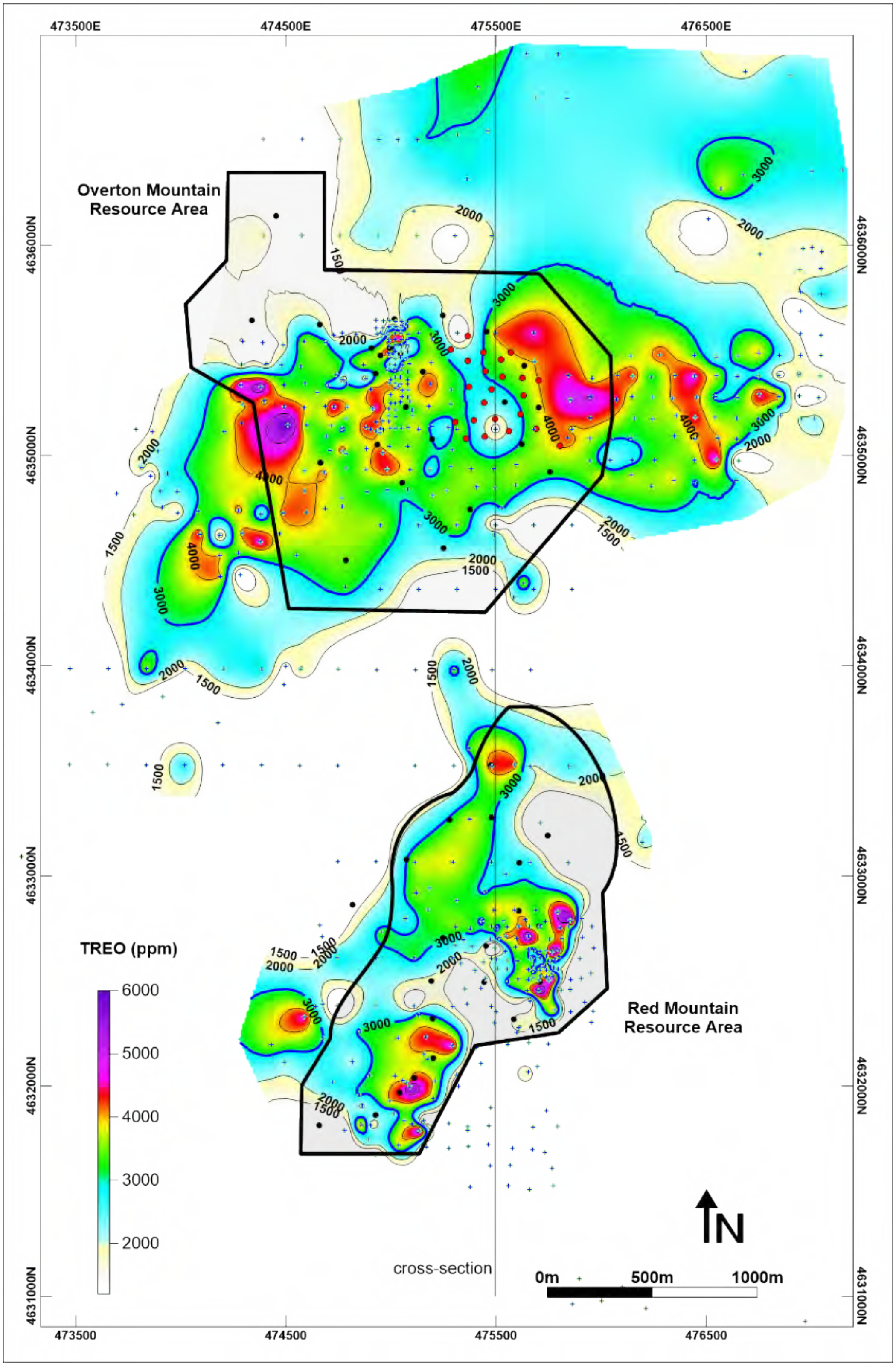
"In the March 2023 resource estimate, the vertical limits of the estimation were restricted to a distance of 20m below the average end of hole depth on the basis that, apart from six holes at Red Mountain, every hole drilled inside these domains is mineralized and most of these are mineralized from surface to end of hole. This suggested that mineralization likely continues to a considerable depth below the vertical limits of drilling. However, this material was excluded from the resource estimate as there was no drill support".

"As part of the Fall 2023 drilling campaign, drillhole HC23-OM028 was extended to a depth of 302m below surface in the central Overton Mountain area. This hole, which is mineralized from surface and ended in mineralization, extended the mineralized domain to approximately 160m below the average vertical extents of the previous drilling (140m). The Red Mountain domain was extended a further 20m vertically on the basis on the general increasing confidence in the continuity of mineralization (Figure 54)".

13.3.4 Geological Model

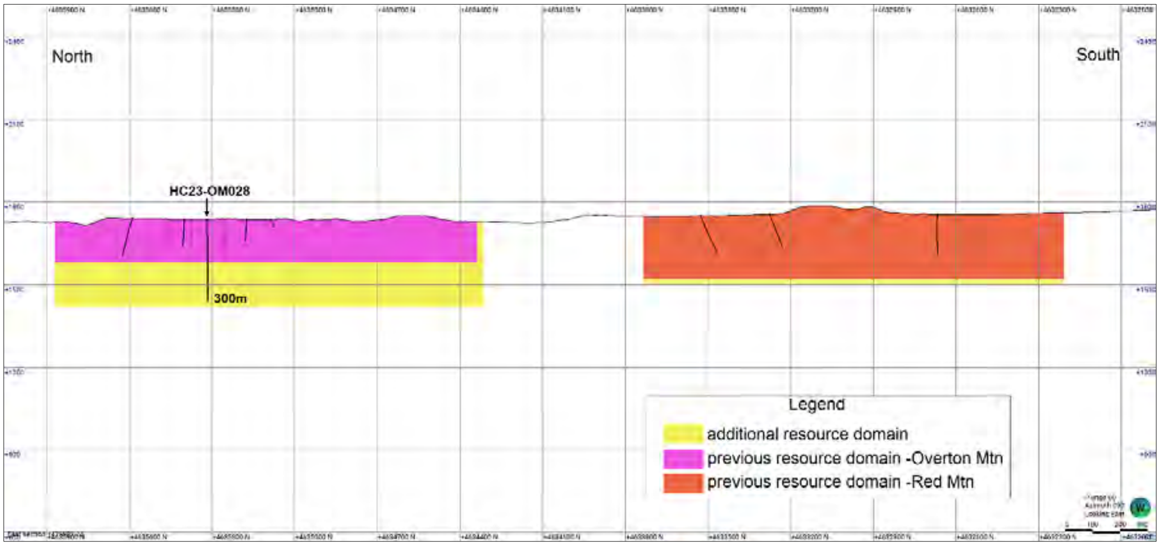
Odessa Resources created a geological resource model using the Leapfrog Edge geological modeling tools, developed by Seequent, a subsidiary of Bentley Systems. Odessa modeled the geologic domains (Figure 54 and Figure 55) and established resource boundary limits based on variography of TREO.

Density data used for the geologic model and resource estimates is outlined in Section 12.2.2 above. Odessa stated, "Based on the results of hydrostatic testing a specific gravity of 2.70 was adopted and applied as a constant value to derive the overall tonnage. This tonnage factor was also applied to the alluvial cover (QAL) which would likely have a slightly lower density. However, mineralized QAL only amounts to 0.8% of the entire resource and hence there is no material impact by applying the constant density value to this material."



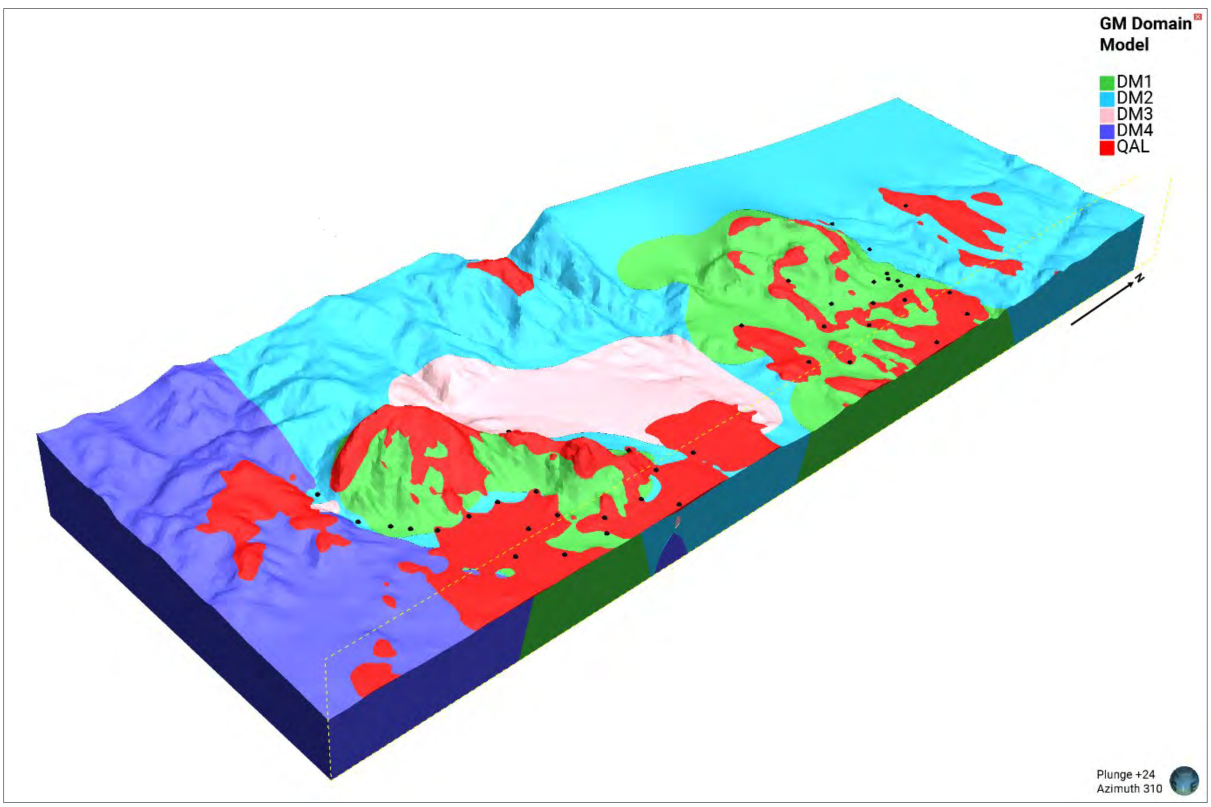
Note: Figure prepared by Odessa, 2024.

Figure 53 - Plan View of Resource Extents with Geochemical Sampling Results



Note: Figure prepared by Odessa, 2024.

Figure 54 - Cross Section of Resource Domains



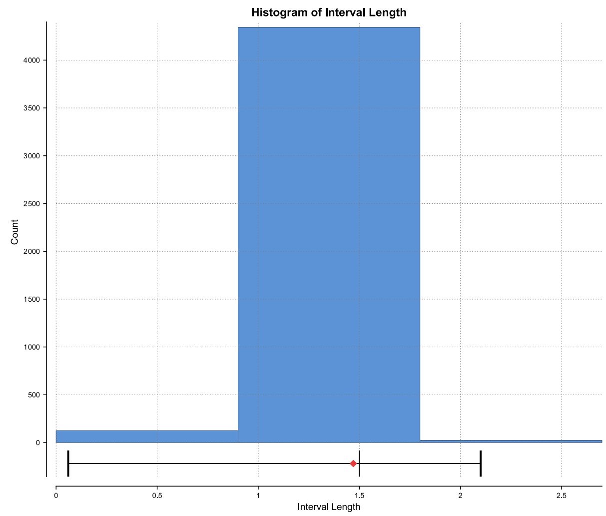
Note: Figure prepared by Odessa, 2024.

Figure 55 – Perspective view of Modeled Geologic Domains

13.4 Grade Estimation

13.4.1 Sample Composites

Grades intervals were composited [by Odessa to] 1.5m (~5 feet) which is the dominant sampling interval (Figure 56).

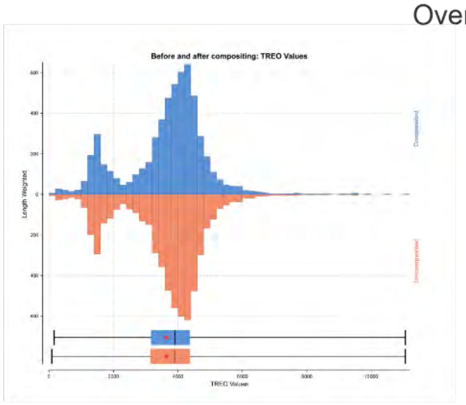


Note: Figure prepared by Odessa, 2024.

Figure 56 - Histogram of Assay Sample Interval Length

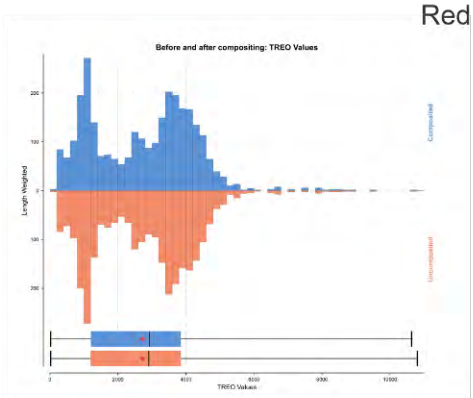
Odessa stated there is no material difference between the composited and uncomposited samples statistics (Figure 57).

Overton Mountain



	Composited	Uncomposited
Count	3,847	3,957
Length	5,760.4	5,758.0
Mean	3,646.39	3,646.57
SD	1,255.07	1,268.27
CV	0.344194	0.347797
Variance	1.57519e+06	1.6085e+06
Minimum	157	89
Q1	3,160.87	3,148
Q2	3,907	3,898
Q3	4,380	4,381
Maximum	11,054	11,054

Red Mountain



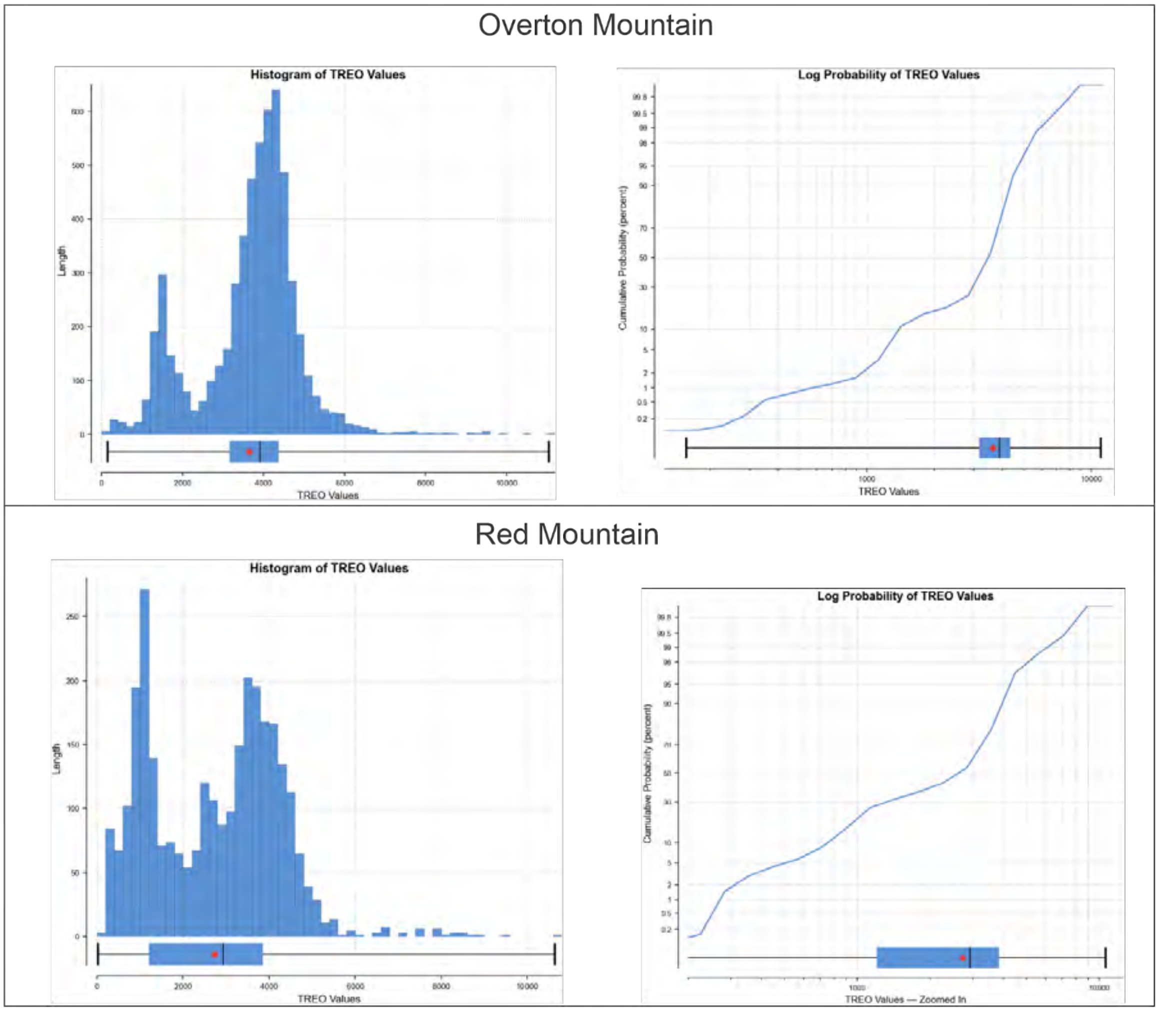
	Composited	Uncomposited
Count	1,959	2,008
Length	2,935.5	2,933.2
Mean	2,731.42	2,730.81
SD	1,506.59	1,516.03
CV	0.551576	0.555156
Variance	2.2698e+06	2.29834e+06
Minimum	21	21
Q1	1,207	1,200
Q2	2,925	2,909
Q3	3,851.81	3,852
Maximum	10,636	10,804

Note: Figure prepared by Odessa, 2024.

Figure 57 - Sample Compositing Statistical Summary (TREO)

13.4.2 Composite Statistics

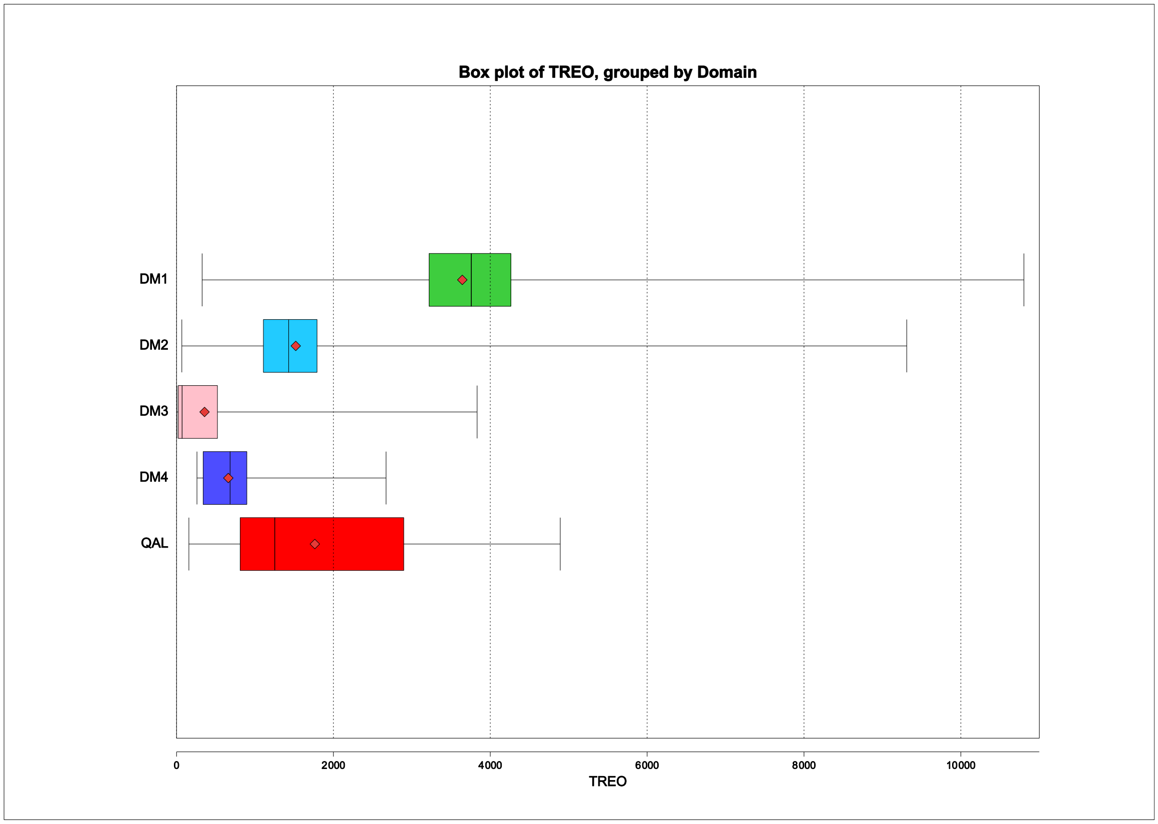
Figure 58 shows a histogram and a log probability chart of the TREO grade data at the Overton Mountain and Red Mountains resource areas at Halleck Creek. A clear bi-modal distribution of TREO occurs with the data. The higher grade “peak” is correlated with the DM1 modeling domain, which corresponds to the Higher Grade RMP (CQM) rock type that contains the highest concentration of allanite. The lower grade “peak” is correlated with the DM2 modeling domain which corresponds to the Lower Grade RMP (BHS) rock type that contains less allanite but remains consistent in drill hole data.



Note: Figure prepared by Odessa, 2024.

Figure 58 – Histograms and Log Probability Charts

Odessa compiled TREO grade information for the geologic domains with the boxplots shown on Figure 59.



Note: Figure prepared by Odessa, 2024.

Figure 59 - Boxplot of TREE for Geologic Domains

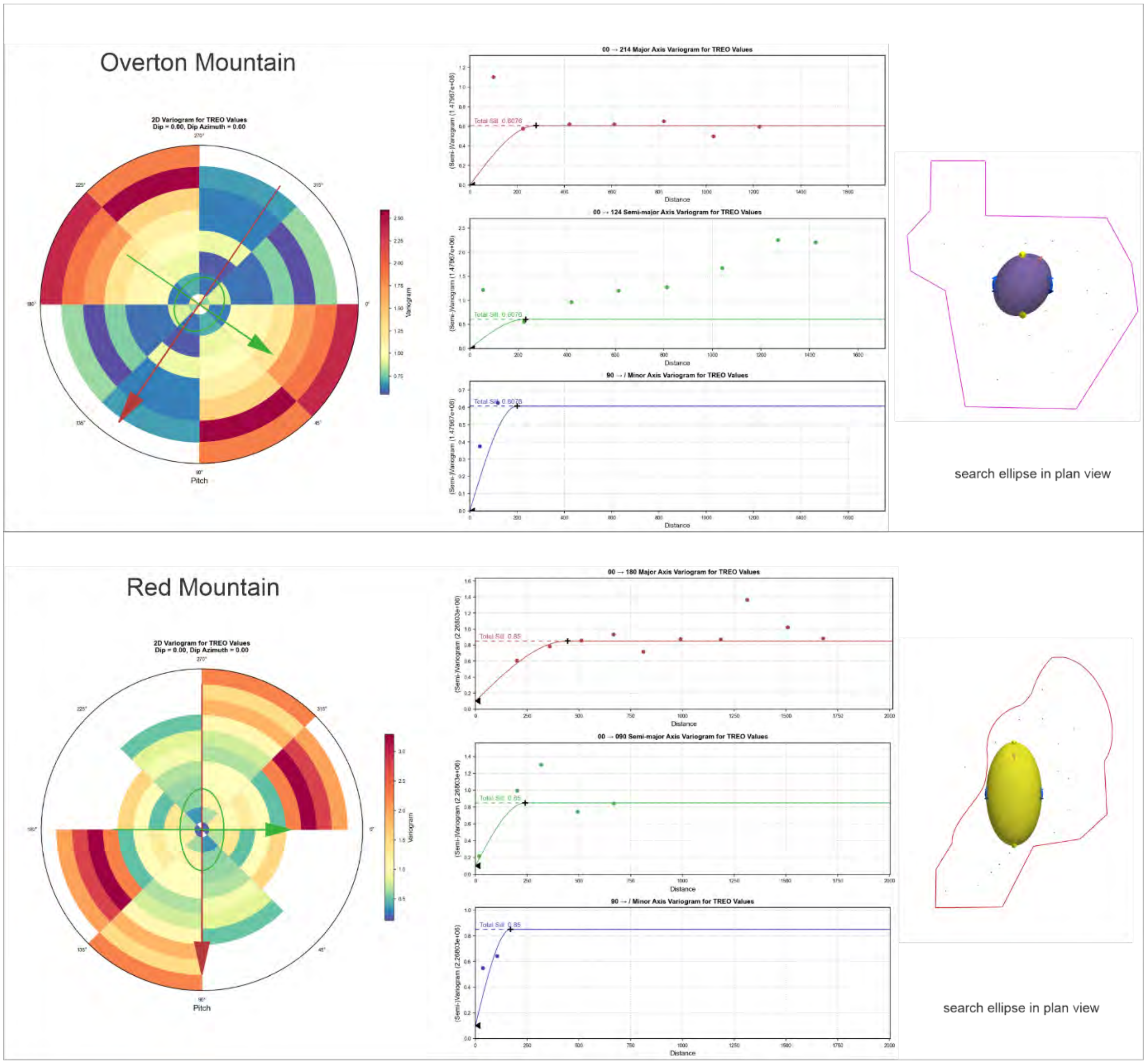
13.4.3 Variography

Using Leapfrog Edge, Odessa performed detailed variographic analysis for the Halleck Creek assay data to determine resource boundary limits, and to provide input parameters for grade interpolation. Note: Figure prepared by Odessa, 2024.

Figure 60 and Table 23 show the variogram analysis for TREO for the Overton Mountain and Red Mountain Resource areas.

Table 23 – Variogram Parameters

General	Direction			Structure 1					
Variogram Name	Dip	Dip Azimuth	Pitch	Normalized Nugget	Normalized sill	Structure	Major	Semi-major	Minor
OM	0	0	124	0	0.6	Spherical	280	230	200
RM	0	0	90	0.1	0.8	Spherical	445	240	170



Note: Figure prepared by Odessa, 2024.

Figure 60 - Variography of TREO for Overton Mountain and Red Mountain Resource Areas

13.4.4 Interpolant Parameters

Odessa modeled grade for each of the rare earth parameters listed in Section 13.2.3 above. Odessa stated, “Grade estimation was carried [out] using an Ordinary Kriging (OK) interpolant. Kriging is a method of interpolating estimates for unknown points between measured data. Instead of the inverse distance and nearest neighbor estimates, covariances and a Gaussian process are used to produce the prediction. The interpolant profile developed for TREO was applied to the individual rare earth assemblages and individual minerals.”

The Leapfrog estimation parameters defined for block modeling are shown Table 24, and Table 25.

Table 24 – Estimation Types and Top Cuts

General				Value clipping			Discretization		
Interpolant Name	Domain	Numeric Values	Domained Estimation Name	Lower bound	Upper bound	Estimate Type	X	Y	Z
OM indicated	OM	TREO	TREO	157	5500	Kr	5	5	2
OM inferred	OM	TREO	TREO	157	5500	Kr	5	5	2
RM indicated	RM	TREO	TREO	8	9956	Kr	5	5	2
RM inferred	RM	TREO	TREO	8	9956	Kr	5	5	2

Table 25 – Search Parameters

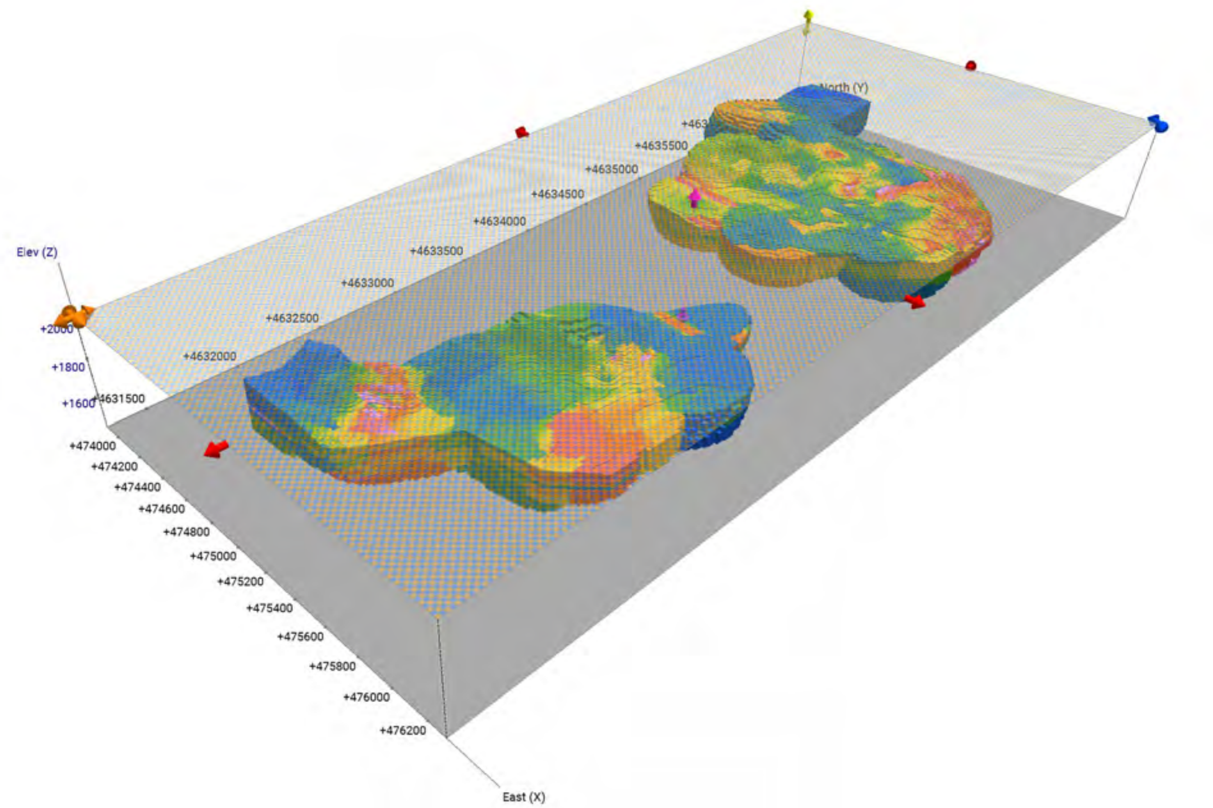
General			Ellipsoid Ranges			Ellipsoid Directions			Number of Samples		Outlier Restrictions
Interpolant Name	Domain	Numeric Values	Max.	Inter.	Min.	Dip	Dip Azimuth	Pitch	Min.	Max.	Method
TREO OM Pass 1	OM	TREO	150	150	75	0	0	90	5	15	None
TREO OM Pass 2	OM	TREO	300	300	75	0	0	90	5	15	None
TREO RM Pass 1	RM	TREO	150	150	120	0	0	90	5	15	None
TREO RM Pass 2	RM	TREO	300	300	120	0	0	90	5	15	None

13.4.5 Block Model

Odessa created an orthogonal block model using the parameters described in Table 26. Several runs were made using various block sizes. However, due to the almost imperceptible differences in the resultant estimations 20mx20mx20 block dimensions were selected for faster processing and reporting (Figure 61 and Figure 62). No SMU consideration was made. However, on a resource of this magnitude any mining would be undertaken using the maximum bench height possible subject to geotechnical considerations.

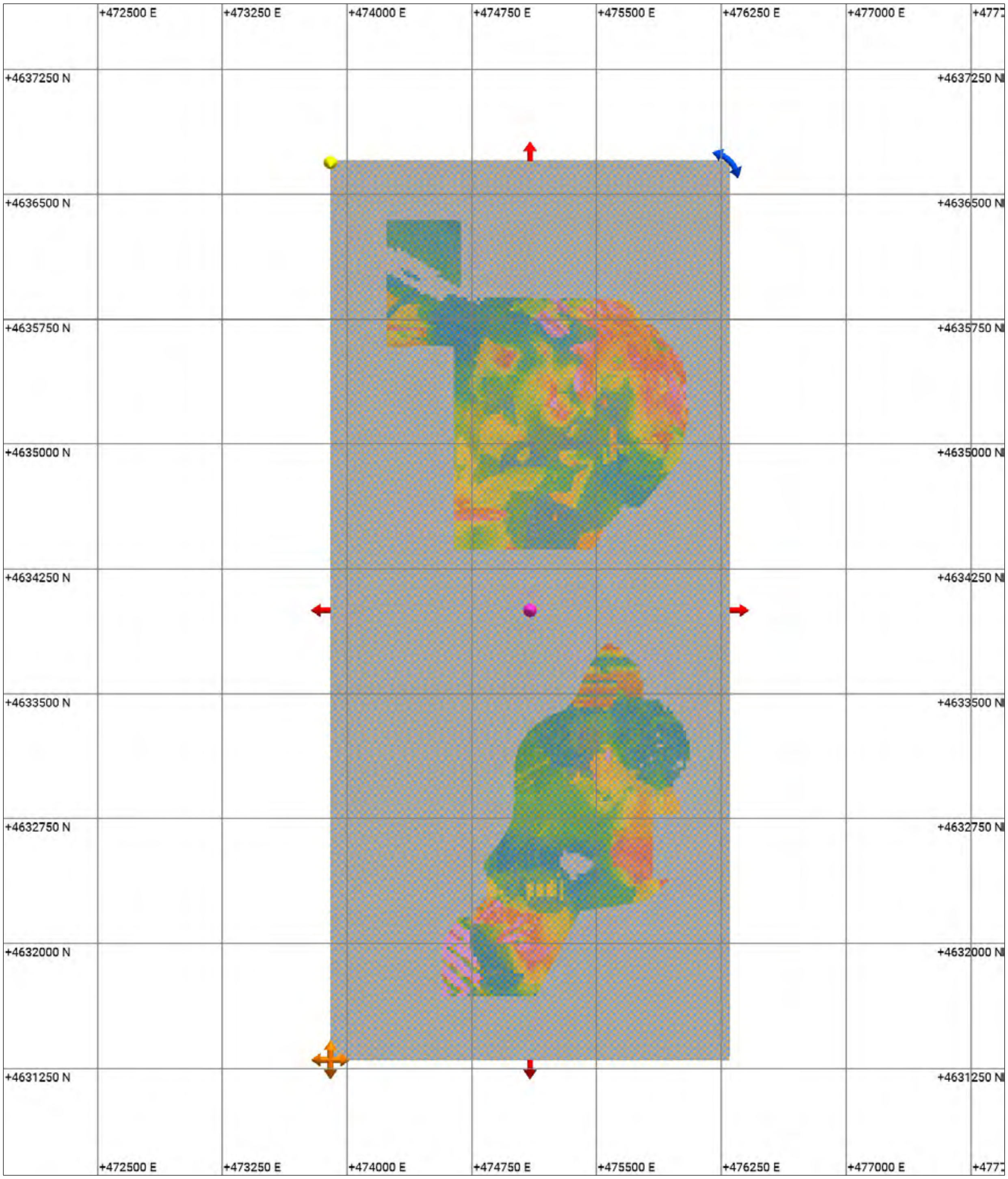
Table 26 - Overton Mountain Block Model Extents

Block Model Parameter	Value
Parent Block Size	20m
Sub-block count (i, j, k)	4, 4, 4
Minimum block size (i, j, k)	5m ,5m, 5m
Base point (x, y, z)	473900.00, 4631300.00, 2000.00
Boundary size (W x L x H)	2400.00, 5400.00, 600.00
Azimuth	0
Dip	0
Pitch	0
Size in Blocks	120x270x30=972,000



Note: Figure prepared by Odessa, 2024.

Figure 61 – Perspective View of the Halleck Creek Block Model Extent



Note: Figure prepared by Odessa, 2024.

Figure 62 - Plan View of Halleck Creek Block Model

13.4.6 Model Validation

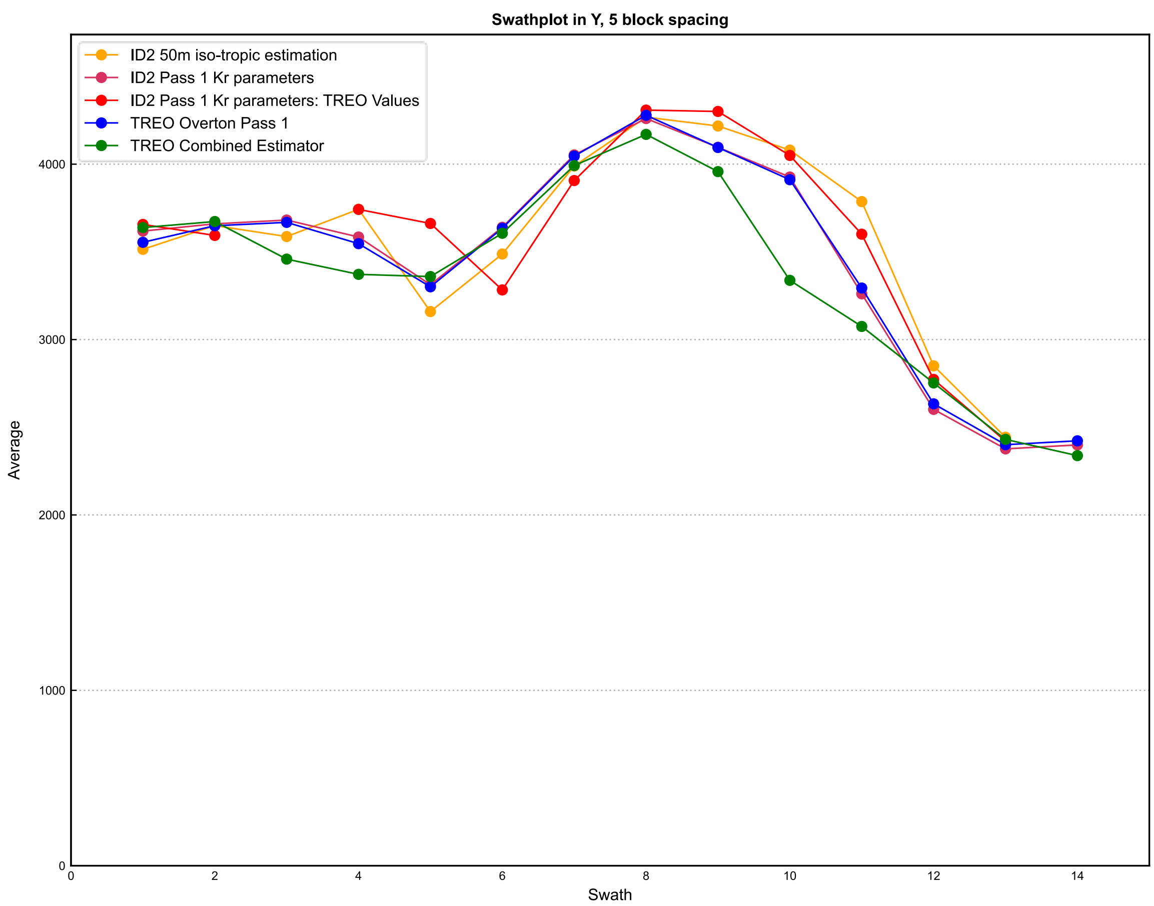
"Several estimation runs were carried out on the Overton Mountain Indicated resource to check for any variance between estimated grades and the input data.

The additional estimators comprised:

- Inverse Distance Squared (ID2) using the same estimation parameters as the kriged model
- Inverse Distance Squared (ID2) using an iso-tropic 50m search ellipse

These validation runs, together with the kriged estimator, were compared against the raw composite data in a north-south (Y) swath plot across the model area (Figure 63).

The data indicates that the kriged estimator has done a reasonable job in estimating a global resource grade with no systematic bias towards overestimating the grades. The smoothing effects of the kriging interpolant is consistent with both the inherent nature of the kriging process and the large search ellipses used."



Note: Figure prepared by Odessa, 2024.

Figure 63 – Swath Plot in Y Axis

13.5 Resource Estimation

13.5.1 Resource Extent

The Halleck Creek resource estimates were divided into two primary resource blocks: Overton Mountain to the north and Red Mountain to the south.

The Red Mountain resource extent covers minerals with BLM claims and Wyoming state mineral leases. The Red Mountain resource extent also includes a small area of the Trail Creek resource area. The Overton Mountain resource extent includes a small area from the Bluegrass resource area. Resource estimates for mineralized material within the resource blocks, but occur on privately owned surface and mineral, have been excluded from reported resources.

13.5.2 Resource Distance Categories

Odessa reviewed resource classification categories for the Halleck Creek project. Odessa stated, “The resource is classified as either measured, indicated or inferred. Subject to the application of ‘modifying factors’ the measured plus indicated component of the resource may allow for a formal evaluation of its economics with the potential to be converted to a Probable Ore Reserve. Therefore, a high degree of conservatism has been adopted as the underlying premise of the resource classification and, in particular, the indicated component.”

“The classification at Halleck Creek is based on the following key attributes:

Geological continuity between drillholes

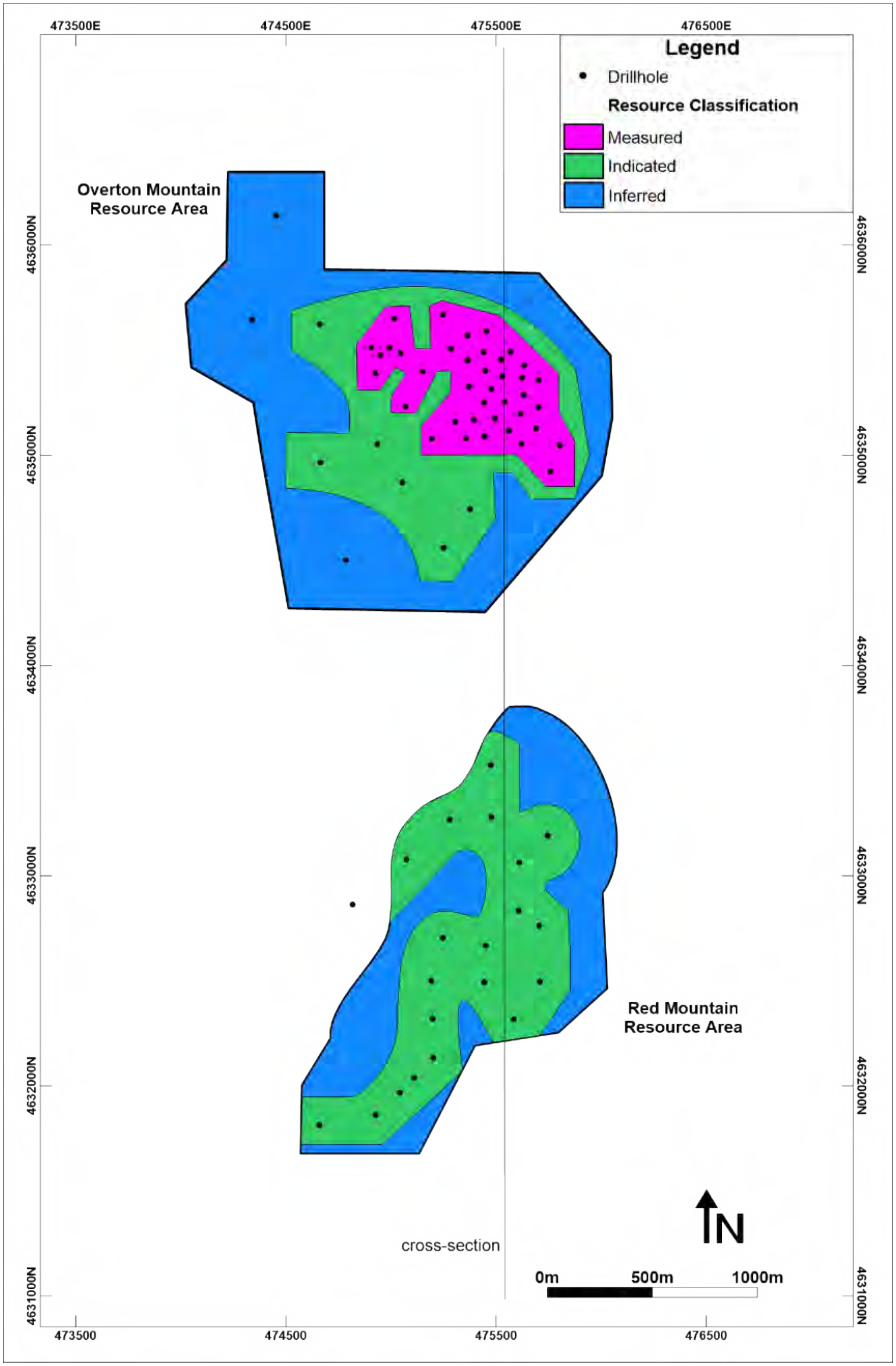
- Mineralization is controlled by batholith-scale fractionation. Hence, both empirical observations and statistical analysis confirm a very high degree of continuity with the respective rock masses at Overton Mountain and Red Mountain.
- This is supported by variography.

Drill spacing and drill density

- The drill pattern is mostly irregular with drill spacing of approximately 200m.
- At Overton Mountain an area has been infilled on a systematic grid spacing of approximately 90m. This spacing is considered to be adequate to support a measured classification.”

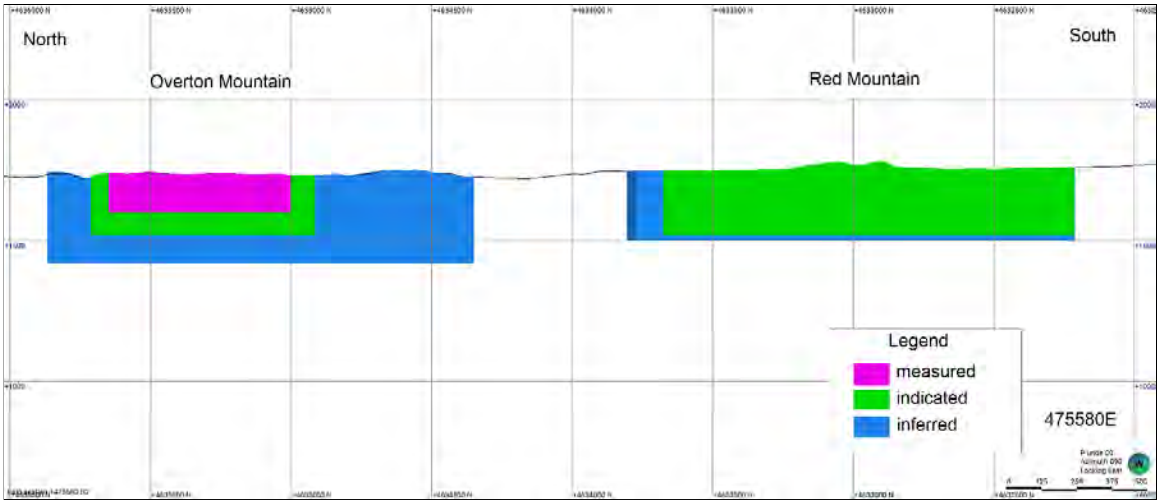
“The limits to the resource classification are shown in Figure 64 and Figure 65.”

“The CP considers the above classification strategy and methodology to be appropriate and reasonable for this style of mineralization.”



Note: Figure prepared by Odessa, 2024.

Figure 64 – Resource Extent and Resource Classification Categories



Note: Figure prepared by Odessa, 2024.

Figure 65 - Cross Section View Showing Resource Classification Limits

13.5.3 Resource Density

As mentioned in Section 12.2.2, a specific gravity of 2.70 was applied to volumes to determine tonnages.

13.5.4 Resource Cut-off Grade

The Maiden resource estimate at Halleck Creek used a cut-off grade of 1,500 ppm TREO.

Preliminary mining and economic designs are being evaluated for the Halleck Creek project as part of the JORC scoping study. In January 2024, Stantec developed net smelter return (NSR) calculations based on recovering saleable rare earth elements: La_2O_3, Nd_2O_3, Pr_6O_{11}, Sm_2O_3, Dy_2O_3, and Tb_4O_7. The NSR calculated shows an economic cut-off grade of 1,000 ppm TREO for in-situ resource estimates within proposed resource limits. This cut-off provides the basis of a reasonable expectation of economic extraction at Halleck Creek.

Figure 66 illustrates grade tonnage curves for the updated models and resource estimates.

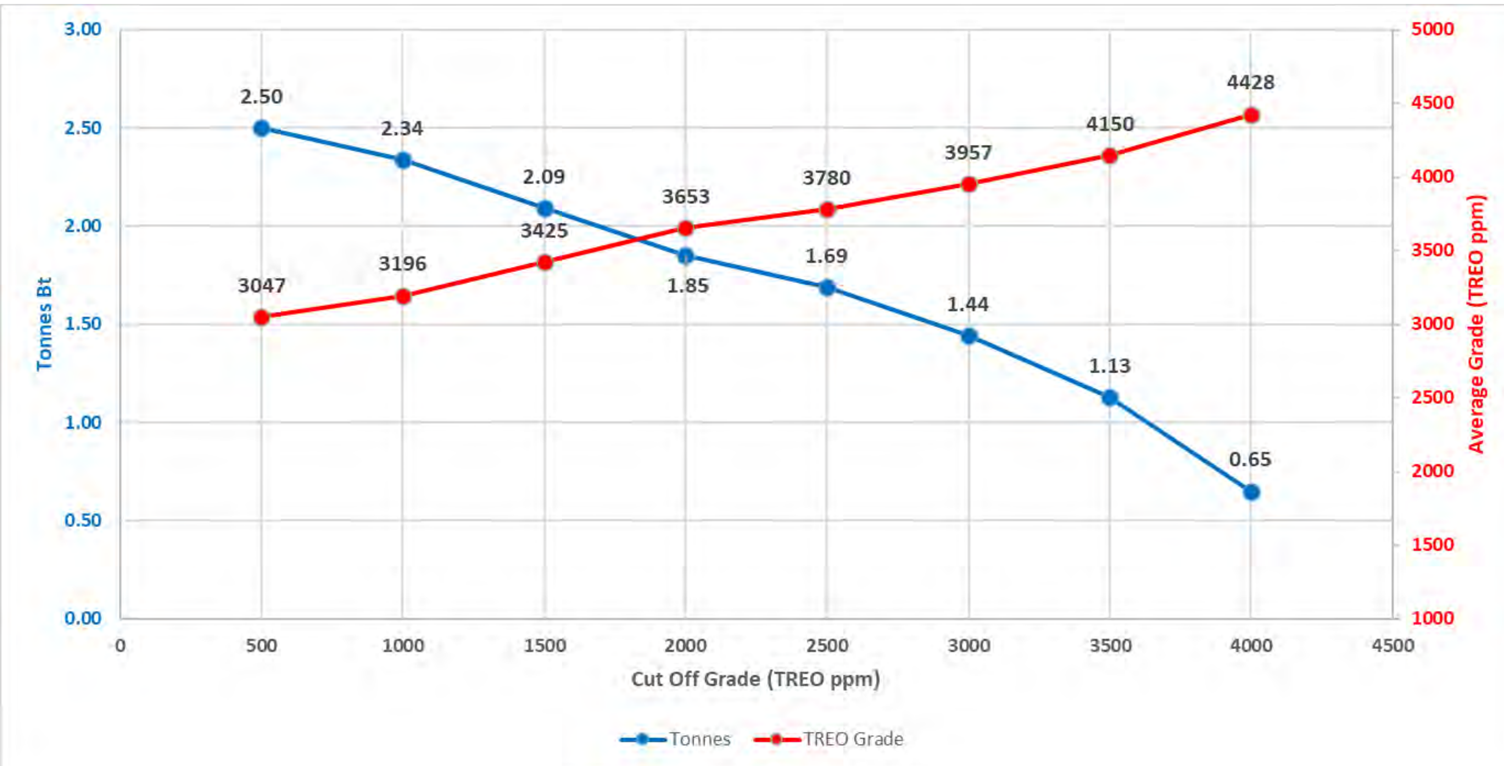


Figure 66 – Grade Tonnage Curve for TREO

13.5.5 Resource Estimates using 1,000 ppm TREO

Table 28 summarizes estimated global in-situ resources at Halleck Creek by resource area and category using a TREO cut-off of 1,000 ppm. These in-situ resource estimates have not been optimized within any open pit designs. The total estimated in-situ resource at Halleck Creek is 2.34 billion tonnes with an average TREO grade of 3,195 ppm (0.32%), and an average Magnet Rare Earth Oxide (MREO) grade of 774 ppm (0.08%). MREO comprises approximately 24% of TREO.

The total in-situ measured and indicated resources at Halleck Creek are 1.4 billion tonnes with an average TREO grade of 3,295 ppm (0.33%), and an average Magnet Rare Earth Oxide (MREO) grade of 798 ppm (0.08%).

It should be clearly noted that Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resource will be converted into a Mineral Reserve. Areas where ARR does not control mineral resources have been excluded from resource estimates.

Approximately 7,481,000 tonnes of contained TREO material occurs at Halleck Creek (Table30). Approximately 1,811,000 tonnes of contained of MREO material also occur at Halleck Creek.

Table 27 - Estimated Rare Earth Resources at Halleck Creek (1000ppm TREO cut off)

Classification	Tonnage	*Grade*				*Contained Material*			
		TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
	t	ppm	ppm	ppm	ppm	t	t	t	t
Measured	206,716,068	3,720	3,352	370	904	769,018	692,935	76,550	186,836
Indicated	1,210,173,301	3,223	2,838	349	780	3,899,931	3,434,947	422,124	943,421
Meas + Ind	**1,416,889,369**	**3,295**	**2,913**	**352**	**798**	**4,668,949**	**4,127,881**	**498,674**	**1,130,257**
Inferred	924,698,618	3,041	2,696	339	737	2,812,121	2,493,178	313,187	681,138
Total	**2,341,587,986**	**3,195**	**2,828**	**347**	**774**	**7,481,070**	**6,621,059**	**811,861**	**1,811,395**
Rounded	**2,342,000,000**	**3,195**	**2,828**	**347**	**774**	**7,481,000**	**6,621,000**	**812,000**	**1,811,000**

Total estimated measured resources comprise approximately 8.8% of the resource, estimated indicated resources comprise approximately 51.7%, with 39.5% as inferred resources across the project area. Measured plus indicated resource estimates comprise approximately 60.5% of the total resource.

Table 28 – Resource Estimates by Resource Area (1000ppm TREO cut off)

Resource Block	Classification	Tonnage	*Grade*				*Contained Material*			
			TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
		t	ppm	ppm	ppm	ppm	t	t	t	t
Overton Mountain	Measured	206,716,068	3,720	3,352	370	904	769,018	692,935	76,550	186,836
	Indicated	574,265,988	3,414	3,036	353	814	1,960,703	1,743,496	202,960	467,207
	Inferred	601,357,070	3,111	2,766	345	746	1,871,057	1,663,315	207,736	448,839
	Total	**1,382,339,126**	**3,328**	**2,966**	**352**	**798**	**4,600,778**	**4,099,746**	**487,246**	**1,102,882**
Red Mountain	Indicated	635,907,313	3,050	2,660	345	749	1,939,228	1,691,450	219,164	476,214
	Inferred	323,341,548	2,910	2,567	326	718	941,064	829,862	105,451	232,299
	Total	**959,248,860**	**3,003**	**2,628**	**338**	**739**	**2,880,292**	**2,521,313**	**324,614**	**708,513**
Total	Measured	206,716,068	3,720	3,352	370	904	769,018	692,935	76,550	186,836
	Indicated	1,210,173,301	3,223	2,838	349	780	3,899,931	3,434,947	422,124	943,421
	Inferred	924,698,618	3,041	2,696	339	737	2,812,121	2,493,178	313,187	681,138
	Total	**2,341,587,986**	**3,195**	**2,828**	**347**	**774**	**7,481,070**	**6,621,059**	**811,861**	**1,811,395**

Table 29 summarizes resource estimates by mineral owner, BLM or the state of Wyoming, that is within claims or under lease. Private unleased material is not included in the estimate. Approximately 1.9 billion tonnes of material at with an average TREO grade of 3,161 ppm exists within BLM control. Approximately 0.42 billion tonnes of material at with an average TREO grade of 3,349 ppm exists within Wyoming state mineral leases. ARR is focusing the next phases of development on resources within state mineral leases.

Table 29 – Resource Estimates by Mineral Owner (1000ppm TREO cut off)

Mineral Owner	Classification	Tonnage	*Grade*				*Contained Material*			
			TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
		t	Ppm	ppm	ppm	ppm	t	t	t	t
BLM	Measured	206,716,068	3,720	3,352	370	904	769,018	692,935	76,550	186,836
	Indicated	922,262,707	3,178	2,795	350	765	2,930,865	2,577,823	322,616	705,345
	Inferred	792,842,071	2,996	2,655	339	723	2,375,564	2,105,182	268,441	573,145
	Total	**1,921,820,846**	**3,161**	**2,797**	**347**	**762**	**6,075,447**	**5,375,939**	**667,607**	**1,465,326**
State	Indicated	287,910,594	3,366	2,977	346	827	969,066	857,124	99,507	238,076
	Inferred	131,856,546	3,311	2,943	339	819	436,557	387,996	44,746	107,993
	Total	**419,767,140**	**3,349**	**2,966**	**344**	**824**	**1,405,623**	**1,245,120**	**144,253**	**346,069**
Total	Measured	206,716,068	3,720	3,352	370	904	769,018	692,935	76,550	186,836
	Indicated	1,210,173,301	3,223	2,838	349	780	3,899,931	3,434,947	422,124	943,421
	Inferred	924,698,618	3,041	2,696	339	737	2,812,121	2,493,178	313,187	681,138
	Total	**2,341,587,986**	**3,195**	**2,828**	**347**	**774**	**7,481,070**	**6,621,059**	**811,861**	**1,811,395**

Table 30 – Resource Estimates for Each Rare Earth Oxide (1000ppm TREO cut off)

Classification	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total
Tonnage	**206,716,068**	**1,210,173,301**	**924,698,618**	**2,341,587,986**				
	Grade				**Material Content**			
	ppm	ppm	ppm	ppm	kt	kt	kt	kt
TREO	3,720	3,223	3,041	3,195	769,018	3,899,931	2,812,121	7,481,070
LREO	3,352	2,838	2,696	2,828	692,935	3,434,947	2,493,178	6,621,059
HREO	370	349	339	347	76,550	422,124	313,187	811,861
MagREO	904	780	737	774	186,836	943,421	681,138	1,811,395
Ce2O3	1,626	1,372	1,305	1,368	336,493	1,661,765	1,208,378	3,206,636
Dy2O3	42	40	39	40	8,772	48,958	35,889	93,619
Er2O3	19	18	18	18	4,017	21,934	16,424	42,375
Eu2O3	12	12	11	12	2,464	14,229	10,454	27,147
Gd2O3	66	63	60	62	13,667	76,675	55,187	145,530
Ho2O3	7	7	7	7	1,527	8,559	6,371	16,458
La2O3	773	645	616	645	160,089	781,194	570,569	1,511,852
Lu2O3	3	2	2	2	526	2,724	2,096	5,345
Nd2O3	668	577	544	572	138,320	698,569	503,964	1,340,852
Pr6O11	185	154	146	154	38,223	187,179	135,481	360,883
Sm2O3	100	92	86	90	20,686	110,993	79,780	211,459
Tb4O7	9	8	8	8	1,760	9,991	7,117	18,868
Tm2O3	2	2	2	2	512	2,789	2,121	5,422
Y2O3	193	181	178	181	40,047	219,035	164,413	423,495
Yb2O3	16	15	15	15	3,376	17,757	13,585	34,718
ThUOx	73	64	61	64	15,135	77,933	56,575	149,643

13.5.6 Comparison to 2023 Maiden Resource Estimate

ARR released the maiden resource estimate for Halleck Creek in March 2023. The maiden resource consisted of 1.43 billion tonnes of material with a TREO grade of 3,309 ppm, using a 1,500 ppm cut-off. The updated resource estimates consist of 2.34 billion tonnes of material with a TREO grade of 3,196 ppm, using a 1,000 ppm cut-off grade (Table 31).

Between 2024 and 2023, total estimated resources increased by approximately 0.91 billion tonnes (64%). The estimated TREO grade decreased by 133 ppm TREO (-3%). Measured + Indicated resource increased by 0.79 billion tonnes (128%). Inferred resources increased by 0.18 billion tonnes (15%).

Differences in the resource estimates occurred due to:

- Change in cut-off grade from 1,500ppm to 1,000ppm TREO
- Increase in resource dimensions because of Fall 2023 Exploration

- Drilling to 302 meters demonstrated that the resource continues at depth and remains open
- Drill hole spacing of new and existing data increased confidence levels and allowed the resource area to expand
- Drill hole spacing allowed measured resources to be defined and indicated resources to be redefined
- Drilling assays increased the grade of the resource

Table 31 - Differences between 2024 Resource Update and 2023 Maiden Resource

Classification	Differences	Tonnage	*Grade*			
			TREO	LREO	HREO	MREO
		t	ppm	ppm	ppm	ppm
Meas + Ind	Difference	794,603,156	(94)	(36)	(10)	(11)
	% Difference	128%	-3%	-1%	-3%	-1%
Inferred	Difference	117,333,818	(206)	68	0	113
	% Difference	15%	-6%	3%	0%	18%
Total	**Difference**	**911,936,974**	**(114)**	**59**	**(2)**	**69**
	% Difference	**64%**	**-3%**	**2%**	**-1%**	**10%**

Comparing the 2024 resource update and the 2023 maiden resource estimate using a 1,500 ppm TREO cut-off grade, the estimated resource increases by 0.66 billion tonnes (46%) and the TREO grade increases by 116 ppm (4%).

Figure 67 illustrates a comparison between the 2024 resource update and the 2023 maiden resource estimate. The figure shows that the tonnage and grade increased at each cut-off grade increment.

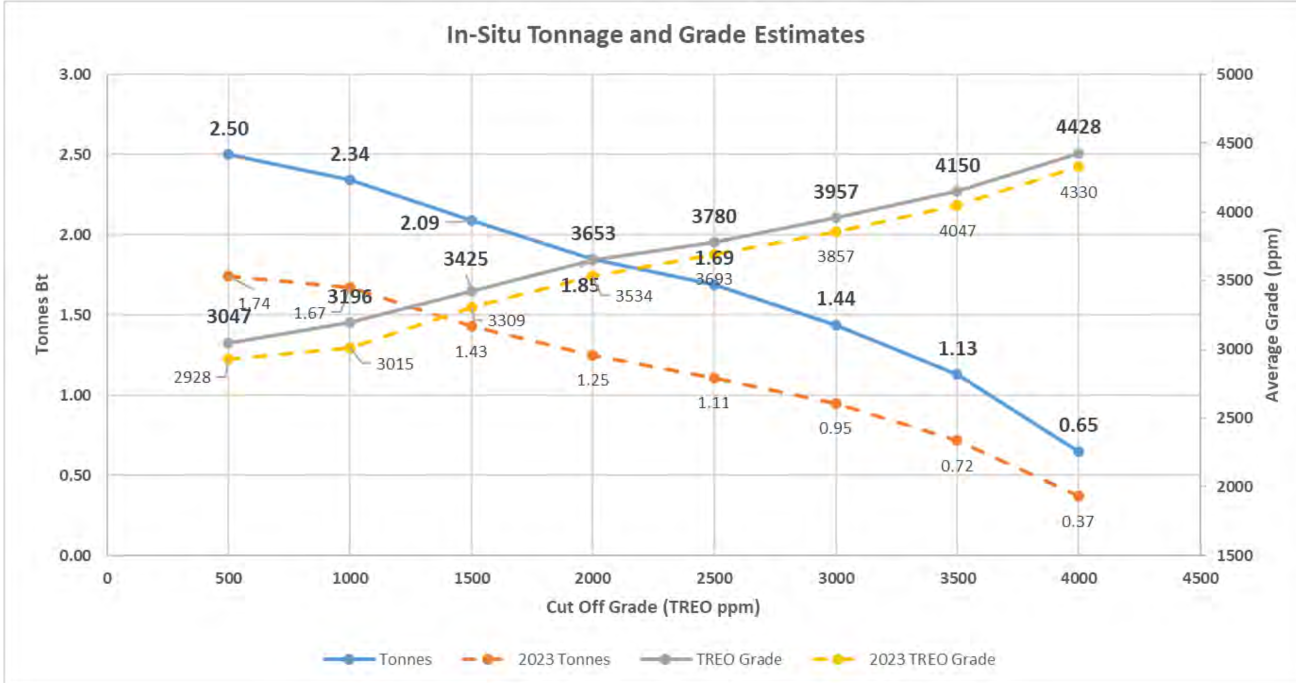


Figure 67 - Comparison of 2024 and 2023 Grade Tonnage Curves

14 Mineral Reserve Estimates

The Halleck Creek Project is in the early stages of development. As a result, no reserves have been defined or calculated for the Halleck Creek Project.

15 Mining Methods

The Halleck Creek Project is in the early stages of development. As a result, no mining methods or mining plans have been defined or calculated for the Halleck Creek Project. However, rare earth mineralization occurs at surface and continues to depths of at least 160 meters. Therefore, open pit, surface mining methods will be investigated for the Overton Mountain and Red Mountain resource areas.

16 Ore Processing and Preparation Plant

The Halleck Creek Project is in the early stages of development. As a result, no ore processing or preparation plants designs have been defined or calculated for the Halleck Creek Project.

17 Project Infrastructure

The Halleck Creek Project is in the early stages of development. As a result, no mining related infrastructure designs have been defined or calculated for the Halleck Creek Project.

18 Markets and Contracts

The Halleck Creek Project is in the early stages of development. High level estimates of potential sales prices of NdPr Oxide, SEG Oxide, La_2O_3, Dy_2O_3, and Tb_4O_7 have been compiled from publicly available data for the use in developing NSR calculations for the Stantec scoping study. These prices are not definitive but allow for the estimation of a cut-off grade and determining the reason expectations of extraction of mineral resources.

19 Environmental Studies, Permitting, Social and Community Impacts, and Sustainability

19.1 Overview

The Halleck Creek Project is in the early stages of development. As a result, no detailed environmental studies have been defined or calculated for the Halleck Creek Project. ARR is performing an environmental needs assessment to determine the breadth of environmental baseline data collection required for this project.

19.2 Exploration Permits

ARR acquired exploration permits, in the form of drilling notices, from the Wyoming Department of Environmental Quality (WDEQ) for surface land owned privately and by the state of Wyoming. ARR also acquired exploration permits from the US Bureau of Land Management (BLM) for the surface land owned by the United States.

19.3 Long-term Permitting Plans

ARR is developing needs assessments for developing potential mines at Halleck Creek focusing on state mineral leases. ARR is developing partnerships with various Wyoming based businesses and entities to advance development of a mine on state lands. ARR believes such partnerships provide the shortest path to mine permits, maximizing value Wyoming state resources, being good environmental stewards of the project.

20 Capital and Operating Costs

The Halleck Creek Project is in the early stages of development. The JORC scoping study being prepared by Stantec will contain preliminary capital and operating cost estimates.

21 Economic Analysis

The Halleck Creek Project is in the early stages of development. The JORC scoping study being prepared by Stantec will contain preliminary economic analysis.

22 Adjacent Properties

At this time, there are no adjacent mining or mineral exploration projects within 10km of the Halleck Creek project.

23 Other Relevant Data and Information

At this time, all relevant information and data has been thoroughly documented in this report.

24 Interpretation, Risk Analysis and Conclusions

24.1 Interpretation

The Red Mountain Pluton of the Halleck Creek Rare Earths Project is a distinctly layered monzonitic to syenitic body which exhibits significant and widespread REE enrichment. Enrichment is dependent on allanite abundance, a sorosilicate of the epidote group, which is most abundant within the clinopyroxene quartz monzonite. However, lower levels of REE enrichment can be found in other RMP units which notably include the fayalite monzonite and the biotite hornblende quartz syenite.

ARR geologists believe that allanite accumulated in the RMP from fractional crystallization of magmatic fluids of these late-stage plutons. While some alteration occurs in the form of potassic staining on minerals and minor retro-grade chlorotic alteration REE bearing allanite does not appear to be affected.

Metamict alteration occurs commonly at Halleck Creek and can be observed in many micrographs. ARR geologists theorize that metamict destruction of crystal lattices from interstitial uranium increases the ability of REE to be leached by sulphuric acid. Uranium occurs in very low concentrations, but the old age of the rock units has allowed the metamict effects of alpha decay to change the properties of the allanite.

24.2 Uncertainties

The extent of mineralization at both the Red Mountain and Overton Mountain projects areas is still being assessed. Recent drilling to 302 m demonstrates that the deposit remains open at depth.

The effects of metamictization of allanite with respect to leaching remains uncertain. ARR is developing scope of work with research universities to study these effects.

24.3 Risk Analysis

ARR is developing a comprehensive risk register as part of conceptual studies being performed for the Halleck Creek project. The risk register outlines potential risks for each component of the project, the level of severity to adversely affect the project, and the primary strategy to mitigate each risk.

24.4 General Conclusions

The Halleck Creek Rare Earths Project is unique in that it contains large areas of near surface, moderately high-grade values of critical, magnet component rare earth elements. ARR controls federal lode claims and mineral leases covering the mineralized areas at Halleck Creek. Exploration drilling demonstrates that rare earth mineralization, in CQM and BHS rocks, is widespread, consistent at depth and that the deposit remains open at depth and toward additional prospect areas within the Halleck Creek district.

Mineralogical characterization confirmed that allanite is the primary rare earth bearing mineral at Halleck Creek. The mineralogy showed that allanite can be liberated from the coarse-grained material. Metamict alteration of allanite might benefit the REE recovery during acid leaching.

Preliminary metallurgical testwork determined the specific gravity of rock material at 2.7. Grinding and comminution results using SMC testwork, Bond abrasion index testing, and Bond mill work testing indicate that Halleck Creek ore should be suitable for processing in a SAG-Ball mill configuration without the need for pebble crushing and could also be processed in a single stage SAG mill. Batch WHIMS testing showed that core material at a 500 microns P_{80} grind recovered more than 90% of Allanite from non-magnetic material. Continuous WHIMS testing and leach testing is ongoing.

Geologic domains were interpreted into 70 drill holes across Halleck Creek. Geological domain, lithology and grade models were created across Halleck Creek. Geostatistical analysis determined resource boundaries and resource classification for measured, indicated and inferred resources.

Using the geological models, a maiden in-situ resource of 1.43 billion tonnes with an average TREO grade of 3,309 ppm was compiled for Halleck Creek. The 1.43 billion tonne resource estimate at Halleck Creek provides ARR with a starting point to develop technical, social and economic components needed to evaluate the full value of Halleck Creek.

25 Recommendations and Future Work

25.1 Scoping Studies

With the Halleck Creek update resource estimate in hand, ARR is commencing studies with respect to community impact, mine design and mine planning, plant design and ore processing, mine dumps and tailings, commodity marketing, associated costs and financial modeling.

ARR is currently working with Stantec to prepare a JORC compliant Scoping Study to be completed in Q1 2024.

25.2 Resource Exploration and Development

25.2.1 Resource Development

Exploration drilling to date at Halleck Creek focused on defining the extent of Halleck Creek resources and defining higher grade resources at Overton Mountain. The next phases of exploration drilling at Halleck Creek will focus on increasing resource classification on state mineral leases at Red Mountain needed for pre-feasibility level resource estimates, on acquiring geotechnical data for pit stability and ground control plans, on establishing baseline groundwater quality and long-term groundwater monitoring.

ARR filed an updated drilling notice with WDEQ for an additional 25 holes on state mineral leases. These holes will increase resource classification, increase the depth of the resource, provide core for geotechnical testwork and start baseline water data collection.

25.2.2 Geologic Mapping and XRF Analysis

ARR will be performing extensive mapping and systematic XRF analysis over claim areas west of current resources. ARR currently proposes to collect XRF samples across a 200m x 200m grid. Areas showing more complexity or REE anomalies might be reanalyzed using a more refined grid spacing (e.g. 100m x 100m or 50m x 50m).

25.3 Collaborations, Bulk Sampling and Pilot Plant

Detailed plans for baseline environmental data collection are being developed. ARR is also developing opportunities for community engagement and collaborations with the University of Wyoming, the Wyoming State Geological Survey, and various state funding sources.

Applications for bulk sample collection and collaborative opportunities for a pilot plant are also being defined.

ARR is also preparing needs assessments for baseline data collected and permitting data to advance bulk sample rock collection and development of a potential mine on state leases within the Halleck Creek Project.

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27 Certificates of Qualified Persons

CERTIFICATION OF QUALIFICATIONS
Dwight M. Kinnes, CPG (Co-Author)
Chief Technical Officer
American Rare Earths, Ltd.

I, DWIGHT M. KINNES, Qualified Professional Member (QP) #4063295RM of the Society of Mining Engineers (SME), HEREBY CERTIFY THAT:

1. I am currently employed as chief technical officer with American Rare Earths, Ltd, with an office in Lakewood, CO 80401.

2. I am a graduate of Colorado State University, with a B.S. degree in Geology (1986), I have been practicing my profession since 1986.

3. I am a registered member of the Society of Mining Engineers (SME), number 4063295.

4. From 1986 to present I have been actively employed in various capacities in the mining industry in numerous locations in North America, South America, Asia, Australia, and Europe.

5. I am a Co-Author, with employees, of the Technical Report titled "Technical Report of Exploration and Updated Resource Estimates of the Halleck Creek Rare Earths Project" dated February 5, 2024, and accept professional responsibility for all sections of this report.

6. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, The Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

7. I am employed by American Rare Earths, Ltd.

8. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and publication by them, including publication of this Technical Report in the public company files on their websites accessible by the public.

DATED in Palisade, Colorado, USA this 5th day of February 2024.

/s/ Dwight M. Kinnes

Dwight M. Kinnes, CPG (4063295RM – SME)

CERTIFICATION OF QUALIFICATIONS
ALFRED J. GILLMAN
CONSULTING GEOLOGIST
ODESSA RESOURCES PTY LTD

I, Alfred J. Gillman, hereby certify that:

1. I am currently the Principal of the independent resource consulting firm Odessa Resources Pty Ltd (ABN 16 133 543 727) and have been engaged by American Rare Earths to undertake resource estimation work for the Halleck Creek Rare Earths Project.

2. I am a graduate of the University of Western Australia (1980) and hold a Bachelor of Science Degree with Honours in Geology and I have been practicing in my profession since 1980.

3. I am a Chartered Professional (Geology) and Fellow of The Australasian Institute of Mining and Metallurgy or the Australian Institute (AusIMM), number 107303.

4. From 1980 to present I have been actively employed in various capacities in the mining industry in numerous locations around the world.

5. I have read and understood the requirements of the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code, 2012 Edition).

6. I am a Competent Person as defined by the JORC Code 2012 Edition, having sufficient experience that is relevant to the style of mineralisation and type of deposit described in the Report, and to the activity for which I am accepting responsibility.

7. I verify that Section 13 of the Technical Report is based on and fairly and accurately reflects in the form and context in which it appears, the information in my supporting documentation relating to Mineral Resources.

8. As of the effective date of the report, to the best of my knowledge, information and belief, Section 13 of the Technical Report contains all scientific and technical information that is required to be disclosed to make the report not misleading.

9. I consent to the filing of this report with any stock exchange and other regulatory authority and publication by them, including publication of the report in the public company files on their websites accessible by the public.

Dated in Perth, Western Australia this 29th day of January 2024.

/s/ Alfred J. Gillman

Alfred J. Gillman
BSc(Hons), FAusIMM (CP Geol) 107303

CERTIFICATION OF QUALIFICATIONS
Kelton Smith
Process Department Lead
Tetra Tech Inc.

I, KELTON SMITH, Qualified Professional Member (QP) #4227309RM of the Society of Mining Engineers (SME), HEREBY CERTIFY THAT:

1. I am currently employed as a process department lead with Tetra Tech Inc., with an office in Parker, Colorado USA.

2. I am a graduate of the University of Utah, with a B.S. degree in Chemical Engineering (1997), I have been practicing my profession since 1997.

3. I am a registered member of the Society of Mining Engineers (SME), number #4227309RM.

4. From 1997 to present I have been actively employed in various capacities in the mining/minerals/chemicals industry in numerous locations in North America.

5. I have read and reviewed the Technical Report titled “Technical Report of Exploration and Updated Resource Estimates of the Halleck Creek Rare Earths Project” dated January 29, 2024, and accept professional responsibility for section 12 (Mineral Processing and Metallurgical Testing) of this report except as stipulated in section 3 of this report.

6. I have had extensive prior involvement in working with rare earths and rare earth properties similar to Halleck Creek for the past 15 years in various capacities as an employee of mining companies and as a consultant.

7. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, The Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

8. I am independent of American Rare Earths, Ltd.

9. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and publication by them, including publication of this Technical Report in the public company files on their websites accessible by the public.

DATED in Parker, Colorado, USA this 29th day of January 2024.

Kelton Smith, SME-RM 4227309

CERTIFICATION OF QUALIFICATIONS
James R. Guilinger
Consulting Geologist
World Industrial Minerals LLC

I, JAMES R. GUILINGER, Qualified Professional Member (QP) #1260280RM of the Society of Mining Engineers (SME), HEREBY CERTIFY THAT:

1. I am currently employed as a consulting geologist with World Industrial Minerals LLC, with an office in Naples, Florida USA.

2. I am a graduate of the University of Colorado, with a B.A. degree in Geology (1973), I have been practicing my profession since 1974.

3. I am a registered member of the Society of Mining Engineers (SME), number 1260280.

4. From 1974 to present I have been actively employed in various capacities in the mining industry in numerous locations in North America, Asia, Europe and the Middle East.

5. I have read and reviewed the Technical Report titled "Technical Report of Exploration and Updated Resource Estimates of the Halleck Creek Rare Earths Project" dated January 29, 2024, and accept professional responsibility for all sections of this report except as stipulated in section 3 of this report in regards to environmental issues, permitting, metallurgy, resource estimation, and land status.

6. I have had extensive prior involvement in working with rare earths and rare earth properties similar to Halleck Creek since the 1980's in various capacities as an employee of mining companies and as a consultant.

7. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, The Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

8. I am independent of American Rare Earths, Ltd.

9. I consent to the filing of this Technical Report with any stock exchange and other regulatory authority and publication by them, including publication of this Technical Report in the public company files on their websites accessible by the public.

DATED in Naples, Florida, USA this 29th day of January 2024.

James R. Guilinger SME-RM 1260280

Appendix A – JORC Table 1

JORC Code, 2012 Edition – Table 1 Halleck Creek

Section 1 Sampling Techniques and Data

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

Criteria	*JORC Code explanation*	Commentary
Sampling techniques	*Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as downhole gamma sondes, handheld XRF instruments, etc.). These examples should not be taken as limiting the broad meaning of sampling.*	ARR drilled 15 reverse circulation (RC) holes and eight HQ-sized diamond core holes between September and October 2023. All RC holes were 102 meters (334.65 feet) deep, with seven core holes at 80 meters (262.47 feet) and one deep core hole at 302 m (990.81 feet). RC chip samples were collected at a 1.5-meter (4.92 ft) continuous interval via rotary splitter. Rock core was divided into sample lengths of 1.5 m (4.92 feet) long and at key lithological breaks. ARR drilled 38 reverse circulation (RC) holes across the Halleck Creek Resource Claim area between October and December 2022. All holes were approximately 150 meters (492.13 feet) deep, with the exception of HC22-RM015 which went to a depth of 175.5 meters (576 feet). Chip samples were collected at 1.5-meter continuous intervals via rotary splitter. In March and April 2022, ARR drilled nine HQ-sized core holes across the Halleck Creek Resource claim area. All holes were approximately 350 ft with the exception of one hole which was terminated at 194 ft. Total drilled length of 3,008 ft (917 m). Rock core was divided into sample lengths of 5 ft (1.52 m) long and at key lithological breaks. A total of 734 surface rock samples exist in the Halleck Creek database. Surface rock samples collected by ARR are logged, photographed and located using handheld GPS units. As part of reverse circulation (RC) and diamond core exploration drilling at Halleck Creek, ARR collected XRF readings on RC chip and

		core samples. Elements included in XRF measurements include Lanthanum, Cerium, Neodymium, and Praseodymium. ARR collected three XRF readings on each sample, then averaged the readings. Readings are performed at 20-meter intervals down each drill hole. These values are qualitative in nature and provide only rough indications of grade.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	For the April 2022 core drilling program, core recoveries and RQDs were calculated by ARR field geologists. The same was done for the Fall 2023 program with the addition of detailed geotechnical logging.
	Aspects of the determination of mineralisation that are Material to the Public Report.	The Red Mountain Pluton (RMP) of the Halleck Creek Rare Earths Project is a distinctly layered monzonitic to syenitic body which exhibits significant and widespread REE enrichment. Enrichment is dependent on allanite abundance, a sorosilicate of the epidote group. Allanite occurs in all three units of the RMP, the clinopyroxene quartz monzonite, the biotite-hornblende quartz syenite, and the fayalite monzonite, in variable abundances.
	In cases where 'industry standard' work has been done, this would be relatively simple (e.g. '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 (e.g. submarine nodules) may warrant disclosure of detailed information.	Reverse circulation rock chip samples were collected at 1.5-meter continuous intervals via rotary splitter. For each interval chip samples were placed in labelled sample bags weighing between 1-2kg. A 0.5-1kg sample was collected for reserve analysis and logging. Chip samples were also placed into chip trays with 20 slots for logging and XRF analysis. Rock core samples 5 ft (1.52 m) long are fillet cut. The fillet cuts are being pulverised and sampled for 60 elements including rare earth elements using ICP-MS and industry standards. A select number of samples are additionally being assayed for whole rock geochemistry. American Assay Labs in Sparks, NV is performed the analyses for the Spring 2022 program, and ALS Laboratories in BC, Canada.

		RC chip samples were sent to ALS labs in Twin Falls, ID for preparation and forwarded on to ALS labs in Vancouver, BC for ICP-MS analysis. ALS analysis: ME-MS81. Core samples were first sent to ALS in Reno, NV, for cutting and preparation, and also sent to Vancouver, BC for the same suite of testwork.
Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or another type, whether the core is oriented and if so, by what method, etc.).*	A Schraam T-450 reverse circulation drill rig was used to drill all 15 RC drill holes from the Fall 2023 program. A continuous rotary sample splitter was used to collect the RC samples at 1.5m intervals. Total drilled depth of 3,011.81 ft (1,530 m). Core, fall 2023: HQ, diamond tip, 5 ft (1.52 m) runs, unoriented. Total drilled depth of 2,816.60 ft (858.5 m).
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	A continuous rotary sample splitter was used to collect the RC samples at 1.5m intervals. All drill core was visually logged, measured, and photographed by ARR geologists. Drill core was collected in lengths (runs) of 5 ft (1.52 m). Recoveries were calculated for each core run. Each rock sample was described, photographed with its location determined using handheld GPS.
	Measures are taken to maximise sample recovery and ensure the representative nature of the samples.	Reverse circulation rock chip samples were collected at 1.5-meter continuous intervals via rotary splitter. For each interval chip samples were placed in labelled sample bags weighing between 1-2kg. A 0.5-1kg sample was collected for reserve analysis and logging. Chip samples were also placed into chip trays with 20 slots for logging and XRF analysis. All core and associated samples were immediately placed in core boxes.
	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.	Recoveries were very high in competent rock. No loss or gain of grade or grade bias related to recovery

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.*	All RC samples were visually logged by ARR geologists from chip trays using 10x binocular microscopes. Samples at 25m intervals were photos and analysed using an Olympus Vanta handheld XRF analyser in triplicate. Lanthanum, Cerium, Neodymium, and Praseodymium were analysed via XRF. All drill core was visually logged, measured, and photographed by ARR geologists. Drill core was collected in lengths (runs) of 5 feet (1.52m). ARR geologists calculated recoveries for each core run. ARR geologists logged lithology, various types of alteration and mineralisation, fractures, fracture conditions, and RQD.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	RC samples and logging is quantitative in nature. Chip samples are stored in secure sample trays. Chip samples were photographed and 25m intervals. Core logging is quantitative in nature. All core was photographed.
	The total length and percentage of the relevant intersections logged.	All RC samples were visually logged by ARR geologists for each 1.5-meter continuous sample. All drill core was visually logged, measured, and photographed by ARR geologists. Drill core was collected in lengths (runs) of 5 feet (1.52m). ARR geologists calculated recoveries for each core run. ARR geologists logged lithology, various types of alteration and mineralisation, fractures, fracture conditions, and RQD.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	RC chip samples were not cut. Drill core was fillet cut by ALS Laboratories with approximately 1/2 of the core used for assay. The remaining core material will be kept in reserve by ALS until sent for future metallurgical testwork.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples varied between wet and dry. The course crystalline nature of the deposit minimizes adverse effects of wet samples. Samples were rotary split during drilling and sample collection. ALS labs dried wet samples using their DRY-21 drying process.

	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	RC samples were taken from pulverize splits of up to 250 g to better than 85 % passing minus 75 microns. All core samples were dry. Sample preparation: 1kg samples split to 250g for pulverising to -75 microns. Sample analysis: 0.5g charge assayed by ICP-MS technique. Both sampling methods are considered appropriate for the type of material collected and are considered industry standard.
	Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.	ARR submitted CRM sample blanks, CRM standard REE samples from CND Labs and duplicate samples for analysis. Each CRM blank, REE standard, and duplicate were rotated into both the RC and core sampling process every 20 samples.
	Measures are taken to ensure that the sampling is representative of the in situ material collected, including, for instance, results for field duplicate/second-half sampling.	RC samples were collected using a continuous feed rotary split sampler. Fillet cuts along the entire length of all core are representative of the in-situ material.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Allanite is generally well distributed across the core and the sample sizes are representative of the fine grain size of the Allanite.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	ALS uses a 5-acid digestion and 32 elements by lithium borate fusion and ICP-MS (ME-MS81). For quantitative results of all elements, including those encapsulated in resistive minerals. These assays include all rare earth elements. AAL Labs uses 5-acid digestion and 48 element analysis including REE reported in ppm using method REE-5AO48 and whole-rock geochemical XRF analysis using method X-LIB15.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument	Samples at 25m intervals were photographed and analysed using an Olympus Vanta handheld XRF analyser in triplicate. Lanthanum,

	make and model, reading times, calibrations factors applied and their derivation, etc.	Cerium, Neodymium, and Praseodymium were analysed. Simple average values of three XRF readings were calculated. Seven of the core holes received ATV/OTV logging as well as slim hole induction which recorded natural gamma and conductivity/resistivity. All geophysical logging was completed by Century Geophysical located in Gillette, WY. All tools were properly calibrated prior to logging.
	Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.	For the RC drilling, ARR submitted CRM sample blanks, CRM standard REE samples from CND Labs and duplicate samples for analysis. CRM and Blank samples were inserted alternately at 20 sample intervals. The same was done for the core drilling completed Fall 2023. ALS Laboratories will additionally incorporate their own Qa/Qc procedure. For core drilling completed Spring 2022, ARR submitted CRM sample blanks, CRM standard REE samples from CND Labs and duplicate samples for analysis. Blank samples were added one for every 10 core samples, REE samples were added one for every 25 core samples, and Duplicate samples were added one per every 25 core samples. Internal laboratory blanks and standards will additionally be inserted during analysis.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	RC chip samples have not yet been verified by independent personnel. Consulting company personnel have observed the assayed core samples. Company personnel sampled the entire length of each hole.
	The use of twinned holes.	No twinned holes were used.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data entry was performed by ARR personnel and checked by ARR geologists. All field logs were scanned and uploaded to company file servers. All photographs of the core were also uploaded to the file server daily. Drilling data will be imported into the DHDB drill hole database. All scanned documents are cross-referenced and directly available from the database.

		Assay data from the RC samples was imported into the database directly from electronic spreadsheets sent to ARR from ALS. Core assay data was received electronically from AAL labs. These raw data as elements reported ppm were imported into the database with no adjustments.
	Discuss any adjustment to assay data.	Assay data is stored in the database in elemental form. Reporting of oxide values are calculated in the database using the molar mass of the element and the oxide.
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.*	RC drill holes have been located using handheld GPS units. Final surveys of hole locations will be performed by professional surveyors. Drill hole location is based on GPS coordinates +/- 10 ft (3 m) accuracy.
	Specification of the grid system used.	The grid system used to compile data was NAD83 Zone 13N.
	Quality and adequacy of topographic control.	Topography control is +/- 10 ft (3 m).
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	The Fall 2023 program included drill hole spacing at approximately 100 m resolution. For previous programs, holes were both randomly spaced and localised clustering of drillholes.
	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.	Data from the Fall 2023 program will be at a high enough resolution to provide a measured resource at the Overton Mountain project area.
	Whether sample compositing has been applied.	Each sample is the result of assaying a 5 ft interval of core or 1.5 m RC interval.

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.*	Mineralization at Halleck Creek is a function of fractional crystallization of allanite in syenitic rocks of the Red Mountain Pluton. Mineralization is not structurally controlled and exploration drilling to date does not reveal any preferential mineralization related to geologic structures. Therefore, orientation of drilling does not bias sampling.
	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.	Orientation of drilling does not bias sampling.
Sample security	*The measures are taken to ensure sample security.*	All RC chip samples were collected from the drill rigs and stored in a secured, locked facility. Sample pallets were shipped weekly, by bonded carrier, directly to ALS labs in Twin Falls, ID. Chains of custody were maintained at all times. All core was collected from the drill rig daily and stored in a secure, locked facility until the core was dispatched by bonded courier to ALS Laboratories. Chains of custody were maintained at all times. All rock samples were in the direct control of company geologists until dispatched to American Assay Labs.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No external audits or reviews have been conducted to date. However, sampling techniques are consistent with industry standards.

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.*	ARR acquired 5 unpatented federal lode claims on BLM US Federal Land totalling 71.6 acres (29 has) from Zenith Minerals, Ltd (Zenith). in 2021. 67 unpatented federal lode claims were staked by ARR that totalled 1193.3 acres (482 ha) in summer 2021. ARR staked 182 unpatented federal lode claims in March 2022 covering an area of approximately 3,088 acres (1,250 ha). ARR staked 118 unpatented federal lode claims in November 2022 covering an area of approximately 2,113 acres (855 ha). As of December 31, 2022, ARR controlled 367 unpatented federal lode claims and 4 Wyoming State mineral licenses covering 8,165 acres (3,304 ha).
	The security of the tenure held at the time of reporting and any known impediments to obtaining a licence to operate in the area.	No impediments to holding the claims exist. To maintain the claims an annual holding fee of $165/claim is payable to the BLM. To maintain the State leases minimum rental payments of $1/acre for 1-5 years; $2/acre for 6-10 years; and $3/acre if held for 10 years or longer.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	Prior to sampling by WIM on behalf of Blackfire Minerals and Zenith there was no previous sampling by any other groups within the ARR claim and Wyoming State Lease blocks.
Geology	*Deposit type, geological setting and style of mineralisation.*	The REE's occur within Allanite which occurs as a variable constituent of the Red Mountain Pluton. The occurrence can be characterised as a disseminated type rare earth deposit.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:*	For the Fall 2023 program, FTE DRILLING USA INC. of Mount Uniacke, Nova Scotia used a Schraam T-450 track mounted rig to drill 15 reverse circulation drill holes. Drill hole depths for 37 holes was 102 m. FTE also utilized an enclosed Versa-Drilling diamond core rig to drill eight HQ-sized core holes.

		For the Fall 2022 program, FTE DRILLING USA INC. of Mount Uniacke, Nova Scotia used a Schraam T-450 track mounted rig to drill 37 reverse circulation drill holes. Drill hole depths for 37 holes was 150m and one hole at 175.5m Authentic Drilling from Kiowa, Colorado used both a track mounted and ATV mounted core rig to drill nine HQ diameter core holes. From March to April 2022, ARR drilled nine core holes across the Halleck Creek claim area. Drill holes ranged in depth from 194 to 352.5 ft with a total drilled length of 3,008 ft (917 m).
	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* *downhole length and interception depth* *Hole length.*	Drilling information from the Fall 2022 drilling campaign is presented in detail in the "Technical Report of Exploration and Maiden Resource Estimates of the Halleck Creek Rare Earths Project", March 2023. Drilling information from the Fall 2023 campaign was published in the report "Summary of 2023 Infill Drilling at the Halleck Creek Project Area", November 2023.
	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.	No Drilling data has been excluded.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	Average Grade values were cut at minimum of TREO 1,500 ppm.
	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.	Assays are representative of each 5 ft (1.52 m) sample interval.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used.

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 unknown and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	Allanite mineralization observed at Halleck Creek occurs uniformly throughout the CQM and BHS rocks of within the Red Mountain Pluton. Therefore, the geometry of mineralisation does not vary with drill hole orientation or angle within homogeneous rock types.
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.*	Location information is presented in detail in the "Technical Report of Exploration and Maiden Resource Estimates of the Halleck Creek Rare Earths Project", March 2023
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 practised to avoid misleading reporting of Exploration Results.*	The latest exploration results reported in "Mapping and Surface Sampling Summary at the Halleck Creek Project Area: April 2022". All relevant information for this section can be found in Table 1 in the "Technical Report of Exploration and Maiden Resource Estimates of the Halleck Creek Rare Earths Project", March 2023, and in report " Summary of 2023 Infill Drilling at the Halleck Creek Project Area", November 2023.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported, including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	In hand specimen this rock is a red colored, hard and dense granite with areas of localised fracturing. The rock shows significant iron staining and deep weathering. Microscopic description: In hand specimen the samples represent light colored, fairly coarse-grained granitic rock composed of visible secondary iron oxide, amphibole, opaques, clear quartz and pink to white colored feldspar. All of the specimens show moderate to strong weathering and fracturing. Allanite content is variable from trace to 2%. Rare Earths are found within the Allanite. Historical metallurgical testing consisted of concentrating the Allanite by both gravity and magnetic separation. The current program employs sequential high gradient magnetic separation and flotation

		to produce a concentrate suitable for downstream rare earth elements extraction.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further drilling is planned to increase the area of the project, and to increase confidence levels of resources. Geological mapping and surface sampling will also be performed to define and prioritize drilling targets.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Additional drilling is planned in new exploration areas and to increase resource confidence levels.

Section 3 Estimation and Reporting of Mineral Resources

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

Criteria	***JORC Code explanation***	**Commentary**
Database integrity	*Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* *Data validation procedures used.*	Drill hole data header, lithologic data checked by field geologists and by visual examination on maps and drill hole striplogs. Assay and Qa/Qc data were imported into the database directly from electronic spreadsheets provide by laboratories. Histograms graphical logs were also prepared and reviewed by ARR geologists.
Site visits	*Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* *If no site visits have been undertaken indicate why this is the case.*	Mr. Dwight Kinnes visited the Halleck Creek site during the RC and core drilling projects. Mr. Jim Guilinger has not visited the site during the RC and core drilling projects. ARR will facilitate a site visit during the 2023 calendar year. Mr. Alf Gliman has not visited the site during the RC and core drilling projects. Mr. Gillman resides in Perth, Western Australia. Site visits to the project have so far been logistically difficult and very expensive.
Geological interpretation	*Confidence in (or conversely, the uncertainty of) the geological*	The Halleck Creek RE deposit is contained with rocks of the Red Mountain Pluton. These rocks consist primarily of clinopyroxene quartz monzonite (CQM), and biotite hornblende syenite (BHS). These two lithologies are

	interpretation of the mineral deposit. *Nature of the data used and of any assumptions made.* *The effect, if any, of alternative interpretations on Mineral Resource estimation.* *The use of geology in guiding and controlling Mineral Resource estimation.* *The factors affecting continuity both of grade and geology.*	difficult to visually distinguish. However, the concentration of rare earth elements is observable between lithologies. Rocks of the Elmers Rock Greenstone Belt (ERGB) and the Sybille (Syb) intrusion are easily distinguishable from rocks of the RMP. These rock units are essentially barren of rare earth elements. Therefore, the confidence in discerning rocks of the RMP from is high. The extent of the RMP relative to other units was outlined into modelling domains used for resource estimates. The distribution of allanite throughout CQM and BHS rocks of the RMP is generally uniform and is not structurally controlled. Potassic alternation observed does not appear to affect the grade of allanite throughout the deposit.
Dimensions	*The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Halleck Creek REE project currently contains two primary resource areas: the Red Mountain area and the Overton Mountain area. Resources also extend into the Bluegrass resource area. The Red Mountain resource area is bounded to the west by the ERGB, and to the south by the Syb. Further exploration is needed to determine the extent to the north and two the east. RC samples with TREO grades exceeding 1,500 ppm occurred at the base of 37 drill holes in the Red Mountain resource area extending down to depths of 150m with one hole extending to a depth of 175.5m. Therefore, ARR considers the Red Mountain resource area to be open at depth. The Overton Mountain resource area is bounded to the west by mineral claims, and therefore, remains open to the west. Lower grade BHS rocks occur at the northern end of Overton Mountain. Drilling data to the east and south indicate that the Overton Mountain resource area remains open across Bluegrass Creek. Like the Red Mountain drilling, RC samples at Overton Mountain contained TREO assay values exceeding 3,500 ppm to depths of 150m in 18 holes. One, 302m diamond core hole additionally exhibited grades exceeding 2,000 ppm to the bottom of the hole. Therefore, ARR considers the Overton Mountain resource area to be open at depth.
Estimation and modelling techniques	*The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values,*	Odessa Resources updated block models for Overton Mountain and Red Mountain using the Leapfrog geological modelling software.

domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.

The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.

The assumptions made regarding recovery of by-products.

Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).

In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.

Any assumptions behind modelling of selective mining units.

Any assumptions about correlation between variables.

Description of how the geological interpretation was used to control the resource estimates.

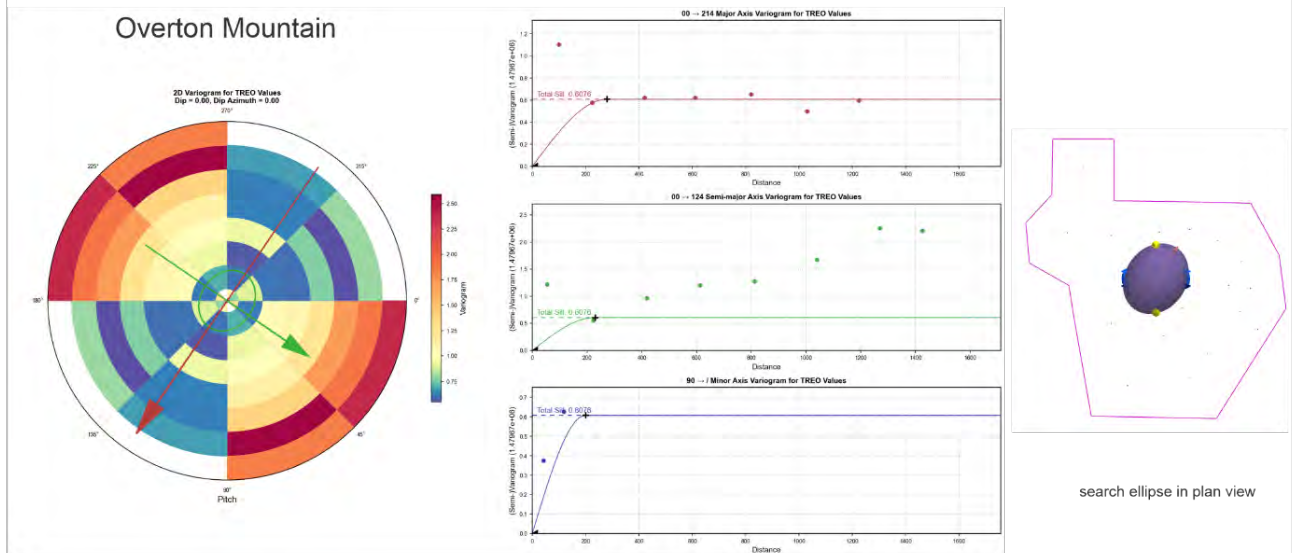
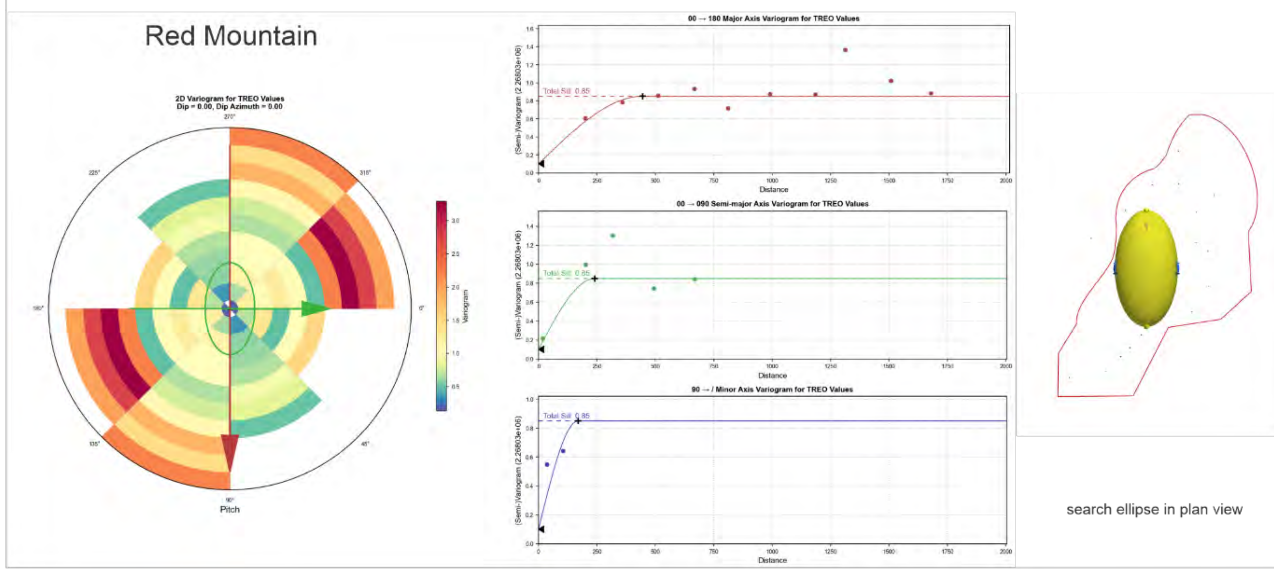
Block Model Parameters

Block Model Parameter	Value
Parent Block Size	20m
Sub-block count (i, j, k)	4, 4, 4
Minimum block size (i, j, k)	5m ,5m, 5m
Base point (x, y, z)	473900.00, 4631300.00, 2000.00
Boundary size (W x L x H)	2400.00, 5400.00, 600.00
Azimuth	0
Dip	0
Pitch	0
Size in Blocks	120x270x30=972,000

The block model contains attributes pertaining to resource block, resource category, grade class, geologic domain, and numerical attributes for TREO, rare earth oxides of all rare earth elements.

Geological domains focused on higher grade CQM and BHS lithologies which provided control of resource block boundaries along with variography.

General	Direction			Structure 1					
Variogram Name	Dip	Dip Azimuth	Pitch	Normalized Nugget	Normalized sill	Structure	Major	Semi-major	Minor
OM	0	0	124	0	0.6	Spherical	280	230	200
RM	0	0	90	0.1	0.8	Spherical	445	240	170

	Discussion of basis for using or not using grade cutting or capping. *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	 
Moisture	*Whether the tonnages are estimated on a dry basis or with natural moisture, and the method*	Tonnages are based on in-situ, dry basis.

	of determination of the moisture content.	
Cut-off parameters	*The basis of the adopted cut-off grade(s) or quality parameters applied.*	A cut-off grade of 1,000 ppm TREO was applied to reported resource estimates based on preliminary net smelter calculations performed by Stantec.
Mining factors or assumptions	*Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	No mine plan or design has been prepared at this stage however the shallow nature of the deposit assumes extraction by open pit mining methods.
Metallurgical factors or assumptions	*The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made*	Preliminary metallurgical testwork shows that use of dense media separation and WHIMS can potentially reject up to 93% of waste and upgrade grade by about 12 times. Additional testwork is being planned to test these processes on larger volumes of core. Direct sulphuric acid leaching shows that more than 90% of REE can be extracted from allanite. Additional testwork is being planned to test these processes on larger volumes of core.

	when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.	
Environmental factors or assumptions	*Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	ARR is in the process of outlining environmental, social, and community impacts regarding the potential development of the project. These impacts are being included in conceptual designs of all facets of the project.
Bulk density	*Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements,*	An average specific gravity of 2.70 represents the in-place ore material at Halleck Creek based on hydrostatic testing.

	the nature, size and representativeness of the samples. *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	
Classification	*The basis for the classification of the Mineral Resources into varying confidence categories.* *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The classification at Halleck Creek is based on the following key attributes: **Geological continuity between drill holes** • Mineralization is controlled by batholith-scale fractionation. Hence, both empirical observations and statistical analysis confirm a very high degree of continuity with the respective rock masses at Overton Mountain and Red Mountain. • This is supported by variography. **Drill spacing and drill density** • The drill pattern is mostly irregular with drill spacing of approximately 200m. • At Overton Mountain an area has been infilled on a systematic grid spacing of approximately 90m. This spacing is considered to be adequate to support a measured classification. The CP considers the above classification strategy and methodology to be appropriate and reasonable for this style of mineralisation.
Audits or reviews	*The results of any audits or reviews of Mineral Resource estimates.*	There have not been any audits of mineral resource estimates.

Discussion of relative accuracy/ confidence	*Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Reported resources for Halleck Creek are in-place global estimates of tonnage and rare earth grade. The basis of classification of mineral resources was based on geostatistical analysis of variograms of rare earth elements. The resource is classified as either measured, indicated or inferred. Subject to the application of 'modifying factors' the measured plus indicated component of the resource may allow for a formal evaluation of its economics with the potential to be converted to a Probable Ore Reserve. Therefore, a high degree of conservatism has been adopted as the underlying premise of the resource classification and, in particular, the indicated component.

Appendix B – Drill Hole Lithology Summary: Fall 2023 Drilling Program

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM026	475,303.92	4,635,160.13	1,748.17	80.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)																					
From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	8.50	8.50	Qal				OV														
2.29	8.50	6.21	RMP				CQM														
8.50	9.05	0.55	RMP				CQM														
9.05	15.70	6.65	RMP			PKGY	CQM			FSP	60	HB	30	QZ	10						
15.70	15.78	0.08	RMP			PK	IN			FSP	85	QZ	10	HB	5			PY			
15.78	16.10	0.32	RMP			PKGY	CQM			FSP	65	HB	20	QZ	15						
16.10	18.20	2.10	RMP			BNBK	CQM	MF		FSP	55	HB	40	QZ	5						
18.20	38.86	20.66	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
38.86	39.64	0.78	RMP			BNBK	CQM	MF		FSP	60	HB	40	QZ	5						
39.64	51.52	11.88	RMP			PKGY	CQM	VN		FSP	65	HB	30	QZ	5			CHL	CAL	CAL	
51.52	53.24	1.72	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						
53.24	55.05	1.81	RMP			PKGY	CQM	VN		FSP	65	HB	30	QZ	5			CHL			
55.05	60.93	5.88	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						
60.93	64.79	3.86	RMP			PKGY	CQM	VN		FSP	60	HB	30	QZ	10			CHL	CAL	CAL	
64.79	66.14	1.35	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						
66.14	67.26	1.12	RMP			PKGY	CQM	VN		FSP	65	HB	30	QZ	5			CHL			
67.26	68.00	0.74	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						
68.00	69.20	1.20	RMP			PKGY	CQM	VN		FSP	65	HB	30	QZ	5			CHL			
69.20	80.00	10.80	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM027	*475,493.66*	*4,635,173.59*	*1,735.72*	*80.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	8.00	8.00	Qal				OV														
1.22	8.00	6.78	RMP				CQM														
8.00	11.44	3.44	RMP			GYBN	CQM	OX		FSP	60	HB	35	QZ	5			CHL			
11.44	12.40	0.96	RMP			PKBN	CQM	AL		FSP	60	HB	35	QZ	5						
12.40	13.74	1.34	RMP			GYBN	CQM	OX		FSP	55	HB	35	QZ	10			CHL			
13.74	19.80	6.06	RMP			PKBN	CQM	AL		FSP	60	HB	35	QZ	5						
19.80	21.00	1.20	RMP			PKBN	CQM	FA		FSP	60	HB	35	QZ	5						
21.00	32.33	11.33	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5			CHL			
32.33	32.50	0.17	RMP			PKGY	CQM	MF		FSP	55	HB	40	QZ	5						
32.50	45.02	12.52	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
45.02	49.10	4.08	RMP			GY	CQM			FSP	60	HB	30	QZ	5						
49.10	55.73	6.63	RMP			PKGY	CQM	AL		FSP	60	HB	33	QZ	7			CHL			
55.73	55.83	0.10	RMP			PKGY	CQM	MF		FSP	55	HB	40	QZ	5						
55.83	56.21	0.38	RMP			PKGY	PG			FSP	60	QZ	38	MF	2						
56.21	59.14	2.93	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
59.14	59.21	0.07	RMP			PKGY	PG			FSP	60	QZ	38	MF	2						
59.21	65.24	6.03	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
65.24	76.29	11.05	RMP			GY	CQM			FSP	60	HB	35	QZ	5						
76.29	76.60	0.31	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
76.60	77.19	0.59	RMP			PK	PG	AL		FSP	60	QZ	40								
77.19	80.00	2.81	RMP			GY	CQM	AL		FSP	60	HB	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM028	475,476.43	4,635,315.94	1,736.14	302.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	5.00	5.00	Qal				OV														
5.00	30.35	25.35	RMP			PKGY	CQM	AL		FSP	60	HB	30	QZ	10						
30.35	30.81	0.46	RMP			BNOR	BR	AL		FSP	65	QZ	30	HB	5						
30.81	32.00	1.19	RMP			PKGY	CQM	AL		FSP	65	QZ	30	HB	5						
32.00	33.35	1.35	RMP			PKGY	FG			FSP	65	HB	30	QZ	5						
33.35	47.75	14.40	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
47.75	48.47	0.72	DI			PK	PG			FSP	80	FSP	20								
48.47	48.50	0.03	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
48.50	48.55	0.05	RMP			PKGY	PG			FSP	80	QZ	20								
48.55	59.37	10.82	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
59.37	59.50	0.13	RMP			PK	PG			FSP	80	QZ	20								
59.50	62.38	2.88	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
62.38	62.48	0.10	RMP			PKGY	PG			QZ	60	FSP	40								
62.48	73.00	10.52	RMP			PKGY	CQM	AL		FSP	60	HB	30	QZ	5						
73.00	104.00	31.00	RMP			GY	CQM	AL		FSP	65	HB	30	QZ	5						
104.00	104.50	0.50	RMP				NO														
104.50	129.25	24.75	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
129.25	129.35	0.10	DI			PK	PG			FSP	75	QZ	20	HB	5						
129.35	146.15	16.80	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
146.15	146.40	0.25	RMP			BK	CQM	MF		FSP	70	HB	25	QZ	5						
146.40	147.25	0.85	RMP			PKGY	CQM	AL		FSP	65	HB	25	QZ	5						
147.25	147.37	0.12	RMP			BK	CQM	MF		FSP	70	HB	25	QZ	5						
147.37	174.28	26.91	RMP			PKGY	CQM	AL		FSP	70	HB	25	QZ	5						
174.28	174.57	0.29	DI			GY	GR	AL		FSP	45	QZ	40	HB	15						
174.57	181.00	6.43	RMP			GY	CQM	AL		FSP	70	HB	25	QZ	5						
181.00	181.05	0.05	DI			GY	GR	AL		FSP	50	QZ	40	HB	10						
181.05	185.82	4.77	RMP			PKGY	CQM	AL		FSP	70	HB	25	QZ	5						
185.82	185.92	0.10	DI			GY	GR	AL		FSP	60	QZ	25	HB	15						
185.92	191.15	5.23	RMP			PKGY	CQM	AL		FSP	70	HB	25	QZ	5						
191.15	191.25	0.10	DI			GY	GR	AL		FSP	50	QZ	35	HB	15						
191.25	209.00	17.75	RMP			PKGY	CQM	AL		FSP	70	HB	25	QZ	5						
209.00	210.00	1.00	DI			PKBN	GR	AL		FSP	60	QZ	20	HB	10						
210.00	211.65	1.65	RMP			PKBN	CQM	AL		FSP	75	HB	20	QZ	5						
211.65	212.00	0.35	DI				NO														
212.00	219.90	7.90	DI			GY	GR	AL		FSP	50	QZ	35	HB	15						
219.90	239.00	19.10	RMP			GY	CQM	AL		FSP	70	HB	30								
239.00	239.50	0.50	RMP			BK	CQM	MF		FSP	65	HB	30	QZ	5						
239.50	257.50	18.00	RMP			GY	CQM	AL		FSP	60	HB	30	QZ	10						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM028	475,476.43	4,635,315.94	1,736.14	302.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)																							
From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
257.50	258.70	1.20	RMP			BK	CQM	MF		FSP	70	HB	25	QZ	5						
258.70	265.00	6.30	RMP			GY	CQM	AL		FSP	65	HB	30	QZ	5						
265.00	266.25	1.25	RMP			BK	CQM	MF		FSP	75	HB	20	QZ	5						
266.25	275.33	9.08	RMP			GY	CQM	AL		FSP	65	HB	30	QZ	5						
275.33	275.40	0.07	RMP			GY	PG			QZ	60	FSP	30	hb	10						
275.40	281.00	5.60	RMP			GY	CQM	AL		FSP	60	HB	35	QZ	5						
281.00	302.00	21.00	RMP			GY	CQM			FSP	60	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM029	*475,355.55*	*4,635,081.26*	*1,740.00*	*102.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	12.00	12.00	Qal				OV														
3.00	12.00	9.00	RMP				OV														
12.00	61.50	49.50	RMP			PKBN	CQM	AL		FSP	75	QZ	5	HB	20						
61.50	102.00	40.50	RMP			PKGY	CQM			FSP	60	QZ	5	HB	35						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM030	*475,802.81*	*4,635,045.38*	*1,724.52*	*80.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)																					
From	**To**	**Thick**	**Unit ID**	**Grn Siz**	**Texture**	**Color**	**Lith Type**	**Lith Mod**	**Phn Txt**	**Phn 1**	**Phn1 %**	**Phn 2**	**Phn2 %**	**Phn 3**	**Phn3 %**	**Gmass Sz**	**GM Txt**	**GMass 1**	**Gmass1 %**	**GMass 2**	**Gmass2 %**
0.00	2.50	2.50	Qal				OV														
2.50	19.55	17.05	RMP			PKBN	CQM	AL		FSP	60	HB	35	QZ	5						
19.55	20.00	0.45	RMP				NO														
20.00	21.10	1.10	RMP			GY	FG														
21.10	25.40	4.30	RMP			PKGY	CQM			FSP	50	HB	45	QZ	5						
25.40	34.67	9.27	RMP			PKBK	CQM	AL		FSP	45	HB	50	QZ	5						
34.67	35.12	0.45	DI			PK	PG	AL		FSP	65	QZ	30	CHL	5						
35.12	47.30	12.18	RMP			PKBK	CQM	AL		FSP	50	HB	45	QZ	5						
47.30	49.72	2.42	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
49.72	57.55	7.83	RMP			PKBK	CQM	AL		FSP	55	HB	40	QZ	5						
57.55	58.34	0.79	DI			ORBN	FG														
58.34	62.47	4.13	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5			CHL	CAL	CAL	1
62.47	62.73	0.26	RMP			ORBN	FG	AL													
62.73	64.30	1.57	RMP			PKBK	CQM	AL		FSP	60	HB	35	QZ	5			CHL	CAL	CAL	1
64.30	64.39	0.09	DI			PKBK	GR			FSP	50	QZ	40	HB	10						
64.39	65.52	1.13	RMP			PKGY	CQM	AL		FSP	60	HB	33	QZ	7						
65.52	67.50	1.98	RMP			PKGY	CQM			FSP	60	HB	33	QZ	7			CHL	CAL	CAL	1
67.50	68.19	0.69	RMP			PKBK	CQM	AL		FSP	60	HB	35	QZ	5						
68.19	69.61	1.42	RMP			GY	CQM			FSP	60	HB	35	QZ	5						
69.61	69.80	0.19	RMP			PKBK	CQM	MF		FSP	55	HB	40	QZ	5						
69.80	75.95	6.15	RMP			PKBK	CQM	AL		FSP	60	HB	35	QZ	5						
75.95	76.37	0.42	RMP			BN	FG														
76.37	80.00	3.63	RMP			PKBK	CQM	AL		FSP	65	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM031	475,445.43	4,635,088.63	1,735.64	102.00	T22N	R71W	24	180.00	-65.00

Adjusted Depths (m)																						
From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	QAL				OV														
3.00	42.00	39.00	RMP			ORPK	CQM	AL		FSP	60	HB	30	QZ	10						
25.50	42.00	16.50	RMP				CQM														
42.00	81.00	39.00	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						
81.00	100.50	19.50	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
100.50	102.00	1.50	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM032	*475,690.08*	*4,635,126.55*	*1,727.61*	*76.50*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	Qal				OV														
3.00	3.29	0.29	RMP			GY	FG														
3.29	4.45	1.16	RMP			PKBK	CQM	AL		FSP	50	HB	45	QZ	5						
4.45	4.71	0.26	DI			PKGY	GR			FSP	40	MF	15	QZ	35						
4.71	13.12	8.41	RMP			PKBK	CQM	AL		FSP	50	HB	45	QZ	5						
13.12	18.82	5.70	RMP			PKBK	CQM	AL		FSP	43	HB	50	QZ	7						
18.82	19.14	0.32	RMP			PK	CQM	AL		FSP	75	HB	10	QZ	15						
19.14	27.50	8.36	RMP			PKBK	CQM	AL		FSP	65	HB	25	QZ	10						
27.50	42.60	15.10	RMP			PKBK	CQM	AL		FSP	65	HB	30	QZ	5						
42.60	44.00	1.40	RMP				NO														
44.00	45.24	1.24	RMP			PKBK	CQM	AL		FSP	65	HB	30	QZ	5						
45.24	47.00	1.76	RMP				NO														
47.00	47.63	0.63	RMP			PKBK	CQM	AL		FSP	65	HB	30	QZ	5						
47.63	49.04	1.41	RMP			PKGY	CQM			FSP	65	HB	30	QZ	5						
49.04	49.16	0.12	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
49.16	54.41	5.25	RMP			PKGY	CQM			FSP	65	HB	35	QZ	5						
54.41	55.00	0.59	DI			BK	IF			FSP	35	HB	20	QZ	30			BT			
55.00	58.90	3.90	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
58.90	59.66	0.76	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5			CHL			
59.66	61.38	1.72	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
61.38	64.75	3.37	RMP			PKOR	CQM	AL		FSP	55	HB	35	QZ	10						
64.75	65.00	0.25	DI			PKGY	GR			FSP	45	QZ	40	BT	15						
65.00	66.85	1.85	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
66.85	67.30	0.45	RMP			GY	CQM			FSP	60	HB	35	QZ	5						
67.30	68.67	1.37	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5			CAL	CHL	CHL	2
68.67	70.00	1.33	RMP			GY	CQM			FSP	62	HB	35	QZ	5			CAL	CHL	CHL	1
70.00	71.50	1.50	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
71.50	72.35	0.85	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
72.35	76.50	4.15	RMP			PKOR	CQM	AL		FSP	60	hb	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM033	475,393.26	4,635,168.15	1,742.50	102.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	QAL				OV														
3.00	21.00	18.00	RMP			PKOR	CQM	AL		FSP	65	HB	30	QZ	5						
21.00	22.50	1.50	RMP				FG	AL													
22.50	27.00	4.50	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
27.00	49.50	22.50	RMP			PKGY	CQM			FSP	55	HB	40	QZ	5						
49.50	52.50	3.00	RMP			PKOR	CQM	AL		FSP	65	HB	30	QZ	5						
52.50	88.50	36.00	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
88.50	93.00	4.50	RMP			PKOR	CQM	AL		FSP	65	HB	30	QZ	5						
93.00	102.00	9.00	RMP			PKGY	CQM			FSP	60	HB	33	QZ	7						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM034	*475,624.71*	*4,635,368.70*	*1,731.95*	*80.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	Qal				OV														
3.00	13.80	10.80	RMP			PKOR	CQM	AL		FSP	60	HB	33	QZ	7						
13.80	14.00	0.20	DI			WHPK	PG			FSP	45	QZ	45	BT	10						
14.00	15.10	1.10	RMP				NO														
15.10	16.45	1.35	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
16.45	20.00	3.55	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5			CHL			
20.00	31.29	11.29	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5			CHL			
31.29	33.80	2.51	RMP			PKOR	CQM	JT		FSP	60	HB	30	QZ	10			CHL			
33.80	36.20	2.40	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
36.20	38.00	1.80	RMP			PKGY	CQM	JT		FSP	60	HB	35	QZ	5			CHL			
38.00	58.10	20.10	RMP			PKGY	CQM			FSP	60	HB	30	QZ	10			CHL	CAL	CAL	1
58.10	59.50	1.40	RMP			ORBN	CQM	AL		FSP	55	HB	40	QZ	5			CHL			
59.50	60.70	1.20	RMP				FG														
60.70	61.66	0.96	RMP			PKBK	CQM	AL		FSP	50	HB	45	QZ	5						
61.66	61.76	0.10	RMP				FG														
61.76	64.61	2.85	RMP			PKBK	CQM	AL		FSP	60	HB	35	QZ	5						
64.61	68.30	3.69	RMP			GY	CQM			FSP	65	HB	35	QZ	5						
68.30	70.90	2.60	RMP			GRBN	CQM	AL		FSP	65	HB	35	QZ	5						
70.90	72.56	1.66	RMP			PKBK	CQM			FSP	58	HB	35	QZ	7			CHL			
72.56	73.60	1.04	RMP			ORPK	CQM	AL		FSP	60	HB	30	QZ	5						
73.60	76.56	2.96	RMP			GY	CQM			FSP	65	HB	30	QZ	5						
76.56	77.08	0.52	RMP			ORBN	CQM	AL		FSP	60	HB	35	QZ	5						
77.08	79.10	2.02	RMP			GY	CQM			FSP	60	HB	35	QZ	5						
79.10	80.00	0.90	RMP			ORBN	CQM	AL		FSP	65	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	*Easting*	*Northing*	*Collar*	*Total Depth*	*Township*	*Range*	*Section*	*Azimuth*	*Inclin*
HC23-OM035	*475,562.59*	*4,635,116.15*	*1,732.63*	*102.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	4.50	4.50	RMP			ORBN	CQM	AL		FSP	75	HB	20	QZ	8						
4.50	7.50	3.00	RMP			PKGY	CQM	AA		FSP	65	HB	30	QZ	5						
7.50	28.50	21.00	RMP			ORGY	CQM	AL		FSP	70	HB	27	QZ	3						
28.50	31.50	3.00	RMP			GY	CQM			FSP	65	HB	25	QZ	5						
31.50	34.50	3.00	RMP			ORGY	CQM	AL		FSP	60	HB	35	QZ	5						
34.50	39.00	4.50	RMP			GY	CQM			FSP	55	HB	40	QZ	5						
39.00	42.00	3.00	RMP			ORGY	CQM	AL		FSP	50	HB	45	QZ	5						
42.00	45.00	3.00	RMP			GY	CQM			FSP	65	HB	30	QZ	5						
45.00	48.00	3.00	RMP			ORGY	CQM	AL		FSP	60	HB	35	QZ	5						
48.00	55.50	7.50	RMP			ORGY	CQM	AL		FSP	62	HB	30	QZ	8						
55.50	58.50	3.00	RMP			GY	CQM			FSP	60	HB	37	QZ	3						
58.50	63.00	4.50	RMP			ORGY	CQM	AL		FSP	55	HB	40	QZ	5						
63.00	64.50	1.50	RMP			GRBK	CQM	MF		FSP	45	HB	55	QZ	5						
64.50	78.00	13.50	RMP			ORGY	CQM	AL		FSP	50	HB	42	QZ	8						
78.00	81.00	3.00	RMP			GRBK	CQM	MF		FSP	45	MF	55	QZ	5						
81.00	94.50	13.50	RMP			ORGY	CQM	AL		FSP	60	HB	35	QZ	5						
94.50	100.50	6.00	RMP			PKGY	CQM	AL		FSP	50	HB	45	QZ	5						
100.50	102.00	1.50	RMP			ORGY	CQM	AL		FSP	60	HB	33	QZ	7						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM036	475,442.81	4,635,249.93	1,739.01	102.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	1.50	1.50	QAL				OV														
1.50	37.50	36.00	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
37.50	46.50	9.00	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
46.50	79.50	33.00	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
79.50	81.00	1.50	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
81.00	90.00	9.00	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
90.00	102.00	12.00	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM037	*475,570.90*	*4,635,490.21*	*1,739.68*	*80.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	Qal				OV														
3.00	9.15	6.15	RMP			PKOR	CQM	AL		FSP	60	HB	33	QZ	7						
9.15	11.00	1.85	RMP				NO														
11.00	40.62	29.62	RMP			PKOR	CQM	AL		FSP	60	HB	33	QZ	7						
40.62	40.67	0.05	DI			PKGY	PG			FSP	70	BT	10	QZ	20						
40.67	43.19	2.52	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
43.19	47.82	4.63	RMP			PKGY	CQM			FSP	60	HB	33	QZ	7						
47.82	47.90	0.08	DI			PKGY	PG			FSP	50	HB	5	QZ	40			BT			
47.90	48.86	0.96	RMP			PKGY	CQM			FSP	60	HB	30	QZ	10						
48.86	66.94	18.08	RMP			PKBK	CQM	AL		FSP	60	HB	35	QZ	5						
66.94	67.09	0.15	RMP			GY	CQM	MF		FSP	27	HB	65	QZ	3			BT			
67.09	68.30	1.21	RMP			PKBK	CQM	AL		FSP	60	HB	35	QZ	5						
68.30	68.36	0.06	DI			GY	PG			FSP	55	QZ	45								
68.36	69.11	0.75	RMP			PKGY	CQM	AL		FSP	30	HB	65	QZ	5						
69.11	69.41	0.30	RMP			GY	CQM	MF		FSP	28	HB	65	QZ	2			BT			
69.41	75.82	6.41	RMP			PKBK	CQM	AL		FSP	60	HB	35	QZ	5						
75.82	76.91	1.09	RMP			GY	CQM			FSP	60	HB	30	QZ	10						
76.91	76.95	0.04	RMP			GYGR	CQM	MF		FSP	34	HB	60	QZ	1			CHL			
76.95	78.92	1.97	RMP			GY	CQM	AL		FSP	60	HB	30	QZ	10						
78.92	80.00	1.08	RMP			GY	CQM	AL		FSP	65	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM038	475,369.93	4,635,325.68	1,739.65	102.00	T22N	R71W	24	270.00	-65.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	4.50	4.50	QAL			BNTN	OV														
3.00	4.50	1.50	RMP				OV														
4.50	19.50	15.00	RMP			PKBN	CQM	AL		FSP	65	HB	30	QZ	5						
19.50	34.50	15.00	RMP			GYGR	CQM			FSP	65	HB	30	QZ	5						
34.50	58.50	24.00	RMP			PKBN	CQM	AL		FSP	65	HB	30	QZ	5						
58.50	102.00	43.50	RMP			GYGR	CQM			FSP	65	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM039	475,365.10	4,635,449.80	1,740.18	80.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	5.50	5.50	Qal				OV														
5.50	25.95	20.45	RMP			PKGY	CQM	AL		FSP	65	HB	30	QZ	5						
25.95	26.10	0.15	DI			PK	PG			FSP	50	QZ	45	HB	5						
26.10	46.45	20.35	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						
46.45	46.53	0.08	DI			PKBN	PG			FSP	50	QZ	45	HB	5						
46.53	78.60	32.07	RMP			GY	CQM	AL	cp	FSP	55	HB	40	QZ	5						
78.60	78.71	0.11	RMP			BK	CQM	MF		FSP	59	HB	50								
78.71	80.00	1.29	RMP			GY	CQM			FSP	65	HB	30	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM040	475,617.24	4,635,196.31	1,731.63	102.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	1.50	1.50	QAL				OV	AA													
1.50	18.00	16.50	RMP			BNTN	CQM	AL		FSP	65	HB	30	QZ	5						
18.00	33.00	15.00	RMP			GYGR	CQM			FSP	60	HB	35	QZ	5						
33.00	79.50	46.50	RMP			GYGR	CQM	AL		FSP	60	HB	35	QZ	5						
79.50	85.50	6.00	RMP			TN	FG														
85.50	102.00	16.50	RMP			PKGY	CQM	AL		FSP	65	HB	25	QZ	10						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM041	475,630.42	4,635,285.11	1,734.32	102.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	QAL				OV														
3.00	102.00	99.00	RMP			GYBN	CQM	AL		FSP	70	HB	25	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM042	475,703.43	4,635,356.82	1,731.09	102.00	T22N	R71W	24	70.00	-65.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	Qal			BNTN	OV														
1.50	3.00	1.50	RMP				OV														
3.00	10.50	7.50	RMP			BNTN	CQM	AL		FSP	60	HB	30	QZ	10						
10.50	28.50	18.00	RMP			GY	CQM			FSP	65	HB	25	QZ	5						
28.50	30.00	1.50	RMP			BNTN	CQM	AL		FSP	65	HB	25	QZ	5						
30.00	96.00	66.00	RMP			GY	CQM			FSP	65	HB	25	QZ	5						
96.00	102.00	6.00	RMP			BNTN	CQM	AL		FSP	65	HB	25	QZ	5						

Drill Hole Lithology Summary

Drill Hole	*Easting*	*Northing*	*Collar*	*Total Depth*	*Township*	*Range*	*Section*	*Azimuth*	*Inclin*
HC23-OM043	*475,531.06*	*4,635,374.94*	*1,733.98*	*102.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	7.50	7.50	QAL				OV														
7.50	43.50	36.00	RMP			PKOR	CQM	AL		FSP	60	HB	30	QZ	10						
43.50	64.50	21.00	RMP			PKGY	CQM	AL		FSP	60	HB	30	QZ	10						
64.50	72.00	7.50	RMP			BK	CQM		cp	HB	90										
72.00	73.50	1.50	RMP			ORBN	CQM	AL		HB	42	QZ	15	FSP	43						
73.50	84.00	10.50	RMP				CQM	AL		FSP	60	HB	35	QZ	5						
84.00	85.50	1.50	RMP			BK	CQM		cp	HB	90										
85.50	87.00	1.50	RMP			ORBN	CQM	AL		HB	42	QZ	15	FSP	43						
87.00	91.50	4.50	RMP			BK	CQM		cp	HB	90										
91.50	102.00	10.50	RMP			GYGR	CQM	AL		FSP	60	HB	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM044	475,447.99	4,635,400.30	1,736.46	102.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	4.50	4.50	Qal				OV														
1.50	4.50	3.00	RMP				OV														
4.50	51.00	46.50	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
51.00	60.00	9.00	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
60.00	91.50	31.50	RMP			BK	CQM		cp	HB	90							PY			
91.50	96.00	4.50	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
96.00	97.50	1.50	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
97.50	102.00	4.50	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM045	475,523.63	4,635,456.93	1,737.08	102.00	T22N	R71W	24	0.00	-90.00

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	1.50	1.50	QAL				OV														
1.50	49.50	48.00	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
49.50	99.00	49.50	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
99.00	102.00	3.00	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	*Easting*	*Northing*	*Collar*	*Total Depth*	*Township*	*Range*	*Section*	*Azimuth*	*Inclin*
HC23-OM046	*475,441.63*	*4,635,491.54*	*1,741.53*	*102.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	6.00	6.00	QAL				OV														
6.00	43.50	37.50	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
43.50	66.00	22.50	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
66.00	102.00	36.00	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	*Easting*	*Northing*	*Collar*	*Total Depth*	*Township*	*Range*	*Section*	*Azimuth*	*Inclin*
HC23-OM047	*475,364.51*	*4,635,568.71*	*1,745.38*	*102.00*	*T22N*	*R71W*	*24*	*0.00*	*-90.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	6.00	6.00	QAL				OV														
6.00	57.00	51.00	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
57.00	63.00	6.00	RMP			PKGY	CQM			FSP	60	HB	35	QZ	5						
63.00	88.50	25.50	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
88.50	102.00	13.50	RMP			PKGY	CQM	AL		FSP	60	HB	35	QZ	5						

Drill Hole Lithology Summary

Drill Hole	Easting	Northing	Collar	Total Depth	Township	Range	Section	Azimuth	Inclin
HC23-OM048	*475,284.26*	*4,635,504.06*	*1,745.37*	*102.00*	*T22N*	*R71W*	*24*	*270.00*	*-65.00*

Adjusted Depths (m)

From	To	Thick	Unit ID	Grn Siz	Texture	Color	Lith Type	Lith Mod	Phn Txt	Phn 1	Phn1 %	Phn 2	Phn2 %	Phn 3	Phn3 %	Gmass Sz	GM Txt	GMass 1	Gmass1 %	GMass 2	Gmass2 %
0.00	3.00	3.00	Qal				OV														
1.50	3.00	1.50	RMP				OV														
3.00	51.00	48.00	RMP			PKOR	CQM	AL		FSP	60	HB	35	QZ	5						
51.00	99.00	48.00	RMP			GYGR	CQM			FSP	60	HB	35	QZ	5						
99.00	102.00	3.00	RMP			ORGR	CQM	AL		FSP	60	HB	35	QZ	5						

Appendix C – Fall 2023 Drilling Program Assay Data

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM026	4,635,160.13	475,303.92	1,748.17	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
27.89	32.81	M033574	5111	4615	496	1385	1030	2273	259	912	141	249	11	95	12	61	11	26	4	23	4	10
32.81	37.73	M033575	4435	4010	425	1220	922	1929	228	807	124	217	11	80	10	51	9	22	3	19	3	8
37.73	42.65	M033576	4838	4358	480	1309	977	2144	240	865	132	240	12	91	12	60	10	25	3	23	4	9
42.65	47.57	M033577	4071	3662	409	1111	830	1781	200	737	114	204	11	78	10	50	9	22	3	19	3	7
47.57	51.51	M033578	4761	4295	466	1315	986	2064	240	872	133	231	11	92	11	59	10	24	3	22	3	9
51.51	51.77	M033579	306	240	66	78	58	111	13	49	9	37	1	7	1	6	1	4	1	7	1	6
51.77	52.49	M033580	5617	5036	581	1542	1148	2432	285	1014	157	293	12	111	14	72	12	31	4	28	4	9
52.49	52.82	M033581	5720	5180	540	1583	1196	2481	298	1044	161	269	11	108	14	66	12	28	4	24	4	10
52.82	59.71	M033582	9881	8979	902	2799	2017	4299	505	1884	274	448	12	183	23	113	20	48	6	42	7	13
59.71	62.34	M033583	4864	4396	468	1345	1020	2101	250	890	135	232	12	93	12	58	10	24	3	21	3	8
62.34	67.26	M033584	6128	5554	574	1728	1272	2641	321	1151	169	283	13	115	14	73	12	30	4	26	4	10
67.26	72.18	M033585	5693	5155	538	1563	1202	2469	296	1033	155	272	12	104	13	66	11	28	4	24	4	10
72.18	77.10	M033586	5238	4743	495	1435	1101	2279	274	946	143	250	12	95	12	60	10	26	3	23	4	9
77.10	82.02	M033587	5460	4939	521	1488	1126	2401	275	987	150	262	12	101	13	63	11	27	4	24	4	9
82.02	86.94	M033588	4077	3684	393	1103	868	1769	199	737	111	201	11	73	9	47	8	20	3	18	3	9
86.94	91.86	M033589	3952	3570	382	1082	847	1695	198	722	108	194	12	72	9	45	8	19	3	17	3	8
91.86	96.78	M033590	3968	3596	372	1069	843	1738	191	717	107	189	12	70	9	45	8	18	3	16	2	9
96.78	101.71	M033591	4687	4266	421	1282	1006	2039	248	848	125	212	12	81	10	51	9	21	3	19	3	9
101.71	106.63	M033592	4416	4007	409	1201	919	1947	228	795	118	204	13	78	10	50	9	21	3	18	3	8
106.63	111.55	M033594	4785	4355	430	1309	1014	2094	248	871	128	214	13	85	10	52	9	22	3	19	3	9
111.55	116.47	M033595	4958	4515	443	1349	1051	2180	256	895	133	219	13	88	11	54	9	23	3	20	3	9
116.47	121.39	M033596	4866	4418	448	1323	1036	2125	249	876	132	225	12	87	11	55	9	23	3	20	3	8
121.39	126.31	M033597	5158	4702	456	1401	1102	2266	266	933	135	227	12	90	11	56	9	24	3	21	3	9
126.31	127.49	M033598	9614	8828	786	2689	2017	4238	494	1831	248	394	14	159	19	97	17	40	5	35	6	12
127.49	130.05	M033599	8020	7326	694	2243	1695	3489	416	1516	210	351	13	137	17	84	15	36	5	31	5	12
130.05	131.23	M033600	5658	5125	533	1548	1173	2481	288	1031	152	272	12	100	13	64	11	28	4	25	4	12
131.23	136.15	M033601	5194	4718	476	1411	1099	2279	267	934	139	237	13	92	12	59	10	25	3	22	3	9
136.15	141.08	M033602	4575	4146	429	1237	968	2002	235	820	121	217	12	83	10	51	9	22	3	19	3	10
141.08	146.00	M033603	4454	4041	413	1209	945	1947	224	807	118	207	12	80	10	50	9	21	3	18	3	9
146.00	150.92	M033604	4175	3752	423	1134	878	1800	206	756	112	218	12	77	10	50	9	22	3	19	3	10
150.92	159.12	M033605	4845	4379	466	1311	1010	2125	246	869	129	237	14	87	11	56	10	24	3	21	3	10
159.12	164.04	M033606	4517	4081	436	1222	963	1959	228	811	120	222	12	82	10	53	9	22	3	20	3	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM026	4,635,160.13	475,303.92	1,748.17	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
164.04	169.03	M033607	4462	4056	406	1208	942	1965	227	804	118	206	12	77	10	49	8	20	3	18	3	10
169.03	172.24	M033608	4672	4263	409	1264	1000	2058	243	841	121	205	13	80	10	49	8	20	3	18	3	10
172.24	174.67	M033609	4599	4163	436	1206	984	2033	205	820	121	222	13	84	10	50	8	23	3	20	3	4
174.67	177.17	M033610	4579	4149	430	1196	955	2058	206	811	119	219	13	82	11	49	8	23	3	19	3	4
177.17	180.61	M033611	4640	4189	451	1220	962	2070	208	826	123	230	13	86	11	52	9	24	3	20	3	2
180.61	185.37	M033612	4637	4181	456	1207	968	2070	207	813	123	230	13	88	11	53	9	25	3	21	3	1
185.37	190.29	M033613	4910	4436	474	1284	1020	2199	220	868	129	243	14	89	12	55	9	25	3	21	3	#Error
190.29	195.21	M033615	4776	4331	445	1242	1026	2125	214	842	124	229	14	86	11	51	8	22	3	18	3	2
195.21	199.90	M033616	4896	4427	469	1271	1016	2205	216	860	130	237	14	93	12	53	9	24	3	21	3	#Error
199.90	205.05	M033617	4170	3743	427	1090	790	1922	190	728	113	222	12	80	10	49	8	22	3	18	3	#Error
205.05	209.97	M033618	4353	3905	448	1169	810	1990	201	787	117	222	14	90	11	53	9	23	3	20	3	#Error
209.97	212.57	M033619	3545	3197	348	952	666	1628	160	647	96	177	11	67	9	40	7	18	2	15	2	#Error
212.57	214.90	M033620	4373	3925	448	1180	823	1984	200	797	121	224	14	89	11	51	8	24	3	21	3	1
214.90	216.99	M033621	4568	4124	444	1199	855	2131	204	812	122	224	14	87	11	50	9	23	3	20	3	#Error
216.99	220.67	M033622	4127	3717	410	1115	788	1873	188	753	115	202	13	81	10	49	8	21	3	20	3	#Error
220.67	223.10	M033623	4899	4459	440	1247	1031	2242	213	847	126	226	13	83	11	50	8	23	3	20	3	7
223.10	227.03	M033624	5309	4792	517	1375	1132	2358	234	931	137	262	14	100	13	60	10	28	3	24	3	#Error
227.03	232.94	M033625	5006	4536	470	1295	1071	2236	222	881	126	239	14	90	11	55	9	24	3	22	3	3
232.94	237.86	M033626	4708	4258	450	1212	984	2125	208	820	121	228	14	86	11	52	9	24	3	20	3	2
237.86	242.78	M033627	4213	3788	425	1113	867	1867	188	755	111	216	13	81	10	49	8	22	3	20	3	1
242.78	247.70	M033628	4891	4431	460	1264	1013	2217	221	854	126	237	14	87	11	52	9	24	3	20	3	#Error
247.70	252.62	M033629	4401	3981	420	1167	863	2008	201	794	115	218	12	78	10	47	8	22	3	19	3	3
252.62	257.55	M033630	4676	4223	453	1215	970	2101	212	819	121	232	14	86	11	52	9	24	3	19	3	#Error
257.55	262.47	M033631	4337	3911	426	1144	823	2002	198	771	117	220	13	80	10	48	8	22	3	19	3	#Error

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM027	4,635,173.59	475,493.66	1,735.72	80.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
27.89	36.09	M033632	2604	2137	467	713	433	1058	111	451	84	252	7	77	11	56	10	27	3	21	3	#Error
36.09	37.53	M033633	2517	2077	440	713	399	1027	108	454	89	233	10	77	11	51	9	24	3	19	3	#Error
37.53	40.68	M033634	2477	2162	315	671	435	1102	108	440	77	158	8	62	8	38	6	17	2	14	2	#Error
40.68	45.08	M033635	4396	3843	553	1215	778	1935	196	797	137	272	12	111	15	70	11	30	4	25	3	#Error
45.08	47.57	M033637	4698	4144	554	1275	847	2101	211	847	138	290	12	104	13	66	11	28	3	24	3	#Error
47.57	52.49	M033638	4112	3670	442	1094	741	1898	179	729	123	225	11	86	11	52	9	23	3	19	3	#Error
52.49	57.41	M033639	3336	2932	404	900	585	1505	147	593	102	206	11	79	10	48	8	20	2	18	2	#Error
57.41	62.34	M033640	2977	2572	405	832	504	1296	134	544	94	206	11	76	10	50	8	21	3	18	2	#Error
62.34	64.96	M033641	2678	2323	355	722	469	1184	117	472	81	180	10	67	9	43	7	20	2	15	2	#Error
64.96	68.90	M033642	3978	3433	545	1071	701	1738	178	696	120	291	11	99	12	65	11	28	3	22	3	4
68.90	72.18	M033643	2888	2430	458	822	480	1195	130	531	94	240	10	83	10	57	9	25	3	19	2	#Error
72.18	77.10	M033644	3343	2853	490	930	581	1413	152	596	111	253	11	90	11	60	10	28	3	21	3	2
77.10	82.02	M033645	2892	2491	401	804	480	1265	124	528	94	209	11	71	9	49	8	21	3	17	3	6
82.02	86.94	M033646	3984	3526	458	1096	713	1781	175	735	122	239	13	84	10	54	9	24	3	19	3	6
86.94	91.86	M033647	3545	3167	378	965	735	1523	175	628	106	192	10	72	10	46	8	19	3	15	3	9
91.86	96.78	M033648	3261	2860	401	883	658	1376	159	569	98	213	11	70	9	48	8	20	3	16	3	9
96.78	101.71	M033649	2864	2522	342	762	582	1227	138	491	84	181	9	59	8	41	7	18	2	15	2	7
101.71	106.07	M033650	2967	2635	332	800	600	1284	145	518	88	166	11	63	8	41	7	17	2	15	2	8
106.07	106.63	M033651	8867	8029	838	2427	1818	3906	460	1604	241	434	13	158	20	102	18	45	6	36	6	15
106.63	111.55	M033652	4253	3830	423	1133	896	1861	210	745	118	219	12	78	10	50	9	22	3	17	3	9
111.55	116.47	M033653	4285	3891	394	1135	912	1898	213	750	118	204	12	74	9	45	8	20	3	16	3	8
116.47	121.39	M033654	3999	3617	382	1054	830	1787	196	695	109	196	11	71	9	45	8	20	3	16	3	8
121.39	126.31	M033655	4168	3755	413	1097	866	1849	205	721	114	217	11	75	10	47	9	21	3	17	3	9
126.31	131.23	M033656	4128	3700	428	1079	857	1824	202	707	110	225	12	76	10	50	9	22	3	18	3	8
131.23	136.15	M033658	4829	4378	451	1261	1024	2156	237	832	129	236	12	83	11	52	9	23	3	19	3	8
136.15	141.08	M033659	4189	3819	370	1107	898	1867	207	735	112	184	11	73	9	44	8	19	3	16	3	8
141.08	146.00	M033660	4159	3769	390	1102	891	1830	207	729	112	199	12	74	9	45	8	20	3	17	3	8
146.00	147.70	M033661	5098	4637	461	1355	1099	2248	263	892	135	236	13	88	11	54	9	24	3	20	3	9
147.70	150.92	M033662	5404	4909	495	1438	1158	2383	278	947	143	257	13	93	12	58	10	25	3	21	3	9
150.92	155.84	M033663	5241	4795	446	1398	1120	2340	271	924	140	230	12	86	11	52	9	22	3	18	3	10
155.84	161.09	M033664	5501	5039	462	1462	1185	2457	282	970	145	239	13	88	11	54	9	23	3	19	3	8
161.09	165.68	M033665	4748	4325	423	1253	1029	2101	237	833	125	219	12	80	10	48	9	21	3	18	3	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM027	4,635,173.59	475,493.66	1,735.72	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
165.68	170.60	M033666	5001	4550	451	1324	1067	2223	253	874	133	232	13	85	11	53	9	23	3	19	3	10
170.60	175.52	M033667	4812	4375	437	1263	1029	2144	241	835	126	227	12	82	10	51	9	22	3	18	3	9
175.52	182.84	M033668	4409	4020	389	1165	949	1959	222	774	116	202	12	73	9	44	8	19	3	16	3	8
182.84	183.17	M033669	6802	6241	561	1820	1454	3046	352	1213	176	290	13	109	14	65	11	28	4	23	4	10
183.17	184.42	M033670	5866	5383	483	1549	1261	2641	311	1022	148	250	12	93	12	56	10	24	3	20	3	9
184.42	190.29	M033671	5068	4636	432	1323	1082	2291	256	877	130	221	12	84	10	50	9	22	3	18	3	10
190.29	194.03	M033672	4635	4250	385	1214	1013	2076	231	812	118	199	11	73	9	44	8	20	3	15	3	8
194.03	194.26	M033673	3034	2758	276	793	657	1345	150	526	80	145	8	50	6	31	6	14	2	12	2	8
194.26	200.13	M033674	5533	5088	445	1467	1190	2494	290	974	140	229	12	86	11	52	9	22	3	18	3	9
200.13	205.05	M033675	5056	4615	441	1351	1071	2254	259	899	132	229	13	83	10	51	9	22	3	18	3	10
205.05	209.97	M033676	5251	4801	450	1392	1132	2340	274	918	137	232	13	87	11	52	9	22	3	18	3	10
209.97	214.04	M033677	4554	4150	404	1216	969	2021	233	808	119	206	12	79	10	46	8	20	3	17	3	9
214.04	219.82	M033679	4339	3938	401	1146	936	1910	216	762	114	210	12	75	9	45	8	20	3	16	3	10
219.82	224.74	M033680	5558	5099	459	1474	1208	2481	290	979	141	236	13	89	11	53	9	23	3	19	3	10
224.74	229.66	M033681	5460	5018	442	1439	1214	2426	279	959	140	227	13	86	10	51	9	22	3	18	3	9
229.66	234.58	M033682	4375	3977	398	1158	958	1916	219	767	117	204	13	75	10	45	8	20	3	17	3	9
234.58	239.50	M033683	5260	4811	449	1399	1146	2328	269	931	137	234	13	85	11	51	9	22	3	18	3	9
239.50	244.42	M033684	5215	4769	446	1380	1127	2322	266	918	136	234	13	84	10	50	9	22	3	18	3	10
244.42	249.34	M033685	5193	4742	451	1377	1143	2285	268	911	135	235	13	85	11	52	9	22	3	18	3	10
249.34	250.30	M033686	5080	4639	441	1342	1100	2260	256	893	130	227	13	83	11	52	9	22	3	18	3	9
250.30	251.31	M033687	4245	3851	394	1122	917	1867	212	744	111	204	11	74	9	46	8	20	3	16	3	9
251.31	252.43	M033688	1906	1686	220	487	406	822	86	322	50	121	6	34	5	24	4	11	2	11	2	8
252.43	253.25	M033689	5244	4779	465	1378	1149	2316	267	911	136	244	12	87	11	53	9	24	3	19	3	11
253.25	259.19	M033690	4952	4522	430	1300	1094	2187	253	862	126	223	13	81	10	49	9	21	3	18	3	10
259.19	262.47	M033691	5313	4819	494	1407	1152	2328	269	931	139	259	14	91	11	57	10	25	3	21	3	10

Rare Earth Element Oxide Summary

Drill Hole	*Northing*	*Easting*	*Collar*	*Total Depth*	*Hole Type*
HC23-OM028	*4,635,315.94*	*475,476.43*	*1,736.14*	*302.00*	*HQ*

From Depth	*To Depth*	*Sample No.*					*Light REE*					*Heavy REE*										
			TREO	*LREO*	*HREO*	*MREO*	*La2O3*	*Ce2O3*	*Pr6O11*	*Nd2O3*	*Sm2O3*	*Y2O3*	*Eu2O3*	*Gd2O3*	*Tb4O7*	*Dy2O3*	*Ho2O3*	*Er2O3*	*Tm2O3*	*Yb2O3*	*Lu2O3*	*Sc2O3*
16.40	21.33	M033692	4727	4267	460	1268	1029	2033	251	834	120	240	12	83	11	52	10	25	3	21	3	12
21.33	26.25	M033693	5090	4592	498	1361	1113	2187	268	896	128	258	13	90	12	57	10	27	4	23	4	12
26.25	31.17	M033694	5138	4638	500	1370	1120	2217	268	902	131	260	13	90	12	57	10	27	4	23	4	13
31.17	36.09	M033695	5023	4520	503	1342	1085	2162	263	881	129	264	13	89	11	58	10	27	4	23	4	13
36.09	41.01	M033696	4998	4499	499	1327	1090	2150	263	870	126	262	13	89	11	57	10	27	4	22	4	12
41.01	45.93	M033697	5084	4593	491	1347	1109	2205	267	885	127	255	13	88	11	57	10	27	4	22	4	14
45.93	50.85	M033698	4358	3896	462	1158	946	1855	217	766	112	244	12	81	10	53	10	25	3	21	3	13
50.85	55.77	M033700	4456	4019	437	1178	972	1929	227	778	113	227	12	79	10	50	9	24	3	20	3	14
55.77	60.70	M033701	4504	4067	437	1194	969	1965	233	786	114	227	12	79	10	51	9	23	3	20	3	12
60.70	65.62	M033702	4395	3945	450	1169	958	1879	225	771	112	238	12	79	10	51	9	24	3	21	3	16
65.62	70.54	M033703	4615	4156	459	1217	1011	1990	231	807	117	241	12	82	10	52	10	25	3	21	3	13
70.54	75.46	M033704	4384	3950	434	1156	956	1898	219	765	112	225	12	77	10	50	9	24	3	21	3	13
75.46	80.38	M033705	4287	3894	393	1132	944	1873	220	751	106	201	12	72	9	46	8	21	3	18	3	11
80.38	85.30	M033706	4647	4171	476	1253	1030	1953	242	827	119	254	12	83	11	54	10	25	3	21	3	11
85.30	90.22	M033707	3981	3578	403	1069	900	1664	202	709	103	213	12	70	9	46	8	21	3	18	3	10
90.22	95.14	M033708	3880	3519	361	1038	873	1658	198	692	98	190	10	65	8	42	7	19	2	16	2	11
95.14	99.57	M033709	4181	3751	430	1128	926	1757	211	746	111	227	11	76	10	50	9	22	3	19	3	12
99.57	101.08	M033710	4145	3767	378	1090	966	1763	210	725	103	199	11	67	9	43	8	20	3	16	2	10
101.08	104.99	M033711	3894	3496	398	1042	862	1646	196	689	103	213	11	68	9	45	8	21	3	17	3	11
104.99	109.42	M033712	4206	3790	416	1126	945	1775	213	749	108	222	11	73	9	47	8	22	3	18	3	11
109.42	109.91	M033713	4711	4287	424	1273	1065	2008	253	842	119	219	12	78	10	49	9	22	3	19	3	10
109.91	114.83	M033714	4682	4183	499	1272	1026	1953	251	830	123	269	12	86	11	57	10	26	3	22	3	12
114.83	119.75	M033715	4677	4187	490	1281	1038	1935	250	840	124	263	12	85	11	56	10	26	3	21	3	14
119.75	124.67	M033716	4632	4157	475	1268	1019	1935	249	834	120	251	13	84	11	54	10	25	3	21	3	12
124.67	129.59	M033717	4442	4010	432	1187	997	1886	227	786	114	226	12	77	10	50	9	23	3	19	3	11
129.59	134.51	M033718	4360	3946	414	1165	996	1843	222	774	111	215	12	74	10	48	8	22	3	19	3	13
134.51	139.44	M033719	4776	4359	417	1277	1101	2039	257	844	118	215	12	76	10	48	9	22	3	19	3	11
139.44	144.36	M033720	4491	4028	463	1222	992	1879	234	805	118	243	12	82	11	54	10	25	3	20	3	13
144.36	149.28	M033722	4577	4151	426	1247	1034	1929	244	827	117	220	12	80	10	49	9	22	3	18	3	13
149.28	154.20	M033723	4711	4219	492	1280	1053	1953	251	839	123	260	13	86	11	56	10	26	4	22	4	13
154.20	155.84	M033724	4438	3975	463	1204	999	1836	232	792	116	247	12	79	11	53	10	25	3	20	3	13
155.84	157.81	M033725	835	706	129	222	164	337	40	142	23	72	3	18	3	14	3	7	1	7	1	7

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM028	4,635,315.94	475,476.43	1,736.14	302.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
157.81	159.02	M033726	3556	3209	347	964	802	1492	182	640	93	180	10	63	8	41	7	18	2	16	2	10
159.02	159.12	M033727	2231	2005	226	595	498	943	113	394	57	119	6	38	5	26	5	12	2	11	2	8
159.12	164.04	M033728	4282	3855	427	1153	968	1793	220	763	111	224	12	76	10	49	9	22	3	19	3	12
164.04	168.96	M033729	4590	4124	466	1247	1013	1929	244	818	120	248	12	81	11	54	9	25	3	20	3	11
168.96	173.88	M033730	5346	4785	561	1462	1172	2230	286	955	142	295	13	101	13	66	12	30	4	23	4	13
173.88	178.81	M033731	4271	3854	417	1133	972	1806	218	752	106	220	12	74	9	48	8	22	3	18	3	13
178.81	183.73	M033732	4513	4057	456	1224	1005	1892	243	800	117	239	12	82	10	54	9	24	3	20	3	13
183.73	188.65	M033733	4254	3848	406	1140	957	1806	220	758	107	216	11	72	9	46	8	21	3	17	3	11
188.65	194.78	M033734	4443	3995	448	1205	997	1855	236	792	115	237	12	79	10	52	9	24	3	19	3	12
194.78	195.21	M033735	1033	920	113	279	220	437	52	184	27	59	3	20	3	13	2	6	1	5	1	9
195.21	200.13	M033736	4342	3930	412	1166	992	1830	227	771	110	212	11	78	10	48	8	21	3	18	3	12
200.13	204.66	M033737	4638	4237	401	1266	1050	1978	249	841	119	202	11	78	10	47	8	21	3	18	3	12
204.66	204.99	M033738	2195	1980	215	585	494	931	111	387	57	111	7	40	5	25	4	12	1	9	1	12
204.99	209.97	M033739	4023	3649	374	1089	905	1707	208	725	104	193	11	69	9	43	7	19	3	17	3	12
209.97	214.90	M033740	4725	4271	454	1291	1053	1990	256	849	123	235	12	85	11	52	9	24	3	20	3	13
214.90	219.82	M033741	5126	4608	518	1403	1120	2156	282	916	134	274	13	93	12	59	11	27	3	22	4	13
219.82	224.74	M033743	4815	4389	426	1260	1039	2150	248	828	124	218	12	80	10	50	9	22	3	19	3	11
224.74	229.66	M033744	3808	3490	318	988	820	1726	190	657	97	164	10	60	7	37	6	16	2	14	2	8
229.66	234.58	M033745	4509	4105	404	1176	957	2027	222	783	116	213	11	73	9	46	8	20	3	18	3	11
234.58	239.50	M033746	4716	4302	414	1230	1017	2113	246	805	121	213	12	76	10	48	8	22	3	19	3	9
239.50	244.42	M033747	4389	3987	402	1146	939	1959	217	758	114	206	12	74	10	47	8	21	3	18	3	9
244.42	249.34	M033748	6341	5850	491	1672	1360	2887	329	1116	158	250	13	95	12	57	10	25	3	22	4	11
249.34	254.27	M033749	7116	6543	573	1910	1507	3206	371	1283	176	295	13	110	14	66	12	29	4	26	4	13
254.27	259.19	M033750	5790	5306	484	1545	1226	2604	301	1029	146	248	11	92	12	57	10	25	3	22	4	13
259.19	264.11	M033751	5610	5097	513	1473	1190	2506	294	961	146	263	13	96	12	60	11	27	4	23	4	12
264.11	269.03	M033752	6717	6200	517	1808	1431	3034	353	1213	169	265	12	101	13	60	10	26	3	23	4	11
269.03	273.95	M033753	5355	4914	441	1414	1143	2420	285	930	136	224	12	86	11	52	9	22	3	19	3	12
273.95	278.87	M033754	6979	6437	542	1887	1472	3157	366	1266	176	269	13	110	14	65	11	28	4	24	4	12
278.87	283.79	M033755	6252	5746	506	1686	1319	2813	327	1129	158	258	12	99	12	60	10	26	3	22	4	9
283.79	288.71	M033756	6405	5887	518	1725	1349	2887	330	1157	164	264	13	101	13	61	10	26	4	22	4	13
288.71	293.64	M033757	5295	4847	448	1395	1121	2395	278	916	137	227	12	87	11	53	9	23	3	20	3	10
293.64	298.56	M033758	6606	6093	513	1761	1396	3010	350	1172	165	257	13	104	13	61	10	26	3	22	4	12

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM028	4,635,315.94	475,476.43	1,736.14	302.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
298.56	303.48	M033759	6348	5855	493	1720	1343	2862	330	1159	161	250	13	98	12	58	10	24	3	21	4	9
303.48	308.40	M033760	6242	5740	502	1661	1325	2825	329	1102	159	253	13	100	12	59	10	26	3	22	4	11
308.40	313.32	M033761	5277	4821	456	1375	1092	2420	273	897	139	231	11	88	11	55	9	24	3	21	3	11
313.32	318.24	M033763	6519	5965	554	1701	1308	3034	321	1137	165	286	11	105	13	65	11	29	4	26	4	12
318.24	323.16	M033764	7338	6769	569	1991	1542	3317	388	1336	186	287	13	114	14	67	12	29	4	25	4	12
323.16	328.08	M033765	5652	5205	447	1488	1202	2580	296	983	144	220	12	92	11	54	9	23	3	20	3	10
328.08	333.01	M033766	5390	4961	429	1423	1143	2457	284	939	138	213	12	86	11	51	9	22	3	19	3	12
333.01	337.93	M033767	6547	6017	530	1766	1378	2948	342	1184	165	270	14	103	13	62	11	26	4	23	4	13
337.93	341.21	M033768	5230	4780	450	1367	1100	2377	269	898	136	231	12	85	11	53	9	23	3	20	3	9
341.21	347.77	M033769	5397	4916	481	1416	1125	2444	283	924	140	244	13	91	11	58	10	25	3	22	4	13
347.77	352.69	M033770	5459	4974	485	1438	1149	2457	290	935	143	248	13	92	12	58	10	25	3	21	3	11
352.69	357.61	M033771	6389	5854	535	1677	1366	2887	338	1106	157	273	14	100	13	63	11	28	4	25	4	12
357.61	362.53	M033772	5360	4931	429	1422	1162	2408	283	938	140	211	14	88	11	50	9	21	3	19	3	10
362.53	367.45	M033773	6328	5828	500	1718	1343	2838	330	1161	156	249	15	98	12	59	10	26	4	23	4	11
367.45	372.38	M033774	5160	4722	438	1352	1091	2340	271	889	131	225	13	82	10	51	9	22	3	20	3	11
372.38	377.30	M033775	4648	4280	368	1228	1010	2094	242	812	122	177	14	77	9	43	7	18	3	17	3	10
377.30	382.22	M033776	5294	4848	446	1398	1118	2395	279	923	133	227	13	85	11	52	9	23	3	20	3	11
382.22	387.14	M033777	5103	4669	434	1333	1079	2316	267	877	130	224	14	81	10	49	9	22	3	19	3	10
387.14	392.06	M033778	5573	5105	468	1496	1208	2469	256	1026	146	232	15	94	11	57	9	24	3	20	3	9
392.06	396.98	M033779	5121	4681	440	1408	1068	2266	242	968	137	225	14	86	10	51	8	22	3	18	3	10
396.98	401.90	M033780	4702	4286	416	1304	939	2101	223	895	128	212	12	80	9	49	8	22	3	18	3	7
401.90	406.82	M033781	5439	4998	441	1488	1226	2346	255	1025	146	220	13	90	10	52	8	23	3	19	3	11
406.82	411.75	M033783	5369	4923	446	1460	1179	2346	249	1008	141	226	13	89	10	52	8	23	3	19	3	8
411.75	416.67	M033784	4415	4008	407	1236	882	1947	210	847	122	209	13	77	9	48	8	20	3	17	3	9
416.67	421.59	M033785	4782	4380	402	1321	989	2125	227	911	128	206	13	77	9	46	7	21	3	17	3	8
421.59	424.05	M033786	5073	4643	430	1409	1082	2211	240	968	142	218	13	85	10	49	8	22	3	19	3	8
424.05	424.38	M033787	1513	1333	180	436	308	613	73	296	43	97	5	30	4	20	3	10	1	9	1	3
424.38	426.51	M033788	4560	4167	393	1265	917	2039	216	874	121	200	14	77	9	45	7	20	2	16	3	7
426.51	431.43	M033789	4102	3710	392	1134	807	1824	193	772	114	203	12	72	9	46	7	21	2	17	3	7
431.43	436.35	M033790	5134	4694	440	1446	1025	2285	245	998	141	224	13	86	10	52	8	22	3	19	3	12
436.35	441.27	M033791	6901	6419	482	1868	1572	3046	330	1295	176	243	14	101	11	56	9	23	3	19	3	8
441.27	446.19	M033792	4810	4380	430	1337	958	2144	229	917	132	220	13	83	9	50	8	23	3	18	3	7

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM028	4,635,315.94	475,476.43	1,736.14	302.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										Sc2O3
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	
446.19	451.12	M033793	4715	4304	411	1323	945	2094	225	914	126	211	13	78	9	49	8	21	3	16	3	8
451.12	456.04	M033794	5264	4805	459	1443	1135	2291	244	994	141	235	13	89	10	54	9	24	3	19	3	8
456.04	460.96	M033795	5615	5163	452	1513	1255	2457	263	1044	144	230	15	89	10	52	8	23	3	19	3	8
460.96	465.88	M033796	4709	4288	421	1308	937	2101	222	902	126	217	13	80	9	49	8	22	3	17	3	3
465.88	470.80	M033797	4808	4409	399	1319	996	2150	228	907	128	204	13	77	9	47	7	21	2	16	3	4
470.80	475.72	M033798	4870	4448	422	1358	980	2168	234	938	128	215	13	82	9	49	8	22	3	18	3	8
475.72	479.49	M033799	5524	5079	445	1508	1220	2414	262	1037	146	227	13	86	10	53	8	23	3	19	3	10
479.49	480.31	M033800	7820	7179	641	2153	1712	3403	369	1481	214	328	14	129	14	75	12	34	4	27	4	7
480.31	483.10	M033801	5967	5480	487	1618	1325	2604	277	1114	160	250	14	94	11	56	9	25	3	21	4	9
483.10	483.50	M033802	7086	6465	621	1938	1554	3059	332	1330	190	324	14	118	14	72	12	32	4	27	4	12
483.50	485.56	M033804	5515	5074	441	1526	1196	2414	262	1054	148	224	12	88	10	52	8	22	3	19	3	10
485.56	490.49	M033805	5860	5374	486	1592	1284	2567	275	1091	157	248	14	95	11	58	9	25	3	20	3	10
490.49	495.41	M033806	5904	5428	476	1625	1314	2555	279	1121	159	242	14	94	10	56	9	26	3	19	3	5
495.41	500.33	M033807	5215	4780	435	1429	1132	2279	243	983	143	222	13	86	9	51	8	22	3	18	3	8
500.33	505.25	M033808	6685	6156	529	1833	1472	2924	315	1266	179	268	14	109	12	61	10	26	3	22	4	8
505.25	510.17	M033809	6021	5521	500	1641	1308	2641	280	1130	162	258	14	99	11	58	9	25	3	20	3	7
510.17	515.09	M033810	5822	5333	489	1599	1284	2518	274	1100	157	251	14	95	11	57	9	25	3	20	4	10
515.09	520.01	M033811	5678	5224	454	1556	1237	2494	266	1073	154	231	13	91	10	53	8	23	3	19	3	4
520.01	524.93	M033812	5127	4655	472	1452	1014	2254	246	998	143	244	13	90	10	55	9	25	3	20	3	4
524.93	529.86	M033813	4724	4284	440	1337	952	2058	225	917	132	223	13	84	10	53	8	24	3	19	3	8
529.86	534.78	M033814	5017	4588	429	1383	971	2291	237	956	133	221	15	82	10	47	8	21	3	19	3	7
534.78	539.70	M033815	5743	5257	486	1537	1179	2604	265	1058	151	255	15	93	11	52	9	24	3	21	3	9
539.70	544.62	M033816	5221	4781	440	1401	1092	2346	242	962	139	224	15	86	10	48	8	24	3	19	3	12
544.62	549.54	M033817	5419	4939	480	1460	1084	2457	251	1002	145	248	15	93	11	51	9	24	3	22	4	9
549.54	554.46	M033818	5665	5156	509	1533	1173	2518	261	1053	151	263	15	97	11	57	9	27	3	23	4	9
554.46	559.38	M033819	5087	4639	448	1405	959	2334	244	965	137	234	14	84	10	49	8	23	3	20	3	6
559.38	564.30	M033820	4646	4238	408	1284	876	2131	222	886	123	212	13	78	9	44	7	21	3	18	3	6
564.30	569.23	M033821	5247	4794	453	1438	1014	2401	250	990	139	238	15	85	10	49	8	23	3	19	3	8
569.23	571.78	M033823	4204	3834	370	1137	797	1947	198	778	114	195	13	70	8	39	7	18	2	16	2	5
571.78	572.74	M033824	407	338	69	114	73	159	18	75	13	40	3	9	1	7	1	4	0	3	1	6
572.74	574.15	M033825	4332	3952	380	1189	824	1990	205	816	117	197	13	71	9	42	7	20	2	16	3	4
574.15	579.07	M033826	4450	4069	381	1226	854	2039	211	848	117	197	13	73	8	42	7	19	2	17	3	4

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM028	4,635,315.94	475,476.43	1,736.14	302.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
579.07	583.99	M033827	4941	4515	426	1361	937	2273	236	934	135	223	14	79	10	46	7	22	3	19	3	8
583.99	588.91	M033828	4676	4268	408	1296	890	2137	225	892	124	210	14	78	9	46	7	21	3	17	3	6
588.91	593.83	M033829	5059	4623	436	1375	1026	2279	240	948	130	226	14	84	10	47	8	22	3	19	3	4
593.83	594.00	M033830	4162	3788	374	1128	781	1929	198	771	109	191	12	72	9	41	7	20	2	17	3	7
594.00	598.75	M033831	5700	5221	479	1515	1190	2580	263	1040	148	248	15	91	11	53	9	25	3	21	3	10
598.75	603.67	M033832	6180	5662	518	1659	1308	2764	286	1147	157	269	16	99	12	57	9	27	3	23	3	13
603.67	608.60	M033833	6200	5667	533	1673	1302	2764	288	1149	164	273	15	104	12	60	10	28	3	24	4	10
608.60	609.65	M033834	5641	5130	511	1528	1152	2518	263	1046	151	267	15	95	11	57	10	27	3	23	3	8
609.65	609.97	M033835	2890	2620	270	797	544	1314	138	548	76	141	9	50	6	29	5	14	2	12	2	6
609.97	613.52	M033836	4934	4494	440	1340	958	2254	233	919	130	229	14	83	10	48	8	23	3	19	3	7
613.52	618.44	M033837	5633	5158	475	1517	1173	2530	263	1042	150	247	16	90	11	51	9	25	3	20	3	4
618.44	623.36	M033838	4743	4300	443	1306	891	2162	226	888	133	232	15	81	10	49	8	23	3	19	3	4
623.36	627.13	M033839	5023	4583	440	1370	980	2291	238	941	133	229	15	82	10	48	8	23	3	19	3	6
627.13	627.46	M033840	1258	1112	146	361	244	525	61	244	38	80	6	24	3	15	3	7	1	6	1	6
627.46	628.28	M033841	5171	4737	434	1405	1037	2352	245	968	135	225	15	83	9	48	8	21	3	19	3	8
628.28	633.20	M033843	5890	5394	496	1592	1214	2653	272	1099	156	257	16	96	11	54	9	25	3	22	3	8
633.20	638.12	M033844	5592	5117	475	1504	1159	2518	262	1036	142	242	16	92	11	53	9	25	3	21	3	10
638.12	643.04	M033845	5865	5379	486	1576	1237	2629	277	1084	152	250	16	95	11	52	9	25	3	22	3	12
643.04	647.97	M033846	5841	5345	496	1580	1214	2616	275	1087	153	264	16	91	11	54	9	25	3	20	3	9
647.97	652.89	M033847	5542	5050	492	1509	1136	2469	260	1037	148	258	16	92	11	53	10	25	3	21	3	10
652.89	657.81	M033848	5922	5399	523	1600	1202	2666	275	1101	155	274	16	99	11	58	9	27	3	22	4	6
657.81	662.73	M033849	5618	5152	466	1452	1196	2567	253	995	141	235	16	92	11	52	9	24	3	21	3	10
662.73	667.65	M033850	5680	5194	486	1467	1226	2567	259	1002	140	249	16	91	11	55	9	27	3	22	3	10
667.65	672.57	M033851	5894	5394	500	1527	1284	2653	269	1038	150	255	16	94	12	58	9	26	3	23	4	12
672.57	677.49	M033852	5578	5105	473	1462	1179	2530	256	1001	139	244	15	89	11	55	8	24	3	21	3	10
677.49	682.41	M033853	5871	5392	479	1528	1290	2641	272	1043	146	246	15	91	11	56	8	24	3	22	3	8
682.41	685.70	M033854	4786	4343	443	1295	936	2174	225	881	127	228	14	82	10	52	8	23	3	20	3	6
685.70	688.98	M033855	251	209	42	62	49	103	10	41	6	25	2	5	1	4	1	2	0	2	0	6
688.98	693.90	M033856	1713	1543	170	483	358	725	85	329	46	89	5	30	4	19	3	9	1	9	1	10
693.90	694.39	M033857	4674	4273	401	1253	938	2137	222	858	118	204	13	77	9	46	7	22	2	18	3	7
695.54	698.82	M033858	3635	3326	309	969	715	1683	172	666	90	160	10	59	7	34	5	16	2	14	2	10
698.82	703.74	M033859	204	154	50	51	36	73	8	32	5	29	2	6	1	5	1	3	0	3	0	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM028	4,635,315.94	475,476.43	1,736.14	302.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										Sc2O3
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	
703.74	708.66	M033860	330	292	38	77	76	144	15	50	7	22	1	5	1	4	1	2	0	2	0	9
708.66	713.58	M033861	306	277	29	72	72	136	14	48	7	17	1	4	0	3	1	2	0	1	0	5
713.58	718.50	M033863	299	263	36	69	68	131	13	45	6	20	1	5	1	4	1	2	0	2	0	8
718.50	721.46	M033864	686	601	85	178	145	289	32	118	17	48	3	12	2	9	2	4	1	3	1	12
721.46	723.43	M033865	4065	3716	349	1091	800	1873	191	751	101	182	10	65	8	40	6	17	2	17	2	7
723.43	728.35	M033866	5947	5447	500	1565	1284	2666	278	1072	147	259	15	94	12	56	9	25	3	23	4	10
728.35	733.27	M033867	6114	5648	466	1600	1360	2752	288	1099	149	239	15	91	11	53	8	23	3	20	3	11
733.27	738.19	M033868	5807	5340	467	1527	1284	2592	271	1052	141	239	15	91	10	53	8	24	3	21	3	11
738.19	743.11	M033869	6161	5664	497	1625	1366	2739	289	1116	154	264	16	91	11	55	8	25	3	21	3	16
743.11	748.03	M033870	6172	5675	497	1628	1349	2764	285	1127	150	259	16	94	11	55	9	24	3	23	3	10
748.03	752.95	M033871	6459	5970	489	1701	1401	2936	303	1172	158	248	16	98	12	56	8	24	3	21	3	11
752.95	757.87	M033872	4561	4111	450	1243	883	2045	217	847	119	239	13	80	10	50	8	24	3	20	3	12
757.87	762.80	M033873	5866	5342	524	1535	1249	2629	271	1047	146	279	14	93	12	59	9	27	3	24	4	12
762.80	767.72	M033874	6945	6447	498	1811	1536	3169	326	1248	168	252	17	98	12	57	8	25	3	23	3	10
767.72	772.64	M033875	5706	5253	453	1496	1249	2567	269	1033	135	238	15	84	10	49	8	23	3	20	3	6
772.64	777.56	M033876	4660	4232	428	1255	919	2113	221	860	119	228	15	75	9	46	7	23	3	19	3	10
777.56	782.48	M033877	6358	5879	479	1644	1413	2887	297	1134	148	253	15	87	11	54	8	25	3	20	3	6
782.48	784.12	M033878	5774	5321	453	1500	1278	2604	268	1035	136	239	16	82	10	51	8	22	3	19	3	9
784.12	785.76	M033879	7539	6957	582	1956	1701	3378	353	1347	178	307	16	108	13	65	10	30	4	25	4	8
785.76	787.40	M033880	5638	5134	504	1506	1190	2506	262	1035	141	265	16	91	11	57	9	27	3	22	3	10
787.40	792.32	M033881	4521	4083	438	1194	895	2051	213	813	111	237	15	74	10	47	8	22	3	19	3	9
792.32	797.24	M033882	8067	7502	565	2020	1865	3697	378	1382	180	287	16	113	13	67	10	29	4	23	3	6
797.24	802.17	M033884	5099	4636	463	1341	1079	2279	241	914	123	241	14	87	9	54	8	24	3	20	3	5
802.17	807.09	M033885	4838	4347	491	1273	978	2162	225	860	122	259	15	89	10	56	9	26	3	21	3	2
807.09	813.65	M033886	4895	4410	485	1282	1050	2144	229	862	125	257	15	86	10	56	9	25	3	21	3	6
813.65	818.57	M033887	4851	4357	494	1257	1037	2131	226	842	121	263	14	87	10	58	10	26	3	20	3	3
818.57	823.49	M033888	4946	4449	497	1294	1045	2180	228	868	128	262	14	88	11	59	9	27	3	21	3	3
823.49	828.41	M033889	4540	4065	475	1166	964	2002	205	781	113	244	14	89	10	57	9	25	3	21	3	3
828.41	833.33	M033890	4669	4196	473	1212	968	2082	213	809	124	247	13	87	10	56	9	25	3	20	3	3
833.33	838.25	M033891	4680	4230	450	1246	972	2076	219	843	120	230	13	85	10	54	9	24	3	19	3	3
838.25	843.18	M033892	5109	4644	465	1343	1081	2285	237	907	134	242	13	88	10	55	9	23	3	19	3	4
843.18	844.82	M033893	4570	4117	453	1223	943	2015	215	823	121	231	13	87	10	54	9	24	3	19	3	4

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM028	4,635,315.94	475,476.43	1,736.14	302.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
844.82	848.75	M033894	6032	5487	545	1613	1284	2666	284	1096	157	281	14	107	12	64	10	28	3	23	3	#Error
848.75	849.74	M033895	4228	3797	431	1154	822	1879	201	781	114	225	14	80	9	49	8	22	3	18	3	6
849.74	854.66	M033896	5068	4557	511	1355	1068	2205	236	912	136	265	14	95	11	60	10	27	3	23	3	#Error
854.66	859.58	M033897	4668	4211	457	1252	946	2076	218	848	123	236	14	87	10	53	8	24	3	19	3	#Error
859.58	864.50	M033898	4255	3828	427	1159	855	1873	198	783	119	220	13	81	9	50	8	22	3	18	3	#Error
864.50	869.42	M033899	4498	4081	417	1188	915	2033	212	804	117	212	14	81	9	46	8	22	3	19	3	5
869.42	873.52	M033900	5470	4998	472	1452	1153	2457	256	993	139	239	14	94	10	54	9	25	3	21	3	6
873.52	874.34	M033901	5090	4612	478	1359	1051	2266	236	923	136	250	14	90	10	54	9	24	3	21	3	#Error
874.34	879.27	M033903	4195	3807	388	1114	884	1861	198	756	108	201	12	73	8	44	7	21	2	18	2	2
879.27	884.19	M033904	5607	5147	460	1484	1220	2506	266	1009	146	236	15	90	10	53	8	23	3	19	3	1
884.19	889.11	M033905	4900	4463	437	1308	1036	2180	232	888	127	224	14	83	10	51	8	22	3	19	3	5
889.11	894.03	M033906	4971	4534	437	1318	1045	2230	233	897	129	224	14	84	9	50	8	23	3	19	3	8
894.03	898.95	M033907	5722	5234	488	1534	1237	2530	272	1049	146	250	14	96	11	56	9	25	3	21	3	4
898.95	903.31	M033908	4765	4333	432	1269	987	2137	223	860	126	222	13	82	9	51	8	22	3	19	3	2
903.31	903.54	M033909	3478	3129	349	939	694	1542	165	633	95	185	11	63	7	39	6	18	2	16	2	2
903.54	903.87	M033910	2294	2033	261	614	441	1013	112	406	61	134	9	47	5	30	5	14	2	13	2	5
903.87	908.79	M033911	4717	4286	431	1261	924	2162	235	842	123	217	16	82	9	52	8	22	3	19	3	12
908.79	913.71	M033912	4264	3880	384	1132	837	1965	212	753	113	192	15	75	8	46	7	20	2	17	2	11
913.71	918.64	M033913	4084	3690	394	1095	794	1855	202	731	108	201	15	75	8	46	8	20	2	17	2	8
918.64	921.92	M033914	5136	4680	456	1341	1116	2285	250	897	132	230	15	90	10	52	9	24	3	20	3	7
921.92	923.56	M033915	4885	4435	450	1306	961	2230	245	871	128	229	15	87	10	52	8	24	3	19	3	11
923.56	928.48	M033916	4949	4498	451	1339	962	2260	248	892	136	229	16	87	10	53	9	22	3	19	3	11
928.48	933.40	M033917	5481	5019	462	1437	1179	2469	268	959	144	230	15	92	10	56	9	24	3	20	3	12
933.40	938.32	M033918	5381	4909	472	1435	1158	2383	265	959	144	239	14	92	10	57	9	24	3	21	3	11
938.32	943.24	M033919	6033	5564	469	1570	1343	2715	297	1052	157	237	16	95	10	54	9	23	3	19	3	8
943.24	948.16	M033920	5424	4962	462	1428	1167	2432	265	954	144	231	15	93	10	55	9	23	3	20	3	8
948.16	953.08	M033921	4879	4457	422	1293	1013	2211	239	868	126	211	14	84	9	51	8	21	3	18	3	8
953.08	958.01	M033923	4620	4181	439	1229	887	2125	228	815	126	225	15	83	9	51	8	22	3	20	3	11
958.01	962.93	M033924	5542	5061	481	1464	1185	2481	273	981	141	239	15	97	11	58	9	25	3	21	3	8
962.93	967.85	M033925	4624	4188	436	1248	883	2119	230	830	126	219	15	83	10	52	9	23	3	19	3	14
967.85	972.77	M033926	4929	4488	441	1325	976	2248	246	885	133	222	15	87	9	52	9	22	3	19	3	11
972.77	977.69	M033927	5045	4599	446	1347	1055	2260	250	896	138	223	16	87	9	54	9	22	3	20	3	12

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM028	4,635,315.94	475,476.43	1,736.14	302.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
977.69	982.61	M033928	4092	3686	406	1110	782	1849	204	739	112	209	14	76	8	47	8	21	2	18	3	6
982.61	987.53	M033929	5242	4799	443	1381	1141	2340	257	926	135	223	16	85	10	53	8	22	3	20	3	8
987.53	990.81	M033930	3049	2762	287	833	593	1376	151	559	83	142	15	55	6	34	5	14	2	12	2	3

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM029	4,635,081.26	475,355.55	1,740.00	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
0.00	4.92	M032501	913	786	127	233	171	399	41	150	25	69	4	19	3	14	3	7	1	6	1	14
4.92	9.84	M032502	362	304	58	92	71	148	16	59	10	34	2	8	1	6	1	3	0	3	0	16
9.84	14.76	M032503	2631	2372	259	670	565	1172	124	444	67	136	8	48	6	29	5	12	2	11	2	10
14.76	19.69	M032504	3328	3008	320	863	704	1486	169	563	86	164	9	62	8	37	6	16	2	14	2	9
19.69	24.61	M032505	3201	2851	350	837	663	1400	158	544	86	184	10	64	8	41	7	17	2	15	2	10
24.61	29.53	M032506	3328	2988	340	892	664	1480	170	583	91	179	10	60	8	40	7	18	2	14	2	8
29.53	34.45	M032507	3775	3402	373	1023	761	1671	197	670	103	195	11	68	9	44	8	19	2	15	2	8
34.45	39.37	M032508	3940	3554	386	1063	795	1750	199	701	109	204	10	70	9	45	8	20	3	15	2	8
39.37	44.29	M032509	3889	3490	399	1052	762	1732	199	688	109	208	10	74	9	47	8	21	3	16	3	10
44.29	49.21	M032510	3706	3320	386	1004	725	1646	187	658	104	201	10	70	9	46	8	20	3	16	3	8
49.21	54.13	M032511	3487	3117	370	945	688	1535	179	618	97	195	10	66	8	43	8	19	2	16	3	9
54.13	59.06	M032512	3008	2665	343	823	588	1302	149	539	87	182	10	60	8	40	7	18	2	14	2	8
59.06	63.98	M032513	2928	2517	411	817	543	1215	142	524	93	220	10	69	9	49	9	22	3	17	3	9
63.98	68.90	M032514	2766	2388	378	760	514	1167	134	489	84	204	9	62	9	44	8	20	3	16	3	8
68.90	73.82	M032515	3249	2830	419	878	617	1394	156	566	97	227	10	69	10	49	9	22	3	17	3	9
73.82	78.74	M032516	3458	3055	403	927	685	1499	174	600	97	218	10	68	9	47	8	21	3	16	3	8
78.74	83.66	M032517	4859	4399	460	1327	970	2168	250	879	132	239	10	87	11	55	10	24	3	18	3	11
83.66	88.58	M032518	5279	4752	527	1449	1040	2340	268	961	143	273	11	98	13	64	11	28	3	22	4	11
88.58	93.50	M032519	3798	3410	388	1017	758	1689	194	666	103	206	10	68	9	45	8	20	3	16	3	10
93.50	98.43	M032521	3649	3273	376	975	735	1615	185	640	98	199	11	66	9	43	8	20	3	15	2	10
98.43	103.35	M032522	3480	3122	358	922	701	1548	177	604	92	190	11	63	8	41	7	19	2	15	2	9
103.35	108.27	M032523	3692	3318	374	983	741	1646	187	647	97	196	10	67	9	43	8	20	3	15	3	9
108.27	113.19	M032524	3747	3377	370	1000	752	1677	190	659	99	197	10	66	9	43	7	19	2	15	2	8
113.19	118.11	M032525	4023	3637	386	1072	807	1812	207	706	105	202	10	70	9	45	8	20	3	16	3	9
118.11	123.03	M032526	3336	3005	331	888	664	1499	169	584	89	175	10	59	8	38	7	17	2	13	2	9
123.03	127.95	M032527	3746	3367	379	1002	754	1664	193	656	100	199	11	68	9	44	8	20	3	15	2	9
127.95	132.87	M032528	3639	3275	364	965	733	1628	185	633	96	190	11	66	8	43	8	19	2	15	2	10
132.87	137.80	M032529	4316	3890	426	1145	875	1929	222	751	113	224	11	77	10	49	9	22	3	18	3	10
137.80	142.72	M032530	3635	3264	371	962	733	1621	183	631	96	194	11	67	9	43	8	20	2	15	2	9
142.72	147.64	M032531	3498	3140	358	930	699	1560	176	611	94	191	10	64	8	41	7	19	2	14	2	9
147.64	152.56	M032532	3708	3324	384	990	735	1652	189	650	98	203	11	68	9	44	8	20	3	15	3	9
152.56	157.48	M032533	3582	3209	373	951	713	1597	181	623	95	196	11	66	9	43	8	20	3	15	2	9

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM029	4,635,081.26	475,355.55	1,740.00	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
157.48	162.40	M032534	3528	3158	370	949	706	1554	180	623	95	196	11	66	8	43	8	19	2	15	2	10
162.40	167.32	M032535	3260	2922	338	865	667	1437	162	568	88	178	11	60	8	39	7	17	2	14	2	9
167.32	172.24	M032536	3474	3116	358	924	699	1542	175	607	93	189	11	64	8	41	7	19	2	15	2	9
172.24	177.17	M032537	3429	3075	354	911	684	1529	177	595	90	185	11	64	8	41	7	19	2	15	2	10
177.17	182.09	M032538	3444	3093	351	917	690	1535	172	604	92	184	11	63	8	41	7	18	2	15	2	9
182.09	187.01	M032539	3594	3240	354	955	731	1603	185	626	95	186	11	64	8	41	7	18	2	15	2	10
187.01	191.93	M032541	3947	3557	390	1048	806	1757	204	687	103	203	12	71	9	45	8	20	3	16	3	10
191.93	196.85	M032542	3749	3392	357	1008	780	1652	196	667	97	189	11	65	8	40	7	18	2	15	2	9
196.85	201.77	M032543	3384	3048	336	907	712	1474	169	604	89	178	11	60	8	37	7	17	2	14	2	10
201.77	206.69	M032544	3367	3032	335	895	694	1486	165	597	90	180	11	59	7	36	7	17	2	14	2	9
206.69	211.61	M032545	2423	2179	244	641	504	1066	119	427	63	130	8	43	5	27	5	12	2	10	2	7
211.61	216.54	M032546	3489	3136	353	926	722	1535	178	610	91	189	11	62	8	39	7	18	2	15	2	11
216.54	221.46	M032547	3373	3035	338	900	701	1480	170	596	88	179	12	59	8	38	7	17	2	14	2	9
221.46	226.38	M032548	3477	3131	346	932	728	1517	177	618	91	186	11	61	8	38	7	17	2	14	2	9
226.38	231.30	M032549	4021	3633	388	1075	842	1769	206	709	107	201	12	72	9	44	8	20	3	16	3	8
231.30	236.22	M032550	3974	3601	373	1060	823	1769	206	699	104	196	12	69	9	42	7	19	2	15	2	8
236.22	241.14	M032551	4238	3831	407	1144	875	1867	220	757	112	213	12	75	9	46	8	21	3	17	3	9
241.14	246.06	M032552	3892	3529	363	1037	810	1732	199	688	100	190	12	67	9	41	7	19	2	14	2	8
246.06	250.98	M032553	5070	4594	476	1376	1040	2242	261	917	134	251	12	88	11	53	10	25	3	20	3	10
250.98	255.91	M032554	5166	4683	483	1409	1066	2273	265	944	135	254	12	91	11	54	10	25	3	20	3	10
255.91	260.83	M032555	4727	4285	442	1272	973	2101	243	846	122	230	12	83	10	51	9	23	3	18	3	10
260.83	265.75	M032556	4374	3967	407	1171	900	1953	225	776	113	211	11	77	10	47	8	20	3	17	3	10
265.75	270.67	M032557	4734	4301	433	1272	1000	2088	248	844	121	227	12	81	10	49	9	22	3	17	3	10
270.67	275.59	M032558	4490	4086	404	1201	939	2002	235	795	115	208	12	77	10	46	8	21	3	16	3	10
275.59	280.51	M032559	4763	4338	425	1294	989	2113	246	868	122	222	12	80	10	48	8	22	3	17	3	10
280.51	285.43	M032560	4551	4134	417	1228	943	2021	231	822	117	216	12	79	10	48	8	21	3	17	3	10
285.43	290.35	M032562	4891	4455	436	1323	1029	2162	253	886	125	228	11	83	10	49	9	22	3	18	3	9
290.35	295.28	M032563	4932	4493	439	1342	1024	2187	256	898	128	232	11	81	10	50	9	22	3	18	3	10
295.28	300.20	M032564	4661	4241	420	1253	969	2076	240	835	121	221	11	79	10	47	8	21	3	17	3	10
300.20	305.12	M032565	4885	4441	444	1305	1024	2174	251	867	125	231	12	83	11	51	9	23	3	18	3	10
305.12	310.04	M032566	4426	4052	374	1177	935	1990	229	785	113	197	11	71	9	41	7	19	2	15	2	10
310.04	314.96	M032567	4846	4412	434	1294	1021	2156	253	858	124	228	11	81	10	49	9	22	3	18	3	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM029	4,635,081.26	475,355.55	1,740.00	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
314.96	319.88	M032568	5138	4670	468	1397	1059	2279	268	932	132	246	11	89	11	54	9	23	3	19	3	11
319.88	324.80	M032569	5886	5362	524	1587	1231	2616	300	1063	152	272	11	103	12	60	11	26	4	22	3	12
324.80	329.72	M032570	5950	5391	559	1614	1226	2629	304	1079	153	290	12	108	13	65	11	29	4	23	4	15
329.72	334.65	M032571	5314	4808	506	1439	1099	2340	272	959	138	267	12	94	12	58	10	26	3	21	3	13

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM030	4,635,045.38	475,802.81	1,724.52	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
8.20	13.12	M033931	3697	3298	399	976	749	1628	180	643	98	212	12	69	9	46	8	20	3	17	3	8
13.12	18.04	M033932	3498	3109	389	933	712	1517	170	614	96	205	12	68	9	44	8	20	3	17	3	7
18.04	22.97	M033933	4290	3795	495	1164	863	1836	214	764	118	264	13	85	11	57	10	26	3	22	4	10
22.97	27.89	M033934	4387	3904	483	1178	894	1898	219	774	119	260	12	82	11	55	10	25	3	22	3	10
27.89	32.81	M033935	4410	3876	534	1203	862	1886	217	785	126	283	13	92	13	62	11	28	4	24	4	10
32.81	37.73	M033936	4844	4294	550	1337	962	2070	250	876	136	295	13	96	13	62	11	28	4	24	4	12
37.73	42.65	M033937	4943	4364	579	1356	962	2125	251	889	137	311	13	100	13	66	12	30	4	26	4	10
42.65	47.57	M033938	5950	5337	613	1602	1214	2604	304	1057	158	331	13	107	14	69	12	32	4	27	4	11
47.57	52.49	M033939	3941	3374	567	1087	732	1634	187	702	119	309	11	92	13	66	12	31	4	25	4	11
52.49	57.41	M033940	4680	4212	468	1220	1009	2045	233	807	118	258	12	79	10	52	9	23	3	19	3	8
57.41	62.34	M033941	5029	4563	466	1379	1033	2217	267	913	133	241	13	87	11	55	9	24	3	20	3	9
62.34	64.14	M033942	4568	4151	417	1155	1017	2039	228	759	108	217	11	76	10	50	9	21	3	17	3	10
65.62	69.23	M033944	4287	3880	407	1053	961	1922	202	696	99	218	11	73	9	47	8	20	3	16	2	7
69.23	72.18	M033945	4937	4494	443	1332	997	2230	259	883	125	225	11	83	11	54	9	24	3	20	3	10
72.18	77.10	M033946	4545	3925	620	1218	889	1904	216	780	136	339	12	103	14	72	13	33	4	26	4	14
77.10	82.02	M033947	4006	3568	438	1063	828	1738	197	694	111	231	9	79	10	51	9	24	3	19	3	12
82.02	83.33	M033948	4942	4466	476	1318	1052	2162	261	855	136	250	11	88	11	55	10	25	3	20	3	12
83.33	86.94	M033949	6138	5594	544	1672	1284	2715	324	1105	166	282	12	104	13	64	11	28	4	22	4	12
86.94	91.86	M033950	4010	3534	476	1049	802	1750	190	677	115	255	10	82	11	56	10	25	3	21	3	12
91.86	96.78	M033951	4479	3998	481	1190	928	1947	233	767	123	258	10	84	11	56	10	26	3	20	3	12
96.78	101.71	M033952	5080	4519	561	1349	1043	2205	261	869	141	300	11	98	13	65	12	30	4	24	4	13
101.71	106.63	M033953	5603	5013	590	1488	1150	2457	289	962	155	315	11	105	13	69	12	32	4	25	4	15
106.63	111.55	M033954	5111	4560	551	1376	1051	2211	271	884	143	291	11	98	13	65	12	30	4	23	4	13
111.55	113.75	M033955	3225	2857	368	860	677	1370	157	563	90	197	9	64	8	42	8	20	3	15	2	9
113.75	115.22	M033956	2923	2623	300	768	627	1271	143	503	79	157	7	55	7	36	6	16	2	12	2	10
115.22	116.47	M033957	2393	2047	346	617	482	995	109	391	70	196	7	55	8	39	7	17	2	13	2	10
116.47	121.39	M033958	4028	3541	487	1063	813	1732	192	691	113	263	11	82	11	56	10	26	4	21	3	12
121.39	126.31	M033959	4615	4091	524	1223	938	2002	231	791	129	281	12	89	12	60	11	28	4	23	4	12
126.31	131.23	M033960	4467	3971	496	1180	924	1935	228	762	122	265	11	86	11	57	11	27	4	21	3	11
131.23	136.15	M033961	4333	3791	542	1143	875	1849	207	737	123	291	11	91	13	63	12	30	4	23	4	13
136.15	141.08	M033962	3943	3516	427	1030	830	1714	191	673	108	231	10	74	10	48	9	22	3	17	3	12
141.08	146.00	M033963	5087	4456	631	1338	1052	2150	256	855	143	352	11	106	14	70	13	32	4	25	4	13

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM030	4,635,045.38	475,802.81	1,724.52	80.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
146.00	150.92	M033965	4193	3699	494	1098	863	1806	200	714	116	265	10	86	11	57	11	27	3	21	3	13
150.92	155.18	M033966	4402	3915	487	1165	908	1910	222	752	123	262	10	86	11	57	10	25	3	20	3	14
155.18	159.12	M033967	5040	4539	501	1335	1060	2217	261	864	137	259	11	93	12	61	11	26	3	22	3	13
159.12	163.12	M033968	5462	4918	544	1463	1150	2383	286	948	151	281	12	102	13	65	12	29	4	22	4	12
163.12	165.68	M033969	4773	4270	503	1273	987	2082	246	819	136	264	11	93	12	60	11	26	3	20	3	11
165.68	170.60	M033970	3848	3329	519	1040	753	1609	182	666	119	279	10	90	12	61	11	28	4	21	3	14
170.60	175.52	M033971	3335	2900	435	889	667	1406	159	568	100	230	9	77	10	52	9	24	3	18	3	11
175.52	180.45	M033972	2829	2430	399	756	549	1180	134	481	86	218	9	65	9	46	8	21	3	17	3	12
180.45	185.37	M033973	3557	3059	498	941	702	1486	166	598	107	268	10	86	12	58	11	27	3	20	3	12
185.37	188.81	M033974	3719	3250	469	987	744	1585	176	635	110	253	10	79	11	55	10	25	3	20	3	14
188.81	191.40	M033975	4350	3773	577	1165	870	1818	202	749	134	311	11	102	13	67	12	30	4	23	4	15
191.40	195.21	M033976	4478	3937	541	1221	896	1898	220	788	135	283	10	97	13	65	12	29	4	24	4	14
195.21	200.13	M033977	4012	3509	503	1084	789	1707	193	698	122	267	12	87	12	59	11	27	3	22	3	14
200.13	204.95	M033978	4315	3768	547	1158	853	1836	211	738	130	288	11	97	13	66	12	29	4	23	4	12
204.95	205.81	M033979	3831	3258	573	1031	746	1560	179	652	121	314	11	94	13	66	12	31	4	24	4	12
205.81	210.96	M033980	3079	2652	427	831	604	1278	145	527	98	225	10	75	10	51	9	23	3	18	3	10
210.96	211.25	M033981	2656	2361	295	692	566	1144	128	448	75	156	7	52	7	34	6	16	2	13	2	11
211.25	214.96	M033982	3166	2737	429	857	638	1302	155	546	96	227	10	75	10	50	9	23	3	19	3	8
214.96	221.46	M033983	4646	4095	551	1264	955	1953	235	815	137	287	11	104	13	64	11	30	4	23	4	8
221.46	223.72	M033984	3687	3201	486	1001	752	1517	179	640	113	254	10	89	12	57	10	26	3	22	3	10
223.72	228.38	M033986	4607	4011	596	1248	948	1898	231	794	140	315	11	109	14	69	12	33	4	25	4	11
228.38	229.00	M033987	3348	2881	467	905	683	1357	160	577	104	249	11	83	11	53	10	24	3	20	3	9
229.00	234.58	M033988	5535	4958	577	1482	1185	2371	288	963	151	301	13	109	14	66	12	30	4	24	4	10
234.58	239.50	M033989	4422	3877	545	1203	890	1861	222	776	128	284	12	100	13	64	11	30	4	23	4	9
239.50	244.42	M033990	3880	3396	484	1035	817	1609	188	672	110	259	12	86	11	54	10	26	3	20	3	7
244.42	249.18	M033991	4406	3848	558	1182	931	1812	222	758	125	296	12	100	13	64	11	30	4	24	4	9
249.18	250.56	M033992	3967	3492	475	1063	831	1664	195	689	113	248	12	86	11	55	10	26	3	21	3	7
250.56	254.27	M033993	4163	3667	496	1135	857	1744	210	735	121	259	12	91	12	57	10	27	3	22	3	8
254.27	259.19	M033994	4593	4069	524	1244	952	1947	239	799	132	269	13	101	13	61	11	27	4	22	3	8
259.19	262.47	M033995	4781	4263	518	1299	990	2045	249	844	135	267	13	101	12	59	10	27	4	22	3	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM031	*4,635,088.63*	*475,445.43*	*1,735.64*	*102.00*	*RC*

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
0.00	4.92	M032572	696	598	98	180	136	294	33	117	18	56	3	14	2	10	2	5	1	4	1	17
4.92	9.84	M032573	2189	1829	360	546	435	895	98	342	59	210	6	49	7	40	8	20	3	15	2	12
9.84	14.76	M032574	1732	1438	294	424	346	706	76	265	45	175	4	38	6	32	6	16	2	13	2	11
14.76	19.69	M032575	1706	1372	334	418	321	674	74	258	45	206	4	39	6	35	7	19	2	14	2	10
19.69	24.61	M032576	2118	1783	335	535	422	868	97	341	55	203	4	43	6	36	7	18	2	14	2	10
24.61	29.53	M032577	1639	1291	348	427	290	618	73	261	49	214	4	41	7	37	7	19	3	14	2	9
29.53	34.45	M032578	1464	1148	316	381	253	556	63	232	44	186	3	40	6	36	7	20	2	14	2	6
34.45	39.37	M032579	1688	1317	371	443	285	640	72	268	52	217	4	47	8	43	8	23	3	16	2	7
39.37	44.29	M032581	1577	1217	360	425	257	585	67	255	53	208	4	47	7	43	8	23	3	15	2	8
44.29	49.21	M032582	1409	1081	328	382	228	517	60	228	48	192	3	43	7	39	7	20	2	13	2	7
49.21	54.13	M032583	1525	1205	320	395	273	580	65	239	48	189	3	41	6	37	7	19	2	14	2	8
54.13	59.06	M032584	1578	1232	346	411	274	595	67	246	50	201	4	44	7	41	8	21	3	15	2	9
59.06	63.98	M032585	1562	1187	375	417	252	570	65	248	52	218	4	47	8	44	9	23	3	17	2	8
63.98	68.90	M032586	1465	1124	341	379	247	544	61	227	45	203	3	40	7	39	7	21	3	16	2	8
68.90	73.82	M032587	1465	1102	363	390	235	526	61	232	48	217	3	43	7	42	8	22	3	16	2	8
73.82	78.74	M032588	1484	1093	391	414	223	511	61	243	55	227	4	50	8	47	9	24	3	17	2	10
78.74	83.66	M032589	1489	1112	377	402	235	528	61	236	52	216	4	51	8	45	9	23	3	16	2	8
83.66	88.58	M032590	1817	1441	376	508	312	677	79	307	66	203	6	60	9	47	9	22	3	15	2	8
88.58	93.50	M032591	2636	2217	419	732	496	1051	120	461	89	219	9	74	10	52	9	23	3	17	3	7
93.50	98.43	M032592	3031	2621	410	832	591	1259	150	526	95	210	10	75	10	51	9	23	3	16	3	8
98.43	103.35	M032593	2571	2198	373	706	493	1054	119	448	84	192	10	67	9	46	8	21	3	15	2	7
103.35	108.27	M032594	2481	2145	336	670	488	1037	115	428	77	172	10	60	8	42	7	19	2	14	2	7
108.27	113.19	M032595	1978	1675	303	532	389	797	88	338	63	161	9	50	7	36	6	17	2	13	2	6
113.19	118.11	M032596	3097	2753	344	802	657	1345	148	516	87	175	10	64	8	43	7	19	2	14	2	6
118.11	123.03	M032597	2747	2409	338	725	557	1177	127	467	81	171	10	63	8	42	7	19	2	14	2	6
123.03	127.95	M032598	3539	3169	370	927	737	1560	176	598	98	186	10	72	9	46	8	20	2	15	2	7
127.95	132.87	M032599	3478	3121	357	912	720	1542	175	589	95	178	10	70	9	44	8	19	2	15	2	7
132.87	137.80	M032601	3457	3090	367	916	711	1517	174	590	98	183	10	73	9	45	8	20	2	15	2	6
137.80	142.72	M032602	3239	2904	335	861	673	1419	163	559	90	168	10	65	8	41	7	18	2	14	2	5
142.72	147.64	M032603	3286	2945	341	875	683	1437	166	568	91	171	10	67	8	42	7	18	2	14	2	7
147.64	152.56	M032604	3713	3326	387	992	768	1621	187	645	105	195	11	76	9	46	8	21	3	16	2	7
152.56	157.48	M032605	3115	2774	341	823	643	1357	155	533	86	173	10	65	8	41	7	19	2	14	2	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM031	4,635,088.63	475,445.43	1,735.64	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE											
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
157.48	162.40	M032606	3409	3030	379	913	686	1486	170	590	98	189	10	74	9	46	8	21	3	16	3	6
162.40	167.32	M032607	3442	3085	357	914	718	1505	175	591	96	180	10	69	9	43	8	19	2	15	2	7
167.32	172.24	M032608	4246	3814	432	1155	868	1855	213	762	116	215	11	85	11	53	9	24	3	18	3	8
172.24	177.17	M032609	3517	3150	367	931	731	1542	179	601	97	184	10	72	9	45	8	20	2	15	2	7
177.17	182.09	M032610	3344	2993	351	893	684	1468	168	582	91	177	10	68	9	43	7	19	2	14	2	6
182.09	187.01	M032611	3750	3368	382	990	781	1652	189	642	104	194	10	74	9	46	8	21	3	15	2	8
187.01	191.93	M032612	3526	3157	369	943	726	1542	178	614	97	186	10	72	9	45	8	20	2	15	2	7
191.93	196.85	M032613	3476	3118	358	923	725	1523	174	600	96	180	10	69	9	44	8	19	2	15	2	7
196.85	201.77	M032614	4080	3694	386	1117	848	1781	210	739	116	203	10	71	9	43	8	20	3	16	3	6
201.77	206.69	M032615	4007	3642	365	1098	830	1763	210	728	111	194	10	68	8	41	7	18	2	15	2	5
206.69	211.61	M032616	3916	3541	375	1067	810	1714	199	706	112	200	10	69	8	42	8	19	2	15	2	5
211.61	216.54	M032617	3984	3610	374	1080	817	1763	206	714	110	197	10	70	8	42	8	19	2	15	3	6
216.54	221.46	M032618	3694	3346	348	995	765	1634	190	654	103	182	10	65	8	40	7	18	2	14	2	6
221.46	226.38	M032619	3878	3496	382	1064	801	1683	197	706	109	201	11	69	9	43	8	19	3	16	3	6
226.38	231.30	M032620	4046	3651	395	1103	820	1781	210	727	113	209	10	72	9	44	8	20	3	17	3	6
231.30	236.22	M032622	4048	3658	390	1112	830	1769	214	731	114	204	10	73	9	44	8	20	3	16	3	6
236.22	241.14	M032623	4009	3620	389	1088	828	1757	208	715	112	203	10	73	9	44	8	20	3	16	3	6
241.14	246.06	M032624	3587	3240	347	976	726	1585	185	643	101	182	10	65	8	39	7	18	2	14	2	5
246.06	250.98	M032625	4008	3601	407	1094	805	1757	204	721	114	213	10	77	9	46	8	21	3	17	3	5
250.98	255.91	M032626	3660	3301	359	1000	741	1609	187	659	105	186	10	70	8	41	7	18	2	15	2	6
255.91	260.83	M032627	3863	3497	366	1050	801	1695	200	694	107	190	11	71	8	41	7	19	2	15	2	6
260.83	265.75	M032628	3887	3518	369	1053	795	1720	198	696	109	190	11	72	9	41	8	19	2	15	2	6
265.75	270.67	M032629	3538	3203	335	965	724	1560	184	636	99	173	10	65	8	38	7	16	2	14	2	7
270.67	275.59	M032630	3782	3444	338	1022	786	1683	196	675	104	170	11	68	8	39	7	17	2	14	2	6
275.59	280.51	M032631	3305	2989	316	898	685	1449	170	593	92	164	9	61	7	36	6	16	2	13	2	6
280.51	285.43	M032632	3701	3347	354	997	771	1628	188	658	102	183	10	69	8	41	7	18	2	14	2	5
285.43	290.35	M032633	3773	3393	380	1014	760	1671	192	666	104	194	11	73	9	43	8	20	3	16	3	7
290.35	295.28	M032634	3875	3499	376	1050	800	1701	201	689	108	191	11	73	9	43	8	19	3	16	3	6
295.28	300.20	M032635	3753	3388	365	1010	776	1652	193	665	102	189	11	70	8	42	7	19	2	15	2	8
300.20	305.12	M032636	3880	3488	392	1048	793	1701	199	689	106	201	11	75	9	45	8	20	3	17	3	7
305.12	310.04	M032637	3826	3465	361	1030	789	1695	193	684	104	187	11	70	8	41	7	18	2	15	2	7
310.04	314.96	M032638	3659	3304	355	984	759	1609	187	649	100	188	9	66	8	40	7	18	2	15	2	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM031	4,635,088.63	475,445.43	1,735.64	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
314.96	319.88	M032639	3741	3364	377	1004	772	1640	189	660	103	197	9	71	9	43	8	19	3	16	2	7
319.88	324.80	M032641	3646	3297	349	969	760	1615	187	636	99	181	9	68	8	39	7	18	2	15	2	8
324.80	329.72	M032642	3723	3365	358	999	769	1646	190	658	102	185	10	70	8	41	7	18	2	15	2	7
329.72	334.65	M032643	3825	3455	370	1027	794	1683	199	675	104	194	11	72	8	41	7	18	2	15	2	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM032	4,635,126.55	475,690.08	1,727.61	76.50	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
9.84	10.79	M034001	2256	2024	232	653	452	952	108	444	68	115	6	47	5	28	5	13	2	10	1	10
10.79	14.60	M034002	3543	3158	385	982	660	1572	159	660	107	195	10	75	9	47	7	20	2	17	3	6
14.60	15.45	M034003	1242	1078	164	359	234	507	57	238	42	88	5	28	3	19	3	9	1	7	1	3
15.45	19.69	M034004	3701	3310	391	1002	686	1677	168	673	106	203	10	73	9	46	8	21	2	17	2	4
19.69	24.61	M034005	3545	3179	366	975	653	1603	161	656	106	189	10	70	8	44	7	19	2	15	2	8
24.61	29.53	M034007	3494	3136	358	969	651	1566	160	657	102	183	10	70	8	42	7	18	2	16	2	7
29.53	34.45	M034008	3356	2968	388	932	605	1486	150	623	104	203	10	71	8	47	8	20	2	17	2	9
34.45	39.37	M034009	3415	2973	442	966	602	1468	153	643	107	230	11	79	10	53	9	24	3	20	3	6
39.37	43.04	M034010	3429	2932	497	948	572	1480	148	623	109	267	11	85	11	57	10	28	3	22	3	6
43.04	47.57	M034011	2444	2100	344	690	425	1034	108	451	82	179	10	61	8	41	7	19	2	15	2	3
47.57	52.49	M034012	3670	3292	378	992	690	1664	166	666	106	194	11	72	9	45	7	20	2	16	2	4
52.49	57.41	M034013	2550	2208	342	706	455	1096	112	465	80	178	10	61	8	41	7	19	2	14	2	6
57.41	61.75	M034014	3324	2936	388	914	605	1474	148	608	101	197	10	74	9	48	8	21	2	16	3	3
61.75	62.80	M034015	1762	1544	218	514	335	725	83	343	58	113	10	39	5	25	4	11	1	9	1	#Error
62.80	67.26	M034016	3799	3373	426	1045	699	1689	170	700	115	220	12	80	10	50	8	23	3	17	3	8
67.26	72.18	M034017	2108	1799	309	603	385	855	94	395	70	164	9	51	7	37	6	17	2	14	2	4
72.18	77.10	M034018	3853	3495	358	1045	737	1763	178	707	110	182	11	70	8	42	7	19	2	15	2	4
77.10	82.02	M034019	3184	2817	367	881	589	1400	141	591	96	190	10	69	9	44	7	19	2	15	2	6
82.02	86.94	M034020	3399	3023	376	926	640	1511	153	619	100	194	11	71	9	45	7	19	2	16	2	4
86.94	90.22	M034021	2821	2484	337	769	528	1235	124	511	86	173	11	62	8	40	7	18	2	14	2	5
90.22	95.14	M034022	3597	3155	442	1001	650	1566	163	667	109	231	11	80	10	52	9	24	3	19	3	8
95.14	100.07	M034023	4252	3819	433	1189	794	1898	196	804	127	222	11	84	10	52	8	22	3	18	3	5
100.07	104.99	M034024	4112	3700	412	1140	768	1849	190	770	123	210	12	81	9	48	8	21	3	17	3	6
104.99	109.91	M034025	4337	3906	431	1181	826	1959	198	800	123	220	12	85	10	50	8	22	3	18	3	5
109.91	114.83	M034026	3764	3384	380	1031	718	1689	176	695	106	192	12	75	9	45	8	20	2	15	2	2
114.83	119.75	M034028	4374	3955	419	1206	836	1972	202	818	127	213	12	83	10	49	8	21	3	17	3	5
119.75	124.67	M034029	3912	3521	391	1070	732	1775	178	724	112	199	11	76	9	47	8	20	2	16	3	5
124.67	129.59	M034030	4063	3645	418	1124	768	1812	188	758	119	211	12	81	10	49	8	23	3	18	3	5
129.59	132.87	M034031	4067	3687	380	1121	772	1849	189	762	115	192	11	75	9	46	7	20	2	16	2	5
132.87	139.76	M034032	3957	3579	378	1095	745	1793	184	739	118	190	12	75	9	45	7	19	2	16	3	9
139.76	148.43	M034033	4330	3922	408	1185	829	1965	198	805	125	208	12	80	10	47	8	20	3	17	3	6
148.43	156.27	M034034	4329	3874	455	1203	805	1929	198	814	128	236	12	87	10	53	9	23	3	19	3	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM032	4,635,126.55	475,690.08	1,727.61	76.50	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
156.27	160.89	M034035	3947	3568	379	1090	756	1775	181	741	115	190	13	77	9	44	7	19	2	16	2	6
160.89	161.29	M034036	5078	4649	429	1370	1079	2260	232	937	141	215	12	89	10	50	8	22	3	17	3	8
161.29	167.32	M034037	5049	4582	467	1383	993	2273	231	945	140	236	12	95	11	56	9	23	3	19	3	7
167.32	172.24	M034038	3739	3389	350	1035	720	1683	175	704	107	175	11	69	8	41	7	19	2	15	3	5
172.24	178.51	M034039	4313	3926	387	1182	826	1972	199	809	120	197	11	76	9	45	7	20	2	17	3	6
178.51	180.45	M034040	1838	1349	489	588	246	581	77	365	80	272	10	72	10	56	10	29	3	23	4	37
180.45	185.37	M034041	4396	4002	394	1199	849	2008	204	819	122	200	12	79	9	45	7	20	2	17	3	6
185.37	193.24	M034042	4552	4127	425	1248	881	2058	210	849	129	214	12	86	10	50	8	21	3	18	3	6
193.24	195.73	M034043	4219	3818	401	1169	806	1898	194	798	122	209	11	76	9	46	8	20	2	17	3	6
195.73	201.38	M034044	4707	4261	446	1291	901	2131	216	874	139	229	13	87	10	52	8	23	3	18	3	8
201.38	206.69	M034045	4527	4068	459	1244	848	2039	206	844	131	236	12	89	10	53	9	24	3	20	3	3
206.69	212.43	M034046	4248	3858	390	1120	931	1861	210	739	117	197	11	76	9	45	8	21	3	17	3	9
212.43	213.25	M034047	152	104	48	43	21	47	6	24	6	28	1	6	1	6	1	3	0	2	0	9
213.25	219.32	M034049	4147	3757	390	1096	916	1800	205	721	115	197	11	76	9	46	8	20	3	17	3	8
219.32	220.80	M034050	4203	3793	410	1120	914	1818	208	734	119	209	11	78	10	49	8	21	3	18	3	10
220.80	225.30	M034051	4324	3909	415	1138	957	1873	214	746	119	211	11	80	10	49	9	21	3	18	3	9
225.30	229.66	M034052	4458	4043	415	1177	984	1941	220	774	124	210	11	81	10	49	9	21	3	18	3	9
229.66	234.58	M034053	4653	4236	417	1234	1010	2051	245	802	128	210	12	82	10	49	9	21	3	18	3	8
234.58	237.37	M034054	4787	4356	431	1285	1044	2088	256	837	131	219	12	84	10	51	9	22	3	18	3	9
237.37	241.14	M034055	4235	3852	383	1116	941	1849	210	737	115	194	11	74	9	45	8	20	3	16	3	8
241.14	246.06	M034056	4427	4048	379	1161	975	1965	225	763	120	189	11	76	9	44	8	20	3	16	3	9
246.06	250.98	M034057	4782	4370	412	1263	1053	2113	253	822	129	206	12	83	10	49	8	21	3	17	3	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM033	*4,635,168.15*	*475,393.26*	*1,742.50*	*102.00*	*RC*

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		:23-OM033_xrf_	680	680	0	141	183	356		141												
		:23-OM033_xrf_	2892	2892	0	725	755	1412	172	553												
		:23-OM033_xrf_	4149	4149	0	1093	1000	2056	251	842												
		:23-OM033_xrf_	3652	3652	0	942	896	1814	205	737												
		:23-OM033_xrf_	3358	3358	0	889	817	1652	192	697												
		:23-OM033_xrf_	4330	4330	0	1186	1029	2115	250	936												
0.00	4.92	M032644	2449	2190	259	662	516	1047	121	437	69	138	7	45	6	29	5	13	2	12	2	10
4.92	9.84	M032645	2982	2754	228	790	685	1308	154	534	73	118	9	43	5	24	4	11	2	10	2	8
9.84	14.76	M032646	3620	3335	285	948	826	1597	185	640	87	149	11	52	6	30	6	14	2	13	2	8
14.76	19.69	M032647	3574	3296	278	932	815	1585	184	626	86	145	11	52	6	30	5	13	2	12	2	8
19.69	24.61	M032648	3417	3140	277	889	776	1511	174	597	82	142	12	51	6	30	5	14	2	13	2	8
24.61	29.53	M032649	3643	3343	300	961	824	1597	184	646	92	158	11	54	7	32	6	15	2	13	2	9
29.53	34.45	M032650	3710	3379	331	1007	807	1609	190	674	99	170	11	63	7	37	7	17	2	15	2	8
34.45	39.37	M032651	3673	3319	354	1001	800	1566	184	666	103	185	11	66	8	40	7	18	2	15	2	8
39.37	44.29	M032652	3984	3592	392	1097	847	1701	205	727	112	203	12	73	9	44	8	20	3	17	3	8
44.29	49.21	M032653	3720	3349	371	1031	802	1566	190	685	106	192	11	69	8	42	8	19	3	16	3	8
49.21	54.13	M032654	4022	3614	408	1117	847	1707	208	737	115	210	12	77	10	47	8	21	3	17	3	7
54.13	59.06	M032655	3661	3291	370	1012	787	1542	185	672	105	192	11	69	8	42	7	19	3	16	3	7
59.06	63.98	M032656	4199	3805	394	1159	925	1775	226	766	113	204	11	74	9	45	8	20	3	17	3	8
63.98	68.90	M032657	3410	3112	298	900	787	1468	172	596	89	149	9	58	7	36	6	15	2	14	2	8
68.90	73.82	M032658	5317	4776	541	1526	1136	2187	275	1003	175	276	15	119	13	60	10	24	3	18	3	8
73.82	78.74	M032659	3182	2856	326	856	678	1364	159	569	86	178	11	54	7	35	6	17	2	14	2	6
78.74	83.66	M032661	4625	4180	445	1269	1000	1972	243	837	128	234	11	81	10	51	9	23	3	20	3	9
83.66	88.58	M032662	4950	4480	470	1342	1071	2131	257	888	133	246	12	88	11	53	9	24	3	21	3	9
88.58	93.50	M032663	5103	4648	455	1407	1098	2205	268	937	140	236	12	87	11	51	9	23	3	20	3	10
93.50	98.43	M032664	6575	6020	555	1784	1366	2948	333	1201	172	282	12	111	14	64	12	29	4	23	4	11
98.43	103.35	M032665	5990	5460	530	1649	1243	2641	303	1114	159	270	12	106	13	60	11	28	4	22	4	12
103.35	108.27	M032666	5253	4698	555	1395	1077	2303	261	913	144	291	11	102	13	64	12	30	4	24	4	14
108.27	113.19	M032667	6256	5666	590	1688	1284	2776	315	1120	171	304	12	116	14	68	12	31	4	25	4	12
113.19	118.11	M032668	4512	4095	417	1194	950	2008	220	798	119	215	12	79	10	47	9	22	3	17	3	11
118.11	123.03	M032669	5249	4777	472	1393	1092	2358	267	921	139	239	12	94	12	54	10	25	3	20	3	10
123.03	127.95	M032670	4211	3829	382	1099	890	1892	202	734	111	194	12	74	9	43	8	20	3	16	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM033	4,635,168.15	475,393.26	1,742.50	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M032671	5774	5253	521	1531	1214	2580	295	1014	150	270	11	101	13	59	11	27	3	22	4	13
132.87	137.80	M032672	5739	5235	504	1511	1214	2580	290	1002	149	260	12	100	12	58	10	26	3	20	3	10
137.80	142.72	M032673	5135	4672	463	1362	1071	2303	260	904	134	239	12	90	11	53	9	24	3	19	3	11
142.72	147.64	M032674	4954	4461	493	1305	1043	2180	248	860	130	263	12	87	11	56	10	26	4	21	3	16
147.64	152.56	M032675	4300	3927	373	1118	937	1922	212	749	107	194	12	70	9	41	7	20	3	15	2	12
152.56	157.48	M032676	4541	4152	389	1188	977	2039	230	790	116	200	12	75	9	43	8	20	3	16	3	11
157.48	162.40	M032677	4323	3935	388	1129	924	1935	211	755	110	201	12	73	9	44	8	20	3	16	2	10
162.40	167.32	M032678	4141	3754	387	1086	885	1836	204	721	108	202	11	73	9	44	8	20	3	15	2	10
167.32	172.24	M032679	4651	4221	430	1219	990	2070	236	807	118	225	12	81	10	48	9	22	3	17	3	12
172.24	177.17	M032680	4412	4031	381	1155	937	1990	216	773	115	196	13	76	9	42	7	19	2	15	2	11
177.17	182.09	M032682	4023	3687	336	1061	866	1806	195	716	104	171	12	66	8	38	7	17	2	13	2	10
182.09	187.01	M032683	4029	3686	343	1064	876	1793	199	713	105	177	11	67	8	39	7	17	2	13	2	10
187.01	191.93	M032684	4297	3946	351	1130	928	1935	214	760	109	180	12	69	8	39	7	18	2	14	2	9
191.93	196.85	M032685	4512	4147	365	1189	969	2039	230	795	114	187	12	71	9	41	7	19	2	15	2	10
196.85	201.77	M032686	4353	3996	357	1132	941	1972	220	756	107	184	12	68	9	40	7	18	2	15	2	10
201.77	206.69	M032687	4009	3680	329	1034	866	1824	193	698	99	171	11	62	8	36	7	17	2	13	2	10
206.69	211.61	M032688	3955	3611	344	1033	849	1775	190	699	98	178	12	65	8	38	7	18	2	14	2	11
211.61	216.54	M032689	4350	3971	379	1143	926	1953	213	767	112	198	12	72	9	42	8	19	2	15	2	11
216.54	221.46	M032690	4293	3899	394	1122	926	1904	208	751	110	206	12	73	9	44	8	20	3	16	3	11
221.46	226.38	M032691	4131	3754	377	1089	888	1830	206	724	106	195	12	71	9	44	8	19	2	15	2	11
226.38	231.30	M032692	4361	3968	393	1134	921	1965	216	757	109	208	12	71	9	43	8	20	3	16	3	11
231.30	236.22	M032693	3312	3014	298	865	715	1474	159	582	84	157	9	55	7	33	6	15	2	12	2	8
236.22	241.14	M032694	4292	3911	381	1134	919	1910	216	756	110	196	12	73	9	43	8	20	2	15	3	10
241.14	246.06	M032695	4528	4122	406	1192	958	2027	230	790	117	210	13	77	10	45	8	21	3	16	3	12
246.06	250.98	M032696	4436	4037	399	1176	943	1972	218	788	116	203	13	79	10	44	8	20	3	16	3	12
250.98	255.91	M032697	4309	3934	375	1126	923	1935	209	756	111	196	12	71	9	41	7	19	2	15	3	12
255.91	260.83	M032698	3665	3348	317	960	796	1634	176	649	93	164	12	60	7	35	6	16	2	13	2	10
260.83	265.75	M032699	3878	3542	336	1017	826	1744	186	686	100	172	12	66	8	37	7	17	2	13	2	10
265.75	270.67	M032701	4126	3777	349	1126	904	1793	219	757	104	180	13	68	8	38	7	17	2	14	2	9
270.67	275.59	M032702	4010	3673	337	1088	874	1757	210	731	101	171	13	66	8	38	7	17	2	13	2	10
275.59	280.51	M032703	3924	3567	357	1070	846	1701	205	714	101	182	13	69	9	41	7	18	2	14	2	10
280.51	285.43	M032704	3637	3247	390	986	779	1535	186	651	96	207	13	70	9	44	8	19	2	16	2	14

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM033	4,635,168.15	475,393.26	1,742.50	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M032705	3886	3532	354	1041	850	1689	202	694	97	183	13	66	8	40	7	18	2	15	2	13
290.35	295.28	M032706	4088	3767	321	1093	911	1806	216	737	97	164	13	63	7	36	6	15	2	13	2	10
295.28	300.20	M032707	4248	3894	354	1137	931	1873	223	763	104	184	13	68	8	39	7	17	2	14	2	10
300.20	305.12	M032708	4350	3965	385	1172	965	1879	228	784	109	203	12	72	9	42	8	19	2	15	3	9
305.12	310.04	M032709	4086	3699	387	1106	888	1757	213	739	102	205	12	70	9	43	8	19	2	16	3	11
310.04	314.96	M032710	4470	4054	416	1219	956	1935	243	808	112	218	14	77	10	46	8	21	3	16	3	10
314.96	319.88	M032711	4056	3672	384	1107	878	1738	212	739	105	203	13	71	9	42	8	19	2	15	2	11
319.88	324.80	M032712	4433	4029	404	1204	958	1922	242	797	110	210	14	75	9	46	8	20	3	16	3	11
324.80	329.72	M032713	4131	3764	367	1123	904	1787	225	746	102	190	14	69	9	41	7	18	2	15	2	11
329.72	334.65	M032714	4374	3957	417	1189	939	1886	234	788	110	218	14	78	10	47	8	20	3	16	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM034	4,635,368.70	475,624.71	1,731.95	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
9.84	14.76	M034058	4331	3963	368	1143	955	1916	227	751	114	188	12	71	9	42	7	19	3	15	2	9
14.76	19.69	M034059	4576	4177	399	1206	1012	2015	240	791	119	202	12	77	10	46	8	21	3	17	3	10
19.69	24.61	M034060	4158	3766	392	1098	916	1806	207	723	114	201	12	73	9	45	8	21	3	17	3	11
24.61	29.53	M034061	4501	4133	368	1167	1002	2015	227	774	115	187	12	71	9	42	7	19	2	16	3	10
29.53	36.09	M034062	3984	3622	362	1048	891	1732	198	694	107	185	12	68	8	41	7	19	3	16	3	10
36.09	41.01	M034063	3807	3463	344	999	841	1671	189	661	101	175	11	66	8	40	7	18	2	15	2	10
41.01	45.28	M034064	3743	3409	334	985	819	1652	187	652	99	171	11	63	8	39	7	17	2	14	2	10
45.28	45.93	M034065	89	62	27	24	13	28	4	14	3	15	1	3	0	3	1	2	0	2	0	6
45.93	50.85	M034066	3790	3445	345	981	817	1695	186	647	100	178	11	64	8	40	7	18	2	15	2	10
50.85	53.97	M034067	4506	4105	401	1196	1000	1965	231	790	119	204	13	77	10	46	8	20	3	17	3	9
53.97	59.06	M034068	4226	3849	377	1107	939	1855	210	735	110	190	13	73	9	43	8	19	3	16	3	10
59.06	63.98	M034070	4044	3677	367	1062	903	1763	201	703	107	189	12	68	9	42	7	19	3	16	2	10
63.98	65.62	M034071	4245	3879	366	1111	946	1873	214	735	111	187	12	70	9	42	7	19	2	16	2	10
65.62	70.54	M034072	3921	3563	358	1032	873	1707	196	685	102	186	11	66	8	41	7	19	2	15	3	11
70.54	75.46	M034073	3933	3557	376	1035	868	1707	194	681	107	194	11	68	9	44	8	20	3	16	3	10
75.46	80.38	M034074	3836	3475	361	1007	848	1671	190	665	101	182	12	68	9	42	7	19	3	16	3	10
80.38	85.30	M034075	4078	3706	372	1063	908	1787	203	701	107	190	12	71	9	43	8	19	3	15	2	9
85.30	90.22	M034076	3241	2942	299	846	725	1413	159	559	86	152	10	56	7	35	6	16	2	13	2	10
90.22	95.14	M034077	4362	3978	384	1145	977	1910	227	751	113	191	13	75	9	45	8	20	3	17	3	9
95.14	100.07	M034078	3901	3539	362	1024	864	1701	193	677	104	185	12	68	8	42	7	19	3	16	2	10
100.07	102.66	M034079	3936	3553	383	1036	856	1714	195	682	106	199	12	69	9	44	8	20	3	16	3	10
102.66	110.89	M034080	4134	3777	357	1090	931	1806	208	724	108	179	13	70	9	41	7	18	3	15	2	10
110.89	114.83	M034081	4176	3800	376	1093	929	1830	207	723	111	192	13	70	9	43	8	19	3	16	3	11
114.83	118.77	M034082	3898	3538	360	1031	855	1701	195	685	102	188	12	67	8	41	7	18	2	15	2	9
118.77	124.67	M034083	3960	3617	343	1047	880	1738	198	698	103	175	12	65	8	40	7	17	2	15	2	10
124.67	129.59	M034084	4023	3673	350	1057	889	1775	202	704	103	179	13	67	8	40	7	17	2	15	2	9
129.59	134.51	M034085	3779	3429	350	1003	828	1646	188	667	100	182	12	65	8	40	7	17	2	15	2	10
134.51	139.44	M034086	4007	3651	356	1048	882	1769	198	698	104	184	13	67	8	40	7	18	2	15	2	9
139.44	144.36	M034087	3419	3097	322	905	745	1492	169	601	90	166	12	59	8	37	6	16	2	14	2	9
144.36	149.28	M034088	3971	3614	357	1050	869	1744	199	700	102	182	13	68	8	41	7	18	2	15	3	10
149.28	154.20	M034089	4486	4090	396	1196	976	1972	240	786	116	201	13	77	9	45	8	20	3	17	3	10
154.20	159.12	M034091	5657	5184	473	1505	1237	2506	302	995	144	242	14	94	11	53	9	24	3	20	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM034	4,635,368.70	475,624.71	1,731.95	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
159.12	164.04	M034092	5633	5166	467	1530	1231	2469	302	1022	142	239	14	92	11	53	9	23	3	20	3	11
164.04	168.96	M034093	4750	4337	413	1261	1040	2094	253	828	122	211	13	79	10	48	8	21	3	17	3	11
168.96	173.88	M034094	3792	3435	357	1004	828	1652	188	667	100	185	12	67	8	41	7	18	2	15	2	10
173.88	178.81	M034095	4006	3641	365	1055	880	1757	199	701	104	186	13	70	9	42	7	18	2	16	2	10
178.81	183.73	M034096	4065	3700	365	1074	896	1781	202	716	105	187	13	68	9	42	7	18	2	16	3	9
183.73	188.65	M034097	4051	3677	374	1072	881	1775	201	714	106	192	13	70	9	42	8	19	2	16	3	10
188.65	190.62	M034098	4662	4261	401	1248	1017	2051	248	825	120	206	13	76	9	46	8	20	3	17	3	12
190.62	195.21	M034099	4317	3953	364	1148	952	1904	220	765	112	186	12	70	9	42	7	18	2	15	3	9
195.21	199.15	M034100	4017	3681	336	1073	911	1744	206	717	103	169	12	67	8	39	7	16	2	14	2	10
199.15	202.30	M034101	4439	4065	374	1176	975	1965	234	778	113	191	13	72	9	42	7	18	3	16	3	9
202.30	202.62	M034102	4881	4459	422	1298	1058	2162	260	854	125	215	13	81	10	49	9	21	3	18	3	10
202.62	207.55	M034103	4370	3998	372	1159	956	1935	233	763	111	190	13	71	9	43	7	19	2	15	3	10
207.55	211.98	M034104	4000	3637	363	1062	868	1757	198	708	106	187	13	69	9	41	7	18	2	15	2	10
211.98	216.90	M034105	3640	3307	333	961	795	1597	181	639	95	170	12	63	8	38	7	17	2	14	2	8
216.90	221.82	M034106	4373	3968	405	1167	952	1904	229	769	114	209	13	76	9	46	8	20	3	18	3	10
221.82	224.08	M034107	4029	3669	360	1072	885	1763	202	715	104	182	13	70	9	42	7	18	2	15	2	10
224.08	229.00	M034108	4542	4172	370	1209	993	2021	242	802	114	189	13	72	9	42	7	18	2	15	3	10
229.00	229.79	M034109	4655	4275	380	1236	1009	2082	249	818	117	192	13	75	9	43	8	19	2	16	3	11
229.79	238.06	M034110	4103	3758	345	1080	907	1818	205	724	104	175	12	68	8	39	7	17	2	15	2	9
238.06	241.47	M034112	4526	4141	385	1202	996	1996	240	793	116	196	13	74	9	44	8	19	3	16	3	11
241.47	246.39	M034113	4756	4324	432	1262	1033	2088	248	834	121	221	14	82	10	49	9	22	3	19	3	11
246.39	251.18	M034114	4139	3762	377	1107	901	1806	219	728	108	193	13	70	9	43	8	19	3	16	3	10
251.18	252.89	M034115	4011	3661	350	1053	887	1769	199	703	103	179	13	67	8	40	7	17	2	15	2	10
252.89	259.51	M034116	4585	4174	411	1225	998	2008	242	808	118	211	14	78	10	47	8	20	3	17	3	12
259.51	262.47	M034117	4474	4082	392	1193	985	1959	240	783	115	199	13	74	9	46	8	20	3	17	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM035	4,635,116.15	475,562.59	1,732.63	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM035_xrf_	581	581	0	129	126	326		129												
		C23-OM035_xrf_	2450	2450	0	673	585	1192	164	509												
		C23-OM035_xrf_	2570	2570	0	698	609	1263	165	533												
		C23-OM035_xrf_	718	718	0	217	147	354		217												
		C23-OM035_xrf_	3716	3716	0	989	891	1836	209	780												
		C23-OM035_xrf_	3647	3647	0	1009	852	1786	230	779												
0.00	4.92	M032715	1302	1035	267	337	234	499	59	207	36	159	3	33	5	30	6	16	2	11	2	10
4.92	9.84	M032716	1226	951	275	328	219	441	55	199	37	161	4	35	6	31	6	16	2	12	2	10
9.84	14.76	M032717	1668	1363	305	434	327	642	77	269	48	180	4	41	6	34	7	17	2	12	2	9
14.76	19.69	M032718	1425	1146	279	375	274	534	66	230	42	164	4	38	6	31	6	15	2	11	2	9
19.69	24.61	M032719	1788	1442	346	484	330	674	83	300	55	205	4	48	7	39	7	19	2	13	2	10
24.61	29.53	M032721	1505	1177	328	417	247	558	70	252	50	194	4	43	7	38	7	18	2	13	2	9
29.53	34.45	M032722	1549	1187	362	415	260	558	69	252	48	220	4	43	7	39	8	20	3	16	2	10
34.45	39.37	M032723	1708	1350	358	447	308	640	78	274	50	218	4	43	7	38	7	20	3	16	2	10
39.37	44.29	M032724	1926	1521	405	498	358	716	87	306	54	246	4	48	7	44	9	23	3	18	3	11
44.29	49.21	M032725	1604	1281	323	419	294	609	74	257	47	196	3	39	6	35	7	18	2	15	2	9
49.21	54.13	M032726	1803	1398	405	477	312	658	82	293	53	250	4	46	7	42	8	23	3	19	3	12
54.13	59.06	M032727	1873	1488	385	507	334	695	89	314	56	235	4	47	7	41	8	21	3	17	2	11
59.06	63.98	M032728	1968	1590	378	518	360	763	92	318	57	224	4	49	8	43	8	21	3	16	2	10
63.98	68.90	M032729	1559	1186	373	463	238	537	73	279	59	213	5	53	8	44	8	21	3	16	2	10
68.90	73.82	M032730	1498	1124	374	432	229	513	68	259	55	220	5	51	8	42	8	20	3	15	2	8
73.82	78.74	M032731	1932	1473	459	554	308	672	88	335	70	272	5	62	9	52	10	25	3	18	3	10
78.74	83.66	M032732	1811	1412	399	521	293	653	85	316	65	230	5	58	9	46	9	22	3	15	2	10
83.66	88.58	M032733	1902	1469	433	548	308	673	89	332	67	251	5	61	9	51	10	24	3	17	2	10
88.58	93.50	M032734	2315	1790	525	690	369	806	110	419	86	296	7	80	12	63	12	29	3	20	3	12
93.50	98.43	M032735	2725	2286	439	778	502	1069	133	492	90	237	10	75	10	53	9	22	3	17	3	8
98.43	103.35	M032736	3041	2639	402	819	631	1247	142	524	95	206	11	73	10	48	9	22	3	17	3	7
103.35	108.27	M032737	2967	2617	350	796	630	1241	140	516	90	178	11	65	8	42	8	19	2	15	2	7
108.27	113.19	M032738	3434	3043	391	918	739	1443	164	595	102	198	11	73	10	47	8	21	3	17	3	8
113.19	118.11	M032739	3200	2833	367	847	700	1339	151	548	95	186	12	68	9	44	8	19	2	16	3	7
118.11	123.03	M032740	3296	2926	370	874	717	1388	157	568	96	187	11	69	9	44	8	20	3	16	3	8
123.03	127.95	M032742	4601	4173	428	1235	1024	1978	227	814	130	208	13	87	11	53	9	23	3	18	3	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM035	4,635,116.15	475,562.59	1,732.63	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
							Light REE					Heavy REE										
127.95	132.87	M032743	4292	3908	384	1136	949	1879	214	748	118	188	12	79	10	46	8	20	3	15	3	7
132.87	137.80	M032744	4189	3798	391	1105	931	1818	202	732	115	196	12	77	10	46	8	20	3	16	3	7
137.80	142.72	M032745	4660	4227	433	1233	1036	2021	234	809	127	216	12	86	11	52	9	23	3	18	3	9
142.72	147.64	M032746	3460	3100	360	914	758	1480	165	600	97	182	12	69	9	43	7	19	2	15	2	8
147.64	152.56	M032747	3576	3241	335	945	796	1548	174	624	99	166	11	67	8	40	7	18	2	14	2	8
152.56	157.48	M032748	3826	3491	335	1002	854	1683	185	666	103	164	12	69	8	40	7	17	2	14	2	7
157.48	162.40	M032749	4084	3718	366	1083	925	1763	200	715	115	180	12	75	9	44	8	19	2	15	2	7
162.40	167.32	M032750	3647	3319	328	957	805	1603	178	632	101	162	11	67	8	38	7	17	2	14	2	7
167.32	172.24	M032751	3763	3418	345	997	830	1640	185	659	104	173	11	68	8	41	7	18	2	15	2	9
172.24	177.17	M032752	3901	3559	342	1039	881	1689	192	689	108	166	12	71	9	41	7	18	2	14	2	7
177.17	182.09	M032753	3748	3430	318	983	848	1646	183	652	101	154	12	65	8	39	7	16	2	13	2	8
182.09	187.01	M032754	3924	3564	360	1039	876	1701	192	687	108	177	13	73	9	43	8	19	2	14	2	8
187.01	191.93	M032755	3657	3310	347	970	813	1578	177	640	102	171	12	69	9	42	7	18	2	15	2	9
191.93	196.85	M032756	3998	3653	345	1062	897	1744	195	707	110	169	12	71	9	41	7	17	2	15	2	8
196.85	201.77	M032757	3341	2999	342	879	728	1443	159	574	95	168	12	68	9	42	7	18	2	14	2	8
201.77	206.69	M032758	3825	3442	383	1012	856	1628	185	666	107	193	13	74	9	45	8	20	3	16	2	9
206.69	211.61	M032759	3937	3572	365	1039	878	1707	191	686	110	180	12	74	9	43	8	19	2	15	3	8
211.61	216.54	M032761	3912	3573	339	1023	880	1720	191	677	105	164	12	70	9	41	7	18	2	14	2	8
216.54	221.46	M032762	3857	3527	330	1009	864	1701	188	671	103	161	12	69	8	39	7	17	2	13	2	7
221.46	226.38	M032763	3453	3149	304	918	775	1499	169	611	95	149	10	63	7	36	6	16	2	13	2	8
226.38	231.30	M032764	4141	3777	364	1090	928	1812	202	723	112	179	12	74	9	44	8	19	2	15	2	8
231.30	236.22	M032765	3857	3510	347	1014	858	1689	188	671	104	169	12	71	9	42	7	18	2	15	2	8
236.22	241.14	M032766	3814	3471	343	1006	851	1664	186	666	104	168	12	70	9	41	7	18	2	14	2	8
241.14	246.06	M032767	4391	4009	382	1155	1005	1904	224	760	116	186	13	78	10	45	8	20	3	16	3	10
246.06	250.98	M032768	3955	3621	334	1034	903	1732	198	685	103	162	13	69	8	40	7	17	2	14	2	7
250.98	255.91	M032769	4038	3696	342	1058	912	1775	199	703	107	166	13	72	9	40	7	17	2	14	2	7
255.91	260.83	M032770	4506	4138	368	1172	1024	1996	231	771	116	178	13	77	9	45	8	19	2	15	2	8
260.83	265.75	M032771	4871	4481	390	1283	1104	2150	255	848	124	190	13	83	10	46	8	20	3	15	2	9
265.75	270.67	M032772	4672	4313	359	1221	1017	2125	242	813	116	182	11	73	9	41	7	18	2	14	2	8
270.67	275.59	M032773	4176	3840	336	1079	910	1898	204	724	104	171	10	68	8	39	7	16	2	13	2	7
275.59	280.51	M032774	4009	3680	329	1033	870	1824	196	693	97	166	10	65	8	39	7	17	2	13	2	8
280.51	285.43	M032775	3153	2908	245	818	699	1425	154	553	77	123	7	50	6	28	5	12	2	10	2	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM035	4,635,116.15	475,562.59	1,732.63	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M032776	4656	4290	366	1223	1012	2107	243	811	117	184	11	76	9	43	7	18	2	14	2	8
290.35	295.28	M032777	4850	4490	360	1274	1055	2211	254	851	119	179	12	77	9	41	7	17	2	14	2	10
295.28	300.20	M032778	4943	4563	380	1283	1066	2266	257	850	124	191	12	80	9	43	8	18	2	15	2	9
300.20	305.12	M032779	4251	3887	364	1108	915	1916	206	741	109	184	11	74	9	43	7	18	2	14	2	8
305.12	310.04	M032781	4419	4089	330	1146	957	2033	219	771	109	164	10	71	8	39	6	16	2	12	2	8
310.04	314.96	M032782	4637	4225	412	1242	983	2058	240	822	122	208	12	83	10	48	8	20	3	17	3	9
314.96	319.88	M032783	4012	3648	364	1055	857	1787	195	704	105	187	11	72	9	42	7	18	2	14	2	10
319.88	324.80	M032784	4443	4060	383	1166	969	1978	221	779	113	194	11	79	9	44	8	19	2	15	2	9
324.80	329.72	M032785	4107	3730	377	1078	869	1836	201	717	107	192	11	75	9	44	8	19	2	15	2	8
329.72	334.65	M032786	3837	3504	333	1000	830	1720	185	670	99	170	11	66	8	38	7	16	2	13	2	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM036	4,635,249.93	475,442.81	1,739.01	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM036_xrf_	3524	3524	0	1016	806	1702	238	778												
		C23-OM036_xrf_	3859	3859	0	946	941	1972	199	747												
		C23-OM036_xrf_	2534	2534	0	633	625	1276	150	483												
		C23-OM036_xrf_	3071	3071	0	788	731	1552	178	610												
		C23-OM036_xrf_	3733	3733	0	1020	882	1831	228	792												
		C23-OM036_xrf_	2399	2399	0	611	569	1219	118	493												
0.00	4.92	M032787	3550	3223	327	911	760	1597	169	607	90	170	9	61	8	37	7	17	2	14	2	12
4.92	9.84	M032788	3746	3446	300	949	831	1707	181	639	88	153	10	59	7	34	6	15	2	12	2	10
9.84	14.76	M032789	4534	4163	371	1176	999	2039	222	792	111	193	10	71	9	42	7	19	2	15	3	10
14.76	19.69	M032790	3801	3497	304	976	848	1714	186	659	90	158	10	57	7	34	6	15	2	13	2	10
19.69	24.61	M032791	4237	3862	375	1103	937	1873	207	741	104	197	11	70	8	43	8	19	2	15	2	11
24.61	29.53	M032792	4265	3885	380	1089	926	1922	205	728	104	198	11	71	9	43	8	19	3	15	3	12
29.53	34.45	M032793	3075	2790	285	790	657	1382	148	527	76	147	9	53	7	32	6	15	2	12	2	8
34.45	39.37	M032794	4002	3623	379	1037	870	1769	193	691	100	196	11	70	9	44	8	20	3	15	3	12
39.37	44.29	M032795	4120	3731	389	1073	887	1824	198	717	105	205	11	71	9	44	8	20	3	16	2	11
44.29	49.21	M032796	3894	3539	355	1005	850	1732	187	673	97	185	11	67	8	40	7	18	2	15	2	11
49.21	54.13	M032797	4083	3694	389	1062	867	1818	196	711	102	206	11	70	9	44	8	19	3	16	3	11
54.13	59.06	M032798	3836	3473	363	994	827	1701	187	661	97	190	11	68	8	41	7	19	2	15	2	11
59.06	63.98	M032799	3885	3521	364	1010	827	1732	188	677	97	194	11	67	8	40	7	18	2	15	2	11
63.98	68.90	M032800	3899	3531	368	999	831	1750	186	667	97	197	11	67	8	41	7	18	2	15	2	12
68.90	73.82	M032802	4373	3968	405	1139	944	1941	222	752	109	213	11	74	9	47	8	20	3	17	3	11
73.82	78.74	M032803	4527	4106	421	1174	980	2008	227	779	112	222	12	77	9	47	9	22	3	17	3	14
78.74	83.66	M032804	4039	3659	380	1041	883	1787	195	694	100	201	11	69	9	43	8	19	3	15	2	12
83.66	88.58	M032805	4051	3687	364	1049	876	1812	201	698	100	192	11	67	8	42	7	18	2	15	2	12
88.58	93.50	M032806	4041	3664	377	1044	847	1824	193	699	101	198	11	70	9	42	8	19	3	15	2	11
93.50	98.43	M032807	4330	3936	394	1117	931	1941	213	746	105	207	11	73	9	44	8	20	3	16	3	13
98.43	103.35	M032808	3690	3349	341	950	782	1664	178	631	94	177	11	63	8	39	7	18	2	14	2	10
103.35	108.27	M032809	4244	3871	373	1080	921	1922	204	717	107	190	12	70	9	43	8	19	3	16	3	10
108.27	113.19	M032810	4000	3644	356	1025	857	1812	191	684	100	184	11	67	8	42	7	18	2	15	2	10
113.19	118.11	M032811	3892	3528	364	995	839	1744	184	663	98	190	12	67	8	42	7	18	3	15	2	10
118.11	123.03	M032812	3460	3135	325	883	738	1560	164	586	87	166	11	60	8	38	7	17	2	14	2	9
123.03	127.95	M032813	3941	3574	367	1008	860	1757	187	670	100	189	12	68	9	42	7	19	3	16	2	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM036	4,635,249.93	475,442.81	1,739.01	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M032814	4232	3840	392	1085	905	1904	207	718	106	200	12	74	9	45	8	21	3	17	3	10
132.87	137.80	M032815	3807	3443	364	975	817	1701	180	649	96	188	12	67	8	42	7	19	3	16	2	10
137.80	142.72	M032816	3630	3282	348	922	788	1621	170	612	91	178	11	65	8	41	7	19	2	15	2	11
142.72	147.64	M032817	3561	3208	353	906	765	1585	167	601	90	184	12	64	8	40	7	18	3	15	2	10
147.64	152.56	M032818	4041	3651	390	1025	861	1818	190	681	101	204	12	71	9	44	8	20	3	16	3	12
152.56	157.48	M032819	3847	3472	375	976	823	1726	180	647	96	190	12	70	9	44	8	20	3	16	3	12
157.48	162.40	M032821	3700	3346	354	937	805	1652	175	619	95	184	11	66	8	40	7	19	2	15	2	11
162.40	167.32	M032822	3676	3334	342	949	792	1640	179	630	93	178	11	64	8	39	7	17	2	14	2	11
167.32	172.24	M032823	4077	3697	380	1045	875	1830	195	694	103	195	12	71	9	44	8	19	3	16	3	10
172.24	177.17	M032824	3757	3407	350	958	808	1689	178	637	95	181	12	65	8	40	7	18	2	15	2	12
177.17	182.09	M032825	3521	3185	336	901	753	1578	167	597	90	173	11	62	8	39	7	18	2	14	2	10
182.09	187.01	M032826	3523	3196	327	894	756	1591	168	594	87	170	11	59	8	37	7	17	2	14	2	10
187.01	191.93	M032827	3333	2987	346	856	711	1468	156	566	86	182	11	61	8	40	7	18	2	15	2	11
191.93	196.85	M032828	3696	3335	361	942	796	1646	175	624	94	188	12	65	8	41	7	19	3	15	3	11
196.85	201.77	M032829	3695	3330	365	933	795	1652	173	615	95	189	12	65	8	42	8	19	3	16	3	12
201.77	206.69	M032830	3621	3261	360	922	779	1609	172	609	92	187	12	65	8	41	7	19	3	15	3	11
206.69	211.61	M032831	3564	3215	349	909	769	1585	168	602	91	182	11	64	8	40	7	18	2	15	2	12
211.61	216.54	M032832	3384	3049	335	873	742	1480	159	580	88	177	11	59	8	38	7	17	2	14	2	12
216.54	221.46	M032833	3496	3135	361	894	748	1542	166	589	90	190	11	64	8	41	7	19	2	16	3	12
221.46	226.38	M032834	3452	3116	336	880	740	1542	163	582	89	175	11	61	8	38	7	17	2	15	2	12
226.38	231.30	M032835	3761	3389	372	959	806	1677	178	633	95	189	12	68	9	44	8	20	3	16	3	11
231.30	236.22	M032836	2677	2397	280	680	575	1180	125	450	67	146	9	49	6	32	6	15	2	13	2	10
236.22	241.14	M032837	3458	3117	341	887	748	1529	163	589	88	177	11	62	8	39	7	18	2	15	2	10
241.14	246.06	M032838	3835	3461	374	972	814	1726	181	645	95	192	13	69	9	42	8	19	3	16	3	11
246.06	250.98	M032839	3629	3279	350	919	787	1621	172	609	90	183	12	63	8	40	7	18	2	15	2	11
250.98	255.91	M032841	3625	3297	328	948	779	1615	187	628	88	170	11	59	7	38	7	18	2	14	2	9
255.91	260.83	M032842	3681	3343	338	968	782	1640	191	640	90	176	11	60	8	39	7	18	2	15	2	9
260.83	265.75	M032843	3728	3384	344	976	792	1664	188	650	90	178	12	62	8	40	7	18	2	15	2	9
265.75	270.67	M032844	3691	3344	347	971	775	1646	188	644	91	181	11	62	8	40	7	19	2	15	2	9
270.67	275.59	M032845	3979	3607	372	1041	843	1775	205	687	97	189	12	69	9	43	8	20	3	16	3	9
275.59	280.51	M032846	3612	3272	340	945	771	1603	185	625	88	178	11	60	8	39	7	18	2	15	2	9
280.51	285.43	M032847	3527	3184	343	925	758	1548	181	610	87	178	11	62	8	39	7	19	2	15	2	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM036	4,635,249.93	475,442.81	1,739.01	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										Sc2O3
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	
285.43	290.35	M032848	3613	3280	333	946	771	1609	187	626	87	171	11	61	8	38	7	18	2	15	2	8
290.35	295.28	M032849	3809	3442	367	992	829	1671	194	654	94	188	12	67	8	42	8	20	3	16	3	9
295.28	300.20	M032850	3745	3401	344	985	806	1658	193	653	91	177	12	63	8	40	7	18	2	15	2	10
300.20	305.12	M032851	3230	2933	297	845	693	1437	164	561	78	151	9	56	7	35	6	16	2	13	2	10
305.12	310.04	M032852	3838	3495	343	994	823	1726	196	658	92	173	12	65	8	40	7	19	2	15	2	8
310.04	314.96	M032853	4239	3860	379	1110	898	1904	218	739	101	192	12	72	9	43	8	20	3	17	3	10
314.96	319.88	M032854	4085	3721	364	1078	869	1824	208	722	98	184	12	68	8	42	8	20	3	16	3	10
319.88	324.80	M032855	4483	4111	372	1205	956	2002	233	811	109	188	12	71	9	43	8	19	3	16	3	9
324.80	329.72	M032856	4360	3982	378	1149	926	1959	227	764	106	192	12	71	9	43	8	20	3	17	3	10
329.72	334.65	M032857	4238	3871	367	1145	897	1879	220	772	103	188	12	69	8	42	7	19	3	16	3	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM037	4,635,490.21	475,570.90	1,739.68	80.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
9.84	14.76	M034118	3846	3506	340	1022	792	1738	190	682	104	176	12	64	8	38	7	17	2	14	2	10
14.76	19.69	M034119	3560	3224	336	943	706	1621	172	630	95	175	12	60	8	38	7	17	2	15	2	9
19.69	24.61	M034120	3781	3479	302	998	766	1757	185	673	98	152	11	59	7	35	6	15	2	13	2	8
24.61	30.02	M034121	4208	3839	369	1106	855	1929	205	741	109	190	12	69	9	42	7	19	2	16	3	9
36.09	41.01	M034122	3991	3622	369	1054	819	1800	195	702	106	189	12	68	9	42	8	19	3	16	3	10
41.01	45.93	M034123	4262	3890	372	1121	855	1965	207	751	112	192	12	69	9	42	7	19	3	16	3	10
45.93	50.85	M034124	3855	3482	373	1013	763	1757	187	671	104	195	12	66	9	42	8	19	3	16	3	10
50.85	55.77	M034125	3644	3305	339	972	734	1646	179	649	97	174	12	63	8	39	7	17	2	15	2	9
55.77	60.70	M034126	3775	3421	354	995	749	1726	182	664	100	185	12	64	8	41	7	18	2	15	2	10
60.70	65.62	M034127	4172	3819	353	1121	866	1879	213	749	112	182	13	68	8	39	7	17	2	15	2	9
65.62	70.54	M034128	3973	3619	354	1060	815	1793	197	708	106	181	13	67	8	41	7	18	2	15	2	10
70.54	75.46	M034129	3660	3340	320	991	778	1615	184	664	99	163	12	61	8	36	7	16	2	13	2	9
75.46	80.38	M034130	4442	4047	395	1208	914	1978	233	801	121	204	13	74	9	44	8	20	3	17	3	9
80.38	85.30	M034131	4870	4435	435	1302	970	2223	255	857	130	227	12	80	10	50	9	22	3	19	3	11
85.30	90.22	M034133	4213	3836	377	1134	861	1892	211	760	112	194	12	70	9	42	8	20	3	16	3	9
90.22	95.14	M034134	4478	4084	394	1188	916	2033	224	792	119	204	12	74	9	44	8	20	3	17	3	9
95.14	100.07	M034136	3896	3512	384	1045	782	1738	191	695	106	199	12	70	9	44	8	20	3	16	3	11
100.07	104.99	M034137	3917	3545	372	1032	783	1781	191	687	103	195	12	66	9	42	8	19	2	16	3	10
104.99	109.91	M034138	4059	3692	367	1068	813	1861	198	714	106	191	12	67	9	41	7	19	2	16	3	10
109.91	114.83	M034139	3878	3515	363	1048	796	1720	194	699	106	190	12	66	8	41	7	19	2	16	2	10
114.83	119.75	M034140	3950	3598	352	1055	823	1769	198	704	104	181	12	66	8	41	7	18	2	15	2	10
119.75	124.67	M034141	4198	3821	377	1119	868	1886	208	748	111	195	12	69	9	43	8	19	3	16	3	11
124.67	129.59	M034142	4045	3669	376	1092	829	1800	202	728	110	193	13	70	9	43	8	19	2	16	3	11
129.59	133.27	M034143	4403	4042	361	1184	917	1990	233	788	114	187	12	69	8	41	7	18	2	15	2	11
133.27	133.43	M034144	1921	1692	229	528	378	817	93	348	56	123	5	38	5	26	5	12	2	11	2	10
133.43	136.15	M034145	4691	4306	385	1268	984	2107	253	840	122	197	12	74	9	44	8	19	3	16	3	12
136.15	141.70	M034146	4266	3881	385	1143	869	1922	211	764	115	199	12	72	9	44	8	19	3	16	3	11
141.70	146.00	M034147	3885	3527	358	1047	803	1726	194	699	105	186	12	67	8	41	7	18	2	15	2	10
146.00	150.92	M034148	3788	3427	361	1018	782	1677	188	678	102	185	13	67	8	42	7	19	2	15	3	9
150.92	156.89	M034149	3774	3413	361	1029	775	1658	188	686	106	190	11	66	8	41	7	19	2	15	2	10
156.89	157.15	M034150	1616	1436	180	436	319	705	78	289	45	98	5	30	4	20	4	9	1	8	1	9
157.15	160.76	M034151	3588	3247	341	969	739	1585	178	647	98	178	12	62	8	38	7	17	2	15	2	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM037	4,635,490.21	475,570.90	1,739.68	80.00	HQ

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
160.76	165.68	M034152	3567	3221	346	973	729	1566	177	652	97	182	12	62	8	39	7	17	2	15	2	10
165.68	170.60	M034154	4744	4296	448	1286	970	2101	249	846	130	235	13	82	10	51	9	23	3	19	3	11
170.60	175.52	M034155	4033	3663	370	1034	868	1812	194	684	105	192	12	67	9	42	7	19	3	16	3	10
175.52	180.45	M034156	3820	3456	364	990	816	1701	186	652	101	189	12	65	9	42	7	19	2	16	3	11
180.45	185.37	M034157	3829	3474	355	992	824	1707	187	656	100	185	12	64	8	41	7	18	2	16	2	10
185.37	190.29	M034158	3919	3559	360	1003	861	1744	189	663	102	187	12	65	8	41	7	19	3	15	3	11
190.29	195.21	M034159	4012	3669	343	1037	867	1812	196	691	103	177	12	64	8	39	7	17	2	15	2	10
195.21	200.13	M034160	4405	4029	376	1141	962	1978	219	757	113	192	12	70	9	43	8	19	3	17	3	10
200.13	205.05	M034161	4465	4082	383	1148	971	2015	219	762	115	198	12	71	9	43	8	19	3	17	3	9
205.05	209.97	M034162	4136	3773	363	1059	892	1873	201	701	106	187	11	67	9	42	7	18	3	16	3	9
209.97	214.90	M034163	4271	3891	380	1102	926	1916	211	730	108	194	12	70	9	44	8	20	3	17	3	11
214.90	219.62	M034164	4257	3901	356	1078	942	1929	212	713	105	185	11	65	8	40	7	18	3	16	3	11
219.62	220.11	M034165	5156	4669	487	1360	1090	2285	268	889	137	255	12	89	11	55	10	25	4	22	4	12
220.11	224.08	M034166	4033	3668	365	1030	881	1806	195	684	102	193	11	64	8	41	7	19	3	16	3	9
224.08	224.28	M034167	2561	2299	262	647	558	1129	121	426	65	141	7	43	6	29	5	14	2	13	2	8
224.28	226.74	M034168	4203	3844	359	1078	923	1892	205	717	107	187	11	65	8	41	7	18	3	16	3	10
226.74	227.72	M034169	5938	5423	515	1568	1272	2653	308	1038	152	270	12	95	12	58	10	27	4	23	4	13
227.72	231.30	M034170	4258	3872	386	1104	917	1904	208	732	111	201	11	70	9	44	8	20	3	17	3	10
231.30	236.22	M034171	4509	4125	384	1166	978	2033	224	773	117	199	11	72	9	43	8	19	3	17	3	12
236.22	241.14	M034172	4509	4119	390	1170	965	2039	224	774	117	199	12	73	9	46	8	20	3	17	3	13
241.14	246.06	M034173	5753	5242	511	1516	1231	2567	291	1001	152	260	13	98	12	60	11	27	4	22	4	11
246.06	248.75	M034175	6684	6195	489	1769	1448	3046	350	1190	161	251	13	96	12	56	10	25	3	20	3	12
248.75	252.33	M034176	3364	2932	432	893	673	1425	158	576	100	236	10	69	10	49	9	23	3	20	3	12
252.33	252.46	M034177	4170	3786	384	1088	884	1867	204	721	110	199	10	71	9	44	8	20	3	17	3	12
252.46	258.92	M034178	4465	4010	455	1178	931	1965	228	765	121	241	11	80	11	53	9	23	3	21	3	12
258.92	262.47	M034179	4767	4334	433	1236	1027	2131	245	809	122	225	12	80	10	50	9	22	3	19	3	11

Rare Earth Element Oxide Summary

Drill Hole	*Northing*	*Easting*	*Collar*	*Total Depth*	*Hole Type*
HC23-OM038	4,635,325.68	475,369.93	1,739.65	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM038_xrf_	7923	7923	0	2131	1876	3916	462	1669												
		C23-OM038_xrf_	4284	4284	0	1151	1016	2117	219	932												
		C23-OM038_xrf_	4389	4389	0	1106	1074	2209	198	908												
		C23-OM038_xrf_	5386	5386	0	1468	1276	2642	349	1119												
		C23-OM038_xrf_	837	837	0	175	207	455		175												
		C23-OM038_xrf_	4160	4160	0	1182	959	2019	281	901												
0.00	4.92	M032858	1272	1149	123	320	273	572	61	213	30	66	4	20	3	13	2	7	1	6	1	14
4.92	9.84	M032859	2500	2263	237	640	527	1128	121	427	60	122	8	42	5	27	5	13	2	11	2	13
9.84	14.76	M032860	3498	3191	307	921	765	1548	182	612	84	159	10	56	7	36	6	16	2	13	2	10
14.76	19.69	M032862	4258	3883	375	1132	918	1886	219	758	102	192	11	71	9	44	8	20	3	15	2	10
19.69	24.61	M032863	3739	3323	416	976	802	1603	186	639	93	218	11	73	9	49	9	23	3	18	3	12
24.61	29.53	M032864	4853	4444	409	1260	1043	2199	243	846	113	209	11	79	10	48	8	21	3	17	3	10
29.53	34.45	M032865	6762	6253	509	1764	1501	3059	349	1190	154	262	12	101	12	59	10	26	3	21	3	12
34.45	39.37	M032866	5460	4976	484	1455	1169	2420	277	983	127	251	12	90	11	57	10	26	3	21	3	12
39.37	44.29	M032867	5094	4648	446	1326	1111	2273	260	889	115	234	12	80	10	52	9	24	3	19	3	10
44.29	49.21	M032868	5703	5195	508	1493	1231	2543	294	995	132	264	12	93	12	60	11	28	3	22	3	9
49.21	54.13	M032869	7277	6580	697	1941	1519	3218	364	1306	173	366	13	127	16	82	15	38	5	30	5	13
54.13	59.06	M032870	5021	4597	424	1303	1100	2254	257	875	111	218	11	79	10	50	9	23	3	18	3	12
59.06	63.98	M032871	6254	5758	496	1691	1325	2813	326	1150	144	248	13	100	12	59	10	27	3	21	3	14
63.98	68.90	M032872	7436	6829	607	2015	1572	3329	382	1371	175	309	14	120	15	72	13	32	4	24	4	15
68.90	73.82	M032873	5854	5284	570	1602	1196	2567	298	1077	146	295	13	106	13	68	12	31	4	24	4	13
73.82	78.74	M032874	3950	3534	416	1062	810	1720	202	701	101	216	12	73	9	49	9	23	3	19	3	12
78.74	83.66	M032875	4819	4362	457	1297	1004	2125	243	871	119	237	12	83	11	53	10	25	3	20	3	13
83.66	88.58	M032876	4795	4319	476	1325	1010	2051	253	885	120	252	12	83	11	56	10	25	3	21	3	13
88.58	93.50	M032877	6129	5540	589	1723	1284	2616	326	1163	151	311	12	106	14	69	12	31	4	26	4	15
93.50	98.43	M032878	4195	3806	389	1152	896	1812	223	774	101	204	11	69	9	45	8	20	3	17	3	13
98.43	103.35	M032879	4103	3718	385	1127	868	1775	217	757	101	203	11	68	9	43	8	20	3	17	3	10
103.35	108.27	M032881	3630	3286	344	988	779	1566	185	667	89	180	11	62	8	39	7	18	2	15	2	10
108.27	113.19	M032882	4185	3794	391	1153	888	1806	219	778	103	204	12	71	9	44	8	20	3	17	3	12
113.19	118.11	M032883	4296	3867	429	1194	897	1836	227	799	108	225	12	75	10	50	9	23	3	19	3	12
118.11	123.03	M032884	4294	3864	430	1176	898	1849	223	788	106	224	12	78	10	49	9	23	3	19	3	11
123.03	127.95	M032885	3929	3516	413	1082	820	1671	202	725	98	218	12	72	9	48	8	22	3	18	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM038	4,635,325.68	475,369.93	1,739.65	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
							Light REE					Heavy REE										
127.95	132.87	M032886	3975	3552	423	1099	828	1683	201	739	101	226	12	72	10	48	9	22	3	18	3	12
132.87	137.80	M032887	3211	2864	347	883	666	1364	162	591	81	183	11	60	8	41	7	18	2	15	2	9
137.80	142.72	M032888	4017	3614	403	1095	842	1732	203	738	99	213	13	71	9	46	8	20	3	17	3	12
142.72	147.64	M032889	3865	3493	372	1063	817	1664	201	716	95	196	12	66	9	42	7	19	3	15	3	12
147.64	152.56	M032890	4095	3697	398	1115	867	1769	214	748	99	209	12	70	9	45	8	21	3	18	3	12
152.56	157.48	M032891	3703	3318	385	1016	776	1578	187	684	93	205	11	65	9	43	8	20	3	18	3	10
157.48	162.40	M032892	3357	3002	355	917	708	1425	170	615	84	190	10	59	8	40	7	19	3	16	3	10
162.40	167.32	M032893	4535	4092	443	1260	958	1935	239	847	113	234	13	78	10	51	9	23	3	19	3	12
167.32	172.24	M032894	3938	3554	384	1079	833	1695	204	725	97	200	12	68	9	44	8	20	3	17	3	10
172.24	177.17	M032895	4533	4109	424	1249	965	1953	240	841	110	223	13	76	10	48	8	22	3	18	3	12
177.17	182.09	M032896	4117	3727	390	1130	870	1781	213	762	101	204	12	69	9	45	8	20	3	17	3	12
182.09	187.01	M032897	4599	4166	433	1263	973	1990	240	850	113	226	13	79	10	50	9	22	3	18	3	12
187.01	191.93	M032898	4300	3890	410	1173	908	1867	225	785	105	210	13	75	10	48	8	22	3	18	3	12
191.93	196.85	M032899	3733	3360	373	1020	794	1597	188	688	93	195	12	65	9	42	8	20	3	16	3	11
196.85	201.77	M032901	4436	4013	423	1224	938	1910	233	822	110	222	13	75	10	49	8	22	3	18	3	12
201.77	206.69	M032902	4345	3948	397	1195	916	1892	229	805	106	204	13	73	9	46	8	21	3	17	3	11
206.69	211.61	M032903	4183	3773	410	1159	891	1781	217	781	103	210	13	75	10	48	8	22	3	18	3	10
211.61	216.54	M032904	4039	3661	378	1107	850	1757	210	746	98	195	12	69	9	44	8	19	3	16	3	9
216.54	221.46	M032905	4382	3990	392	1198	936	1910	232	807	105	203	13	72	9	45	8	20	3	16	3	10
221.46	226.38	M032906	4427	4020	407	1214	945	1916	234	816	109	213	12	75	9	46	8	21	3	17	3	10
226.38	231.30	M032907	4765	4322	443	1319	1002	2064	253	886	117	227	12	83	11	52	9	23	3	20	3	12
231.30	236.22	M032908	4065	3663	402	1121	847	1750	213	752	101	210	12	73	9	46	8	21	3	17	3	11
236.22	241.14	M032909	4829	4368	461	1338	1000	2094	256	897	121	241	13	84	11	53	9	24	3	20	3	12
241.14	246.06	M032910	4920	4471	449	1356	1034	2144	262	912	119	234	12	83	11	52	9	23	3	19	3	10
246.06	250.98	M032911	4773	4339	434	1318	1012	2070	254	886	117	223	13	80	10	51	9	23	3	19	3	12
250.98	255.91	M032912	3997	3614	383	1111	829	1726	210	742	107	198	12	70	9	43	8	20	3	17	3	12
255.91	260.83	M032913	4024	3676	348	1118	856	1750	212	752	106	179	11	66	8	40	7	18	2	15	2	10
260.83	265.75	M032914	4053	3695	358	1125	862	1757	214	755	107	184	12	67	8	41	7	19	2	15	3	11
265.75	270.67	M032915	3821	3473	348	1061	795	1664	200	711	103	182	11	64	8	39	7	18	2	15	2	11
270.67	275.59	M032916	4061	3686	375	1127	842	1769	214	752	109	191	12	70	9	43	8	20	3	16	3	11
275.59	280.51	M032917	4430	4025	405	1230	912	1941	237	818	117	206	12	76	10	48	9	21	3	17	3	12
280.51	285.43	M032918	4784	4360	424	1329	997	2094	257	885	127	215	12	82	10	50	9	22	3	18	3	13

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM038	4,635,325.68	475,369.93	1,739.65	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M032919	4710	4285	425	1317	983	2045	256	875	126	218	12	80	10	50	9	22	3	18	3	15
290.35	295.28	M032920	3619	3293	326	996	758	1585	190	665	95	166	10	62	8	38	7	17	2	14	2	11
295.28	300.20	M032922	4225	3850	375	1173	881	1849	224	785	111	189	11	73	9	44	8	19	3	16	3	11
300.20	305.12	M032923	4326	3935	391	1204	911	1873	230	805	116	202	11	74	9	44	8	20	3	17	3	12
305.12	310.04	M032924	4752	4323	429	1334	992	2058	259	885	129	218	12	82	10	51	9	23	3	18	3	12
310.04	314.96	M032925	4532	4136	396	1268	958	1965	249	844	120	204	11	75	9	46	8	20	3	17	3	12
314.96	319.88	M032926	5101	4667	434	1412	1080	2236	278	940	133	218	12	87	11	50	9	22	3	19	3	13
319.88	324.80	M032927	4908	4486	422	1372	1023	2150	266	917	130	212	13	83	10	49	9	22	3	18	3	12
324.80	329.72	M032928	4398	4020	378	1243	919	1910	243	829	119	191	12	74	9	43	8	19	3	16	3	12
329.72	334.65	M032929	4085	3735	350	1144	864	1775	217	769	110	178	11	69	8	40	7	18	2	15	2	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM039	4,635,449.80	475,365.10	1,740.18	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
18.04	22.97	M034180	4770	4317	453	1234	1019	2125	239	813	121	246	10	77	10	51	9	24	3	20	3	13
22.97	27.89	M034181	4023	3614	409	1031	857	1781	194	677	105	222	10	68	9	46	8	21	3	19	3	12
27.89	32.81	M034182	4251	3826	425	1091	907	1886	206	716	111	227	10	74	10	48	9	22	3	19	3	11
32.81	37.73	M034183	4795	4352	443	1248	1021	2144	251	815	121	234	11	79	10	51	9	23	3	20	3	12
37.73	42.65	M034184	4863	4405	458	1263	1036	2168	249	826	126	244	11	81	10	52	9	24	3	21	3	11
42.65	47.57	M034185	4703	4265	438	1212	1006	2107	236	795	121	232	10	78	10	50	9	23	3	20	3	12
47.57	52.49	M034186	5239	4775	464	1358	1109	2371	268	892	135	246	10	85	11	52	9	24	3	21	3	12
52.49	57.41	M034187	5984	5445	539	1556	1284	2678	309	1022	152	287	11	96	12	61	11	28	4	25	4	14
57.41	62.34	M034188	4918	4457	461	1275	1046	2199	253	833	126	246	11	81	11	52	9	24	3	21	3	11
62.34	67.26	M034189	4405	4005	400	1130	939	1990	217	748	111	211	10	72	9	45	8	21	3	18	3	9
67.26	72.18	M034190	4587	4167	420	1186	987	2051	238	774	117	223	10	75	10	47	8	22	3	19	3	11
72.18	77.10	M034191	3889	3493	396	1020	820	1707	191	678	97	211	10	69	9	45	8	21	3	17	3	10
77.10	82.02	M034192	4497	4065	432	1196	963	1965	224	801	112	231	11	75	10	49	9	23	3	18	3	11
82.02	85.14	M034193	4110	3691	419	1082	871	1793	203	723	101	225	11	73	9	46	8	23	3	18	3	11
85.14	85.63	M034194	1244	1081	163	318	247	536	59	209	30	89	4	23	3	17	3	9	1	12	2	10
85.63	86.94	M034196	4477	4015	462	1169	949	1959	224	772	111	253	11	78	10	52	9	24	3	19	3	13
86.94	91.86	M034197	4301	3846	455	1134	901	1873	211	753	108	244	11	78	10	52	9	25	3	20	3	11
91.86	96.78	M034198	4145	3693	452	1090	877	1787	205	720	104	247	11	75	10	51	9	24	3	19	3	12
96.78	101.71	M034199	4612	4135	477	1191	980	2027	231	784	113	263	11	79	10	53	10	25	3	20	3	13
101.71	106.63	M034200	3834	3299	535	1032	747	1591	178	674	109	301	10	81	11	60	11	29	4	24	4	12
106.63	111.55	M034201	2949	2504	445	792	572	1199	137	510	86	252	10	65	9	50	9	24	3	20	3	12
111.55	116.47	M034202	2596	2215	381	698	508	1060	120	451	76	211	9	57	8	43	8	21	3	18	3	13
116.47	121.39	M034203	2939	2548	391	794	578	1228	138	520	84	214	11	61	8	44	8	21	3	18	3	14
121.39	126.31	M034204	2375	2020	355	647	457	962	110	421	70	198	10	52	7	39	7	19	3	17	3	13
126.31	131.23	M034205	3560	3166	394	957	738	1523	172	638	95	214	11	64	9	43	8	21	3	18	3	13
131.23	136.15	M034206	3274	2855	419	888	659	1364	156	584	92	230	11	65	9	47	9	23	3	19	3	15
136.15	141.08	M034207	3993	3574	419	1074	819	1738	195	716	106	223	11	72	9	48	9	22	3	19	3	13
141.08	146.00	M034208	3335	2942	393	892	678	1425	160	589	90	212	10	64	9	44	8	21	3	19	3	14
146.00	150.92	M034209	3983	3572	411	1061	834	1732	193	710	103	220	11	70	9	46	9	21	3	19	3	13
150.92	152.40	M034210	4726	4311	415	1250	1010	2107	244	833	117	218	12	75	9	47	8	21	3	19	3	11
152.40	152.66	M034211	1906	1719	187	497	402	845	91	334	47	99	7	31	4	21	4	10	1	9	1	7
152.66	155.84	M034212	4540	4153	387	1199	979	2027	228	807	112	201	12	71	9	43	8	20	3	17	3	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM039	4,635,449.80	475,365.10	1,740.18	80.00	HQ

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
155.84	160.76	M034213	5350	4909	441	1442	1133	2395	277	972	132	225	13	84	10	51	9	23	3	20	3	11
160.76	165.68	M034214	3739	3318	421	1012	765	1597	183	672	101	229	10	69	9	47	9	23	3	19	3	12
165.68	170.60	M034215	3094	2694	400	837	619	1290	147	551	87	222	10	61	8	44	8	22	3	19	3	12
170.60	175.52	M034217	4378	3940	438	1164	930	1904	216	779	111	237	12	73	9	49	9	23	3	20	3	12
175.52	180.45	M034218	5266	4773	493	1416	1101	2322	267	951	132	263	13	86	11	55	10	26	3	22	4	13
180.45	185.37	M034219	4178	3770	408	1111	883	1830	209	742	106	218	12	70	9	45	8	21	3	19	3	11
185.37	190.29	M034220	3803	3422	381	1011	797	1664	190	675	96	204	11	65	8	42	8	20	3	17	3	12
190.29	195.21	M034221	4503	4088	415	1187	955	2002	230	792	109	222	12	72	9	47	8	21	3	18	3	13
195.21	200.13	M034222	4664	4229	435	1234	984	2070	237	823	115	230	13	75	10	49	9	23	3	20	3	12
200.13	205.05	M034223	4229	3805	424	1101	894	1867	210	731	103	229	12	70	9	48	9	22	3	19	3	12
205.05	209.97	M034224	3882	3494	388	1034	824	1689	192	691	98	206	12	66	9	44	8	20	3	17	3	11
209.97	214.90	M034225	5055	4556	499	1365	1054	2205	260	910	127	267	13	86	11	57	10	26	4	22	3	14
214.90	219.82	M034226	4229	3817	412	1120	891	1861	214	746	105	219	12	72	9	46	8	22	3	18	3	12
219.82	224.74	M034227	4142	3750	392	1069	902	1830	201	707	110	210	12	68	9	42	8	20	3	17	3	11
224.74	229.66	M034228	4822	4386	436	1260	1065	2119	237	836	129	233	12	77	10	48	9	22	3	19	3	12
229.66	234.58	M034229	4477	4046	431	1169	979	1953	219	773	122	236	11	73	9	46	8	23	3	19	3	11
234.58	239.50	M034230	4606	4188	418	1197	1019	2027	237	786	119	223	11	74	9	46	8	22	3	19	3	14
239.50	244.42	M034231	3357	2990	367	885	710	1443	163	581	93	198	10	62	8	40	7	19	3	17	3	12
244.42	249.34	M034232	4429	3984	445	1153	955	1935	216	757	121	243	11	74	10	49	9	23	3	20	3	15
249.34	254.27	M034233	3140	2757	383	830	663	1314	150	539	91	210	10	61	8	42	8	20	3	18	3	14
254.27	257.55	M034234	4246	3840	406	1108	925	1861	208	732	114	217	11	71	9	45	8	21	3	18	3	15
257.55	258.23	M034235	9189	8449	740	2515	2005	4029	487	1691	237	389	13	142	17	83	15	38	5	33	5	21
258.23	262.47	M034236	4232	3832	400	1089	929	1867	207	718	111	211	13	70	9	44	8	21	3	18	3	13

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM040	4,635,196.31	475,617.24	1,731.63	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
							Light REE					Heavy REE										
		:23-OM040_xrf_	2615	2615	0	928	550	1137	213	715												
		:23-OM040_xrf_	511	511	0	386	55	70	0	386												
		:23-OM040_xrf_	2057	2057	0	0	650	1407														
		:23-OM040_xrf_	2764	2764	0	817	650	1297	183	634												
		:23-OM040_xrf_	2163	2163	0	752	461	950	147	605												
		:23-OM040_xrf_	2965	2965	0	581	762	1622	186	395												
0.00	4.92	M032930	401	321	80	108	70	152	19	68	12	46	2	10	1	8	2	5	1	4	1	27
4.92	9.84	M032931	317	255	62	82	59	121	15	51	9	37	2	7	1	6	1	4	1	3	0	35
9.84	14.76	M032932	633	530	103	173	121	249	31	111	18	58	3	14	2	11	2	6	1	5	1	30
14.76	19.69	M032933	732	615	117	213	143	274	38	138	22	67	3	17	2	13	2	6	1	5	1	36
19.69	24.61	M032934	2683	2383	300	756	549	1118	140	499	77	161	8	52	7	33	6	16	2	13	2	22
24.61	29.53	M032935	3121	2796	325	884	630	1327	163	587	89	170	9	59	8	37	7	17	2	14	2	14
29.53	34.45	M032936	4282	3829	453	1208	873	1812	224	795	125	232	12	86	11	53	10	24	3	19	3	8
34.45	39.37	M032937	3747	3358	389	1062	759	1591	196	702	110	200	12	73	9	45	8	20	3	16	3	7
39.37	44.29	M032938	4185	3758	427	1170	848	1800	218	771	121	218	12	81	10	50	9	23	3	18	3	9
44.29	49.21	M032939	4355	3945	410	1220	897	1886	233	806	123	208	12	80	10	48	8	21	3	17	3	7
49.21	54.13	M032941	4111	3730	381	1162	853	1769	221	771	116	192	11	75	9	45	8	19	3	16	3	8
54.13	59.06	M032942	4141	3750	391	1158	866	1781	219	765	119	197	12	77	10	45	8	20	3	16	3	8
59.06	63.98	M032943	4170	3773	397	1168	849	1812	221	771	120	201	12	77	10	46	8	20	3	17	3	7
63.98	68.90	M032944	3936	3547	389	1109	810	1683	208	732	114	196	12	76	9	46	8	20	3	16	3	10
68.90	73.82	M032945	4569	4126	443	1287	924	1978	248	846	130	222	13	88	11	52	9	23	3	19	3	8
73.82	78.74	M032946	4250	3838	412	1193	868	1836	227	787	120	207	12	81	10	49	8	21	3	18	3	9
78.74	83.66	M032947	4236	3802	434	1197	875	1793	221	790	123	218	12	84	11	52	9	23	3	19	3	8
83.66	88.58	M032948	4230	3792	438	1140	883	1830	205	758	116	227	13	82	11	50	9	22	3	18	3	12
88.58	93.50	M032949	3916	3517	399	1075	814	1683	193	717	110	210	10	74	9	46	8	20	3	16	3	12
93.50	98.43	M032950	4366	3922	444	1197	914	1873	213	799	123	230	12	84	11	51	9	23	3	18	3	11
98.43	103.35	M032951	4364	3918	446	1198	910	1873	214	798	123	232	12	84	11	52	9	22	3	18	3	10
103.35	108.27	M032952	4179	3754	425	1148	878	1787	206	765	118	220	11	81	10	49	9	21	3	18	3	11
108.27	113.19	M032953	4104	3685	419	1127	853	1763	202	751	116	218	11	78	10	48	9	21	3	18	3	10
113.19	118.11	M032954	4877	4395	482	1334	1004	2125	240	890	136	248	12	94	12	56	10	24	3	20	3	12
118.11	123.03	M032955	7069	6388	681	1952	1472	3059	358	1301	198	352	13	133	17	78	14	35	5	29	5	15
123.03	127.95	M032956	9009	8141	868	2526	1830	3906	459	1697	249	453	14	167	21	100	18	45	6	38	6	17

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM040	4,635,196.31	475,617.24	1,731.63	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M032957	4671	4217	454	1278	970	2033	228	858	128	235	12	87	11	53	9	22	3	19	3	10
132.87	137.80	M032958	4204	3791	413	1143	887	1818	207	764	115	213	12	79	10	47	8	21	3	17	3	11
137.80	142.72	M032959	4408	3981	427	1201	923	1916	216	805	121	221	12	82	10	49	9	21	3	17	3	12
142.72	147.64	M032961	3845	3464	381	1046	812	1658	188	702	104	196	12	72	9	43	8	19	3	16	3	10
147.64	152.56	M032962	4421	3984	437	1197	919	1929	216	799	121	225	13	83	11	50	9	22	3	18	3	11
152.56	157.48	M032963	4289	3867	422	1174	902	1849	211	786	119	218	13	81	10	48	8	21	3	17	3	11
157.48	162.40	M032964	4447	3971	476	1216	917	1904	216	811	123	250	12	88	11	55	10	24	3	20	3	11
162.40	167.32	M032965	4528	4074	454	1233	945	1959	220	825	125	236	13	84	11	52	10	23	3	19	3	11
167.32	172.24	M032966	4429	3992	437	1193	949	1910	217	795	121	228	12	81	10	50	9	22	3	19	3	11
172.24	177.17	M032967	4190	3788	402	1142	878	1824	206	764	116	207	12	76	10	46	8	20	3	17	3	10
177.17	182.09	M032968	4589	4159	430	1259	975	1984	227	847	126	222	13	81	10	49	9	22	3	18	3	10
182.09	187.01	M032969	4413	4011	402	1199	932	1935	218	806	120	205	12	79	10	45	8	20	3	17	3	9
187.01	191.93	M032970	4120	3724	396	1133	864	1781	205	760	114	206	11	74	9	45	8	20	3	17	3	11
191.93	196.85	M032971	4398	3992	406	1188	931	1929	216	799	117	210	12	77	10	46	8	20	3	17	3	11
196.85	201.77	M032972	3996	3630	366	1080	837	1763	195	728	107	191	11	70	9	41	7	18	2	15	2	9
201.77	206.69	M032973	4226	3846	380	1152	903	1843	209	778	113	193	12	74	9	43	8	19	3	16	3	9
206.69	211.61	M032974	4058	3687	371	1097	854	1787	201	738	107	190	11	71	9	42	8	18	3	16	3	10
211.61	216.54	M032975	3957	3583	374	1077	836	1720	196	725	106	194	12	70	9	41	8	19	3	15	3	9
216.54	221.46	M032976	4224	3816	408	1146	883	1843	207	771	112	212	13	76	10	46	8	20	3	17	3	10
221.46	226.38	M032977	4760	4314	446	1294	998	2082	236	869	129	234	13	83	10	50	9	23	3	18	3	11
226.38	231.30	M032978	4462	4040	422	1218	944	1935	220	822	119	220	13	79	10	47	9	21	3	17	3	11
231.30	236.22	M032979	4337	3948	389	1174	917	1910	213	791	117	199	13	75	9	44	8	19	3	16	3	10
236.22	241.14	M032980	3784	3432	352	1028	788	1664	185	692	103	183	11	67	8	40	7	17	2	14	3	9
241.14	246.06	M032982	4170	3777	393	1134	873	1824	205	762	113	204	12	74	9	45	8	19	3	16	3	10
246.06	250.98	M032983	4603	4167	436	1251	968	2008	227	841	123	227	13	82	10	50	9	21	3	18	3	10
250.98	255.91	M032984	3527	3193	334	950	746	1542	175	635	95	175	11	61	8	37	7	17	2	14	2	9
255.91	260.83	M032985	4536	4123	413	1234	955	1990	227	828	123	216	13	77	10	46	8	20	3	17	3	9
260.83	265.75	M032986	5828	5381	447	1571	1255	2616	294	1065	151	228	14	90	11	50	9	21	3	18	3	11
265.75	270.67	M032987	4389	4000	389	1191	945	1916	220	798	121	202	12	74	9	43	8	19	3	16	3	10
270.67	275.59	M032988	5017	4592	425	1349	1071	2230	251	905	135	216	13	83	10	48	9	21	3	19	3	10
275.59	280.51	M032989	5249	4807	442	1385	1135	2346	261	930	135	233	13	83	10	49	9	21	3	18	3	10
280.51	285.43	M032990	4470	4095	375	1209	965	1972	224	815	119	191	13	73	9	42	7	19	2	16	3	9

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM040	4,635,196.31	475,617.24	1,731.63	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M032991	4832	4444	388	1302	1038	2156	243	879	128	201	13	74	9	43	7	19	3	16	3	10
290.35	295.28	M032992	4568	4165	403	1234	971	2015	229	829	121	208	13	77	10	45	8	19	3	17	3	10
295.28	300.20	M032993	4279	3890	389	1156	907	1879	214	773	117	203	12	72	9	43	8	19	3	17	3	10
300.20	305.12	M032994	4389	4008	381	1184	935	1941	219	795	118	197	13	71	9	43	7	19	3	16	3	10
305.12	310.04	M032995	3872	3539	333	1044	820	1720	194	701	104	173	11	63	8	37	7	16	2	14	2	9
310.04	314.96	M032996	4317	3950	367	1160	924	1916	216	780	114	191	12	70	8	42	7	17	2	15	3	9
314.96	319.88	M032997	4275	3905	370	1156	907	1892	213	778	115	192	12	70	9	41	7	18	3	15	3	10
319.88	324.80	M032998	4123	3756	367	1129	871	1806	208	759	112	192	12	69	9	41	7	18	2	15	2	10
324.80	329.72	M032999	4534	4152	382	1223	965	2015	227	823	122	198	12	73	9	42	7	19	3	16	3	9
329.72	334.65	M033001	4234	3877	357	1137	897	1892	211	765	112	184	13	68	9	40	7	17	2	15	2	9

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM041	4,635,285.11	475,630.42	1,734.32	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM041_xrf_	2088	2088	0	542	495	1051	133	409												
		C23-OM041_xrf_	2788	2788	0	786	652	1350	218	568												
		C23-OM041_xrf_	2055	2055	0	590	477	988	140	450												
		C23-OM041_xrf_	4505	4505	0	1254	1052	2199	253	1001												
		C23-OM041_xrf_	15	15	0	0	0	15	0	0												
		C23-OM041_xrf_	3060	3060	0	885	702	1473	193	692												
0.00	4.92	M033002	330	255	75	84	58	121	13	53	10	45	2	8	1	7	1	5	1	4	1	34
4.92	9.84	M033003	356	275	81	91	63	130	14	57	11	48	2	9	1	8	2	5	1	4	1	29
9.84	14.76	M033004	875	711	164	235	162	335	38	150	26	96	4	21	3	18	3	9	1	8	1	25
14.76	19.69	M033005	3749	3399	350	999	816	1634	175	671	103	180	10	66	8	42	7	18	2	15	2	8
19.69	24.61	M033006	4653	4251	402	1229	1041	2039	219	826	126	203	12	78	10	48	8	20	3	17	3	5
24.61	29.53	M033007	4471	4080	391	1198	990	1947	211	809	123	197	12	77	9	46	8	20	3	16	3	6
29.53	34.45	M033008	4250	3859	391	1129	930	1855	198	759	117	199	12	75	9	46	8	19	3	17	3	7
34.45	39.37	M033009	4130	3738	392	1104	895	1793	192	741	117	203	11	73	9	45	8	20	3	17	3	4
39.37	44.29	M033010	3259	2948	311	865	701	1425	152	579	91	163	9	58	7	36	6	15	2	13	2	6
44.29	49.21	M033011	3654	3288	366	979	775	1585	170	654	104	191	11	67	9	42	7	18	3	16	2	5
49.21	54.13	M033012	4323	3923	400	1155	912	1910	204	776	121	208	12	75	9	45	8	20	3	17	3	7
54.13	59.06	M033013	4041	3655	386	1087	878	1744	188	731	114	197	12	73	9	45	8	19	3	17	3	7
59.06	63.98	M033014	3769	3416	353	1005	821	1640	176	674	105	181	10	67	8	42	7	18	2	16	2	6
63.98	68.90	M033015	4103	3708	395	1088	874	1800	191	730	113	205	12	73	9	45	8	20	3	17	3	6
68.90	73.82	M033016	4114	3721	393	1099	884	1793	191	738	115	203	11	74	9	46	8	19	3	17	3	5
73.82	78.74	M033017	3889	3528	361	1048	848	1683	182	707	108	184	11	70	9	42	7	18	2	16	2	5
78.74	83.66	M033018	3911	3519	392	1038	846	1689	179	695	110	202	12	73	9	45	8	20	3	17	3	5
83.66	88.58	M033019	3716	3358	358	984	802	1621	173	660	102	186	11	66	8	41	7	18	3	16	2	7
88.58	93.50	M033021	4125	3733	392	1089	891	1806	190	732	114	201	12	75	9	44	8	20	3	17	3	6
93.50	98.43	M033022	4615	4188	427	1229	979	2039	235	818	117	222	12	81	10	49	8	21	3	18	3	9
98.43	103.35	M033023	4375	3986	389	1164	941	1935	221	778	111	200	12	76	9	45	8	19	2	16	2	10
103.35	108.27	M033024	4033	3643	390	1077	857	1763	204	715	104	203	12	72	9	45	7	19	3	17	3	10
108.27	113.19	M033025	4432	4017	415	1181	941	1953	227	784	112	214	12	79	10	48	8	21	3	17	3	10
113.19	118.11	M033026	4241	3844	397	1135	903	1861	216	753	111	206	12	74	9	46	8	20	3	16	3	10
118.11	123.03	M033027	4198	3795	403	1125	883	1843	213	746	110	210	12	75	9	47	8	20	2	17	3	9
123.03	127.95	M033028	4579	4158	421	1213	977	2027	233	805	116	215	13	81	10	49	8	21	3	18	3	9

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM041	4,635,285.11	475,630.42	1,734.32	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M033029	3993	3608	385	1063	848	1750	201	707	102	201	12	71	9	44	7	19	2	17	3	9
132.87	137.80	M033030	4325	3914	411	1158	908	1904	225	765	112	213	13	77	9	47	8	21	3	17	3	9
137.80	142.72	M033031	4431	4004	427	1184	938	1941	225	783	117	221	13	81	10	49	8	21	3	18	3	11
142.72	147.64	M033032	4139	3739	400	1105	877	1812	207	735	108	208	12	74	9	46	8	20	3	17	3	10
147.64	152.56	M033033	4383	3968	415	1173	931	1922	224	778	113	213	13	78	10	48	8	21	3	18	3	10
152.56	157.48	M033034	4656	4225	431	1234	992	2058	240	816	119	223	13	82	10	49	8	22	3	18	3	11
157.48	162.40	M033035	4112	3736	376	1095	870	1824	210	728	104	194	12	71	9	44	7	19	2	16	2	11
162.40	167.32	M033036	4373	3978	395	1160	938	1935	225	770	110	203	12	76	9	46	8	20	2	16	3	10
167.32	172.24	M033037	4454	4037	417	1190	941	1965	228	788	115	215	13	78	10	49	8	20	3	18	3	11
172.24	177.17	M033038	4340	3932	408	1150	922	1916	220	765	109	211	13	77	9	47	8	20	3	17	3	10
177.17	182.09	M033039	4344	3940	404	1160	932	1904	223	770	111	208	13	76	9	47	8	20	3	17	3	10
182.09	187.01	M033040	3934	3565	369	1041	843	1732	196	694	100	191	11	70	9	42	7	19	2	16	2	10
187.01	191.93	M033042	4076	3694	382	1083	877	1787	211	717	102	197	13	72	9	44	7	19	2	16	3	10
191.93	196.85	M033043	4149	3749	400	1107	885	1812	213	732	107	208	13	73	9	46	8	20	3	17	3	10
196.85	201.77	M033044	4354	3943	411	1156	934	1910	225	765	109	211	13	78	9	48	8	21	3	17	3	10
201.77	206.69	M033045	4378	3968	410	1161	934	1929	224	770	111	212	13	77	9	47	8	20	3	18	3	10
206.69	211.61	M033046	4310	3913	397	1148	922	1898	219	764	110	203	13	75	9	46	8	20	3	17	3	10
211.61	216.54	M033047	4238	3839	399	1127	901	1867	214	749	108	204	13	75	9	47	8	20	3	17	3	11
216.54	221.46	M033048	4224	3823	401	1127	908	1843	217	748	107	207	13	75	9	46	8	20	3	17	3	11
221.46	226.38	M033049	4779	4359	420	1274	1024	2119	248	847	121	215	14	81	10	48	8	21	3	17	3	12
226.38	231.30	M033050	4159	3785	374	1110	892	1836	214	739	104	189	13	73	9	44	7	19	2	16	2	10
231.30	236.22	M033051	4701	4277	424	1249	1005	2082	241	830	119	218	13	81	10	49	8	21	3	18	3	12
236.22	241.14	M033052	4637	4209	428	1233	984	2051	237	818	119	220	13	82	10	49	8	22	3	18	3	12
241.14	246.06	M033053	4333	3965	368	1153	928	1935	223	771	108	187	13	73	9	42	7	18	2	15	2	10
246.06	250.98	M033054	4495	4097	398	1195	961	1996	231	798	111	204	13	77	9	46	8	19	2	17	3	11
250.98	255.91	M033055	4642	4229	413	1232	1004	2051	236	821	117	211	14	79	10	48	8	20	3	17	3	12
255.91	260.83	M033056	4363	3973	390	1161	931	1935	225	773	109	199	14	76	9	45	7	19	2	17	2	10
260.83	265.75	M033057	4282	3896	386	1138	926	1886	220	757	107	197	13	73	9	45	8	19	2	17	3	12
265.75	270.67	M033058	4220	3863	357	1125	895	1892	219	746	111	182	13	69	9	40	7	17	2	15	3	9
270.67	275.59	M033059	4507	4132	375	1204	976	2002	236	799	119	192	13	72	9	41	7	18	3	17	3	9
275.59	280.51	M033061	4172	3787	385	1119	896	1824	217	738	112	199	13	71	9	43	8	19	3	17	3	10
280.51	285.43	M033062	4040	3690	350	1075	850	1812	208	715	105	179	13	66	8	39	7	17	3	15	3	9

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM041	4,635,285.11	475,630.42	1,734.32	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M033063	4281	3924	357	1141	921	1910	225	756	112	185	13	68	8	40	7	17	2	15	2	8
290.35	295.28	M033064	4288	3923	365	1146	929	1898	224	760	112	185	13	70	9	41	7	18	3	16	3	9
295.28	300.20	M033065	4080	3718	362	1098	868	1800	211	730	109	188	13	67	8	40	7	18	2	16	3	9
300.20	305.12	M033066	3830	3491	339	1019	816	1701	197	675	102	178	12	62	8	37	7	16	2	15	2	9
305.12	310.04	M033067	4397	4022	375	1182	937	1953	228	787	117	194	13	71	9	41	7	18	3	16	3	9
310.04	314.96	M033068	3734	3418	316	993	810	1658	193	660	97	161	12	61	8	35	6	15	2	14	2	9
314.96	319.88	M033069	4230	3869	361	1127	904	1886	219	749	111	184	13	70	8	40	7	18	2	16	3	10
319.88	324.80	M033070	4131	3768	363	1104	882	1830	213	735	108	188	13	67	8	40	7	18	3	16	3	11
324.80	329.72	M033071	4497	4127	370	1197	972	2008	232	797	118	189	13	72	9	41	7	18	2	16	3	9
329.72	334.65	M033072	4203	3857	346	1127	909	1867	222	750	109	177	13	67	8	38	7	17	2	15	2	9

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM042	4,635,356.82	475,703.43	1,731.09	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM042_xrf_	3410	3410	0	927	801	1682	207	720												
		C23-OM042_xrf_	3196	3196	0	878	769	1549	180	698												
		C23-OM042_xrf_	3121	3121	0	787	768	1566	177	610												
		C23-OM042_xrf_	747	747	0	120	209	418	0	120												
		C23-OM042_xrf_	3546	3546	0	970	839	1737	211	759												
		C23-OM042_xrf_	3716	3716	0	1009	873	1834	208	801												
0.00	4.92	M033073	1346	1180	166	355	274	572	65	230	39	93	5	25	3	18	3	9	1	8	1	16
4.92	9.84	M033074	3932	3568	364	1046	844	1726	203	691	104	191	12	66	8	40	7	18	3	16	3	9
9.84	14.76	M033075	3840	3480	360	1020	831	1677	194	674	104	189	11	65	8	40	7	18	3	16	3	8
14.76	19.69	M033076	3609	3265	344	970	781	1560	182	643	99	180	11	63	8	38	7	17	2	15	3	8
19.69	24.61	M033077	3945	3586	359	1049	847	1738	198	699	104	186	12	67	8	40	7	18	2	16	3	9
24.61	29.53	M033078	3817	3450	367	1014	808	1677	192	674	99	193	11	66	8	41	7	19	3	16	3	9
29.53	34.45	M033079	4197	3812	385	1120	889	1855	220	738	110	199	12	72	9	43	8	19	3	17	3	10
34.45	39.37	M033081	4094	3703	391	1090	878	1787	211	718	109	206	12	70	9	43	8	20	3	17	3	10
39.37	44.29	M033082	4066	3681	385	1089	880	1763	209	720	109	204	12	70	9	42	7	19	3	16	3	8
44.29	49.21	M033083	4553	4131	422	1213	968	2008	235	799	121	220	13	77	10	48	8	21	3	19	3	10
49.21	54.13	M033084	4086	3705	381	1094	869	1793	210	721	112	200	12	69	9	42	7	19	3	17	3	10
54.13	59.06	M033085	4266	3863	403	1148	908	1861	219	759	116	211	13	73	9	45	8	20	3	18	3	12
59.06	63.98	M033086	4445	4027	418	1183	953	1947	225	781	121	220	13	76	10	46	8	21	3	18	3	10
63.98	68.90	M033087	4559	4138	421	1219	968	2008	236	805	121	218	13	78	10	47	9	21	3	19	3	11
68.90	73.82	M033088	3908	3541	367	1043	815	1732	196	694	104	192	12	66	8	41	7	18	3	17	3	9
73.82	78.74	M033089	4085	3702	383	1085	875	1793	210	715	109	199	13	70	9	42	8	19	3	17	3	10
78.74	83.66	M033090	4381	3986	395	1167	936	1935	227	771	117	208	13	72	9	43	8	19	3	17	3	11
83.66	88.58	M033091	4262	3874	388	1134	918	1873	219	750	114	204	12	71	9	42	8	19	3	17	3	8
88.58	93.50	M033092	4133	3752	381	1105	881	1818	211	732	110	197	13	69	9	43	8	19	3	17	3	10
93.50	98.43	M033093	4536	4137	399	1210	952	2027	234	805	119	210	13	73	9	43	8	20	3	17	3	9
98.43	103.35	M033094	4374	3965	409	1162	929	1929	226	772	109	215	13	74	9	46	8	21	3	17	3	10
103.35	108.27	M033095	4198	3814	384	1115	896	1855	216	744	103	201	13	69	9	43	8	19	3	16	3	9
108.27	113.19	M033096	4304	3913	391	1139	916	1910	220	762	105	203	14	72	9	43	8	20	3	16	3	10
113.19	118.11	M033097	4171	3791	380	1097	874	1873	213	725	106	197	12	69	9	44	8	19	3	16	3	12
118.11	123.03	M033098	4260	3874	386	1131	903	1892	220	750	109	202	12	70	9	43	8	20	3	16	3	11
123.03	127.95	M033099	4268	3872	396	1131	896	1898	219	751	108	206	13	73	9	44	8	20	3	17	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM042	4,635,356.82	475,703.43	1,731.09	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										Sc2O3
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	
127.95	132.87	M033100	4172	3789	383	1102	890	1849	216	731	103	199	13	70	9	43	8	19	3	16	3	9
132.87	137.80	M033102	4643	4216	427	1231	992	2051	239	820	114	223	13	78	10	48	9	22	3	18	3	11
137.80	142.72	M033103	4482	4074	408	1196	948	1984	231	800	111	214	14	74	9	45	8	21	3	17	3	11
142.72	147.64	M033104	4504	4083	421	1201	956	1984	231	800	112	218	14	78	10	48	8	21	3	18	3	11
147.64	152.56	M033105	4416	4009	407	1175	935	1953	227	784	110	214	14	74	9	45	8	20	3	17	3	10
152.56	157.48	M033106	4464	4063	401	1187	952	1978	229	795	109	209	14	74	9	45	8	20	3	16	3	11
157.48	162.40	M033107	4409	4004	405	1170	929	1959	225	780	111	212	14	74	9	45	8	20	3	17	3	11
162.40	167.32	M033108	2413	2193	220	631	529	1063	119	422	60	116	7	40	5	25	4	11	1	9	2	6
167.32	172.24	M033109	4385	4002	383	1169	932	1953	231	779	107	197	13	73	9	43	7	19	3	16	3	11
172.24	177.17	M033110	4367	3969	398	1160	934	1929	227	771	108	206	14	74	9	45	8	20	3	16	3	11
177.17	182.09	M033111	4363	3973	390	1161	930	1935	222	778	108	202	13	72	9	44	8	20	3	16	3	9
182.09	187.01	M033112	4752	4316	436	1263	1011	2101	246	841	117	225	14	82	10	49	9	22	3	19	3	11
187.01	191.93	M033113	4166	3784	382	1104	882	1849	211	739	103	197	14	71	9	42	8	19	3	16	3	10
191.93	196.85	M033114	4321	3915	406	1161	911	1898	224	773	109	212	14	73	9	46	8	21	3	17	3	10
196.85	201.77	M033115	4315	3930	385	1154	924	1904	224	770	108	199	14	71	9	43	8	19	3	16	3	10
201.77	206.69	M033116	4412	4008	404	1176	939	1947	225	786	111	211	14	74	9	45	8	20	3	17	3	11
206.69	211.61	M033117	4111	3742	369	1098	877	1818	210	734	103	190	14	70	9	42	7	18	2	15	2	10
211.61	216.54	M033118	3985	3605	380	1062	849	1744	196	714	102	201	14	68	8	42	7	19	2	16	3	9
216.54	221.46	M033119	4251	3849	402	1135	895	1873	217	758	106	211	14	72	9	45	8	20	3	17	3	10
221.46	226.38	M033121	4533	4115	418	1208	962	2002	236	802	113	218	14	76	10	47	8	21	3	18	3	11
226.38	231.30	M033122	4126	3737	389	1100	877	1812	211	735	102	203	14	71	9	43	8	19	3	16	3	10
231.30	236.22	M033123	4170	3791	379	1112	895	1836	214	744	102	193	14	71	9	43	8	19	3	16	3	9
236.22	241.14	M033124	4133	3753	380	1100	880	1824	212	734	103	200	14	69	9	42	7	19	2	15	3	10
241.14	246.06	M033125	3988	3608	380	1068	848	1744	205	710	101	197	14	69	9	43	8	19	2	16	3	11
246.06	250.98	M033126	4054	3683	371	1077	863	1793	208	718	101	195	14	67	8	42	7	18	2	15	3	10
250.98	255.91	M033127	4177	3781	396	1116	888	1830	213	745	105	207	13	72	9	44	8	20	3	17	3	11
255.91	260.83	M033128	4395	3996	399	1166	930	1953	227	777	109	208	14	73	9	44	8	20	3	17	3	11
260.83	265.75	M033129	4070	3706	364	1085	871	1800	210	723	102	189	13	68	9	41	7	18	2	15	2	10
265.75	270.67	M033130	4144	3774	370	1106	887	1830	210	742	105	195	13	67	8	41	7	18	2	16	3	11
270.67	275.59	M033131	5142	4682	460	1377	1088	2279	268	916	131	241	15	84	10	52	9	23	3	20	3	12
275.59	280.51	M033132	4627	4187	440	1242	966	2039	239	822	121	232	14	78	10	50	9	22	3	19	3	11
280.51	285.43	M033133	5393	4884	509	1456	1121	2377	283	963	140	264	16	95	12	58	10	25	3	22	4	12

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM042	4,635,356.82	475,703.43	1,731.09	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M033134	4451	4036	415	1192	935	1965	231	791	114	217	14	75	9	47	8	21	3	18	3	10
290.35	295.28	M033135	4347	3948	399	1162	919	1922	224	773	110	206	15	73	9	46	8	19	3	17	3	11
295.28	300.20	M033136	4333	3928	405	1157	916	1910	222	769	111	213	14	72	9	46	8	20	3	17	3	12
300.20	305.12	M033137	4544	4123	421	1221	958	2002	237	809	117	218	15	77	10	48	8	21	3	18	3	10
305.12	310.04	M033138	4309	3906	403	1151	918	1892	221	765	110	210	15	73	9	46	8	19	3	17	3	10
310.04	314.96	M033139	4515	4114	401	1203	959	2008	232	800	115	206	14	74	9	47	8	20	3	17	3	11
314.96	319.88	M033141	4567	4155	412	1229	968	2015	239	816	117	211	14	77	10	47	8	21	3	18	3	10
319.88	324.80	M033142	4680	4292	388	1261	1014	2070	246	844	118	197	14	75	9	44	8	19	3	16	3	10
324.80	329.72	M033143	4269	3902	367	1137	900	1916	219	759	108	185	13	70	9	42	8	18	3	16	3	10
329.72	334.65	M033144	4650	4236	414	1248	987	2058	239	832	120	213	14	78	10	47	8	20	3	18	3	9

Rare Earth Element Oxide Summary

Drill Hole	*Northing*	*Easting*	*Collar*	*Total Depth*	*Hole Type*
HC23-OM043	*4,635,374.94*	*475,531.06*	*1,733.98*	*102.00*	*RC*

From Depth	*To Depth*	*Sample No.*					*Light REE*					*Heavy REE*										
			TREO	*LREO*	*HREO*	*MREO*	*La2O3*	*Ce2O3*	*Pr6O11*	*Nd2O3*	*Sm2O3*	*Y2O3*	*Eu2O3*	*Gd2O3*	*Tb4O7*	*Dy2O3*	*Ho2O3*	*Er2O3*	*Tm2O3*	*Yb2O3*	*Lu2O3*	*Sc2O3*
		C23-OM043_xrf_	420	420	0	90	113	217		90												
		C23-OM043_xrf_	2757	2757	0	698	664	1395	157	541												
		C23-OM043_xrf_	2715	2715	0	759	661	1295	188	571												
		C23-OM043_xrf_	3670	3670	0	883	916	1871	156	727												
		C23-OM043_xrf_	3741	3741	0	935	918	1888	199	736												
		C23-OM043_xrf_	2574	2574	0	674	624	1276	146	528												
0.00	4.92	M033145	1182	1040	142	309	233	516	57	204	30	79	4	22	3	15	3	7	1	7	1	17
4.92	9.84	M033146	1914	1715	199	495	400	846	93	328	48	110	6	32	4	22	4	10	1	9	1	15
9.84	14.76	M033147	1770	1488	282	465	334	726	83	295	50	164	6	38	6	31	6	15	2	12	2	23
14.76	19.69	M033148	1256	1022	234	333	221	499	57	208	37	137	5	31	5	26	5	12	2	10	1	24
19.69	24.61	M033149	3446	3115	331	889	728	1542	171	590	84	179	10	56	7	37	7	17	2	14	2	13
24.61	29.53	M033150	3876	3495	381	1016	822	1707	192	677	97	206	12	64	8	42	8	19	3	16	3	11
29.53	34.45	M033151	4144	3720	424	1100	877	1800	208	728	107	230	13	71	9	48	8	21	3	18	3	11
34.45	39.37	M033152	3939	3565	374	1035	847	1732	199	688	99	202	12	64	8	41	7	19	3	16	2	10
39.37	44.29	M033153	3955	3557	398	1043	835	1732	200	691	99	216	12	66	9	44	8	20	3	17	3	10
44.29	49.21	M033154	3805	3435	370	1013	813	1658	190	677	97	199	12	63	8	41	8	18	2	16	3	11
49.21	54.13	M033155	3758	3360	398	988	792	1634	186	652	96	213	13	66	9	45	8	20	3	18	3	11
54.13	59.06	M033156	3410	3056	354	888	710	1505	169	586	86	191	12	59	8	39	7	18	3	15	2	10
59.06	63.98	M033157	3866	3470	396	1020	813	1689	191	678	99	215	13	65	8	44	8	20	3	17	3	13
63.98	68.90	M033158	3476	3114	362	915	724	1523	172	607	88	197	12	60	8	40	7	18	3	15	2	11
68.90	73.82	M033159	3935	3552	383	1024	835	1744	194	680	99	206	12	64	8	43	8	19	3	17	3	10
73.82	78.74	M033160	3636	3259	377	958	773	1578	180	635	93	203	12	61	8	42	8	20	3	17	3	10
78.74	83.66	M033162	3244	2918	326	846	684	1431	160	561	82	178	10	53	7	36	7	17	2	14	2	8
83.66	88.58	M033163	3895	3513	382	1019	820	1726	194	675	98	203	12	64	9	43	8	20	3	17	3	9
88.58	93.50	M033164	3922	3528	394	1032	828	1720	195	687	98	214	12	65	9	43	8	20	3	17	3	8
93.50	98.43	M033165	4531	4090	441	1210	961	1978	230	804	117	239	13	73	10	49	9	23	3	19	3	12
98.43	103.35	M033166	4313	3904	409	1113	911	1935	212	736	110	214	13	72	9	46	8	22	3	19	3	10
103.35	108.27	M033167	4332	3918	414	1136	909	1929	218	750	112	218	13	72	9	47	8	22	3	19	3	10
108.27	113.19	M033168	4358	3949	409	1139	924	1941	219	752	113	215	13	73	9	46	8	21	3	19	2	10
113.19	118.11	M033169	4104	3737	367	1072	873	1843	205	713	103	190	13	68	9	42	7	18	2	16	2	10
118.11	123.03	M033170	4025	3665	360	1040	867	1806	198	693	101	190	12	64	8	40	7	19	2	16	2	8
123.03	127.95	M033171	3828	3471	357	999	860	1658	193	663	97	192	11	63	8	38	7	18	2	16	2	9

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM043	4,635,374.94	475,531.06	1,733.98	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M033172	3992	3676	316	1001	885	1830	197	673	91	168	11	55	7	33	6	17	2	15	2	10
132.87	137.80	M033173	3746	3413	333	958	809	1689	184	639	92	178	11	57	7	36	7	17	2	16	2	8
137.80	142.72	M033174	3868	3496	372	1013	831	1701	193	672	99	198	12	64	8	41	7	20	3	17	2	9
142.72	147.64	M033175	3568	3228	340	923	772	1578	176	612	90	180	11	59	7	38	7	18	2	16	2	9
147.64	152.56	M033176	3725	3372	353	965	797	1658	184	639	94	186	11	63	8	40	7	18	2	16	2	8
152.56	157.48	M033177	2243	2019	224	580	486	983	110	383	57	121	7	38	5	25	4	12	1	10	1	5
157.48	162.40	M033178	4303	3849	454	1135	897	1879	216	743	114	240	13	79	10	52	9	24	3	21	3	11
162.40	167.32	M033179	4320	3900	420	1123	930	1904	211	746	109	222	12	74	10	47	8	22	3	19	3	9
167.32	172.24	M033181	4355	3888	467	1134	925	1892	214	743	114	253	12	78	10	53	9	25	3	21	3	10
172.24	177.17	M033182	3987	3546	441	1045	829	1732	195	684	106	236	12	75	10	50	9	23	3	20	3	10
177.17	182.09	M033183	4533	4063	470	1195	942	1990	228	784	119	250	13	82	11	53	9	25	3	21	3	10
182.09	187.01	M033184	4873	4375	498	1283	1036	2125	246	841	127	264	13	88	12	57	10	26	3	22	3	12
187.01	191.93	M033185	4168	3763	405	1072	890	1855	207	706	105	216	12	69	9	45	8	21	3	19	3	10
191.93	196.85	M033186	4037	3656	381	1055	866	1787	202	699	102	199	12	67	9	43	7	20	3	18	3	10
196.85	201.77	M033187	4185	3821	364	1075	902	1892	208	716	103	192	12	65	8	40	7	19	2	17	2	9
201.77	206.69	M033188	4278	3903	375	1112	926	1916	219	737	105	193	13	69	9	42	8	19	3	17	2	10
206.69	211.61	M033189	4287	3904	383	1104	930	1922	214	732	106	197	13	69	9	43	8	20	3	18	3	10
211.61	216.54	M033190	4339	3912	427	1118	935	1916	216	735	110	227	13	72	10	47	9	23	3	20	3	14
216.54	221.46	M033191	3722	3129	593	997	726	1486	173	632	112	331	14	87	13	67	12	33	4	28	4	37
221.46	226.38	M033192	2567	2097	470	704	463	991	117	443	83	268	13	65	10	51	9	26	3	22	3	39
226.38	231.30	M033193	2699	2207	492	728	494	1049	123	456	85	282	13	66	10	54	10	27	3	24	3	38
231.30	236.22	M033194	2772	2262	510	747	511	1070	127	468	86	290	13	69	10	56	10	29	4	25	4	42
236.22	241.14	M033195	2796	2310	486	754	524	1097	129	472	88	267	13	72	10	55	10	28	4	24	3	37
241.14	246.06	M033196	3532	3082	450	924	733	1486	168	596	99	241	13	73	10	51	9	25	3	22	3	32
246.06	250.98	M033197	3735	3362	373	935	812	1664	180	615	91	196	12	63	8	41	8	20	3	19	3	18
250.98	255.91	M033198	3630	3245	385	918	775	1603	174	602	91	204	13	64	9	42	8	21	3	18	3	18
255.91	260.83	M033199	4227	3818	409	1107	901	1867	211	729	110	212	13	74	10	47	8	21	3	18	3	12
260.83	265.75	M033201	2137	1942	195	549	460	959	105	365	53	101	6	37	5	21	4	10	1	9	1	6
265.75	270.67	M033202	3838	3532	306	988	843	1744	195	659	91	154	11	58	7	36	6	16	2	14	2	9
270.67	275.59	M033203	4242	3862	380	1111	908	1898	220	731	105	192	13	70	9	46	8	20	3	16	3	9
275.59	280.51	M033204	2999	2513	486	791	581	1207	137	503	85	268	13	69	10	56	11	28	4	23	4	32
280.51	285.43	M033205	3670	3188	482	928	759	1566	169	600	94	265	11	71	10	55	10	28	4	24	4	21

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM043	4,635,374.94	475,531.06	1,733.98	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M033206	3883	3350	533	1021	778	1628	181	656	107	283	13	83	12	65	12	31	4	26	4	25
290.35	295.28	M033207	2986	2453	533	794	558	1174	132	499	90	295	12	75	11	62	12	31	4	27	4	27
295.28	300.20	M033208	3591	3135	456	935	728	1535	170	608	94	246	13	71	10	53	10	26	3	21	3	29
300.20	305.12	M033209	4151	3710	441	1100	862	1812	211	717	108	229	13	76	10	54	10	24	3	19	3	14
305.12	310.04	M033210	4487	4038	449	1183	944	1978	230	772	114	229	12	82	11	56	10	24	3	19	3	12
310.04	314.96	M033211	4891	4386	505	1300	1024	2137	249	847	129	258	14	93	12	63	11	27	3	21	3	11
314.96	319.88	M033212	4782	4309	473	1287	985	2107	248	841	128	241	13	89	11	59	10	25	3	19	3	10
319.88	324.80	M033213	4498	4122	376	1181	968	2027	234	783	110	185	13	74	9	45	8	20	3	16	3	8
324.80	329.72	M033214	3993	3659	334	1040	843	1824	207	689	96	168	11	64	8	40	7	18	2	14	2	11
329.72	334.65	M033215	4060	3720	340	1051	862	1855	207	699	97	171	12	65	8	40	7	18	2	15	2	13

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM044	4,635,400.30	475,447.99	1,736.46	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
							Light REE					Heavy REE										
		:23-OM044_xrf_	3221	3221	0	855	764	1602	178	677												
		:23-OM044_xrf_	3337	3337	0	894	784	1659	202	692												
		:23-OM044_xrf_	10653	10653	0	2867	2533	5253	613	2254												
		:23-OM044_xrf_	9419	9419	0	2551	2244	4624	531	2020												
		:23-OM044_xrf_	3255	3255	0	904	765	1586	194	710												
		:23-OM044_xrf_	1509	1509	0	435	346	728	145	290												
0.00	4.92	M033216	1890	1668	222	481	385	833	88	314	48	121	5	35	5	26	5	12	2	9	2	17
4.92	9.84	M033217	2008	1771	237	529	418	857	97	346	53	126	6	39	5	28	5	13	2	11	2	18
9.84	14.76	M033218	4179	3790	389	1096	888	1861	217	723	101	203	10	69	9	46	8	21	3	17	3	12
14.76	19.69	M033219	4467	4096	371	1150	971	2027	231	764	103	192	10	67	8	44	8	20	3	16	3	10
19.69	24.61	M033220	4770	4329	441	1239	1016	2137	244	816	116	229	11	80	10	53	9	24	3	19	3	13
24.61	29.53	M033222	4751	4279	472	1261	978	2107	243	830	121	246	12	84	11	56	10	26	3	21	3	11
29.53	34.45	M033223	4286	3856	430	1148	871	1898	222	755	110	223	12	77	10	51	9	23	3	19	3	12
34.45	39.37	M033224	4784	4333	451	1268	999	2131	245	839	119	234	12	82	10	55	9	24	3	19	3	11
39.37	44.29	M033225	4334	3907	427	1150	901	1916	225	756	109	225	12	74	10	50	9	23	3	18	3	12
44.29	49.21	M033226	4188	3792	396	1109	884	1855	214	734	105	204	11	73	9	47	8	21	3	17	3	10
49.21	54.13	M033227	4273	3866	407	1114	905	1904	217	736	104	215	11	70	9	48	8	22	3	18	3	11
54.13	59.06	M033228	4360	3940	420	1138	919	1941	220	752	108	220	12	74	9	49	9	23	3	18	3	12
59.06	63.98	M033229	4788	4321	467	1258	1011	2119	246	826	119	246	12	81	11	56	10	25	3	20	3	13
63.98	68.90	M033230	4155	3755	400	1097	884	1830	213	725	103	206	12	72	9	47	9	22	3	17	3	12
68.90	73.82	M033231	3774	3388	386	977	795	1671	188	640	94	201	11	67	9	46	8	21	3	17	3	12
73.82	78.74	M033232	4400	3954	446	1153	924	1941	224	755	110	230	12	79	10	54	10	25	3	20	3	12
78.74	83.66	M033233	4163	3763	400	1091	885	1843	214	718	103	208	12	71	9	47	9	21	3	17	3	11
83.66	88.58	M033234	4616	4190	426	1202	989	2058	239	792	112	224	12	74	10	49	9	23	3	19	3	11
88.58	93.50	M033235	3986	3623	363	1036	851	1787	204	685	96	187	11	65	8	43	8	19	3	16	3	10
93.50	98.43	M033236	4396	3999	397	1139	938	1978	225	752	106	206	11	71	9	47	8	22	3	17	3	10
98.43	103.35	M033237	4377	3965	412	1129	935	1959	222	744	105	214	11	73	9	49	9	23	3	18	3	11
103.35	108.27	M033238	3808	3430	378	1007	821	1652	196	666	95	204	10	64	8	42	8	20	3	16	3	10
108.27	113.19	M033239	3996	3616	380	1052	871	1744	205	698	98	203	10	66	8	43	8	20	3	16	3	10
113.19	118.11	M033241	3805	3443	362	1010	823	1658	197	670	95	196	10	62	8	40	7	19	2	16	2	11
118.11	123.03	M033242	3696	3339	357	968	805	1615	185	644	90	190	10	61	8	41	7	19	2	16	3	10
123.03	127.95	M033243	3791	3422	369	995	830	1646	191	663	92	199	11	62	8	41	7	19	3	16	3	10

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM044	4,635,400.30	475,447.99	1,736.46	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M033244	3826	3459	367	1008	823	1677	195	671	93	197	10	62	8	41	7	20	3	16	3	10
132.87	137.80	M033245	4134	3709	425	1104	882	1781	214	728	104	227	11	74	10	48	9	22	3	18	3	11
137.80	142.72	M033246	5247	4757	490	1421	1119	2285	271	953	129	260	11	89	11	57	10	26	3	20	3	11
142.72	147.64	M033247	4197	3809	388	1118	900	1843	220	743	103	206	10	69	9	43	8	21	3	16	3	10
147.64	152.56	M033248	4002	3639	363	1067	864	1757	210	711	97	192	11	65	8	41	7	19	2	15	3	10
152.56	157.48	M033249	4110	3718	392	1101	877	1793	213	731	104	206	11	70	9	44	8	21	3	17	3	10
157.48	162.40	M033250	3750	3389	361	999	810	1628	193	664	94	190	11	64	8	40	7	19	3	16	3	10
162.40	167.32	M033251	3846	3474	372	1026	821	1677	202	677	97	195	11	67	8	42	7	20	3	16	3	9
167.32	172.24	M033252	3800	3442	358	1027	812	1652	195	687	96	189	11	64	8	41	7	19	2	15	2	10
172.24	177.17	M033253	3694	3337	357	986	785	1615	189	654	94	189	11	63	8	41	7	19	2	15	2	10
177.17	182.09	M033254	3813	3446	367	1027	816	1652	201	680	97	194	11	66	8	41	7	19	2	16	3	11
182.09	187.01	M033255	4198	3824	374	1134	892	1849	221	756	106	194	11	70	9	42	7	19	3	16	3	10
187.01	191.93	M033256	4214	3857	357	1132	919	1855	224	756	103	185	11	67	8	41	7	18	2	15	3	10
191.93	196.85	M033257	4901	4491	410	1327	1066	2156	262	885	122	211	10	78	10	48	8	21	3	18	3	12
196.85	201.77	M033258	8509	7811	698	2357	1818	3734	449	1598	212	361	12	137	17	81	14	36	5	30	5	17
201.77	206.69	M033259	8411	7719	692	2348	1806	3661	445	1598	209	362	12	133	16	80	14	36	5	29	5	18
206.69	211.61	M033261	7826	7182	644	2168	1665	3439	419	1464	195	331	12	127	15	75	13	34	4	28	5	17
211.61	216.54	M033262	7717	7081	636	2127	1654	3390	406	1440	191	326	12	126	15	75	13	33	4	27	5	16
216.54	221.46	M033263	7282	6689	593	2006	1572	3194	384	1359	180	306	11	117	14	69	12	31	4	25	4	15
221.46	226.38	M033264	6480	5946	534	1780	1378	2862	340	1207	159	276	10	104	13	61	11	28	4	23	4	14
226.38	231.30	M033265	7576	6953	623	2094	1618	3329	399	1423	184	320	12	123	15	73	13	32	4	27	4	15
231.30	236.22	M033266	7256	6666	590	2007	1560	3182	389	1359	176	301	12	118	14	69	12	30	4	26	4	16
236.22	241.14	M033267	6355	5833	522	1752	1366	2788	337	1184	158	269	9	103	13	60	10	27	4	23	4	15
241.14	246.06	M033268	6986	6420	566	1921	1495	3083	371	1301	170	291	11	113	14	65	11	29	4	24	4	16
246.06	250.98	M033269	7751	7128	623	2123	1677	3415	408	1440	188	320	12	124	15	72	12	32	4	27	5	17
250.98	255.91	M033270	8037	7398	639	2206	1742	3538	424	1499	195	333	11	126	15	73	13	32	4	27	5	17
255.91	260.83	M033271	8327	7663	664	2308	1800	3648	437	1575	203	344	11	131	16	77	14	34	4	28	5	19
260.83	265.75	M033272	9412	8666	746	2585	2023	4164	495	1755	229	382	12	150	18	88	15	38	5	32	6	21
265.75	270.67	M033273	8721	8000	721	2424	1859	3820	457	1650	214	367	11	146	18	85	15	37	5	32	5	18
270.67	275.59	M033274	9426	8683	743	2658	1970	4164	505	1802	242	362	12	160	19	90	16	39	5	34	6	20
275.59	280.51	M033275	9003	8292	711	2570	1871	3955	487	1744	235	347	13	152	18	86	15	38	5	32	5	20
280.51	285.43	M033276	9486	8731	755	2683	1959	4201	509	1814	248	366	13	162	20	92	16	40	5	35	6	21

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM044	4,635,400.30	475,447.99	1,736.46	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M033277	9427	8678	749	2647	1953	4189	495	1796	245	363	13	161	19	92	16	39	5	35	6	21
290.35	295.28	M033278	11054	10192	862	3071	2310	4938	596	2065	283	417	14	187	22	105	18	46	6	40	7	23
295.28	300.20	M033279	10595	9776	819	2974	2217	4705	567	2012	275	399	14	177	21	99	17	43	6	37	6	24
300.20	305.12	M033280	5219	4789	430	1456	1098	2297	284	975	135	207	14	90	11	51	9	23	3	19	3	12
305.12	310.04	M033282	4573	4181	392	1265	958	2015	243	846	119	188	14	81	10	47	8	21	3	17	3	10
310.04	314.96	M033283	4629	4245	384	1266	971	2064	253	839	118	184	14	79	10	46	8	20	3	17	3	11
314.96	319.88	M033284	4857	4464	393	1331	1021	2168	263	889	123	190	15	80	10	46	8	21	3	17	3	11
319.88	324.80	M033285	4714	4293	421	1329	966	2058	254	890	125	207	14	84	10	50	9	22	3	19	3	11
324.80	329.72	M033286	4463	4026	437	1237	905	1947	237	819	118	217	14	84	11	52	9	24	3	20	3	13
329.72	334.65	M033287	4236	3848	388	1164	883	1855	226	773	111	196	13	73	9	45	8	21	3	17	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM045	4,635,456.93	475,523.63	1,737.08	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM045_xrf_	285	285	0	69	79	137		69												
		C23-OM045_xrf_	3431	3431	0	942	811	1678	217	725												
		C23-OM045_xrf_	4170	4170	0	1120	1010	2040	241	879												
		C23-OM045_xrf_	4170	4170	0	1126	988	2056	277	849												
		C23-OM045_xrf_	4012	4012	0	1009	986	2017	197	812												
		C23-OM045_xrf_	3919	3919	0	1110	900	1909	240	870												
0.00	4.92	M033288	778	674	104	207	147	334	37	135	21	56	3	16	2	12	2	6	1	5	1	29
4.92	9.84	M033289	3935	3566	369	1090	822	1707	209	723	105	180	12	73	9	44	8	20	3	17	3	12
9.84	14.76	M033290	3821	3514	307	1047	805	1707	204	699	99	144	11	66	8	37	6	16	2	15	2	9
14.76	19.69	M033291	3702	3415	287	1022	782	1652	195	689	97	137	11	60	7	34	6	15	2	13	2	9
19.69	24.61	M033292	4092	3702	390	1133	843	1781	219	750	109	194	13	75	9	46	8	21	3	18	3	10
24.61	29.53	M033293	3855	3492	363	1065	802	1677	207	704	102	180	12	70	9	43	8	19	3	16	3	9
29.53	34.45	M033294	4189	3813	376	1155	868	1843	225	767	110	185	13	74	9	44	8	20	3	17	3	9
34.45	39.37	M033295	3996	3659	337	1108	848	1750	218	738	105	166	13	67	8	39	7	18	2	15	2	8
39.37	44.29	M033296	4636	4230	406	1283	972	2033	251	853	121	199	13	83	10	48	8	21	3	18	3	9
44.29	49.21	M033297	4105	3748	357	1128	864	1806	219	752	107	177	13	70	9	41	7	19	2	16	3	9
49.21	54.13	M033298	4875	4462	413	1346	1013	2162	262	897	128	204	13	82	10	49	9	22	3	18	3	10
54.13	59.06	M033299	4466	4096	370	1241	929	1978	244	828	117	179	13	75	9	43	8	20	3	17	3	9
59.06	63.98	M033301	4560	4160	400	1200	986	2027	228	793	126	210	12	74	9	44	8	20	3	17	3	11
63.98	68.90	M033302	4223	3901	322	1097	948	1898	210	737	108	164	13	63	7	35	6	16	2	14	2	9
68.90	73.82	M033303	4304	3958	346	1126	968	1910	214	752	114	178	13	66	8	38	7	17	2	15	2	10
73.82	78.74	M033304	4525	4162	363	1188	1007	2015	235	787	118	187	12	69	8	40	7	18	3	16	3	11
78.74	83.66	M033305	4478	4099	379	1160	999	1990	221	771	118	199	12	70	9	41	7	19	3	16	3	10
83.66	88.58	M033306	4394	4025	369	1136	979	1959	217	753	117	191	13	70	8	41	7	18	3	15	3	10
88.58	93.50	M033307	4232	3876	356	1106	938	1879	215	732	112	186	12	67	8	39	7	18	2	15	2	10
93.50	98.43	M033308	4310	3936	374	1128	949	1910	214	748	115	193	12	70	9	42	7	19	3	16	3	10
98.43	103.35	M033309	4283	3937	346	1112	955	1916	220	735	111	178	13	66	8	38	7	17	2	15	2	10
103.35	108.27	M033310	4322	3976	346	1121	972	1929	219	744	112	178	13	66	8	38	7	17	2	15	2	9
108.27	113.19	M033311	4110	3782	328	1062	921	1843	203	708	107	166	13	63	8	36	6	17	2	15	2	10
113.19	118.11	M033312	4667	4289	378	1218	1027	2094	243	802	123	196	13	71	9	41	7	19	3	16	3	10
118.11	123.03	M033313	5012	4581	431	1317	1105	2217	262	865	132	225	13	80	10	48	9	22	3	18	3	10
123.03	127.95	M033314	4574	4177	397	1210	1013	2008	243	790	123	203	13	76	9	45	8	20	3	17	3	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM045	4,635,456.93	475,523.63	1,737.08	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M033315	4089	3725	364	1073	907	1793	203	710	112	189	13	68	8	40	7	18	3	15	3	9
132.87	137.80	M033316	4251	3861	390	1122	930	1861	214	739	117	205	13	71	9	43	8	19	3	16	3	10
137.80	142.72	M033317	4113	3733	380	1082	896	1806	208	710	113	199	13	69	9	42	7	19	3	16	3	11
142.72	147.64	M033318	3989	3645	344	1039	883	1769	198	689	106	177	13	66	8	38	7	17	2	14	2	11
147.64	152.56	M033319	4355	3997	358	1138	972	1935	229	748	113	185	13	68	8	40	7	18	2	15	2	10
152.56	157.48	M033321	3840	3491	349	994	849	1695	190	654	103	182	12	64	8	39	7	18	2	15	2	10
157.48	162.40	M033322	3752	3409	343	968	835	1652	184	637	101	180	12	62	8	38	7	17	2	15	2	8
162.40	167.32	M033323	4057	3675	382	1063	836	1830	188	713	108	192	13	74	8	46	7	20	3	17	2	9
167.32	172.24	M033324	4240	3850	390	1132	875	1898	198	766	113	200	13	74	8	47	7	19	2	17	3	12
172.24	177.17	M033325	4259	3863	396	1134	894	1892	201	760	116	199	14	76	9	48	8	20	2	18	2	8
177.17	182.09	M033326	3900	3541	359	1035	808	1750	184	695	104	181	12	70	8	44	7	17	2	16	2	7
182.09	187.01	M033327	3960	3590	370	1064	820	1757	186	720	107	190	13	71	8	43	7	18	2	16	2	6
187.01	191.93	M033328	3939	3569	370	1065	824	1732	186	718	109	190	13	70	8	44	7	18	2	16	2	7
191.93	196.85	M033329	3948	3585	363	1052	816	1769	185	710	105	186	12	68	8	44	7	18	2	16	2	8
196.85	201.77	M033330	3941	3572	369	1062	824	1738	187	716	107	187	13	72	8	44	7	18	2	16	2	4
201.77	206.69	M033331	3798	3456	342	1017	794	1695	179	686	102	171	12	66	8	42	6	17	2	16	2	7
206.69	211.61	M033332	4272	3890	382	1153	894	1898	204	779	115	194	12	74	8	47	7	18	2	17	3	7
211.61	216.54	M033333	4042	3669	373	1098	836	1787	195	737	114	191	13	72	8	44	7	18	2	16	2	9
216.54	221.46	M033334	4176	3790	386	1133	863	1849	199	762	117	196	14	75	8	47	7	19	2	16	2	7
221.46	226.38	M033335	4370	3976	394	1187	905	1941	210	801	119	199	13	77	9	48	7	19	2	17	3	10
226.38	231.30	M033336	4785	4341	444	1312	991	2101	231	885	133	224	13	89	10	53	8	22	3	19	3	13
231.30	236.22	M033337	3892	3521	371	1054	788	1732	185	710	106	190	12	72	8	45	7	18	2	15	2	7
236.22	241.14	M033338	4040	3671	369	1096	841	1787	193	741	109	185	13	72	8	45	7	18	2	17	2	7
241.14	246.06	M033339	3789	3439	350	1027	790	1671	182	693	103	177	13	67	8	41	7	17	2	16	2	5
246.06	250.98	M033340	3858	3502	356	1036	797	1720	182	702	101	180	13	68	8	43	6	18	2	16	2	6
250.98	255.91	M033342	4277	3894	383	1151	892	1904	203	780	115	194	14	74	8	45	7	19	2	17	3	9
255.91	260.83	M033343	4317	3954	363	1156	895	1953	207	783	116	185	14	71	8	42	6	18	2	15	2	4
260.83	265.75	M033344	4675	4314	361	1268	982	2113	226	865	128	180	14	74	8	41	7	17	2	16	2	4
265.75	270.67	M033345	4361	4004	357	1183	924	1947	213	804	116	178	14	72	8	42	6	17	2	16	2	8
270.67	275.59	M033346	4608	4245	363	1247	979	2070	226	847	123	177	14	77	8	43	7	17	2	16	2	7
275.59	280.51	M033347	4113	3770	343	1106	867	1843	196	755	109	171	13	71	7	39	6	17	2	15	2	6
280.51	285.43	M033348	4179	3819	360	1139	876	1855	201	774	113	178	14	73	8	43	7	17	2	16	2	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM045	4,635,456.93	475,523.63	1,737.08	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M033349	4103	3745	358	1122	856	1818	199	758	114	176	14	73	8	43	7	17	2	16	2	6
290.35	295.28	M033350	5187	4791	396	1413	1131	2303	251	965	141	199	14	80	9	47	7	18	2	17	3	8
295.28	300.20	M033351	4125	3768	357	1122	853	1843	199	760	113	177	13	73	8	42	7	18	2	15	2	4
300.20	305.12	M033352	4525	4152	373	1218	930	2058	216	830	118	183	13	78	8	46	7	18	2	16	2	7
305.12	310.04	M033353	3752	3379	373	1026	754	1652	178	688	107	190	13	70	8	45	7	18	2	17	3	9
310.04	314.96	M033354	4201	3839	362	1141	877	1873	201	773	115	182	13	71	8	44	6	18	2	16	2	8
314.96	319.88	M033355	3689	3335	354	1002	755	1628	175	670	107	177	13	69	8	42	7	17	2	17	2	6
319.88	324.80	M033356	4462	4081	381	1192	942	2002	213	806	118	187	13	78	9	46	7	19	2	17	3	8
324.80	329.72	M033357	4170	3795	375	1118	873	1855	196	758	113	189	13	75	8	43	7	18	2	17	3	8
329.72	334.65	M033358	4472	4107	365	1234	891	2033	208	862	113	179	15	75	8	43	6	18	2	16	3	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM046	4,635,491.54	475,441.63	1,741.53	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		:23-OM046_xrf_	147	147	0	0	49	98														
		:23-OM046_xrf_	3569	3569	0	992	829	1748	216	776												
		:23-OM046_xrf_	4397	4397	0	1201	1039	2157	273	928												
		:23-OM046_xrf_	4573	4573	0	1218	1097	2258	260	958												
		:23-OM046_xrf_	3878	3878	0	1020	940	1918	214	806												
		:23-OM046_xrf_	3045	3045	0	809	727	1509	171	638												
0.00	4.92	M033359	366	278	88	98	62	127	15	64	10	53	2	10	1	8	2	5	1	5	1	26
4.92	9.84	M033361	335	261	74	92	59	118	14	60	10	43	2	9	1	7	1	5	1	4	1	34
9.84	14.76	M033362	502	396	106	140	90	179	21	92	14	63	3	12	2	11	2	6	1	5	1	38
14.76	19.69	M033363	389	299	90	105	69	136	17	67	10	53	2	10	2	9	2	5	1	5	1	36
19.69	24.61	M033364	4043	3671	372	1104	806	1812	188	763	102	196	10	67	8	43	6	20	2	17	3	12
24.61	29.53	M033365	4331	3950	381	1187	875	1941	202	825	107	197	11	72	8	45	7	20	2	17	2	12
29.53	34.45	M033366	4497	4108	389	1240	905	2015	211	864	113	202	12	74	8	44	7	20	2	17	3	7
34.45	39.37	M033367	3994	3628	366	1108	799	1769	187	770	103	191	11	69	8	40	6	19	2	17	3	9
39.37	44.29	M033368	4129	3752	377	1126	823	1855	188	780	106	198	11	68	8	44	6	19	3	17	3	6
44.29	49.21	M033369	4718	4279	439	1308	953	2076	218	913	119	235	12	78	9	49	8	22	3	20	3	10
49.21	54.13	M033370	4578	4155	423	1282	928	2002	214	893	118	221	12	78	9	48	7	23	3	19	3	6
54.13	59.06	M033371	4506	4089	417	1245	909	1990	211	860	119	218	12	78	8	47	7	23	3	18	3	4
59.06	63.98	M033372	4177	3791	386	1152	842	1849	193	800	107	200	12	71	8	44	7	20	3	18	3	6
63.98	68.90	M033373	4261	3860	401	1180	867	1867	198	820	108	210	11	73	9	45	7	22	3	18	3	6
68.90	73.82	M033374	4846	4404	442	1307	969	2187	222	907	119	229	12	83	10	49	8	24	3	21	3	8
73.82	78.74	M033375	5473	4992	481	1484	1190	2383	249	1033	137	250	12	91	10	55	9	26	3	21	4	7
78.74	83.66	M033376	4082	3712	370	1128	822	1812	191	784	103	192	11	69	8	42	6	20	2	17	3	8
83.66	88.58	M033377	4428	4007	421	1204	887	1972	204	830	114	224	12	76	9	47	7	22	3	18	3	5
88.58	93.50	M033378	4495	4075	420	1242	904	1984	211	863	113	222	12	77	9	46	7	22	3	19	3	8
93.50	98.43	M033379	5359	4888	471	1471	1071	2408	249	1024	136	250	12	87	10	52	8	25	3	21	3	9
98.43	103.35	M033381	4522	4086	436	1259	895	1990	211	874	116	228	12	80	9	49	8	23	3	21	3	8
103.35	108.27	M033382	3991	3622	369	1106	803	1763	188	769	99	194	12	66	8	42	6	19	2	17	3	8
108.27	113.19	M033383	5498	5022	476	1500	1202	2383	255	1046	136	251	13	88	11	52	8	25	3	22	3	7
113.19	118.11	M033384	4392	3994	398	1215	891	1941	206	844	112	207	14	73	8	45	7	20	3	18	3	6
118.11	123.03	M033385	4430	4015	415	1223	889	1959	208	847	112	217	14	76	9	47	7	21	3	18	3	10
123.03	127.95	M033386	4330	3961	369	1183	881	1947	203	827	103	192	12	69	8	42	6	19	2	16	3	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM046	4,635,491.54	475,441.63	1,741.53	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M033387	4643	4229	414	1294	945	2045	219	903	117	217	12	78	9	46	7	21	3	18	3	6
132.87	137.80	M033388	4863	4399	464	1356	961	2144	224	944	126	247	13	84	10	52	8	24	3	20	3	12
137.80	142.72	M033389	4441	4008	433	1235	889	1941	208	853	117	230	12	79	9	48	8	22	3	19	3	9
142.72	147.64	M033390	3573	3201	372	1004	698	1548	166	694	95	197	12	65	8	41	7	19	2	18	3	7
147.64	152.56	M033391	3853	3459	394	1081	754	1677	178	748	102	208	13	70	8	45	7	20	2	18	3	12
152.56	157.48	M033392	3848	3458	390	1073	748	1689	177	744	100	206	13	68	8	44	7	21	3	17	3	6
157.48	162.40	M033393	4264	3876	388	1192	863	1873	199	832	109	203	12	71	8	44	7	20	2	18	3	9
162.40	167.32	M033394	5645	5214	431	1510	1220	2543	298	1014	139	222	13	82	10	49	9	21	3	19	3	12
167.32	172.24	M033395	5070	4638	432	1346	1084	2266	266	893	129	227	12	79	10	48	8	22	3	20	3	13
172.24	177.17	M033396	4817	4386	431	1270	1031	2144	249	839	123	226	12	77	10	49	9	22	3	20	3	14
177.17	182.09	M033397	3604	3243	361	951	768	1572	179	631	93	192	11	61	8	40	7	19	3	17	3	13
182.09	187.01	M033398	3492	3172	320	911	755	1548	174	608	87	169	11	56	7	35	6	17	2	15	2	11
187.01	191.93	M033399	4619	4217	402	1215	992	2064	237	808	116	211	12	72	9	45	8	21	3	18	3	12
191.93	196.85	M033400	3931	3529	402	1029	828	1726	192	681	102	215	12	67	9	45	8	21	3	19	3	15
196.85	201.77	M033402	4885	4459	426	1278	1064	2174	253	847	121	221	13	78	10	47	9	22	3	20	3	14
201.77	206.69	M033403	3940	3598	342	1043	857	1744	204	695	98	178	12	62	8	38	7	18	2	15	2	11
206.69	211.61	M033404	3937	3585	352	1034	848	1750	200	688	99	185	12	62	8	39	7	18	3	16	2	11
211.61	216.54	M033405	4087	3728	359	1075	889	1812	211	714	102	189	11	63	8	40	7	19	3	16	3	12
216.54	221.46	M033406	4106	3734	372	1076	889	1818	211	714	102	197	13	65	8	41	7	19	3	16	3	12
221.46	226.38	M033407	4257	3917	340	1098	929	1935	220	731	102	179	12	61	8	37	7	17	2	15	2	11
226.38	231.30	M033408	4161	3825	336	1083	915	1873	211	724	102	170	12	63	8	38	7	17	3	15	3	11
231.30	236.22	M033409	4221	3857	364	1111	916	1879	219	738	105	189	13	66	8	41	7	19	3	16	2	10
236.22	241.14	M033410	4063	3692	371	1064	884	1793	210	704	101	196	12	66	8	41	7	19	3	16	3	12
241.14	246.06	M033411	3936	3602	334	1029	861	1757	200	687	97	175	12	60	8	37	7	17	2	14	2	12
246.06	250.98	M033412	3924	3570	354	1033	847	1738	200	687	98	184	13	63	8	40	7	18	2	16	3	12
250.98	255.91	M033413	4099	3742	357	1083	877	1830	212	720	103	189	13	63	8	40	7	18	2	15	2	12
255.91	260.83	M033414	4203	3836	367	1107	905	1873	220	734	104	192	13	65	8	41	7	19	3	16	3	11
260.83	265.75	M033415	4314	3948	366	1141	934	1922	227	758	107	190	13	66	8	41	7	19	3	16	3	12
265.75	270.67	M033416	4398	4024	374	1165	949	1959	230	776	110	197	13	67	8	41	7	19	3	16	3	12
270.67	275.59	M033417	4256	3887	369	1123	915	1898	222	745	107	192	13	67	8	41	7	19	3	16	3	12
275.59	280.51	M033418	4245	3864	381	1125	911	1879	219	749	106	199	13	68	8	43	7	20	3	17	3	12
280.51	285.43	M033419	4231	3858	373	1121	908	1879	222	742	107	194	13	68	8	42	7	19	3	16	3	11

Rare Earth Element Oxide Summary

Drill Hole	*Northing*	*Easting*	*Collar*	*Total Depth*	*Hole Type*
HC23-OM046	*4,635,491.54*	*475,441.63*	*1,741.53*	*102.00*	*RC*

From Depth	*To Depth*	*Sample No.*					*Light REE*					*Heavy REE*										
			TREO	*LREO*	*HREO*	*MREO*	*La2O3*	*Ce2O3*	*Pr6O11*	*Nd2O3*	*Sm2O3*	*Y2O3*	*Eu2O3*	*Gd2O3*	*Tb4O7*	*Dy2O3*	*Ho2O3*	*Er2O3*	*Tm2O3*	*Yb2O3*	*Lu2O3*	*Sc2O3*
285.43	290.35	M033421	4109	3750	359	1070	884	1843	213	709	101	187	13	65	8	39	7	18	3	16	3	11
290.35	295.28	M033422	3808	3464	344	995	820	1695	192	661	96	179	13	62	8	38	7	18	2	15	2	10
295.28	300.20	M033423	3969	3618	351	1033	857	1775	200	688	98	183	13	64	8	39	7	18	2	15	2	12
300.20	305.12	M033424	3797	3462	335	995	829	1683	193	664	93	174	13	60	8	37	7	17	2	15	2	12
305.12	310.04	M033425	4033	3671	362	1066	860	1793	207	710	101	188	13	65	8	40	7	19	3	16	3	11
310.04	314.96	M033426	4210	3859	351	1106	914	1886	219	736	104	180	13	65	8	39	7	18	2	16	3	12
314.96	319.88	M033427	4209	3901	308	1104	928	1910	221	741	101	156	13	59	7	34	6	16	2	13	2	10
319.88	324.80	M033428	4238	3866	372	1112	918	1886	220	737	105	193	14	67	9	41	7	19	3	16	3	13
324.80	329.72	M033429	4018	3675	343	1057	864	1800	208	702	101	177	14	64	8	38	7	17	2	14	2	12
329.72	334.65	M033430	3767	3438	329	974	726	1781	173	667	91	166	13	66	7	36	6	17	2	14	2	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM047	4,635,568.71	475,364.51	1,745.38	102.00	RC

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM047_xrf_	71	71	0	0	33	38														
		C23-OM047_xrf_	2659	2659	0	725	631	1303	154	571												
		C23-OM047_xrf_	2295	2295	0	651	529	1115	155	496												
		C23-OM047_xrf_	3220	3220	0	905	733	1582	199	706												
		C23-OM047_xrf_	4971	4971	0	1432	1131	2408	355	1077												
		C23-OM047_xrf_	4031	4031	0	1160	907	1964	240	920												
0.00	4.92	M033431	401	324	77	109	71	153	18	71	11	43	2	11	1	8	1	4	1	5	1	15
4.92	9.84	M033432	308	242	66	80	55	115	13	50	9	39	2	8	1	7	1	4	0	4	0	20
9.84	14.76	M033433	536	409	127	143	91	190	23	89	16	76	2	16	2	13	3	7	1	6	1	27
14.76	19.69	M033434	731	582	149	203	137	259	33	129	24	86	3	21	3	14	3	9	1	8	1	31
19.69	24.61	M033435	4418	4061	357	1152	868	2088	205	793	107	180	15	72	8	39	6	18	2	15	2	5
24.61	29.53	M033436	4567	4192	375	1202	904	2137	215	823	113	184	16	78	9	42	7	19	2	16	2	8
29.53	34.45	M033437	4480	4111	369	1177	882	2101	208	809	111	185	15	75	8	41	6	18	2	17	2	7
34.45	39.37	M033438	4690	4302	388	1223	924	2205	222	837	114	195	16	81	9	41	7	18	2	17	2	4
39.37	44.29	M033439	4876	4466	410	1256	1058	2205	225	860	118	206	16	86	9	44	7	20	2	17	3	9
44.29	49.21	M033441	4890	4501	389	1269	1004	2279	229	870	119	194	16	80	9	42	7	19	2	17	3	7
49.21	54.13	M033442	5087	4659	428	1305	1102	2309	235	892	121	215	16	87	10	47	8	21	3	18	3	7
54.13	59.06	M033443	5027	4614	413	1310	1066	2291	230	906	121	206	16	87	9	44	8	20	3	17	3	6
59.06	63.98	M033444	5270	4839	431	1353	1140	2401	242	930	126	217	16	89	10	45	8	21	3	19	3	9
63.98	68.90	M033445	5196	4763	433	1342	1120	2358	237	923	125	217	17	88	9	48	8	21	3	19	3	9
68.90	73.82	M033446	4798	4407	391	1250	973	2236	222	861	115	194	16	80	9	43	7	20	2	18	2	6
73.82	78.74	M033447	4978	4584	394	1293	1077	2266	229	889	123	200	15	81	9	43	7	19	2	16	2	5
78.74	83.66	M033448	4857	4444	413	1274	951	2273	227	871	122	210	16	83	9	45	7	21	2	17	3	6
83.66	88.58	M033449	5095	4686	409	1308	1129	2303	233	899	122	201	16	86	9	45	7	21	2	19	3	11
88.58	93.50	M033450	4559	4180	379	1213	898	2119	215	832	116	190	15	76	9	41	7	20	2	17	2	8
93.50	98.43	M033451	4140	3777	363	1091	812	1922	195	745	103	182	16	72	8	40	6	19	2	16	2	7
98.43	103.35	M033452	4396	4031	365	1151	870	2058	205	793	105	185	15	72	8	40	7	18	2	16	2	7
103.35	108.27	M033453	4482	4100	382	1175	881	2094	210	805	110	191	16	77	8	42	7	19	2	17	3	6
108.27	113.19	M033454	4467	4080	387	1188	873	2070	211	814	112	196	17	77	8	43	7	19	2	16	2	8
113.19	118.11	M033455	4199	3835	364	1114	834	1935	198	764	104	181	16	73	8	40	7	19	2	16	2	6
118.11	123.03	M033456	4504	4123	381	1204	887	2082	213	827	114	195	16	75	9	41	7	18	2	16	2	5
123.03	127.95	M033457	4223	3858	365	1117	830	1959	199	766	104	185	15	72	8	40	7	18	2	16	2	6

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM047	4,635,568.71	475,364.51	1,745.38	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M033458	4250	3888	362	1110	841	1984	198	759	106	184	15	71	8	39	6	19	2	16	2	8
132.87	137.80	M033459	4208	3854	354	1118	835	1947	197	773	102	178	15	72	8	38	6	17	2	16	2	7
137.80	142.72	M033460	4109	3746	363	1084	809	1898	191	745	103	188	16	69	8	37	6	18	2	16	3	8
142.72	147.64	M033462	4132	3775	357	1097	814	1910	194	753	104	178	16	73	8	38	6	18	2	16	2	9
147.64	152.56	M033463	4356	3978	378	1162	858	2008	208	799	105	190	15	76	8	42	7	19	2	17	2	9
152.56	157.48	M033464	4139	3779	360	1099	812	1916	195	752	104	182	15	70	8	40	6	19	2	16	2	9
157.48	162.40	M033465	3699	3369	330	976	728	1707	173	668	93	164	15	67	7	35	6	17	2	15	2	10
162.40	167.32	M033466	4433	4061	372	1183	882	2045	199	826	109	189	16	72	8	41	7	19	2	16	2	9
167.32	172.24	M033467	4500	4127	373	1208	911	2058	204	840	114	187	15	74	8	42	7	20	2	16	2	4
172.24	177.17	M033468	3996	3641	355	1069	796	1824	180	736	105	180	16	67	7	41	6	18	2	15	3	9
177.17	182.09	M033469	4268	3882	386	1148	856	1929	192	792	113	197	16	71	8	43	7	21	2	18	3	9
182.09	187.01	M033470	4296	3914	382	1175	856	1935	196	815	112	193	15	72	8	44	7	20	2	18	3	7
187.01	191.93	M033471	4180	3822	358	1125	839	1904	190	781	108	186	15	67	7	39	6	18	2	16	2	9
191.93	196.85	M033472	3750	3402	348	1010	751	1689	169	694	99	178	15	64	8	40	6	18	2	15	2	9
196.85	201.77	M033473	4072	3704	368	1102	827	1824	185	762	106	189	15	68	8	41	7	19	2	16	3	8
201.77	206.69	M033474	4027	3657	370	1097	809	1800	182	760	106	190	15	69	8	41	7	18	2	17	3	7
206.69	211.61	M033475	3834	3487	347	1036	773	1726	171	720	97	176	14	64	8	40	6	18	2	16	3	8
211.61	216.54	M033476	4016	3658	358	1080	808	1818	184	745	103	185	15	66	8	40	6	18	2	15	3	6
216.54	221.46	M033477	4005	3651	354	1080	806	1812	182	745	106	183	15	64	7	40	6	19	2	16	2	8
221.46	226.38	M033478	3769	3419	350	1011	759	1695	171	693	101	182	15	64	7	39	6	18	2	15	2	6
226.38	231.30	M033479	4035	3681	354	1082	828	1818	182	752	101	184	15	64	8	39	6	18	2	16	2	8
231.30	236.22	M033481	3799	3467	332	1019	754	1738	172	703	100	169	15	62	7	37	6	17	2	15	2	9
236.22	241.14	M033482	3222	2941	281	858	647	1474	145	591	84	142	13	53	6	32	5	14	2	12	2	10
241.14	246.06	M033483	3326	3030	296	894	658	1517	151	617	87	153	14	53	6	33	5	15	2	13	2	10
246.06	250.98	M033484	3319	3031	288	894	664	1511	151	617	88	146	13	54	6	32	5	15	2	13	2	9
250.98	255.91	M033485	3515	3190	325	957	697	1578	161	661	93	168	15	59	7	35	6	16	2	15	2	10
255.91	260.83	M033486	3426	3106	320	928	686	1535	155	643	87	163	14	59	7	36	6	16	2	15	2	7
260.83	265.75	M033487	3046	2774	272	812	605	1394	138	559	78	137	13	50	6	31	5	14	2	12	2	8
265.75	270.67	M033488	3233	2942	291	861	651	1468	146	596	81	150	13	53	6	32	5	15	2	13	2	6
270.67	275.59	M033489	2837	2589	248	754	571	1296	129	523	70	128	12	45	5	27	5	12	1	11	2	6
275.59	280.51	M033490	3477	3170	307	940	699	1572	160	650	89	157	15	57	7	34	5	15	2	13	2	9
280.51	285.43	M033491	3179	2897	282	845	633	1456	144	581	83	144	14	52	6	31	5	14	2	12	2	8

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM047	4,635,568.71	475,364.51	1,745.38	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
285.43	290.35	M033492	3277	2975	302	877	658	1480	149	604	84	154	15	55	6	34	6	15	2	13	2	11
290.35	295.28	M033493	3293	3000	293	892	660	1486	150	617	87	150	15	53	6	32	5	15	2	13	2	6
295.28	300.20	M033494	3337	3034	303	900	674	1499	151	625	85	156	14	56	6	33	5	15	2	14	2	4
300.20	305.12	M033495	3158	2874	284	843	632	1437	141	584	80	145	14	52	6	32	5	14	2	12	2	7
305.12	310.04	M033496	3980	3648	332	1062	796	1836	178	735	103	164	15	65	7	39	6	17	2	15	2	10
310.04	314.96	M033497	4123	3780	343	1100	830	1898	187	763	102	171	15	67	8	40	6	17	2	15	2	8
314.96	319.88	M033498	4082	3751	331	1096	828	1873	187	758	105	162	15	66	8	38	6	17	2	15	2	9
319.88	324.80	M033499	3746	3430	316	1002	763	1707	169	695	96	160	15	60	6	36	5	15	2	15	2	8
324.80	329.72	M033501	4730	4368	362	1243	1006	2168	214	863	117	181	16	72	8	41	6	18	2	16	2	6
329.72	334.65	M033502	4253	3922	331	1133	956	1879	216	765	106	164	15	65	8	38	7	16	2	14	2	12

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM048	*4,635,504.06*	*475,284.26*	*1,745.37*	*102.00*	*RC*

From Depth	To Depth	Sample No.					Light REE					Heavy REE										
			TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
		C23-OM048_xrf_	837	837	0	240	201	396	111	129												
		C23-OM048_xrf_	3229	3229	0	854	772	1603	184	670												
		C23-OM048_xrf_	2883	2883	0	832	656	1395	180	652												
		C23-OM048_xrf_	3038	3038	0	891	684	1463	179	712												
		C23-OM048_xrf_	3298	3298	0	900	774	1624	207	693												
		C23-OM048_xrf_	4704	4704	0	1205	1129	2370	231	974												
0.00	4.92	M033503	1632	1468	164	423	352	715	79	280	42	86	6	28	4	18	3	9	1	8	1	12
4.92	9.84	M033504	3058	2762	296	811	677	1314	154	537	80	155	10	53	7	33	6	15	2	13	2	10
9.84	14.76	M033505	3917	3561	356	1060	878	1671	199	709	104	187	12	65	8	40	7	18	2	15	2	9
14.76	19.69	M033506	3586	3252	334	966	808	1523	181	644	96	174	12	61	8	37	7	17	2	14	2	9
19.69	24.61	M033507	3702	3368	334	989	827	1597	186	663	95	172	12	62	8	37	7	17	2	15	2	9
24.61	29.53	M033508	3607	3269	338	960	806	1548	182	639	94	177	12	61	8	37	7	17	2	15	2	10
29.53	34.45	M033509	3628	3279	349	971	795	1560	183	645	96	182	12	64	8	39	7	18	2	15	2	9
34.45	39.37	M033510	3688	3332	356	981	820	1578	185	653	96	189	12	63	8	39	7	18	2	16	2	9
39.37	44.29	M033511	3760	3386	374	1000	820	1615	187	666	98	197	13	66	8	41	7	19	3	17	3	11
44.29	49.21	M033512	3830	3439	391	1026	831	1634	193	678	103	206	13	67	9	43	8	21	3	18	3	11
49.21	54.13	M033513	3315	2968	347	888	720	1406	166	587	89	185	11	60	8	38	7	18	2	16	2	10
54.13	59.06	M033514	3598	3229	369	966	783	1529	180	642	95	195	12	64	8	41	7	19	3	17	3	10
59.06	63.98	M033515	3581	3208	373	953	781	1523	177	633	94	199	12	62	8	41	8	20	3	17	3	9
63.98	68.90	M033516	3818	3438	380	1019	830	1640	191	678	99	198	12	68	9	42	8	20	3	17	3	10
68.90	73.82	M033517	3669	3316	353	984	807	1572	185	657	95	187	12	61	8	39	7	18	3	16	2	10
73.82	78.74	M033518	3368	3026	342	901	733	1437	169	598	89	184	11	58	7	38	7	18	2	15	2	9
78.74	83.66	M033519	3543	3183	360	944	776	1511	177	625	94	194	12	60	8	40	7	19	2	16	2	10
83.66	88.58	M033520	3503	3127	376	943	748	1486	174	624	95	199	12	65	8	42	8	20	3	16	3	10
88.58	93.50	M033522	3465	3097	368	926	746	1474	173	612	92	193	13	64	8	41	8	20	3	16	2	10
93.50	98.43	M033523	3438	3088	350	924	749	1462	173	612	92	186	13	60	8	39	7	18	2	15	2	11
98.43	103.35	M033524	3302	2945	357	879	714	1400	163	579	89	189	13	60	8	40	7	19	3	16	2	11
103.35	108.27	M033525	3728	3348	380	992	821	1585	185	659	98	199	14	66	8	42	8	20	3	17	3	10
108.27	113.19	M033526	3516	3153	363	938	765	1499	175	622	92	191	13	63	8	41	7	19	3	16	2	11
113.19	118.11	M033527	3599	3243	356	964	778	1548	179	642	96	189	14	62	8	39	7	18	2	15	2	12
118.11	123.03	M033528	3344	3008	336	884	731	1437	168	586	86	177	13	58	7	37	7	18	2	15	2	10
123.03	127.95	M033529	3079	2767	312	820	668	1321	154	544	80	165	13	52	7	35	6	16	2	14	2	11

Rare Earth Element Oxide Summary

Drill Hole	Northing	Easting	Collar	Total Depth	Hole Type
HC23-OM048	4,635,504.06	475,284.26	1,745.37	102.00	RC

From Depth	To Depth	Sample No.	TREO	LREO	HREO	MREO	Light REE La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Heavy REE Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3
127.95	132.87	M033530	2972	2664	308	793	653	1259	147	527	78	163	13	52	7	34	6	16	2	13	2	10
132.87	137.80	M033531	2851	2540	311	763	615	1203	141	505	76	164	14	53	7	34	6	16	2	13	2	10
137.80	142.72	M033532	2906	2571	335	788	613	1215	144	520	79	180	13	55	7	38	7	17	2	14	2	11
142.72	147.64	M033533	3071	2721	350	823	656	1290	152	541	82	186	13	58	8	40	7	19	2	15	2	10
147.64	152.56	M033534	3289	2909	380	879	704	1376	163	579	87	205	13	61	8	42	8	21	3	16	3	12
152.56	157.48	M033535	2901	2556	345	770	619	1212	143	505	77	189	12	55	7	38	7	18	2	15	2	10
157.48	162.40	M033536	3132	2773	359	834	673	1314	155	547	84	194	13	58	8	40	7	19	3	15	2	11
162.40	167.32	M033537	2915	2574	341	775	619	1225	143	509	78	184	13	55	7	38	7	18	2	15	2	10
167.32	172.24	M033538	2883	2557	326	741	600	1259	138	488	72	178	12	51	7	36	7	17	2	14	2	9
172.24	177.17	M033539	3069	2729	340	789	640	1345	146	521	77	184	13	54	7	38	7	18	2	15	2	9
177.17	182.09	M033541	2964	2613	351	781	603	1278	142	510	80	187	13	58	8	41	7	18	2	15	2	10
182.09	187.01	M033542	2968	2604	364	779	611	1265	141	507	80	194	13	59	8	43	8	19	3	15	2	10
187.01	191.93	M033543	3329	2981	348	864	704	1462	161	569	85	181	13	61	8	41	7	18	2	15	2	10
191.93	196.85	M033544	3331	2996	335	863	710	1468	161	574	83	176	13	59	7	38	7	17	2	14	2	9
196.85	201.77	M033545	3453	3113	340	901	731	1529	168	597	88	175	13	61	8	40	7	17	2	15	2	11
201.77	206.69	M033546	3443	3103	340	894	732	1523	167	594	87	178	13	61	8	38	7	17	2	14	2	12
206.69	211.61	M033547	2944	2624	320	761	617	1290	142	500	75	167	13	55	7	37	6	17	2	14	2	10
211.61	216.54	M033548	2966	2655	311	773	623	1302	144	510	76	161	13	55	7	36	6	16	2	13	2	10
216.54	221.46	M033549	3320	2969	351	868	700	1449	160	573	87	184	13	62	8	40	7	18	2	15	2	11
221.46	226.38	M033550	3161	2840	321	822	661	1400	153	546	80	168	13	56	7	36	7	16	2	14	2	9
226.38	231.30	M033551	2815	2516	299	735	588	1235	137	484	72	156	12	51	7	35	6	15	2	13	2	10
231.30	236.22	M033552	3095	2773	322	813	647	1357	150	539	80	168	13	56	7	37	7	16	2	14	2	9
236.22	241.14	M033553	3172	2854	318	830	667	1400	154	551	82	166	13	56	7	36	6	16	2	14	2	11
241.14	246.06	M033554	2892	2588	304	761	603	1265	140	506	74	161	12	52	7	34	6	15	2	13	2	10
246.06	250.98	M033555	2941	2638	303	771	618	1290	144	511	75	157	13	54	7	34	6	15	2	13	2	10
250.98	255.91	M033556	3164	2811	353	838	652	1370	153	552	84	184	14	61	8	41	7	18	3	15	2	11
255.91	260.83	M033557	3249	2903	346	860	671	1419	159	569	85	184	13	59	8	39	7	17	2	15	2	12
260.83	265.75	M033558	3150	2811	339	829	653	1376	153	547	82	177	13	59	8	39	7	17	2	15	2	10
265.75	270.67	M033559	2845	2547	298	743	597	1247	138	492	73	157	12	51	7	33	6	15	2	13	2	11
270.67	275.59	M033561	3171	2866	305	824	677	1406	155	549	79	158	13	55	7	34	6	15	2	13	2	10
275.59	280.51	M033562	2944	2638	306	771	613	1296	143	511	75	157	13	54	7	35	6	16	2	14	2	10
280.51	285.43	M033563	3185	2863	322	833	661	1413	155	552	82	167	14	57	7	37	6	16	2	14	2	10

Rare Earth Element Oxide Summary

Drill Hole	*Northing*	*Easting*	*Collar*	*Total Depth*	*Hole Type*
HC23-OM048	*4,635,504.06*	*475,284.26*	*1,745.37*	*102.00*	*RC*

From Depth	*To Depth*	*Sample No.*					*Light REE*					*Heavy REE*											
			TREO	*LREO*	*HREO*	*MREO*	*La2O3*	*Ce2O3*	*Pr6O11*	*Nd2O3*	*Sm2O3*	*Y2O3*	*Eu2O3*	*Gd2O3*	*Tb4O7*	*Dy2O3*	*Ho2O3*	*Er2O3*	*Tm2O3*	*Yb2O3*	*Lu2O3*	*Sc2O3*
285.43	290.35	M033564	3290	2963	327	859	692	1456	160	572	83	169	14	58	7	37	7	17	2	14	2	11
290.35	295.28	M033565	3171	2847	324	834	663	1394	155	554	81	168	13	57	7	37	7	17	2	14	2	11
295.28	300.20	M033566	3503	3162	341	910	745	1554	171	604	88	175	13	62	8	39	7	18	2	15	2	11
300.20	305.12	M033567	3389	3061	328	883	717	1505	166	588	85	169	13	60	7	37	7	17	2	14	2	11
305.12	310.04	M033568	3277	2946	331	861	693	1437	160	573	83	170	14	59	7	38	7	17	2	15	2	10
310.04	314.96	M033569	3227	2906	321	835	684	1431	158	552	81	165	14	57	7	37	7	16	2	14	2	10
314.96	319.88	M033570	3919	3569	350	1014	840	1763	192	678	96	176	15	67	8	40	7	18	2	15	2	11
319.88	324.80	M033571	4743	4360	383	1232	1032	2150	250	816	112	190	15	75	9	45	8	19	3	16	3	10
324.80	329.72	M033572	4291	3932	359	1120	934	1929	216	748	105	178	14	72	9	42	7	18	2	15	2	10
329.72	334.65	M033573	4764	4385	379	1240	1030	2168	248	825	114	189	15	74	9	44	8	19	2	16	3	12

Appendix D – Summer 2023 Surface Sampling Assay Data

DHID	Easting	Northing	Surface_elev	sample_type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3	ThO2	UO2
HC23-0001	475,711.21	4,633,253.28	5,746.97	surface	1533	217	408	1316	312	624	73	264	43	122	6	31	4	24	4	12	2	10	2	9	35	3
HC23-0002	475,715.95	4,633,253.59	5,748.29	XRF	440	0	131	440	77	232	0	131													31	11
HC23-0004	476,196.45	4,633,160.53	5,699.97	surface	2137	175	634	1962	421	961	104	401	75		9	55	8	46	9	22	3	20	3	14	31	11
HC23-0005	475,586.88	4,633,356.27	5,753.14	XRF	1242	0	399	1242	274	569	88	311													33	11
HC23-0006	475,587.66	4,633,530.07	5,744.26	surface	4336	171	1233	4165	995	1984	223	843	120		15	69	8	39	7	16	2	13	2	11	66	9
HC23-0008	475,878.22	4,633,471.71	5,740.96	XRF	1442	0	327	1442	318	797	0	327													47	11
HC23-0009	475,113.94	4,633,305.75	5,796.31	XRF	1063	0	440	1063	154	469	54	386													0	3
HC23-0010	475,061.55	4,633,176.51	5,835.13	XRF	835	0	397	835	125	313	137	260													33	10
HC23-0012	474,815.96	4,632,765.89	5,986.19	XRF	817	0	246	817	183	388	0	246													8	10
HC23-0013	474,649.73	4,632,879.07	5,913.62	XRF	310	0	83	310	67	160	47	36													53	11
HC23-0014	474,685.66	4,632,691.43	6,048.41	XRF	660	0	184	660	121	355	0	184													26	11
HC23-0017	475,312.95	4,633,667.18	5,778.27	XRF	788	0	252	788	142	394	0	252													18	9
HC23-0018	475,370.26	4,633,607.32	5,767.82	surface	3268	115	880	3153	769	1535	164	605	80		13	46	5	26	4	10	1	9	1	16	60	9
HC23-0019	474,782.27	4,633,593.13	5,808.15	XRF	312	0	122	312	57	133	46	76													22	9
HC23-0020	474,640.22	4,633,594.87	5,826.79	XRF	815	0	337	815	127	351	0	337													0	6
HC23-0022	474,855.71	4,633,793.03	5,780.26	XRF	671	0	156	671	167	348	0	156													32	8
HC23-0023	474,490.60	4,633,909.43	5,818.61	surface	702	55	204	647	144	312	34	134	23		12	16	2	11	2	5	1	5	1	13	12	10
HC23-0024	474,659.45	4,633,993.59	5,783.52	XRF	761	0	230	761	156	375	0	230													0	6
HC23-0025	474,498.50	4,633,997.20	5,804.95	surface	1239	84	367	1155	256	556	62	240	41		8	30	4	20	4	9	1	7	1	9	25	7
HC23-0027	475,884.22	4,632,720.30	5,724.02	XRF	235	0	15	235	49	171	0	15													67	18
HC23-0028	475,886.80	4,632,565.25	5,739.33	XRF	1344	0	254	1344	280	810	0	254													65	14
HC23-0029	476,015.24	4,632,278.23	5,755.50	XRF	171	0	21	171	54	96	0	21													109	11
HC23-0030	476,020.43	4,632,092.32	5,743.84	XRF	605	0	155	605	129	321	41	114													69	6
HC23-0031	475,895.66	4,632,253.79	5,754.89	XRF	235	0	0	235	69	166	0	0													47	12
HC23-0032	475,770.72	4,632,264.68	5,752.21	XRF	56	0	0	56	8	48	0	0													102	18
HC23-0033	475,677.44	4,632,279.74	5,760.04	XRF	1079	0	301	1079	271	507	41	260													26	9
HC23-0034	475,652.57	4,632,389.40	5,758.05	XRF	816	0	171	816	188	457	0	171													22	9
HC23-0035	475,604.54	4,632,726.34	5,755.65	XRF	2767	0	808	2767	620	1339	145	663													44	14
HC23-0036	475,593.30	4,632,843.54	5,759.28	XRF	1387	0	499	1387	355	533	94	405													24	11
HC23-0038	475,982.79	4,631,911.68	5,744.04	XRF	1078	0	196	1078	140	742	0	196													72	11
HC23-0039	475,978.99	4,631,695.33	5,754.17	XRF	472	0	48	472	129	295	0	48													47	12
HC23-0040	475,316.93	4,631,888.95	5,835.29	XRF	483	0	85	483	145	253	36	49													108	12
HC23-0041	475,313.33	4,632,052.97	5,798.05	surface	1502	112	468	1390	285	669	75	306	55		10	39	5	27	5	12	2	10	2	19	36	14
HC23-0042A	474,461.47	4,632,001.65	6,042.87	XRF	307	0	69	307	72	166	0	69													51	15
HC23-0042B	475,504.87	4,632,109.87	5,784.67	XRF	25	0	0	25	5	20	0	0													100	36
HC23-0043	474,572.76	4,631,923.75	6,037.59	XRF	1028	0	255	1028	209	564	37	218													41	11
HC23-0044	474,683.49	4,631,810.59	5,933.05	XRF	2298	0	567	2298	504	1227	100	467													40	9
HC23-0045	474,859.94	4,631,816.86	5,913.12	surface	4574	221	1261	4353	898	2260	230	830	135		16	85	11	55	9	21	3	18	3	7	95	15
HC23-0046A	475,012.76	4,631,866.94	5,864.46	surface	2425	193	626	2232	480	1153	116	421	62	92	11	39	5	22	4	10	1	8	1	6	61	3
HC23-0046B	474,834.48	4,632,714.44	6,055.97	XRF	611	0	213	611	107	291	0	213													19	10
HC23-0047	474,944.00	4,632,845.85	6,029.55	XRF	2953	0	824	2953	788	1341	191	633													77	15
HC23-0048	475,121.09	4,632,917.68	6,105.50	surface	3585	446	1003	3139	726	1474	176	653	110	233	14	81	11	53	9	23	3	16	3	6	59	7
HC23-0049	475,182.53	4,632,940.51	6,126.02	surface	3302	370	907	2932	659	1419	161	595	98	191	13	68	9	44	8	19	2	14	2	5	57	6
HC23-0050	475,461.67	4,632,836.96	5,798.97	XRF	3312	0	1014	3312	720	1578	201	813													65	11
HC23-0051	475,151.14	4,632,549.39	5,812.07	XRF	959	0	315	959	192	452	47	268													13	14
HC23-0052	475,174.87	4,632,695.21	5,831.15	XRF	8014	0	2007	8014	1665	4342	446	1561													195	11
HC23-0053	474,806.20	4,632,531.63	6,321.84	XRF	2673	0	644	2673	618	1411	75	569													55	12
HC23-0054	474,709.24	4,632,547.36	6,327.16	XRF	2738	0	873	2738	611	1254	191	682													49	14
HC23-0055	474,675.33	4,632,390.05	6,502.87	surface	2062	478	572	1584	328	746	88	350	72	278	10	61	9	53	10	27	4	22	4	32	23	6
HC23-0056	474,640.24	4,632,377.93	6,538.40	surface	2608	455	733	2153	477	1009	118	461	88	248	12	72	10	56	10	24	3	17	3	6	39	5
HC23-0057	474,589.66	4,632,330.41	6,520.74	surface	4691	560	1294	4131	936	1984	230	840	141	295	14	101	14	69	12	29	3	20	3	5	81	10
HC23-0058	474,494.72	4,632,114.52	6,210.04	surface	2172	589	657	1583	298	712	92	392	89	329	13	85	13	71	13	33	4	24	4	7	32	7
HC23-0059	474,430.67	4,632,196.27	6,154.72	surface	3676	592	1049	3084	660	1462	175	664	123	320	13	98	14	73	13	32	4	22	3	4	60	6

DHID	Easting	Northing	Surface_elev	sample_type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3	ThO2	UO2
HC23-0060	478,280.71	4,636,460.00	5,629.74	XRF	2167	0	593	2167	503	1071	122	471													27	9
HC23-0061	478,136.65	4,636,455.16	5,621.76	XRF	1237	0	370	1237	272	595	62	308													20	11
HC23-0062	477,934.43	4,636,404.36	5,645.74	XRF	2180	0	704	2180	395	1081	166	538													27	9
HC23-0063	477,702.01	4,636,432.55	5,680.69	XRF	2270	0	501	2270	520	1249	123	378													89	12
HC23-0064	477,525.08	4,636,439.01	5,691.05	surface	2406	214	719	2192	482	1059	121	443	87		12	66	10	58	10	28	4	23	3	18	31	10
HC23-0065	477,525.08	4,636,438.94	5,691.03	surface	1891	126	518	1765	367	919	93	325	61		7	43	6	33	6	15	2	12	2	17	54	12
HC23-0066	477,531.56	4,636,210.54	5,659.07	XRF	1696	0	332	1696	394	970	0	332													64	12
HC23-0067	477,723.90	4,636,201.79	5,614.65	XRF	2523	0	626	2523	602	1295	79	547													68	9
HC23-0068	477,894.06	4,636,248.88	5,609.38	XRF	3078	0	939	3078	632	1507	225	714													31	12
HC23-0069	478,102.88	4,636,237.08	5,589.12	XRF	658	0	247	658	121	290	53	194													31	10
HC23-0070	478,108.35	4,636,044.96	5,555.62	surface	2363	209	716	2154	436	1070	121	440	87		11	66	10	58	10	26	4	21	3	15	26	10
HC23-0071	477,884.68	4,636,030.54	5,599.86	XRF	1007	0	140	1007	222	645	0	140													80	7
HC23-0072	477,703.89	4,636,026.40	5,619.29	XRF	2248	0	591	2248	531	1126	95	496													34	12
HC23-0073	477,545.17	4,636,041.59	5,647.75	XRF	911	0	322	911	174	415	0	322													0	12
HC23-0074	477,511.49	4,635,823.30	5,606.02	XRF	1654	0	399	1654	407	848	43	356													42	12
HC23-0075	477,706.04	4,635,826.13	5,607.53	surface	1890	98	504	1792	401	915	95	329	52		7	36	4	24	4	11	1	10	1	20	58	10
HC23-0076	477,914.46	4,635,844.17	5,588.91	surface	2531	214	742	2317	509	1134	128	460	86		12	67	10	58	10	27	4	23	3	19	35	10
HC23-0077	478,116.15	4,635,819.81	5,581.07	XRF	712	0	211	712	150	351	0	211													20	11
HC23-0078	478,128.16	4,636,652.12	5,717.52	surface	754	75	230	679	148	323	38	141	29		8	22	3	19	3	10	1	8	1	13	16	12
HC23-0079	478,128.90	4,636,651.03	5,716.45	surface	1915	183	563	1732	354	872	94	342	70		11	55	8	49	9	24	3	21	3	37	27	10
HC23-0080	477,922.62	4,636,636.70	5,704.97	XRF	1822	0	414	1822	423	985	0	414													67	11
HC23-0081	477,751.40	4,636,598.59	5,692.99	XRF	2070	0	573	2070	501	996	45	528													25	8
HC23-0082	477,528.45	4,636,638.89	5,763.55	XRF	2725	0	716	2725	562	1447	118	598													33	10
HC23-0083	477,299.33	4,636,829.48	5,917.65	XRF	2316	0	628	2316	511	1177	132	496													51	11
HC23-0084	477,083.62	4,636,816.58	5,924.79	XRF	1415	0	369	1415	281	765	48	321													51	12
HC23-0085	476,899.51	4,636,807.80	5,917.24	surface	2711	217	803	2494	578	1183	142	497	94		11	70	10	60	10	27	4	22	3	13	39	11
HC23-0086	476,686.99	4,636,825.84	5,887.41	surface	1821	72	450	1749	400	919	89	297	44		6	27	3	17	3	7	1	7	1	12	50	10
HC23-0087	476,705.83	4,637,027.94	5,877.47	surface	1163	73	295	1090	220	597	53	188	32		6	23	3	19	3	9	1	8	1	12	41	9
HC23-0088	476,897.30	4,637,017.05	5,932.59	surface	1424	78	395	1346	319	655	74	257	41		7	27	4	19	3	9	1	7	1	14	40	11
HC23-0089	477,103.90	4,637,021.34	5,956.56	surface	1490	112	427	1378	305	681	76	267	49		8	36	5	30	5	13	2	11	2	15	41	14
HC23-0090	477,299.77	4,636,998.80	6,058.40	XRF	1877	0	604	1877	358	915	132	472													28	7
HC23-0091	477,483.07	4,636,997.62	6,032.79	XRF	2639	0	706	2639	637	1296	132	574													26	9
HC23-0092	477,668.46	4,637,032.68	5,913.40	surface	972	86	288	886	192	432	50	178	34		8	27	4	22	4	10	1	9	1	15	20	11
HC23-0093	477,878.34	4,637,011.76	5,922.36	surface	666	72	218	594	124	273	35	134	28		7	22	3	18	3	9	1	8	1	16	12	9
HC23-0094	478,094.37	4,637,018.93	5,750.77	surface	1808	134	548	1674	372	795	96	349	62		8	45	6	35	6	16	2	14	2	17	32	9
HC23-0095	478,266.90	4,637,014.96	5,683.40	XRF	1464	0	395	1464	293	776	57	338													35	11
HC23-0096	478,314.38	4,636,809.66	5,726.00	surface	1508	121	447	1387	298	679	77	280	53		7	39	6	31	6	15	2	13	2	15	28	9
HC23-0097	478,290.43	4,636,663.25	5,760.03	XRF	2316	0	646	2316	483	1187	134	512													28	10
HC23-0098	478,094.03	4,636,835.17	5,805.25	surface	1929	125	551	1804	410	882	101	351	60		7	42	6	33	6	15	2	12	2	18	38	9
HC23-0099	477,901.65	4,636,835.47	5,836.49	XRF	1602	0	452	1602	340	810	58	394													38	9
HC23-0101	477,513.53	4,636,828.95	5,909.22	XRF	1489	0	450	1489	276	763	70	380													30	7
HC23-0102	475,937.72	4,631,435.01	5,773.11	XRF	3280	0	804	3280	726	1750	168	636													60	12
HC23-0103	476,127.22	4,631,479.29	5,752.08	XRF	532	0	148	532	94	290	0	148													34	12
HC23-0104	476,073.55	4,631,211.80	5,773.84	XRF	1793	0	332	1793	482	979	0	332													90	12
HC23-0105	475,943.48	4,631,314.17	5,784.90	XRF	892	0	355	892	151	386	48	307													0	10
HC23-0106	475,752.51	4,631,392.30	5,817.29	XRF	778	0	224	778	158	396	0	224													30	12
HC23-0107	475,617.77	4,631,414.03	5,818.03	XRF	2196	0	542	2196	569	1085	134	408													68	14
HC23-0109	475,582.56	4,631,196.84	5,835.60	XRF	1738	0	556	1738	358	824	116	440													39	12
HC23-0110	475,714.66	4,631,227.99	5,821.89	XRF	1169	0	250	1169	272	647	0	250													82	14
HC23-0111	475,841.54	4,631,234.49	5,817.88	XRF	1050	0	239	1050	158	653	0	239													43	9
HC23-0112	476,102.47	4,631,043.22	5,758.42	surface	598	85	218	513	87	234	33	130	29		6	24	4	22	4	11	2	10	2	27	7	10
HC23-0113	475,895.15	4,631,083.51	5,786.24	surface	686	58	181	628	104	359	30	112	23		6	17	2	14	3	7	1	7	1	17	22	12
HC23-0114	475,747.37	4,631,098.92	5,813.85	surface	1890	125	522	1765	407	875	96	329	58		6	40	6	33	6	16	2	14	2	15	53	15

DHID	Easting	Northing	Surface_elev	sample_type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3	ThO2	UO2
HC23-0115	475,580.32	4,631,115.62	5,836.10	XRF	1094	0	234	1094	229	631	42	192													71	9
HC23-0116	475,453.49	4,631,111.27	5,845.99	XRF	1543	0	377	1543	406	760	95	282													81	12
HC23-0117	475,492.88	4,631,800.20	5,808.47	XRF	1175	0	230	1175	331	614	0	230													48	12
HC23-0118	475,474.80	4,631,631.58	5,859.33	XRF	448	0	63	448	94	291	0	63													81	12
HC23-0119	475,574.99	4,631,540.49	5,802.43	XRF	2496	0	574	2496	487	1435	74	500													117	11
HC23-0120	475,860.88	4,631,618.81	5,769.55	XRF	668	0	148	668	155	365	40	108													39	12
HC23-0121	475,434.44	4,630,904.19	5,844.10	XRF	1205	0	280	1205	310	615	54	226													65	14
HC23-0122	475,596.55	4,630,902.53	5,845.44	XRF	601	0	66	601	162	373	0	66													44	11
HC23-0123	475,812.42	4,630,925.31	5,802.82	XRF	153	0	24	153	41	88	0	24													71	10
HC23-0124	475,864.24	4,630,962.48	5,808.20	surface	509	52	158	457	98	217	26	96	20		2	16	2	14	3	7	1	6	1	11	13	19
HC23-0125	476,001.82	4,630,976.65	5,771.95	surface	1123	77	318	1046	263	488	58	203	34		7	25	3	20	3	9	1	8	1	18	17	12
HC23-0126	476,214.68	4,630,943.16	5,745.25	surface	1412	75	365	1337	283	711	69	236	38		7	25	3	19	3	9	1	7	1	18	22	12
HC23-0127	475,926.52	4,630,832.82	5,767.98	XRF	595	0	154	595	128	313	0	154													0	9
HC23-0128	475,762.26	4,630,776.15	5,801.88	XRF	1776	0	395	1776	382	999	98	297													79	11
HC23-0129	475,457.27	4,630,798.89	5,822.47	XRF	514	0	183	514	94	237	48	135													26	11
HC23-0130	476,242.25	4,631,091.56	5,739.71	XRF	953	0	185	953	243	525	0	185													30	9
HC23-0131	476,361.71	4,631,001.28	5,717.43	XRF	359	0	22	359	122	215	0	22													55	11
HC23-0132	476,459.47	4,631,186.96	5,749.78	XRF	928	0	168	928	205	555	0	168													83	14
HC23-0134	476,627.32	4,631,464.49	5,712.57	XRF	1918	0	437	1918	449	1032	53	384													92	10
HC23-0135	476,801.81	4,631,698.08	5,677.56	XRF	1445	0	303	1445	346	796	41	262													42	11
HC23-0136	476,571.94	4,631,614.15	5,697.60	XRF	868	0	212	868	188	468	0	212													50	10
HC23-0137	476,234.09	4,631,678.55	5,734.36	XRF	3273	0	971	3273	945	1357	246	725													42	9
HC23-0139	476,173.74	4,631,438.46	5,740.56	XRF	3409	0	674	3409	821	1914	168	506													181	10
HC23-0140	476,180.94	4,631,436.33	5,738.37	XRF	507	0	105	507	121	281	0	105													47	14
HC23-0141	476,506.78	4,631,071.56	5,708.95	XRF	990	0	182	990	243	565	0	182													66	10
HC23-0142	476,601.90	4,630,927.56	5,689.44	XRF	747	0	101	747	204	442	0	101													51	11
HC23-0143	476,582.56	4,630,786.71	5,661.35	XRF	1321	0	326	1321	259	736	100	226													86	11
HC23-0144	476,775.46	4,630,839.80	5,635.33	surface	536	32	137	504	116	260	26	88	14		2	10	1	8	1	4	1	4	1	8	24	14
HC23-0145	476,971.79	4,630,877.64	5,622.26	surface	534	40	150	494	111	245	27	94	17		3	12	2	10	2	5	1	4	1	10	19	10
HC23-0146	477,180.19	4,630,817.57	5,588.63	surface	677	52	200	625	135	306	36	125	23		2	17	2	14	2	7	1	6	1	13	20	17
HC23-0147	477,169.95	4,630,713.12	5,547.80	surface	739	56	218	683	139	344	39	136	25		2	18	3	15	3	7	1	6	1	12	23	11
HC23-0148	477,240.16	4,630,693.19	5,524.38	surface	1950	137	532	1813	429	894	97	334	59		8	44	6	36	7	18	2	14	2	30	40	12
HC23-0149	476,046.39	4,630,807.31	5,742.63	XRF	163	0	85	163	9	69	0	85													41	10
HC23-0150	476,275.73	4,630,729.50	5,704.22	surface	687	33	164	654	130	370	32	105	17		2	11	2	8	1	4	1	3	1	7	27	9
HC23-0153	476,551.41	4,630,685.81	5,705.55	surface	705	51	198	654	139	333	36	124	22		3	17	2	14	2	6	1	5	1	12	24	10
HC23-0154	476,736.90	4,630,541.77	5,695.03	XRF	1267	0	237	1267	331	699	0	237													77	11
HC23-0155	476,587.66	4,630,423.02	5,686.38	XRF	989	0	281	989	195	513	0	281													32	14
HC23-0156	476,711.06	4,630,379.94	5,690.29	XRF	2056	0	345	2056	549	1162	62	283													138	14
HC23-0157	476,495.19	4,630,372.50	5,687.00	surface	423	38	127	385	83	186	22	79	15		3	11	2	9	2	5	1	4	1	9	13	10
HC23-0158	476,391.81	4,630,409.36	5,680.32	surface	571	44	161	527	120	259	29	100	19		3	14	2	11	2	5	1	5	1	11	17	10
HC23-0159	476,251.61	4,630,423.74	5,709.74	surface	636	65	206	571	115	269	33	128	26		9	19	3	16	3	7	1	6	1	17	7	9
HC23-0160	476,266.26	4,630,538.52	5,754.66	XRF	2311	0	620	2311	561	1130	159	461													39	14
HC23-0161	475,477.88	4,631,425.13	5,823.81	XRF	665	0	209	665	144	312	0	209													42	15
HC23-0163	474,929.17	4,631,671.51	6,028.45	XRF	2069	0	483	2069	517	1069	53	430													73	7
HC23-0164	475,053.40	4,631,504.29	5,885.27	XRF	907	0	179	907	242	486	37	142													82	18
HC23-0165	475,268.47	4,631,103.05	5,911.95	XRF	157	0	22	157	54	81	0	22													43	16
HC23-0166	475,183.02	4,631,216.21	5,909.27	XRF	1210	0	163	1210	429	618	0	163													57	14
HC23-0167	475,149.14	4,631,027.03	5,920.02	XRF	326	0	59	326	79	188	0	59													72	17
HC23-0168	475,250.63	4,630,757.05	5,853.14	XRF	372	0	45	372	102	225	0	45													35	11
HC23-0169	476,365.61	4,631,393.37	5,727.48	XRF	1259	0	359	1259	269	631	105	254													57	15
HC23-0170	476,098.27	4,631,813.42	5,742.57	XRF	93	0	0	93	28	65	0	0													63	11
HC23-0171	476,139.23	4,631,936.53	5,738.87	XRF	356	0	41	356	122	193	0	41													42	12
HC23-0172	476,626.79	4,631,105.32	5,689.11	XRF	1320	0	304	1320	327	689	51	253													81	5

DHID	Easting	Northing	Surface_elev	sample_type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3	ThO2	UO2
HC23-0173	477,085.55	4,637,217.77	5,983.71	XRF	1427	0	591	1427	243	593	155	436													6	9
HC23-0174	476,846.05	4,637,212.42	5,918.94	XRF	2182	0	419	2182	435	1328	0	419													35	11
HC23-0175	476,544.56	4,637,220.09	5,870.96	XRF	3086	0	754	3086	623	1709	207	547													104	11
HC23-0176	476,283.03	4,637,205.32	5,859.58	XRF	3819	0	694	3819	665	2460	97	597													107	12
HC23-0177	476,054.92	4,637,192.59	5,854.33	XRF	2360	0	489	2360	419	1452	0	489													97	14
HC23-0178	475,883.27	4,636,980.27	5,830.14	XRF	4251	0	1121	4251	978	2152	240	881													100	11
HC23-0179	476,112.99	4,637,008.07	5,838.40	XRF	3624	0	1111	3624	844	1669	244	867													41	15
HC23-0180	476,115.66	4,636,971.46	5,820.56	XRF	1979	0	553	1979	287	1139	175	378													93	18
HC23-0181	476,046.78	4,637,464.98	5,894.25	XRF	4137	0	1060	4137	957	2120	248	812													90	11
HC23-0182	476,074.39	4,637,490.46	5,919.62	XRF	4876	0	1325	4876	1242	2309	239	1086													53	12
HC23-0183	476,075.38	4,637,491.17	5,923.22	XRF	1568	0	525	1568	323	720	83	442													23	12
HC23-0184	476,097.00	4,637,618.04	6,017.66	XRF	3528	0	976	3528	919	1633	240	736													61	17
HC23-0185	476,093.84	4,637,797.06	6,055.60	XRF	1144	0	399	1144	218	527	95	304													20	12
HC23-0186	475,936.98	4,637,594.37	6,034.60	XRF	1187	0	295	1187	272	620	45	250													43	26
HC23-0187	477,299.61	4,637,214.03	6,123.35	XRF	2240	0	704	2240	561	975	172	532													55	12
HC23-0188	477,474.39	4,637,212.41	6,025.72	XRF	1554	0	391	1554	331	832	63	328													65	10
HC23-0189	474,494.85	4,634,820.89	5,995.65	XRF	4769	0	1099	4769	926	2744	239	860													96	10
HC23-0190	474,385.26	4,634,852.82	6,087.53	XRF	4137	0	1102	4137	989	2046	253	849													81	11
HC23-0191	474,287.84	4,634,860.40	6,116.29	XRF	4877	0	1329	4877	1075	2473	236	1093													39	12
HC23-0192	474,285.16	4,634,974.63	6,174.91	XRF	4943	0	1202	4943	1013	2728	233	969													102	11
HC23-0193	474,392.91	4,635,122.10	6,186.90	XRF	4246	0	1183	4246	1030	2033	246	937													67	16
HC23-0194	474,509.17	4,635,143.75	6,139.89	surface	6146	262	1775	5884	1384	2801	332	1201	166		14	104	13	63	11	26	4	23	4	12	106	11
HC23-0195	474,375.37	4,634,979.15	6,065.57	XRF	4264	0	1086	4264	983	2195	232	854													125	16
HC23-0196	474,495.44	4,634,964.47	6,010.93	XRF	4378	0	1182	4378	1044	2152	240	942													74	11
HC23-0197	477,402.60	4,632,950.35	5,621.56	XRF	1040	0	331	1040	212	497	132	199													53	17
HC23-0198	477,185.67	4,632,949.13	5,638.26	XRF	697	0	202	697	131	364	0	202													38	14
HC23-0199	477,323.14	4,632,814.12	5,623.18	XRF	818	0	175	818	219	424	0	175													48	16
HC23-200	475,688.55	4,632,837.25		surface	3146	427	890	2719	600	1290	155	575	99	224	14	75	10	51	9	22	3	16	3	16	53	6
HC23-201	475,290.27	4,632,191.11		surface	4834	335	1316	4499	1068	2162	255	893	121	157	16	76	8	39	7	15	2	13	2	20	81	6
HC23-202	475,588.55	4,632,836.76		surface	3979	478	1119	3501	814	1634	200	735	118	254	14	87	11	55	10	24	3	17	3	15	67	7
HC23-203	475,555.48	4,632,196.32		surface	790	145	220	645	138	305	36	141	25	80	7	20	3	15	3	8	1	7	1	21	15	3
HC23-204	475,488.55	4,632,836.27		surface	4101	573	1239	3528	861	1511	216	804	136	300	16	104	14	69	12	30	4	21	3	12	49	7
HC23-205	475,655.81	4,632,206.58		surface	740	78	206	662	157	310	39	135	21	40	3	14	2	9	1	4	1	3	1	9	15	2
HC23-206	475,792.86	4,632,827.57		surface	5076	536	1431	4540	978	2211	265	938	148	272	15	105	13	67	12	27	3	19	3	8	90	7
HC23-207	475,749.54	4,632,198.76		surface	134	74	27	60	14	27	3	12	4	48	1	4	1	7	2	5	1	4	1	7	32	4
HC23-208	475,852.39	4,632,789.01		surface	6221	538	1692	5683	1243	2825	320	1136	159	269	20	106	13	64	11	27	3	21	4	12	97	9
HC23-209	475,806.19	4,632,265.51		surface	310	101	73	209	44	104	12	40	9	63	1	9	2	10	2	7	1	5	1	6	21	4
HC23-210	475,907.17	4,632,797.48		surface	1238	165	325	1073	233	536	58	212	34	91	6	25	3	18	3	9	1	8	1	17	29	4
HC23-211	475,598.02	4,632,253.35		surface	1011	125	272	886	196	435	49	177	29	65	8	20	3	14	2	6	1	5	1	10	28	5
HC23-212	475,804.90	4,632,749.63		surface	4670	527	1275	4143	912	2033	239	826	133	274	14	98	13	64	12	27	3	19	3	8	82	6
HC23-213	475,499.68	4,632,352.91		surface	446	59	94	387	91	209	19	59	9	36	1	6	1	6	1	3	1	3	1	8	100	12
HC23-214	475,733.78	4,632,782.16		surface	3254	471	925	2783	618	1308	159	594	104	250	12	82	11	57	10	25	3	18	3	11	59	8
HC23-215	475,663.16	4,632,404.93		surface	801	104	211	697	158	341	38	138	22	55	6	16	2	11	2	5	1	5	1	17	17	2
HC23-216	475,708.45	4,632,758.72		surface	3052	416	842	2636	534	1321	150	538	93	217	13	71	10	51	9	22	3	17	3	14	71	6
HC23-217	475,704.05	4,632,453.01		surface	5905	540	1626	5365	1093	2727	300	1084	161	268	18	108	14	67	12	27	3	20	3	10	88	7
HC23-218	475,640.63	4,632,790.20		surface	4151	514	1183	3637	844	1683	211	773	126	269	15	96	12	61	11	26	3	18	3	14	66	7
HC23-219	475,649.16	4,632,454.34		surface	3782	369	1035	3413	719	1714	187	686	107	184	13	72	9	46	8	19	2	14	2	12	52	6
HC23-220	475,608.46	4,632,758.62		surface	4092	448	1128	3644	794	1787	203	742	118	229	15	85	11	54	9	23	3	16	3	14	76	7
HC23-221	475,428.22	4,632,466.13		surface	932	158	249	774	164	381	43	157	29	86	10	22	3	17	3	8	1	7	1	28	23	5
HC23-222	475,551.57	4,632,755.63		surface	3508	434	929	3074	677	1529	169	593	106	227	14	78	10	51	9	22	3	17	3	15	65	8
HC23-223	475,349.32	4,632,462.41		surface	1109	198	288	911	195	453	50	178	35	108	11	28	4	21	4	11	1	9	1	33	27	3
HC23-224	475,534.25	4,632,784.49		surface	3131	460	849	2671	592	1296	150	535	98	243	14	79	11	55	10	24	3	18	3	16	47	6
HC23-225	475,604.24	4,632,508.71		surface	3705	375	983	3330	759	1640	184	642	105	192	13	73	9	43	8	18	2	15	2	19	78	7

DHID	Easting	Northing	Surface_elev	sample_type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3	ThO2	UO2
HC23-226	475,503.44	4,632,751.81		surface	2730	475	753	2255	518	1051	128	467	91	258	13	77	11	56	10	25	3	19	3	16	36	5
HC23-227	475,653.61	4,632,505.92		surface	3265	308	827	2957	647	1529	156	537	88	149	12	63	8	38	7	15	2	12	2	15	70	5
HC23-228	475,432.86	4,632,786.43		surface	2848	389	786	2459	534	1195	141	499	90	201	14	70	9	47	8	20	3	15	2	16	53	5
HC23-229	475,701.97	4,632,502.45		surface	3528	446	931	3082	656	1560	167	593	106	229	14	82	11	54	10	23	3	17	3	9	64	6
HC23-230	475,378.15	4,632,746.78		surface	3350	452	890	2898	629	1443	158	565	103	237	13	79	11	53	10	24	3	19	3	24	60	7
HC23-231	475,753.21	4,632,503.06		surface	5282	572	1442	4710	1055	2297	273	932	153	291	17	112	14	70	12	28	4	21	3	8	87	7
HC23-232	475,307.62	4,632,755.71		surface	3536	433	1028	3103	808	1327	186	668	114	221	14	86	11	49	9	21	3	16	3	20	53	7
HC23-233	475,654.53	4,632,553.77		surface	4051	457	1071	3594	802	1787	199	689	117	236	13	85	11	55	10	23	3	18	3	18	82	7
HC23-234	475,346.33	4,632,695.96		surface	2320	330	619	1990	447	969	110	393	71	175	12	56	8	37	7	17	2	14	2	20	44	7
HC23-235	475,553.39	4,632,555.99		surface	2164	234	564	1930	426	973	105	365	61	114	12	44	6	27	5	12	2	10	2	14	44	5
HC23-236	475,386.17	4,632,664.30		surface	2656	342	726	2314	570	1063	134	470	77	184	13	59	8	37	7	16	2	14	2	20	49	6
HC23-237	475,507.34	4,632,557.57		surface	2331	231	593	2100	500	1038	115	387	60	117	13	42	5	26	5	11	1	9	2	16	39	4
HC23-238	475,470.97	4,632,698.04		surface	2419	318	630	2101	468	1048	113	401	71	165	12	56	8	37	7	16	2	13	2	17	46	5
HC23-239	475,398.43	4,632,552.66		surface	1276	378	384	898	148	416	56	226	52	218	12	48	8	42	8	21	3	16	2	27	16	5
HC23-240	475,547.39	4,632,713.89		surface	4350	496	1168	3854	883	1873	224	748	126	259	15	92	12	58	10	25	3	19	3	19	79	7
HC23-241	475,440.85	4,632,588.29		surface	1893	252	484	1641	321	871	87	307	55	131	12	41	6	29	5	13	2	11	2	17	41	5
HC23-242	475,597.62	4,632,701.73		surface	3804	463	1011	3341	762	1634	189	644	112	239	15	86	11	55	10	23	3	18	3	17	70	7
HC23-243	475,504.10	4,632,603.60		surface	2547	315	661	2232	474	1141	121	423	73	162	13	56	7	37	7	16	2	13	2	23	50	6
HC23-244	475,652.82	4,632,712.33		surface	6077	508	1568	5569	1261	2813	306	1035	154	250	17	108	13	60	11	25	3	18	3	14	116	8
HC23-245	475,554.89	4,632,596.81		surface	2703	302	708	2401	530	1205	130	458	78	154	13	56	7	35	6	15	2	12	2	16	52	5
HC23-246	475,653.01	4,632,650.93		surface	3125	448	835	2677	592	1314	149	526	96	236	13	77	11	53	10	24	3	18	3	15	54	6
HC23-247	475,600.59	4,632,594.31		surface	3228	386	887	2842	701	1308	163	573	97	197	13	73	9	45	8	19	3	16	3	18	62	7
HC23-248	475,593.91	4,632,662.36		surface	3838	456	1029	3382	749	1671	188	659	115	233	14	86	11	56	10	23	3	17	3	18	76	6
HC23-249	475,662.54	4,632,603.71		surface	2935	437	819	2498	596	1146	144	517	95	229	13	78	11	52	9	22	3	17	3	15	47	6
HC23-250	475,544.45	4,632,640.87		surface	2225	306	610	1919	413	941	105	390	70	156	12	54	8	37	7	16	2	12	2	13	39	4
HC23-251	475,900.25	4,632,606.28		surface	362	142	96	220	42	100	14	51	13	88	1	13	2	16	3	10	1	7	1	6	12	3
HC23-253	475,951.80	4,632,536.03		surface	488	125	123	363	68	188	19	72	16	74	3	13	2	14	3	8	1	6	1	8	11	3
HC23-254	475,303.16	4,632,670.88		surface	2525	354	679	2171	464	1075	118	439	75	197	12	53	8	39	7	19	2	15	2	22	50	7
HC23-255	475,903.90	4,632,510.86		surface	804	220	239	584	139	236	38	142	29	130	2	26	4	26	5	14	2	10	1	6	19	6
HC23-256	475,332.15	4,632,582.50		surface	864	243	271	621	107	275	38	164	37	134	10	33	5	27	5	14	2	11	2	25	11	4
HC23-257	475,854.81	4,632,506.16		surface	681	87	183	594	138	284	33	119	20	47	3	14	2	9	2	4	1	4	1	7	18	2
HC23-258	475,852.83	4,632,459.99		surface	79	34	17	45	13	18	3	9	2	23	1	2	0	3	1	2	0	2	0	6	9	1
HC23-259	475,923.54	4,632,398.66		surface	211	61	49	150	35	73	8	28	6	36	3	6	1	6	1	4	1	3	0	8	7	2
HC23-260	475,961.53	4,632,354.75		surface	400	51	94	349	60	203	16	58	12	26	2	9	1	7	1	3	0	2	0	6	11	2
HC23-261	475,954.03	4,632,303.28		surface	455	42	116	413	93	210	22	77	11	21	3	7	1	5	1	2	0	2	0	6	17	3
HC23-263	475,855.19	4,632,307.21		surface	92	42	23	50	11	21	3	11	4	26	0	4	1	4	1	3	0	3	0	6	40	5
HC23-264	475,855.59	4,632,353.29		surface	232	127	54	105	23	43	7	25	7	81	1	8	2	13	3	9	1	8	1	6	20	4
HC23-265	475,810.19	4,632,456.41		surface	293	28	74	265	69	126	14	49	7	13	4	4	1	3	1	1	0	1	0	5	12	1
HC23-266	475,754.21	4,632,700.03		surface	3302	433	907	2869	584	1443	156	580	106	219	13	80	11	54	10	23	3	17	3	10	65	8
HC23-267	475,813.01	4,632,702.15		surface	4136	417	1048	3719	727	2008	193	677	114	210	12	79	11	53	9	22	3	16	2	12	88	5
HC23-268	475,910.83	4,632,708.15		surface	856	263	192	593	106	330	29	104	24	161	2	23	5	30	6	18	2	14	2	9	30	6
HC23-269	475,956.62	4,632,758.68		surface	915	252	236	663	139	322	37	135	30	152	2	28	5	29	6	16	2	11	1	7	28	4
HC23-270	475,964.97	4,632,654.78		surface	532	180	138	352	63	174	21	76	18	110	2	17	3	20	4	12	2	9	1	7	21	4
HC23-271	475,251.15	4,631,955.59		surface	303	74	81	229	56	100	13	49	11	42	4	9	1	7	1	4	1	4	1	7	7	3
HC23-272	475,246.13	4,631,935.56		surface	966	99	231	867	191	457	44	152	23	52	6	16	2	10	2	5	1	4	1	10	27	2
HC23-273	475,150.79	4,631,940.47		surface	367	41	92	326	78	161	18	59	10	21	3	7	1	4	1	2	0	2	0	3	12	2
HC23-274	474,949.32	4,631,937.33		surface	3732	483	1061	3249	780	1480	190	679	120	247	12	92	12	60	11	25	3	18	3	4	67	6
HC23-275	474,957.20	4,631,994.33		surface	3317	238	870	3079	732	1511	169	580	87	110	11	53	6	28	5	11	2	10	2	16	69	5
HC23-276	474,996.62	4,631,994.41		surface	3878	377	1042	3501	807	1707	195	679	113	190	12	76	10	45	8	18	2	14	2	6	78	7
HC23-277	475,045.62	4,631,975.40		surface	5670	578	1511	5092	1075	2592	291	968	166	291	15	114	15	71	12	30	4	22	4	5	81	11
HC23-278	475,092.88	4,632,033.55		surface	4601	460	1241	4141	959	2008	234	806	134	230	13	93	12	55	10	23	3	18	3	13	79	12
HC23-279	475,152.14	4,632,094.99		surface	2832	217	741	2615	656	1247	144	495	73	103	12	47	5	24	4	10	1	9	2	6	52	5
HC23-280	475,182.51	4,632,093.86		surface	1523	247	435	1276	260	615	73	274	54	125	14	42	6	28	5	12	2	11	2	12	22	3

DHID	Easting	Northing	Surface_elev	sample_type	TREO	HREO	MREO	LREO	La2O3	Ce2O3	Pr6O11	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb4O7	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	Sc2O3	ThO2	UO2
HC23-281	475,187.83	4,632,139.91		surface	1941	231	505	1710	392	844	91	327	56	121	10	39	5	26	5	11	2	10	2	13	35	4
HC23-282	475,202.38	4,632,189.35		surface	3071	286	827	2785	664	1333	155	546	87	142	12	57	7	32	6	14	2	12	2	17	55	7
HC23-283	475,202.35	4,632,238.37		surface	3873	316	1005	3557	833	1763	193	666	102	157	12	64	8	36	6	16	2	13	2	23	71	8
HC23-284	475,245.94	4,632,193.89		surface	2834	239	719	2595	589	1321	138	475	72	117	11	46	6	28	5	12	2	10	2	14	58	5
HC23-285	475,097.27	4,632,099.23		surface	3847	411	1029	3436	796	1671	190	665	114	207	12	80	11	49	9	21	3	16	3	10	71	8
HC23-286	475,070.61	4,632,098.28		surface	3517	381	969	3136	712	1511	176	629	108	191	12	77	10	46	8	19	2	14	2	9	57	6
HC23-287	475,047.27	4,632,130.88		surface	2485	307	633	2178	430	1161	113	400	74	156	10	55	8	38	7	16	2	13	2	11	53	11
HC23-288	475,024.69	4,632,160.28		surface	3261	360	859	2901	645	1449	158	552	97	181	12	69	9	43	8	19	2	15	2	10	63	6
HC23-289	474,991.62	4,632,159.19		surface	3562	368	938	3194	677	1634	173	605	105	184	11	73	10	45	8	18	3	14	2	10	69	8
HC23-290	474,934.65	4,632,171.33		surface	3701	396	1000	3305	785	1578	185	647	110	201	12	77	10	48	8	20	3	15	2	8	61	5
HC23-291	474,940.68	4,632,213.91		surface	3740	414	1003	3326	775	1609	185	645	112	210	12	79	11	50	9	21	3	16	3	8	67	6
HC23-292	474,944.17	4,632,253.05		surface	4060	435	1082	3625	844	1763	201	699	118	220	13	83	11	53	10	22	3	17	3	9	73	7
HC23-293	474,985.20	4,632,247.92		surface	3565	372	949	3193	755	1542	176	618	102	189	12	72	9	44	8	19	3	14	2	7	64	6
HC23-294	475,051.87	4,632,269.71		surface	4004	420	1119	3584	810	1714	196	745	119	215	14	82	10	49	8	20	3	16	3	19	77	6
HC23-295	475,041.51	4,632,195.08		surface	3283	374	938	2909	715	1308	164	623	99	194	13	71	9	43	7	18	2	15	2	12	55	5
HC23-296	475,087.42	4,632,141.94		surface	4098	429	1150	3669	817	1763	203	763	123	219	13	83	10	51	9	21	3	17	3	14	78	6
HC23-297	475,103.88	4,632,193.55		surface	3021	303	843	2718	615	1302	150	562	89	154	12	59	7	35	6	14	2	12	2	12	60	5
HC23-298	475,109.56	4,632,236.12		surface	2769	295	779	2474	557	1179	137	517	84	150	12	56	7	34	6	14	2	12	2	17	51	5

Appendix E – Odessa Resource Report

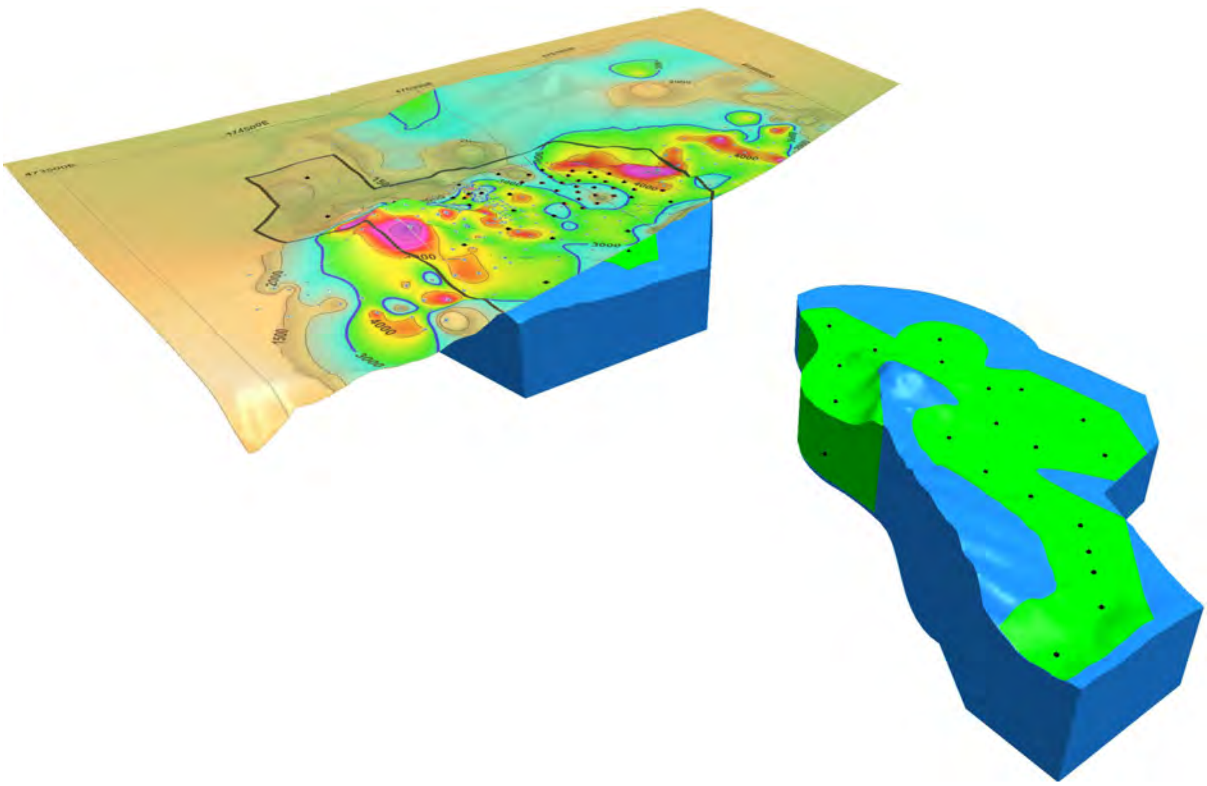
Halleck Creek REE Project, Wyoming

Update Report

Methodology and Resource Estimation Report

Undertaken for American Rare Earths Ltd

1 January 2024



Alfred Gillman

B.Sc (Honours), F.AusIMM (CP Geol)

Odessa Resources Pty Ltd

Contents

Introduction

The Halleck Creek Rare Earth Elements (REE) Project is located in the central Laramie Mountain range of southeastern Wyoming about 70 km northeast of the town of Laramie.

Rare earth mineralisation is developed within the Laramie anorthosite complex (LAC), which represents the northernmost component of widespread 1.4 Ga magmatism in the western United States. Rare earth mineralisation is evenly distributed throughout the rock mass due to fractional crystallization of allanite in syenitic rocks of the Red Mountain Pluton. Mineralisation does not appear to be structurally controlled.

A maiden classified mineral resource estimate was carried out in March 2023 (Table 1)

Classification	Tonnage	Grade				Contained Material			
		TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
	t	ppm	ppm	ppm	ppm	t	t	t	t
Indicated	622,286,213	3,389	2,950	362	809	2,108,995	1,835,616	225,332	503,187
Inferred	807,364,800	3,248	2,628	339	624	2,621,979	2,122,117	273,324	503,519
Total	**1,429,651,013**	**3,309**	**2,768**	**349**	**704**	**4,730,974**	**3,957,733**	**498,656**	**1,006,707**
Rounded	**1,430,000,000**	**3,310**	**2,768**	**349**	**704**	**4,730,000**	**3,960,000**	**500,000**	**1,010,000**

Note: differences may occur in totals due to rounding

Table 1: Halleck Creek Mineral Resource Estimate March 2023 (1500ppm TREO cut off)

Subsequent to this MRE additional drilling comprising 23 holes for 2,388m was completed in the Overton Mountain Resource Area. The results of this drilling both substantially increased and upgraded the mineral resource to include a proportion of material that is classified as measured (Table 2).

Resource Block	Classification	Tonnage	Grade				Contained Material			
			TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
		t	ppm	ppm	ppm	ppm	t	t	t	t
Overton Mountain	Measured	204,116,963	3,753	3,395	372	1006	766,027	692,921	75,979	205,260
	Indicated	543,600,450	3,534	3,185	358	856	1,921,062	1,731,349	194,716	465,409
	Inferred	467,433,113	3,634	3,271	367	699	1,698,652	1,528,844	171,772	326,639
	Total	**1,215,150,525**	**3,609**	**3,253**	**364**	**821**	**4,385,741**	**3,953,113**	**442,467**	**997,307**
Red Mountain	Indicated	580,102,425	3,227	2,809	353	893	1,872,160	1,629,443	204,776	517,770
	Inferred	296,983,125	3,056	2,742	336	853	907,486	814,381	99,860	253,368
	Total	**877,085,550**	**3,169**	**2,786**	**347**	**879**	**2,779,646**	**2,443,824**	**304,635**	**771,138**
Total	Measured	204,116,963	3,753	3,395	372	1006	766,027	692,921	75,979	205,260
	Indicated	1,123,702,875	3,376	2,991	356	875	3,793,223	3,360,792	399,492	983,178
	Inferred	764,416,238	3,409	3,065	355	759	2,606,138	2,343,224	271,631	580,007
	Total	**2,092,236,075**	**3,425**	**3,057**	**357**	**845**	**7,165,387**	**6,396,937**	**747,103**	**1,768,445**

Note: differences may occur in totals due to rounding

Table 2: Halleck Creek Mineral Resource Estimate January 2024 (1500ppm TREO cut off)

Scope of Work

The scope of this report is to document the procedures and methodology used to report an updated grade tonnage estimate of the Halleck Creek REE Project based on data provided by American Rare Earth (ARR).

Data Provided and Modifications

Drillhole data were provided in the form of Excel spreadsheets together with various datasets within a Leapfrog model. Key data comprised the following:

- Drillhole collar locations
- Downhole analyses
- Interval logged lithology
- Downhole surveys
- Permit boundaries
- Geological domain boundaries
- Topographic surface

Survey and Coordinate System

- NAD1983 Zone 13N co-ordinate system
- Collar elevations pressed to DTM

Data Compilation

All data were merged, error corrected and validated using Leapfrog Geo/Edge v.2023.2.1

Analytical information included the full suite of rare earth elements together with several associated elements such as uranium and thorium.

The QAQC protocols adopted by ARR are considered by the author to be of a very high standard.

Rare Earth Assemblages were calculated as shown in Table 3.

TREO	LREO	HREO	MREO
Total	**Light**	**Heavy**	**Magnetic**
Ce2O3	Ce2O3	Dy2O3	Pr6O11
Dy2O3	La2O3	Er2O3	Nd2O3
Er2O3	Nd2O3	Eu2O3	Tb4O7
Eu2O3	Pr6O11	Gd2O3	Dy2O3
Gd2O3	Sm2O3	Ho2O3	
Ho2O3		Lu2O3	
La2O3		Tb4O7	
Lu2O3		Tm2O3	
Nd2O3		Yb2O3	
Pr6O11		Y2O3	
Sm2O3			
Tb4O7			
Tm2O3			
Y2O3			
Yb2O3			

Table 3: Halleck Creek Rare Earth Assemblages

A statistical summary of the combined rare earth assemblages and individual minerals is listed in Table 4.

Name	Count	Length	Mean	Minimum	Median	Maximum
TREO	6065	8841	3,289	5	3,659	11,054
LREO	6066	8843	2,939	4	3,286	10,192
HREO	6065	8841	349	1	362	984
MREO	6066	8843	893	1	984	3,153
Ce2O3	6066	8843	1420	2	1,591	4,938
Dy2O3	6066	8843	40	0	41	123
Er2O3	6066	8843	18	0	19	55
Eu2O3	6065	8841	11	0	12	23
Gd2O3	6066	8843	62	0	66	200
Ho2O3	6066	8843	7	0	7	22
La2O3	6066	8843	674	1	758	2,310
Lu2O3	6066	8843	2	0	2	7
Nd2O3	6066	8843	592	1	653	2,070
Pr6O11	6066	8843	161	0	176	657
Sc2O3	6039	8810	12	0	9	81
Sm2O3	6066	8843	92	0	101	334
Tb4O7	6066	8843	8	0	8	27
Tm2O3	6066	8843	2	0	2	7
UO2	6064	8840	7	0	7	62
Y2O3	6064	8840	182	1	188	551
Yb2O3	6066	8843	15	0	15	42
Interval Length	6066		1	0.03	1.5	2.64

Table 4: Halleck Creek Length-weighted Sampling and Analysis Statistics

Drilling

The resource is defined by a total of 70 drillholes across the Overton Mountain and Red Mountain resource areas (Table 5, Figure 1). Additional drilling comprising eight HQ diamond holes for 858.5m and 15 RC holes for 1,530m were completed in the Overton Mountain area in Fall 2023, September and October, (Figure 2). No additional drilling was undertaken within the Red Mountain area.

Area	Hole Type	No. Holes	Metres
Overton Mountain	HQ core	13	1394.5
	RC	35	4,530
Total		**48**	**5,925**
Red Mountain	HQ core	4	381
	RC	18	2,726
Total		**22**	**3,106**
Total		**70**	**9,031**

Table 5: Halleck Creek Drilling Statistics

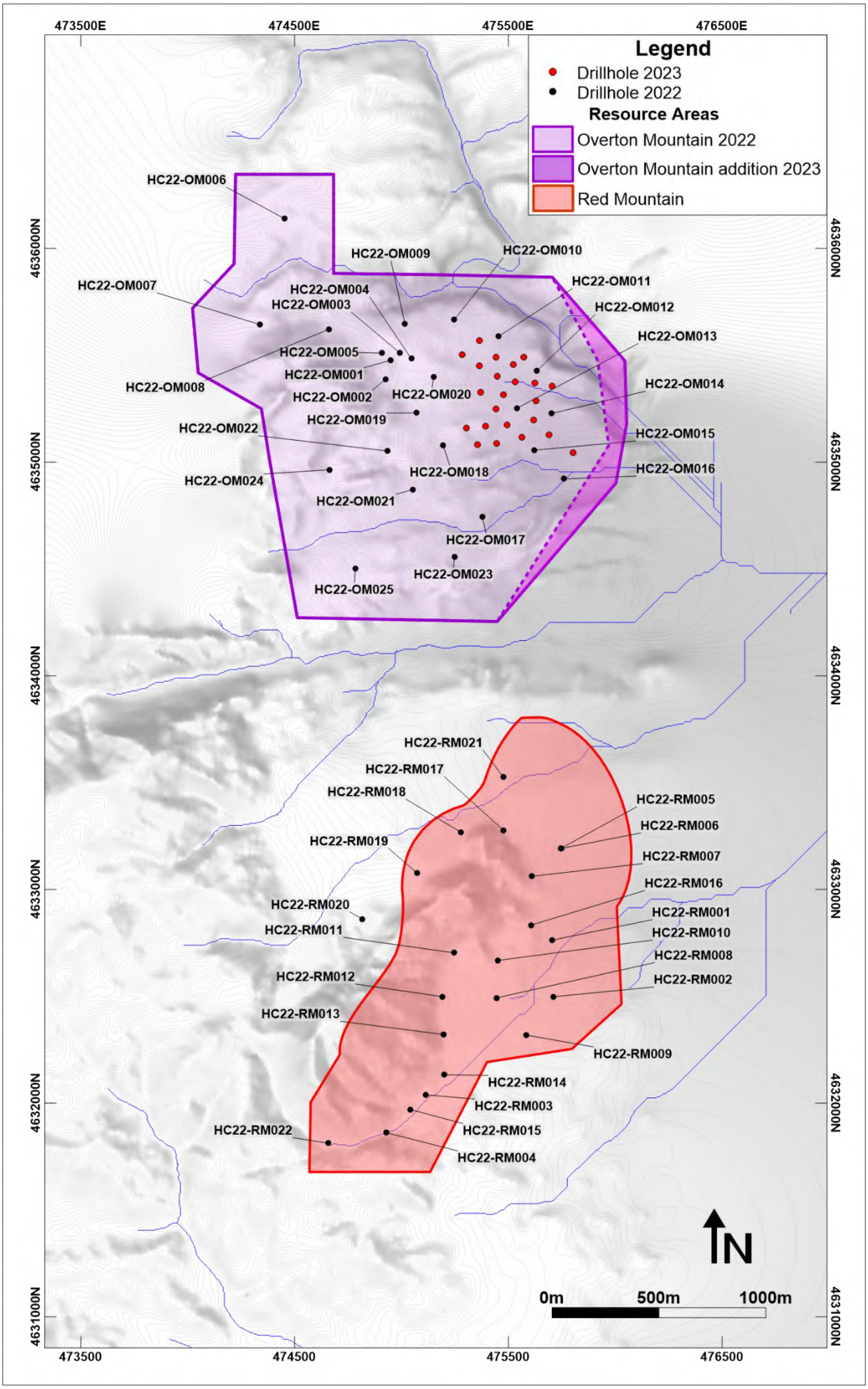


Figure 1: Drillhole Location Plan Showing Resource Areas

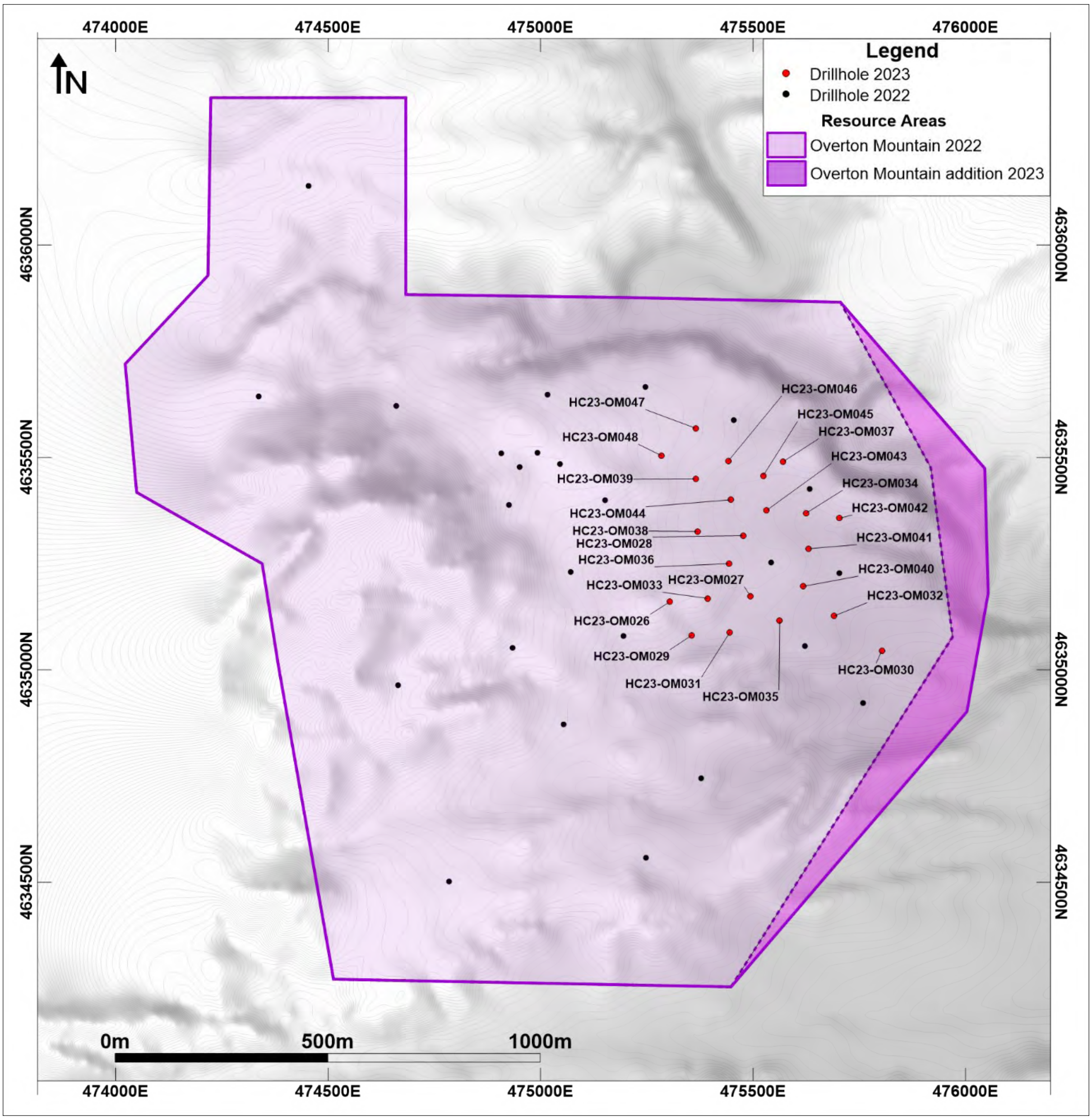


Figure 2: Overton Mountain Area Drillhole Location Plan

Geological Model

A review of the drillhole lithological data indicated that constructing a geological (rock) model using this data was not feasible due to number of lithology codes used which totalled 21 individual codes.
The domains that are modelled comprise the primary geological units as interpreted by ARR geologists. These geological domains consist of:

- QAL - Quaternary alluvium
- DM1 –Red Mountain Pluton (RMP) comprising mostly clinopyroxene quartz monzonite (CQM)
- DM2 –RMP mostly comprising mostly biotite-hornblende quartz syenite (BHS) and fayalite monzonite (FM)
- DM3 – unmineralized Elmers Rock Greenstone Belt (ERGB)
- DM4 – low grade monzonite Sybille intrusions

The REE grade distribution for each domain is illustrated in Figure 3. Figures 4-6 show the general arrangement of the geological domains.

The surface sample results were incorporated into the model but only to define the outer limits of the resource block domains.

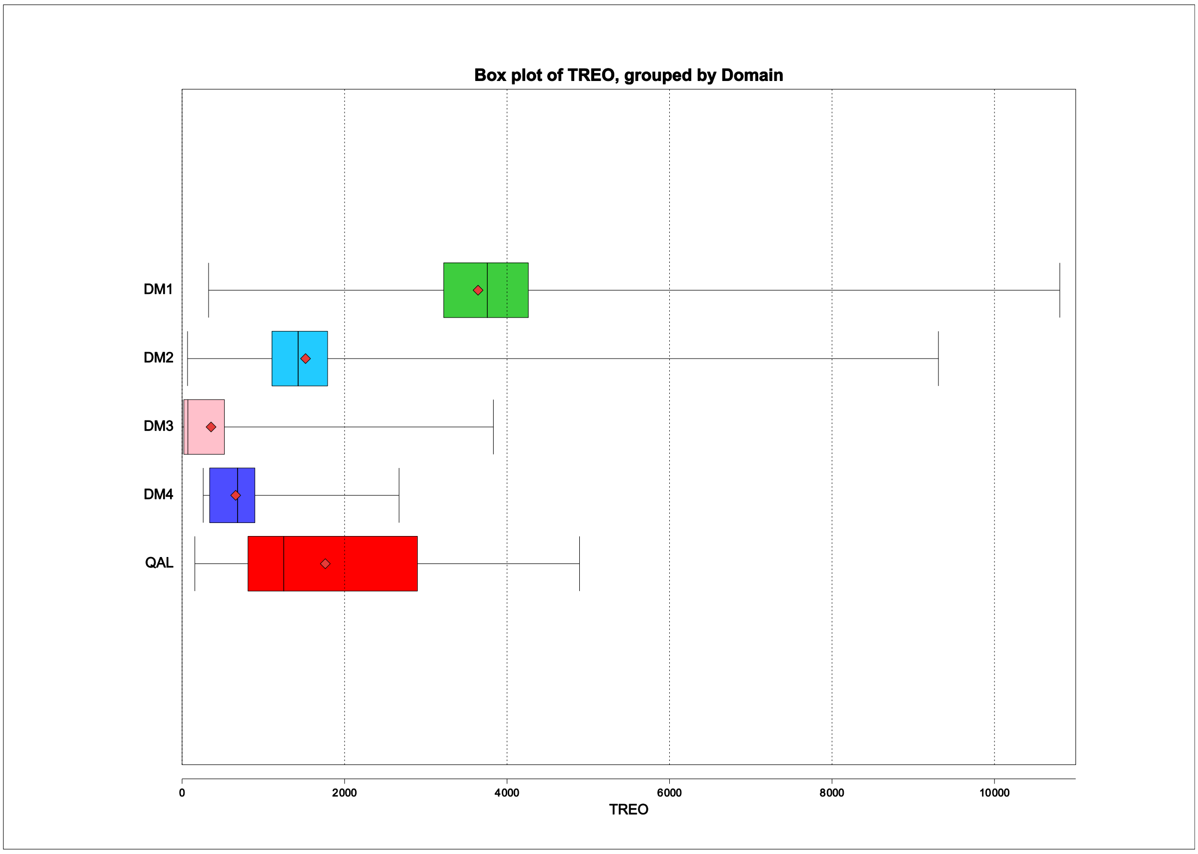


Figure 3: Box Plot of TREO Grade Distribution According to Lithological Unit

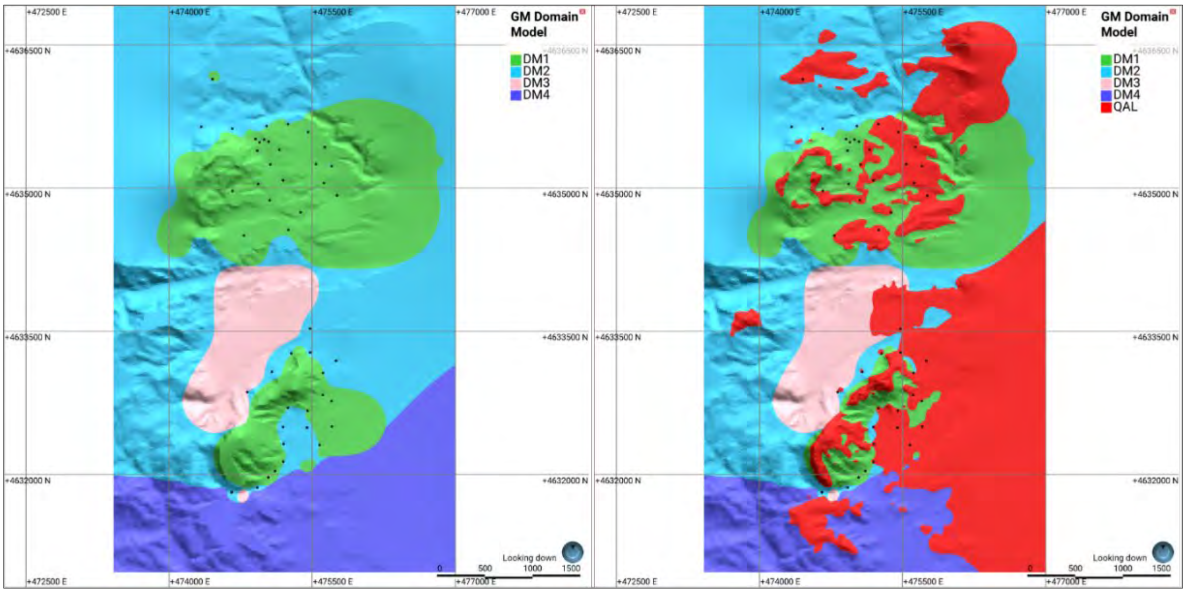


Figure 4: Plan View of Domain Model (QAL removed on left image)

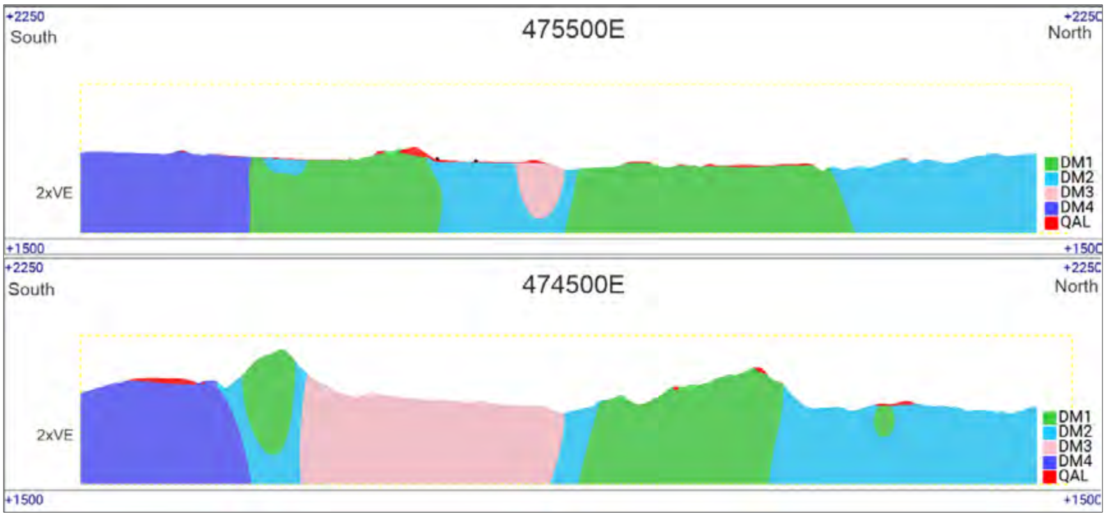


Figure 5: Cross Sections of Domain Model (2xVE)

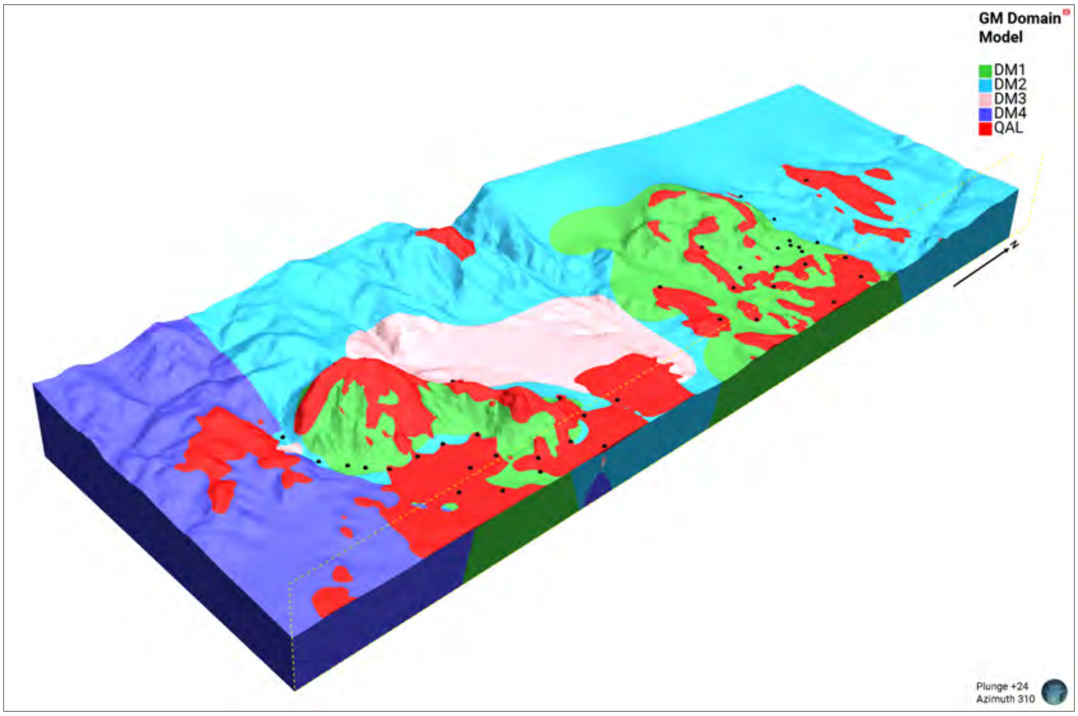


Figure 6: Perspective View of Domain Model (1.5xVE)

Modelling of Mineralised Domains

Rare earth mineralisation is evenly distributed throughout the rock mass due to fractional crystallization of allanite in syenitic rocks of the Red Mountain Pluton. Mineralisation is not structurally controlled. Thus, it can be reasonably assumed that the entire rock mass, comprising mostly domains DM1 and DM2, is mineralised to the same extent as the specific areas that have been drill-tested.

This being the case, the following strategy was adopted to limit the estimate to areas that are specifically drill-informed:

Resource limits comprising hard boundaries defined by:

- the contacts between the mineralised domains (DM1 and DM2) and unmineralized lithologies (DM3 and DM4).
- A digitized limiting string determined by the CP to be reasonable limiting boundary given the drill spacing, drill density and geological/grade continuity.

At Overton Mountain the spatial limits were increased toward the east on the basis of the additional drilling in this vicinity. This increase is supported by surface geochemical results that show the mineralised trend continuing over 800m towards the east and 400m towards the southwest (Figure 7).

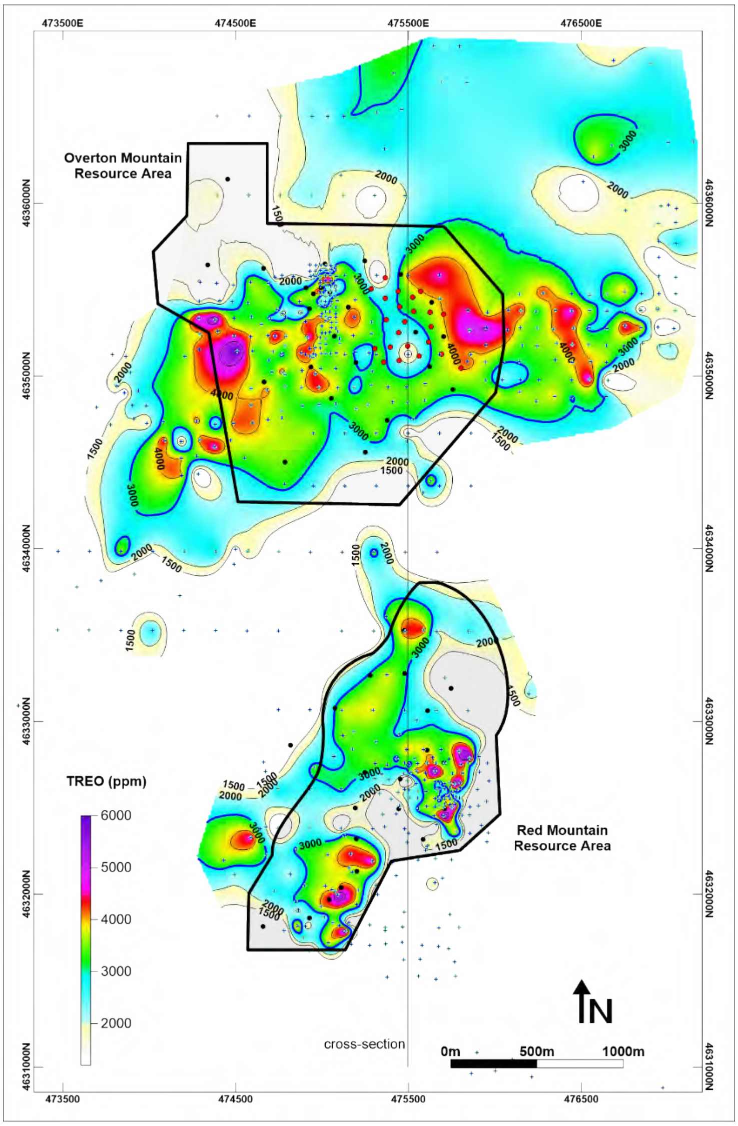


Figure 7: Plan View Showing General Arrangement of the Resource Domains with Geochemical Sampling Results

The resulting Overton Mountain and Red Mountain resource blocks are illustrated in Figure 8.

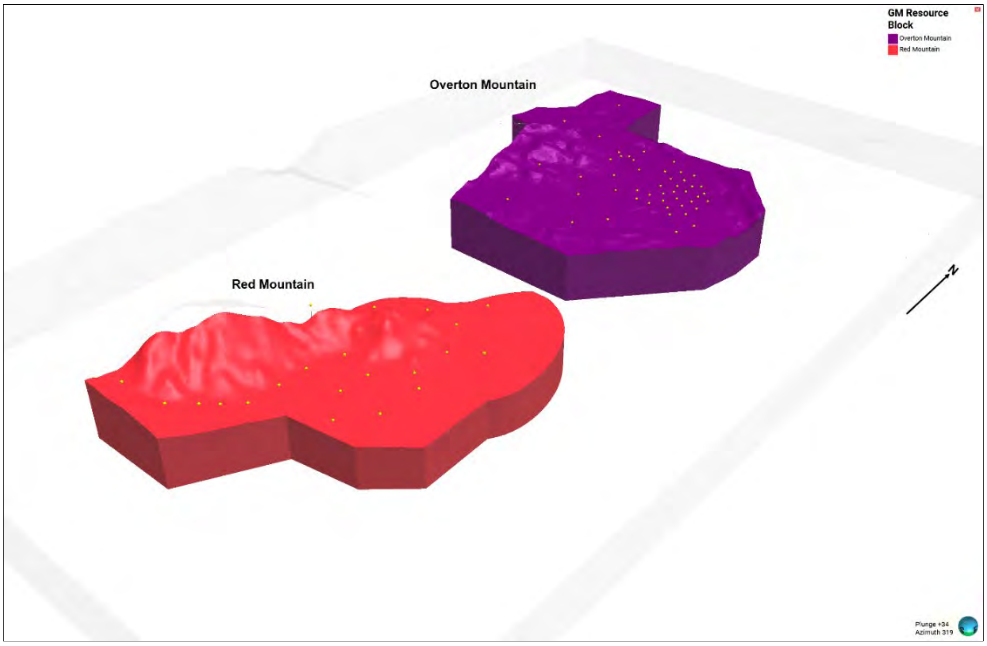


Figure 8: Perspective View General Arrangement of Resource Domains

In the March 2023 resource estimate, the vertical limits of the estimation were restricted to a distance of 20m below the average end of hole depth on the basis that, apart from six holes at Red Mountain, every hole drilled inside these domains is mineralised and most of these are mineralised from surface to end of hole. This suggested that mineralization likely continues to a considerable depth below the vertical limits of drilling. However, this material was excluded from the resource estimate as there was no drill support.

As part of the Fall 2023 drilling campaign, drillhole HC23-OM028 was extended to a depth of 302m below surface in the central Overton Mountain area. This hole, which is mineralised from surface and ended in mineralisation, extended the mineralised domain to approximately 160m below the average vertical extents of the previous drilling (140m). The Red Mountain domain was extended a further 20m vertically on the basis on the general increasing confidence in the continuity of mineralisation (Figure 9).

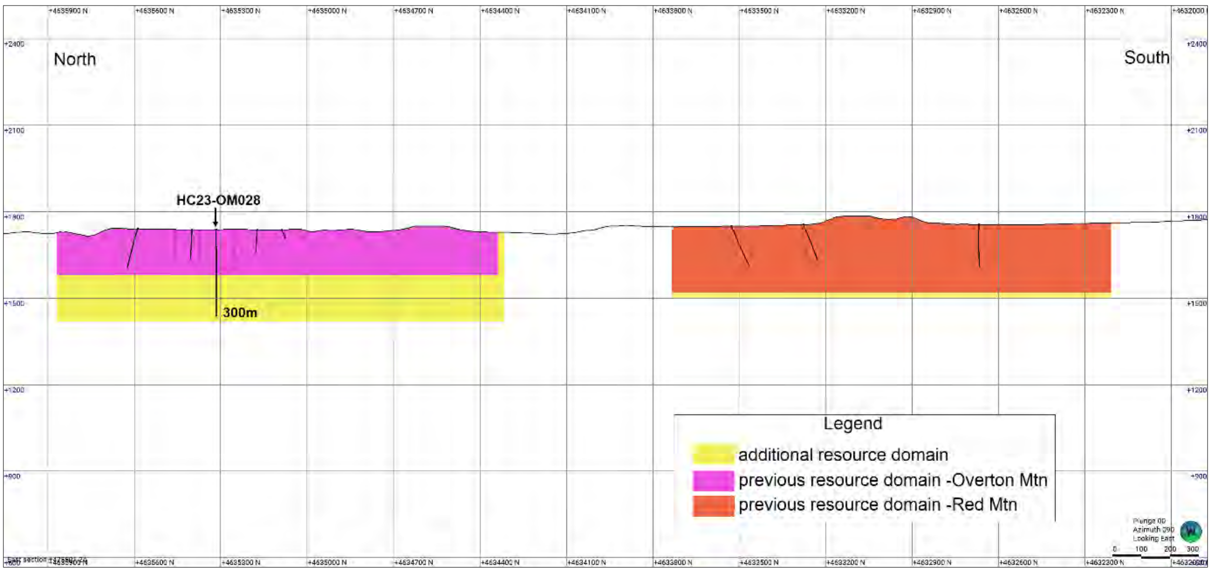


Figure 9: Cross Section of Resource Domains

Analytical volume and area of each domain is listed in Table 6.

Resource Block	Volume (m^3)	Plan Area (m^2)
Overton Mountain	951,290,000	2,760,670
Red Mountain	511,330,000	1,808,312
Total	**1,462,620,000**	**4,568,982**

Table 6: Halleck Creek Resource Block Analytical Volumes

Density

Hydrostatic testing was carried out on 10 core samples to determine the specific gravity of the Halleck Creek core. Specific gravity was determined for untreated and wax impregnated samples.

Based on the results of hydrostatic testing a specific gravity of 2.70 was adopted and applied as a constant value to derive the overall tonnage. This tonnage factor was also applied to the alluvial cover (QAL) which would likely have a slightly lower density. However, mineralised QAL only amounts to 0.8% of the entire resource and hence there is no material impact by applying the constant density value to this material.

Grade Estimation

Sample Compositing

Grades intervals were composited 1.5m (5 feet) which is the dominant sampling interval (Figure 10).

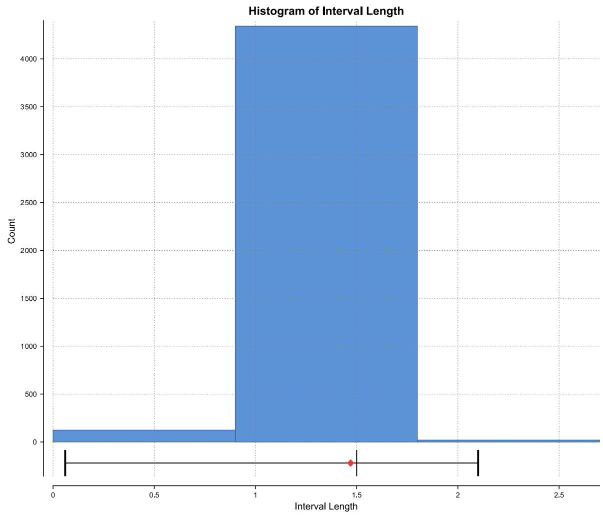
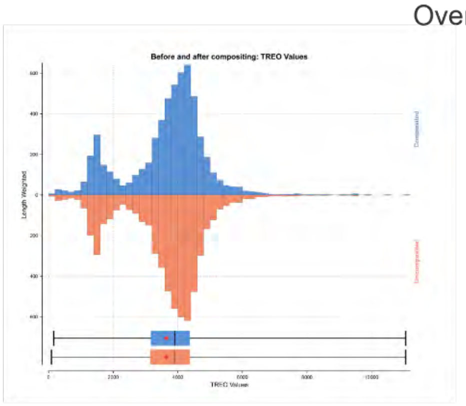


Figure 10: Histogram of Assay Sample Interval Length

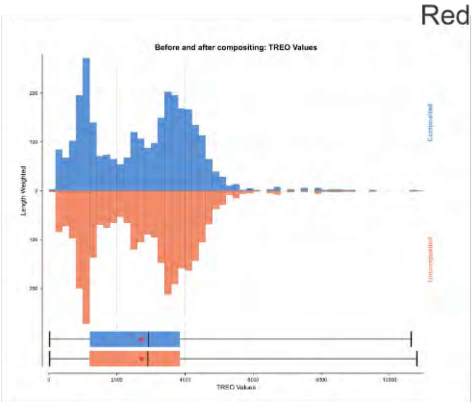
There is no material difference between the composited and uncomposited samples statistics (Figure 11).

Overton Mountain



	Composited	Uncomposited
Count	3,847	3,957
Length	5,760.4	5,758.0
Mean	3,646.39	3,646.57
SD	1,255.07	1,268.27
CV	0.344194	0.347797
Variance	1.57519e+06	1.6085e+06
Minimum	157	89
Q1	3,160.87	3,148
Q2	3,907	3,898
Q3	4,380	4,381
Maximum	11,054	11,054

Red Mountain



	Composited	Uncomposited
Count	1,959	2,008
Length	2,935.5	2,933.2
Mean	2,731.42	2,730.81
SD	1,506.59	1,516.03
CV	0.551576	0.555156
Variance	2.2698e+06	2.29834e+06
Minimum	21	21
Q1	1,207	1,200
Q2	2,925	2,909
Q3	3,851.81	3,852
Maximum	10,636	10,804

Figure 11: Sample Compositing Statistical Summary (TREO)

Composite Statistics

Grade distribution histograms and log probability graphs of the extracted TREO composites are shown in Figure 12. A bi-modal distribution of TREO occurs with the data. The higher grade "peak" is correlated with the DM1 modeling domain, which corresponds to the CQM rock type that contains the highest concentration of allanite. The lower grade "peak" is correlated with the DM2 modeling domain which corresponds to the BHS rock type that contains less allanite but remains consistent in drill hole data.

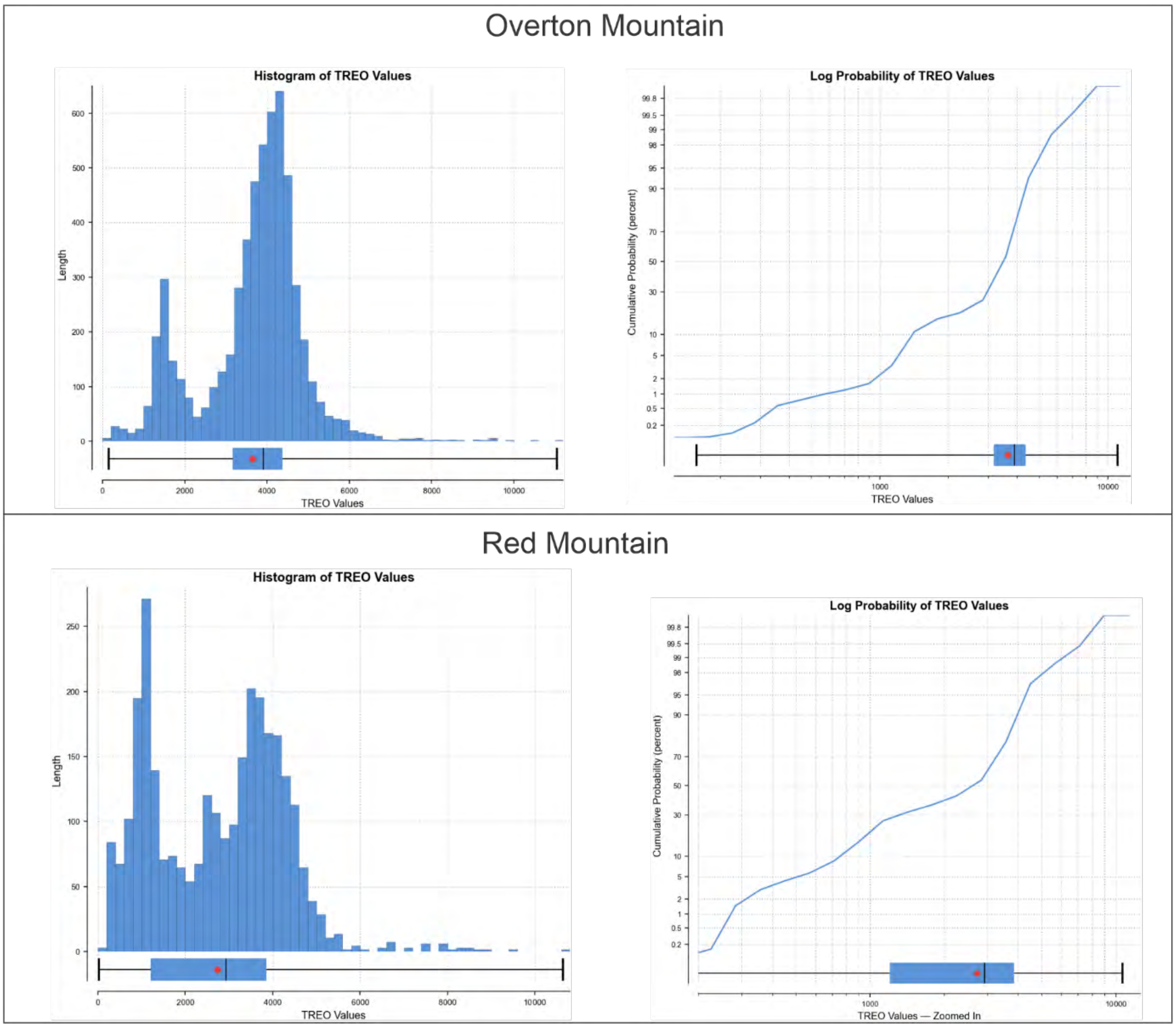


Figure 12: Histogram and Log Probability Plots (TREO)

Variography

Variograms were modelled for TREO for Overton Mountain and Red Mountains resource blocks as part of the 2023 estimation. Limited changes were made for the current estimation. The variograms remain unchanged and feature both zero nugget and large sill ranges that reflect the homogenous nature of mineralisation and grade continuity over large distances in all directions respectively (Figure 13, Table 6).

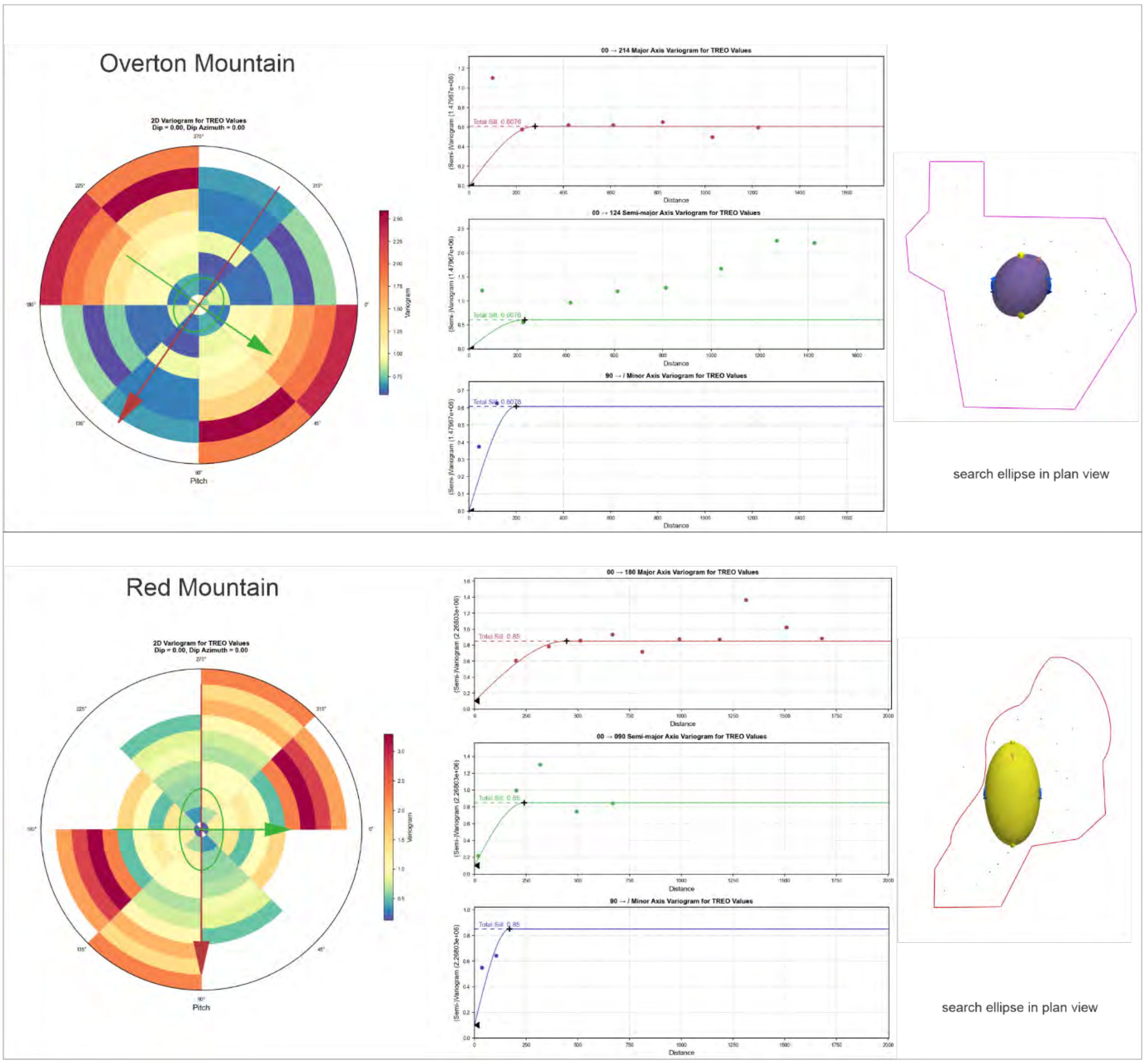


Figure 13: Axis Aligned Variograms for Overton Mountain and Red Mountain Resource Blocks

General	Direction			Structure 1					
Variogram Name	Dip	Dip Azimuth	Pitch	Normalised Nugget	Normalised sill	Structure	Major	Semi-major	Minor
OM	0	0	124	0	0.6	Spherical	280	230	200
RM	0	0	90	0.1	0.8	Spherical	445	240	170

Table 6: Variogram Parameters

Interpolant Parameters

Grade estimation was carried using an ordinary kriged (OK) interpolant. Kriging is a method of interpolating estimates for unknown points between measured data. Instead of the inverse distance and nearest neighbour estimates, covariances and a Gaussian process are used to produce the prediction. The interpolant profile developed for TREO was applied to the individual rare earth assemblages and individual minerals.

The estimation parameters are detailed in Tables 7 and 8.

General				Value clipping			Discretization		
Interpolant Name	Domain	Numeric Values	Domained Estimation Name	Lower bound	Upper bound	Estimate Type	X	Y	Z
OM indicated	OM	TREO	TREO	157	5500	Kr	5	5	2
OM inferred	OM	TREO	TREO	157	5500	Kr	5	5	2
RM indicated	RM	TREO	TREO	8	9956	Kr	5	5	2
RM inferred	RM	TREO	TREO	8	9956	Kr	5	5	2

Table 7: Estimation Types and Top Cuts

General			Ellipsoid Ranges			Ellipsoid Directions			Number of Samples		Outlier Restrictions
Interpolant Name	Domain	Numeric Values	Max.	Inter.	Min.	Dip	Dip Azimuth	Pitch	Min.	Max.	Method
TREO OM Pass 1	OM	TREO	150	150	75	0	0	90	5	15	None
TREO OM Pass 2	OM	TREO	300	300	75	0	0	90	5	15	None
TREO RM Pass 1	RM	TREO	150	150	120	0	0	90	5	15	None
TREO RM Pass 2	RM	TREO	300	300	120	0	0	90	5	15	None

Table 8: Search Parameters

Block Model

An orthogonal block model was set up using the parameters described in Figure 14. Several runs were made using various block sizes. However, due to the almost imperceptible differences in the resultant estimations a 20mx20mx20 blocks was selected for faster processing and reporting (Figures 15 and 16). No SMU consideration was made. However, on a resource of this magnitude any mining would be undertaken using the maximum bench height possible subject to geotechnical considerations.

Blocks	X	Y	Z
Parent block size:	20	20	20
Sub-block count:	4	4	4
Minimum size:	5	5	5
Extents			
Base point:	473900.00	4631300.00	2020.00
Boundary size:	2400.00	5400.00	600.00
Azimuth:	0.00	degrees	
Dip:	0.00	degrees	
Pitch:	0.00	degrees	
Size in blocks:	120 × 270 × 30 = 972,000		

Figure 14: Block Model Extents

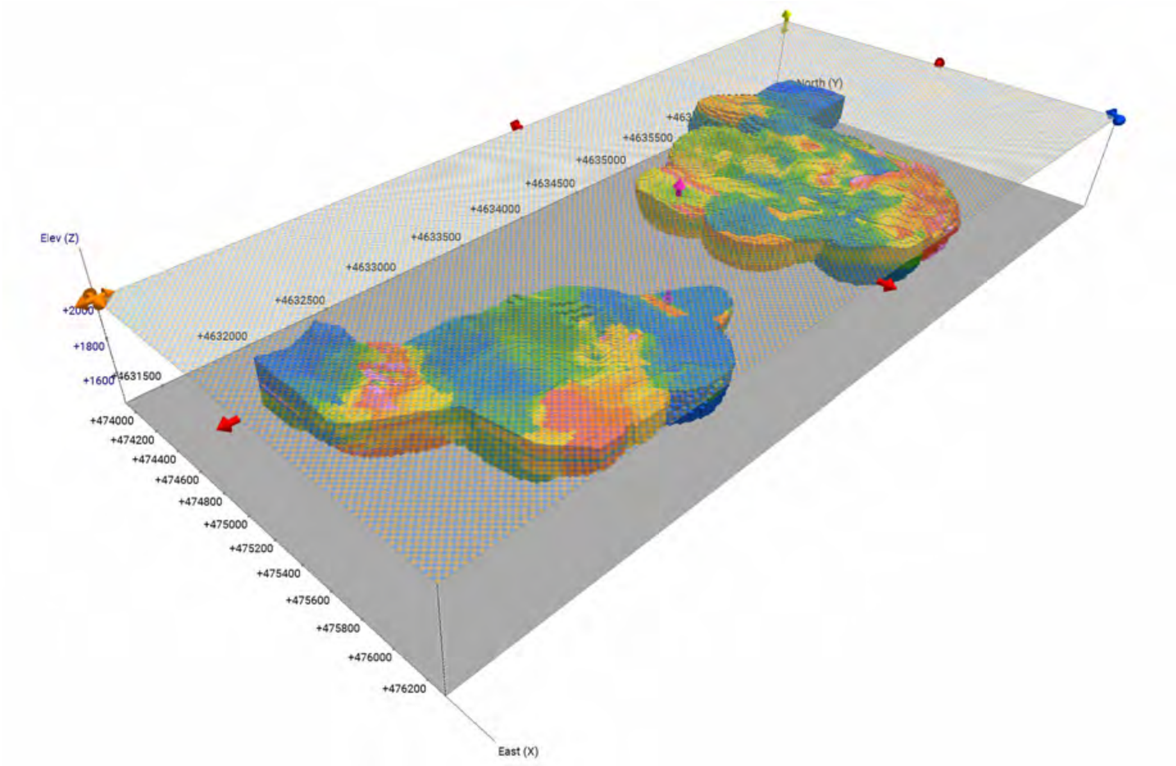


Figure 15: 3D View of Block Model

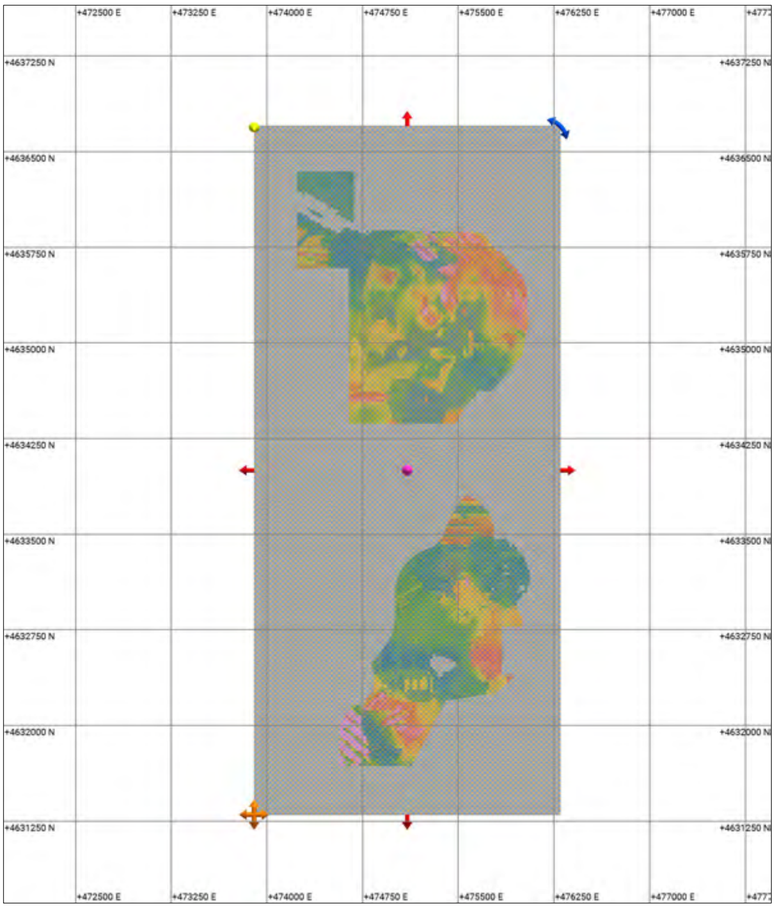


Figure 16: Plan View of Block Model

Classification

The resource is classified as either measured, indicated or inferred. Subject to the application of "modifying factors" the measured plus indicated component of the resource may allow for a formal evaluation of its economics with the potential to be converted to a Probable Ore Reserve. Therefore, a high degree of conservatism has been adopted as the underlying premise of the resource classification and, in particular, the indicated component.

The classification at Halleck Creek is based on the following key attribute:

Geological continuity between drillholes

- Mineralization is controlled by batholith-scale fractionation. Hence, both empirical observations and statistical analysis confirm a very high degree of continuity with the respective rock masses at Overton Mountain and Red Mountain.
- This is supported by variography.

Drill spacing and drill density

- The drill pattern is mostly irregular with drill spacing of approximately 200m.
- At Overton Mountain an area has been infilled on a systematic grid spacing of approximately 90m. This spacing is considered to be adequate to support a measured classification.

The limits to the resource classification are shown in Figures 17 and 18.

The CP considers the above classification strategy and methodology to be appropriate and reasonable for this style of mineralisation.

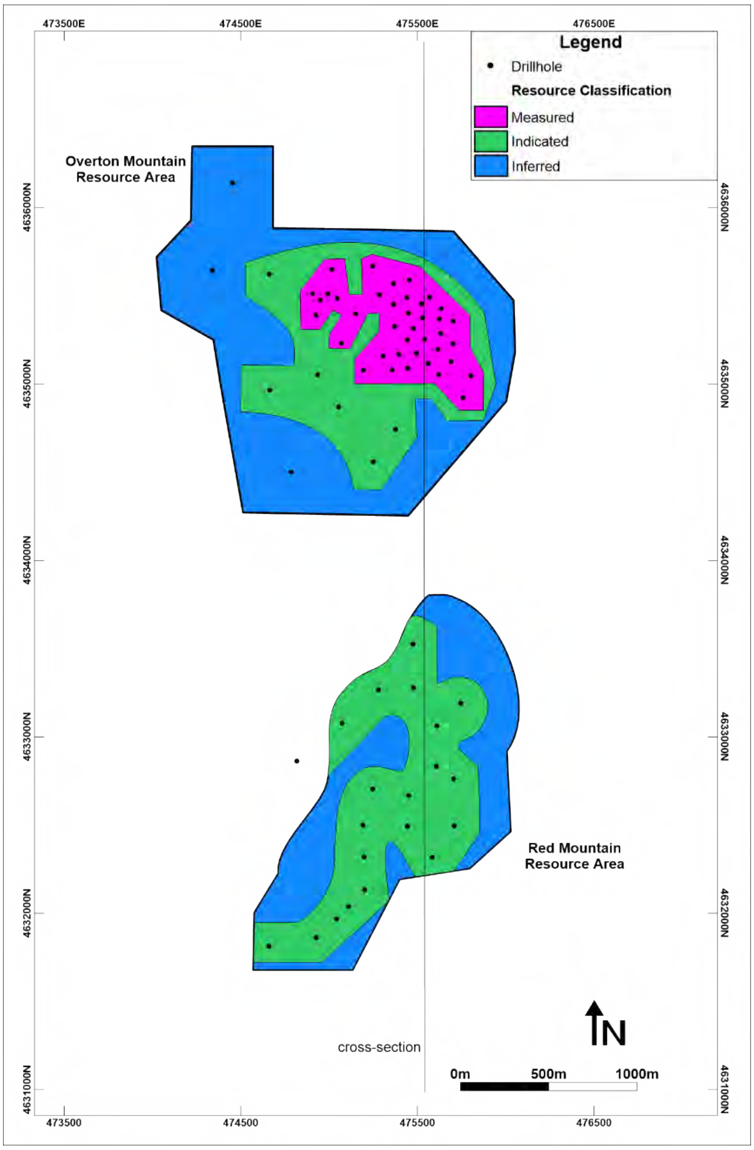


Figure 17: Plan View Showing Resource Classification Limits

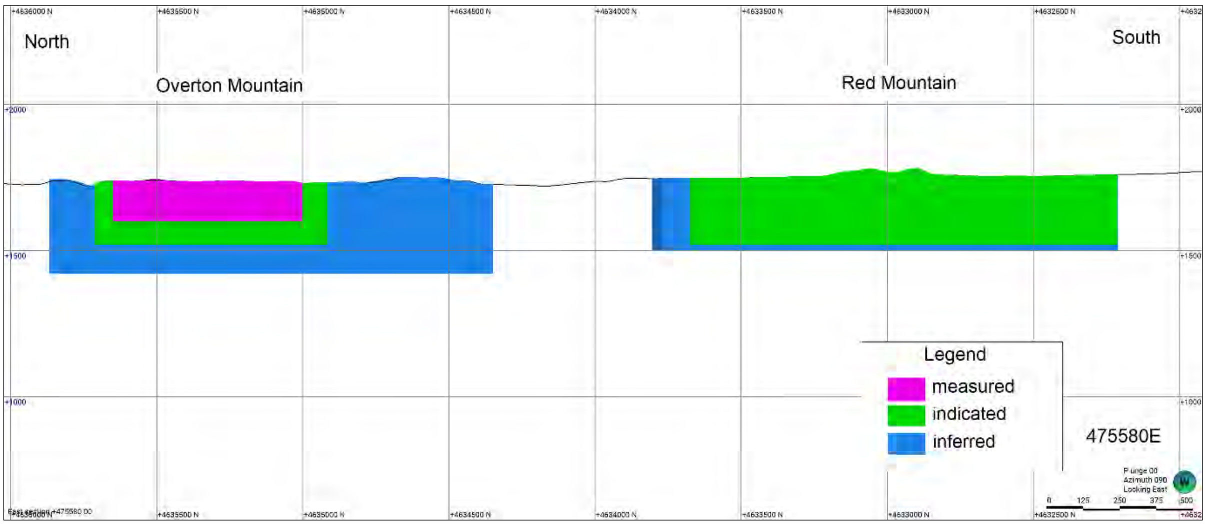


Figure 18: Cross Section View Showing Resource Classification Limits

Model Validation

Several estimation runs were carried out on the Overton Mountain Indicated resource to check for any variance between estimated grades and the input data.

The additional estimators comprised:

- Inverse Distance Squared (ID2) using the same estimation parameters as the kriged model
- Inverse Distance Squared (ID2) using an iso-tropic 50m search ellipse

These validation runs, together with the kriged estimator, were compared against the raw composite data in a north-south (Y) swath plot across the Overton Mountain area (Figure 19).

The data indicate that the kriged estimator has done a reasonable job in estimating a global resource grade with no systematic bias towards overestimating the grades. The smoothing effects of the kriging interpolant is consistent with both the inherent nature of the kriging process and the large search ellipses used.

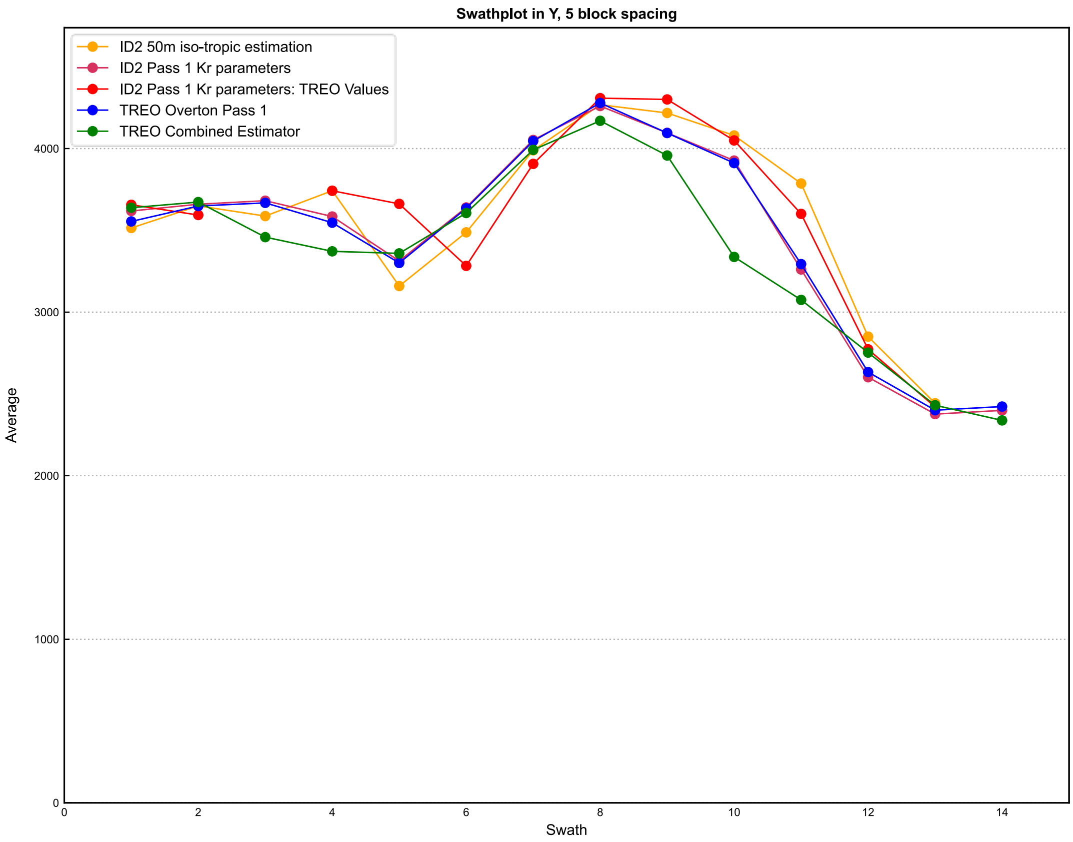


Figure 19: Swath Plot in Y Axis

Resource Estimate

No open pit optimisation work has been carried and the grade-tonnage estimate is reported as a global in-situ resource above a 1500ppm TREO cut off (Tables 9 and10 and Appendix 1). A filter was applied to exclude resources located on private land.

Classification	Tonnage	*Grade*				*Contained Material*			
		TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
	t	ppm	ppm	ppm	ppm	t	t	t	t
Measured	204,116,963	3,753	2,966	372	1006	766,027	605,501	75,979	205,260
Indicated	1,123,702,875	3,376	2,078	356	875	3,793,223	2,334,798	399,492	983,178
Meas + Ind	**1,327,819,838**	**3,434**	**2,214**	**358**	**895**	**4,559,249**	**2,940,299**	**475,471**	**1,188,438**
Inferred	764,416,238	3,409	1,310	355	759	2,606,138	1,001,679	271,631	580,007
Total	**2,092,236,075**	**3,425**	**1,884**	**357**	**845**	**7,165,387**	**3,941,978**	**747,103**	**1,768,445**
Rounded	**2,100,000,000**	**3,425**	**1,884**	**357**	**845**	**7,170,000**	**3,940,000**	**750,000**	**1,770,000**

Note: differences may occur in totals due to rounding

Table 9: Halleck Creek Mineral Resource Estimate (1500ppm TREO cut off)

Resource Block	Classification	Tonnage	*Grade*				*Contained Material*			
			TREO	LREO	HREO	MREO	TREO	LREO	HREO	MREO
		t	ppm	ppm	ppm	ppm	t	t	t	t
Overton Mountain	Measured	204,116,963	3,753	3,395	372	1006	766,027	692,921	75,979	205,260
	Indicated	543,600,450	3,534	3,185	358	856	1,921,062	1,731,349	194,716	465,409
	Inferred	467,433,113	3,634	3,271	367	699	1,698,652	1,528,844	171,772	326,639
	Total	**1,215,150,525**	**3,609**	**3,253**	**364**	**821**	**4,385,741**	**3,953,113**	**442,467**	**997,307**
Red Mountain	Indicated	580,102,425	3,227	2,809	353	893	1,872,160	1,629,443	204,776	517,770
	Inferred	296,983,125	3,056	2,742	336	853	907,486	814,381	99,860	253,368
	Total	**877,085,550**	**3,169**	**2,786**	**347**	**879**	**2,779,646**	**2,443,824**	**304,635**	**771,138**
Total	Measured	204,116,963	3,753	3,395	372	1006	766,027	692,921	75,979	205,260
	Indicated	1,123,702,875	3,376	2,991	356	875	3,793,223	3,360,792	399,492	983,178
	Inferred	764,416,238	3,409	3,065	355	759	2,606,138	2,343,224	271,631	580,007
	Total	**2,092,236,075**	**3,425**	**3,057**	**357**	**845**	**7,165,387**	**6,396,937**	**747,103**	**1,768,445**

Note: differences may occur in totals due to rounding

Table 10: Halleck Creek Classified Resource Estimate by Resource Area (1500ppm TREO cut off)

The grade tonnage curve (Figure 20) shows the effect on the resource when applying increasing cut offs. At a higher cut off of 3,500ppm TREO the remaining blocks form reasonably large contiguous areas. However, a few remaining isolated blocks were filtered from the reports using a 3,500ppm TREO cut off.

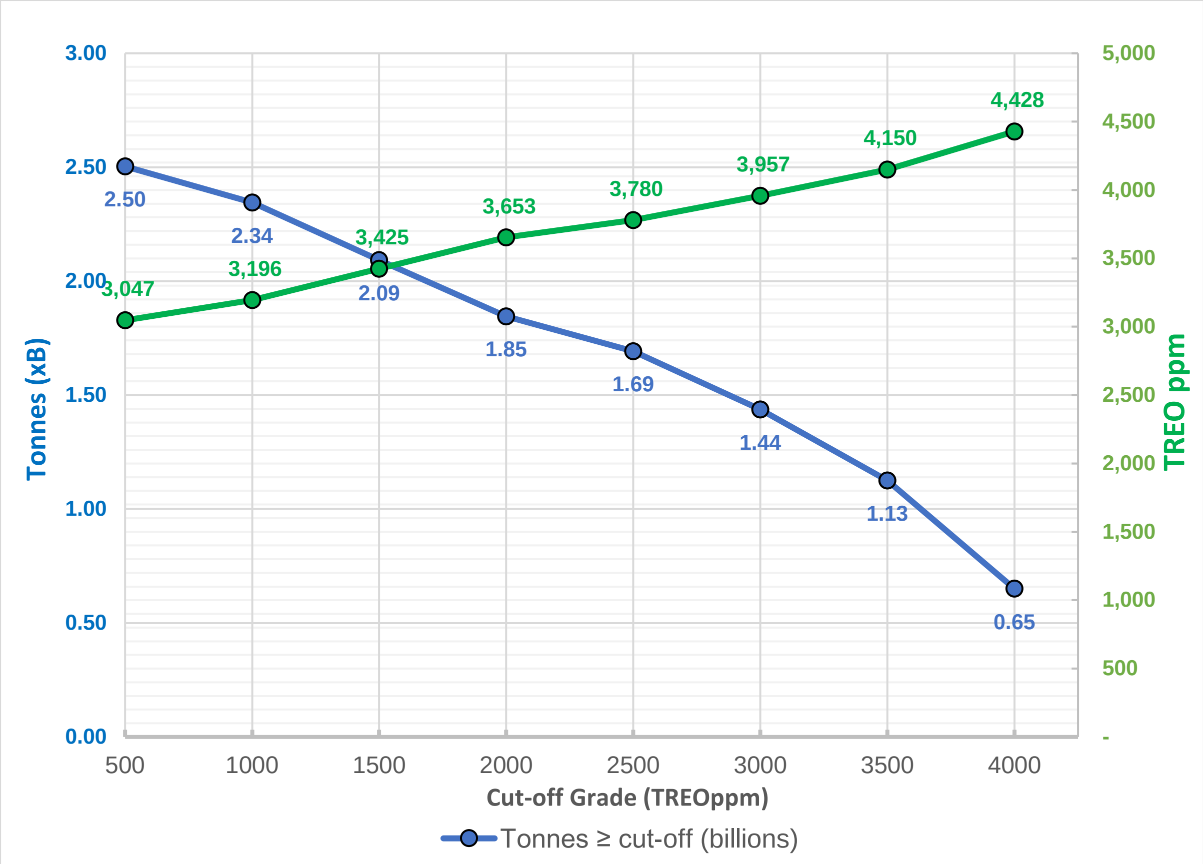


Figure 20: Halleck Creek Grade Tonnage Curve

Figures 21-23 illustrate the block model at various reporting cut offs.

It should be noted that TREO, LREO, HREO and MREO were modelled from composites derived from the calculated fields in the drillhole database. Therefore, there is a perfect correlation between the individual elements and grouped assemblages. Additionally, each element was modelled and reported separately. Due to modelling artifacts the modelled element assemblages differ slightly from the database totals. The differences are considered to be non-material (refer Appendix 2).

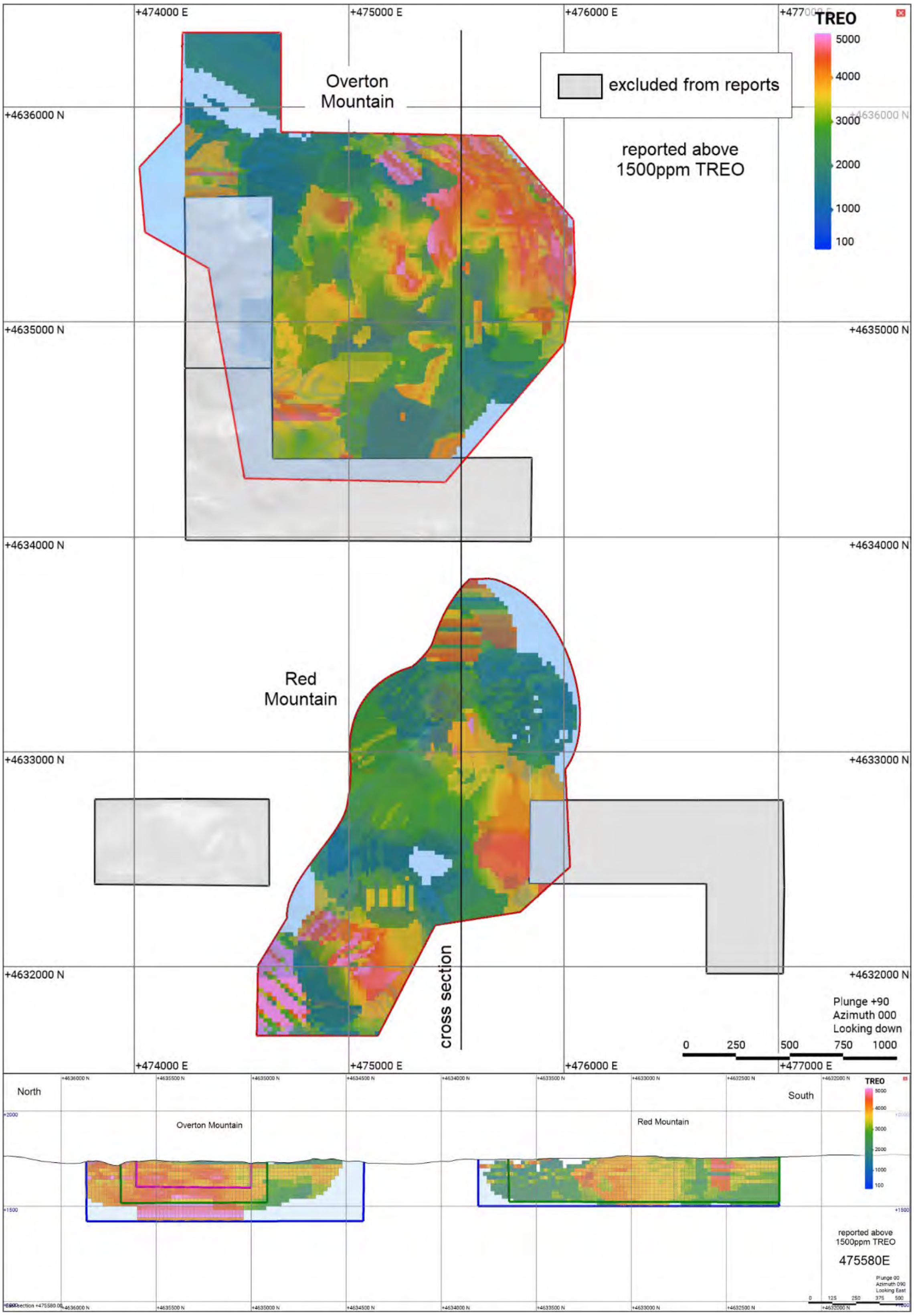


Figure 21: Block Model Plan View and Cross Section View at 1,500ppm TREO Cut Off

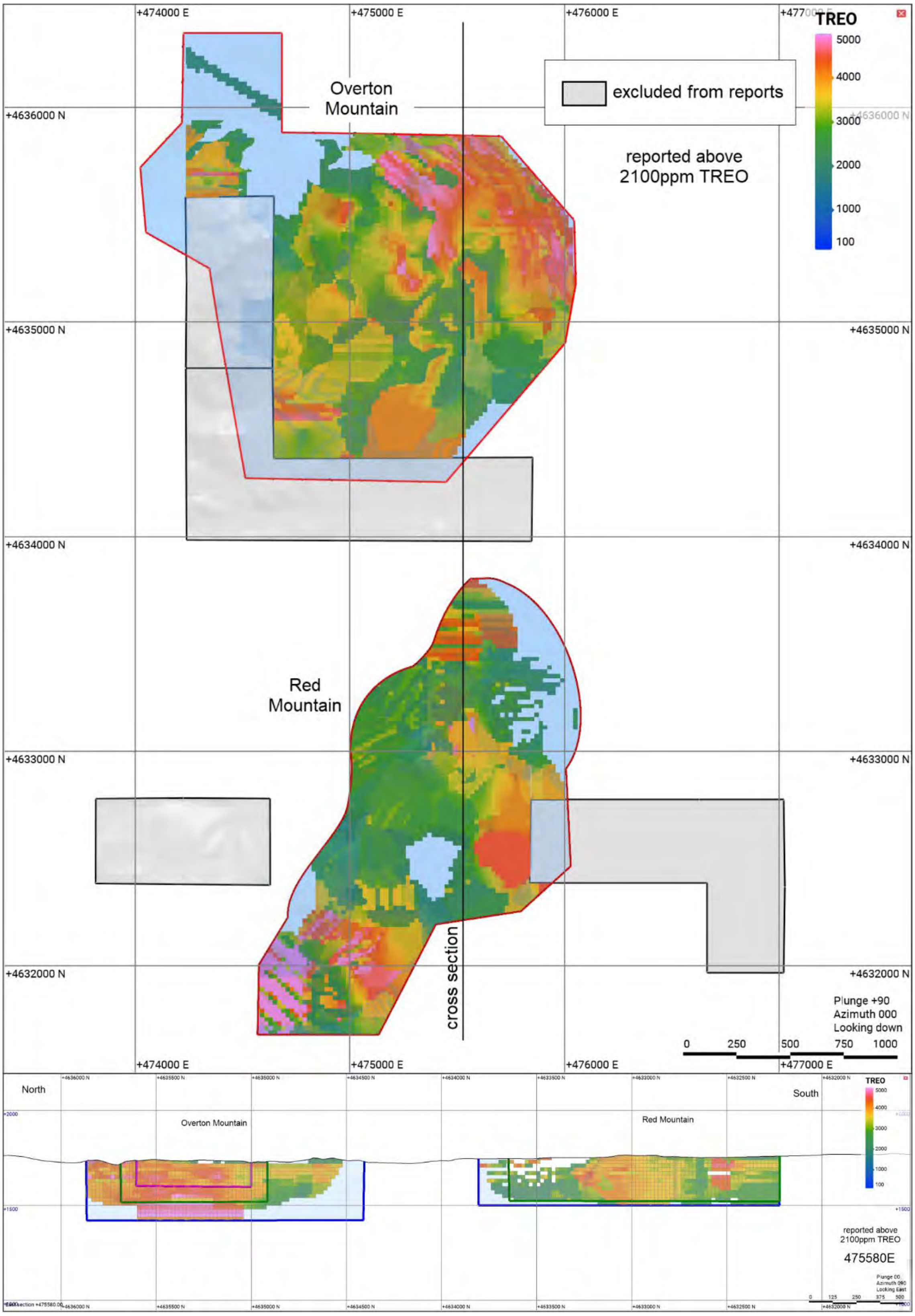


Figure 22: Block Model Plan View and Cross Section View at 2,100ppm TREO Cut Off

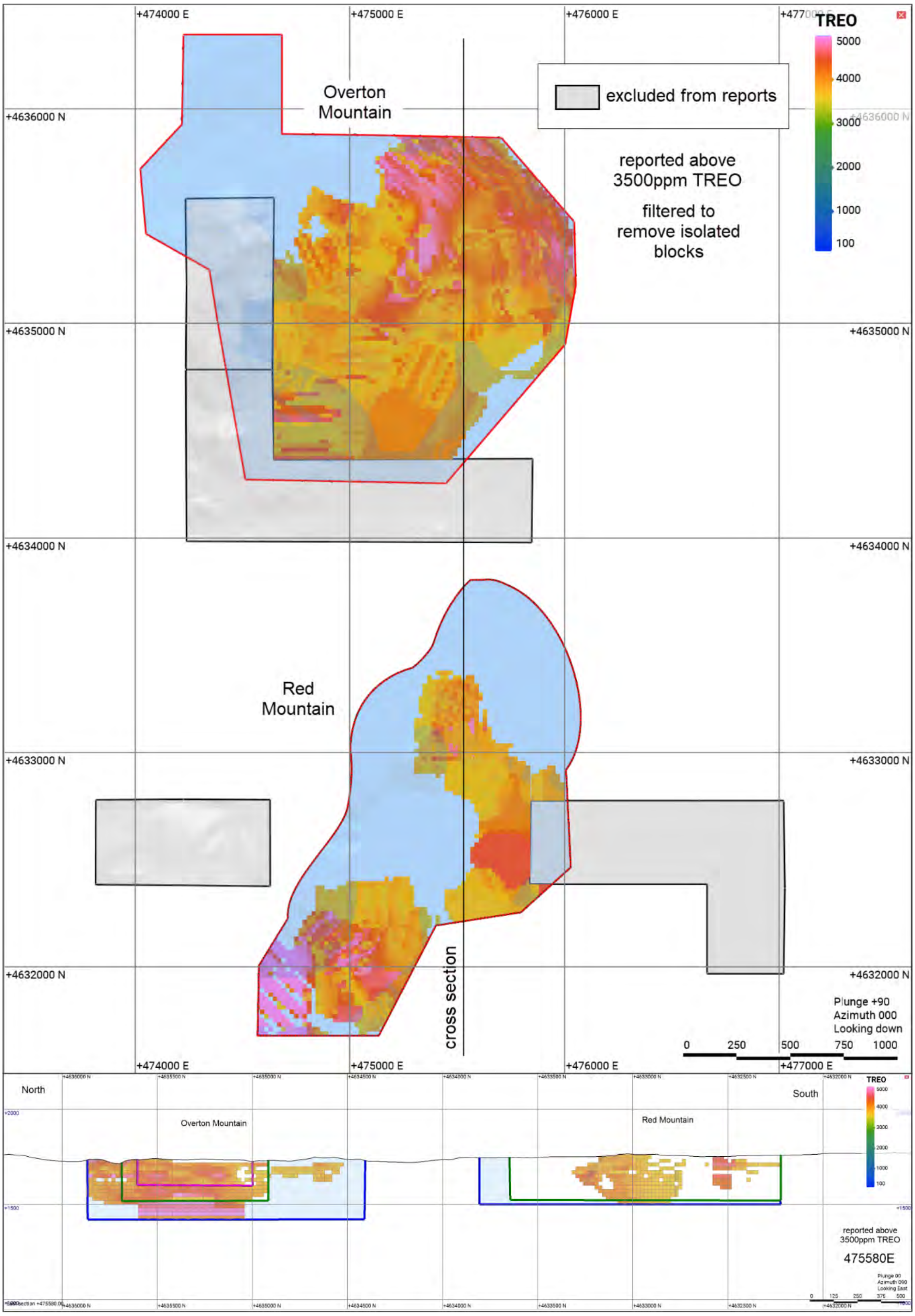


Figure 23: Block Model Plan View and Cross Section View at 3,500ppm TREO Cut Off

Conclusions

The estimated total resource estimate for Halleck Creek comprises 2.1billion tonnes with an average grade of 3,425ppm TREO reported above a cut off of 1500ppm TREO.

The resource includes a measured+indicated resource of 1.33 billion tonnes at an average grade of 3,434ppm TREO, and inferred resources of 764 million tonnes at an average grade of 3,409ppm TREO.

The data indicate that:

- there is sufficient data of adequate quality to support a classified mineral resource estimate that satisfies the requirements of the JORC 2012 reporting code.
- Within the current resource area there is potential to both significantly increase and upgrade the overall resource classification with additional low-risk drilling.
- there is demonstrated potential to grow the resource base further by both step out drilling beyond the current limits of the main resource area and deeper drilling.

Appendix 1

Detailed Resource Report (1500ppm TREO cut off)

Classification	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total
Tonnage	**204,116,963**	**1,123,702,875**	**764,416,238**	**2,092,236,075**				
	Grade				**Material Content**			
	ppm	**ppm**	**ppm**	**ppm**	**kt**	**kt**	**kt**	**kt**
TREO	3,753	3,376	3,409	3,425	766,027	3,793,223	2,606,138	7,165,387
LREO	3,395	2,991	3,065	3,057	692,921	3,360,792	2,343,224	6,396,937
HREO	372	356	355	357	75,979	399,492	271,631	747,103
MagREO	1,006	875	759	845	205,260	983,178	580,007	1,768,445
Ce_2O_3	1,640.4	1,425.0	1,468.4	1,461.9	334,833	1,601,248	1,122,472	3,058,553
Dy_2O_3	42.6	41.3	40.9	41.3	8,688	46,369	31,263	86,320
Er_2O_3	19.5	18.4	18.4	18.5	3,973	20,679	14,027	38,679
Eu_2O_3	11.9	11.8	11.9	11.9	2,439	13,313	9,104	24,856
Gd_2O_3	66.4	65.0	64.9	65.1	13,563	73,081	49,574	136,217
Ho_2O_3	7.4	7.2	7.2	7.2	1,511	8,090	5,489	15,091
La_2O_3	780.5	671.2	698.8	692.0	159,306	754,214	534,205	1,447,725
Lu_2O_3	2.5	2.3	2.3	2.3	520	2,553	1,783	4,856
Nd_2O_3	674.0	597.8	610.8	610.0	137,579	671,778	466,892	1,276,250
Pr_6O_{11}	186.3	160.4	164.7	164.5	38,024	180,200	125,892	344,116
Sm_2O_3	100.7	94.6	95.2	95.4	20,551	106,252	72,778	199,581
Tb_4O_7	8.5	8.5	8.3	8.4	1,745	9,496	6,311	17,551
Tm_2O_3	2.5	2.3	2.4	2.4	506	2,624	1,810	4,940
Y_2O_3	194.0	183.7	183.6	184.7	39,600	206,412	140,335	386,347
Yb_2O_3	16.4	14.9	15.1	15.1	3,338	16,694	11,515	31,548

Appendix 2

Detailed Resource Report (1000ppm TREO cut off)

Classification	Measured	Indicated	Inferred	Total	Measured	Indicated	Inferred	Total
Tonnage	**206,991,788**	**1,211,585,175**	**925,944,075**	**2,344,521,038**				
	Grade				**Material Content**			
	ppm	**ppm**	**ppm**	**ppm**	**kt**	**kt**	**kt**	**kt**
TREO	3,720	3,223	3,043	3,196	770,029	3,905,317	2,817,604	7,492,950
LREO	3,366	2,876	2,718	2,857	696,664	3,484,709	2,516,883	6,698,256
HREO	371	349	339	347	76,764	422,829	313,949	813,542
MagREO	999	843	678	791	206,819	1,021,016	627,402	1,855,238
Ce2O3	1,626	1,372	1,305	1,368	336,493	1,661,765	1,208,378	3,206,636
Dy2O3	42	40	39	40	8,772	48,958	35,889	93,619
Er2O3	19	18	18	18	4,017	21,934	16,424	42,375
Eu2O3	12	12	11	12	2,464	14,229	10,454	27,147
Gd2O3	66	63	60	62	13,667	76,675	55,187	145,530
Ho2O3	7	7	7	7	1,527	8,559	6,371	16,458
La2O3	773	645	616	645	160,089	781,194	570,569	1,511,852
Lu2O3	3	2	2	2	526	2,724	2,096	5,345
Nd2O3	668	577	544	572	138,320	698,569	503,964	1,340,852
Pr6O11	185	154	146	154	38,223	187,179	135,481	360,883
Sm2O3	100	92	86	90	20,686	110,993	79,780	211,459
Tb4O7	9	8	8	8	1,760	9,991	7,117	18,868
Tm2O3	2	2	2	2	512	2,789	2,121	5,422
Y2O3	193	181	178	181	40,047	219,035	164,413	423,495
Yb2O3	16	15	15	15	3,376	17,757	13,585	34,718

Appendix 3

Comparison Between Modelled Grades and Composite Mean Values

Classification	Measured	Indicated	Inferred	Total	Composite Mean Value		
Tonnage	204,116,963	1,123,702,875	764,416,238	2,092,236,075			
	Grade				OvertonM	RedM	Weighted Grade
	ppm	ppm	ppm	ppm	ppm	ppm	ppm
TREO	3,753	3,376	3,409	3,425	3,646	2,731	3,263
LREO	3,395	2,991	3,065	3,057	3,277	2,406	2,912
HREO	372	356	355	357	369	326	351
MagREO	1,006	875	759	845	981	761	889
Ce2O3	1,640.4	1,425.0	1,468.4	1,461.9	1,587.0	1,154.8	1,405.8
Dy2O3	42.6	41.3	40.9	41.3	41.9	38.5	40.5
Er2O3	19.5	18.4	18.4	18.5	19.2	17.0	18.3
Eu2O3	11.9	11.8	11.9	11.9	11.6	11.7	11.7
Gd2O3	66.4	65.0	64.9	65.1	65.4	59.3	62.9
Ho2O3	7.4	7.2	7.2	7.2	7.4	6.8	7.1
La2O3	780.5	671.2	698.8	692.0	759.2	536.2	665.7
Lu2O3	2.5	2.3	2.3	2.3	2.5	2.0	2.3
Nd2O3	674.0	597.8	610.8	610.0	652.5	499.7	588.4
Pr6O11	186.3	160.4	164.7	164.5	178.8	132.4	159.3
Sm2O3	100.7	94.6	95.2	95.4	95.6	82.6	90.1
Tb4O7	8.5	8.5	8.3	8.4	8.4	7.8	8.1
Tm2O3	2.5	2.3	2.4	2.4	2.5	2.1	2.3
Y2O3	194.0	183.7	183.6	184.7	193.5	167.3	182.5
Yb2O3	16.4	14.9	15.1	15.1	16.2	13.4	15.0