26 April 2022

Exploration Grows Wyoming Rare Earths Project

Highlights

- Rare Earths mineral project in Wyoming has expanded
- Results from 118 surface samples led the Company to increase the target area
- 181 mining claims covering 1191ha added
- Halleck Creek drilling results due June 2022

American Rare Earths Limited (**ASX: ARR, OTCQB: ARRNF, FSE: 1BHA**) (**ARR or 'the Company'**) is exploring a potentially massive, rare earths minerals deposit in Albany County, Wyoming. The Company staked 181 additional mining claims covering an area of approximately 1191ha (2,944 acres). The Company has announced results from surface sampling that revealed an expanded area of elevated Rare Earth Mineralisation.

The growth brings the Halleck Creek Rare Earth Project to 2449ha (6005+ acres). The company has additional projects in Arizona and Nevada. Totaling over 5260ha (13,000+ acres) under exploration, the Company's holdings are believed to have the potential to be one of the largest suites of Rare Earths projects in North America.

Managing Director and CEO Chris Gibbs commented: “We are delighted with the results of this fieldwork. The Rare Earth Elements (REE) mineralisation occurs over wider areas than initially anticipated at Halleck Creek. “By staking the additional claims, American Rare Earths Ltd. can evaluate the larger region. Our core drilling is progressing very well, and we are enthusiastically awaiting the results of that work.”

Background

In 2010 Blackfire Minerals, an Australian mining company, acquired the current set of State Leases ARR now controls for the purpose of REE exploration activities. Based on research completed by World Industrial Minerals, anomalous REE values were discovered in the Red Mountain area as part of a PhD thesis completed by Anderson (1995). Much of Red Mountain was covered by a State Mineral lease that

was subsequently acquired. In 2011, after initial sampling, the project was subsequently dropped due to low REE prices.

In 2018, the project was reactivated by Zenith Minerals, an Australian Mining Company, who applied for the same state leases and staked 5 additional claims on land in which the BLM owned both the surface and minerals. Additional sampling was completed both on the State Lease applications and the mining claims on the BLM Land. Sample results of the 87 samples collected from the 2019 sampling program showed broad areas of higher mineralization above 2000 ppm TREO (Mapping & Surface Sampling Summary at the Halleck Creek Project, April 2022, Appendix D). In June and July of 2021, a follow up surface sampling program totalling 181 samples were collected. The sample results show widespread significant REO values across broad areas in the north and south project areas of Halleck Creek (Mapping & Surface Sampling Summary at the Halleck Creek Project, April 2022, Table 1).

In October and November 2021, the Company conducted geologic mapping and geochemical sampling across mining claims at the Halleck Creek Rare Earths Project in Albany County, Wyoming.

This combined historical and Fall 2021 sampling has provided an exploration target as noted in the Companies ASX release on the 18th of March 2022. Approximately 308 to 385 million tonnes of rare earths mineralised rocks were identified as an exploration target for the Halleck Creek project area with an average Total Rare Earth Oxide (TREO) grade of 2,330 - 2,912 ppm. Readers are advised that the potential quantity and grade of the Halleck Creek resource is conceptual in nature, that there has been insufficient exploration to estimate a Mineral Resource and that it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Before staking the additional claims, the Company controlled 68 federal mining claims covering 512ha (1,265 acres) and four Wyoming State mining leases covering 746ha (1,844 acres) at the Halleck Creek REE project area.

At initial acquisition in 2020, the land package was less than 30ha of federal lode mining claims plus the prospect of four unapproved State of Wyoming mineral leases that had been stuck in an application process for over two years. The Company was able to expedite approval of the state leases and expand the federal minerals tenement control package quickly. With the additional 181 claims, the total land package has been expanded to over 2,449ha (6,052 acres).

Geologic Mapping

Mapping across the Halleck Creek project area allowed Company geologists to better understand the REE bearing rock types and their extent within the Red Mountain Pluton (RMP). At Halleck Creek, REEs occur in allanite, containing the full suite of naturally occurring REEs, notably the high value magnet REEs (Nd, Pr, Dy, Tb). More specifically, the Halleck Creek allanite is associated with clinopyroxene quartz monzonite (CQM) rocks which generally contain the highest REE grades.

Geochemical Surface Sampling

In Autumn/Fall 2021, Geologists collected 94 surface samples across the Overton Mountain area and 24 samples from the Red Mountain area.

Geologic mapping and sampling focused on Overton Mountain. The Red Mountain surface samples, reported here, reflect soil samples collected on colluvial material southeast of Red Mountain. The abundant rock outcrops of the Red Mountain Pluton (RMP), which includes Red Mountain and Overton

Mountain, exhibit the most robust mineralisation, as reflected in the Overton Mountain Study Area (See Table 1). REE mineralisation in soil (colluvial) material, near Red Mountain, is comparatively lower grade. Future work will primarily focus on the rock formations of the RMP. It is notable that the 94 samples from Overton Mountain have an average TREO grade significantly higher than the grade range of the Exploration Target provided November 5, 2021. (See Table 1)

Table 1: Autumn/Fall 2021 TREO Sample Summary for Halleck Creek

			Average REO values (ppm)				
Study Area	Rock Unit	No. Samples	Total REO	Light REO	Heavy REO	Magnetic REO	NdPr
Overton Mountain	Red Mountain Pluton (RMP)	94	3,187	2,850	257	744	700
Red Mountain	RMP/QAL	24	664	539	79	156	140
Grand Total		**118**	**1,925**	**1,694**	**168**	**450**	**420**

The new samples increase the area covered with geochemical analysis and provide additional data for preliminary modelling of the surface geochemistry.

Halleck Creek Core Drilling and Exploration

Currently, the Company is drilling nine exploration core holes, five on Overton Mountain and four on Red Mountain. Eight holes have been completed with a total core length of 840 meters (2,756 feet), with the core recovery being exceptional, exceeding 95%. The final holes are scheduled for completion later this month. The core from all holes will be analysed for rare earth grades, with the results of the assays expected in June 2022.

The Company plans additional detailed geological mapping and geochemical sampling over Halleck Creek claims. This work is scheduled for May 2022 with focus on the Red Mountain portion of the RMP's rock outcrops plus the newly staked tenement areas. The aggregate results will be used to plan future drilling as the Company explores the prospect for potential development of a Maiden Resource.

The Company procured a Handheld X-ray Fluorescence (XRF) Analyser. The XRF will allow the geologists to better target mineralised outcrop during mapping and sampling campaigns. During future drilling campaigns, the new tool will provide the potential to better follow mineralised material to optimal depths. The XRF provides real-time estimates, in the field, of select rare elements without waiting months for lab assays. The technical team is extremely excited about the opportunity to add value at greater speed by using the handheld XRF Analyser.

Halleck Creek Additional Claims

Based on the surface sample results, the Company acquired additional federal mining claims. In early 2022, the Company staked 181 federal lode mining claims covering 1,191ha (2,944 ac) on areas with minerals controlled by the US Bureau of Land Management (BLM). The additonal claims increase the total area controlled by the company to 2,449ha (6,052 ac).

Table 2: Summary of Halleck Creek Mineral Control

Type	Acres	Hectares	Number
Existing Federal Claims	1,265	512	68
New Federal Claims (Staked Mar/22)	2,944	1,191	181
Total Federal Claims	**4,208**	**1,703**	**249**
State Licenses	**1,844**	**746**	**4**
Grand Total	**6,052**	**2,449**	**253**

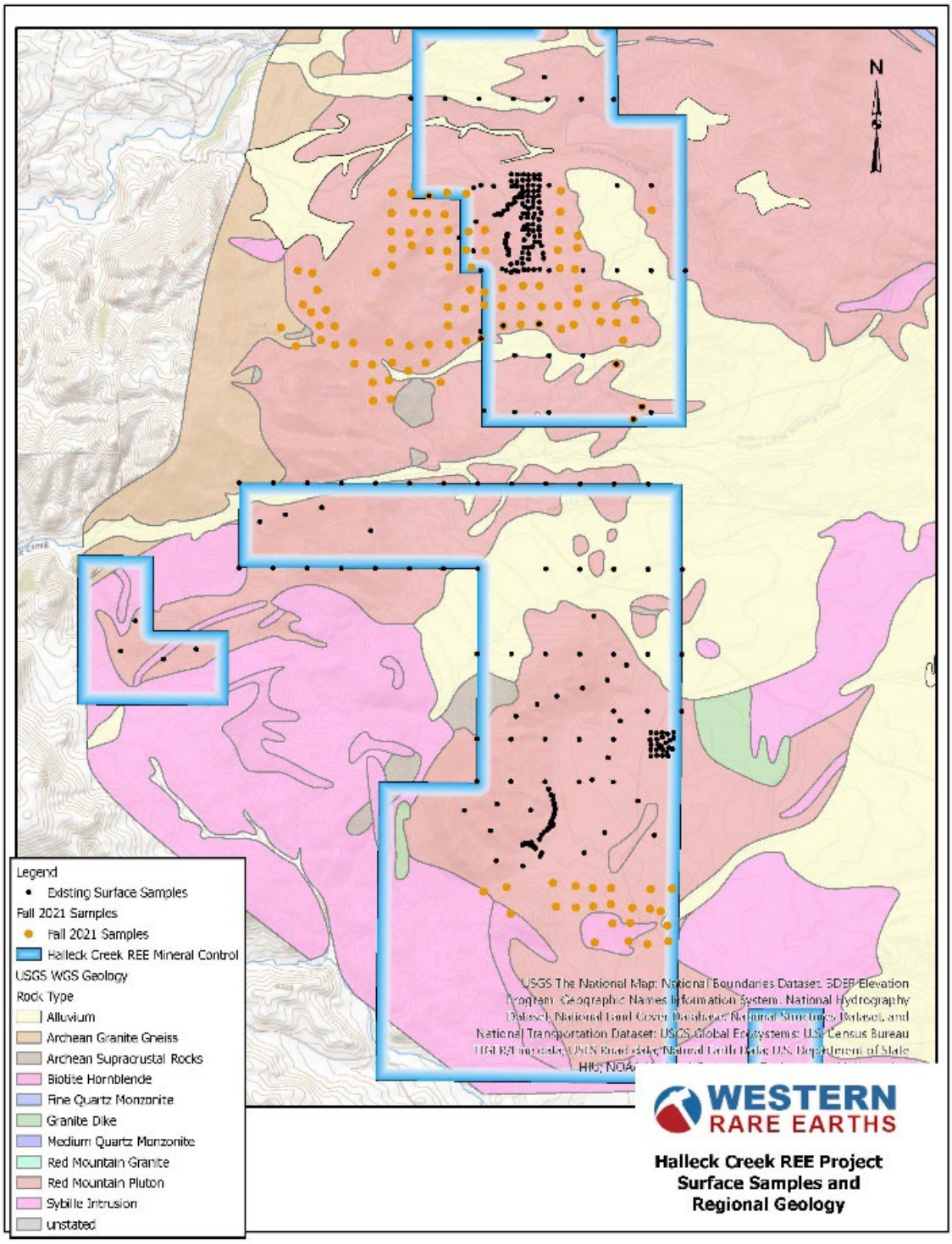

Figure 1: Halleck Creek Geology Existing and Fall 2021 Surface Sample Locations

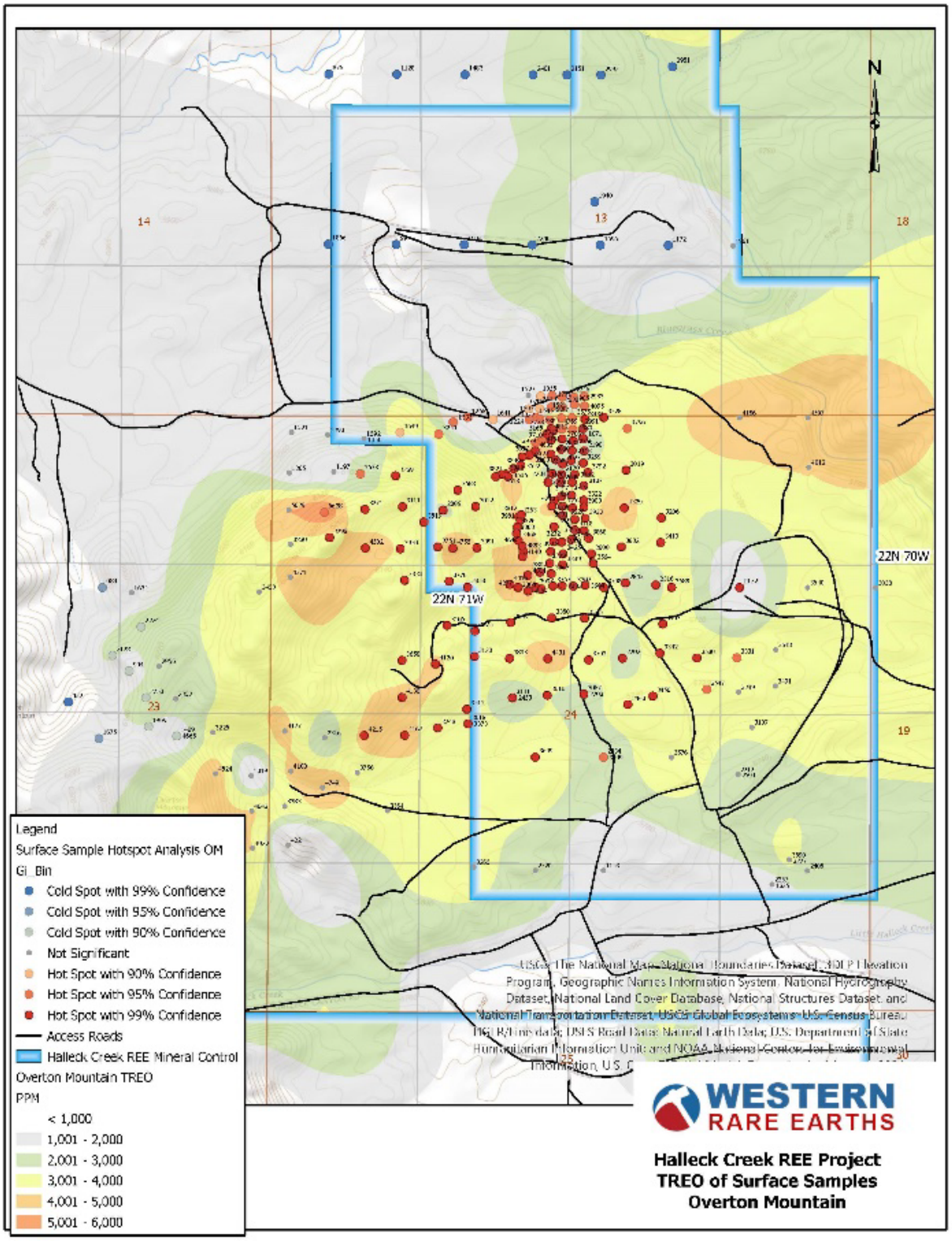

Figure 2: Overton Mountain TREO Distribution

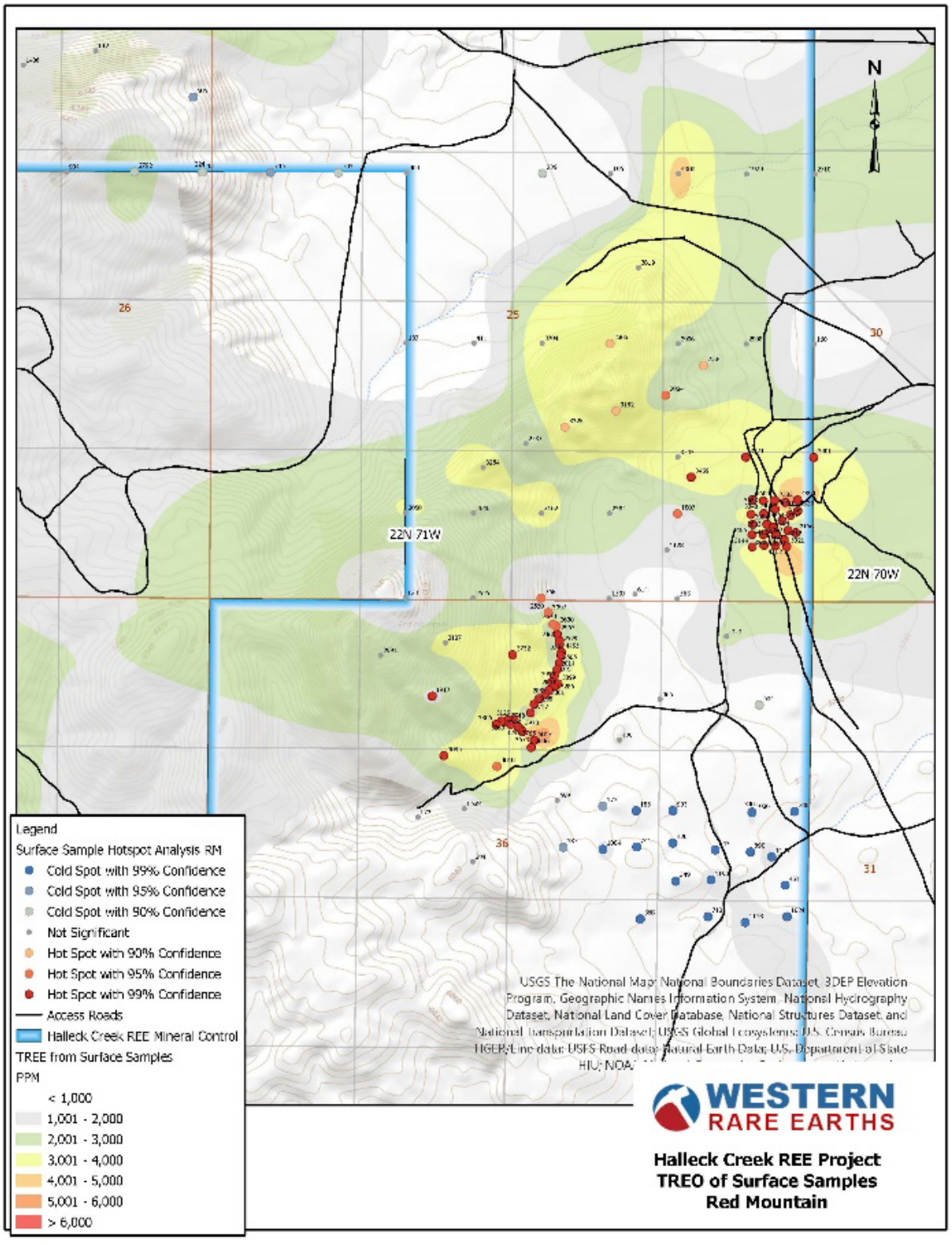

Figure 3: Red Mountain TREO Distribution

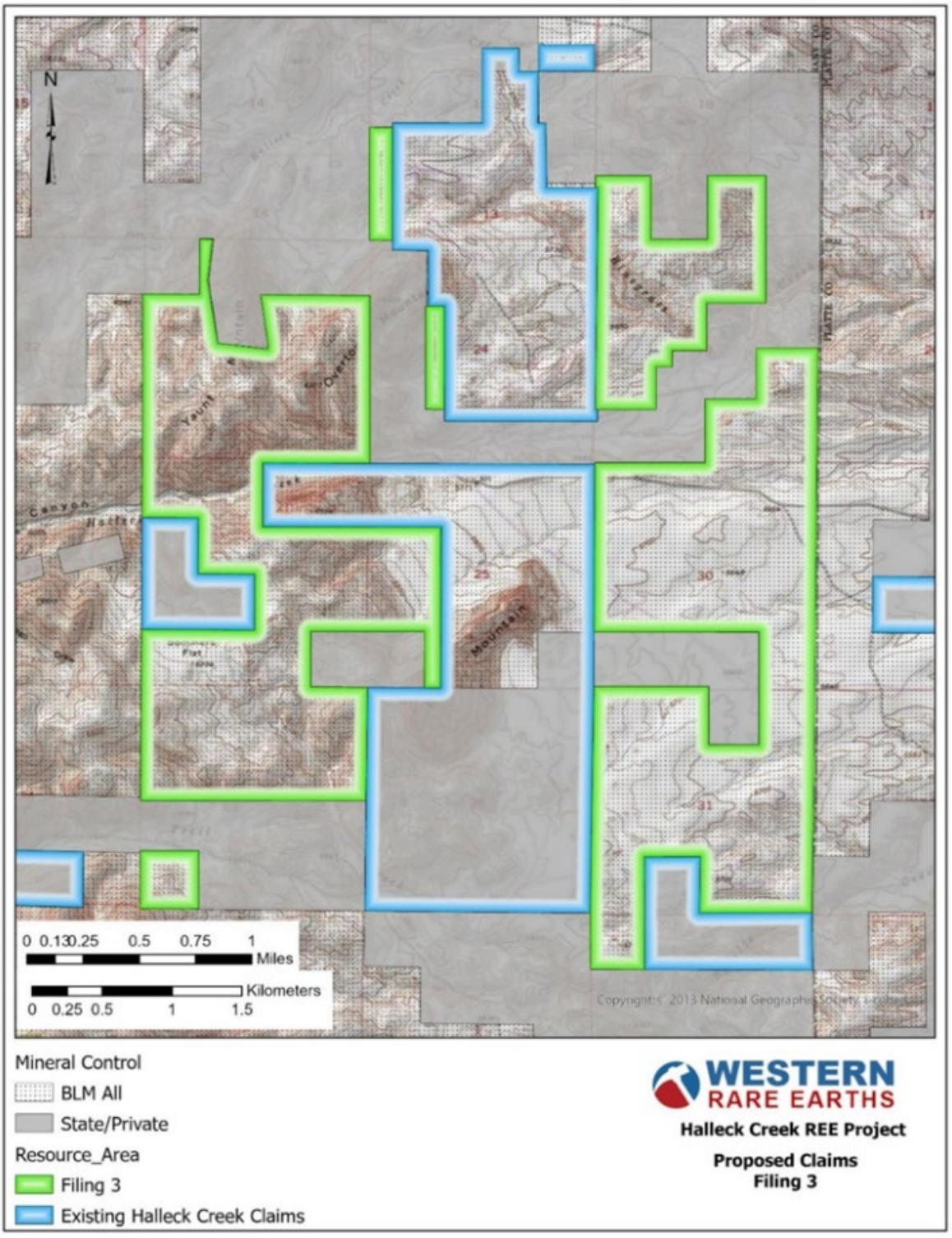

Figure 4: New Claims at Halleck Creek – Filing 3

This market announcement has been authorised for release to the market by the Board of American Rare Earths Limited.

Mr Chris Gibbs
CEO & Managing Director

Competent Persons Statement:

The information in this document is based on a report entitled “Mapping and Surface Sampling Summary at the Halleck Creek Project Area”, April 2022 compiled by Ms. Sara Sotter, and Mr. Dwight Kinnes (Society of Mining Engineers #4063295RM) employed by Western Rare Earths and American Rare Earths Limited, respectively. This report has been reviewed and approved for release by Mr. James R. Guilinger. Mr. Guilinger is Consulting Geologist at World Industrial Minerals LLC. Mr. Guilinger is a Qualified Professional Member (QP) #01260280RM of the Society of Mining Engineers (SME), and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 JORC Code. Mr. Guilinger consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

About American Rare Earths:

American Rare Earths Limited (**ASX: ARR, OTCQB: ARRNF, FSE: 1BHA**) is an Australian company listed on the ASX with assets in the growing rare earth metals sector of the United States of America, emerging as an alternative international supply chain to China's market dominance of a global rare earth market expected to expand to US$20 billion by the mid-2020s. The Company's mission is to supply Critical Materials for Renewable Energy, Green Tech, Electric Vehicles, National Security, and a Carbon-Reduced Future.

Western Rare Earths (WRE) is the wholly owned US subsidiary of the Company. ARR owns 100% of the world-class La Paz Rare Earth Project, located 170km northwest of Phoenix, Arizona. As a large tonnage, bulk deposit, La Paz is potentially the largest, rare-earth deposit in the USA and benefits from containing exceptionally low penalty elements such as radioactive thorium and uranium. ARR plans to deliver its first Preliminary Economic Assessment for La Paz by 2022 and is working with leading USA research institutions. La Paz's mineral profile is incorporated into emerging US advanced rare earth processing technologies. In early February 2022, the Company commenced further drilling at the La Paz project to explore lateral and vertical extent in the new southwest area, a prospective larger twin ore body to the existing Resource.

Approximately 742 - 928 million tonnes of Rare Earths mineralised rocks are identified as an exploration target in the La Paz Rare Earths Project Southwest area with an average TREO Grade of 350 - 400ppm and Scandium Oxide grade of 20 - 24.5ppm. The new exploration Target is additive to the La Paz Rare Earth Project recently upgraded 170MT Resource. (ASX Announcement, September 29, 2021)

In the first half of 2021, ARR acquired the Halleck Creek Rare Earths Project in Wyoming. With permits in hand, the maiden exploration drilling program commenced in March 2022 and will provide initial mineralisation, lithology and fresh rock core material for metallurgical and process testing. Approximately 308 to 385 million tonnes of rare earths mineralised rocks were identified as an exploration target for the Halleck Creek project area with an average Total Rare Earth Oxide (TREO) grade of 2,330 - 2,912 ppm. Initial surface sampling of the Overton Mountain area conducted in 2018 revealed average TREO values of 3,297 ppm, average Heavy Rare Earth Oxide (HREO) values of 244 ppm, and average Magnetic Rare Earth Oxide (MREO) values of 816 ppm (ASX Announcement, November 5, 2021).

Mapping and Surface Sampling Summary at the Halleck Creek Project Area

April 2022

Compiled by
Dwight M. Kinnes, GPC
Chief Technical Officer
American Rare Earths, Ltd.
And
Sara V. Stotter, MS
Geologist
Western Rare Earths, Inc.

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1.0 Introduction and Location

This report summarizes geologic mapping and detailed surface sampling at the Halleck Creek project area located in Albany County, Wyoming. The project area is comprised of two main areas: the northern Overton Mountain area, and the southern Red Mountain area, both owned by Wyoming Rare (USA) Inc., a wholly owned subsidiary of Western Rare Earths, a wholly owned subsidiary of American Rare Earths, Limited (OTCQB:ARRNF; ASX:ARR).

The greater Halleck Creek project area consists of 68 unpatented lode claims, covering approximately 1,265 acres (512 has). The company additionally controls 6 Wyoming State Mineral Leases in the surrounding area, totaling 1,843.72 acres (756 ha). The project is located in Albany County, Wyoming, approximately 40 miles north of Laramie, Wyoming (Figure 1).

In the fall of 2021, WRE geologists began detailed geologic and surface sampling program to expand upon previous surface sampling programs. The primary objectives of the mapping and sampling program were to increase the level of mapping detail, and to increase the extent of surface geochemical samples across the Halleck Creek claims and licenses.

WRE geologists collected 94 surface samples across the Overton Mountain area and 24 samples in the Red Mountain area. Geologic mapping focused on Overton Mountain. Winter weather and work at the WRE La Paz Rare Earth project halted detailed mapping of Red Mountain until later in the spring of 2022.

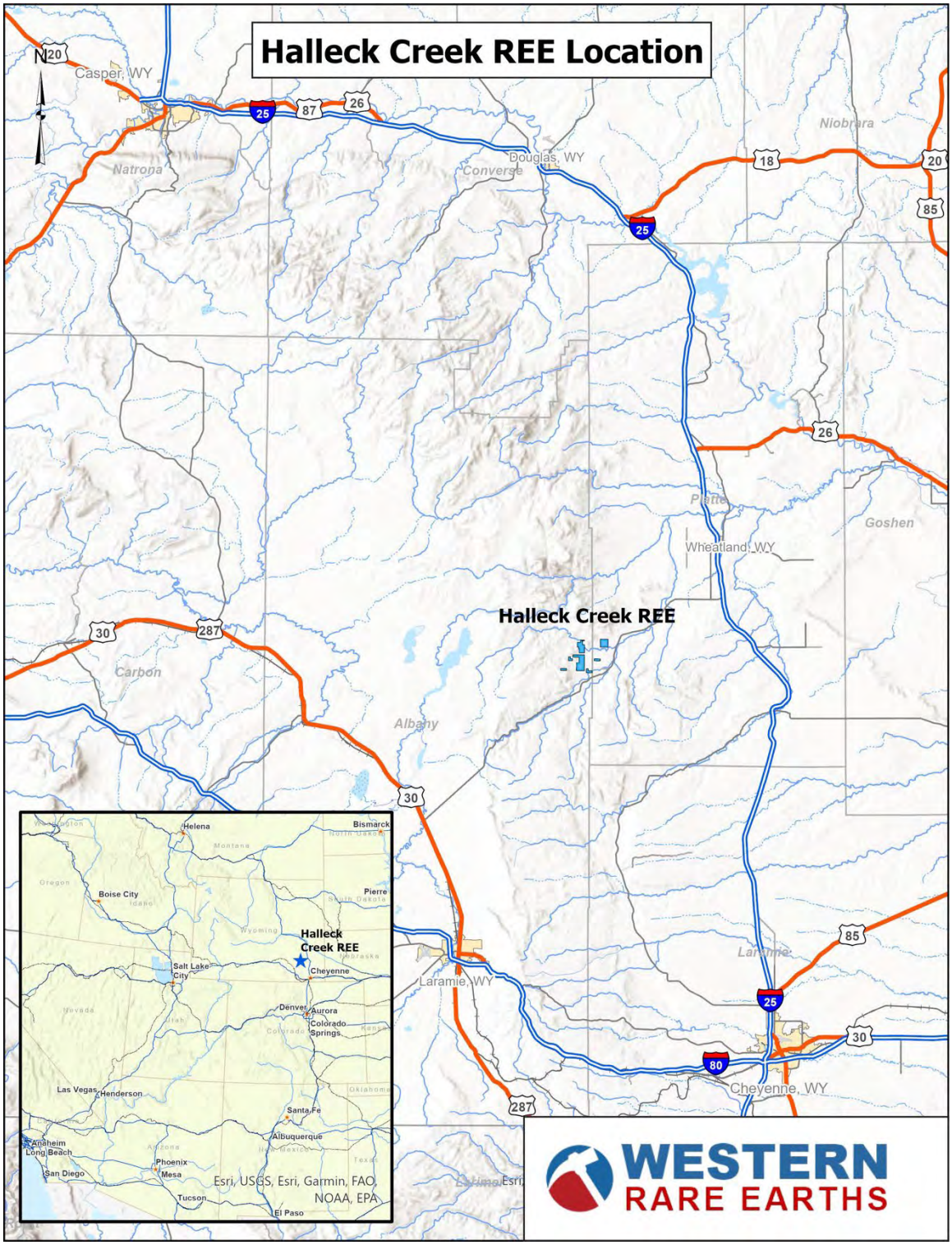


Figure 1 – Halleck Creek Project Location

2.0 Geology and Exploration History

General Geology

The encompassing Halleck Creek project area is located within the Laramie anorthosite complex (LAC), which represents the northernmost component of widespread 1.4 Ga magmatism in the western United States. The Halleck Creek project area is located within the Red Mountain Pluton (RMP), the youngest and smallest intrusion of the LAC (Figure 2).

The four units which comprise the RMP include a fayalite monzonite (FM), clinopyroxene quartz monzonite (CQM), biotite-hornblende quartz syenite (BHS), and the Red Mountain granite (RMG). Three types of dikes also occur within the pluton, including fine quartz monzonite (FQM), medium quartz monzonite (MQM), and biotite-hornblende monzonite (BHM). The rocks of the Red Mountain pluton, excluding the RMG, are nearly indistinguishable in the field: they are equigranular, medium-grained, and red-weathering. However, their subtle differences can be discerned through detailed petrography and whole rock geochemistry.

Allanite is a sorosilicate within the epidote group, which contain a significant number of rare-earth elements (REEs) and has been identified as the primary rare earth host in the Halleck Creek project area. The FM, CQM, and BHS contain disseminated allanite of variable quantities (up to 2 weight %) throughout the pluton. However, detailed petrographic work completed by Anderson and Frost (2003) discovered that the CQM contains more allanite than the other two rock types. As a result, the CQM is the main exploration target, although the FM and BHS will be thoroughly assessed. The CQM forms a discontinuous rim around the pluton, either inboard from the FM or on the pluton margin itself and comprises less than 10% of the entire pluton. In conclusion, the high REE concentrations within the CQM correlate with high modal abundance of allanite.

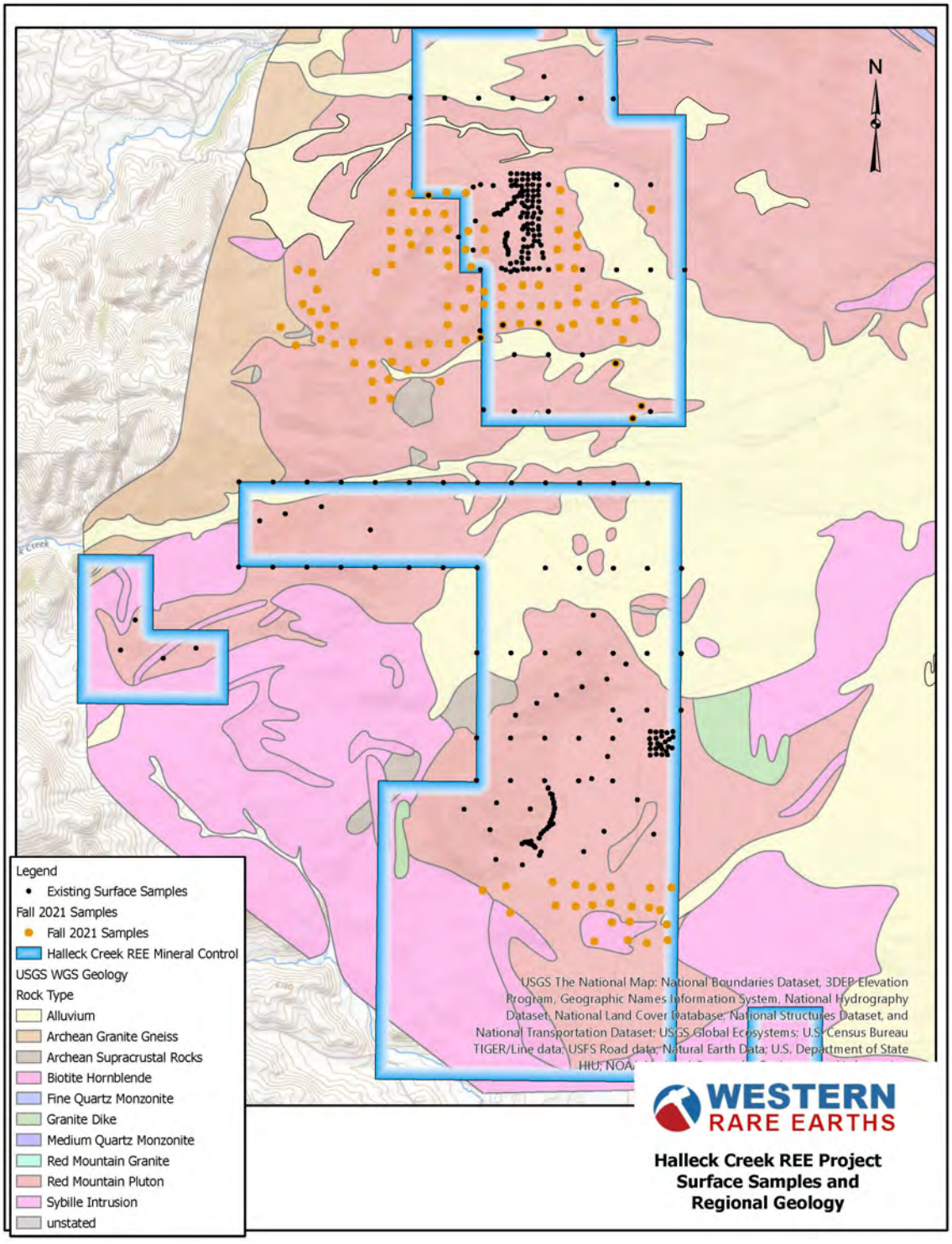


Figure 2 – Halleck Creek Regional Geology and Surface Samples

Exploration History

In 2010 Blackfire Minerals, an Australian mining company, acquired the current set of State Leases ARR now controls for the purpose of REE exploration activities. Based on research completed by World Industrial Minerals, anomalous REE values were discovered in the Red Mountain area as part of a PhD thesis completed by Anderson (1995). Much of Red Mountain was covered by a State Mineral lease that was subsequently acquired. In 2011, after initial sampling, the project was subsequently dropped due to low REE prices.

In 2018, the project was reactivated by Zenith Minerals, an Australian Mining Company, who applied for the same state leases and staked 5 additional claims on land in which the BLM owned both the surface and minerals. Additional sampling was completed both on the State Lease applications and the mining claims on the BLM Land. Sample results of the 87 samples collected from the 2019 sampling program showed broad areas of higher mineralization above 2000 ppm TREO (Appendix D). In June and July of 2021, a follow up surface sampling program totaling 181 samples were collected. The sample results show widespread significant REO values across broad areas in the north and south project areas of Halleck Creek (Table 1).

Table 1 – TREO Sample Summary for Halleck Creek Prior to Fall 2021

			Average REO values (ppm)				
Study Area	**Rock Unit**	**No. Samples**	**Total REO**	**Light REO**	**Heavy REO**	**Magnetic REO**	**NdPr**
Overton Mountain	Red Mountain Pluton	105	3,349	3,002	347	790	742
Red Mountain	Red Mountain Pluton	92	3,002	2,646	356	713	661
Grand Total		**197**	**3,187**	**2,836**	**351**	**754**	**702**

3.0 Fall 2021 Surface Sampling

Overview

WRE geologists collected 94 surface samples across the Overton Mountain area and 24 samples in the Red Mountain area. Geologic mapping and Sampling during that time focused on Overton Mountain. Winter weather and work at the WRE La Paz Rare Earth project halted detailed mapping of Red Mountain until later in the spring of 2022. As a result, the Red Mountain surface samples reflect soil samples collected on colluvial material southeast of Red Mountain.

Table 2 – Fall 2021 TREO Sample Summary for Halleck Creek

			Average REO values (ppm)				
Study Area	**Rock Unit**	**No. Samples**	**Total REO**	**Light REO**	**Heavy REO**	**Magnetic REO**	**NdPr**
Overton Mountain	Red Mountain Pluton	94	3,187	2,850	257	744	700
Red Mountain	RMP/QAL	24	664	539	79	156	140
Grand Total		**118**	**1,925**	**1,694**	**168**	**450**	**420**

Figure 2 above shows how the Fall 2021 samples provide more uniform sampling across the Overton Mountain area. Figure 2 also shows the preliminary detailed surface sampling in the Red Mountain area.

WRE geologists prepared detailed notes and photos of each sample. A summary report of these notes and photos reside in the Appendix A. Full assay results reported as REO reside in Appendix B.

TREO Results

WRE combined all of the surface samples in the database to create gridded surface models of TREO across the Overton Mountain and Red Mountain areas (Figure 3, Figure 4).

WRE performed a “Hot Spot” analysis in ArGIS Pro to analyzed the Overton Mountain and Red Mountain surface samples (Figure 3, Figure 4). The “Hot

Spot" analysis performs a statistical review of the data to determine confidence levels of the data in a region.

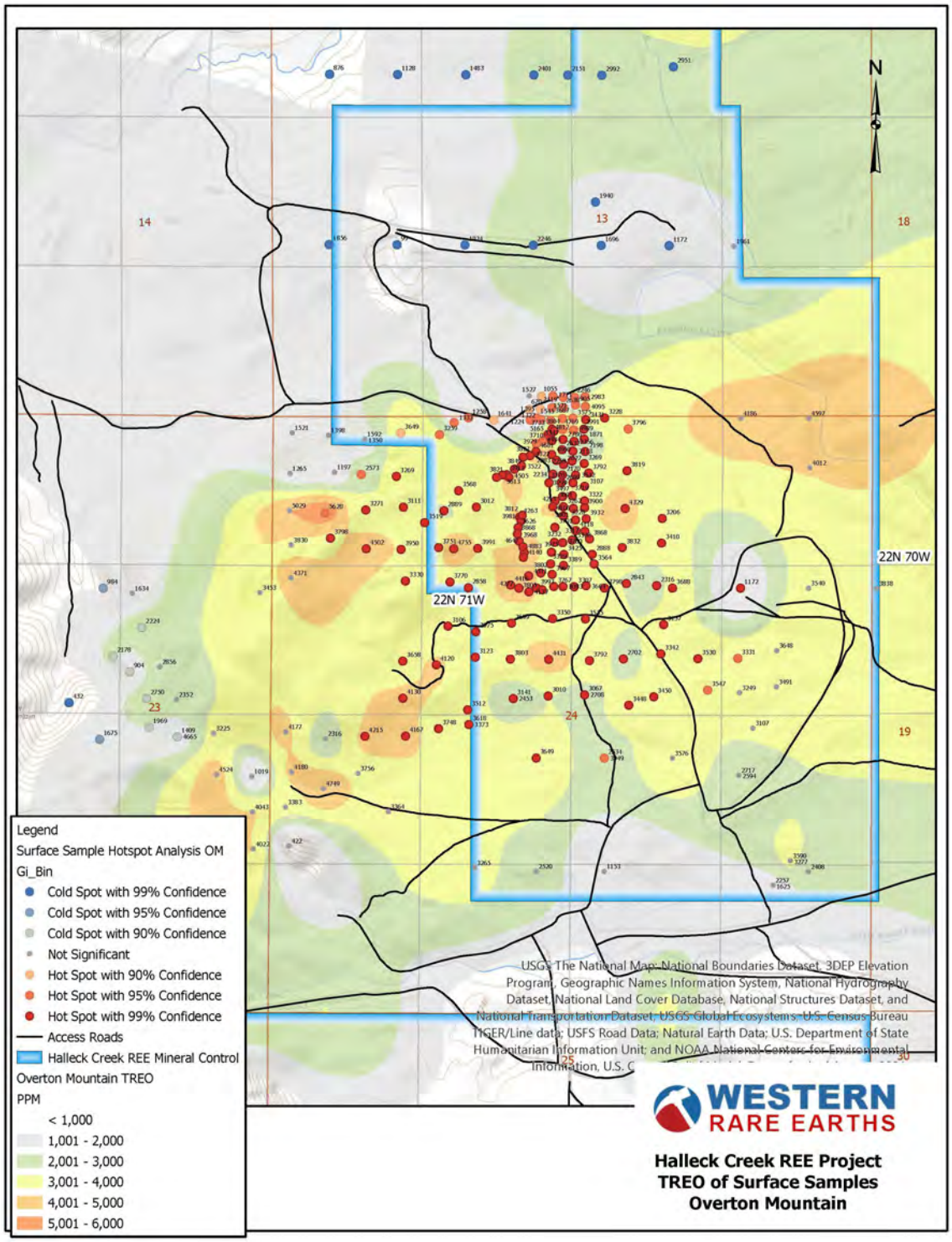


Figure 3 – Overton Mountain TREO Distribution

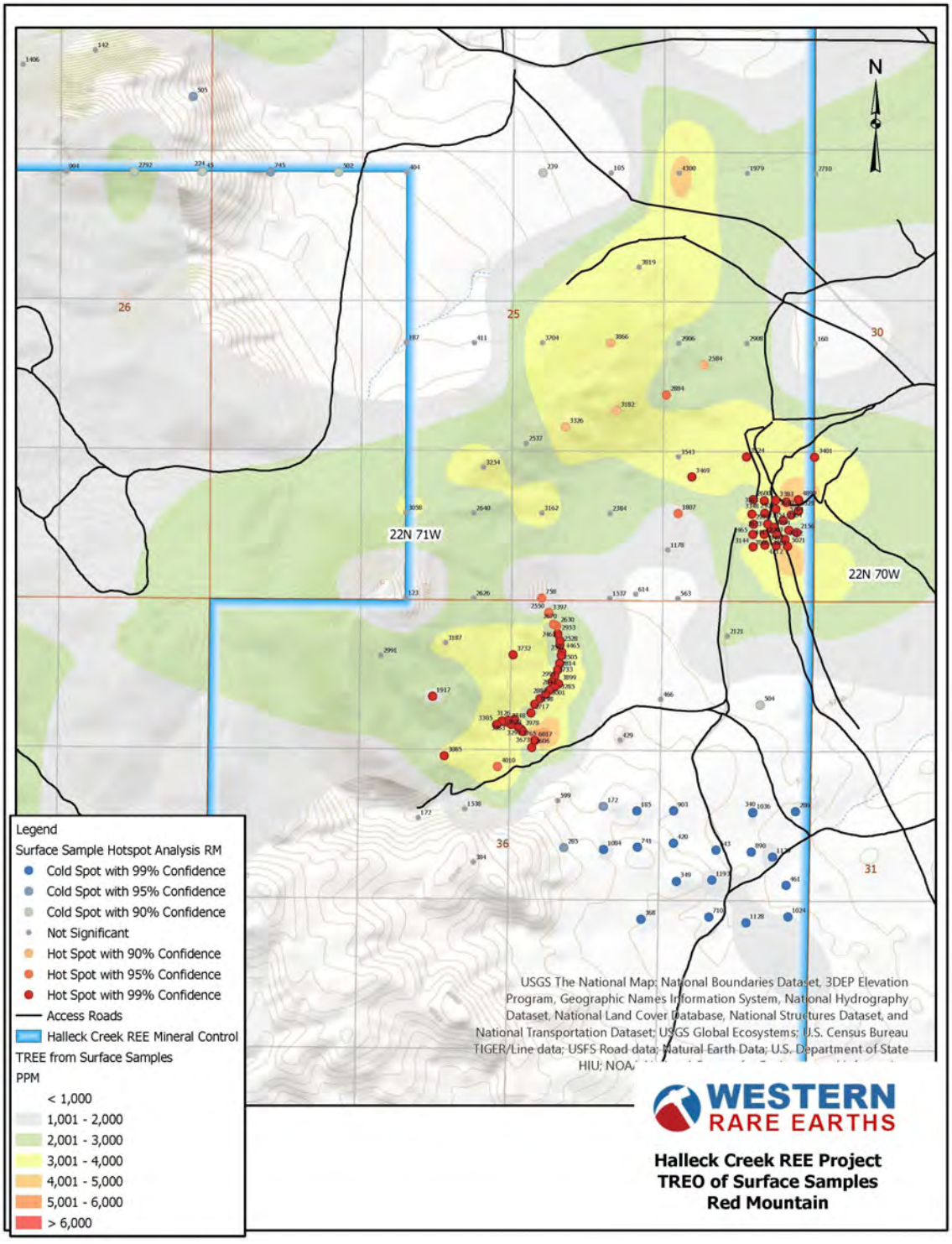


Figure 4 – Red Mountain TREO Distribution

WRE is using the TREO maps and the Hot Spot analysis to direct the next phases of Exploration at Halleck Creek.

Whole Rock Analysis

The rare earth elements at Halleck Creek are known to be most concentrated in the CQM. However, the CQM is difficult to distinguish from the FM, the BHS, and the RMG with the naked eye. Therefore, WRE collected whole rock analyses for the Fall 2021 samples. WRE geologists plotted the whole rock geochemistry using various diagrams to determine specific rock types in the area.

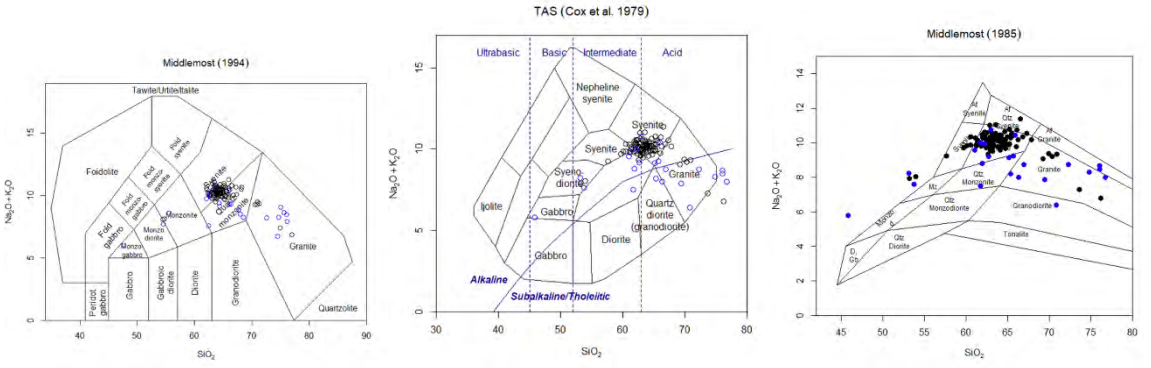


Figure 5 – Rock Classification Diagrams

The rock classification diagrams shown in Figure 5 illustrate that the Overton Mountain samples are a mix of quartz monzonite and syenite. The Red Mountain samples are less definitive and range from quartz monzonite, syenite to granite.

Figure 6 shows the relationships between SiO_2 and Al_2O_3, Fe_2O_3, CaO, MgO, Na_2O and K_2O. The charts show a high levels of aluminum and low levels of magnesium. Iron and Silica have a moderate correlation where iron decreases as silica increases. These are all indicative of late-stage cooling in the Red Mountain Pluton.

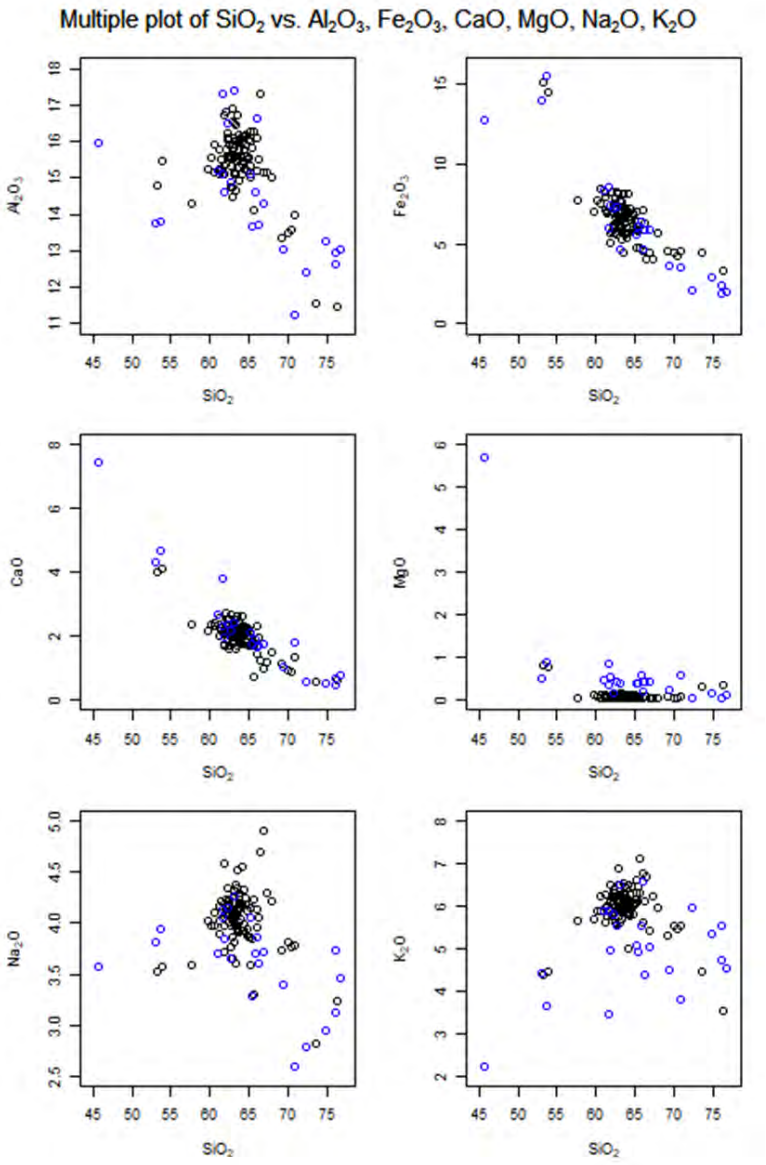


Figure 6 – Multiple Oxide Plots vs SiO_2

4.0 Environmental, Permitting and Community Issues

This is an early state exploration project and as such no environmental studies or permitting have been undertaken. The social impact of the project is currently unknown.

5.0 Additional Claims

The maps of TREO across the project area highlighted areas to the east and west of current mining claims. WRE outlined 181 additional federal mining claims covering approximately 2,944 acres (1,191 ha) to the east and west of existing Halleck Creek claims. These claims were staked in March 2022.

The US Bureau of Land Management (BLM) owns the minerals for the 181 federal mining claims staked by WRE. Surface ownership of these claims is a mix between BLM and private. In accordance to Federal and Wyoming rules, WRE prepared Notice of Intent to Locate (NOITL) documents for the private sureface owners to inform them that claims were being staked on their property. These NOITl documents were delivered to the land owners more than 30 days prior to staking activies.

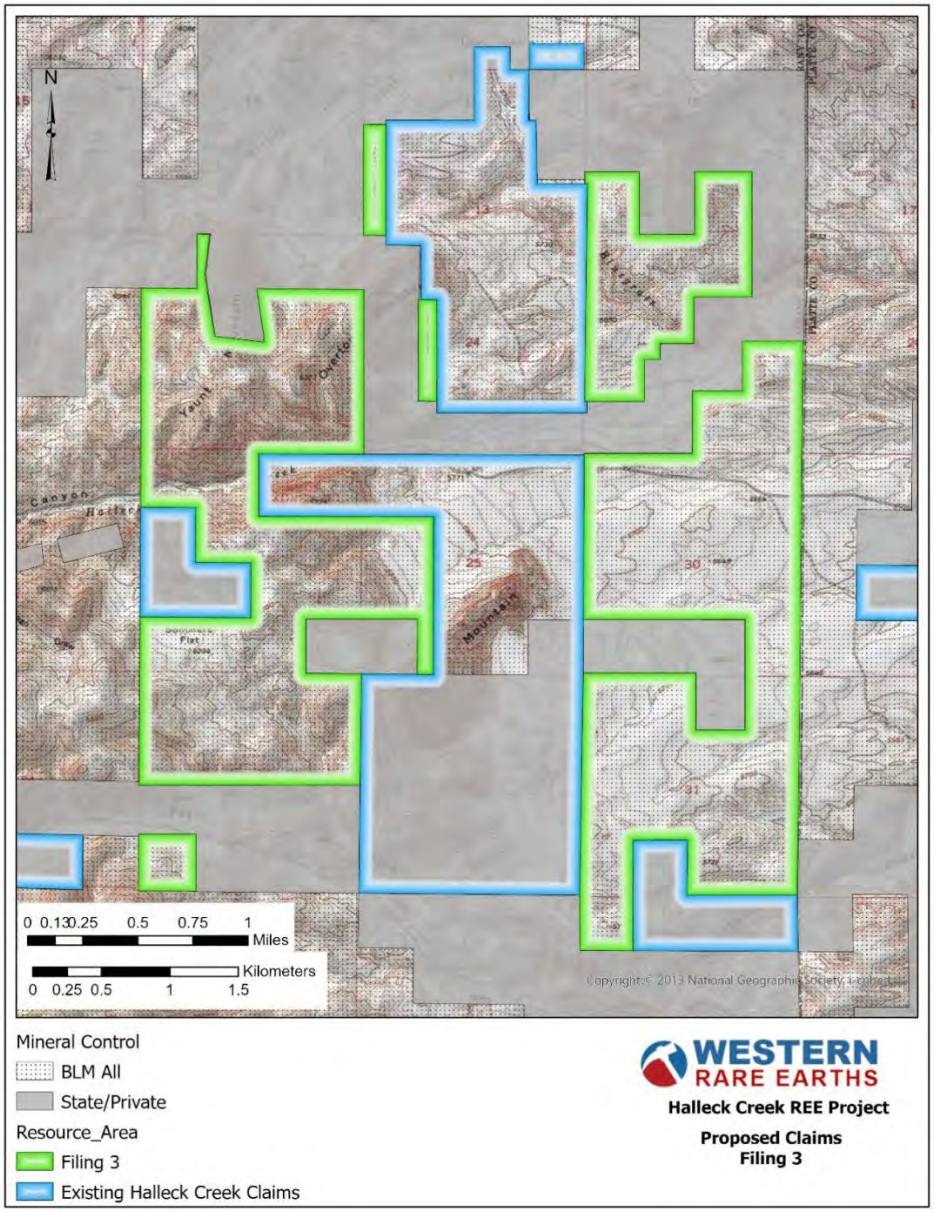


Figure 7 – New Claims at Halleck Creek – Filing 3

6.0 Halleck Creek Regional Exploration

WRE is currently drilling nine (9) exploration core holes, five on Overton Mountain, four on Red Mountain. To date, six (6) holes have been completed with total core length of 2,254 feet (687 meters). The final holes scheduled for completion by the third week of April. (Figure 8 and Figure 9).

The core from all holes will be analyzed for rare earth grades. The results of the assays are expected in June 2022.

WRE is planning additional detailed geological mapping and geochemical sampling over the all Halleck Creek claims. This work is scheduled for May 2022.

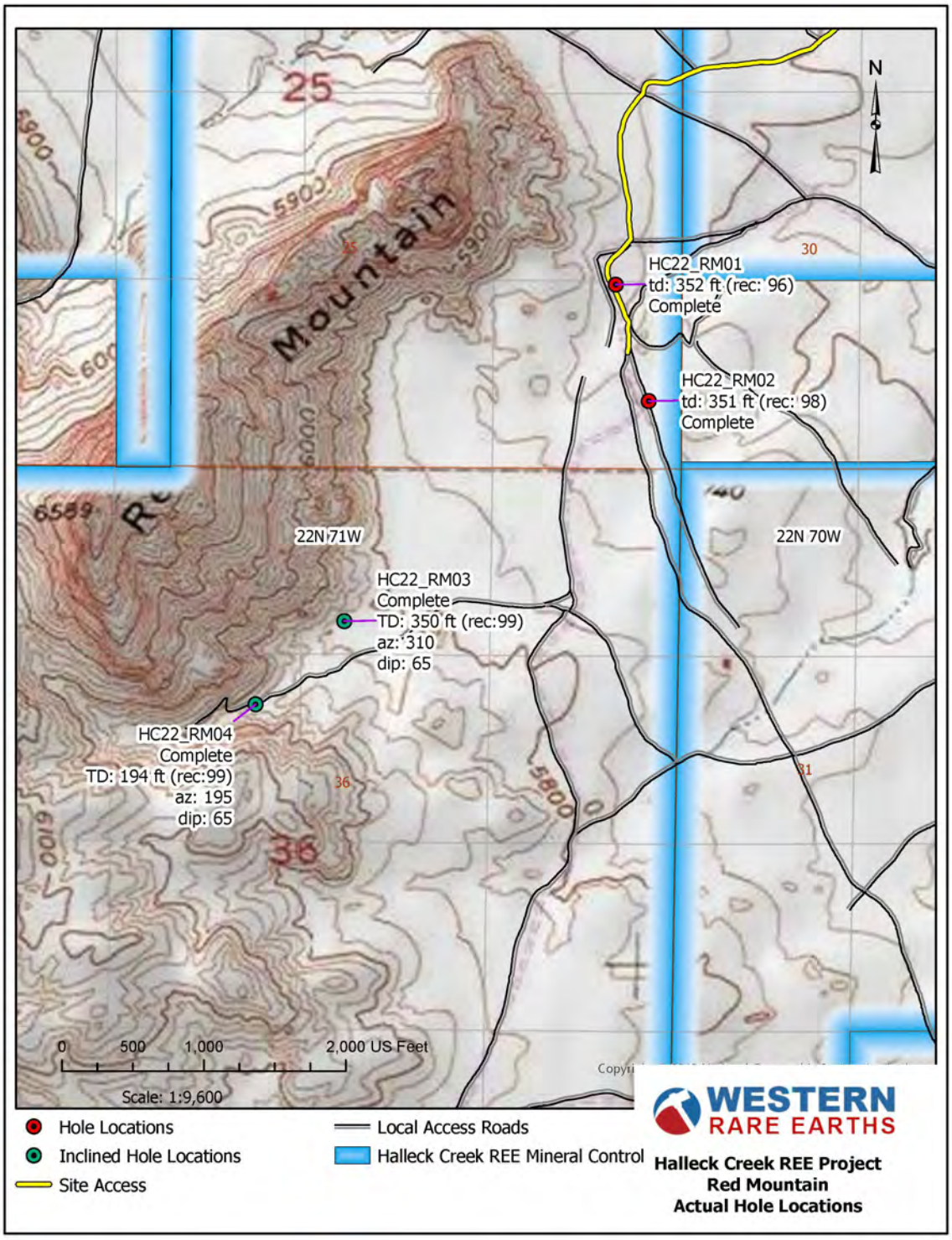


Figure 8 – Halleck Creek Core Hole Locations – Red Mountain

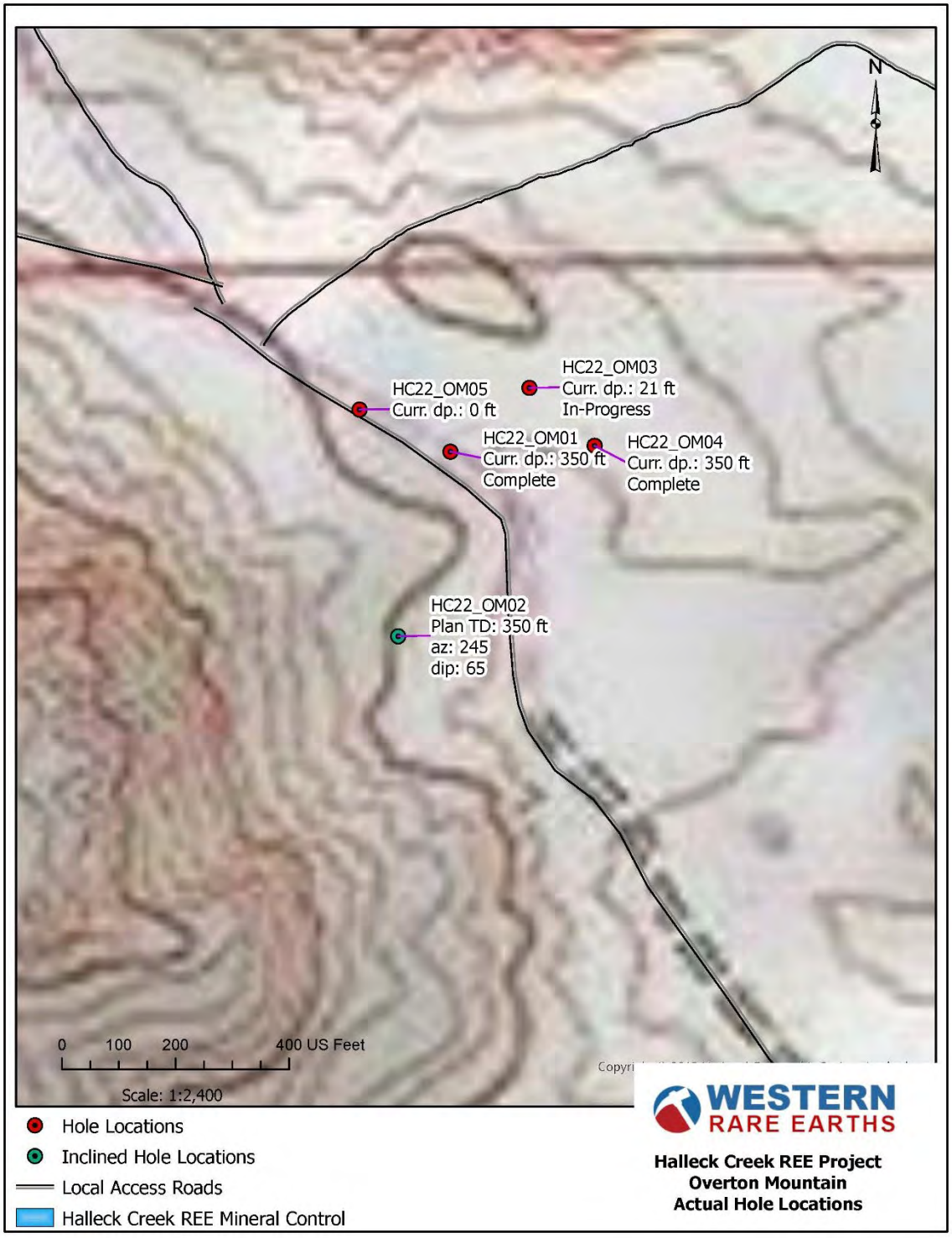


Figure 9 – Halleck Creek Core Hole Locations – Overton Mountain

7.0 Certificates of Qualifications

CERTIFICATION OF QUALIFICATIONS

Dwight M. Kinnes, CPG (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 Centennial, CO 80122.

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 the Co-Author of the Technical Report titled “Mapping and Surface Sampling Summary of the Halleck Creek Project Area” dated April 5, 2022 (the “Technical Report”) 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 Centennial, Colorado, USA this 5th day of April, 2022.

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

CERTIFICATION OF QUALIFICATIONS
JAMES R. GUILINGER
CONSULTING GEOLOGIST
WORLD INDUSTRIAL MINERALS LLC

I, JAMES R. GUILINGER, Qualified Professional Member (QP) #01260280RM of the Society Of Mining Engineers (SME), HEREBY CERTIFY THAT:

1. I am currently employed as a consulting geologist with World Industrial Minerals LLC, PO Box 130, Arvada, Colorado, USA 80004.

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 member of the Society Of Mining Engineers (SME) RM, number 01260280 RM.

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 the Technical Report titled “Mapping and Surface Sampling Summary of the Halleck Creek Project Area” dated April 5, 2022 (the “Technical Report) and concur with the findings in this report as presented by the Author.

6. I have had extensive prior involvement working in rare earths and on rare earths properties similar to Searchlight since the mid 1980’s in various capacities as an employee of mining companies and as a consulting geologist.

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 ARR.

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 Arvada, Colorado, USA this 5th day of April, 2022.

James Guilinger RM01260280

CERTIFICATION OF QUALIFICATIONS

Sara V. Stotter, MS (Author)

Geologist

Western Rare Earths, Inc.

I, SARA V. STOTTER, HEREBY CERTIFY THAT:

1. I am currently employed as a geologist with Western Rare Earths, Inc, with an office in Laramie, WY 82070.

2. I am a graduate of Bucknell University, with a B.S. degree in Geology (2016), and a graduate of the University of Montana, with a M.S. degree in Geology (2019), I have been practicing my profession since 2019.

3. From 2019 to present, I have been actively employed in capacities related to the mining industry in various locations throughout the United States.

4. I am the Co-Author of the Technical Report titled “Mapping and Surface Sampling Summary of the Halleck Creek Project Area” dated April 5, 2022 (the “Technical Report”) and accept professional responsibility for all sections of this report.

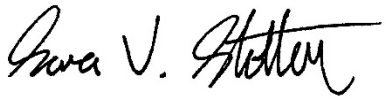
5. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, The Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

6. I am employed by Western Rare Earths, Inc.

7. 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 Laramie, Wyoming, USA this 5th day of April, 2022.



Sara V. Stotter, MS

8.0 Documentation

Anderson, J.L., 1983, Petrology and geochemistry of the Red Mountain pluton, Laramie Anorthosite Complex, Wyoming [Ph.D. thesis]: University of Wyoming, 164 p.

Anderson, C.I., Frost, C.D., and Frost, B.R., 2003, Petrogenesis of the Red Mountain pluton, Laramie anorthosite complex, Wyoming: implications for the origin of A-type granite: Precambrian Research, v. 124, p. 243-267, doi:10.1016/S0301-9268(03)00088-3.

Frost, C.D., Frost, B.R., Lindsley, D.H. , Chamberlain, K.R., Swapp, S.M., and Scoates, J.S., 2010, Geochemical and Isotopic Evolution of the Anorthositic Plutons of the Laramie Anorthosite Complex: Explanations For Variations in Silica Activity and Oxygen Fugacity of Massif Anorthosites: The Canadian Mineralogist, v. 48, p. 925-946, doi: 10.3749/canmin.48.4.925.

Appendix A – JORC Table 1

JORC Code, 2012 Edition – Table 1 Halleck Creek Exploration Area		
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.*	• Individual grab rock samples were collected by hand at the surface, from in-situ outcrops. A select number of cut channel samples were additionally collected by hand at the surface in-situ.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Grab samples are believed to be representative of the outcrops they came from.
	Aspects of the determination of mineralisation that are Material to the Public Report.	
	In cases where 'industry standard' work has been done, this would be relatively simple (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.	• 1-2kg rock samples were collected by a geologist, samples were broken using a hammer from outcrop. Rock samples were crushed in the laboratory and then pulverized before analysis.
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.).*	• No drilling.

Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	• No drilling.
	Measures are taken to maximise sample recovery and ensure the representative nature of the samples.	• No drilling.
	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.	• No drilling.
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.*	• Rock samples were geologically described and photographed according to consistent internal protocol and standards.
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	• No logging.
	The total length and percentage of the relevant intersections logged.	• No logging.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	• No drilling.
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	• No drilling.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	• Samples were analysed at ALS Laboratories in Reno Nevada: the samples were crushed, pulverized and assayed by ICP-ME MS81 for REE.
	Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.	• ~2kg of rock was crushed and pulverized and a subsample was taken in the laboratory and sent for analysis.

	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.	• Grab sampling was selective based upon geological observations.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	• Each sample was 1kg to 2kg in weight which is appropriate to test for grain size of material.
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.*	• The samples were crushed and assayed for 34 elements by fusion ICP-MS. The procedure will report near total results.
	For geophysical tools, spectrometers, handheld XRF instruments, etc., the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.	• No geophysical tools used in the sampling program.
	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.	• Internal laboratory standards were analyzed with rock samples.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	• Consulting company personnel have observed the assayed samples.
	The use of twinned holes.	• No drilling.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• Field data were all recorded in field notebooks and sample record books and then entered into a digital database.
	Discuss any adjustment to assay data.	• No adjustments were made.

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.*	• Sample location is based on GPS coordinates +/- 5m 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 +/- 10m.
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	• Both randomly spaced and channeled surface chip sampling.
	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.	• The data alone will not be used to estimate mineral resource or ore reserve.
	Whether sample compositing has been applied.	• None.
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.*	• Rock samples were taken of selected outcrops that were considered representative of varying rock types.
	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.	• No drilling.
Sample security	*The measures are taken to ensure sample security.*	• Samples were kept in numbered bags until delivered to the laboratory.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	• 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.*	• Wyoming Rare Earths Project Acquisition – 5 Unpatented mining claims on BLM US Federal Land totaling 71.6 acres (29 has) were acquired from Zenith Minerals Ltd. • Sixty seven (67) additional unpatented mining claims were staked by ARR that totaled 1193.3 acres (482 ha). Overall, the ARR subsidiary controls 3101 acres (1255 ha) of mining claims and Wyoming State Leases. • ARR staked an additional 182 federal claims in March 2022 covering an area of approximately 3,088 acres (1,250 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 ($11,880.00) 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 Minerals 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 characterized 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:*	• No drilling.
	easting and northing of the drill hole collar	• No drilling.
	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.	

	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 aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.*	• No high-grade cutting.
	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.	• No aggregation used.
	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.*	• No drilling.
	If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.	• No drilling.
	If it is unknown and only the downhole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	• No drilling.
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.*	• See Figures 2 through Figure 8 in body of Report.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practised to avoid misleading reporting of Exploration Results.*	• The average grade of the TREOS's calculated from the collected of 268 samples is 26045 ppm. The lowest grades collected were less than 10 ppm TREO, the highest 5553 ppm; less than 10ppm HREO, the highest 518 ppm; less than 10 ppm magnet minerals oxide, 1433 ppm the highest grade.

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 localized 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. • Metallurgical testing to date consisted of concentrating the allanite by both gravity and magnetic separation. The rare earth rich allanite concentrate will be further evaluated for extracton of the rare earths.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).*	• Further mapping and sampling is planned leading to drill 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.	• In the main body of the report, see Figure 8 for proposed drill hole locations.

Appendix B – Fall 2021 Surface Sample Summary and TREO Results

Surface Sample Summary

Drill Hole	*Easting*	*Northing*	*Elevation*	*Tnshp*	*Range*	*Sect*	*Rock Unit*
OM-SS001	475,584.38	4,634,326.61		22N	71W	24	

Assay:

TREO	*LREO*	*HREO*	*MREO*	*NdPr*
2,257	1,922	232	540	495

Description:

On the edge of contact with Q: directly S and SE of here, no more visible outcrop. Currently in what is mapped as RMP group. This outcrop might be more of a small dike or sill. Weathered surfaces exhibit a pink coloiration, but fresh surfaces reveal more light coloration. Fine to medium-grained, predominantly semiequigranular rock composed dominantly of plag, biotite, minor quartz, and possible minor kspar. Plag tends to present somewhat translucent (oligoclase?), so similar in appearance to minor quartz. I think this is either the medium quartz monzonite (MQM) or fine quartz monzonite (FQM). Dike trends 321. The rock it is cutting through is significantly different: weathers very dark brown, nearly black, fine-grained, semiequigranular. Fresh surfaces are rare, intensely rubbly outcrop, but darker coloration seems to carry throughout. Appers to be hornblende(?), plag, qtz, and possibly fayalite? I think this has the potential to be the fayalite monzonite.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS002	475,631.00	4,634,393.06		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,590	3,212	309	856	801

Description:

Significantly different from last stop. However, still follows the contour of contact with Qc. This rock is medium to coarse-grained, primarily interlocking, but locally porphyritic w/ feldspar phenocrysts. Forms resistant, blocky outcrops. This might be closer to the true edge of what has previously been mapped as RMP - will need to adjust the traces of these contacts. Weathered surfaces are distinctly pink in color. Composition appears to. be dominantly kspar, biotite, hornblende, with minor qtz and possibly very minor plag. Locally, hornblende appears porphyritic. I believe this is the hornblende-biotite syenite.

OM-SS003	475,492.77	4,634,622.37		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
2,717	2,445	213	637	602

Description:

Sitting on what could be actual outcrop, as mentioned @ SS008. Coarse-grained, predominantly semiequigranular except when local hornblende phenocrysts. This stuff is really weathered, however I think this is more monzonitic because there was a large increase of plag (now nearly 50:50 plag:kspar). Minor quartz, no more than 15%. I'm expecting the contacts between HBS, CQM, and FM to be gradational, so I think this is still HBS trending towards what I think will be FQM. Not 100% sure what is all in place, so not taking any measurements here.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS004	475,530.30	4,634,748.92		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,107	2,837	218	716	681

Description:

Landscape morphology is changing, more distinctive ridges of outcrop now. Weathers pink-brown, coarse-grained, interlocking, Have not observed any foliation as of yet @ any previous outcrops. Starting to see some red staining, so possible increase in Fe oxides? While outcrops are more prominent, weathering goes much deeper than surface level. Whole area is surrounded by pinkish-brown grus. I think I transitioned into the CQM. Regardless, marks edge of contact with Q to west and north in valley.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS005	475,593.59	4,634,860.17		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,491	3,218	238	809	773

Description:

More whiteish-pink on weathered surfaces. Semiequigranular, medium-grained, no apparent foliation. Plag is now the dominant feldspar, however still minor kspar; this is closer to a monzodiorite. Very minor biotite (2-3%), mino quartz. Dominant mafic phase appears to be pyroxene pseudomorphed by hornblende. Probably the CQM still.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS006	475,494.61	4,634,844.30		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,249	2,914	262	755	711

Description:

Along the same ridge as SS012. Same blocky outcrop morphology. Pink-brown weathering surfaces, semiequigranular, interlocking, non-foliated. Predominantly white plag, no more than 10% kspar, qtz is almost absent (no more than 5%). Can see relict, primary pyroxene cores with hornblende rims. Alteration probably significant due to surface proximity. Some plag is tan and somewhat translucent (oligioclase?).

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS007	475,490.12	4,634,936.47		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,331	3,009	254	763	722

Description:

Same continued outcrop morphology. Medium-grained, interlockingm, semiequgranular. Feldspar proportions are nearly 50/50 plag:kspar. No more than 5% quartz and no more than 3-5% biotite. Can see pyroxene relict cores with hbl alteration rims.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS008	475,594.59	4,634,957.21		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,648	3,267	289	852	805

Description:

Same continued outcrop morphology: small ridge, Q valley, small ridge. Probably controlled by primary fracturing. Weathers pink-brown, interlocking, semiequigranular, no apparent foliation. Significantly more iron staining near mafic phases on fresh surfaces. Dominantly plag; 70:30 plag:kspar ratio. No more than 5% quartz, 2-3% biotite. Relict pyroxene cores rimmed by hornblende.

OM-SS009	475,409.15	4,634,851.26		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,547	3,182	280	850	804

Description:

Same continued outcrop morphology. Pinkish-brown weathering, interlocking, semiequigranular, medium-grained, no apparent foliation. Plag:kspar ratio is nearly 50:50 - dominant phases in rock. No more thaqn 5% quartz. Relict, primary pyroxene with hornblende alteration rims. Increase in biotite (5-10%) around mafic phases.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS010	475,264.35	4,634,833.22		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,450	3,108	270	801	757

Description:

Same continued outcrop morphology. Medium to coarse-grained, semiequigranular, no apparent foliation. Pink-brown weathering, 50:50 plag to kspar ratio, 5% quartz, little, if any biotite, pyroxene cores with hbl alteration rims. All still seems to be the same unit (CQM).

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS011	475,283.26	4,634,948.40		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,342	2,999	260	762	719

Description:

Same continued outcrop morphology. Medium to coarse-grained, interlocking, semiequigranular, no apparent foliation. Plag:kspar is still about 50:50, 5% quartz, no apparent biotite, dominantly hornblende with few relict pyroxene cores.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS012	475,382.80	4,634,935.62		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,530	3,174	281	821	775

Description:

Same continued outcrop morphology. Medium to coarse-grained, interlocking, semiequigranular, no apparent foliation. Very little quartz, no more than 5%, dominant mafic phase is hbl, altered from pyroxene. No biotite present.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS013	475,290.83	4,635,027.31		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,157	2,785	282	735	684

Description:

Same continued outcrop morphology. Medium to coarse-grained, semiequigranular, interlocking, very possible weak foliation? Defined by the alignment of hbl. Will try to measure. Equal parts plag and kspar - dominant phase. No more than 5% quartz. Weathers pink-brown, however this locality exhibits regions with more red staining suggesting localized regions of higher Fe oxide concentration?

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS014	475,272.03	4,635,131.86		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,316	2,044	206	540	504

Description:

Same continued outcrop morphology. Semiequigranular, interlocking, non-foliated, medium-grained. Feldspar is the dominant phase, approximately equal proportions of kspar to plag. Hornblende is dominant mafic phase, no biotite evident. No more than 5% quartz. No major compositional changes.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS015	475,190.71	4,635,137.36		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,843	2,567	218	574	535

Description:

Same continued outcrop morphology. Semiequigranular, interlocking, non-foliated, medium-grained. Feldspar is the dominant phase, approximately equal proportions of kspar to plag. Hornblende is dominant mafic phase, no biotite evident. No more than 5% quartz. No major compositional changes.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS016	475,179.60	4,635,234.21		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,832	3,449	293	887	838

Description:

Picking up where I left off afternoon of 10-11-21, so still in CQM. Rounded, "lumpy" outcrop morphology as seen from 10-11. Same joint set orientations are present throughout outcrop. Rock surface is pink-brown - not much Fe staining present. Medium to coarse-grained, semiequigranular, interlocking. Nearly equal parts pink kspar + white plagioclase, with local preferencfes for higher kspar content. Quartz is present, but no more than 10% by volume - rounded crystal morphology. Hornblende is the second dominant phase after the feldspars - anhedral and irregular in shape. Occasionally exhibits heavy, red Fe staining, which is most likely from allanite aggregates or Fe oxide alteration of hornblende. Note: a lot of possible exfoliation here, so be weary of measurements.

Photo

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS017	475,285.20	4,635,246.17		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,410	3,087	250	734	692

Description:

Walked 100 m east along the same ridge of outcrop from SS022. So, same outcrop morphology. Surface weathering is brown-pink, medium to coarse-grained, semiequigranular and interlocking. Feldspar is the dominant phase @ nearly 50/50 distribution of kspar to plag. Hbl is second dominant phase, and occurs as anhedral aggregates evenly distributed throughout the rock. Hbl occasionally exhibits red Fe staining either from presence of allanite or Fe oxide replacement/alteration of hbl grain itself. Jointing is tighly spaced at this outcrop, generally 1 ft apart or closer.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS018	475,287.01	4,635,312.45		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,206	2,893	243	733	694

Description:

Continued same outcrop morphology. Pink-brown weathering surface, medium to coarse-grained, semiequigranular, interlocking. Feldspar is the dominant phase with nearly equal proportions plag/kspar, no more than 10% quartz. Hbl is second most abundant phase, occurs as aggregates, occasionally exhibits Fe staining.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS019	475,187.60	4,635,339.11		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
4,329	3,916	330	1,017	964

Description:

For the sake of time and sample collecting, if the outcrop + lithology is exactly the same, I'm cutting down on notes and only noting differences. So, continued CQM.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS020	475,192.60	4,635,440.68		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,819	3,471	281	911	867

Description:

Outcrop and lithology is exactly the same, starting to get into the big rounded outcrops. Still east of the main mountain, though. Slight increase in Fe staining near mafic clots.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS021	475,195.73	4,635,552.81		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,796	3,449	281	900	856

Description:

Continued outcrop morphology, mineralogy, lithology. Jointing more prevalent/common in this specific area; however, hugely variable across the entirety of Overton Mtn.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS022	474,716.94	4,635,141.47		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,770	3,369	307	875	822

Description:

Moved onto actual Overton Mtn. Trying to get to the more difficult places while I have good weather. Outcrop morphology is still blocky + rounded. Still exhibits pink-brown weathering. Medium to coarse-grained, semiequigranular, interlocking. Dominant phase is feldspar; approx. equal parts kspar to plag (some feldspar more transparent - increase in oligoclase?). hbl + fine grained mafic phases comprise clots evenly distributed throughout the rock. Fe staining of hbl commmon.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS023	474,597.20	4,635,144.33		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,330	2,981	267	761	716

Description:

Continued outcrop morphology, lithology, + mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS024	474,585.46	4,635,229.31		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,950	3,566	295	897	848

Description:

Continued outcrop morphology, lithology, + mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS025	474,686.65	4,635,234.28		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,751	3,383	296	879	832

Description:

Continued outcrop morphology, lithology, + mineralogy. Only slight difference is that more of the plag is looking transparent, so more oligoclase? Slight decrease in grain size, but still medium-grained.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS026	474,791.54	4,635,231.91		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,991	3,637	291	924	879

Description:

Continued outcrop morphology, lithology, + mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS027	474,787.70	4,635,342.84		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,012	2,712	239	705	666

Description:

Continued outcrop morphology, lithology, + mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS028	474,700.77	4,635,333.16		22N	71W			

Assay:

TREO	LREO	HREO	MREO	NdPr
2,889	2,560	244	673	630

Description:

Continued outcrop morphology, lithology, + mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS029	474,591.76	4,635,342.76		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,111	2,782	247	769	730

Description:

Continued outcrop morphology, lithology, + mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS030	474,572.97	4,635,425.54		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,269	2,952	230	663	623

Description:

Continued outcrop morphology, lithology, + mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS031	474,478.72	4,635,430.77		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,573	2,286	214	567	531

Description:

Continued outcrop morphology, lithology, + mineralogy. However, this stuff is most likely not in place + from the large cliff directly to the south of this locality. So, no measurement here.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS032	474,488.35	4,635,525.33		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
1,592	1,247	200	363	320

Description:

Continued outcrop morphology, lithology, + mineralogy. At this locality, not sure what to measure because it looks like a lot of exfoliation. As a result not comfortable measuring.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS033	474,585.09	4,635,542.41		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,649	3,299	278	864	820

Description:

Continued outcrop morphology, lithology, + mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS034	474,688.89	4,635,537.60		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
3,259	2,919	259	772	731

Description:

Continued outcrop morphology, lithology, + mineralogy. Nothing measurable here - all float blocks from south.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS035	474,390.88	4,635,535.78		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
1,398	1,137	176	357	326

Description:

Back up on OM, so outcrop morphology is the same as it has been the last few field days. Medium grained, semiequigranular, unfoliated, interlocking CQM. Predominantly pink brown weathering, but locally appears more orange. Dominant mineral phase is feldspar, appears to be nearly equal parts kspar:plag. Hbl is the second most common phase - easily identifiable 120/60 cleavage: occurs throughout in evenly distributed clots. Often shows red staining from alteration to Fe oxide. Qtz no more than 10%; often rounded.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS036	474,406.54	4,635,436.69		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
1,197	969	140	279	250

Description:

Continued outcrop morphology, mineralogy, and lithology. Possible slight increase in hbl, but not overly significant.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS037	474,381.83	4,635,327.41		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
5,628	5,161	360	1,203	1,146

Description:

Continued outcrop morphology, lithology + mineralogy. @ the base of a very large cliff. Jointing here is really prominent.

Photo

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS038	474,395.69	4,635,259.30		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,798	3,449	279	895	852

Description:

Continued outcrop morphology, lithology + mineralogy. On top of a large cliff.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS039	474,490.82	4,635,335.24		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,271	2,940	255	760	719

Description:

Continued outcrop morphology, lithology + mineralogy. Some jointing was flesh with ground so couldn't determine dip.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS040	474,491.86	4,635,230.98		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
4,502	4,105	327	1,065	1,012

Description:

More coarse-grained here, but otherwise continued outcrop morphology, lithology + mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS041	474,290.08	4,635,152.54		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
4,371	4,009	300	1,037	992

Description:

Continued outcrop morphology, lithology + mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS042	474,206.28	4,635,113.32		22N	71W	23	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,453	3,110	254	798	756

Description:

Continued outcrop morphology, lithology + mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS043	474,287.36	4,635,433.56		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
1,265	1,017	167	324	292

Description:

Continued outcrop morphology, lithology + mineralogy. Getting really windy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS044	474,285.59	4,635,333.53		22N	71W	24		

Assay:

TREO	LREO	HREO	MREO	NdPr
5,029	4,639	334	1,190	1,140

Description:

Continued outcrop morphology, lithology + mineralogy. Missing photo.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS045	474,290.40	4,635,241.47		22N	71W	24	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,830	3,468	282	838	790

Description:

Continued outcrop morphology, lithology + mineralogy. Sampling from a float block from cliff immediately south.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS046	474,590.26	4,634,829.37		22N	71W	24	SS052

Assay:

TREO	LREO	HREO	MREO	NdPr
4,130	3,752	313	1,011	961

Description:

Pink-brown weathering, medium to coarse-grained, same outcrop morphology as has been observed on previous days for the CQM. Plag is the dominant feldspar phgase (Oligoclase?) with minor light pink kspar. Hornblende is the second most abundant phase, 60/120 cleavage is evident, also occasionally exhibits red cores indicating alteration to Fe-oxide. Traces of biotite and quartz, no more than 5%. Interlocking, semiequigranular.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS047	474,590.20	4,634,929.08		22N	71W	24	SS053

Assay:

TREO	LREO	HREO	MREO	NdPr
3,658	3,280	291	839	789

Description:

Continued outcrop morphology and mineralogy in the CQM. Slight incfrease in mafics (hornblende) at this locality. More medium-grained overall.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS048	474,680.46	4,634,918.98		22N	71W	24	SS054

Assay:

TREO	LREO	HREO	MREO	NdPr
4,120	3,700	323	976	922

Description:

Continued outcrop morphology and mineralogy. However, trace muscovite observed at this locality and back to medium-coarse grained.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS049	474,711.46	4,635,023.24		22N	71W	24	SS055	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,106	2,652	309	732	670

Description:

Continued outcrop morphology and mineralogy, slight increase in feldspars and decrease in mafic phases. Minor epidote on weathered surfaces.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS050	474,786.18	4,635,008.10		22N	71W	24	SS056	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,075	2,766	230	708	671

Description:

Continued outcrop morphology, lithology and mineralogy. Mafics occasionally form largver "clots" throughout.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS051	474,784.78	4,634,939.71		22N	71W	24	SS057

Assay:

TREO	LREO	HREO	MREO	NdPr
3,123	2,796	250	720	678

Description:

Continued outcrop morphology, lithology and mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS052	474,882.36	4,635,031.19		22N	71W	24	SS058

Assay:

TREO	LREO	HREO	MREO	NdPr
3,699	3,317	293	901	851

Description:

Continued outcrop morphology, lithology and mineralogy. More consistently medium-grained here (finer).

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS053	474,879.04	4,634,934.60		22N	71W	24	SS059

Assay:

TREO	LREO	HREO	MREO	NdPr
3,803	3,413	306	910	859

Description:

Continued outcrop morphology, lithology and mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS054	474,981.94	4,634,933.80		22N	71W	24	SS060

Assay:

TREO	LREO	HREO	MREO	NdPr
4,431	3,987	353	1,042	983

Description:

Continued outcrop morphology, lithology and mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS055	474,992.62	4,635,043.12		22N	71W	24	SS061

Assay:

TREO	LREO	HREO	MREO	NdPr
3,350	3,007	266	775	730

Description:

Continued outcrop morphology, lithology and mmineralogy. The outcrops here are profoundly rounded; fresh surface was hard to obtain.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS056	475,080.84	4,635,042.37		22N	71W	24	SS062

Assay:

TREO	LREO	HREO	MREO	NdPr
3,535	3,194	282	831	785

Description:

Continued outcrop morphology, lithology and mineralogy. One difference is that the hornblendfe clasts are smaller/more fine-grained at this locality: when geochem comes in see if this correlates with TREO.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS057	474,886.88	4,634,828.43		22N	71W	24	SS063	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,141	2,809	257	734	691

Description:

Continued outcrop morphology, mineralogy and lithology. Possible uptick in kspar, but very difficult to distinguish due to weathering.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS058	474,980.52	4,634,835.43		22N	71W	24	SS064	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,010	2,656	260	707	662

Description:

Either less kspar or surface staining at this locality. Beyond that, continued outcrop morphology, lithology, and mineralogy. Still medium-coarse grained.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS059	475,078.63	4,634,838.42		22N	71W	24	SS065

Assay:

TREO	LREO	HREO	MREO	NdPr
3,067	2,715	262	722	676

Description:

Continued outcrop morphology, mineralogy, and lithology.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS060	475,197.05	4,634,810.69		22N	71W	24	SS066

Assay:

TREO	LREO	HREO	MREO	NdPr
3,448	3,065	290	837	787

Description:

Continued outcrop morphology, mineralogy, and lithology. Possible slight increase in hornblende.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS061	475,091.57	4,634,930.64		22N	71W	24	SS067	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,792	3,409	301	914	864

Description:

Continued outcrop morphology, mineralogy, and lithology.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS062	475,182.62	4,634,934.87		22N	71W	24	SS068	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,702	2,397	216	613	576

Description:

Continued outcrop morphology, mineralogy, and lithology.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS063	474,275.31	4,634,738.79		22N	71W	24	SS069	

Assay:

TREO	LREO	HREO	MREO	NdPr
4,177	3,808	291	976	930

Description:

Was planning on going up the gully but there is NO WAY: too steep and too much mtn mahogany.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS064	474,376.84	4,634,586.88		22N	71W	24	SS070	

Assay:

TREO	LREO	HREO	MREO	NdPr
4,749	4,312	343	1,121	1,066

Description:

Continued outcrop morphology, lithology and mineralogy. Slightly more surficial Fe staining locally.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS065	474,291.35	4,634,631.15		22N	71W	24	SS071	

Assay:

TREO	LREO	HREO	MREO	NdPr
4,180	3,813	298	961	913

Description:

Continued outcop morphology and primary mineralogy. However, this locality is really pink and kspar rich, but seems to lack obvious biotite. Could also just be extensive surface staining?

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS066	474,551.16	4,634,525.19		22N	71W	24	SS072	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,364	3,058	245	770	731

Description:

This is back to the typical CQM with dominant plag and hornblende.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS067	474,767.45	4,634,758.91		22N	71W	24	SS073

Assay:

TREO	LREO	HREO	MREO	NdPr
3,618	3,274	272	844	799

Description:

This locality is more distinctly pink in color on weathered surfaces; less brown than what I've "typically" been seeing. Fresher surfaces reveal kspar is the dominant mineral phase, followed by hornblende, minor plag and trace quartz. Medium-grained, nearly equigranular. Reason to believe this could be HBS, however no apparant biotite? But definitely more syenitic, unless all staining.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS068	474,686.00	4,634,747.76		22N	71W	24	SS074

Assay:

TREO	LREO	HREO	MREO	NdPr
3,748	3,341	309	888	834

Description:

This outcrop is less distinctly pink than SS073 - more pink-brown and more coarse-grained. Still interlocking and semiequigranular, but plag and other feldspar occur in nearly equal parts. Feldspars dominate, followed by hornblende with trace quartz.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS069	474,597.45	4,634,727.76		22N	71W	24	SS075

Assay:

TREO	LREO	HREO	MREO	NdPr
4,167	3,750	321	966	912

Description:

Continued outcrop morphology, lithology and mineralogy; exact same as SS074.

OM-SS070	474,488.56	4,634,727.26		22N	71W	24	SS076

Assay:

TREO	LREO	HREO	MREO	NdPr
4,215	3,841	301	986	939

Description:

Continued outcrop morphology, lithology, and mineralogy. Some larger hornblende clots at this locality.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS071	474,382.14	4,634,720.87		22N	71W	24	SS077	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,316	2,055	193	532	499

Description:

Continued outcrop morphology, lithology, and mineralogy.

OM-SS072	474,470.03	4,634,627.51		22N	71W	24	SS078

Assay:

TREO	LREO	HREO	MREO	NdPr
3,756	3,369	295	889	839

Description:

Continued outcrop morphology, lithology, and mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS073	474,274.91	4,634,536.61		22N	71W	24	SS079	

Assay:

TREO	LREO	HREO	MREO	NdPr
3,383	3,049	252	729	686

Description:

Continued outcrop morphology, lithology, and mineralogy.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS074	474,284.41	4,634,432.55		22N	71W	24	SS080	

Assay:

TREO	LREO	HREO	MREO	NdPr
422	312	58	94	81

Description:

This stuff is entirely different - either a dike or part of the Asci unit on previous maps. This rock weathers pink-orange as everything else I've seen. It is fine-grained, equigranular, weakly foliated based on the alignment ofmafic phases. Appears to be dominantly plag, qz, and biotite, but hard to determine even with hand lens. More like a granodiorite? Unit wise, will need to determine when back in office if this is what has previously been considered the fine-monzonite dike or whatever the Asci stuff is. Various x-cutting alkali granite dikes.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS075	474,188.60	4,634,424.68		22N	71W	23	SS081	

Assay:

TREO	LREO	HREO	MREO	NdPr
4,022	3,648	305	924	871

Description:

This is back to the same stuff that we typically see that I've been describing as continued continued outcrop morphology, lithology and mineralogy. Took a float block because I was nervous about getting to close to the house in the valley below and making a bunch of noise.

OM-SS076	474,186.14	4,634,524.06		22N	71W	23	SS082

Assay:

TREO	LREO	HREO	MREO	NdPr
4,043	3,659	314	959	904

Description:

Continued outcrop morphology, lithology and mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS077	473,937.66	4,634,913.78		22N	71W	23	SS083	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,856	2,496	254	681	635

Description:

Continued outcrop morphology, lithology and mineralogy. Slightly more coarse-grained here.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS078	473,901.91	4,634,829.09		22N	71W	23	SS084	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,750	2,366	276	697	645

Description:

Continued outcrop morphology, lithology and mineralogy. Still slightly more coarse here as well. Size of hornblende phenocrysts/"clots" very inconsistent (is the word seriate, here?)

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS079	473,982.32	4,634,826.02		22N	71W	23	SS085

Assay:

TREO	LREO	HREO	MREO	NdPr
2,352	2,025	236	564	518

Description:

Continued outcrop morphology, mineralogy, and lithology. However hornblende shows significant alteration to Fe-oxide at this locality in comparison to others.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS080	473,909.35	4,634,751.34		22N	71W	23	SS086

Assay:

TREO	LREO	HREO	MREO	NdPr
1,969	1,685	207	509	470

Description:

Continued outcrop morphology, mineralogy and lithology. Less Fe oxide alteration of hornblende compared to SS085. More "typical".

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS081	473,984.86	4,634,725.86		22N	71W	23	SS087

Assay:

TREO	LREO	HREO	MREO	NdPr
1,409	1,132	190	366	328

Description:

Continued outcrop morphology, mineralogy and lithology. However, this locality has quite a bit of quartz clasts up to 1 cm in diameter. Up to 20% by volume locally.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS082	473,984.86	4,634,725.86		22N	71W	23	SS088

Assay:

TREO	LREO	HREO	MREO	NdPr
4,665	4,312	316	1,098	1,049

Description:

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS083	474,082.00	4,634,735.50		22N	71W	23	SS089

Assay:

TREO	LREO	HREO	MREO	NdPr
3,225	2,866	276	780	730

Description:

Continued morphology, mineralogy and lithology. Hornblende more fine-grained here and semiequigranular. Still exhibits Fe oxide alteration.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS084	474,089.31	4,634,624.33		22N	71W	23	SS090

Assay:

TREO	LREO	HREO	MREO	NdPr
4,524	4,131	329	1,066	1,013

Description:

Continued outcrop morphology, lithology, and mineralogy.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS085	474,184.66	4,634,618.99		22N	71W	23	SS091

Assay:

TREO	LREO	HREO	MREO	NdPr
1,019	795	141	240	208

Description:

Odd, some sort of alkali intrusion. Mainly just kspar and quartz with very minor plag and what appears to be a lot of epidote alteration. Also has a tiny bright blue mineral, unsure (chrysocolla?) A lot of yellow staining as well. Fine-medium grained, interlocking, semiequigranular.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS086	473,693.72	4,634,817.53		22N	71W	23	SS093

Assay:

TREO	LREO	HREO	MREO	NdPr
432	319	64	96	82

Description:

This also doesn't appear to be RMP. If it is, its sheared beause this unit has a weak gneissic foliation based on the alignment of biotite "stringers". This rock is primarily white, is fine-grained, and well foliated and equigranular. Seems to be plag, qtz and biotite. Some sort of granitic gneiss. No other evidence of shearing or faulting around this.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS087	473,776.10	4,634,718.74		22N	71W	23	SS095

Assay:

TREO	LREO	HREO	MREO	NdPr
1,675	1,398	195	420	381

Description:

Oops, everything I was walking through WAS mapped as granite gneiss. Now back in the RMP. Medium-coarse-grained, semiequigranular, dominated by plag, hbl, minor kspar and trace quartz.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS088	473,857.28	4,634,900.86		22N	71W	23	SS097

Assay:

TREO	LREO	HREO	MREO	NdPr
904	732	121	226	205

Description:

Back in the RMP, bring granite gneiss contact up closer to the larger RMP outcroppings in this area. Continued outcrop morphology, lithology, and mineralogy. However, coarse-grained and nearly cm scale hbl with extensive red alteration to Fe Oxide.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS089	473,812.53	4,634,942.44		22N	71W	23	SS098	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,178	1,921	183	497	461

Description:

Continued outcrop morphology, mineralogy, and lithology. Increased biotite, up to 20% locally.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
OM-SS090	473,889.16	4,635,019.32		22N	71W	23	SS099	

Assay:

TREO	LREO	HREO	MREO	NdPr
2,224	1,943	214	524	484

Description:

Continued outcrop morphology, mineralogy, and lithology. Extensive hbl alteration to Fe oxide.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS091	473,863.61	4,635,111.46		22N	71W	23	SS100

Assay:

TREO	LREO	HREO	MREO	NdPr
1,634	1,312	202	382	336

Description:

Continued outcrop morphology, mineralogy, and lithology.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS092	473,785.48	4,635,125.07		22N	71W	23	SS101

Assay:

TREO	LREO	HREO	MREO	NdPr
984	759	136	232	198

Description:

Continued outcrop morphology, mineralogy, and lithology. Collected from large float boulder from above outcrop/cliff.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS093	474,293.31	4,635,542.35		22N	71W	24	SS102

Assay:

TREO	LREO	HREO	MREO	NdPr
1,521	1,269	171	374	341

Description:

Continued outcrop morphology, mineralogy, and lithology.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
OM-SS094	475,683.31	4,635,448.42		22N	71W		

Assay:

TREO	LREO	HREO	MREO	NdPr
4,012	3,626	310	948	898

Description:

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS001	475,791.71	4,631,806.58		22N	71W	33	SS103

Assay:

TREO	LREO	HREO	MREO	NdPr
280	188	54	68	55

Description:

Transitioned to sampling on the state section south of Red Mtn. The outcrops here weather more red-brown than on OM. Also appear more fine-grained. Fine to medium grained, interlocking, nearly equigranular, dominantly composed of plag, hbl, minor kspar, trace biotite, and quartz up to 20% locally. Strong jointing apparant as well. Hbl is significantly more fine-grained here as opposed to OM. However, still exhibits red coloration from alteration to Fe oxide.

RM-SS002	475,730.43	4,631,684.54		22N	71W	36	SS104

Assay:

TREO	LREO	HREO	MREO	NdPr
1,129	923	133	278	249

Description:

Red brown weathering, interlocking, nearly equigranular, dominantly composed of plag (oligoclase?), hbl, minor kspar, trace biotite and quartz. Small pinkish-red flecks throughout, but too fine to ID in hand sample. Fe staining present.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS003	475,677.28	4,631,803.64		22N	71W	36	SS105

Assay:

TREO	LREO	HREO	MREO	NdPr
1,036	866	110	247	222

Description:

Nearly identifical to SS104, but slightly more fine-grained and fresh surfaces are darker tan. Less overall Fe staining.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS004	475,673.43	4,631,697.95		22N	71W	36	SS106

Assay:

TREO	LREO	HREO	MREO	NdPr
890	648	148	236	203

Description:

This stuff is really different - dike of some sort? Outcrops more "blob-like" and bulbous. Still in area previously mapped as RMP, though. Dark brown-red weathering, very fine-grained, somewhat granular looking. Fresher surfaces are overwhelmingly yellow-brown & occasionally black. It's so fine that I can't determine mineralogy even with my hand lens. Definitely some variety of feldspar though and probably some biotite. Minor qtz and hbl?

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS005	475,677.29	4,631,804.63		22N	71W	36	SS107

Assay:

TREO	LREO	HREO	MREO	NdPr
340	300	27	73	68

Description:

Fine-grained, interlocking, equigranular, somewhat granular teture on fresh surfaces. Appears to predominantly be plag, qtz, and biotite. Probably a dike of some sort?

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS006	475,578.63	4,631,703.49		22N	71W	36	SS108

Assay:

TREO	LREO	HREO	MREO	NdPr
543	449	60	126	114

Description:

Very-fine grained, interlocking, somewhat granular texture on fresher surfaces. Appears to be dominantly feldspar, probably plag and/or oligoclase, biotite, hbl, very little quartz.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS007	475,169.98	4,631,710.23		22N	71W	36	SS109

Assay:

TREO	LREO	HREO	MREO	NdPr
285	215	40	68	59

Description:

Similar to SS108 but hbl is more evident and less biotite. Drak tan-ed on fresh surfaces. Qtz no more than 5%. Still fine grained and equigranular.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS008	475,154.07	4,631,836.64		22N	71W	36	SS110

Assay:

TREO	LREO	HREO	MREO	NdPr
599	538	48	132	123

Description:

Coarse-grained, interlocking, semiequigranular, tan-red/brown in color. Dominated by feldspar, probably plag and oligoclase. However, a fair amount of quartz, up to 30% locally, up to 2-3 mm in diameter and usually rounded. Very, very little mafic material if present at all. Mostly biotite when present?

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS009	475,276.56	4,631,820.78		22N	71W	36	SS111

Assay:

TREO	LREO	HREO	MREO	NdPr
172	137	23	37	31

Description:

At first glance appears to be a pink alkali granitic intrusion of some sort. Makes up this larger mound. Should be easy to pick out on imagery. Fine-grained, nearly equigranular, somewhat granular texture on fresh surfaces. Dominated by kspar, plag, qtz, and biotite.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS010	475,276.74	4,631,704.98		22N	71W	36	SS112

Assay:

TREO	LREO	HREO	MREO	NdPr
1,084	970	81	232	217

Description:

Starting to look like more classic RMP. Medium to coarse-grained, interlocking, dominated by plagioclase and/or oligoclase, hbl with minor biotite and trace quartz. Hbl shows red alteration to Fe-oxide.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS011	475,367.68	4,631,711.43		22N	71W	36	SS113

Assay:

TREO	LREO	HREO	MREO	NdPr
741	599	91	181	162

Description:

Same as SS112 except significantly finer-grained, slightly granular texture on fresh surfaces.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS012	475,366.11	4,631,808.81		22N	71W	36	SS114

Assay:

TREO	LREO	HREO	MREO	NdPr
185	143	27	46	40

Description:

This is the biotite hornblende schist.Small pod but should be mappable at this resolution. Appears to have possible clots of sillimanite throughout??

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS013	475,464.83	4,631,809.14		22N	71W	36	SS115

Assay:

TREO	LREO	HREO	MREO	NdPr
903	686	141	240	210

Description:

Exactly same as SS106. Probably map this separately.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS014	475,464.45	4,631,721.98		22N	71W	36	SS116

Assay:

TREO	LREO	HREO	MREO	NdPr
420	336	58	101	90

Description:

Classic, medium to coarse-grained RMP. Atleration of hbl to Fe-oxide.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
RM-SS015	475,766.54	4,631,608.81		22N	71W	36	SS117	

Assay:

TREO	LREO	HREO	MREO	NdPr
461	363	62	110	97

Description:

This isn't RMP, I'm fairly certain this is Sybille. This rock is very coarse-graned, interlocking, semiequigranular. Appears to be dominated by interlocking feldspar phenocrysts, probably a plag variety, and mafics which appear to be mostly hornblende/. Really, really weathered so hard to get a good, fresh sample.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS016	475,771.73	4,631,523.86		22N	71W	36	SS118

Assay:

TREO	LREO	HREO	MREO	NdPr
1,024	845	114	237	212

Description:

This is right along the contact of what I think is Sybille w/ RMP. Rock from SS117 juxtaposed with rock from SS116. Sampled from RMP portion.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit	Photo
RM-SS017	475,659.17	4,631,508.14		22N	71W	36	SS119	

Assay:

TREO	LREO	HREO	MREO	NdPr
1,128	887	150	287	255

Description:

Back to fine-grained, nearly equigranular RMP rock. Fe alteration nearly absent from hbl grains.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS018	475,567.65	4,631,623.15		22N	71W	36	SS120

Assay:

TREO	LREO	HREO	MREO	NdPr
1,193	976	128	251	224

Description:

Continued outcrop morphology, mineralogy, and lithology.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS019	475,559.34	4,631,523.69		22N	71W	36	SS121

Assay:

TREO	LREO	HREO	MREO	NdPr
710	566	87	175	156

Description:

Continued outcrop morphology, mineralogy, and lithology. Slight increased Fe-staining.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS020	475,377.14	4,631,517.66		22N	71W	36	SS123

Assay:

TREO	LREO	HREO	MREO	NdPr
368	324	29	79	73

Description:

Still along the same stuff from SS122, pretty extensive so decided to sample. Fine-grained, equigranular granitic body. Appears to be Kspar, plag, qtz, and biotite.

Surface Sample Summary

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS021	475,472.31	4,631,619.25		22N	71W	36	SS124

Assay:

TREO	LREO	HREO	MREO	NdPr
349	269	50	83	73

Description:

Back to the fine-grained RMP typical of what I've been seeng in this area today. Molderate Fe-staining throughout.

Drill Hole	Easting	Northing	Elevation	Tnshp	Range	Sect	Rock Unit
RM-SS022	474,779.30	4,631,791.26					

Assay:

TREO	LREO	HREO	MREO	NdPr
172	128	22	32	27

Description:

Surface Sample Summary

Drill Hole	*Easting*	*Northing*	*Elevation*	*Tnshp*	*Range*	*Sect*	*Rock Unit*	*Photo*
RM-SS023	474,904.31	4,631,814.59						

Assay:

TREO	*LREO*	*HREO*	*MREO*	*NdPr*
1,538	1,290	154	340	308

Description:

Drill Hole	*Easting*	*Northing*	*Elevation*	*Tnshp*	*Range*	*Sect*	*Rock Unit*	*Photo*
RM-SS024	474,926.99	4,631,671.85						

Assay:

TREO	*LREO*	*HREO*	*MREO*	*NdPr*
384	278	65	95	83

Description:

Appendix C – Fall 2021 Surface Sample Assay TREO Results

October 2021 Surface Samples

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
OM-SS001	475,584.38	4,634,326.61	2257	1922	232	540	427	927	101	394	71	187	11	50	7	38	7	19	2	16	3	16	3
OM-SS002	475,631.00	4,634,393.06	3590	3212	309	856	702	1597	169	632	112	194	8	72	9	47	8	20	3	16	3	77	7
OM-SS003	475,492.77	4,634,622.37	2717	2445	213	637	565	1201	128	474	76	144	9	47	6	31	5	15	2	12	2	51	4
OM-SS004	475,530.30	4,634,748.92	3107	2837	218	716	657	1419	147	534	81	142	10	48	6	30	5	14	2	13	2	60	4
OM-SS005	475,593.59	4,634,860.17	3491	3218	238	809	698	1658	166	607	93	137	10	53	7	31	6	14	2	12	2	71	4
OM-SS006	475,494.61	4,634,844.30	3249	2914	262	755	676	1437	157	554	90	175	11	62	8	38	7	18	2	15	2	54	4
OM-SS007	475,490.12	4,634,936.47	3331	3009	254	763	688	1511	161	561	89	168	10	60	8	35	7	17	2	15	2	56	4
OM-SS008	475,594.59	4,634,957.21	3648	3267	289	852	802	1560	177	628	98	204	10	70	8	41	8	20	3	17	3	62	5
OM-SS009	475,409.15	4,634,851.26	3547	3182	280	850	789	1486	178	626	98	197	10	65	8	39	7	19	3	17	3	57	5
OM-SS010	475,264.35	4,634,833.22	3450	3108	270	801	691	1566	167	590	95	180	10	64	8	37	7	18	2	16	3	63	5
OM-SS011	475,283.26	4,634,948.40	3342	2999	260	762	712	1480	160	559	88	183	9	61	8	37	7	19	3	17	3	63	5
OM-SS012	475,382.80	4,634,935.62	3530	3174	281	821	753	1548	173	602	98	186	10	67	8	40	8	19	3	16	2	60	5
OM-SS013	475,290.83	4,635,027.31	3157	2785	282	735	636	1370	150	534	94	197	9	67	9	43	8	20	3	17	3	57	4
OM-SS014	475,272.03	4,635,131.86	2316	2044	206	540	435	1038	110	394	68	143	7	48	6	31	6	15	2	13	2	46	4
OM-SS015	475,190.71	4,635,137.36	2843	2567	218	574	428	1542	119	416	74	141	8	50	7	32	6	15	2	14	2	56	5
OM-SS016	475,179.60	4,635,234.21	3832	3449	293	887	774	1738	185	653	100	204	10	68	9	42	8	21	3	19	3	63	5
OM-SS017	475,285.20	4,635,246.17	3410	3087	250	734	620	1695	152	540	86	171	9	58	8	36	7	17	2	15	2	60	4
OM-SS018	475,287.01	4,635,312.45	3206	2893	243	733	665	1449	154	540	85	166	10	56	7	33	6	17	2	15	2	55	5
OM-SS019	475,187.60	4,635,339.11	4329	3916	330	1017	911	1922	214	750	118	215	11	80	10	46	9	22	3	19	3	71	7
OM-SS020	475,192.60	4,635,440.68	3819	3471	281	911	837	1664	190	677	100	180	12	67	8	38	7	18	2	16	2	59	6
OM-SS021	475,195.73	4,635,552.81	3796	3449	281	900	790	1701	188	668	100	178	13	66	8	37	7	18	3	16	3	58	5
OM-SS022	474,716.94	4,635,141.47	3770	3369	307	875	759	1683	182	640	105	213	10	72	9	45	8	21	3	19	3	68	7
OM-SS023	474,597.20	4,635,144.33	3330	2981	267	761	653	1523	157	559	91	185	10	63	8	38	7	19	3	16	3	54	5
OM-SS024	474,585.46	4,635,229.31	3950	3566	295	897	776	1843	187	661	102	204	11	68	9	42	8	21	3	19	3	63	7
OM-SS025	474,686.65	4,635,234.28	3751	3383	296	879	728	1720	181	651	105	190	11	70	9	40	8	19	3	18	3	62	7
OM-SS026	474,791.54	4,635,231.91	3991	3637	291	924	806	1849	195	684	106	182	11	68	8	38	7	19	3	17	3	68	6
OM-SS027	474,787.70	4,635,342.84	3012	2712	239	705	583	1382	145	521	83	154	12	55	7	33	6	16	2	14	2	48	6
OM-SS028	474,700.77	4,635,333.16	2889	2560	244	673	573	1278	137	493	79	177	11	55	7	36	7	18	2	16	3	42	5
OM-SS029	474,591.76	4,635,342.76	3111	2782	247	769	755	1204	160	570	84	179	13	57	7	33	7	17	2	15	2	39	4
OM-SS030	474,572.97	4,635,425.54	3269	2952	230	663	569	1695	138	485	75	174	9	51	7	34	7	17	3	16	3	65	7
OM-SS031	474,478.72	4,635,430.77	2573	2286	214	567	425	1265	115	416	71	154	10	48	6	30	6	16	2	16	2	54	6
OM-SS032	474,488.35	4,635,525.33	1592	1247	200	363	258	618	70	250	51	211	4	44	7	37	8	20	3	17	2	32	4
OM-SS033	474,585.09	4,635,542.41	3649	3299	278	864	752	1628	180	640	99	184	13	64	8	38	7	18	3	16	3	59	5
OM-SS034	474,688.89	4,635,537.60	3259	2919	259	772	674	1425	159	572	88	181	12	60	7	35	7	18	3	16	3	47	5
OM-SS035	474,390.88	4,635,535.78	1398	1137	176	357	235	526	67	259	49	144	12	39	5	27	5	14	2	13	2	18	4
OM-SS036	474,406.54	4,635,436.69	1197	969	140	279	191	490	53	197	38	135	3	32	5	25	5	13	2	11	2	22	5
OM-SS037	474,381.83	4,635,327.41	5628	5161	360	1203	1237	2653	265	881	130	254	11	83	11	50	10	24	3	21	3	104	10
OM-SS038	474,395.69	4,635,259.30	3798	3449	279	895	820	1677	187	665	99	181	13	65	8	37	7	18	3	17	3	57	8
OM-SS039	474,490.82	4,635,335.24	3271	2940	255	760	665	1468	158	561	88	176	12	59	7	35	7	17	3	17	3	53	8
OM-SS040	474,491.86	4,635,230.98	4502	4105	327	1065	956	2015	224	788	121	206	11	77	10	45	8	20	3	18	3	70	6
OM-SS041	474,290.08	4,635,152.54	4371	4009	300	1037	978	1922	216	776	113	189	15	68	8	39	7	18	3	16	3	68	6
OM-SS042	474,206.28	4,635,113.32	3453	3110	254	798	724	1542	166	590	89	191	10	55	7	36	7	18	3	16	3	63	6
OM-SS043	474,287.36	4,635,433.56	1265	1017	167	324	188	488	59	233	47	138	12	35	5	26	5	14	2	13	2	18	3
OM-SS044	474,285.59	4,635,333.53	5029	4639	334	1190	1060	2309	248	892	130	201	14	75	9	43	8	19	3	16	3	84	6
OM-SS045	474,290.40	4,635,241.47	3830	3468	282	838	670	1916	172	618	101	194	9	62	9	41	8	19	3	17	3	65	6
OM-SS046	474,590.26	4,634,829.37	4130	3752	313	1011	898	1769	208	753	119	197	13	71	9	42	8	19	3	15	3	67	6
OM-SS047	474,590.20	4,634,929.08	3658	3280	291	839	691	1701	171	618	102	203	11	65	9	43	8	20	3	17	3	59	5
OM-SS048	474,680.46	4,634,918.98	4120	3700	323	976	861	1800	199	723	116	228	11	73	9	47	9	22	3	19	3	68	5
OM-SS049	474,711.46	4,635,023.24	3106	2652	309	732	570	1314	142	528	97	259	9	69	10	53	10	25	3	19	3	55	6

October 2021 Surface Samples

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
OM-SS050	474,786.18	4,635,008.10	3075	2766	230	708	627	1388	147	524	81	171	9	49	7	32	7	16	2	15	2	57	5
OM-SS051	474,784.78	4,634,939.71	3123	2796	250	720	609	1425	147	531	87	175	9	56	8	36	7	18	3	16	3	54	4
OM-SS052	474,882.36	4,635,031.19	3699	3317	293	901	814	1542	184	667	105	208	11	66	9	42	8	20	3	16	3	57	5
OM-SS053	474,879.04	4,634,934.60	3803	3413	306	910	795	1646	184	675	110	208	11	69	9	43	8	21	3	17	3	66	6
OM-SS054	474,981.94	4,634,933.80	4431	3987	353	1042	891	1984	213	770	129	236	11	82	11	50	9	24	3	19	3	75	7
OM-SS055	474,992.62	4,635,043.12	3350	3007	266	775	651	1535	158	572	92	182	11	60	8	39	7	18	3	16	3	59	5
OM-SS056	475,080.84	4,635,042.37	3535	3194	282	831	692	1615	170	615	104	175	11	65	8	40	7	17	2	15	2	59	5
OM-SS057	474,886.88	4,634,828.43	3141	2809	257	734	616	1413	149	542	91	178	10	58	8	37	7	17	3	15	3	57	5
OM-SS058	474,980.52	4,634,835.43	3010	2656	260	707	597	1308	143	519	89	196	10	59	8	39	7	18	3	15	2	53	5
OM-SS059	475,078.63	4,634,838.42	3067	2715	262	722	617	1333	145	531	89	192	10	60	8	39	7	18	3	15	3	54	5
OM-SS060	475,197.05	4,634,810.69	3448	3065	290	837	719	1456	169	618	101	208	11	67	9	43	8	20	3	16	3	58	5
OM-SS061	475,091.57	4,634,930.64	3792	3409	301	914	806	1628	187	677	109	204	11	69	9	43	8	20	3	16	3	67	7
OM-SS062	475,182.62	4,634,934.87	2702	2397	216	613	543	1206	126	450	73	173	10	45	6	32	6	17	2	15	2	49	4
OM-SS063	474,275.31	4,634,738.79	4177	3808	291	976	874	1898	203	727	108	198	12	63	8	40	8	19	3	17	3	75	6
OM-SS064	474,376.84	4,634,586.88	4749	4312	343	1121	989	2131	232	834	126	236	13	76	10	48	9	23	3	20	3	82	7
OM-SS065	474,291.35	4,634,631.15	4180	3813	298	961	851	1941	200	713	110	192	11	67	9	42	8	20	3	16	3	74	5
OM-SS066	474,551.16	4,634,525.19	3364	3058	245	770	673	1566	158	573	90	162	11	54	7	34	6	16	2	14	2	63	5
OM-SS067	474,767.45	4,634,758.91	3618	3274	272	844	742	1634	173	626	99	184	12	60	8	38	7	18	3	15	3	62	5
OM-SS068	474,686.00	4,634,747.76	3748	3341	309	888	759	1640	181	653	108	220	11	69	9	46	9	22	3	17	3	64	5
OM-SS069	474,597.45	4,634,727.76	4167	3750	321	966	821	1904	198	714	115	227	11	71	10	47	9	22	3	19	3	72	6
OM-SS070	474,488.56	4,634,727.26	4215	3841	301	986	885	1904	205	734	113	199	12	66	9	41	8	19	3	17	3	73	6
OM-SS071	474,382.14	4,634,720.87	2316	2055	193	532	490	999	109	390	66	144	10	42	6	29	6	13	2	11	2	33	4
OM-SS072	474,470.03	4,634,627.51	3756	3369	295	889	760	1664	182	657	106	211	10	66	9	43	8	20	3	16	3	64	5
OM-SS073	474,274.91	4,634,536.61	3383	3049	252	729	631	1652	149	537	86	180	11	53	7	37	7	19	3	16	3	64	7
OM-SS074	474,284.41	4,634,432.55	422	312	58	94	70	147	17	64	13	69	3	11	2	11	2	6	1	6	1	19	4
OM-SS075	474,188.60	4,634,424.68	4022	3648	305	924	767	1910	191	680	105	187	11	70	8	46	8	22	3	18	3	70	7
OM-SS076	474,186.14	4,634,524.06	4043	3659	314	959	863	1781	200	704	109	192	12	73	9	48	8	22	3	17	2	64	6
OM-SS077	473,937.66	4,634,913.78	2856	2496	254	681	600	1180	139	496	78	197	12	55	7	41	7	22	3	18	2	37	5
OM-SS078	473,901.91	4,634,829.09	2750	2366	276	697	556	1076	138	507	84	206	13	61	8	45	8	22	3	19	3	37	6
OM-SS079	473,982.32	4,634,826.02	2352	2025	236	564	429	1009	111	407	69	171	13	52	6	40	7	19	2	16	2	37	5
OM-SS080	473,909.35	4,634,751.34	1969	1685	207	509	391	760	99	371	61	147	14	46	6	34	5	16	2	14	2	30	4
OM-SS081	473,984.86	4,634,725.86	1409	1132	190	366	229	522	67	261	51	148	11	42	5	32	6	17	2	15	2	22	4
OM-SS082	473,984.86	4,634,725.86	4665	4312	316	1098	1016	2131	233	816	117	164	14	75	8	43	7	19	2	16	2	71	6
OM-SS083	474,082.00	4,634,735.50	3225	2866	276	780	636	1413	158	572	88	183	14	63	7	44	7	20	2	17	2	44	4
OM-SS084	474,089.31	4,634,624.33	4524	4131	329	1066	992	2008	225	788	116	193	16	77	8	46	8	23	3	17	2	71	7
OM-SS085	474,184.66	4,634,618.99	1019	795	141	240	164	388	44	164	33	125	5	29	4	27	5	15	2	13	2	26	6
OM-SS086	473,693.72	4,634,817.53	432	319	64	96	74	149	18	64	14	67	3	12	2	13	2	7	1	7	1	24	5
OM-SS087	473,776.10	4,634,718.74	1675	1398	195	420	300	661	79	302	54	146	12	43	5	33	5	16	2	14	2	27	4
OM-SS088	473,857.28	4,634,900.86	904	732	121	226	154	341	43	162	30	88	14	25	3	18	3	10	1	9	1	16	3
OM-SS089	473,812.53	4,634,942.44	2178	1921	183	497	442	962	104	357	57	139	6	40	5	32	5	15	2	13	2	48	9
OM-SS090	473,889.16	4,635,019.32	2224	1943	214	524	368	1028	103	381	65	142	12	47	6	35	6	17	2	15	2	43	4
OM-SS091	473,863.61	4,635,111.46	1634	1312	202	382	262	663	72	264	52	184	4	45	7	40	7	20	2	15	2	28	5
OM-SS092	473,785.48	4,635,125.07	984	759	136	232	172	356	43	155	33	130	3	30	5	29	5	14	2	10	1	19	5
OM-SS093	474,293.31	4,635,542.35	1521	1269	171	374	286	595	73	268	46	135	12	38	5	28	5	15	2	13	2	27	2
OM-SS094	475,683.31	4,635,448.42	4012	3626	310	948	861	1757	198	700	110	199	12	72	9	44	8	21	3	17	3	66	6
RM-SS001	475,791.71	4,631,806.58	280	188	54	68	38	84	11	44	11	52	2	11	2	11	2	7	1	5	1	8	3
RM-SS002	475,730.43	4,631,684.54	1129	923	133	278	202	435	53	196	36	116	5	30	4	25	4	12	2	10	2	31	6
RM-SS003	475,677.28	4,631,803.64	1036	866	110	247	192	421	48	174	29	96	4	24	3	21	4	10	1	9	1	37	7
RM-SS004	475,673.43	4,631,697.95	890	648	148	236	119	290	40	163	35	137	8	32	5	29	5	15	2	12	2	7	4

October 2021 Surface Samples

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
RM-SS005	475,677.29	4,631,804.63	340	300	27	73	60	165	16	52	8	23	1	5	1	4	1	2	0	2	0	127	14
RM-SS006	475,578.63	4,631,703.49	543	449	60	126	96	225	25	89	15	53	3	13	2	11	2	6	1	5	1	85	11
RM-SS007	475,169.98	4,631,710.23	285	215	40	68	48	100	13	46	9	41	2	8	1	8	1	4	1	4	1	12	2
RM-SS008	475,154.07	4,631,836.64	599	538	48	132	117	284	28	95	15	31	2	11	1	8	1	4	0	3	0	18	3
RM-SS009	475,276.56	4,631,820.78	172	137	23	37	25	75	7	24	6	20	0	4	1	4	1	3	0	2	0	62	7
RM-SS010	475,276.74	4,631,704.98	1084	970	81	232	252	477	50	167	23	60	7	17	2	13	2	7	1	6	1	26	3
RM-SS011	475,367.68	4,631,711.43	741	599	91	181	134	279	34	128	24	79	5	19	3	17	3	8	1	7	1	25	4
RM-SS012	475,366.11	4,631,808.81	185	143	27	46	30	66	8	32	6	23	2	6	1	5	1	3	0	2	0	2	1
RM-SS013	475,464.83	4,631,809.14	903	686	141	240	130	311	42	168	34	118	9	31	4	25	5	14	2	12	2	4	4
RM-SS014	475,464.45	4,631,721.98	420	336	58	101	76	156	19	71	13	43	9	12	1	9	1	5	1	4	1	16	3
RM-SS015	475,766.54	4,631,608.81	461	363	62	110	81	170	20	77	15	55	3	13	2	12	2	6	1	5	1	9	3
RM-SS016	475,771.73	4,631,523.86	1024	845	114	237	200	402	47	165	30	102	3	25	3	22	4	11	1	9	1	30	5
RM-SS017	475,659.17	4,631,508.14	1128	887	150	287	167	425	49	206	39	139	5	32	4	28	5	14	2	13	2	23	4
RM-SS018	475,567.65	4,631,623.15	1193	976	128	251	220	499	51	173	34	131	4	27	4	23	4	13	2	12	2	48	7
RM-SS019	475,559.34	4,631,523.69	710	566	87	175	118	268	31	125	23	85	2	18	3	16	3	8	1	8	1	16	3
RM-SS020	475,377.14	4,631,517.66	368	324	29	79	76	167	16	57	9	25	1	6	1	5	1	2	0	2	0	59	6
RM-SS021	475,472.31	4,631,619.25	349	269	50	83	58	125	14	59	12	44	5	10	1	8	2	5	1	4	1	18	4
RM-SS022	474,779.30	4,631,791.26	172	128	22	32	26	71	6	21	4	28	1	4	1	4	1	3	0	3	0	37	6
RM-SS023	474,904.31	4,631,814.59	1538	1290	154	340	296	644	68	240	43	146	4	33	5	27	5	14	2	12	2	39	5
RM-SS024	474,926.99	4,631,671.85	384	278	65	95	53	126	17	66	15	61	6	13	2	11	2	6	1	6	1	8	3

Appendix D – Surface Samples Previous to Fall 2021 Assay TREO Results

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
21001	475,680.79	4,635,581.84	4597	4230	327	1075	998	2082	225	800	123	177	13	78	9	43	7	19	2	17	3	77	6
21002	475,497.53	4,635,581.93	4186	3834	306	978	944	1843	204	727	114	171	14	73	8	41	7	18	2	16	2	67	5
21004	475,132.33	4,635,582.34	3228	2854	284	755	622	1437	153	551	93	196	11	67	8	44	8	20	3	17	2	53	4
21005	474,949.60	4,635,582.60	1545	1303	172	395	270	618	73	290	50	129	11	38	5	27	5	13	2	12	2	27	4
21006	474,766.91	4,635,582.80	1258	971	185	319	177	466	55	226	47	160	11	40	6	33	6	16	2	15	2	21	3
21007	475,131.87	4,635,125.45	3798	3416	306	953	836	1566	190	711	106	196	11	72	8	44	8	21	3	17	3	56	5
21008	474,949.07	4,635,125.67	3993	3616	305	977	878	1701	195	731	107	191	12	73	9	44	7	20	2	17	3	63	4
21009	474,766.34	4,635,125.93	2858	2521	260	703	544	1235	136	520	85	174	9	61	8	40	7	19	2	17	3	52	5
21010	475,314.61	4,635,125.26	3688	3316	302	891	691	1683	173	666	105	187	9	73	9	44	8	20	3	17	3	63	5
21011	475,497.38	4,635,125.07	1172	910	167	296	184	424	52	206	43	148	3	40	6	32	6	16	2	12	2	25	3
21012	475,479.54	4,636,043.64	1961	1646	220	499	333	792	93	363	64	170	13	49	6	37	6	17	2	15	2	31	4
21013	475,680.14	4,635,124.82	3540	3143	309	869	683	1542	173	640	104	206	11	75	9	48	8	21	3	16	3	66	5
21014	475,862.94	4,635,124.60	3838	3408	336	892	658	1812	176	654	113	222	10	81	10	53	9	23	3	18	3	77	6
21017	475,314.13	4,634,668.34	3576	3191	303	870	672	1603	172	643	102	197	12	73	9	47	8	21	2	15	3	67	5
21018A	475,131.33	4,634,668.53	2534	2297	195	571	448	1247	116	421	69	120	8	45	5	29	5	13	2	10	2	60	6
21018B	475,131.33	4,634,668.53	3949	3534	338	959	766	1750	192	708	118	209	11	83	10	51	8	22	3	17	3	80	7
21019	474,948.55	4,634,668.70	3649	3263	304	878	712	1621	178	646	106	201	12	70	9	47	8	20	3	16	2	74	6
21020	474,764.24	4,634,798.16	3512	3119	301	816	616	1646	164	597	101	208	11	68	9	47	8	23	3	17	3	71	6
21022	474,782.75	4,634,373.03	3265	2897	285	809	636	1406	161	597	95	191	12	70	8	44	7	20	2	14	2	66	6
21023	474,948.26	4,634,364.09	2520	2210	231	617	490	1070	124	450	75	164	8	56	7	37	6	18	2	13	2	59	6
21024	475,131.03	4,634,363.87	1153	877	178	315	164	384	53	226	47	156	10	40	5	31	6	15	2	14	2	19	4
21027	475,679.29	4,634,363.32	2408	2120	216	577	464	1049	116	421	69	152	11	51	6	34	6	15	2	12	2	40	5
L001	474,929.58	4,635,642.01	1527	1244	186	361	234	635	66	259	51	159	11	38	5	31	6	18	2	16	2	27	4
L002	474,962.85	4,635,640.11	1055	823	152	262	157	397	46	185	38	126	11	32	5	27	5	15	2	12	2	18	3
L003	474,993.64	4,635,641.34	1771	1493	199	424	274	778	78	307	58	146	12	43	6	33	6	16	2	15	2	30	3
L004	475,021.09	4,635,637.91	1521	1256	187	354	216	673	63	254	52	140	12	40	6	31	6	16	2	14	2	25	4
L005	475,051.96	4,635,637.47	2246	1980	206	518	367	1070	100	381	66	134	12	47	6	32	5	15	2	13	2	38	4
L006	475,053.89	4,635,617.48	905	716	132	228	128	351	39	162	35	100	9	28	4	22	4	11	1	10	2	15	2
L007	475,079.77	4,635,639.59	2983	2710	229	669	571	1431	134	498	80	133	12	50	6	33	5	15	2	14	2	48	4
L008	475,080.76	4,635,613.49	4095	3754	295	933	812	1953	190	695	108	166	12	68	8	42	7	18	2	17	3	73	5
L009	475,021.50	4,635,610.26	2638	2291	263	642	440	1178	121	471	82	179	12	59	7	43	7	21	2	17	3	42	5
L010	474,991.21	4,635,610.37	2119	1828	217	505	357	941	95	370	67	151	12	49	6	34	6	17	2	14	2	32	3
L011	474,959.91	4,635,606.48	1395	1161	165	339	230	575	64	244	48	125	11	36	4	26	5	13	2	12	2	23	3
L012	474,930.04	4,635,605.92	670	491	109	170	100	216	30	117	26	103	7	22	3	20	3	11	1	10	1	10	2
L013	474,932.83	4,635,576.82	1224	1004	149	297	199	495	55	214	41	119	10	31	4	24	4	13	2	12	2	21	3
L014	474,960.89	4,635,577.95	1322	1056	186	353	223	461	62	254	53	142	11	41	5	31	6	16	2	14	2	17	3
L015	474,987.51	4,635,575.18	3733	3400	279	870	788	1689	175	649	100	164	12	63	8	40	7	18	2	16	2	61	5
L016	475,019.07	4,635,580.96	3687	3357	277	849	728	1732	171	631	98	161	12	63	8	40	7	18	2	16	2	60	5
L017	475,047.29	4,635,581.97	3575	3268	257	781	684	1763	158	580	91	151	11	57	7	38	6	17	2	16	2	60	4

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
L018	475,081.38	4,635,578.07	3431	3101	276	810	686	1554	161	603	98	163	12	63	8	40	7	19	2	16	2	60	4
L019	475,076.23	4,635,552.22	2991	2678	250	698	598	1339	137	518	86	160	9	58	7	37	6	18	2	15	2	45	4
L020	475,049.33	4,635,550.10	4989	4569	365	1128	961	2414	224	843	134	204	11	86	10	52	9	23	3	20	3	93	6
L021	475,019.22	4,635,551.31	4769	4388	332	1110	1016	2193	225	832	123	185	13	76	9	47	7	21	3	18	3	80	7
L022	474,990.83	4,635,551.97	3804	3478	279	882	774	1769	177	659	101	158	12	64	8	40	6	18	2	16	2	63	5
L023	474,990.57	4,635,521.21	3347	3045	257	783	678	1535	156	584	92	148	12	58	7	37	6	17	2	14	2	55	4
L024	475,020.53	4,635,524.44	2786	2499	234	645	551	1265	126	478	79	142	12	53	7	35	6	16	2	14	2	41	4
L025	475,050.23	4,635,519.79	2356	2067	213	514	386	1147	100	373	66	153	9	47	6	35	6	17	2	14	2	42	3
L026	475,077.30	4,635,525.35	1871	1567	206	450	298	806	83	324	57	166	9	45	6	37	6	19	2	15	2	33	7
L027	475,080.01	4,635,492.14	2198	1924	196	532	405	964	103	393	59	147	11	43	5	31	5	16	2	15	2	39	4
L028	475,046.98	4,635,493.37	2113	1812	211	512	354	925	97	374	63	164	10	47	6	35	6	17	2	14	2	35	3
L029	475,018.03	4,635,497.02	2632	2342	222	641	542	1122	126	477	74	152	11	50	6	33	6	16	2	14	2	44	5
L030	474,990.19	4,635,484.13	4860	4444	353	1189	1014	2168	240	892	128	204	15	83	9	49	8	23	3	20	3	82	6
L031	475,002.82	4,635,468.43	2283	1978	220	571	436	945	109	420	67	163	11	51	6	36	6	17	2	14	2	40	4
L032	475,022.04	4,635,457.37	2027	1744	198	496	365	862	95	364	58	152	11	44	6	33	6	17	2	14	2	35	5
L033	475,044.89	4,635,466.84	2258	1978	201	539	410	1005	106	397	61	150	11	44	6	32	6	17	2	14	2	41	4
L034	475,077.49	4,635,459.73	3269	2920	266	799	681	1394	158	595	89	184	13	60	7	40	7	20	2	17	2	56	4
L035	475,089.51	4,635,434.60	3792	3436	292	931	790	1658	184	699	102	178	13	68	8	42	7	19	2	17	2	63	5
L036	475,054.39	4,635,428.84	3542	3165	288	848	726	1548	167	629	94	196	13	66	8	45	8	21	3	17	2	64	5
L037	475,019.03	4,635,429.41	2170	1860	216	511	355	975	98	371	63	167	11	48	6	36	6	18	2	15	2	42	5
L038	474,993.32	4,635,431.60	2234	1907	223	539	361	989	102	392	65	180	10	47	6	38	7	20	2	17	2	45	5
L039	474,982.70	4,635,408.22	3170	2794	275	770	642	1345	151	568	87	201	12	62	8	45	7	22	3	17	2	63	5
L040	475,015.73	4,635,408.66	2699	2366	239	651	541	1144	125	482	73	179	11	54	6	39	7	19	2	17	2	45	5
L041	475,047.26	4,635,408.21	3299	2946	269	785	652	1468	155	583	89	185	12	61	7	41	7	20	3	16	2	59	5
L042	475,078.51	4,635,398.99	3107	2756	273	780	646	1284	152	581	90	180	12	64	8	41	7	19	2	17	3	49	5
L043	475,078.37	4,635,359.69	3322	3025	247	790	667	1523	159	590	86	147	11	57	7	36	6	16	2	14	2	60	5
L044	475,045.56	4,635,373.68	3719	3368	284	912	774	1628	181	684	100	180	13	65	8	41	7	19	2	16	2	66	6
L045	475,019.16	4,635,371.00	3497	3165	267	849	742	1523	170	635	93	169	13	62	7	39	6	18	2	14	2	58	5
L046	474,999.37	4,635,359.30	3691	3257	314	842	802	1572	167	616	98	233	13	70	9	52	9	25	3	21	3	54	6
L047	474,992.93	4,635,343.67	4213	3810	314	999	911	1843	201	744	109	212	13	70	9	47	8	22	3	18	3	67	6
L048	475,021.56	4,635,343.90	3262	2944	257	799	688	1406	157	600	90	163	12	59	7	36	6	17	2	15	2	56	4
L049	475,048.27	4,635,339.37	3901	3567	285	918	787	1806	184	688	104	165	12	65	8	40	6	19	2	16	2	65	5
L050	475,078.73	4,635,341.27	3900	3558	300	992	803	1695	199	745	112	166	13	69	8	42	7	19	2	16	2	65	5
L051	475,082.78	4,635,311.60	3932	3548	310	959	820	1714	190	715	108	196	10	73	9	47	8	21	3	18	3	68	6
L052	475,054.38	4,635,308.15	3228	2883	276	785	661	1388	154	583	95	175	10	65	8	41	7	19	2	16	2	58	5
L053	475,021.89	4,635,319.04	4106	3733	309	976	809	1892	195	729	110	186	11	73	8	46	7	20	2	17	3	77	6
L054	474,998.71	4,635,288.58	3701	3353	287	896	753	1652	176	671	100	173	11	68	8	42	7	19	2	16	3	61	4
L055	475,054.86	4,635,279.95	4118	3745	313	1005	870	1806	201	752	114	186	9	75	8	45	7	20	2	17	2	72	5
L056	475,079.17	4,635,277.97	3317	2990	260	797	668	1480	157	595	90	167	9	61	7	39	7	18	2	16	2	62	5

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
L057	475,091.71	4,635,257.28	3868	3487	299	929	809	1695	185	692	104	199	11	68	8	45	8	22	3	17	3	73	6
L058	475,044.89	4,635,254.00	3378	3051	265	824	699	1480	163	616	92	165	10	62	7	40	6	19	2	15	2	58	4
L059	475,019.64	4,635,247.32	3700	3331	296	893	758	1628	177	665	102	188	11	69	8	45	7	21	3	18	3	66	5
L060	474,997.41	4,635,248.51	3232	2945	241	749	637	1517	150	559	85	141	10	57	7	35	6	16	2	14	2	60	4
L061	475,099.04	4,635,216.06	2888	2511	275	701	561	1215	134	514	86	201	10	62	8	46	8	22	3	18	2	48	6
L062	475,022.94	4,635,215.55	3425	3055	284	806	724	1480	158	597	94	193	11	66	8	44	8	21	3	17	2	57	5
L063	474,989.51	4,635,221.67	3975	3620	301	947	854	1757	189	709	110	176	12	70	8	42	7	19	2	16	2	65	5
L064	474,987.32	4,635,190.36	3329	3002	263	759	642	1560	150	565	89	164	11	62	7	39	7	18	2	16	3	58	5
L065	475,022.08	4,635,186.13	3389	3040	274	784	664	1548	153	583	94	180	10	64	8	41	7	19	3	16	2	60	4
L066	475,103.93	4,635,190.06	3564	3164	300	828	728	1560	163	612	99	213	10	70	9	45	8	23	3	20	3	58	6
L067	474,991.30	4,635,162.26	3967	3589	309	950	881	1695	188	711	109	191	12	74	9	43	8	20	3	16	3	56	5
L068	474,960.76	4,635,165.70	3802	3435	303	907	771	1701	180	677	107	184	12	70	8	44	8	21	3	18	3	63	5
L069	474,928.13	4,635,158.27	4311	3925	321	996	873	1996	198	745	115	193	12	76	9	45	8	22	3	18	3	75	5
L070	474,879.82	4,635,133.45	4416	4000	346	1080	986	1861	216	807	124	209	12	84	10	49	8	23	3	18	3	70	5
L071	474,902.11	4,635,125.04	4277	3853	344	1003	866	1922	198	748	120	215	12	82	10	49	9	23	3	20	3	70	5
L072	474,928.80	4,635,115.19	4137	3688	347	991	864	1769	194	737	121	238	12	80	10	52	9	25	3	20	3	73	6
L073	474,964.76	4,635,120.83	3805	3437	297	890	786	1707	176	664	104	188	11	69	8	43	7	20	3	18	3	62	5
L074	474,995.74	4,635,129.49	3767	3393	302	887	786	1664	174	663	106	191	11	72	8	44	7	21	3	17	3	64	5
L075	475,020.39	4,635,129.29	3083	2755	253	708	612	1394	138	526	86	173	9	59	7	38	6	18	2	16	2	56	4
L076	475,050.43	4,635,129.08	3307	2990	256	757	658	1529	149	566	90	162	10	59	7	37	6	17	2	15	2	57	4
L077	475,082.31	4,635,131.74	3664	3332	277	863	778	1634	173	646	101	168	10	65	8	38	7	18	2	15	2	62	5
L078	475,739.51	4,632,619.25	3690	3270	338	928	793	1486	178	691	117	213	12	83	10	51	9	22	3	16	3	61	6
L079	475,738.51	4,632,643.24	3383	3038	289	753	573	1671	145	556	99	168	11	68	8	44	8	20	2	15	2	67	8
L080	475,767.13	4,632,638.03	5764	5089	552	1423	1048	2530	268	1052	190	337	13	137	17	87	15	37	4	26	4	106	11
L081	475,799.78	4,632,644.47	4899	4353	451	1223	973	2076	236	906	157	272	13	111	14	68	12	30	4	22	3	79	7
L082	475,800.35	4,632,614.83	3328	2946	300	789	619	1492	152	582	102	197	11	71	9	47	8	21	3	16	2	64	6
L083	475,794.91	4,632,556.22	2156	1878	211	510	347	996	95	374	67	144	7	49	6	34	6	16	2	13	2	59	11
L084	475,774.26	4,632,562.62	2363	2106	208	557	410	1106	107	413	73	130	8	48	6	31	5	14	2	11	2	53	5
L085	475,758.82	4,632,588.54	2364	2075	224	562	399	1086	106	414	72	148	9	53	7	36	6	16	2	14	2	53	6
L086	475,780.38	4,632,603.46	3854	3401	364	931	729	1683	177	688	123	229	12	87	11	56	10	25	3	19	3	64	6
L087	475,763.55	4,632,538.01	3212	2856	286	759	592	1462	146	561	97	180	10	67	9	45	8	20	3	15	2	61	5
L088	475,770.38	4,632,519.23	5021	4515	421	1214	982	2242	236	905	150	254	13	101	12	63	11	27	3	21	3	80	7
L089	475,740.42	4,632,520.66	3497	3035	346	836	645	1511	156	612	111	243	12	80	11	58	10	27	3	19	3	59	7
L090	475,709.87	4,632,522.54	4212	3778	358	1021	844	1849	199	758	126	217	12	85	11	54	9	23	3	18	3	72	6
L091	475,677.98	4,632,517.99	3144	2795	279	732	610	1413	141	539	94	175	11	66	8	44	8	19	2	14	2	48	4
L092	475,677.59	4,632,551.07	2465	2219	202	577	447	1161	114	429	71	123	9	47	6	29	5	13	2	11	2	46	6
L093	475,707.89	4,632,551.52	3866	3423	353	904	704	1763	172	667	120	225	12	82	11	55	10	25	3	18	3	68	7
L094	475,741.10	4,632,550.97	3981	3586	335	954	800	1769	186	710	120	194	12	80	10	49	8	21	2	16	2	68	5
L095	475,729.28	4,632,565.88	3794	3371	343	926	722	1664	177	687	119	215	12	80	10	53	9	24	3	18	3	57	5

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
L096	475,717.29	4,632,579.36	2633	2314	252	647	469	1161	124	477	84	162	11	59	7	40	7	18	2	13	2	41	4
L097	475,679.26	4,632,578.60	2997	2616	292	697	459	1425	130	511	96	199	10	66	9	48	8	22	3	17	3	58	6
L098	475,709.42	4,632,608.03	2402	2099	229	571	443	1055	111	416	74	159	10	54	7	37	6	17	2	13	2	54	5
L099	475,708.20	4,632,641.79	3583	3152	340	849	681	1572	163	622	114	220	12	81	10	55	9	23	3	18	3	62	7
L100	475,675.04	4,632,605.82	3348	2956	313	789	654	1468	152	577	104	197	11	75	9	51	8	21	3	16	2	59	7
L101	475,678.32	4,632,644.66	2600	2249	268	635	462	1118	119	464	85	182	11	65	8	44	7	19	2	14	2	41	4
OM-SS001_B	475,584.38	4,634,326.61	1625	1309	213	432	256	602	74	316	58	173	11	48	6	36	6	18	3	16	3	12	3
OM-SS002_B	475,631.00	4,634,393.06	3277	2913	295	783	575	1511	150	580	101	182	7	73	8	46	8	20	3	16	2	73	7
OM-SS003_B	475,492.77	4,634,622.37	2594	2326	209	627	509	1156	120	470	71	139	9	48	6	32	5	14	2	13	2	49	3
OM-SS032_B	474,488.35	4,635,525.33	1350	1020	195	336	206	474	57	233	48	196	3	43	6	39	7	21	3	16	2	27	4
OM-SS057_B	474,886.88	4,634,828.43	2453	2206	196	600	484	1086	116	451	68	128	7	47	6	29	5	13	2	11	2	45	4
OM-SS059_B	475,078.63	4,634,838.42	2708	2388	242	661	507	1185	124	492	79	168	9	56	7	38	7	18	2	15	2	51	4
OM-SS067_B	474,767.45	4,634,758.91	3373	3061	254	800	644	1572	156	602	90	158	10	58	7	37	6	17	2	15	2	65	5
RMP-001	475,317.00	4,636,526.00	2951	2581	273	701	579	1265	138	510	88	197	9	64	9	45	8	20	3	16	2	45	7
RMP-002	475,415.00	4,636,754.00	3172	2710	302	707	597	1382	141	504	88	265	8	70	10	53	10	26	4	20	3	47	7
RMP-003	474,835.00	4,635,577.00	1641	1304	212	396	297	599	72	280	54	191	12	44	6	38	7	20	3	18	3	28	9
RMP-004	474,728.00	4,635,570.00	1333	1012	201	329	194	482	57	229	50	181	12	41	6	37	7	20	3	17	2	21	5
RMP-005	474,989.00	4,635,541.00	4812	4419	339	1119	985	2248	231	834	123	190	15	78	9	47	8	21	3	19	3	79	6
RMP-006	474,869.00	4,635,430.00	3912	3536	305	959	819	1701	194	714	106	190	16	69	9	44	7	20	3	18	3	61	5
RMP-007	474,904.00	4,635,316.00	4263	3834	321	999	898	1886	205	737	107	230	13	75	9	49	9	22	3	20	3	68	7
RMP-008	475,490.00	4,637,291.00	4205	3633	381	1002	862	1726	201	724	116	328	12	87	12	66	12	32	4	24	4	52	5
RMP-009	475,482.00	4,637,373.00	1276	991	172	318	216	447	58	224	44	168	8	37	5	31	6	16	2	14	2	16	3
RMP-010	475,646.00	4,636,911.00	2556	2192	238	589	494	1086	116	426	71	210	7	54	8	40	8	20	3	16	3	45	5
RMP-011	475,092.00	4,631,998.00	6017	5313	565	1528	1214	2481	309	1113	188	353	16	140	18	91	15	38	4	29	4	99	11
RMP-012	475,056.00	4,632,028.00	3978	3462	398	976	766	1671	189	709	125	260	13	99	13	66	11	29	3	21	3	72	8
RMP-013	475,165.00	4,632,235.00	4465	4072	341	1087	945	1972	227	804	123	188	13	83	10	49	8	21	3	17	3	89	10
RMP-014	474,992.00	4,631,928.00	4010	3563	345	922	762	1836	185	671	111	229	10	82	11	57	10	25	3	20	3	93	9
RMP-015	475,019.00	4,632,047.00	3748	3316	346	887	714	1671	176	645	111	213	12	85	11	56	9	24	3	18	3	73	7
RMP-016	475,156.00	4,632,150.00	3899	3574	292	936	816	1763	194	694	107	150	13	71	8	41	6	17	2	13	2	79	9
RMP-017	475,321.00	4,631,999.00	429	370	43	101	88	176	21	73	12	30	4	9	1	7	1	3	0	3	0	16	2
RMP-018	475,430.00	4,632,108.00	466	358	71	112	76	167	20	79	16	58	10	13	2	11	2	6	1	5	1	14	4
RMP-019	475,609.00	4,632,278.00	2121	1892	181	475	412	983	96	345	58	115	8	42	5	29	5	13	2	11	2	52	5
RMP-020	475,697.00	4,632,093.00	504	460	37	110	97	248	23	80	13	21	3	8	1	5	1	2	0	2	0	16	2
RMP-021	474,740.00	4,635,387.00	3568	3223	281	846	721	1609	172	626	95	171	13	65	8	41	7	19	3	17	3	59	5
RMP-022	474,649.00	4,635,301.00	3519	3114	313	835	683	1554	165	612	101	207	13	71	9	50	8	23	3	20	3	54	6
RMP-023	474,727.00	4,635,231.00	4755	4314	365	1166	1048	2027	246	858	129	220	13	86	10	53	9	25	3	21	3	79	8
RMP-024	474,916.00	4,635,221.00	4883	4435	371	1165	1055	2144	246	856	131	224	14	87	11	54	9	25	3	21	3	84	7
RMP-025	475,675.00	4,637,257.00	1940	1641	206	469	349	805	89	338	59	163	8	45	6	35	6	18	2	16	2	33	4
RMP-026	475,783.00	4,637,372.00	3730	3110	402	863	710	1511	167	609	112	353	9	91	13	75	13	36	5	28	4	44	7

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
RMP-027	475,795.00	4,636,909.00	2693	2322	263	628	514	1153	124	451	79	199	8	61	8	45	8	22	3	18	3	50	5
RMP-028	474,849.00	4,631,957.00	3085	2627	334	734	569	1296	140	524	98	238	11	79	11	59	10	27	3	20	3	66	7
RMP-029	474,818.00	4,632,117.00	1917	1630	207	437	325	854	83	310	60	150	7	48	7	37	6	17	2	13	2	46	5
RMP-030	474,679.00	4,632,227.00	2991	2530	330	711	554	1241	135	505	95	242	12	79	11	60	10	26	3	19	3	50	11
RMP-031	474,853.00	4,632,261.00	3187	2767	319	751	595	1388	146	541	98	213	12	77	10	54	9	24	3	18	3	60	8
RMP-032	475,034.00	4,632,228.00	3732	3329	331	924	800	1548	184	680	112	199	13	82	10	51	8	21	3	16	3	67	6
RMP-033	475,130.00	4,632,339.00	3397	3038	294	835	691	1462	166	618	99	177	12	71	9	44	7	19	3	16	3	68	8
RMP-034	475,363.00	4,632,391.00	614	472	95	157	95	214	28	112	23	76	11	19	3	15	3	8	1	8	1	11	4
RMP-035	475,449.00	4,632,510.00	1178	918	171	304	177	427	53	216	44	142	10	38	5	30	5	16	2	14	2	18	6
RMP-036	475,514.00	4,632,706.00	3469	3027	339	868	721	1388	170	635	108	227	12	82	10	54	9	25	3	20	3	57	7
RMP-037	475,734.00	4,632,571.00	4415	3952	381	1035	828	2033	211	755	129	227	14	92	12	59	10	26	3	19	3	81	7
RMP-038	479,078.00	4,637,081.00	696	546	94	166	118	258	30	117	22	84	11	18	3	16	3	8	1	7	1	12	2
RMP-039	472,835.00	4,633,082.00	116	31	36	18	5	13	2	7	4	56	0	5	1	8	2	5	1	8	1	22	6
RMP-040	472,914.00	4,633,244.00	497	373	66	108	88	176	20	74	15	78	5	12	2	12	2	7	1	7	1	13	2
RMP-041	473,240.00	4,633,092.00	759	668	57	141	135	389	30	100	16	53	3	11	2	9	2	6	1	6	1	37	6
RMP-042	473,064.00	4,633,038.00	2455	1970	285	556	441	958	106	387	76	296	8	59	9	53	10	27	4	24	3	37	7
RMP-043	472,835.00	4,633,082.00	6734	5784	647	1597	1314	2801	326	1138	202	541	15	149	21	114	20	51	6	38	5	81	11
RMP-044	474,996.00	4,635,547.00	4484	4096	317	1030	907	2101	216	762	114	199	14	71	9	45	8	20	3	19	3	71	6
RMP-045	474,980.00	4,635,537.00	5165	4731	361	1228	1094	2334	266	905	132	220	15	83	10	50	9	22	3	19	3	85	7
RMP-046	474,966.00	4,635,520.00	3979	3605	300	929	800	1824	191	687	105	192	14	68	8	44	8	20	3	17	3	69	6
RMP-047	474,949.00	4,635,514.00	3710	3353	284	861	748	1695	176	637	99	184	14	64	8	42	7	19	2	17	3	61	5
RMP-048	474,948.00	4,635,492.00	4681	4281	334	1109	978	2125	239	816	123	203	15	75	9	47	8	20	3	18	3	76	6
RMP-049	474,932.00	4,635,481.00	4322	3936	315	1025	919	1929	214	759	113	197	15	72	9	44	8	20	3	17	3	70	6
RMP-050	474,913.00	4,635,477.00	3827	3473	285	889	769	1763	184	658	101	183	14	64	8	41	7	18	2	16	3	63	6
RMP-051	474,909.00	4,635,454.00	3522	3168	281	829	705	1585	169	612	98	182	14	63	8	41	7	19	3	16	3	58	5
RMP-052	474,890.00	4,635,445.00	3849	3484	296	927	816	1683	193	685	105	187	15	67	8	43	7	19	2	17	3	63	5
RMP-053	474,875.00	4,635,423.00	4505	4124	318	1053	937	2070	220	781	117	192	15	71	9	44	8	20	3	18	3	75	6
RMP-054	474,858.00	4,635,429.00	3613	3280	269	834	718	1683	173	616	94	168	13	61	8	39	7	17	2	16	3	60	6
RMP-055	474,842.00	4,635,423.00	3821	3476	285	905	795	1720	188	671	102	175	14	64	8	40	7	18	2	16	3	65	6
RMP-056	474,908.00	4,635,306.00	3981	3595	301	913	807	1824	188	673	105	204	12	67	8	45	8	20	3	18	3	73	6
RMP-057	474,900.00	4,635,288.00	3626	3273	279	856	762	1603	178	631	98	185	13	62	8	40	7	19	2	17	3	64	5
RMP-058	474,898.00	4,635,271.00	3868	3513	285	895	820	1744	186	661	102	185	12	65	8	42	7	18	2	16	3	67	6
RMP-059	474,903.00	4,635,251.00	3968	3585	305	927	828	1775	192	682	107	199	12	69	9	45	8	20	3	17	3	66	5
RMP-060	474,913.00	4,635,236.00	4647	4220	346	1099	996	2058	237	804	125	220	13	80	10	50	9	22	3	20	3	78	6
RMP-061	474,911.00	4,635,321.00	3812	3432	291	876	787	1720	181	645	100	203	12	65	8	43	8	20	3	18	3	70	6
RMP-062	474,914.00	4,635,208.00	4140	3738	319	948	827	1910	195	698	111	209	12	73	9	49	8	21	3	18	3	73	6
RMP-063	475,160.00	4,632,255.00	2528	2257	220	610	516	1093	122	450	74	135	11	52	7	32	6	14	2	12	2	50	6
RMP-064	475,160.00	4,632,266.00	2463	2219	201	583	507	1092	119	430	70	123	11	46	6	29	5	13	2	11	2	54	5
RMP-065	475,154.00	4,632,284.00	2953	2670	234	705	618	1302	144	523	83	142	12	55	7	33	6	14	2	12	2	59	8

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
RMP-066	475,151.00	4,632,306.00	2630	2346	228	631	534	1142	126	465	77	143	12	54	7	34	6	14	2	13	2	49	7
RMP-067	475,143.00	4,632,310.00	2670	2386	228	637	529	1182	129	469	77	144	12	53	7	34	6	15	2	13	2	52	6
RMP-068	475,130.00	4,632,342.00	2550	2292	209	605	523	1126	123	447	72	130	11	47	6	31	5	13	2	12	2	49	5
RMP-069	475,163.00	4,632,226.00	2597	2289	231	635	538	1075	127	468	78	166	11	54	7	34	6	15	2	13	2	56	6
RMP-070	475,159.00	4,632,205.00	2505	2237	218	605	502	1093	121	447	74	133	12	51	6	32	5	14	2	12	2	48	5
RMP-071	475,154.00	4,632,188.00	2814	2523	242	688	582	1206	139	509	85	144	12	57	7	35	6	15	2	13	2	55	6
RMP-072	475,146.00	4,632,171.00	3733	3384	295	885	771	1671	181	654	107	173	12	70	9	42	7	17	2	14	2	75	7
RMP-073	475,139.00	4,632,155.00	2995	2707	242	709	619	1333	146	523	87	143	11	56	7	35	6	15	2	12	2	63	9
RMP-074	475,147.00	4,632,143.00	3285	2977	263	781	683	1462	159	577	95	152	11	62	8	38	6	16	2	13	2	67	7
RMP-075	475,132.00	4,632,133.00	2841	2533	253	683	570	1241	136	503	83	148	12	64	8	38	6	16	2	13	2	54	5
RMP-076	475,122.00	4,632,122.00	3001	2674	266	733	622	1278	146	540	87	159	11	67	8	40	7	17	2	13	2	58	6
RMP-077	475,106.00	4,632,110.00	2882	2562	260	695	568	1259	138	511	86	157	11	65	8	39	7	17	2	13	2	55	6
RMP-078	475,092.00	4,632,095.00	3198	2840	289	788	644	1364	154	582	95	176	11	73	9	44	7	19	2	15	2	63	7
RMP-079	475,082.00	4,632,072.00	2717	2401	252	649	507	1211	127	476	81	156	11	63	8	39	7	17	2	14	2	54	6
RMP-080	475,038.00	4,632,055.00	3126	2708	319	757	577	1339	146	548	97	211	12	78	11	52	9	23	3	18	3	55	6
RMP-081	475,020.00	4,632,052.00	3263	2836	328	795	609	1394	153	577	101	215	12	82	11	54	9	23	3	18	3	58	6
RMP-082	475,004.00	4,632,050.00	3628	3165	356	869	663	1591	169	631	112	236	12	89	12	59	10	25	3	19	3	62	6
RMP-083	474,990.00	4,632,041.00	3305	2862	337	803	597	1425	154	582	104	226	12	82	11	57	10	24	3	18	3	65	6
RMP-084	475,029.00	4,632,041.00	3297	2862	333	811	626	1382	156	590	105	222	12	82	11	54	9	24	3	18	3	58	7
RMP-085	475,048.00	4,632,034.00	3765	3332	346	912	719	1652	179	668	113	216	13	85	11	54	9	24	3	17	3	69	7
RMP-086	475,060.00	4,632,022.00	3673	3252	339	909	711	1578	179	668	114	211	12	85	11	52	9	22	3	17	2	68	7
RMP-087	475,084.00	4,631,979.00	2606	2336	223	626	509	1165	125	462	76	133	9	54	7	33	6	15	2	11	2	63	7
WR-01-021	475,124.73	4,636,503.38	2992	2562	300	740	537	1253	139	540	92	237	8	68	9	53	9	24	3	20	3	53	5
WR-01-022	475,033.46	4,636,503.70	2151	1839	212	517	433	861	101	374	67	179	6	47	6	35	6	17	2	15	2	32	3
WR-01-023	474,942.19	4,636,504.02	2401	2055	236	560	434	1034	110	405	73	196	7	52	7	39	7	20	3	17	3	43	4
WR-01-024	474,759.65	4,636,504.66	1483	1179	193	360	244	561	66	254	52	175	8	41	6	34	6	18	2	16	2	25	3
WR-01-025	474,576.28	4,636,505.31	1128	879	155	267	174	429	48	187	41	144	9	31	5	27	5	15	2	13	2	21	3
WR-01-026	474,393.74	4,636,505.97	876	638	144	221	118	294	38	152	36	138	9	28	4	26	5	14	2	13	2	14	3
WR-01-027	474,392.10	4,636,048.54	1856	1540	196	405	326	797	78	286	54	185	8	41	6	35	6	18	2	17	2	31	2
WR-01-028	474,574.65	4,636,047.88	99	75	13	19	14	42	4	13	3	15	0	2	0	3	0	1	0	2	0	16	3
WR-01-029	474,757.20	4,636,047.24	1924	1586	208	427	340	802	83	301	60	203	6	43	6	38	7	20	3	17	2	34	7
WR-01-030	474,940.58	4,636,046.59	2246	1876	247	536	405	911	102	383	74	210	7	55	8	43	8	22	3	18	3	38	4
WR-01-031	475,123.14	4,636,045.95	1696	1232	266	410	250	568	70	278	64	281	10	55	9	53	10	28	3	22	3	38	7
WR-01-032	475,107.78	4,636,162.58	1940	1656	204	471	331	829	90	344	62	153	12	45	6	32	5	16	2	14	2	32	4
WR-01-033	475,305.69	4,636,045.31	1172	1036	110	283	236	497	57	208	36	68	13	22	3	15	2	7	1	6	1	21	2
WR-01-080	473,470.93	4,633,985.51	232	191	26	55	42	91	10	39	8	23	2	5	1	4	1	2	0	2	0	12	4
WR-01-081	473,581.83	4,633,776.18	134	82	27	30	17	37	5	19	4	31	1	4	1	5	1	4	1	4	1	27	12
WR-01-082	473,653.73	4,633,984.89	53	31	11	10	7	14	2	7	1	13	0	1	0	2	0	2	0	2	0	18	4
WR-01-083	473,718.92	4,633,814.39	1406	1132	188	362	222	529	65	261	53	150	12	41	5	31	5	16	2	14	2	24	3

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
WR-01-084	473,836.54	4,633,984.27	3624	3284	279	848	746	1634	172	631	101	175	11	63	7	39	7	18	2	16	2	62	6
WR-01-085	473,913.38	4,633,852.40	142	28	46	22	4	9	2	8	4	77	0	7	2	10	2	7	1	9	1	22	7
WR-01-086	474,019.35	4,633,983.65	1523	1268	180	382	257	608	71	278	53	138	13	38	5	29	5	14	2	13	2	28	4
WR-01-087	474,175.73	4,633,727.90	505	351	73	98	83	175	18	61	14	101	0	12	2	16	3	10	2	10	1	32	8
WR-01-088	474,202.16	4,633,983.03	2584	2306	221	610	497	1158	122	451	77	145	10	51	6	32	5	15	2	12	2	48	5
WR-01-089	474,384.97	4,633,982.41	3027	2726	251	712	650	1314	144	526	90	152	11	58	7	36	6	16	2	13	2	54	4
WR-01-090	474,567.77	4,633,981.79	2081	1815	199	492	382	914	96	359	64	140	11	45	6	32	5	14	2	11	2	39	3
WR-01-091	474,750.58	4,633,981.17	635	522	66	134	123	262	28	93	17	68	2	12	2	11	2	8	1	8	1	93	18
WR-01-092	474,933.39	4,633,980.55	120	91	17	26	20	45	5	18	3	16	2	3	0	3	1	2	0	3	0	49	6
WR-01-093	475,116.20	4,633,979.93	275	221	30	57	49	114	11	39	7	34	1	6	1	6	1	3	1	3	0	72	6
WR-01-094	475,299.00	4,633,979.31	3318	2870	336	803	680	1345	159	577	104	232	13	79	10	57	9	25	3	18	3	56	5
WR-01-095	475,481.81	4,633,978.69	480	333	73	99	66	172	18	63	14	94	2	13	2	16	3	9	1	8	1	19	4
WR-01-096	475,664.62	4,633,978.07	120	77	20	27	18	31	5	18	4	30	0	4	1	4	1	2	0	3	1	31	5
WR-01-097	474,200.61	4,633,526.01	45	38	4	9	11	17	2	6	1	4	0	1	0	1	0	0	0	0	0	7	0
WR-01-098	475,845.88	4,633,520.43	2710	2306	299	672	489	1112	133	479	91	211	12	70	9	51	9	23	3	18	3	57	6
WR-01-099	475,663.07	4,633,521.05	1979	1650	238	502	335	787	94	362	70	173	13	56	7	40	7	19	2	14	2	28	4
WR-01-100	475,480.26	4,633,521.67	4300	3938	311	969	880	2033	205	714	110	173	15	74	9	43	7	20	2	16	3	68	5
WR-01-101	475,297.45	4,633,522.29	105	66	21	23	14	30	4	14	4	23	1	4	1	4	1	3	0	3	0	36	5
WR-01-102	475,114.65	4,633,522.91	239	186	30	51	41	94	10	34	7	32	1	6	1	6	1	3	0	3	0	59	8
WR-01-104	474,749.03	4,633,524.15	404	310	64	96	68	144	18	66	14	47	12	12	2	10	2	5	1	4	1	3	1
WR-01-105	474,566.22	4,633,524.77	502	334	84	97	80	163	18	58	15	105	1	14	3	18	4	13	2	12	1	36	12
WR-01-106	474,383.42	4,633,525.39	745	609	95	183	130	287	35	131	25	71	11	19	3	15	3	8	1	7	1	16	3
WR-01-107	474,200.61	4,633,526.01	224	173	28	45	42	86	9	30	6	30	2	6	1	5	1	3	0	3	0	19	4
WR-01-108	474,017.80	4,633,526.63	2792	2479	244	665	536	1241	137	486	80	159	11	57	7	36	6	18	2	16	2	47	5
WR-01-109	473,834.99	4,633,527.25	904	700	139	238	133	318	42	169	35	108	11	31	4	23	4	12	2	11	2	14	3
WR-01-110	473,652.19	4,633,527.87	1345	1097	170	330	208	545	63	234	46	133	13	36	5	28	5	15	2	13	2	22	4
WR-01-111	473,469.38	4,633,528.49	839	553	180	239	87	219	37	165	42	159	12	40	5	31	6	17	2	16	2	6	2
WR-01-112	474,747.48	4,633,067.13	187	129	29	39	28	62	7	25	6	37	1	5	1	5	1	4	1	4	1	35	7
WR-01-113	474,930.29	4,633,066.51	411	328	45	79	81	167	17	53	10	51	1	9	1	8	2	5	1	5	1	60	6
WR-01-114	475,113.10	4,633,065.91	3704	3278	326	851	758	1628	177	614	103	217	14	78	10	52	9	23	3	18	3	68	8
WR-01-115	475,295.91	4,633,065.28	3866	3391	368	889	713	1750	179	638	114	237	15	89	11	62	11	27	3	19	3	65	6
WR-01-116	475,372.50	4,633,269.15	3819	3322	370	890	773	1615	181	638	114	259	14	88	11	62	11	29	3	21	3	55	7
WR-01-117	475,478.71	4,633,064.65	2906	2461	327	692	482	1259	134	491	96	230	12	79	10	57	10	26	3	18	3	41	5
WR-01-118	475,661.52	4,633,064.04	2908	2355	391	726	491	1110	135	507	108	290	12	97	13	71	13	32	4	24	3	38	4
WR-01-119	475,844.33	4,633,063.42	160	101	31	35	23	45	6	22	5	35	1	6	1	6	1	4	1	4	0	11	2
WR-01-120	475,843.30	4,632,758.74	3401	2949	337	706	452	1775	139	499	99	229	12	81	11	58	10	27	3	20	3	71	6
WR-01-121	475,660.49	4,632,759.36	3524	3080	341	834	710	1492	169	602	106	224	13	85	10	55	9	25	3	19	3	58	6
WR-01-122	475,547.43	4,633,006.70	2584	2208	279	643	487	1048	130	458	83	194	12	66	9	47	8	22	3	17	3	37	5
WR-01-123	475,477.68	4,632,759.98	3543	3111	322	831	767	1468	172	600	102	227	13	78	10	51	9	23	3	18	3	49	6

Existing Surface Samples - TREO

DHID	Easting	Northing	TREO	LREO	HREO	MREO	La2O3	Ce2O3	Pr2O3	Nd2O3	Sm2O3	Y2O3	Eu2O3	Gd2O3	Tb2O3	Dy2O3	Ho2O3	Er2O3	Tm2O3	Yb2O3	Lu2O3	ThO2	UO2
WR-01-124	475,445.35	4,632,925.91	2884	2507	288	665	509	1302	134	476	88	191	12	69	9	47	8	22	3	17	2	54	6
WR-01-125	475,312.09	4,632,884.08	3182	2816	292	744	640	1388	153	539	95	182	11	72	9	45	8	20	2	16	2	59	6
WR-01-126	475,174.81	4,632,840.18	3326	2961	285	738	658	1529	155	531	91	184	12	68	9	46	8	20	2	16	2	61	6
WR-01-127	475,069.16	4,632,796.29	2537	2222	244	581	452	1162	119	416	76	157	10	59	7	39	7	19	2	14	2	46	5
WR-01-128	474,955.05	4,632,732.04	3254	2910	275	756	687	1425	158	549	90	170	12	67	8	42	7	19	2	15	2	61	8
WR-01-129	474,745.91	4,632,610.15	3058	2651	305	707	552	1364	141	505	91	207	11	73	9	52	9	24	3	19	2	58	6
WR-01-130	474,928.72	4,632,609.52	2640	2339	237	599	476	1235	123	433	76	150	12	55	7	37	7	17	2	13	2	50	5
WR-01-131	475,111.53	4,632,608.89	3162	2852	259	725	671	1413	152	528	88	149	12	64	7	38	6	17	2	13	2	60	6
WR-01-132	475,294.33	4,632,608.26	2384	2096	218	569	461	1036	118	413	68	149	12	51	6	33	6	17	2	13	2	46	5
WR-01-133	475,477.14	4,632,607.64	1807	1602	169	440	340	796	91	320	55	98	11	38	5	25	4	12	1	9	1	40	5
WR-01-134	475,476.36	4,632,379.13	563	488	45	106	122	258	24	73	12	45	1	9	1	8	2	5	1	5	1	89	8
WR-01-135	475,293.55	4,632,379.76	1537	1319	152	335	297	677	68	237	42	116	10	34	5	26	5	12	2	10	1	30	3
WR-01-136	475,110.74	4,632,380.38	758	540	154	220	82	224	35	155	42	114	10	36	5	26	5	12	2	10	2	10	5
WR-01-137	474,927.93	4,632,381.01	2626	2270	269	628	442	1176	117	456	81	180	11	64	8	47	8	21	2	15	2	45	5
WR-01-138	474,745.13	4,632,381.64	123	46	37	25	9	16	3	13	5	48	1	7	1	8	2	5	1	6	1	25	8