American Rare Earths Limited ARBN 003 453 503

ASX RELEASE

8 September 2023

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American Rare Earths to commence drilling at Halleck Creek

Exploration program to focus on the high-grade target areas to upgrade existing 1.43 billion tonne JORC Resource at Halleck Creek[1]

Highlights

- Drilling permits approved and drilling to commence mid-September.
- Program to focus on high-grade areas designed to upgrade existing JORC Resource.
- Planned drilling includes 865m (2,837ft) in eight core holes, and 1,500m (4,920ft) in 15 reverse circulation holes.
- Deposit remains open at depth and width. The drilling program will test mineralisation to depths over 300 metres, more than twice current resource estimated depths.
- With only 25% of the deposit drilled to date the Company is also advancing exploration activities into surrounding claims, with additional drilling planned following receipt of further drill permits.

American Rare Earths (ASX: ARR | ADRs - OTCQX: AMRRY | Common Shares - OTCQB: ARRNF) | FSE:1BHA) (ARR or the Company) is pleased to announce that the Halleck Creek drilling program which commences later this month aims to upgrade the JORC resource estimates.

Donald Swartz, CEO expressed his enthusiasm for the project's potential. "Halleck Creek was recently recognised in the Top Five rare earths projects in the world[2]. There is potential to significantly increase the size, quality, and grade of this deposit. This new program is focussed on adding value by targeting high grade zones."

"We are in the heart of the USA, the largest economy in the world that desperately needs these rare earth elements," continues Swartz. "With only 25% of the claims area explored and open at depth, we have an opportunity to build on the 1.43 billion tonne JORC Resource announced earlier this year. We are looking forward to executing this drill program and advancing Halleck Creek as the logical solution for the US Government to reduce dependency on Chinese rare earths."

[1] See ASX Announcement 30 March 2023
[2] Mining.Com

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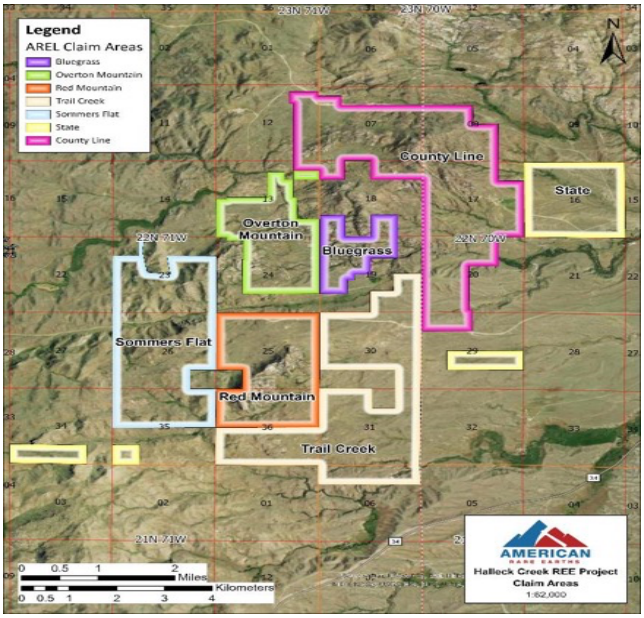
The Company will commence a 23-hole drilling program at the Overton Mountain sub-area of the Halleck Creek REE Project in mid-September of 2023 (See figure below). The program will include eight diamond core holes and 15 reverse circulation (RC) holes. Seven of the diamond core holes will extend to 80m (262ft) depth, with one deep hole extending to 305m (1000ft), and all 15 RC holes extending to 100m (330ft) depth.

JORC Exploration Target

The exploration team have completed the summer field mapping and surface sampling program in the surrounding claims (Exhibit 1). The results of this field reconnaissance program will be announced when completed, along with an accompanying JORC compliant exploration target. The results of the work these past few months identified four locations in the County Line, Bluegrass and Trail Creek claim areas that will be drilled to confirm the presence of rare earth mineralisation and verify higher-grade material.

Exhibit 1



September 2023 Drilling Campaign Detail

Core from the seven, shallow, 80m (262ft) diamond holes will provide critical data and information for a variety of different investigations. Approximately two tonnes of drill core will be used for additional metallurgical test work. Core will also be utilised for geotechnical and geomechanical testing to be used for pit design. The core program will also provide material for a long-term enviro-engineering study, which will determine how the ore weathers and decomposes.

Currently, mineralisation is still open at depth. The deep core hole (305m, 1000ft) aims to explore the depths of mineralisation within the Red Mountain Pluton. The deep hole will also provide additional information for environmental, hydrological, and permitting studies.

The 15 proposed RC holes will provide data to define measured resources at Overton Mountain. Cuttings will also be used for additional test work and research and development projects as deemed proper.

The timing of drilling in subsequent surrounding claim areas is dependent on the issuance of exploration permits.

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

Mr Donald Swartz
CEO

Competent Persons Statement:
The information in this document is based on company work performed in August 2023. This work was reviewed and approved for release by Mr Dwight Kinnes (Society of Mining Engineers #4063295RM) who is employed by American Rare Earths and has sufficient experience which is relevant to the style of mineralization 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 Kinnes 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 Limited:
American Rare Earths (ASX: ARR | ADRs - OTCQX: AMRRY | Common Shares - OTCQB: ARRNF| FSE:1BHA) is committed to becoming a top supplier of critical minerals. The company is a leading explorer of rare earth projects, with a strong focus on developing sustainable and cost-effective extraction and processing methods. To meet the rapidly increasing demand for resources essential to the clean energy transition and US national security, American Rare Earths is engaged in advanced study and continued exploration of its 100% owned rare earth element projects rich in the magnet elements of neodymium and praseodymium at Halleck Creek in Albany County, Wyoming and La Paz, Arizona. Both projects have the potential to be among North America's largest rare earth deposits. The Halleck Creek deposit was recently identified by Mining.com as fifth in the world's top rare earth projects. A recently released maiden JORC Resource report for Halleck Creek shows 1.43 billion tonnes of in-place TREO, 4.73 million tonnes TREO containing approximately 1.05 million tonnes of the highly desirable magnet metals neodymium and praseodymium. The Halleck Creek deposit is located approximately 70km north-east of Laramie encompassing portions of Albany and Platte Counties in Wyoming. The Company continues to evaluate other exploration opportunities and is collaborating with US Government-supported R&D to develop efficient processing and separation techniques of rare earth elements to help ensure a renewable future.

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See attached Appendix – JORC Table 1

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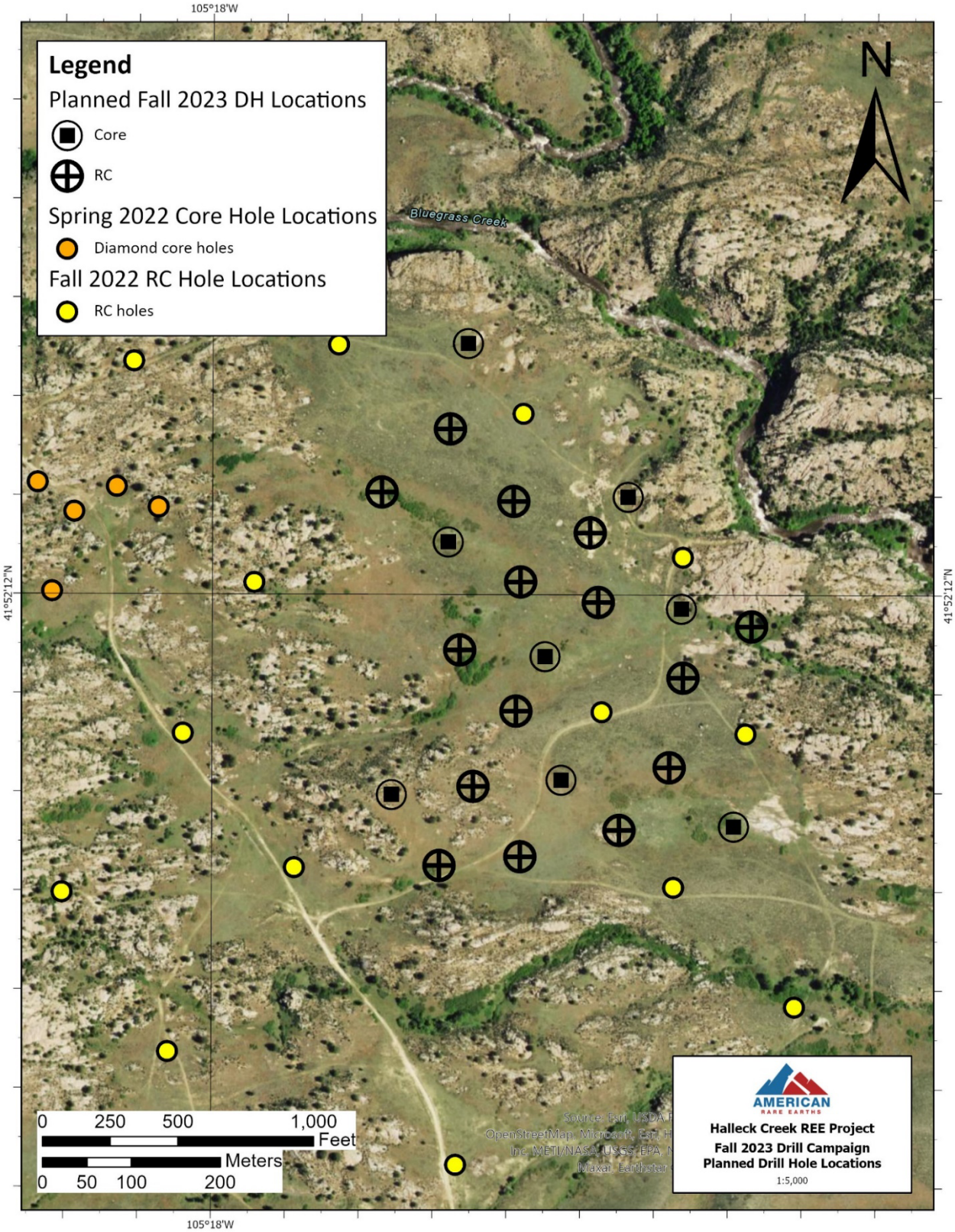
Location of planned drill holes for September 2023 campaign



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Appendix – 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.*	From October to December 2022, ARR drilled 38 reverse circulation (RC) holes across the Halleck Creek Resource Claim area. All holes were approximately 150 metres (492.13 feet) deep. With the exception of HC22-RM015 which went to a depth of 175.5 metres (576 feet). Total drilled length was 5,724.5 metres (18,781 feet). Approximately 3,816 chip samples were collected at 1.5 metre continuous intervals via rotary splitter. In March and April 2022, ARR drilled nine HQ-sized core holes across the Halleck Creek Resource claim area. All holes were approximately 100 metres deep (352 feet) except for one hole which was terminated at 59 metres (194 feet). Total drilled length of 917 metres (3,008 feet). Rock core was divided into sample lengths of 5 ft (1.52 m) long and at key lithological breaks. A total of 513 surface rock samples exist at the Halleck Creek. Surface rock samples collected by ARR are logged, photographed and located using handheld GPS units. As part of reverse circulation (RC) exploration drilling at Halleck Creek. ARR collected XRF readings on RC chip samples. Elements included in XRF measurements include:

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		Lanthanum, Cerium, Neodymium, and Praseodymium. ARR collected three XRF readings on each sample, then averaged the readings. Readings are performed at 25-meter intervals down each drill hole. These values are considered to be qualitative in natures and provide only rough indications of grade.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Core recoveries and RQDs were calculated by ARR field geologists.
	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.	Reverse circulation rock chip samples were collected at 1.5-meter continuous intervals via rotary splitter. For each interval chip samples were placed in labelled sample bags weighing between 1-2kg. A 0.5-1kg sample was collected for reserve analysis and logging. Chip samples were also placed into chip trays with 20 slots for logging and XRF analysis. Rock core samples 5 ft (1.52 m) long are being fillet cut. The fillet cuts are being pulverised and sampled for 60 elements including rare earth elements using ICP-MS and industry standards. A select number of samples are additionally being assayed for whole rock geochemistry. American Assay Labs in Sparks, NV is performed the analyses.
		RC chip samples were sent to ALS labs in Twin Falls, ID for preparation and forwarded on to ALS labs in Vancouver, BC for ICP-MS analysis.

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Drilling techniques	*Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc.) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or another type, whether the core is oriented and if so, by what method, etc.).*	A Schraam T-450 reverse circulation drill rig was used to drill all 38 RC drill holes. A continuous rotary sample splitter was used to collect the RC samples at 1.5m intervals.
Drill sample recovery	*Method of recording and assessing core and chip sample recoveries and results assessed.*	A continuous rotary sample splitter was used to collect the RC samples at 1.5m intervals. All RC samples were visually logged by ARR geologists. Drill core was collected in lengths 1.5 metres. Samples at 25m intervals were photographed and analysed using an Olympus Vanta handheld XRF analyser in triplicate. Lanthanum, Cerium, Neodymium, and Praseodymium were analysed.
	Measures are taken to maximise sample recovery and ensure the representative nature of the samples.	Reverse circulation rock chip samples were collected at 1.5-meter continuous intervals via rotary splitter. For each interval chip samples were placed in labelled sample bags weighing between 1-2kg. A 0.5-1kg sample was collected for reserve analysis and logging. Chip samples were also placed into chip trays with 20 slots for logging and XRF analysis.
	Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.	Recoveries were very high in competent rock. No loss or gain of grade or grade bias related to recovery
Logging	*Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.*	All RC samples were visually logged by ARR geologists from chip trays using 10x binocular microscopes. Samples at 25m intervals were photographed and analysed using an Olympus Vanta handheld XRF analyser in triplicate. Lanthanum, Cerium, Neodymium, and Praseodymium were analysed.

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	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	RC samples and logging is quantitative in nature. Chip samples are stored in secure sample trays. Chip samples were photographed and 25m intervals.
	The total length and percentage of the relevant intersections logged.	All RC samples were visually logged by ARR geologists for each 1.5-metre continuous sample.
Sub-sampling techniques and sample preparation	*If core, whether cut or sawn and whether quarter, half or all core taken.*	
	If non-core, whether riffled, tube sampled, rotary split, etc. and whether sampled wet or dry.	Samples varied between wet and dry. The course crystalline nature of the deposit minimizes adverse effects of wet samples. Samples were rotary split during drilling and sample collection.
	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	RC samples were from Pulverize split of up to 250 g to better than 85 % passing minus 75 microns.
	Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.	For the RC samples, ARR submitted CRM sample blanks, CRM standard REE samples from CND Labs and duplicate samples for analysis. Blank, duplicate and CRM standard samples were added in rotation for one for every 20 RC sample.
	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.	A continuous rotary sample splitter was used to segregate three samples per 1.5m interval.

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	Whether sample sizes are appropriate to the grain size of the material being sampled.	Allanite is generally well distributed across the deposit and the sample sizes are representative of the fine grain size of the Allanite.
Quality of assay data and laboratory tests	*The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.*	ALS uses a 5-acid digestion and 48 elements by lithium borate fusion and ICP-MS. For quantitative results of all elements, including those encapsulated in resistive minerals.
	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.	Samples at 25m intervals were photographed and analysed using an Olympus Vanta handheld XRF analyser in triplicate. Lanthanum, Cerium, Neodymium, and Praseodymium were analysed. Simple average values of three XRF readings were calculated. No downhole geophysical tools used in the drilling 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.	For the RC drilling, ARR submitted CRM sample blanks, CRM standard REE samples from CND Labs and duplicate samples for analysis. CRM and Blank samples were inserted alternately at 20 sample intervals. Internal laboratory blanks and standards will additionally be inserted during analysis.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	RC chip samples have not yet been verified by independent personnel.
	The use of twinned holes.	No twinned holes were used.
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data entry was performed by ARR personnel and checked by ARR geologists. All field logs were scanned and uploaded to company file servers. All photographs of the core were also uploaded to the file server daily. Drilling data will be imported into the DHDB drill hole database. All scanned

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		documents are cross-referenced and directly available from the database. Assay data for the RC drilling was received electronically from ALS. Digital copies of the final data are cross-referenced in DHDB. The spreadsheets of data from ALS are imported directly into DHDB.
	Discuss any adjustment to assay data.	Oxide values are calculated in the database using the molar mass of the element and the oxide
Location of data points	*Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.*	RC drill holes have been located using handheld GPS units. Final surveys of hole locations will be performed by professional surveyors.
	Specification of the grid system used.	The grid system used to compile data was NAD83 Zone 13N.
	Quality and adequacy of topographic control.	Topography control is +/- 10 ft (3 m).
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Both randomly spaced and localised clustering of drillholes.
	Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.	The drill hole data is at a sufficient spacing to determine a mineral resource or reserve. However, until all assay results of the RC drilling have been received, verified and modelled, no resources or reserves are being reported for the Halleck creek area.
	Whether sample compositing has been applied.	Each sample is the result of assaying a 1.5m interval. Composite assay values have not been calculated or applied.
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.*	All the RC holes were drilled at 65-degree angles using azimuth toward the primary rock formation.

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	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.	
Sample security	*The measures are taken to ensure sample security.*	All RC chip samples were collected from the drill rigs and stored in a secured, locked facility. Sample pallets were shipped weekly, by bonded carrier, directly to ALS labs in Twin Falls, ID. Chains of custody were maintained at all times. All rock samples were in the direct control of company geologists until dispatched to ALS Labs.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No external audits or reviews have been conducted to date. However, sampling techniques are consistent with industry standards.

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Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership, including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	ARR acquired 5 unpatented federal lode claims on BLM US Federal Land totalling 71.6 acres (29 has) from Zenith Minerals Ltd. in 2021. 67 unpatented federal lode claims were staked by ARR that totalled 1193.3 acres (482 ha) in summer 2021. ARR staked 182 unpatented federal lode claims in March 2022 covering an area of approximately 3,088 acres (1,250 ha). ARR staked 118 unpatented federal lode claims in November 2022 covering an area of approximately 2,113 acres (855 ha). As of 31 December 2022, ARR controlled 367 unpatented federal lode claims and 4 Wyoming State mineral licenses covering 8,165 acres (3,304 ha).
	The security of the tenure held at the time of reporting and any known impediments to obtaining a licence to operate in the area.	No impediments to holding the claims exist. To maintain the claims an annual holding fee of $165/claim ($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 characterised as a disseminated type of rare earth deposit.

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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:*	FTE DRILLING USA INC. of Mount Uniacke, Nova Scotia used a Schraam T-450 track mounted rig to drill 38 reverse circulation drill holes. Drill hole depths for 327 holes was 150m and one hole at 175.5m.
	easting and northing of the drill hole collar	A preliminary summary of the Halleck Creek RC program can be found in the report entitled "Summary of Fall 2022 Exploration Drilling at the Halleck Creek Project Area", December 2022.
	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 has been excluded
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.*	Average Grade values were cut at minimum of TREO 1,500 ppm.
	Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.	Assays are representative of 1.5m sample intervals for RC chips.
	The assumptions used for any reporting of metal equivalent values should be clearly stated.	No metal equivalents used.

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Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is unknown and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	The mineralisation at Halleck Creek is evenly distributed within the RE enriched CQM material. Therefore, drill hole angles and geometry of mineralisation are not related.
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 in the within this press release, above.
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.*	ARR currently has assay results for approximately 4,016 samples for 38 full drill holes in the Red Mountain area including assays for blanks, CRM standards and duplicate samples.
Other substantive exploration data	*Other exploration data, if meaningful and material, should be reported, including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	In hand specimen this rock is a red colored, hard and dense granite with areas of localised fracturing. The rock shows significant iron staining and deep weathering. Microscopic description: In hand specimen the samples represent light colored, fairly coarse-grained granitic rock composed of visible secondary iron oxide, amphibole, opaques, clear quartz and pink to white colored feldspar. All the specimens show moderate to strong weathering and fracturing. Allanite content is variable from trace to 2%. Rare Earths are found within the Allanite. Historical metallurgical testing consisted of concentrating the Allanite by both gravity and magnetic separation. The

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		current program employs sequential high gradient magnetic separation and flotation to produce a concentrate suitable for downstream rare earth elements extraction.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further drilling, mapping and sampling is planned.
	Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.	Additional drilling is planned in new exploration areas and to increase resource confidence levels.

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Appendix – JORC Table 2

JORC Code, 2012 Edition – Table 1 Beaver 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.*	A handheld Olympus Vanta M series XRF Analyser was used to provide a preliminary geochemistry assessment of the rocks in outcrop during fieldwork. Two grab samples were collected from surface outcrops that showed high preliminary XRF readings and then powdered to pass a No. 80 mesh prior to XRF analysis. XRF analyses included Lanthanum, Cerium, Neodymium, Praseodymium, and Yttrium readings, as well as a suite of other major and minor elements. Each powdered sample was analyzed three times and then averaged. These values are qualitative in nature.
	Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	Grab samples are representative of the outcrop they came from but may not be representative of the deposit as a whole. This type of sampling is appropriate for preliminary exploration. The XRF was factory calibrated, but no other calibration adjustments were applied.
	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	1-3 kg rock samples were collected by a geologist. Samples were broken using a hammer from outcrop. The allanite mineralization is coarse-grained and presents inherent sampling problems; therefore, the grab samples are not representative of the deposit as a whole. Future sampling will address this issue.

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	(e.g. submarine nodules) may warrant disclosure of detailed information.	
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.*	No logging
	Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc.) photography.	Rock samples were qualitatively, geologically described and photographed before crushing.
	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.	Grab samples were dry

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	For all sample types, the nature, quality and appropriateness of the sample preparation technique.	~0.25 kg of rock material was powdered to pass a No. 80 mesh. A subsample of this powdered rock material was placed in XRF cups covered with prolene film. This sample preparation is appropriate for XRF analysis as it creates a more homogenous sample from the rock and reduces the matrix effects.
	Quality control procedures adopted for all sub-sampling stages to maximise the representivity of samples.	A subsample of the powdered, homogenized rock material was analyzed via XRF.
	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 and based upon geological observations and field XRF analyses.
	Whether sample sizes are appropriate to the grain size of the material being sampled.	Not applied
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 analysed using a handheld XRF which is appropriate for preliminary exploration work. The XRF reports 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.	An Olypmpus Vanta M series handheld XRF was used with the Geochem (3-beam) analysis mode. Beam 1 read for 15s, Beam 2 read for 15s, and Beam 3 read for 60s for a total of 90s per sample. Each sample was analysed three times and averaged. No calibration factors were used as this is a preliminary exploration project and project-specific calibration factors have not yet been developed.
	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.	A silica blank and a standard were analysed before and after the two powdered grab samples. Results for the standard and blank were checked.
Verification of sampling and assaying	*The verification of significant intersections by either independent or alternative company personnel.*	Samples have not yet been verified by independent personnel.

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	The use of twinned holes.	No drilling
	Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	Data entry was performed by ARR personnel and checked by ARR geologists. Field data were all recorded in field notebooks and then entered into a digital database. Rocks were photographed prior to crushing and analysis.
	Discuss any adjustment to assay data.	Not applied
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 +/- 10 m.
	Specification of the grid system used.	The grid system used to compile data was NAD83 Zone 13N.
	Quality and adequacy of topographic control.	Topography control is +/- 10 ft (3 m).
Data spacing and distribution	*Data spacing for reporting of Exploration Results.*	Data spacing is currently random.
	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.	Not applied
	Whether sample compositing has been applied.	Not applied
Orientation of data in relation to geological structure	*Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.*	Not applied
	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.*	Chains of custody were maintained at all times. All rock samples were in the direct control of company geologists until dispatched to ALS Labs.

		Samples were kept in numbered bags and transferred to numbered XRF cups after crushing.
Audits or reviews	*The results of any audits or reviews of sampling techniques and data.*	No external audits or reviews have been conducted to date. However, sampling techniques are consistent with industry standards.

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Section 2 Reporting of Exploration Results		
(Criteria listed in the preceding section also apply to this section.)		
Criteria	***JORC Code explanation***	**Commentary**
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership, including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.*	ARR acquired 37 unpatented mining claims on BLM US Federal Land and private land totalling approximately 749 acres. ARR acquired a state mineral lease for state section T47N R84W Sec 36, which totals 640 additional acres. The claims are 100% owned by Wyoming Rare (USA) Inc (100% owned ARR subsidiary).
	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.*	The area was previously explored for allanite by the USGS.
Geology	*Deposit type, geological setting and style of mineralisation.*	The REE's occur within allanite which occurs as a hydrothermal vein hosted in Precambrian gneisses. The occurrence can be characterised as a vein-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	

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	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 (e.g. 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.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is unknown and only the downhole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').*	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 in the within this press release, above.
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.*	Total Cerium + Lanthanum + Neodymium + Praseodymium + Yttrium values range from 1.7 to 9.1% in powdered rock samples as read by the handheld XRF.

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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 the black allanite grains are 2-4 cm in diameter and show a red oxide coating on weathered surfaces. The allanite vein is hosted in a calc-silicate rock within a gneiss. The allanite is considered to be hydrothermal in nature as it is hosted in a breccia of chlorite, calcite, feldspar, and/or quartz minerals.
Further work	*The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling).*	Further mapping, grid sampling, and ground radiometric studies are planned to delineate potential 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.	There is not enough data for geological interpretations and drill planning at this time.

Note that JORC Sections 3 and 4 are relevant at this early state of exploration.