



American Rare Earths

(ASX: ARR; OTC: ARRNF; FSE: 1BH)

December 2022 Quarterly Activities



Disclaimers and Competent Person Statements



Disclaimers

This presentation contains forward-looking statements that involve subjective judgement and analysis and accordingly, are subject to significant uncertainties and risks, many of which are outside the control of, and are unknown to, American Rare Earths ("ARR"). In such circumstances, the forward-looking statements can be identified by the use of forward looking words such as "may", "will", "expect", "intend", "seek", "estimate", "believe", "continue" or other similar words.

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ARR wishes to caution readers that these forward-looking statements are based on economic predictions and assumptions on reserves, mining method, production rates, metal prices and costs (both capital and operating) developed by ARR management in conjunction with consultants.

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Competent Person Statement

The information in this report that relates to Exploration Results is based on information compiled by Mr. Jim Guiling. Mr. Guiling is a Member of a Recognised Overseas Professional Organisation included in a list promulgated by the ASX (SME Registered Member of the Society of Mining, Metallurgy and Exploration Inc). Mr. Guiling is Principal of independent consultants World Industrial Minerals LLC. Mr. Guiling has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr. Guiling consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The information in this document that relates to Mineral Resource Estimate is based on information provided by Mr Alfred Gillman. Mr. Gillman is Principal of the independent consultant firm Odessa Resources Pty Ltd. Mr. Gillman is a Fellow and Chartered Professional of the Australian Institute of Mining and Metallurgy (AUSIMM) 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. Gillman consents to the inclusion in the report of the matters based upon the information in the form and context in which it appears.

The mineral resources disclosed in this presentation are compliant with NI 43-101 standards which are close to the JORC Code in their key definitions. La Paz mineral resources can therefore be quoted as "qualifying foreign estimates" according to ASX listing rules.

ARR confirms it is not aware of any new information or data that materially affects the information included in the original market announcement, and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed. ARR confirms that the form and context in which the Competent Person's findings presented have not been materially modified from the original market announcement.

American Rare Earths

Developing critical minerals resources for a sustainable future



Expanding high value resources.



US Government funded R&D partnerships.



Exploring and developing new rare earth projects.



Highlights for December Quarter



- Outstanding Mineralogy test results at Halleck Creek.
- Halleck Creek Metallurgical tests indicate low processing costs.
- Halleck Creek drilling confirms consistent rare earths mineralisation to at least 150m.
- AGM held on 8 November 2022 with all resolutions carried.
- Maintain a strong financial position and are ready for the next phase of growth.



Financials

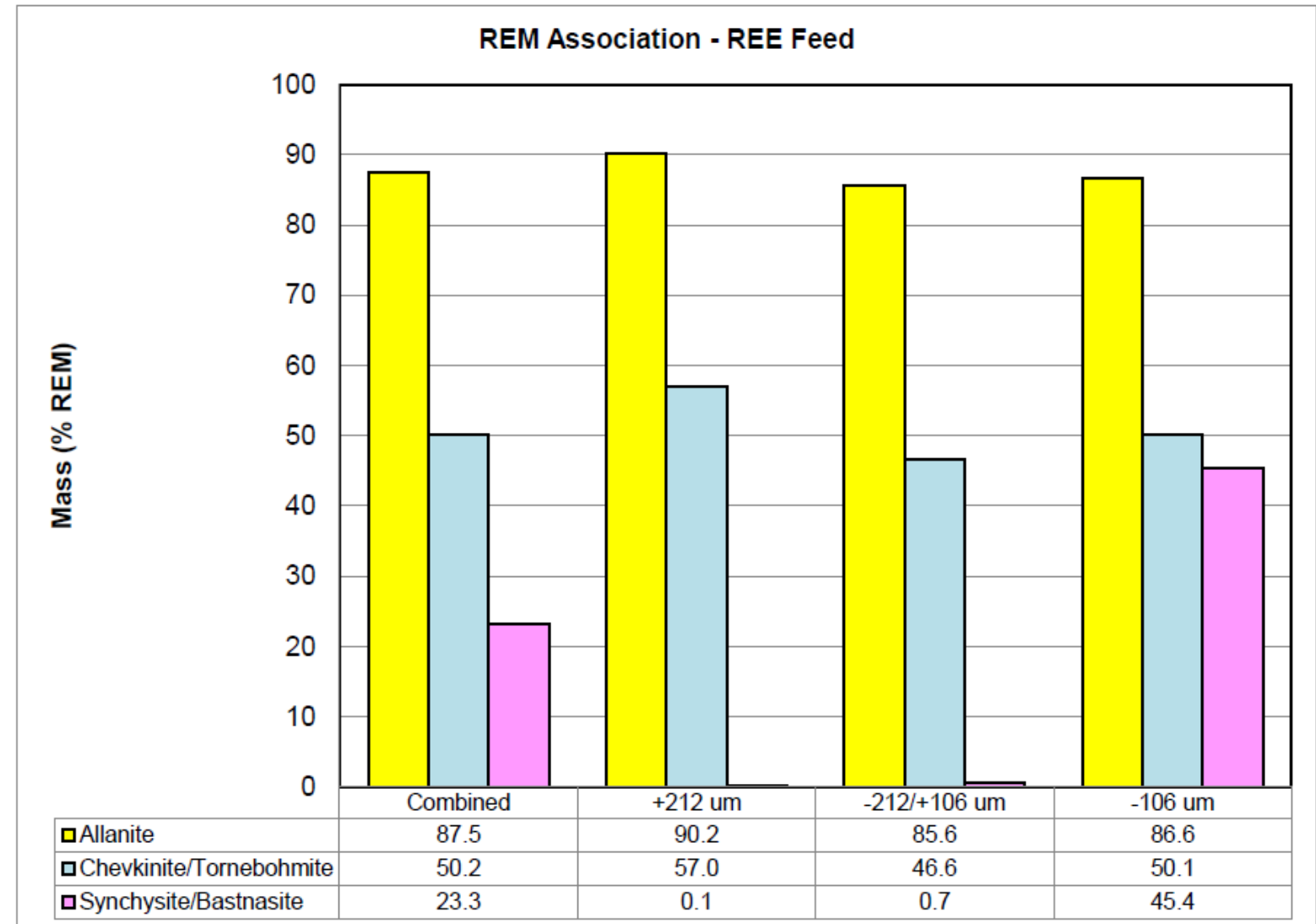
- Well-funded to deliver on our objectives.
- On 31st December 2022, we had a cash position of \$15,548,000.
- An increase to 4,400,000 ASX:COB shares worth A\$2.552m.
- \$3m promissory note with a financial asset value of \$2.88m.
- Rights to NSR royalty of 2% on cobalt production from Thackaringa Project.



Halleck Creek's outstanding Mineralogy Test Results



- Host mineral allanite contains approximately 90% of the total rare earths present.
- The simplicity of allanite liberation allows for higher recovery and the ability to upgrade rare earth elements at lower costs.
- Allanite average grain size was 232 microns indicating a coarse grain structure.



Halleck Creek's Metallurgical Test Results



- Halleck Creek ore should be suitable for processing in a SAG-Ball mill configuration without the need for pebble crushing and could also be processed in a single stage SAG mill.
- Updated target outlines 1.01-1.27 billion tonnes.
- TREO grades range 2,245–2,807 parts per million (ppm).
- Ore abrasiveness is below average.



Halleck Creek's Maiden JORC Resource Drilling



- Results from 75% of the planned RC drilling campaign.
- The drilling results indicate consistent rare earth mineralisation from the surface to a depth of at least 150m, a 50% increase on previous expectations.
- The deposit remains open laterally and at depth the expansion potential of this project is immense.

Average REO for HC22-RM016						
Sample Depth (m)	Lith Type	4 Element Total	Ce2O3	La2O3	Nd2O3	Pr6O11
24-25.5	CQM	3,751	1,657	948	860	286
49.5-51	CQM	1,209	503	271	435	bdl
75-76.5	CQM	9,780	4,493	2,707	2,016	565
99-100.5	CQM	1,391	545	303	352	190
124.5-126	CQM	3,015	1,345	836	659	174
148.5-150	CQM	2,863	1,266	696	619	282

Average REO for HC22-RM017						
Sample Depth (m)	Lith Type	4 Element Total	Ce2O3	La2O3	Nd2O3	Pr6O11
24-25.5	FM	1,402	555	215	395	237
49.5-51	CQM	3,329	1,514	895	739	182
75-76.5	CQM	7,751	3,248	1,841	1,706	956
99-100.5	CQM	5,845	2,762	1,597	1,206	281
124.5-126	CQM	3,537	1,534	842	942	220
148.5-150	CQM	4,257	1,969	1,108	959	220

Table 1 – Average REO Samples

*Three Reading Average of 4 Elements of La, Ce, Nd, and Pr

Outlook for March Quarter



Halleck Creek

- Results of the 38-hole drill program.
- A maiden resource estimate the end of the quarter.
- Updated exploration target for Halleck Creek.
- Metallurgical test-work continuing.

Partnerships

- Continuing our partnerships with US Department of Energy innovation hub and the Critical Minerals and Materials Institute.
- Continue to provide feedstock to funding program applicants, including researchers from US national laboratories and elite American 'Research One' universities.



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