



8 November 2023

American Rare Earths Investor Presentation

American Rare Earths Limited (ASX: ARR | ADRs - OTCQX: AMRRY | Common Shares - OTCQB: ARRNF | FSE:1BHA) (ARR or 'the Company') announces an updated investor presentation which is available on the Company's website at <https://americanrareearths.com.au/investors/#presentations>.

ARR Chief Executive Officer Donald Swartz, based in the Company's offices in Denver, Colorado, is in Australia from today until 18 November 2023.

Investor Relations questions or requests regarding this trip should be emailed to info@americanree.com

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

About American Rare Earths Limited:

[American Rare Earths](#) (ASX: ARR | ADRs - OTCQX: AMRRY | Common Shares - OTCQB: ARRNF | FSE:1BHA) owns the Halleck Creek, WY and La Paz, AZ rare earth deposits which have the potential to become the largest and most sustainable rare earth projects in North America. American Rare Earths is developing environmentally friendly 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. 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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American Rare Earths

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Investor Presentation
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Disclaimers and Forward-Looking 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.

No representation, warranty or assurance is given or made in relation to any forward-looking statement by ARR or its representatives, In addition, no representation, warranty or assurance is given in relation to any underlying assumption or that any forward-looking statements will be achieved. Actual future events may vary materially from the forward-looking statements and the assumptions on which the forward-looking statements are based. Accordingly, presentation readers are cautioned not to place undue reliance on such forward-looking statements as a result of the uncertainties.

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.

This presentation and the forward-looking statements made in this presentation, speak only as of the date of the presentation.

Accordingly, subject to any continuing obligations under the Corporations Act and the Australian Securities Exchange Listing Rules, ARR disclaims any obligation or undertaking to publicly update or revise any of the forward-looking statements in this presentation, whether as a result of new information, or any change in events, conditions or circumstances on which any such statements is based.

Competent Person Statement

The information in this report that relates to Exploration Results or Resource Estimates is based on information compiled by Mr. Dwight Kinnes and personnel directly under his supervision. Mr. Kinnes 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, #4063295). Mr. Kinnes is an employee of American Rare Earths. Mr. Kinnes 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. Kinnes 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 report that relates to Exploration Results or Resource Estimates is based on information reviewed by Mr. Jim Guilinger. Mr. Guilinger 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. Guilinger is Principal of independent consultants World Industrial Minerals LLC. Mr. Guilinger 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. Guilinger consents to the inclusion in the report of the matters based on their information in the form and context in which it appears.

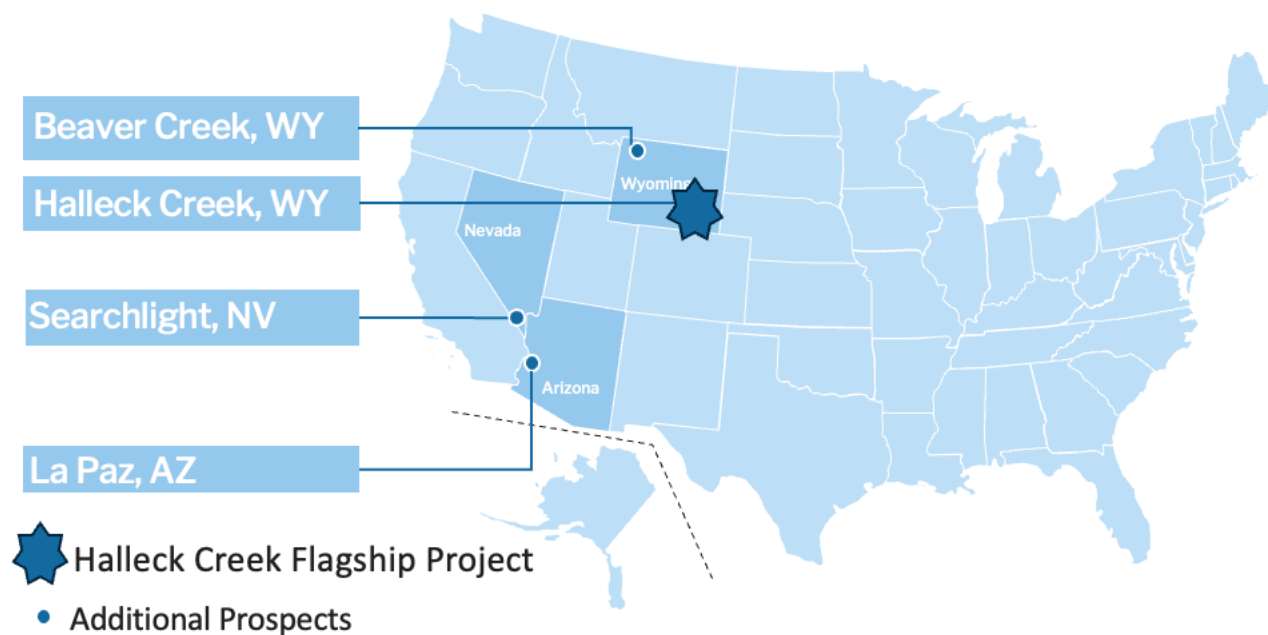
The information in this document that relates to Mineral Resource Estimate is based on information provided by Mr Alfred Gillman. Mr. Gillman is Principal of the independent consultant firm Odessa Resources Pty Ltd. Mr. Gillman is a Fellow and Chartered Professional of the Australian Institute of Mining 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.

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.

About American Rare Earths

Key Facts

- Australia's only ASX-listed company with rare earth element assets in the United States.
- Projects across southwest US in favorable mining jurisdictions together covering 17,400 acres.
- Potentially the largest strategic rare earth resource in the United States.
- Corporate Locations – Denver, Colorado and Sydney, Australia.
- Market Capitalisation – AUD \$58 million¹



1. As of October 31, 2023.

Geologic Characteristics Offer Best of Both Worlds

Deposit Comparison	Halleck Creek	Conventional Hard Rock	Ionic Clay
Location	Tier 1	Tier 1	Sovereign Risk
Grade	1-2% TREO¹	+6% TREO	0.07 %
Low Penalty Elements (U / Th)	✓	X	✓
Processing	Tank Leaching	Acid Bake / Cracking	In-Situ Leaching
ESG Positive Inputs	✓	X	X
Reduced Capex and Opex	✓	X	✓
Scalable / Homogenous Deposit ²	✓	X	X

1. Following low-cost extraction and beneficiation. 2. 1.43 Bt JORC resource, with only 25% explored.

Investment Thesis

- Domestic sourcing of magnet metals have strategic importance for US.
- Forecasted deficit for magnet metals.
- Flagship deposit test results indicate:
 - Low-cost, conventional processing
 - Appendix – Flowsheet developed by Wood.
 - Scalable development within homogenous rare earth mineralisation
 - Expedited permitting pathway
 - Low penalty elements
- Strong, experienced management and board
- Established industry partnerships



American Rare Earths is in the right place, at the right time, with the right commodity

About Rare Earths

Of the 17 rare earth elements, we are focused on primary magnet metals (neodymium (Nd) and praseodymium (Pr)), which are both present at our flagship project, Halleck Creek.



These elements are essential to:



Advanced
Electronics



Wind
Turbines



Electric
Vehicles



Electric
Aviation



Solar
Panels



Weaponry/
National Defense

Nd and Pr are critical to national security, the economy, and the environment

Critical to Global Supply Chains

SHORT TERM 2020-2025

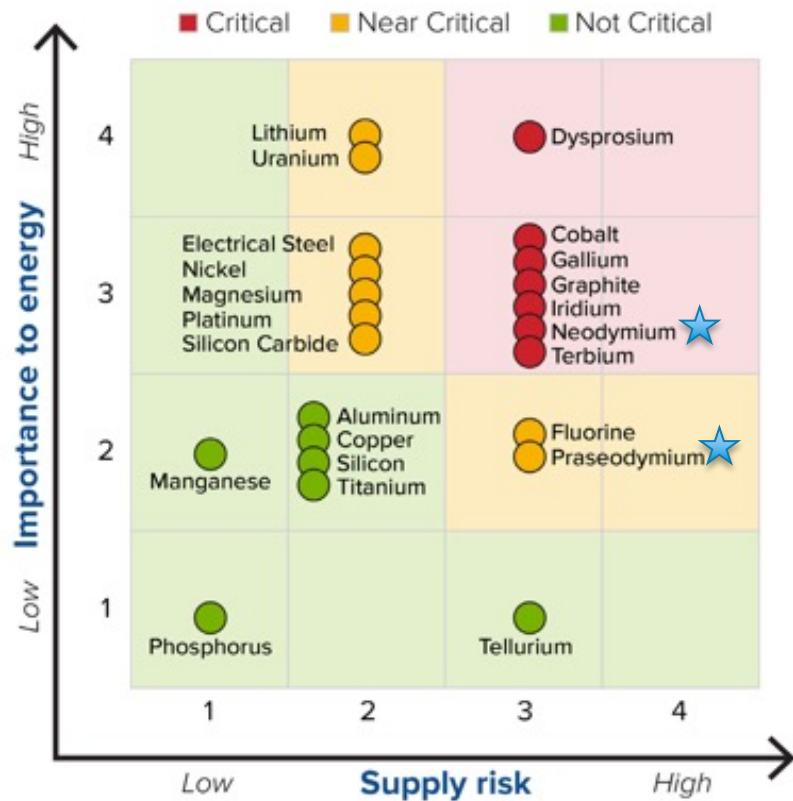


Figure ES.1. Short-term (2020–2025) criticality matrix

Source: U.S. Department of Energy, Critical Materials Assessment 2023

MEDIUM TERM 2025-2035

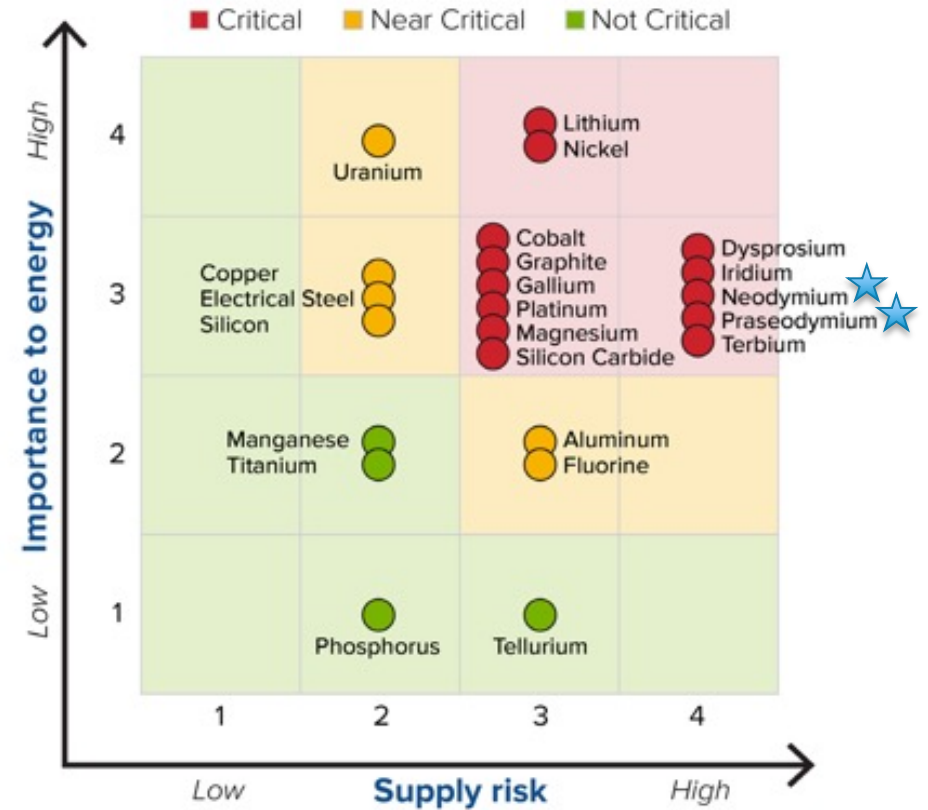
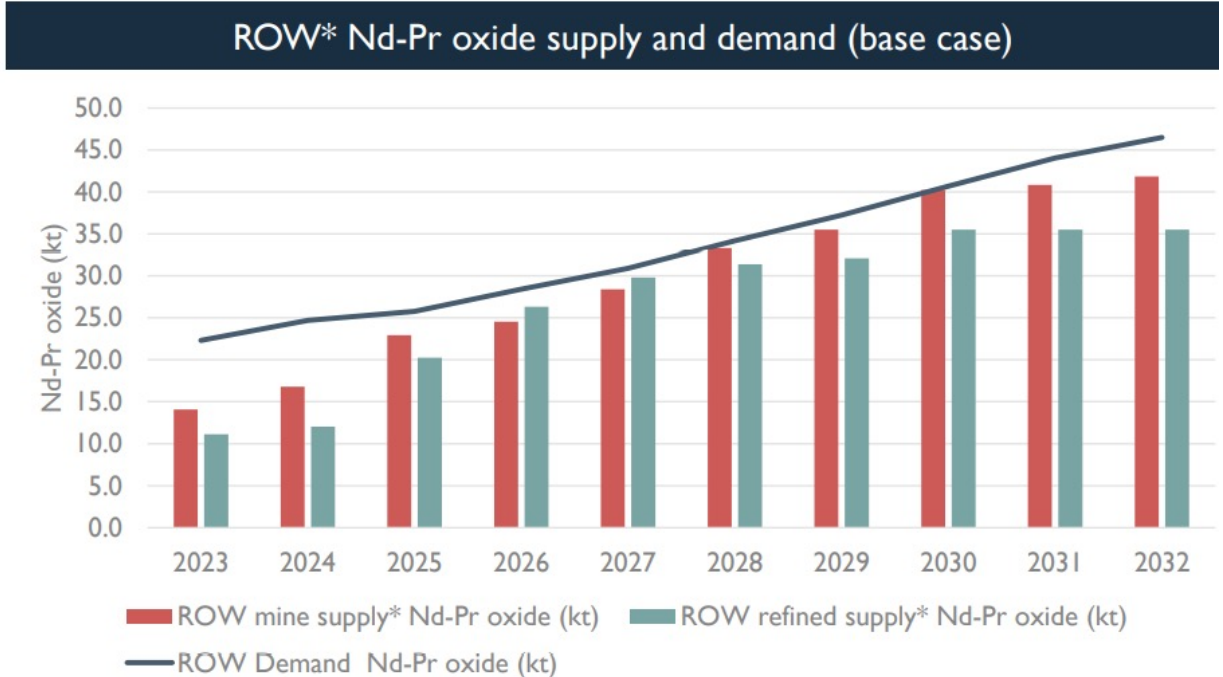
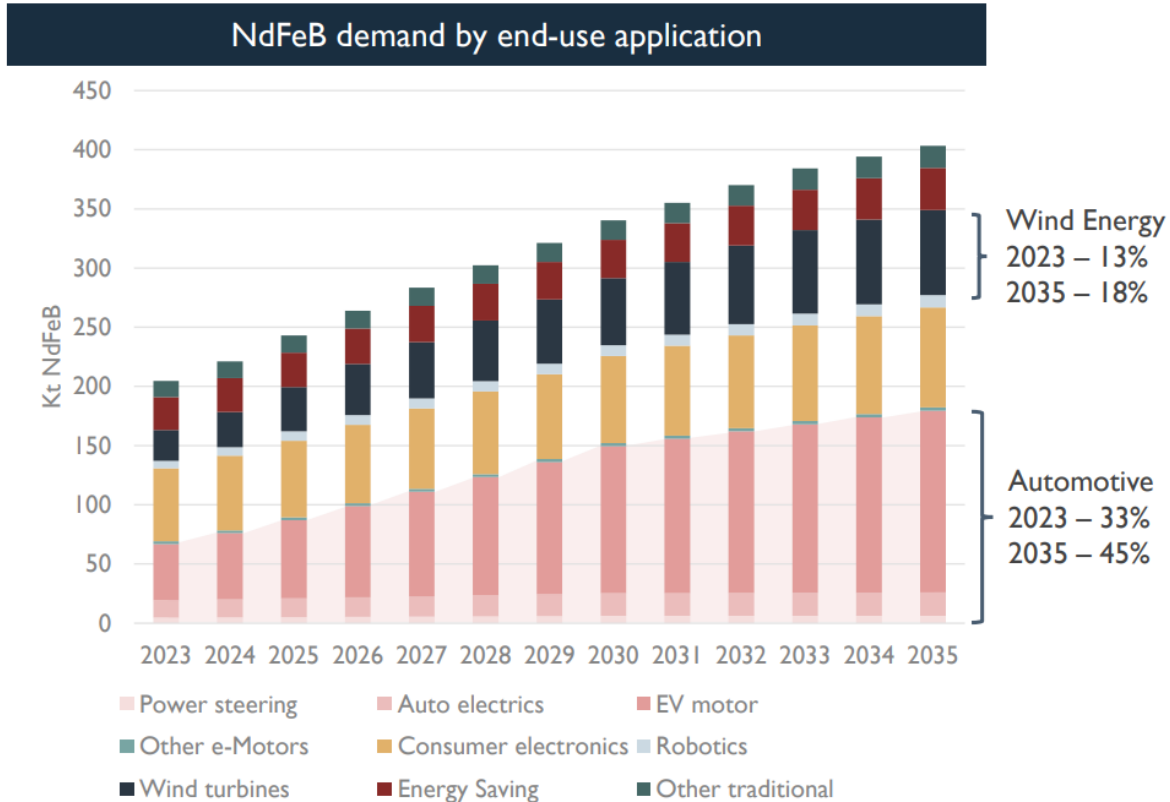


Figure ES.2. Medium-term (2025–2035) criticality matrix

Forecasted Deficit in Magnet Metals NdPr

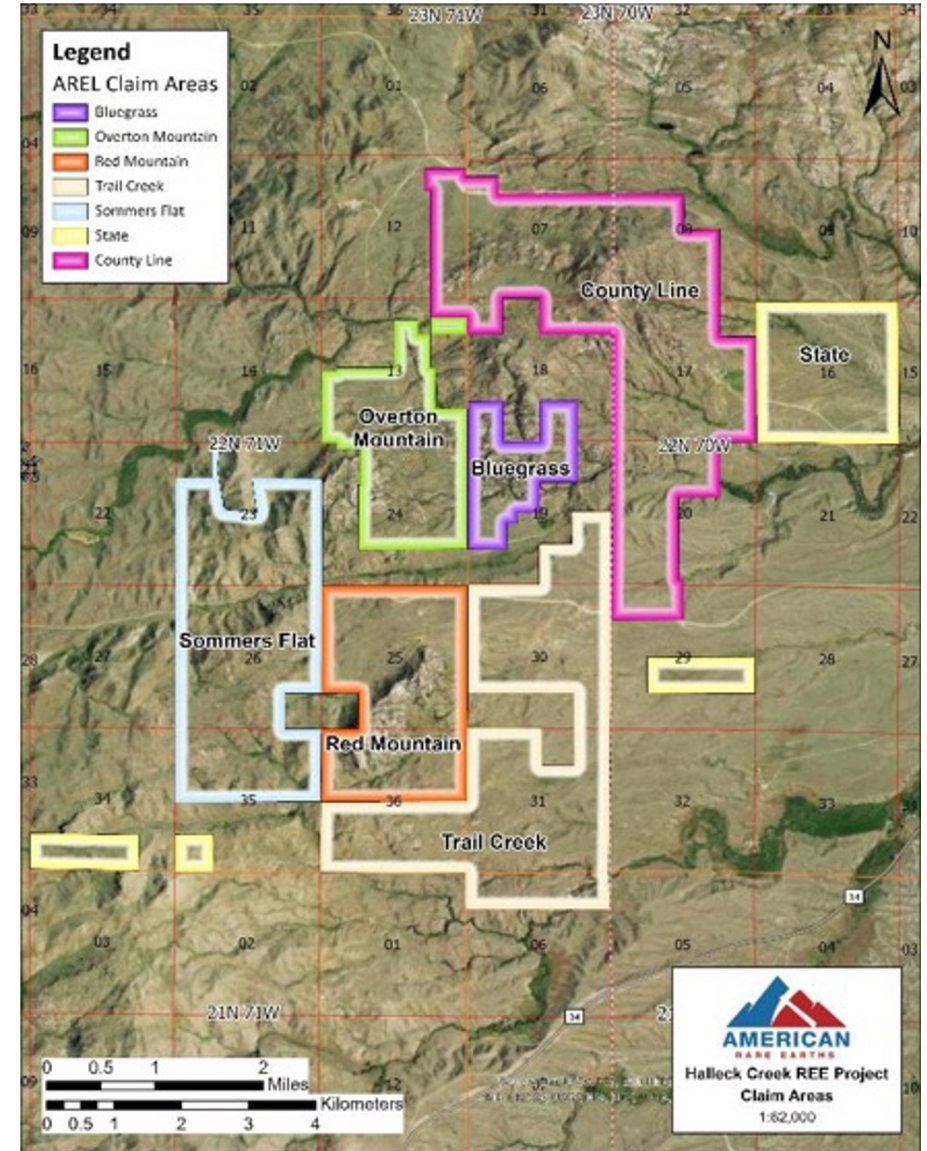


Non-Chinese capacity is insufficient to meet increasing demand across end-use applications

Credit: Project Blue presentation "Does a detachment from the Chinese rare earth market threaten the global energy transition?" 19 Oct, 2023.

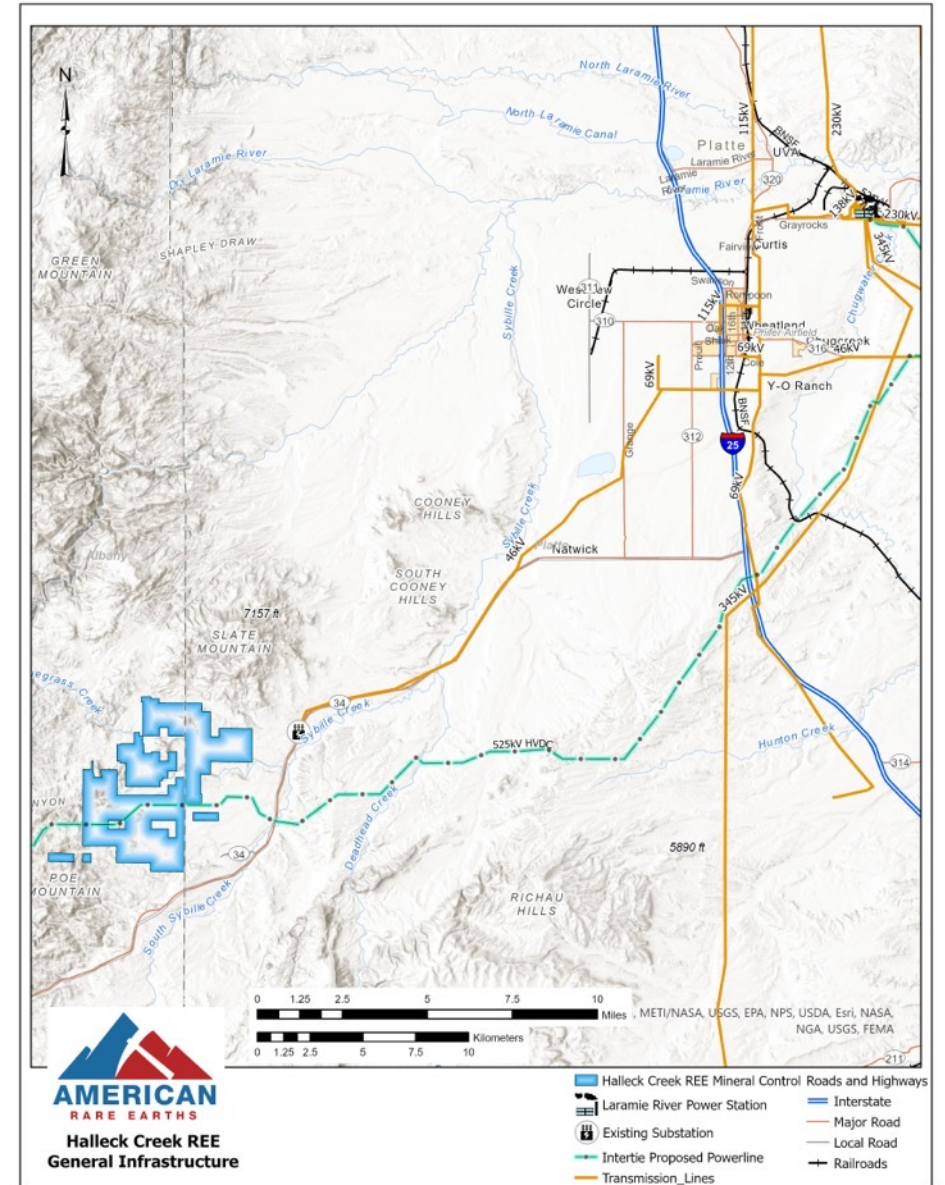
Halleck Creek, Wyoming

- Total JORC Resource of 1.43 billion tonnes.
- Estimated 4.7 million tonnes of Total Rare Earth Oxides (TREO) with an average grade of 3,309 ppm (0.33%).
- Strategically significant rare earth deposit in the United States.
- Close to infrastructure and a highly skilled workforce.
- Potential for remarkable scalability, with 75% of mineralised zones yet to be drilled and deposit remaining open at depth.
- Deposit is from surface with consistent grades throughout making it ideal for large scale, low-cost open pit mining.
- Positive metallurgy and mineralogy results will reduce capital and operating costs opening the path to early production.
- Environmentally and socially responsible with low penalty elements.



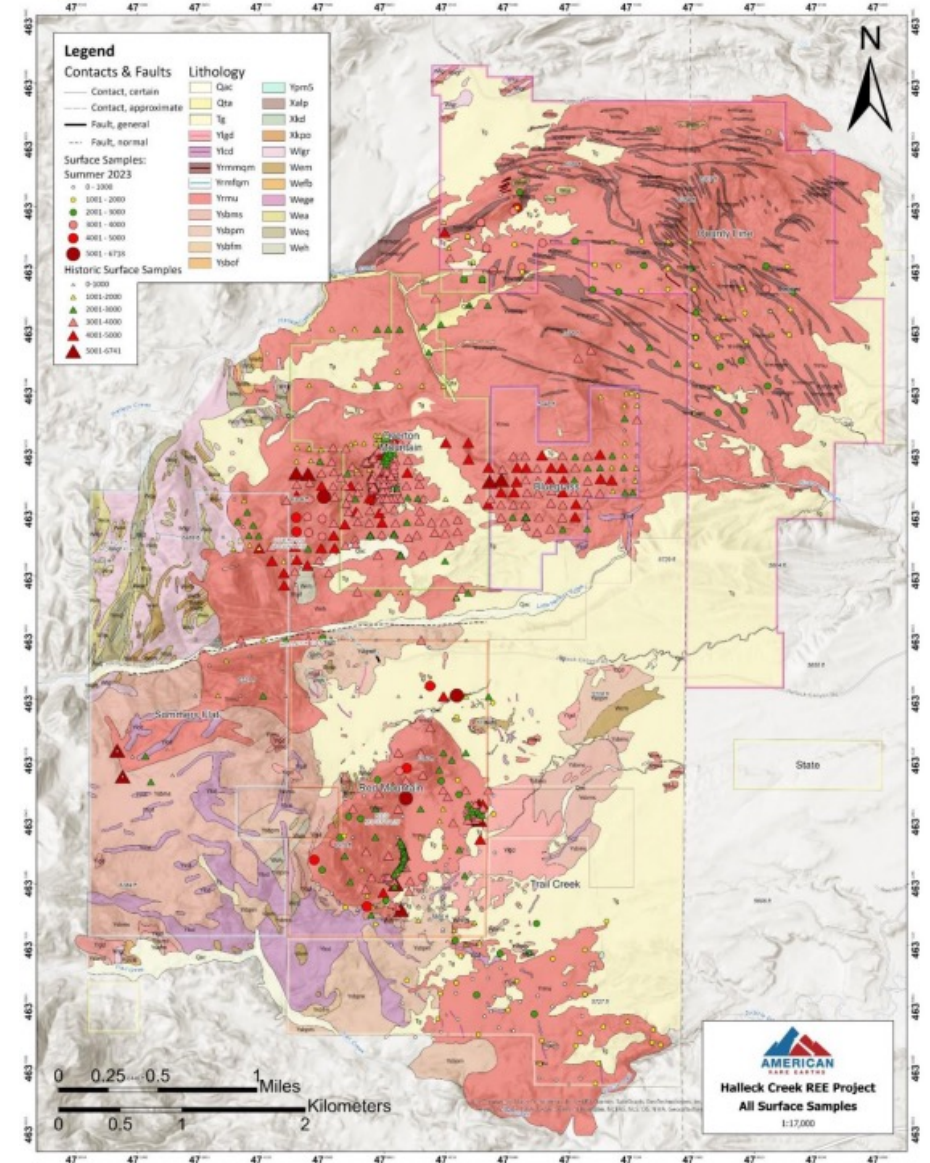
Infrastructure

- Close to infrastructure, a highly skilled workforce and the University of Wyoming.
- Located in the Central Laramie Mountains, between Laramie and Wheatland.
- Interstate and railroad access via existing state roads.
- Burlington Northern Sante Fe mainline railroad runs through Wheatland.
- Union Pacific railroad runs through Laramie.



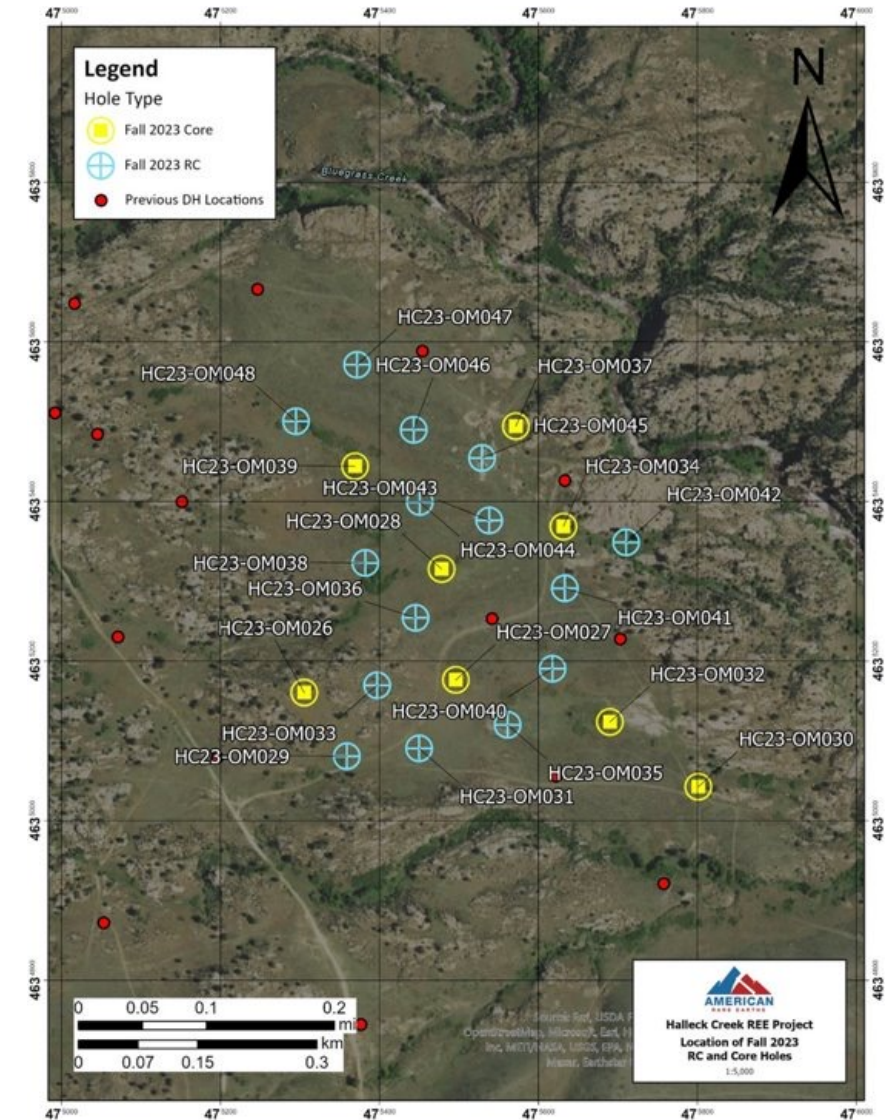
Field Mapping at Halleck Creek

- A core hole was completed to 305 m of depth, exhibiting rare earth element (REE) mineralisation throughout utilising XRF. Prior drilling was limited to less than 175 m.
- Summer 2023 mapping and sampling initiative revealed potential for a larger, higher-grade REE resource.
- Optimised future exploration program(s) are being assembled, along with an updated JORC Exploration Target (forthcoming).
- Mapping revealed no major structural features, or controls within the updated areas.
- 189 surface samples were analysed via XRF, 52 samples have been sent for confirmatory assay analysis of high-grade target mining areas.



2023 Development Drilling Program at Halleck Creek

- 2023 development drilling program totaled 2,389 metres (23 holes), with assay results expected in December 2023.
- High grade zones identified, with XRF grades observed up to 8,875 ppm. All drillholes in the program confirmed enriched rare earth mineralisation and de minimis levels of uranium and thorium.
- Enriched mineralisation to be present to at least a depth of 300 metres (an increase of 178% over previous drilling), indicating the resource may be much larger than previously expected.
- Only 25% of the deposit has been drilled, and the deposit remains open at depth and width.



Halleck Creek Development Strategy

Three-phased parallel path to permitting.

Phase 1:

- Finalise scoping study Q1 2024.
- Pursuing test mine authorisation from the State of Wyoming (Timeframe less than 1 year).
- Test mine and piloting.
- Low-cost path to de-risking project.
- Flowsheet provided in Appendix.

Phase 2:

- Pursue full state permit for expanded area (Timeframe 1-3 years).
- Scaled operations and processing across state and private land.

Phase 3:

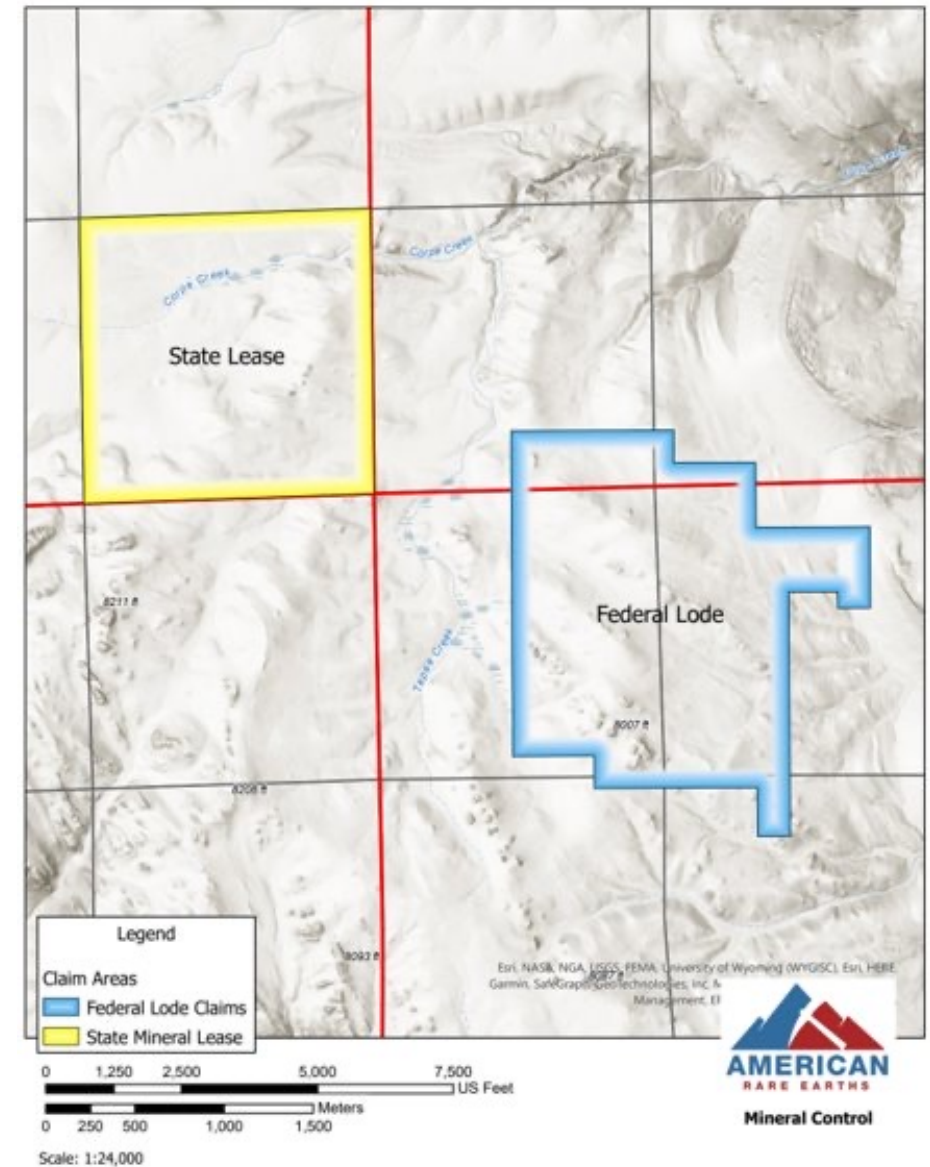
- Modular processing design to mitigate forecasted U.S. supply deficit (Timeframe TBD based on project plan).



Expediting permitting, development by pursuing a parallel path to permitting

Beaver Creek, Wyoming

- High grade field assay results with Total Rare Earth Oxide (TREO) from 5.8% to 13.9%.
- Neodymium + praseodymium grade ranged between 1% and 2.2%.
- Newly acquired state section increases the Company's holdings to 1,389 acres (562 hectares).
- Plans underway to conduct further field work to define JORC Exploration Target (JET).



Other Projects

La Paz, Arizona

- 170.6 million tonnes JORC compliant resource.
- Exploration Target 742-928 million tonnes.
- Exploration Licenses across 7,506 acres with 33 Claims.
- Recovery rates of up to 66.4% TREO and 71.5% Scandium achieved.
- Near-surface resource.
- Negligible Thorium and Uranium.
- Close to key infrastructure in mining friendly Arizona.
- Exploration Drilling in the La Paz SW area complete.

Searchlight, Nevada

- 80 contiguous unpatented lode mining claims totalling 1620 acres (656 ha).
 - Surface Samples with significant REE grades include:
 - Total Rare Earth Elements: 14,800 ppm
 - Heavy Rare Earth Elements: 940 ppm
 - Magnetic Rare Earth Elements*: 3,320 ppm
- (*Magnetic REE include Neodymium, Praseodymium, Dysprosium, Terbium)

American Leadership Team



Donald Swartz
Chief Executive Officer

- 20+ years of global leadership experience in the international mining industry. Demonstrated success in developing and executing strategies resulting in significant revenue growth and new business segments.
- Previously, Senior Vice President Cline Group, Chief Commercial Officer Westmoreland Mining, Vice President John T. Boyd Company.



Dwight Kinnes
Chief Technical Officer

- 35+ years experience in mining.
- A Certified Professional Geologist, Registered Member of SME and JORC Competent Person.
- Specialised in geological modelling of complex coal deposits.



Jose Rico
Chief Financial Officer

- 20+ years of international corporate finance and accounting experience.
- Previously, Global Head of Management Company Finance at Resource Capital Funds and Managing Director of Corporate Accounting at The Charles Schwab Corporation.



Jennifer Almquist
Head of investor Relations

- 20+ years of public company experience, advising and leading investor relations, finance and strategic communications efforts.
- A Certified Public Accountant, Investor Relations Charter (IRC) holder and Fundamentals of Sustainability Accounting Certification holder and member of the IRC Examination Committee.



Joe Evers
General Counsel

- 10+ years experience in legal, regulatory, policy and external relations across the natural resources industry.
- Chair of the Advisory Board at the Haub School of Environment & Natural Resources, Vice President of the Alumni Association, and a member of the Advisory Board at the College of Law of the University of Wyoming.



Wayne Kernaghan
Company Secretary

- 35+ years' experience and a member of the Institute of Chartered Accountants in Australia.
- Fellow of the Australian Institute of Company Directors and a Chartered Secretary.

Australian and American Board of Directors



Creagh O'Connor AM
Chairman

- 40+ years as C-Suite and Director.
- Cricket Australia Director for 11 years and Chairman from 2005 to 2008.
- Currently a Director of O'Connors Services and Chairman of the Maurice de Rohan International Scholarship Fund.



Geoffrey Hill
Deputy Chairman

- Director of ARR from 1989 to June 2014 and re-joined the board on 27 August 2015.
- Extensive domestic and international M&A experience.



Chris Gibbs
Non-Executive Director

- 25+ years international experience within the resource sector.
- Proven innovative leader for implementing organisational change and driving business results.



Melissa 'Mel' Sanderson
Non-Executive Director

- International career has spanned diplomacy and mining for more than 30 years.
- Previously she led Freeport-McMoRan's corporate office focused ESG programs.



Sten Gustafson
Non-Executive Director

- 25+ years of energy experience in with 100+ transactions with over US\$100b of value.
- An energy service industry executive, investment banker and corporate securities attorney.



Richard Hudson
Non-Executive Director

- Experienced in corporate governance, industrial relations, and M+A.
- Currently Chairman Contract Research Organisation in Animal Health in Australia and New Zealand.



Kenneth 'Ken' Traub
Non-Executive Director

- 30+ years of CEO, Director and consulting experience.
- Currently a Director of Tidewater and is Chairman of the Nominating and Corporate Governance Committee.



Paul Zink
Non-Executive Director

- 45+ mining experience both in academia and leading cross-functional teams across multiple business units.
- Previously SVP and CFO of Rare Element Resources.
- Currently a Director of listed companies including Timberline Resources, Rare Element Resources and Atna Resources.



John Mansanti
Non-Executive Director

- 40+ years of corporate experience leading and managing operational, technical and capital projects.
- 30+ years of leading mining projects and operations.

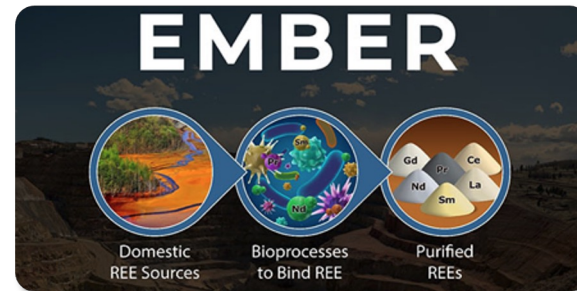
Strong Operational Partners



Established R&D Partnerships



US Department of Energy



US Department of Defense Advanced Research Projects Agency's EMBER program



US Department of Energy Critical Materials Institute (CMI)

Environmental, Social and Governance



- Culture of safety driving strong safety record.
- Processing technology does not require Acid Bake/cracking.
- Closed processing system, minimising environmental impact.
- Dry tailings.
- De minimis radioactivity (thorium and uranium).
- Strong female representation in geology team, on board
- Effective and transparent relationships at state, federal and local levels in communities where projects are located
- Integrity in environmental stewardship evidenced by recent exploration bond releases.

Financial Highlights – September 30, 2023

	(in AUD, except shares)
Share Price: (market close 31/10/2023)	\$0.13
Shares Outstanding:	446.6 million
Market Cap: (market close 31/10/2023)	\$58 million
Cash Position:	\$9.6 million
Invested Financial Assets ¹ :	\$5.0 million

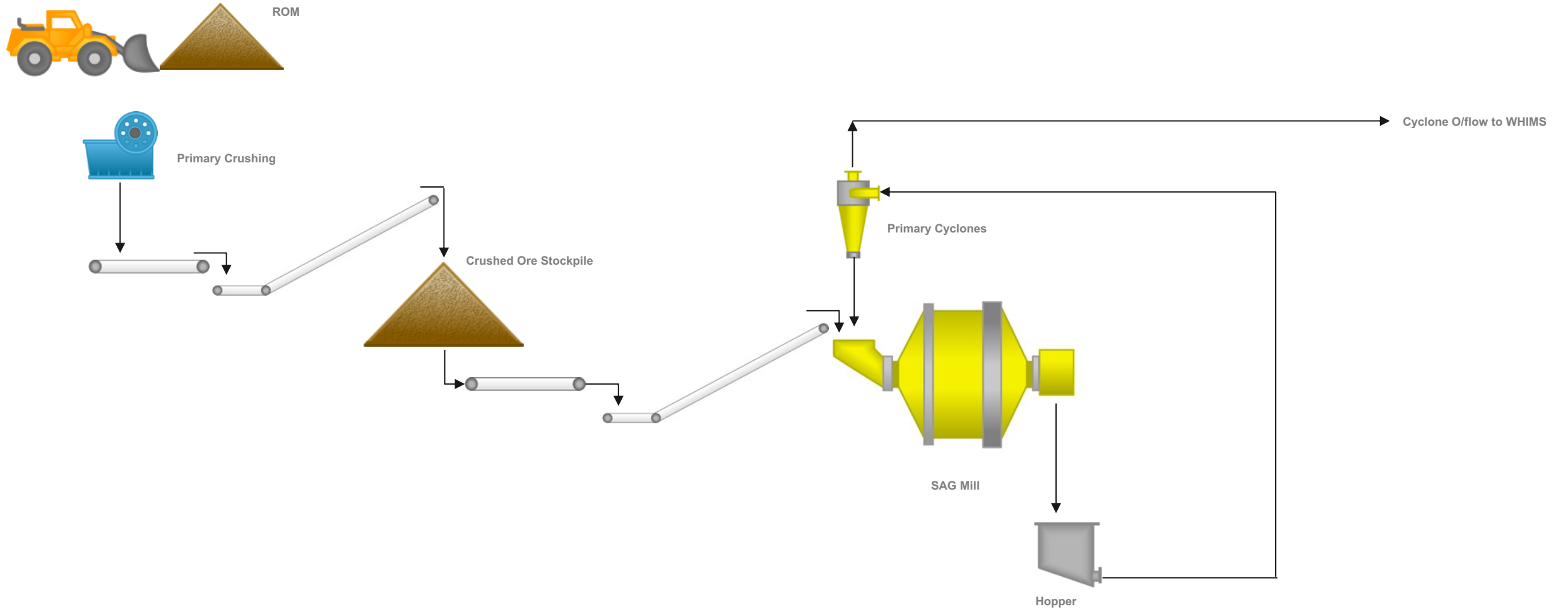


1. Represents investments in Cobalt Blue and Godolphin, inclusive of promissory notes receivable.

Appendix

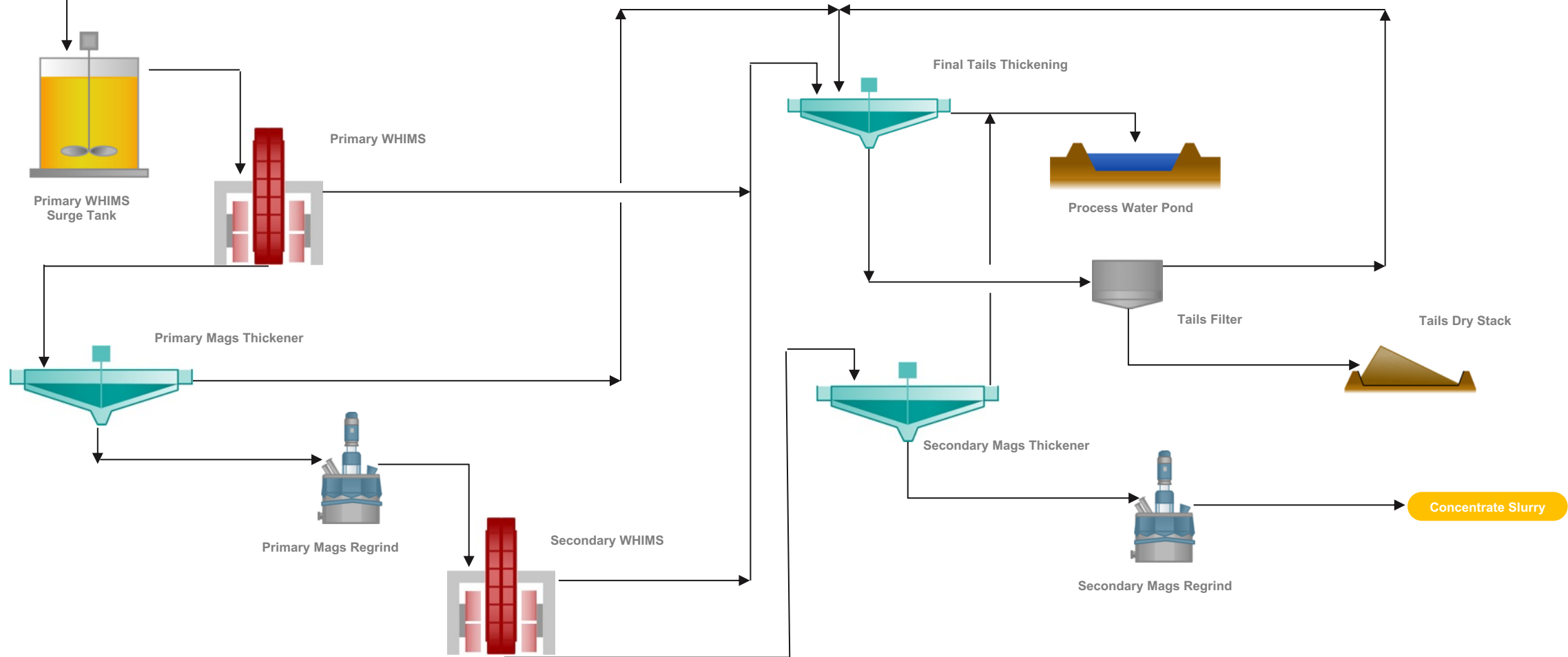


Wood Flowsheet (Crushing and Primary Grinding)



Wood Flowsheet (Beneficiation)

Primary Cyclone O/flow



Wood Flowsheet (Beneficiation, continued)

