

American Rare Earths Commissions Oxide to Metal Study for Heavy Rare Earths

written by Raj Shah | March 30, 2026

March 30, 2026 ([Source](#)) – [American Rare Earths](#) (ASX: ARR | OTCQX: ARRF | ADR: AMRRY) (“ARR” or the “Company”) is pleased to announce that it has engaged Tetra Tech, a U.S. based major consulting and engineering services company, to complete an Oxides to Metals study for the Company’s heavy rare earths (“HREE”) stream.

The study will evaluate options to convert separated heavy rare earth oxides from the American Rare Earths Halleck Creek Project in Wyoming all the way to metal, a critical midstream step immediately preceding the manufacture of permanent magnets relied upon by defense and advanced technology sectors.

Positioning into the U.S. midstream

Today, China dominates the midstream of the rare earth value chain, including oxide separation and metal production. The United States has prioritized development of a domestic midstream capable of producing rare earth metals and ultimately permanent magnets, and several U.S. companies are assessing pathways from separated rare earth oxides to metal.□

American Rare Earths intends to be part of that solution. The Oxides to Metals study will:

- Identify and evaluate available technologies to convert heavy rare earth oxides to metals, including molten salt electrolysis and calciothermic reduction.

- Focus on ARR's **heavy rare earth suite – samarium (Sm), gadolinium (Gd), terbium (Tb) and dysprosium (Dy)** – which are essential for high temperature permanent magnets used in defense and advanced technologies.□
- Select a preferred technology and develop a process flow diagram, mass balance, major equipment list, and preliminary capital and operating cost estimates.
- Provide an initial assessment of the potential strategic and operational benefits of integrating oxide to metal capability with ARR's planned refining operations in Wyoming.

The work will be led by Tetra Tech's Salt Lake City office under Process Department Lead and Qualified Person Kelton Smith.

Aligned with CEO strategy and U.S. policy support

In his letter to shareholders dated February 9, 2026¹, CEO Mark Wall emphasized that Halleck Creek is a very large, long-life rare earth deposit in Wyoming, one of the world's most attractive and mature mining jurisdictions, and that ARR's objective is to build "a secure domestic supply of rare earths for the U.S. market."

The oxide to metal initiative builds directly on that work. With the capability to produce separated rare earth oxides now demonstrated at bench scale, this study is the next logical step in assessing how far downstream Halleck Creek's product can be integrated within the United States, from ore in Wyoming, through refining in Wyoming, to heavy rare earth metals that are the immediate precursors to permanent magnets.

Strategic importance of a Wyoming-based heavy rare earth metals stream

American Rare Earths Halleck Creek project is the **largest known deposit of total contained rare earth oxides in North America**². By evaluating options to convert its heavy rare earth oxide stream to metal within this Wyoming anchored value chain, American Rare Earths aims to:

- Identify potential strategic benefits of integrating downstream processing beyond separated oxide production.
- Offer potential partners and customers a **U.S.-based, jurisdictionally secure source of critical heavy rare earth metals**.
- Further align Halleck Creek with U.S. policy priorities that frame rare earths as a national security imperative and seek to reduce reliance on foreign midstream and magnet supply chains.

American Rare Earths CEO Mark Wall commented *“American Rare Earths believes that advancing oxide to metal options for its heavy rare earths stream is an important step toward realizing its vision of a Wyoming-based, mine to magnet contribution to the U.S. rare earths supply chain.”*□□

This release was authorized by the Board of American Rare Earths.

Investors can follow the Company’s progress at www.americanree.com

¹ Refer ASX announcement dated 9 February 2026

² Refer ASX announcement dated 4 February 2025

About American Rare Earths Limited:

American Rare Earths (ASX: ARR | OTCQX: ARRNF | ADR: AMRRY) is a

critical minerals company at the forefront of reshaping the U.S. rare earths industry. Through its wholly owned subsidiary, Wyoming Rare (USA) Inc. (“WRI”), the company is advancing the Halleck Creek Project in Wyoming—a world-class rare earth deposit with the potential to secure America’s critical mineral independence for generations. Located on Wyoming State land, the Cowboy State Mine within Halleck Creek offers cost-efficient open-pit mining methods and benefits from streamlined permitting processes in this mining-friendly state.

With plans for onsite mineral processing and separation facilities, Halleck Creek is strategically positioned to reduce U.S. reliance on imports—predominantly from China—while meeting the growing demand for rare earth elements essential to defense, advanced technologies, and economic security. As exploration progresses, the project’s untapped potential on both State and Federal lands further reinforces its significance as a cornerstone of U.S. supply chain security. In addition to its resource potential, American Rare Earths is committed to environmentally responsible mining practices and continues to collaborate with U.S. Government-supported R&D programs to develop innovative extraction and processing technologies for rare earth elements.

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