

Building the Cornerstone to a Secure, Domestic Rare Earth Supply Chain

June 2024



- *Demonstration plant construction underway in Upton, WY, utilizing the Company's proprietary rare earth processing/separation technology*
- *Leading-edge technology company, General Atomics, leads demonstration plant project team in confirming process economics and advantages*
- *World-class Bear Lodge Project rich in key magnet materials – mineral resource updated to focus on maximizing value from neodymium (Nd) and praseodymium (Pr)*
- *Strong Federal and State support with Department of Energy and Wyoming Energy Authority (WEA) committing over \$26M to demonstration plant project*

Construction began in Upton, WY, in December 2023 on the Company's rare earth (RE) recovery/separation demonstration plant. This is a direct result of extensive testing and refinement of the Company's proprietary technology, led by General Atomics (GA), a large private technology company whose affiliate is Rare Element Resources' (RER) majority shareholder.

GA role as a leading technology developer has made them keenly aware of the necessity of establishing secure sources of the REs essential to many key defense and high-tech applications. They saw in RER's proprietary processing/separation technology and the Bear Lodge Project the ability to be at the forefront in developing a domestic RE supply chain.

Innovative Processing/Separation Technology

Historically, advancements in the RE recovery arena have been almost non-existent. Traditional methods are water intensive and generate significant waste. RER's technology has the advantage of being a closed system, recycling both process water and chemicals. The four-step process reduces mass, removes low value REs and precipitates out naturally occurring radionuclides prior to separating out the more valuable magnet-related REs.

Pilot plant testing in 2020 confirmed the process' environmental advantages and successfully upgraded a Bear Lodge sample, producing a >99.5% pure Nd/Pr oxide – a key component in high-strength permanent magnets and the two elements expected to experience the largest demand growth in the coming years. This work demonstrated RE recovery could be done at a lower cost and in a more sustainable way than traditional methods.

Rare Earth Demonstration Plant in the United States

Given this success, a GA-led team that includes RER, began engineering and design work on an RE recovery/separation demonstration plant to scale-up the process and generate the economic and operational data necessary for a commercial facility. The team was also able to secure financial participation by the Department of Energy (DOE) for \$21.9M, or approximately one half of the plant's initial budget. The State, through the WEA, is funding \$4.4M to support economic diversification and job creation. Construction is expected to be completed summer 2024 with the plant operating for up to 12 to 15 months.

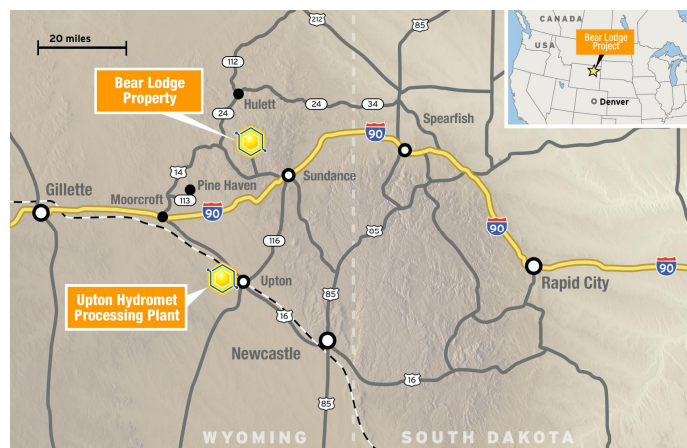
Site upgrades and renovations are advancing while equipment is being assembled offsite on skids. Equipment delivery began in April in preparation for a 3Q 2024 startup.



Bear Lodge Positioned to be a Secure Rare Earth Source

The Bear Lodge Project is set to be a significant North American RE producer. Extensive geological and geophysical work has confirmed the quantity and quality of the Bear Lodge deposit making it a world-class mining district. This resource, coupled with its advantageous location and strong local support, position the Project to become the cornerstone for a dependable, long-term domestic supply source of REs.

- Exceptional Location** – Wyoming has a rich history of responsible mineral development and a pro-business focus. Measures by the State, including efforts to streamline permitting and direct project funding, demonstrate the value it places on natural resource development and its support of the nascent rare earth industry as well as its desire to become a U.S. hub for the production of REs.
- Outstanding Mineralized District** – In March 2024, the Company completed a resource update for the Bull Hill deposit, one of the 4 identified mineralized areas of the Bear Lodge Project. The work focused on maximizing the value from the key magnet materials, especially Nd/Pr.



Resource Class	Metric Tonnes	%TREO	Contained TREO Metric Tonnes	Recovered Nd/Pr Metric Tonnes
	(millions)		(1000's)	(1000's)
Measured	2.04	4.53	92.4	18.4
Indicated	3.98	3.85	153.1	31.3
Measured & Indicated (M&I)	6.02	4.08	245.5	49.7
Inferred	1.90	3.61	68.5	14.4

Resource Notes:

- Mineral resources do not have demonstrated economic viability. There is no guarantee that any part of the mineral resource will be converted to mineral reserves in the future. All figures are rounded to reflect the accuracy of the grade and tonnage estimates.
- This mineral resource estimate is reported in accordance with Regulation S-K (CFR Title 17 Part 229 Items 1300-1305) at a cut-off grade of 2.18% TREO.
- Only certain rare earth elements (La, Nd, Pr, Dy, and a heavy rare earth element mixed oxide including Yb, Tm, Tb, Er, Ho, Lu) are considered payable for pit optimization purposes. Commodity price assumptions used in the preparation of the mineral resource estimate are set forth in the TRS.
- The estimated overall Nd/Pr process recovery is 90%.

- Excellent Existing Infrastructure** – The Project has easy access to a major interstate, transcontinental rail, natural gas, water, and low-cost power.
- Permitting Work** – Significant environmental and baseline data has already been collected, and RER has established relationships with key regulatory agencies. These efforts will set a good foundation when Project permitting resumes.
- Technology Upside** – Tolling of third-party materials could potentially generate additional revenue.

Importance of a Reliable Rare Earth Supply

Known as “the seeds of technology,” REs are a major driver of today’s technology. When used in permanent magnets, Nd/Pr radically boost magnetic strength allowing for smaller, more efficient applications.

China understood long before the rest of the world the role REs would have in the future of technology. This led to a calculated strategy to establish control of the RE supply chain. In 2023, China was responsible for 63% of the world’s mine supply of RE minerals and 84% of the global refined supply.¹ This dominance gives China political and economic power because of the importance of REs in both defense and green technology applications. Both the Biden and Trump administrations acknowledge that developing U.S. sources of REs is a matter of national security and have directed to agencies like the DOE and Department of Defense to actively support the development of U.S. rare earth projects.

¹WoodMackenzie, Global rare earths market short Term Outlook, Jan. 2024