

SMaRT Center Weekly Digest

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News

[Assay results confirm sustainable resource at American Rare Earths' La Paz project in Arizona](#)

American Rare Earths (ASX: ARR) announced on Tuesday promising assay results from 332 samples taken from four core holes at the Southwest area within its flagship La Paz project in Arizona. Intercepts confirm mineralization of total rare earth oxides (TREO), with high-value magnetic rare earth oxides comprising approximately 27% of TREO, the company said, adding that assay results confirm La Paz is an environmentally sustainable resource with low thorium and uranium compared to most other rare earths projects.

[Monumental Minerals Samples 0.54% Total Rare Earth Oxide And 0.26% Heavy Rare Earth Oxide Confirming Significant Rare Earth Grades At Jemi Heavy Rare Earth Element Project, Mexico](#)

Monumental Minerals Corp. announce the results of 21 select rock grab samples collected from its Jemi Heavy Rare Earth Element (HREE) Project, located in Coahuila, Mexico, about 40 km south of the Texas, USA border. The Jemi rock samples have returned some of the highest HREE grades sampled to date and serve to confirm and reinforce the Company's understanding of mineralization controls at Jemi. Significantly, the rock sample results released today also establish the HREE potential of multiple visually distinct lithologies, which opens the potential for the discovery of previously unrecognized new zones of HREE mineralization.

[Imperial Mining Receives Positive Results for the Preliminary Economic Assessment \(PEA\) for Crater Lake, Canada](#)

Imperial Mining Group Ltd. announced that it has received results of a positive Preliminary Economic Assessment (PEA) for the Crater Lake TG Zone Scandium-Rare Earth Element (Sc-REE) deposit from Imperial's independent consultants, WSP Canada. The gross metal revenue of the minerals produced from the operation total \$15.2 billion over the life of the operation. The Project has a pre-tax net present value (NPV) of \$2.97 billion and an after-tax NPV of \$1.72 billion (10% discount rate).

[Kansas Geological Survey Receives Grant to Study Critical Minerals Mining Potential in Region](#)

The Kansas Geological Survey (KGS) at the University of Kansas has been awarded \$1.5 million for a two-year project to study the feasibility of recovering minerals critical to advanced and defense manufacturing as well as the clean energy industry from coal deposits, associated rock layers and legacy mining wastes found in Kansas and neighboring states

[Australia's Lynas gets \\$120 mln Pentagon contract for U.S. rare earths project](#)

Australia's Lynas Rare Earths has signed a \$120 million follow-on contract with the U.S. Department of Defense to build a commercial heavy rare earths separation facility in Texas, the firm said on Tuesday. Lynas intends to combine the heavy rare earth separation plant with a light rare earth separation

facility, which is half-funded by the Defense Production Act office of the U.S. Department of Defense. The plant would be the first outside China that is able to separate heavy rare earths, Chief Executive Amanda Lacaze told Reuters in an interview.

[US, Canada and partners enter pact to secure critical minerals](#)

The United States, Canada and other countries have established a new partnership aimed at securing the supply of critical minerals, which are essential for clean energy and other technologies, as global demand for them rises, the State Department said on Tuesday. The Mineral Security Partnership (MSP) includes Australia, Canada, Finland, France, Germany, Japan, ROK, Sweden, US and the European Commission.

[Hitachi Energy to provide battery microgrid to open pit vanadium mine in Nevada](#)

Hitachi Energy has partnered with Nevada Vanadium, a company developing what could be the US' first-ever primary vanadium source, to power the mine entirely from renewable energy. Nevada Vanadium Mining Corp (Nevada Vanadium) is developing Gibellini, an open pit mine in the western US state's Battle Mountain region. The company anticipates the start of operations at the facility in 2024

[Battery metal buzz counters financial market angst at mining's big show](#)

The turmoil that rocked financial markets this week has done little to shake the optimism around global mining, if the signs of exuberance on display at one of the industry's biggest gatherings in years are to be believed. Even a stocks selloff that pushed US equity markets into bear territory and warnings of recession by market pundits did little to dampen the enthusiasm of those who make a living finding and extracting minerals from the ground. "The vibe is exciting, especially in the battery metal space," said Chris Gale, executive director of Perth, Australia-based Latin Resources Ltd

Select Articles

[Sulfuric acid bioproduction and its application in rare earth extraction from phosphogypsum](#)

This work proposes an alternative for the production of H₂SO₄ that uses sulfur-oxidizing microorganisms. The production capacity of this acid in a mesophilic (30 °C) and a thermophilic (65 °C) condition was studied by three collected consortia from acid mine drainage and compared with *Acidithiobacillus thiooxidans*. It was found that *At. thiooxidans* presented higher sulfuric acid production than the consortia collected and, therefore, it was selected for the bioleaching of rare earths elements (REEs) from phosphogypsum (PG).

[Mineralization of Ion-adsorption Type Rare Earth Deposits in Western Yunnan, China](#)

Monzogranite parent rocks with REE over 300 ppm are conducive to the formation of iREE (Ion-adsorption REE) deposits. It is believed that the high REE content granite parent rocks, metamorphic or

magmatic-hydrothermal alteration, hot and humid climate, gentle topography, large and thick granite regolith are all favorable factors for iREE deposit formation.

[Highly-efficient and sequential recovery of rare earth elements, alumina and silica from coal fly ash via a novel recyclable ZnO sinter method](#)

A novel sinter method using ZnO as the activator instead of the conventional Na₂CO₃/CaCO₃, (NH₄)₂SO₄, and K₂S₂O₇ was developed to achieve efficient sequential extraction of rare earth elements (REEs), alumina (Al), and silica (Si) from coal fly ash (CFA). Up to 93.3% Si, 87.1% REEs (70.7% Ce, 82.5% La, 83.2% Gd, 87.1% Nd, 62.3% Dy, and 81.7% Y), and 92.9% Al were extracted from CFA, respectively. Moreover, 93.1% of the ZnO activator was efficiently recycled, and the yield of red mud was only 14.9%.

Funding Opportunities

[2023 National Geological & Geophysical Data Preservation Program](#)

Funding entity:	USGS for state geological surveys
Areas of Interest:	Priority 1: Preserve Geoscience Data and Materials Priority 2: Digital and Physical Infrastructure Development <ul style="list-style-type: none">• Construction, remodel, or repair of buildings• Creation or updating digital systems• Purchase and/or installation of equipment Priority 3: Critical Minerals Data Preservation <ul style="list-style-type: none">• Compiling or enhancing a state published map• Making publicly available the hole/core data• Development of a preservation plan for data• Preservation and submission of geochemical samples
Award size:	Priority 1: \$5,000 Priority 2: Maximum of \$800,000 Priority 3: \$50,000
Cost sharing:	%100 matching by state funds
Deadline:	October 13, 2022 6:00 PM ET