

CRITICAL MINERALS IN IDAHO

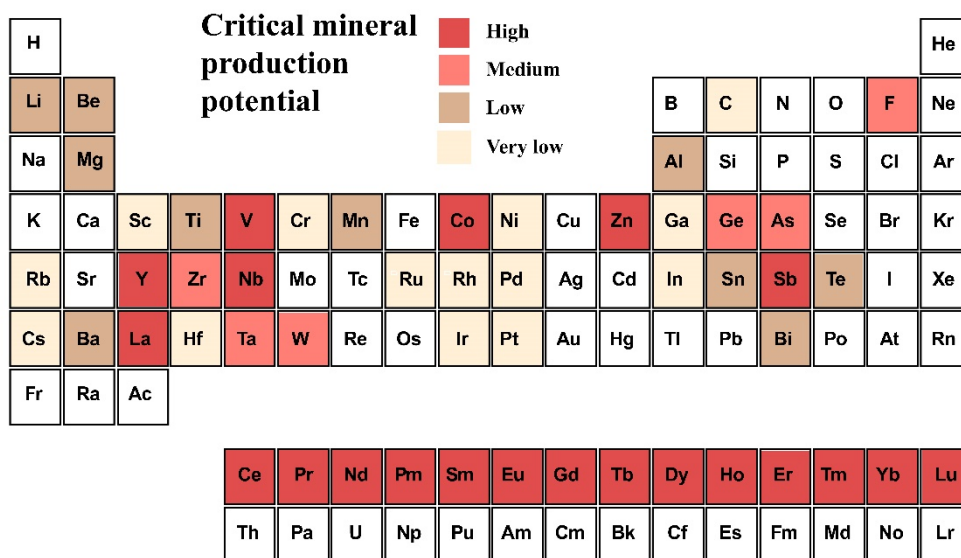


THE NEED

Critical minerals are listed by the federal government based on economic or strategic importance coupled with supply chain insecurity. In close collaboration with the mining industry, state and federal governmental agencies are conducting research on critical mineral deposits to help improve the nation's supply of domestically sourced critical minerals. In 2022, the United States was 100 percent net import reliant on 12 of the 50 listed critical minerals, and greater than 50 percent import reliant for an additional 31 critical minerals (U.S. Geological Survey). These critical minerals are essential to the defense, energy, transportation, and consumer electronic industries.

IGS EFFORTS

For the past 20 years the IGS has focused geologic mapping and ore deposit research on areas that have the potential for mineral production such as Stibnite and Lemhi Pass. Recent U.S. Geological Survey funding as part of the Earth-MRI program has broadened that effort to the Idaho Cobalt Belt, the Mineral Hill District, and the Idaho Phosphate District. In addition, collaboration with the U.S. Geological Survey and exploration industry has initiated the acquisition of regional geophysical datasets and recent support from industry and the Idaho Department of Commerce has allowed research focused on critical mineral systems both in the Cobalt Belt and at the Diamond Creek property.

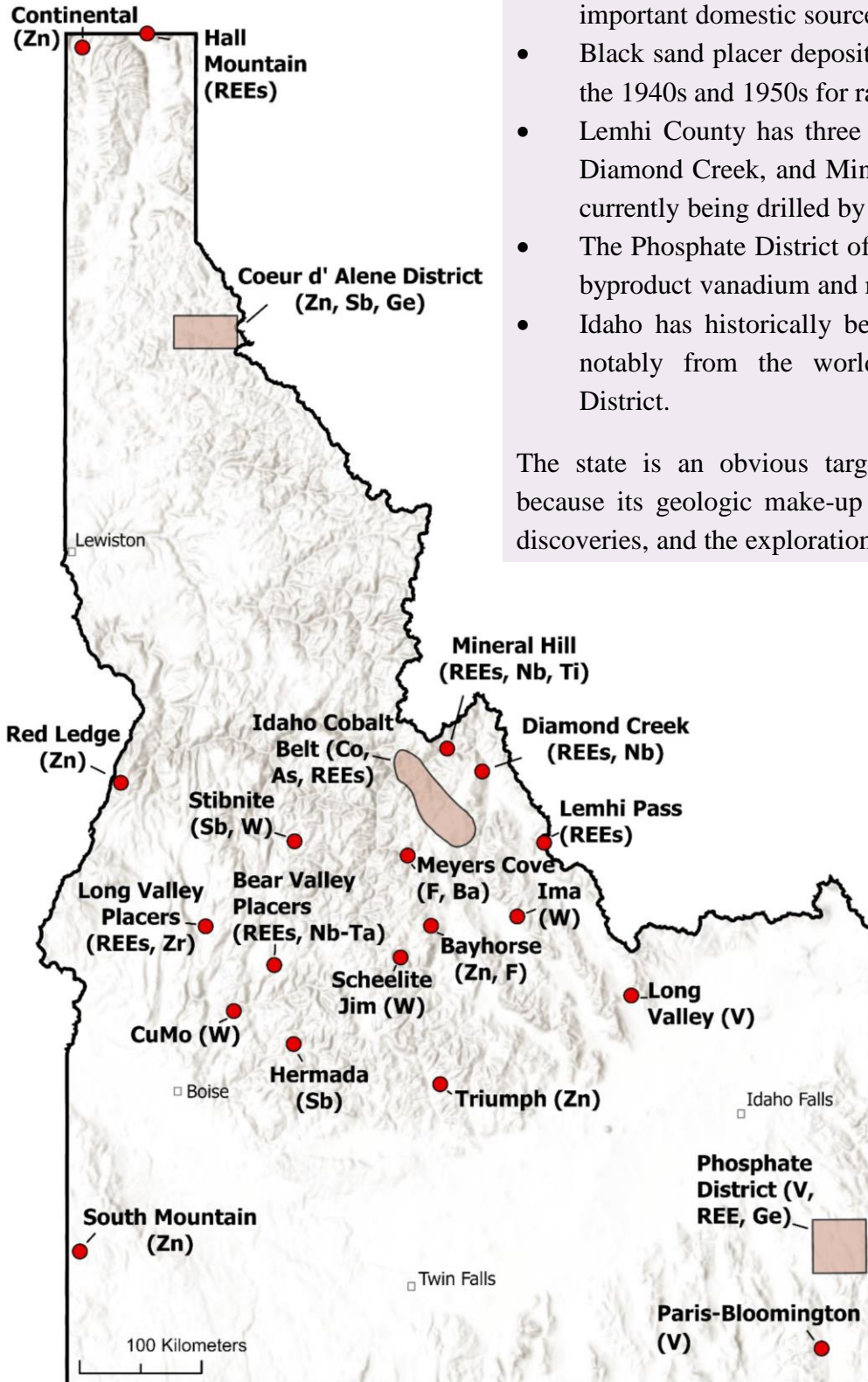


Idaho hosts significant resources or is a past producer of twenty-five elements listed as critical minerals (antimony, arsenic, cobalt, fluor spar, niobium, the 15 rare earth elements, tantalum, tungsten, vanadium, and zinc).

CRITICAL MINERAL DEPOSITS IN IDAHO

- Antimony at Stibnite was mined in the 1940s and 1950s and remains a target for recently proposed mining efforts.
- Although currently idle, the Idaho Cobalt Project, a newly constructed mine in Lemhi County, could soon be an important domestic source of cobalt.
- Black sand placer deposits of central Idaho were mined in the 1940s and 1950s for rare earths, thorium, and uranium.
- Lemhi County has three rare earth districts (Lemhi Pass, Diamond Creek, and Mineral Hill) and Diamond Creek is currently being drilled by industry.
- The Phosphate District of southeastern Idaho has potential byproduct vanadium and rare earth element resources.
- Idaho has historically been a major zinc producer, most notably from the world-class Coeur d'Alene Mining District.

The state is an obvious target for new mineral exploration because its geologic make-up holds the promise of additional discoveries, and the exploration climate is favorable.



Information on Idaho's mineral resources and historical mining activity can be found on the website and in publications of the Idaho Geological Survey (www.idahogeology.org).

Additional references include:

Gillerman, V.S., 2011, Rare earth elements and other critical minerals in Idaho: Idaho Geological Survey GeoNote 44, 4 p.

U.S. Geological Survey, 2023, Mineral commodity summaries 2023: U.S. Geological Survey, 210 p.