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Critical Minerals in the United States: Past, Present, and Future?

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The U.S. Geological Survey released a new list of critical minerals in 2025, including boron, arsenic, copper, lead, potash, rhenium, silver, silicon, and phosphate rock as well as the fuel commodities uranium and metallurgical coal, bringing the total to 60 mineral commodities. According to the U.S. Geological Survey's Mineral Commodity Summaries (2026), the country was 100% import reliant for 10 of the non-fuel commodities in 2025 and primary production for 28 other commodities was negligible or proprietary. Domestic mining of tungsten ceased in 2015, and minerals containing arsenic, gallium, graphite, niobium and tantalum have not been mined for 45 years. We compiled historical and recent production and/or resource data for more than 1,222 sites classified by mineral system and deposit type to: (1) document areas of past mining and exploration and (2) prioritize areas for acquisition of new geologic framework data to characterize domestic critical mineral potential through the Earth Mapping Resources Initiative (Earth MRI). Since 2015, 42 deposits that produce critical minerals were recognized as having additional resources. Another 434 deposits that were in production at some point before 2015 also have historical estimates or defined modern industry-compliant resources. In addition, 405 deposits with no record of production have reported or estimated critical mineral resources. Some 328 deposits produced critical minerals in the past but remaining resources are unknown. Many of these sites lie within the 267 Earth MRI project areas where new geologic mapping, airborne geophysics, geochemistry, and hyperspectral data are being acquired (<https://ngmdb.usgs.gov/emri/#3/40/-96>). These new, publicly available data expand our understanding of known mineral systems and identify exposed and subsurface areas for future exploration. For example, airborne electromagnetic data delineates regions of interest for graphite in Alabama and Alaska and airborne radiometric surveys and mapping identified a previously unknown REE deposit in Maine.