

Thursday, November 18, 2021

**Geology, Geopolitics, and Economics:
An overview of the risk to critical mineral supply chains**

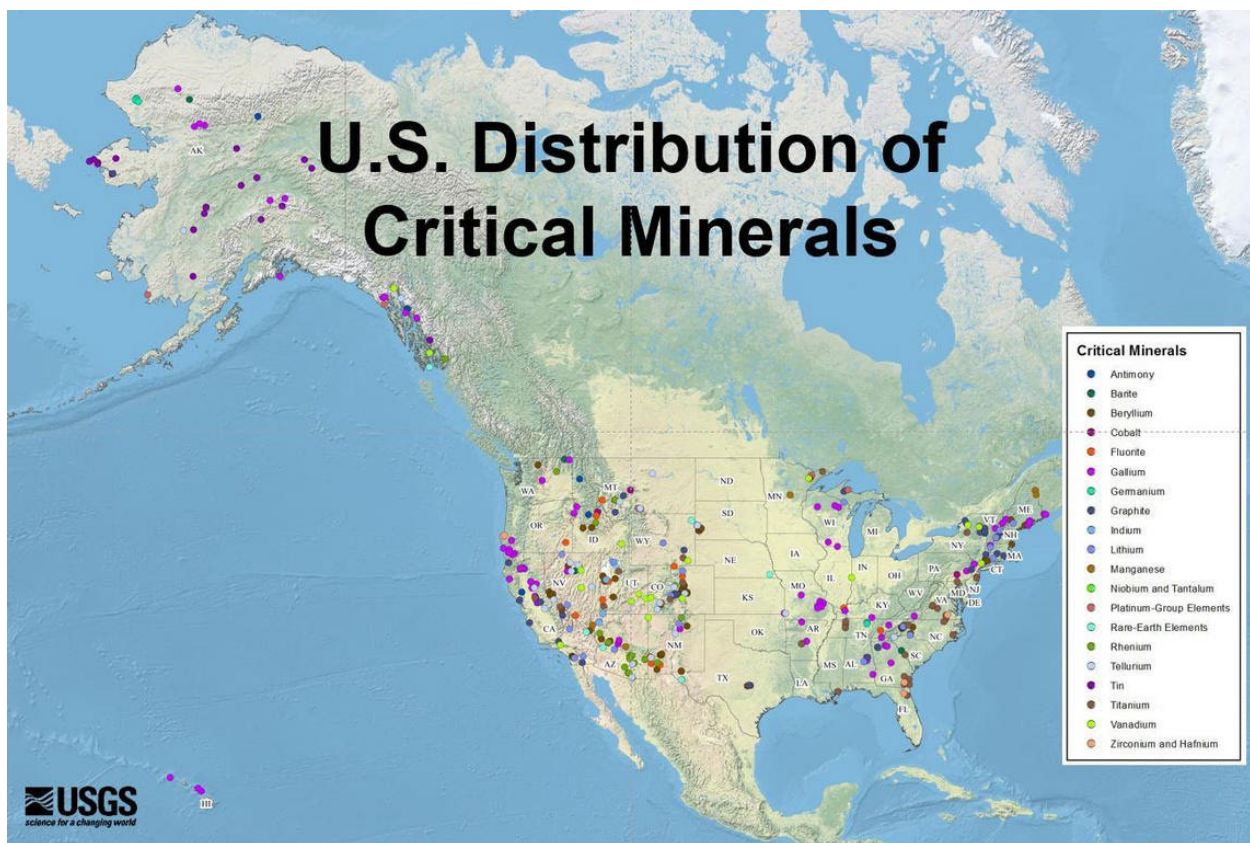
Jamie Brainard, Material Flow Analyst at the National Minerals Information Center, U.S. Geological Survey.

This will be a Zoom meeting.

A link to Join it will be posted here before the meeting

All are welcome – no admission charge

You can Join it after about 6:30 pm, and
the presentation starts at 7:00 pm.



U.S. Distribution of Critical Minerals by USGS

Abstract: The recent renaissance in critical minerals has been fueled by recognition that many commodities have an elevated risk of supply disruption. Factors including production concentration in a small number of nations, a heavy reliance on imports to meet consumption, and production as by-products of major commodities have all been considered for explicitly defining what makes a commodity “critical.” I will explain the approach taken by the U.S. federal government in identifying these materials, including the metrics used in our models. I will also provide some perspective on the supply chain challenges for critical minerals including extraction, trade, and recycling. I want to convey that the

industrial, economic, and geopolitical challenges that currently exist for critical minerals are significant, but there are also many tools that could be employed to lower risk and ensure demand is met.



Jamie

Brainard

Biography: **Jamie Brainard** is a material flow analyst at the National Minerals Information Center at the U.S. Geological Survey. Jamie has a background as a geologist and astrobiologist studying the formation of hydrothermal ore deposits and Archean processes at Penn State, following receiving a Bachelor of Science in geosciences from Penn State in 2009. More recently, his work at the USGS has been focused on the identification and risk assessment of critical materials. This work on critical materials has been focused on the geologic accessibility of by-product commodities and on the international trade flows of commodities.



Bauxite, USGS photo by Scott Horvath