



HOUSE COMMITTEE ON
NATURAL RESOURCES
CHAIRMAN BRUCE WESTERMAN

To: House Committee on Natural Resources Republican Members
From: Energy and Mineral Resources Subcommittee, Ashley Nichols –
Ashley.Nichols@mail.house.gov x63044 & Rebecca Konolige –
Rebecca.Konolige@mail.house.gov x61879
Date: May 2, 2023
Subject: Oversight Hearing titled *“Examining the Mineral Wealth of Northern Minnesota”*

The Subcommittee on Energy and Mineral Resources will hold an oversight hearing titled, *“Examining the Mineral Wealth of Northern Minnesota”* on Tuesday, May 2, 2023, at 1:30 p.m. (CT) at the auditorium of Mountain Iron-Buhl High School, Mountain Iron, Minnesota.

Member offices are requested to notify Lonnie Smith (Lonnie.Smith@mail.house.gov) and Madeline Bryant (Madeline.Bryant@mail.house.gov) **by 4:30 p.m. on Friday, April 28, 2023**, if their Member intends to participate in the hearing.

I. KEY MESSAGES

- Northern Minnesota is home to several rare geological formations, including those colloquially known as the Iron Range, the Duluth Complex, and the Tamarack Complex that hold vast deposits of taconite (iron ore), copper, nickel, cobalt, platinum, and other hardrock minerals in North America.
- Taconite has been mined in Northern Minnesota for more than 130 years, providing material vital to the industrialization of America. Minerals mined in the region helped our nation win two world wars. It has also created a source of employment for generations.
- Production of copper, nickel, and other nonferrous minerals (those not containing iron), is not yet active, but there are several interested operators in the region working through different stages of state and federal permitting processes.
- Operating on the non-federal estate allows for more clarity in the regulatory environment. Attempting to operate on federal lands unfortunately has become synonymous with bureaucratic delays. Some projects have been in development for decades, with resistance from anti-mining administrations creating barriers outside of the regular approval process. Under the Biden administration arbitrary mining bans have also been used to shut down production opportunities, including the mineral withdrawal of 225,504 acres of the Superior National Forest land, finalized by the Biden administration in January 2023.
- Witnesses will discuss the local and national benefits of developing the resources in Northern Minnesota to their full potential.

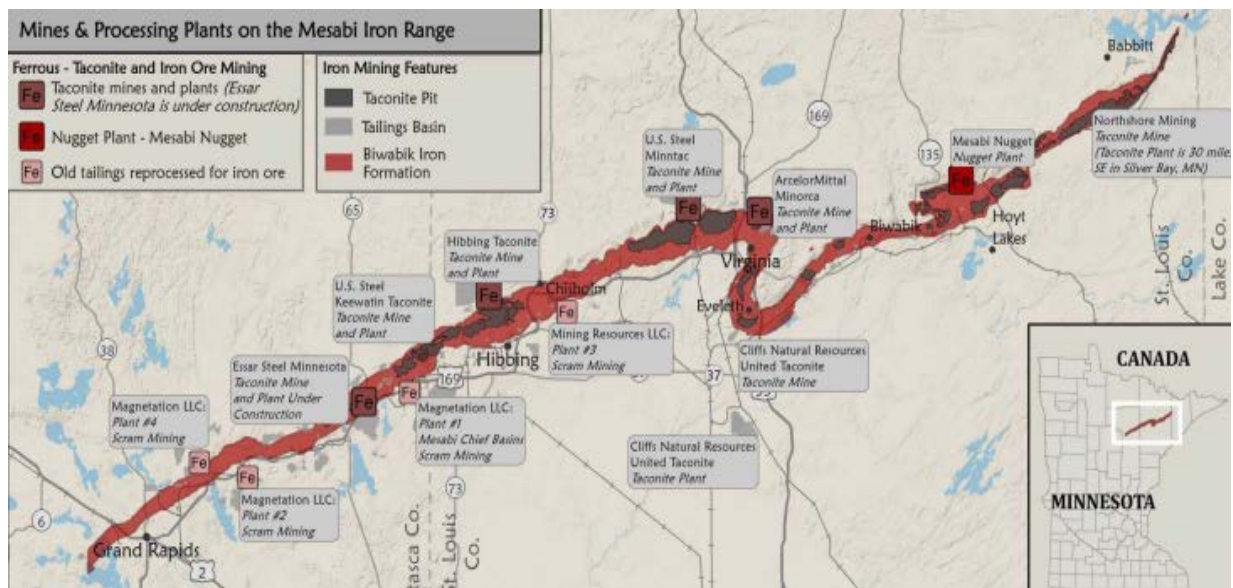
II. WITNESSES

- Ms. Jessica Johnson, Community Outreach and Government Relations Manager, Talon Metals Corp., Tamarack, MN
- Dr. Dean Peterson, Chief Geologist, Big Rock Exploration, Minneapolis, MN
- Mr. Joe Baltich, Owner, Northwind Lodge, Ely, MN

III. BACKGROUND

Geology and History of Mining in Northern Minnesota

Northern Minnesota is home to the historic Iron Range, which has been safely mining iron ore, a critical component in steelmaking, for over 130 years. Taconite, the lower-grade iron ore mined in the Iron Range today, accounts for around 80 percent of America's steel supply.¹ The Laurentian Divide divides the geology of the region in half, forming the Rainy River Watershed and Lake Superior Watersheds.² The Iron Range are three distinct "ranges" running from east to west over a mix of state and federal land: the Cuyuna, Mesabi, and the Vermilion.³



Source: Minnesota Department of Natural Resources, https://files.dnr.state.mn.us/lands_minerals/mcc_docs/2016_explore_iron_ore.pdf

The Superior National Forest in northeastern Minnesota contains 3.7 million acres of National Forest System land, including the Boundary Waters Canoe Area Wilderness (BWCAW). The BWCAW encompasses over a million acres, with an additional "buffer zone" of 227,000 acres in the Mining Protection Area, a unique designation created by the Boundary Waters Canoe Area Wilderness Act of 1978.⁴ This region is a part of the Rainy River Watershed.

¹ Bloomquist, Lee, "Domestic steel production reaches new highs," June 10, 2021, http://www.businessnorth.com/around_the_region/domestic-steel-production-reaches-new-highs/article_af096364-ca04-11eb-a7af-9ffd24acb7eb.html.

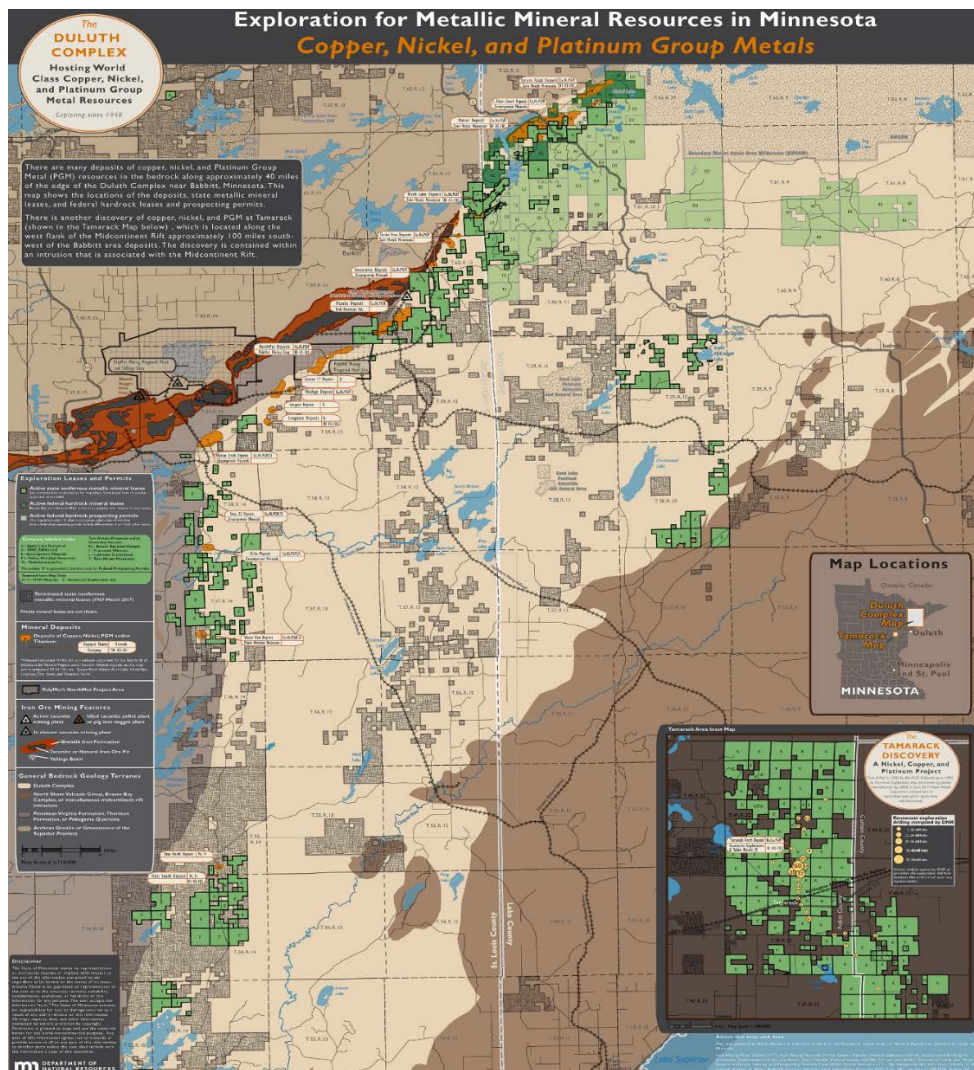
² Kerri Westenberg, "Near Hibbing, Minn., a geological force of nature," Star Tribune, August 28, 2020, <https://www.startribune.com/near-hibbing-minn-a-geological-force-of-nature/572243822/>.

³ William Cannon, U.S. Geological Survey, "The Lake Superior Iron Ranges: Geology and Mining," Presentation, <https://mn.water.usgs.gov/projects/tesnar/2011/Presentations/CannonIron%20ranges.pdf>.

⁴ U.S. Department of Agriculture, Forest Service, "BWCAW Overview and History," <https://www.fs.usda.gov/detail/superior/specialplaces/?cid=stelprdb5203434>.

Under the Superior National Forest and throughout the Iron Range lies the Duluth Complex, one of the largest undeveloped mineral reserves in the world.⁵ The potential of this area for mining has long been acknowledged, even by the federal government. According to the Superior National Forest Plan, mining is a “desired condition” for the area.⁶ The vast amounts of copper and nickel, as well as cobalt and platinum metal groups, have attracted interest from different developers over the decades.

Further south is the Tamarack Complex, another massive formation of hardrock minerals. The Tamarack complex holds nickel concentrates of up to 12%.⁷ The Talon Metals Project proposes to mine nickel and other nonferrous minerals from the Tamarack Complex on state and private land; the NewRange Copper Nickel project proposes to mine nonferrous minerals on private land from the Duluth Complex; and the Twin Metals project proposed to mine nonferrous minerals on federal land in the Duluth Complex.



⁵ Mining Minnesota, “Minnesota’s Vast Mineral Resources,” <http://www.miningminnesota.com/duluth-complex/>.

⁶ U.S. Forest Service, Superior National Forest. Forest-wide Management Direction, https://www.fs.usda.gov/Internet/FSE_DOCUMENTS/fsm91_050599.pdf.

⁷ Talon Metals, September 13, 2021, “US EV Battery Supply Chain: Talon Metals Announces Record Grades Drilled at Tamarack Nickel Project in Minnesota,” <https://talonmetals.com/us-ev-battery-supply-chain-talon-metals-announces-record-grades-drilled-at-tamarack-nickel-project-in-minnesota/>

Source: U.S. Geological Survey, Metallic Resources in Duluth Complex Map, March 2017, <https://www.usgs.gov/media/images/metallic-resources-duluth-complex-map>.

Global Demand and the Role of Nonferrous Minerals in Northern Minnesota

Hardrock minerals are needed for a variety of high-tech applications including smartphones, defense systems, and renewable energy technologies.⁸ Despite substantial U.S. reserves, most of these resources are sourced abroad, and China is dominant in the global marketplace. Our major import reliance on foreign nations for many important minerals presents clear national and economic security concerns.

The world will experience surges in demand for hardrock minerals in the coming decades, largely due to growth in the renewable energy sector and policies incentivizing carbon-free energy sources. For instance, achieving a global net-zero emissions economy would require six times more mining by 2040 than what occurs today.⁹ Attempting to meet the goals of the Paris Agreement would increase demand for copper and rare earth elements by over 40 percent, demand for nickel and cobalt by 60 to 70 percent, and demand for lithium by nearly 90 percent.¹⁰ The Duluth Complex and Tamarack Complex could both be crucial suppliers of copper, nickel, and cobalt, all of which are vital for electric vehicles (EVs) and other renewable technologies.¹¹ The deposits are among the richest in the world, containing an estimated 7.7 billion short tons of ore in total.¹²

Advantage of Development off Federal Lands

While operations off the federal estate are not immune from challenges, avoiding the federal government's involvement provides at least a fair shot at completing a project. For example, the Talon Metals project, which operates only on private and state land in the region, already has a purchase agreement with Tesla in place, pending completion of several permitting thresholds, despite not yet developing minerals.¹³

The NewRange Copper Nickel Project is also on non-federal land. One of its predecessor companies, PolyMet Mining, completed an administrative land exchange in 2018 that provided the company with control over surface and mineral rights.¹⁴ Although frivolous litigation has slowed project development, the company continues to move towards completing all permitting.

Obstacles to Development on Federal Lands

⁸ David Iaconangelo, "Rare earth 'critical' for U.S. offshore projects — study," E&E News, April 5, 2019, <https://www.eenews.net/energywire/2019/04/05/stories/1060143799>.

⁹ International Energy Agency, "The Role of Critical Minerals in the Clean Energy Transition," Executive Summary, <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/executive-summary>.

¹⁰ International Energy Agency, "The Role of Critical Minerals in the Clean Energy Transition," Executive Summary, <https://www.iea.org/reports/the-role-of-critical-minerals-in-clean-energy-transitions/executive-summary>.

¹¹ Thompson, Anne and Douglas, David, "Mining the gap: Companies push to find raw materials for electric vehicle boom," NBC News, November 12, 2021, <https://www.nbcnews.com/science/environment/mining-gap-companies-push-find-raw-materials-electric-vehicle-boom-rcna5077>.

¹² Twin Metals Minnesota. Staff briefing. February 3, 2020.

¹³ Scheyder, Ernest, "Tesla signs deal for first U.S. nickel supply with Talon Metals", January 10, 2022, Reuters, <https://www.reuters.com/business/autos-transportation/tesla-signs-deal-first-us-supply-nickel-with-talon-metals-2022-01-10/>

¹⁴ PolyMet Mining, "PolyMet completes 6,700-acre land exchange with U.S. Forest Service", June 28, 2018, <https://polymetmining.com/investors/news/polymet-completes-6700-acre-land-exchange-with-u-s-forest-service/>

Meanwhile, development on federal land means dealing with the whims of the administration. In the last days of the Obama administration, the U.S. Forest Service filed an application to withdraw 234,328 acres in the Superior National Forest from mineral development, immediately halting all mining activities pending the results of an environmental review.¹⁵ The Obama administration also declined to renew the two mineral leases held by the project operator, Twin Metals Minnesota, despite their long tenure and hundreds of millions of dollars spent exploring the prospective mine site.¹⁶ After 15 months of review, the Trump administration canceled the application for the mineral withdrawal on September 6, 2018,¹⁷ and reinstated the mineral leases on May 2, 2018.¹⁸ In December 2019, Twin Metals formally submitted a Mine Plan of Operation to begin the federal permitting process to development the Duluth Complex, with the Minnesota Department of Natural Resources conducting its own environmental impact review as well.¹⁹

The Biden administration has only made domestic mineral development more challenging and uncertain, despite their stated goals to increase mining to meet rising demand. Unfortunately, the administration canceled²⁰ the two decades-old mineral leases held by Twin Metals in January 2022, and simultaneously began the withdrawal process of over 225,000 acres.²¹ These actions were taken despite years of environmental review, a pending Mine Plan of Operations at the Bureau of Land Management,²² and a myriad of comments and letters from Members of Congress, mineral developers, local residents, union workers, and many other parties stating their support for the project. Unfortunately, the finalized withdrawal of 225,504 acres went into effect on January 31, 2023.²³

Local Economic Benefits

The mining sector provides tremendous economic benefits to the residents of Northern Minnesota. For instance, in 2019, mining contributed over 11,600 jobs, \$1 billion in labor income, \$2.1 billion in value-added spending, and more than \$4 billion into the state's economy.²⁴ Mining jobs offer comparatively high wages, with an average mine worker in Minnesota earning close to \$90,000 compared to around \$21,000 in the tourism industry.²⁵ More high-paying opportunities will be generated as the nonferrous mining industry continues to develop in the region. For instance, Twin Metals signed a project-labor agreement with the local Iron Range Building Trades Association, guaranteeing local jobs during the mine's

¹⁵ 82 FR 6639.

¹⁶ "The Latest: Twin Metals: Reinstating leases 'important step'," May 2, 2018, Associated Press, <https://apnews.com/7c030dc4e85e4926a2028cb96e32b817>.

¹⁷ U.S. Department of Agriculture, "USDA Removes Roadblock to Mineral Exploration in Rainy River Watershed," Press Release, September 6, 2018, <https://www.usda.gov/media/press-releases/2018/09/06/usda-removes-roadblock-mineral-exploration-rainy-river-watershed>.

¹⁸ U.S. Department of the Interior, "Rescission of December 15, 2016, Lease Renewal Application Rejection. Reinstatement of Mineral Leases MNES 01352 & MNES 01353 as Issued in 2004. Reinstatement of Twin Metal's 2012 Lease Renewal Application," May 2, 2018, <https://www.twin-metals.com/wp-content/uploads/2018/05/2018.05.02-Twin-Metals-Lease-Reinstatement-Decision-002.pdf>.

¹⁹ Karnowski, Steve, "Twin Metals Minnesota files formal mine plan with regulators," Associated Press, December 18, 2019, <https://apnews.com/3cb7d821267e8ada06e1817b5c380eef>.

²⁰ Decision of Tommy Beaudreau, Deputy Secretary of the Interior, January 26, 2022, https://www.blm.gov/sites/blm.gov/files/docs/2022-01/2022.01.26%20Twin%20Metals%20Lease%20Cancellation%20Decision_0.pdf.

²¹ U.S. Department of the Interior, "Biden Administration Takes Action to Complete Study of Boundary Waters Area Watershed," Press Release, October 20, 2021, <https://www.doi.gov/pressreleases/biden-administration-takes-action-complete-study-boundary-waters-area-watershed>.

²² Bureau of Land Management, NEPA number: DOI-BLM-Eastern States-0030-2020-0006-EIS, <https://eplanning.blm.gov/eplanning-ui/project/1503233/510>.

²³ 88 FR 6308

²⁴ University of Minnesota Duluth, Bureau of Business and Economic Research, "Economic Impacts of Ferrous and Nonferrous Mining on Minnesota and the Arrowhead Region Including Douglas County, Wisconsin," June 3, 2020, <https://conservancy.umn.edu/bitstream/handle/11299/216463/UMD%20BBER%20Mining%20Economic%20Impact%20Report%202020.pdf?sequence=1&isAllowed=y>.

²⁵ Twin Metals Minnesota. Staff briefing presentation. September 2019.

construction.²⁶ Construction of just the Twin Metals project would create about 700 direct and 1,400 indirect jobs.²⁷

The economic benefits of mining are felt throughout the state, as mineral development provides funding to every school district in Minnesota through the Permanent School Fund (Fund),²⁸ including to the Mountain Iron-Buhl High School where this field hearing will take place. For the 2022-23 school year, the Fund contributed \$38.8 million to 329 public school districts and 181 academies and charter schools.²⁹ Distributions have increased by more than 38 percent over the past ten years.³⁰

²⁶ Vandervort, Keith, "Twin Metals inks project labor agreement with trades," The Timberjay, August 21, 2019, <http://timberjay.com/stories/twin-metals-inks-project-labor-agreement-with-trades.15357>.

²⁷ Twin Metals Minnesota. Staff briefing presentation. September 2019.

²⁸ Bloomquist, Lee. "Mining Funds All Minnesota Schools," Mesabi Daily News, June 27, 2018, https://www.virginiamn.com/mine/mining-funds-all-minnesota-schools/article_e0220246-7979-11e8-b515-635cdec50b2c.html.

²⁹ State of Minnesota, Office of School Trust Lands, Revenue Distribution, <https://mn.gov/school-trust-lands/beneficiaries/revenue-distribution/>.

³⁰ State of Minnesota, Office of School Trust Lands, Revenue Distribution, <https://mn.gov/school-trust-lands/beneficiaries/revenue-distribution/>.