

Twin Metals Minnesota (TMM) Project Update

Mining Minnesota Annual Membership
Meeting

May 24, 2017

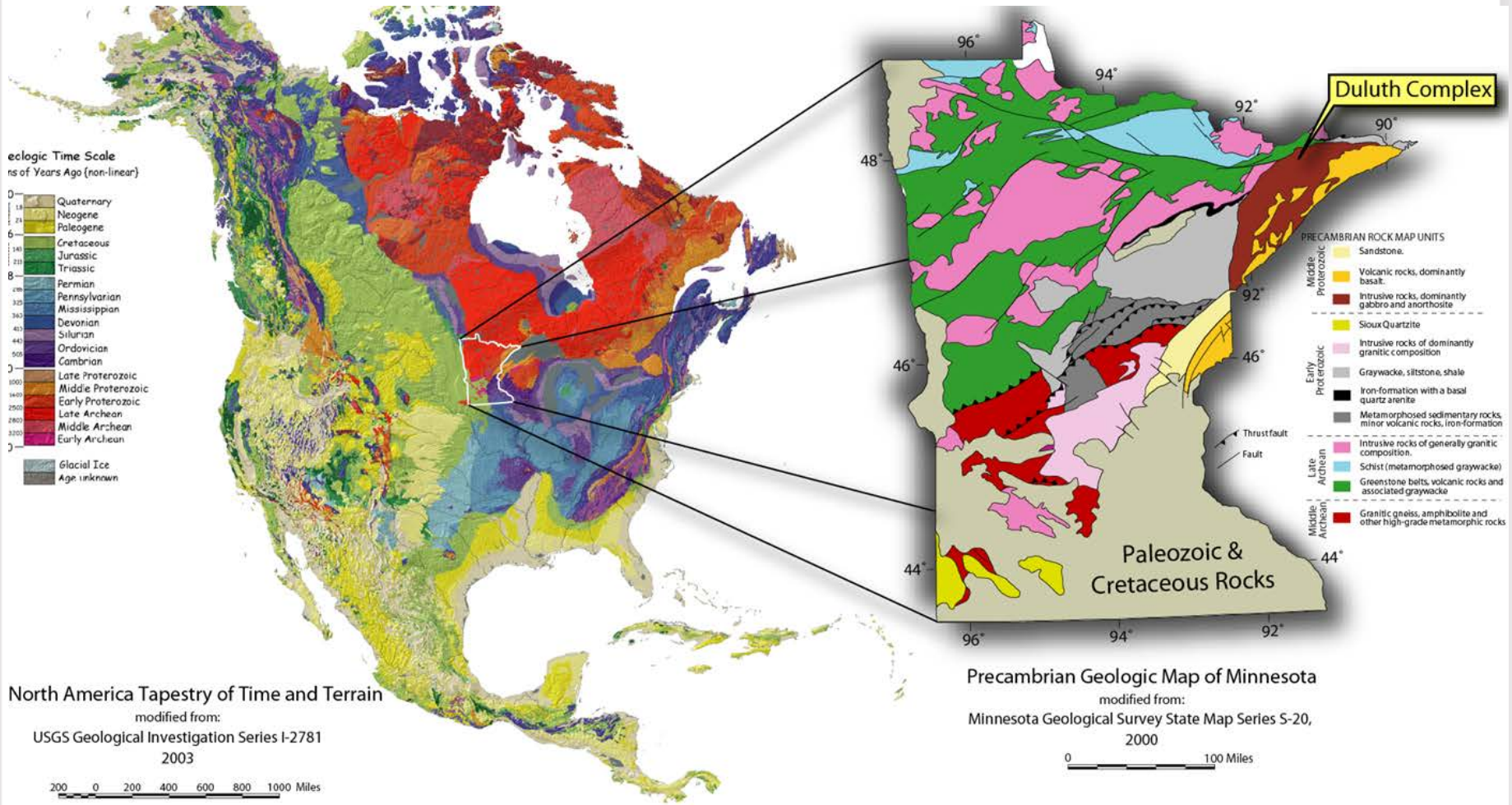


Who We Are

- Minnesota company focused on designing, constructing & operating an underground copper, nickel, platinum, palladium, gold & silver mining project in northeast Minnesota
- Wholly owned subsidiary of Antofagasta plc, one of the top 10 global copper producers
- Offices in Ely and St. Paul



Project Location & Geologic Setting

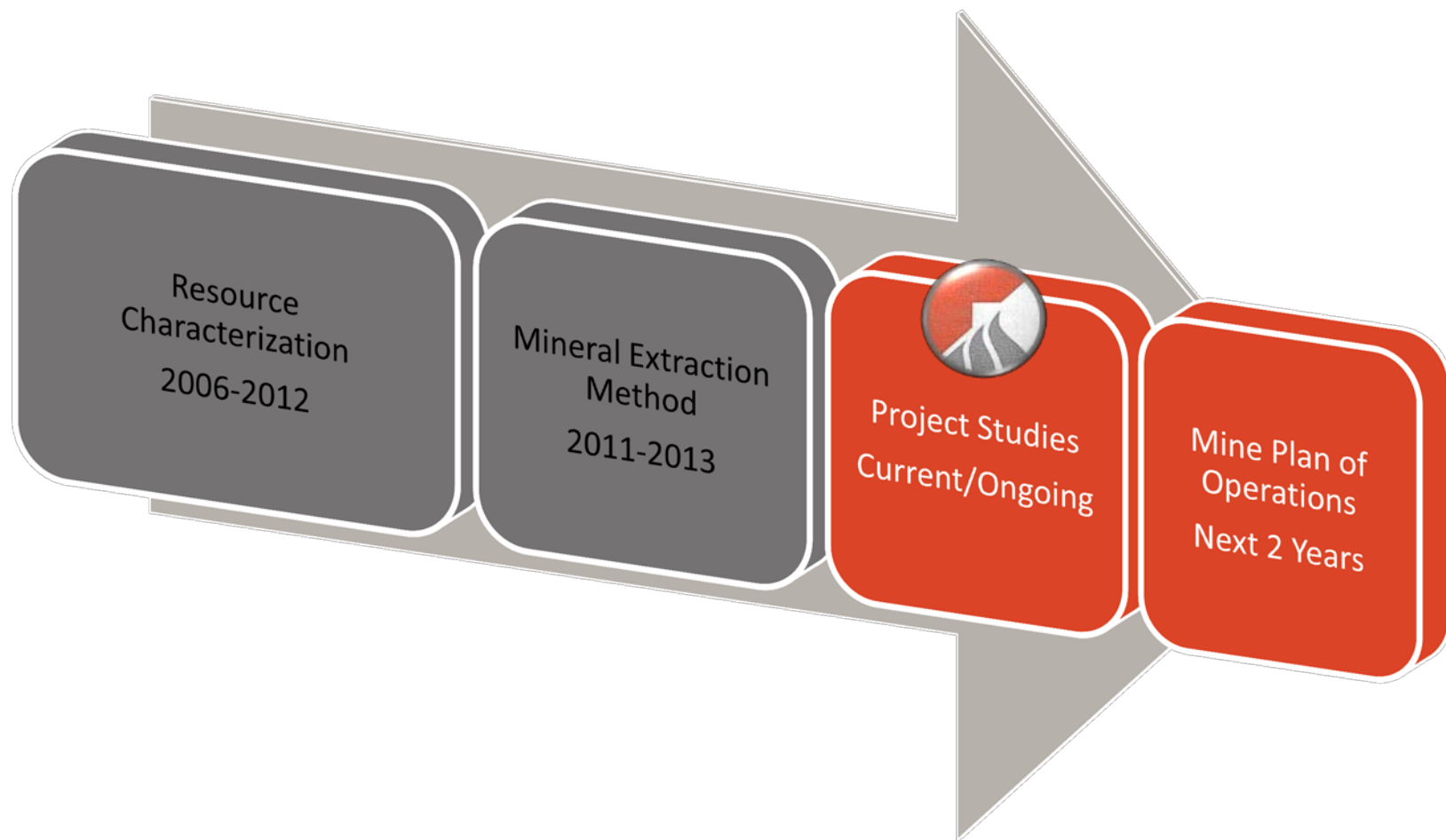


TMM's Commitment to Minnesota

- Twin Metals' predecessor company, Duluth Metals, began operations in Ely in 2006
- Opened Ely operational headquarters in 2011
- Opened the Ely Core Storage Facility in 2013
- Total investment to date – contractors, infrastructure, personnel ~\$400 million
- \$320K+ in support of local organizations



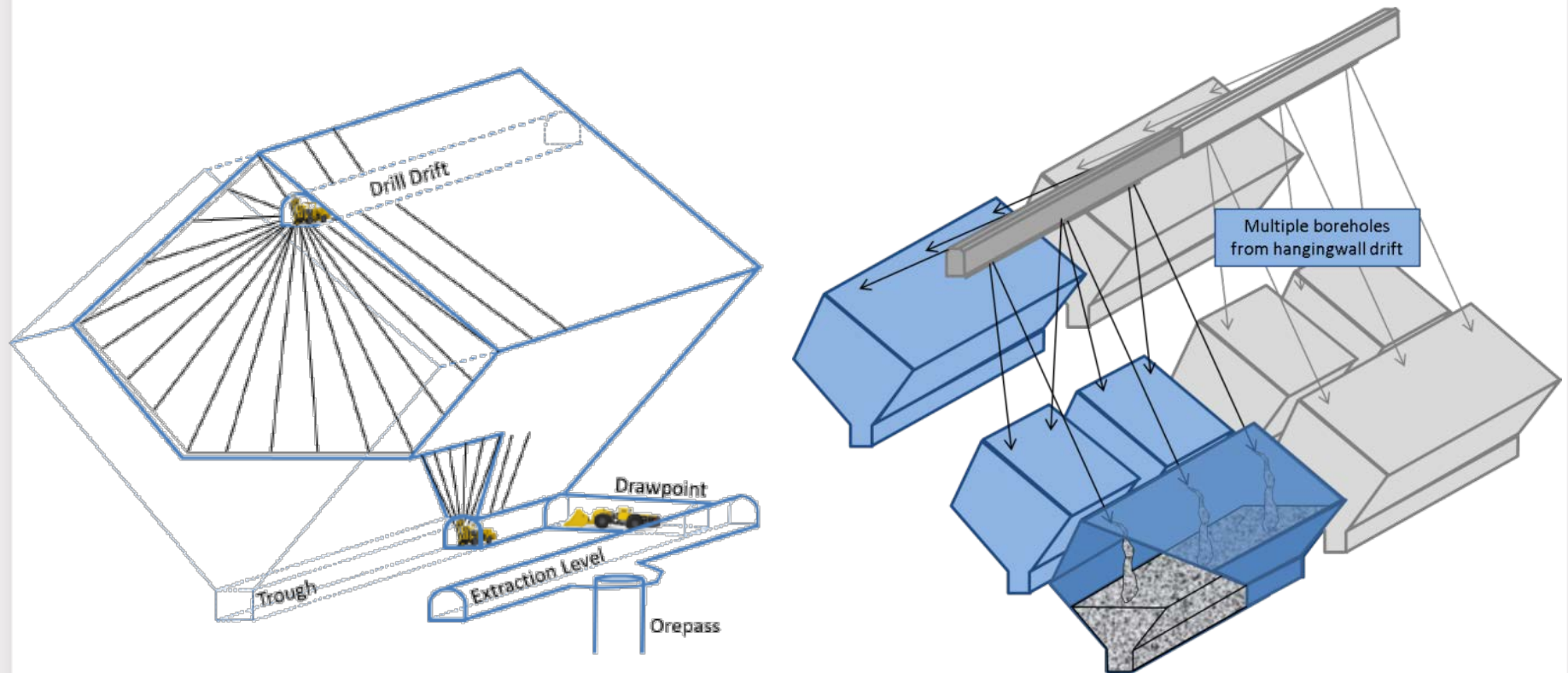
Project Timeline



Project Details

- **Underground Mine focused on Maturi Deposit**
 - Efficient and compact, minimizing impact on land surface
 - 20K tons of ore/day
 - Producing concentrates for sale to market
- **Tailings**
 - 50% underground as cemented backfill
 - 50% in modern surface storage facility near existing mining area outside the Rainy River Drainage
 - Tailings are non-acid generating
- **Waste Rock**
 - No permanent waste rock piles

Example Underground Mining Method



Economic Investment & Local Job Creation

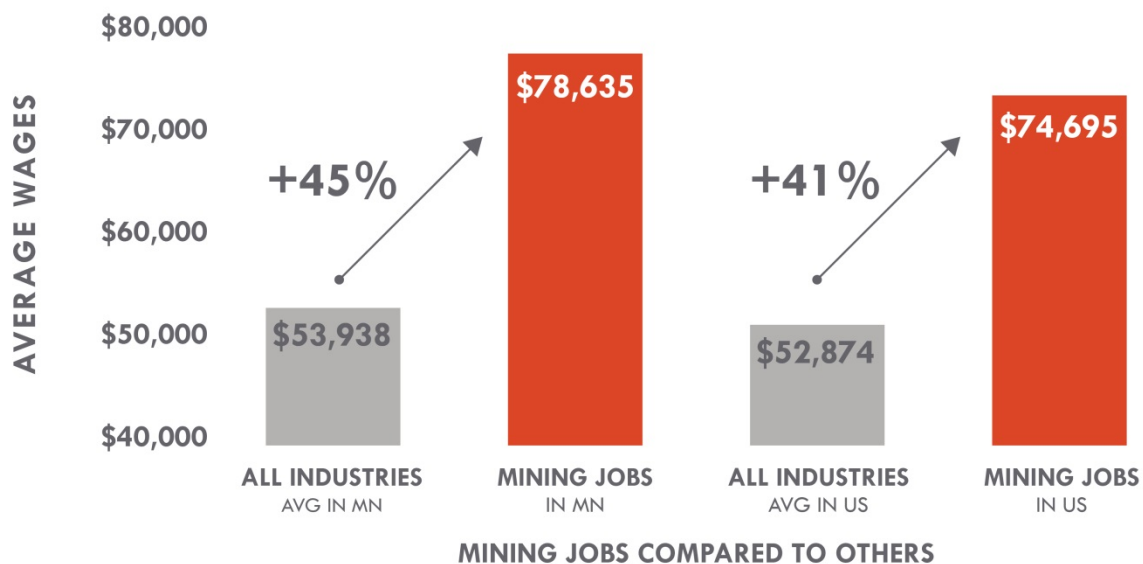
- ~\$1.2 billion investment in further design & construction
- Several million labor hours during 3-year construction period
- 650 direct mining jobs
- 1,300 spinoff jobs in other industries
- State and federal taxes and royalties



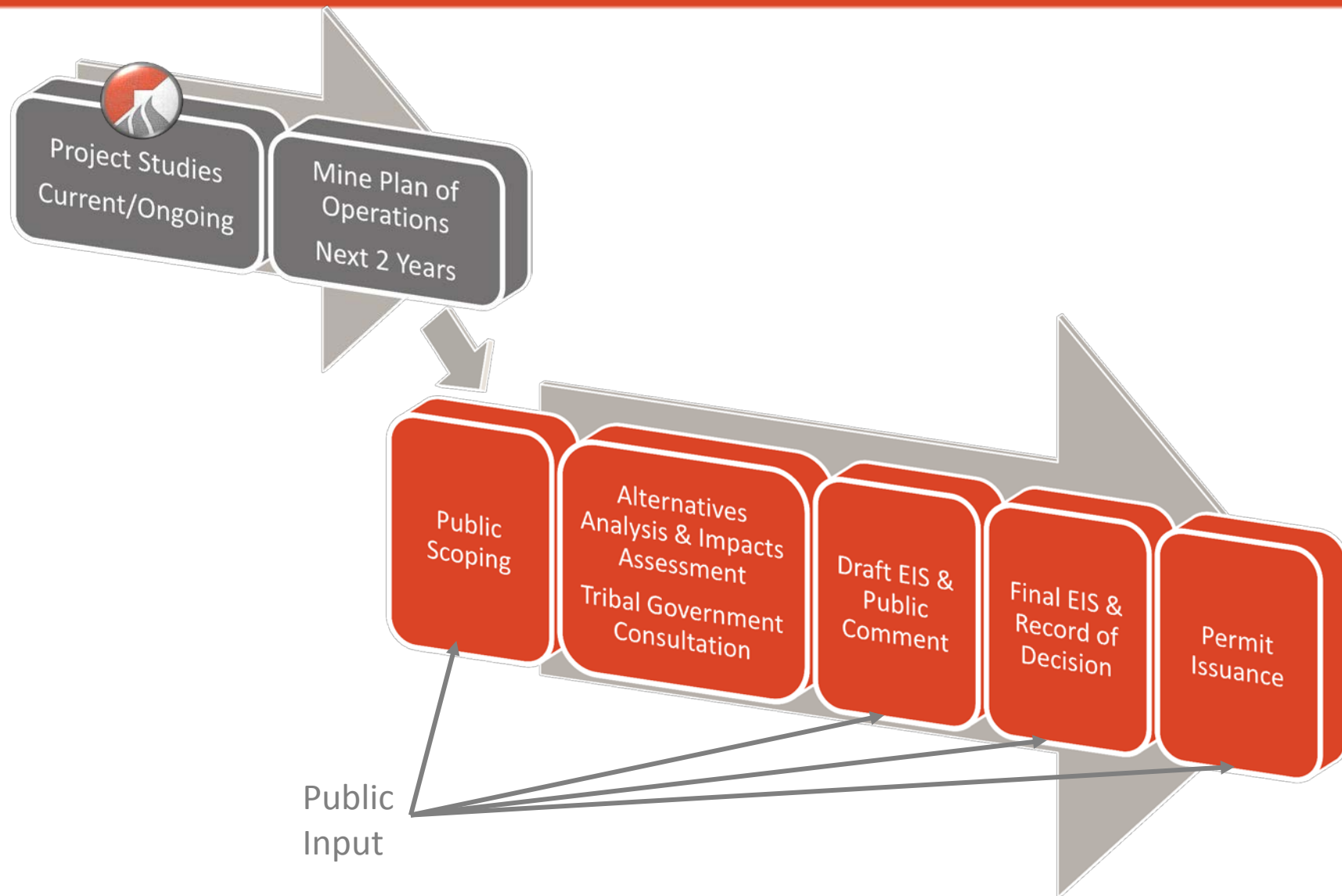
Mining Wages

ANNUAL MINING WAGES 2015

SOURCE: U.S. BUREAU OF LABOR STATISTICS



Next Steps



Opportunity Under Threat

- TMM's federal mineral rights must be resolved in order for the project to progress towards providing jobs and economic opportunity in Minnesota.
 - In 2016 TMM filed a lawsuit in U.S. District Court in Minnesota to affirm and protect its long-standing federal mineral rights.
 - The mining industry as a whole is under threat by the U.S. Forest Service and Bureau of Land Management, which are pursuing widespread mineral withdrawal in northeast Minnesota.

Questions?

