## MINE READER



Establishing a mining project, such as the Twin Metals Minnesota underground strategic metals mine, takes a lot of analysis, field study and time. The U.S. Environmental Protection Agency (EPA) lists nine steps a mining project must complete before it can become operational. In a two part series, we will review these steps to show the process a mine must go through to become operational. Here are the first four steps, in order:



- EXPLORATION All mines begin their life in the exploration phase. It is the process of searching for a mineral deposit, and then identifying the minerals and the deposit's overall size.
- ADVANCED EXPLORATION Is an advancement of exploration activities to include the development of detailed mineralization reports and models of the deposit to aid in the development of the Mine Plan of Operation (MPO).

- ENVIRONMENTAL STUDIES Are conducted in combination with advanced exploration activities to determine the current status of conditions on a mine site and identify potential environmental impacts. Data is included in the MPO.
- 4. PREFEASIBILITY STUDIES Occur in combination with advanced exploration and environmental studies to analyze the siting, environmental protection strategies, mine engineering and design, mine processing technologies, facility locations and estimated economic impacts such as job creation, royalties and tax revenue. The prefeasibility study is the final step a mine takes before developing its MPO. The MPO will be submitted during the permitting stage to state and federal regulatory agencies for a rigorous and thorough environmental review.



Currently, the Twin Metals Minnesota mining project is in the prefeasibility study phase, working toward completing its MPO.

For more information on Twin Metals Minnesota's project, please visit www.twin-metals.com.

The Twin Metals Minnesota "Mine Reader" is a biweekly source of information about its proposed underground copper, nickel, platinum, palladium and gold (strategic metals) mining project in northern Minnesota.

If you have a question about the project, please submit it to info@twin-metals.com. Thank you for your interest.