

# Popping the PolyMet Propaganda Pill

By Elanne Palcich

*PolyMet, Inc. is a Canadian company with Swiss ties that is currently undergoing environmental review as it seeks permitting to open the first copper-nickel sulfide mine in the state of Minnesota. The US Forest Service has initiated an environmental scoping process regarding a land exchange that would allow PolyMet to purchase USFS land for its open pits. Hearings are scheduled for October 26 in Aurora and 27 in New Brighton with a public comment period of 45 days.*

It's amazing how easily politicians and media swallow the feel-good propaganda pill presented by powerful mining interests. Mining companies may have cornered the market on minerals, but who owns the monopoly on truth?

We need to consider the following pieces of propaganda with our minds, eyes, and hearts wide open.

## **ARE THESE METALS CRITICAL FOR OUR OWN NEEDS?**

The truth is that the demand for copper, nickel, and a myriad of other metals is coming from China. As China becomes an industrial nation, it is moving its population from rural to urban areas. These metals are needed for residential pipes and wiring and factory construction and processes. In addition China is aggressively building infrastructure and transportation systems to accommodate 1.4 billion people as it seeks to become the next great industrial power.

China is accepting metals in semi-processed form, such as would be produced by the hydrometallurgical process proposed by PolyMet. China is currently stockpiling all such metals.

## **IF WE DON'T MINE IN MINNESOTA, WILL IT BE DONE MUCH WORSE IN ANOTHER COUNTRY?**

The truth is that mining companies, anticipating continued global demand, are mining anywhere and everywhere. Mining in Minnesota will not stop mining in any other place.

In fact, the extent of global mining creates its own cycle of demand for more metals, more oil for fuel and more electricity. Resources are used to mine low grade ores and then transport them to...China.

In the case of proposed underground mining in Minnesota, no one is discussing worker safety. When deposits are so low grade, companies are going to seek ways to cut costs.

## **WILL NEW MINING PROCESSES PREVENT POLLUTION?**

Mining less than 1% ores requires blasting, crushing, and grinding of rock. 99% of this process ends up in waste rock piles and tailings. According to the PolyMet DEIS, 300 foot high waste rock piles would be covered with glacial till and seeded with vegetation. Tailings would be heavily fertilized and seeded upon closure. Synthetic liners and caps on selected waste rock or tailings would temporarily keep air and water from reacting with sulfur in the crushed rock to form sulfuric acid. Ditches would be placed around the stockpiles to catch runoff and drain it away. None of this is new or high tech.

Residues from the hydrometallurgical and flotation process would be layered in special lined tailings basins and covered with less reactive tailings. There are predicted leaking rates for plastic liners, allowing toxic heavy metals to eventually seep into ground water. Particulates and air emissions from operations would produce haze and contribute to acid rain.

In an underground setting, acid and toxic heavy metal leaching occurs through both natural fractures in the rock and those created by blasting. Underground mining also produces waste rock and tailings. Although some of the waste rock would be piped back underground upon closure, in the interim it would be exposed to the air and water which reacts with sulfur to create sulfuric acid (H<sub>2</sub>SO<sub>4</sub>).

Because the formation of sulfuric acid requires both air and water, it is extremely difficult to prevent acid mine drainage in a wetland environment, such as that of northeast Minnesota. Even if waste rock is stored subaqueously, as being proposed as part of PolyMet closure plans, some air is always present in water; acid mine drainage may be slowed, but not prevented. This is why the mining of sulfide ores requires perpetual treatment, as noted by the EPA in its analysis of the PolyMet draft environmental impact statement.

The only thing really “new” about this kind of mining is refinement of the ability to extract very low grade ores through heat, pressure, and chemicals. Propaganda terminology converts this into “next generation environmentally friendly mining.”

Sulfur, oxygen, and hydrogen are neither created nor destroyed in the hydrometallurgical process or in the stockpiling of waste rock and tailings. Sulfur is exposed to oxygen and hydrogen through air and water when that sulfur is released from the bedrock where it lies embedded. Nice sounding words do not prevent acid mine drainage.

## **ARE THESE METALS NECESSARY FOR A GREEN FUTURE?**

The mining of low grade ores, by virtue of the amount of energy required to remove them from the bedrock, are the antithesis of “green”. In addition to mining our own rock, the PolyMet process requires 200,000 tons per year of limestone, which must also be mined and railed in. Nine tank cars per month of sulfuric and hydrochloric acid would be railed or trucked in, along with flocculants and other chemicals. Huge machinery runs on diesel fuel and electricity. (For example, Minntac uses as much

electricity in one day as all of Duluth and Superior in two days.) Mining trucks require frequent replacement of tires. Semi-processed ores must be shipped somewhere else for final smelting. Mining leaves behind a huge energy footprint.

PolyMet's open pits would destroy over 1000 acres of carbon sequestering wetlands, the greatest single loss in the Minnesota history of the Army Corps of Engineers, as well as destroying wildlife habitat. Mining operations create noise, light, and dust pollution on a 24 hour basis. The opening of a sulfide mining range in northeast Minnesota, which would include PolyMet, Duluth Metals, Franconia, Encampment, Teck Cominco and others, would replace a green ecosystem with waste rock and would pollute watersheds draining into both Lake Superior and the Boundary Waters Canoe Area. In addition to contaminating water supplies, mining operations are net water users.

Political momentum supports a green future that would be based upon using energy intensive raw materials. By relying on mining of scarce metals, we are failing to invest in research and technologies that might actually be green. Instead of encouraging consumers to buy more in an unending cycle, leaders should be promoting recycling, conservation and efficiencies. Jobs that offer local goods, services, and repair—while increasing durability, saving on transportation, simplifying stressful lifestyles, and building community--would also be jobs that can't be outsourced.

We need to define as a nation the meaning of a green and sustainable future.

### **WILL MINING REVIVE THE ECONOMY BY PROVIDING JOBS?**

Mining propaganda doesn't mention the jobs that will be lost—those that involve tourism and recreation in the area immediately adjacent to the Boundary Waters Canoe Area, and ultimately affecting the wilderness itself. Visitors choose the Boundary Waters to get away from noise and pollution.

Mining will also destroy jobs for the future. Land cordoned off after mining is land not available to the public. Waste rock piles, tailings basins, and open pits are uninhabitable. Lands will not be available for hunting and fishing, and fisheries will be destroyed by mercury, other toxic heavy metals, and acid mine drainage. Jobs will be lost to forestry, as forests cannot be grown or harvested from tailings, waste rock piles, and open pits. Lakeshore property in the Birch Lake and Kawishiwi River area will be sacrificed to a mining zone.

When the mining companies proclaim a 5 billion ton reserve of disseminated nonmetallic metals in northeast Minnesota, the result is 49 ½ billion tons of waste rock. Opening up a copper-nickel range adjacent to the Iron Range will not diversity the economy of northeast Minnesota. But it will destroy the remaining wilderness character of the Arrowhead.

No one mentions that proposed mining jobs are speculative and that mining uses more equipment and fewer workers. Moreover, these are not existing jobs threatened with termination if PolyMet doesn't

get permitted. These jobs are theoretical and dependent upon the status quo preventing development of alternative technologies that use fewer metals.

*So where should we go from here? Is mining, with its inherent byproduct of destruction of the environment, the only answer for Minnesota? Or should we be exploring for new ideas, rather than putting old ideas into new nomenclature? Should we be mining our creativity as a natural resource? When mining propaganda prevents us from exploring other ideas, it is indeed a bitter pill to swallow.*

Elanne Palcich  
Chisholm, Minnesota



PolyMet's proposed NorthMet site on USFS public lands

[www.sosbluewaters.org](http://www.sosbluewaters.org)