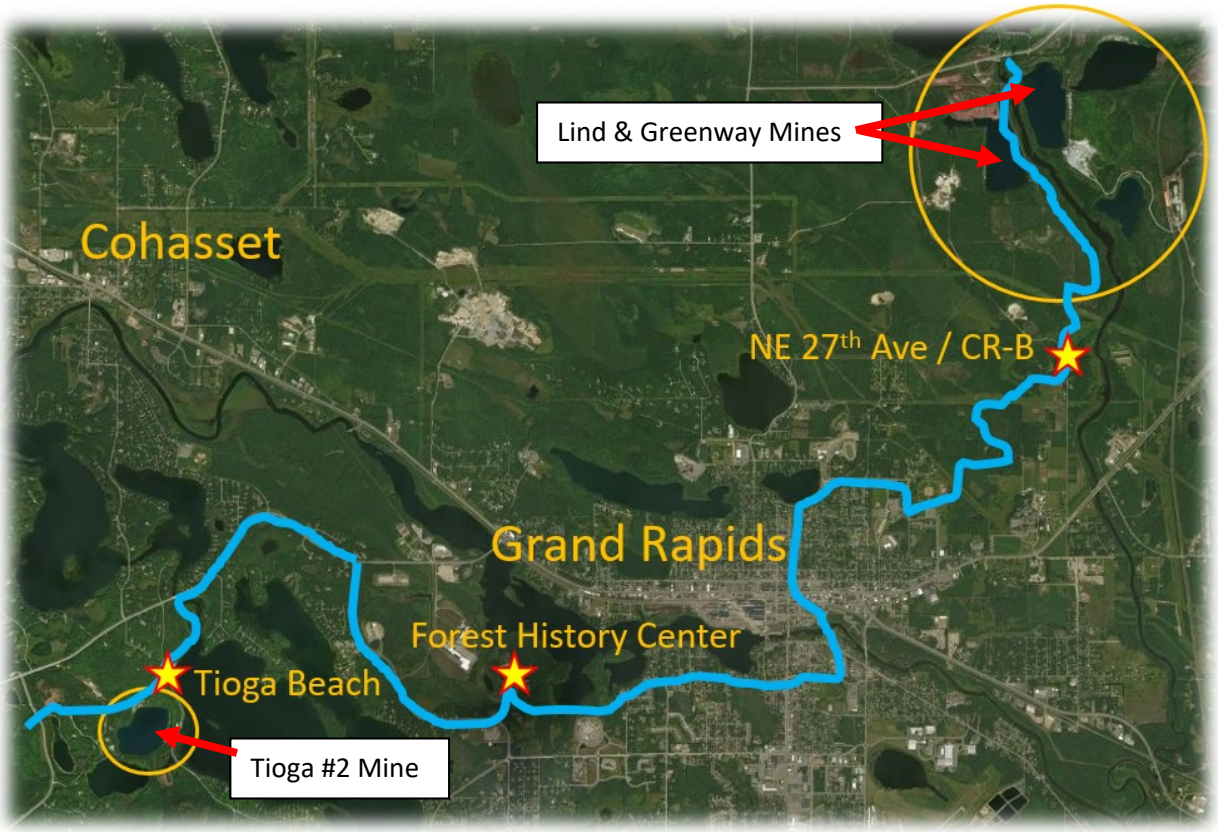
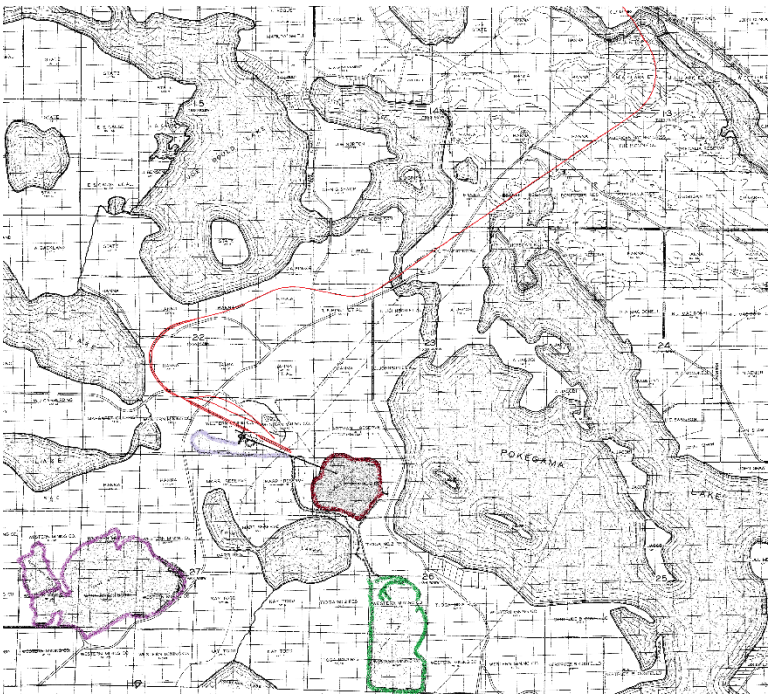
Iron mining history along the North Country National Scenic Trail in the Grand Rapids area



The Tioga #2 Mine

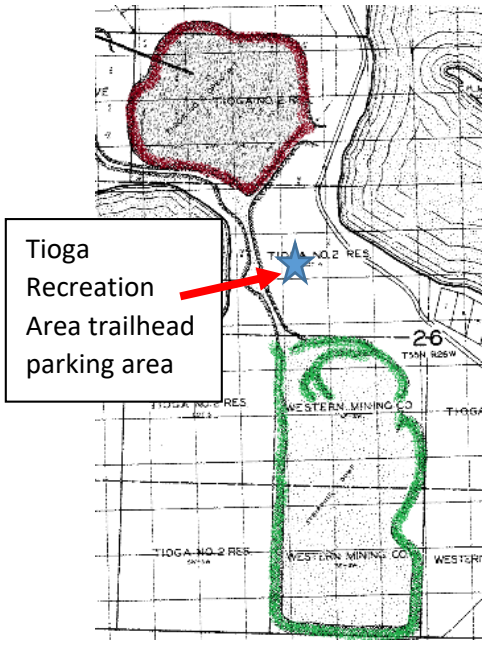
Who owned and ran it: It was operated by the Western Mining Co and was the only iron mine located west of Grand Rapids. The Tioga was owned by the Western Mining Company and operated by Pickand Mathers & Company. The Western Mining Company already had one iron mine on the western end of the Mesabi, west of Coleraine (the West Hill Mine).



When it operated: The mine opened in 1953 and ran until 1961, however production did not start until 1956.

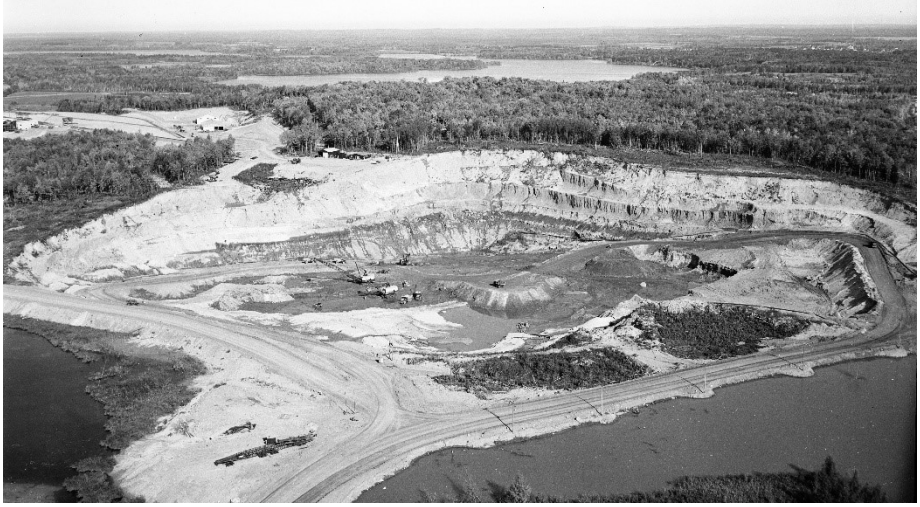
How did it operate: Until a rail line was put in, a road was built through the swamp and woods to reach the mine. The map at right is from the 1955 Great Northern Iron Ore Properties maps showing the rail line as went to the plant. The line traversed three different bridges and swamp to get to the mine. The rail line is shown in red. The mine itself is outlined in maroon, the stripping dump in green, the fines tailings basin in purple, and the coarse ore reject pile in light purple.

Mining started by locating the ore body by drilling and examining core samples. Once the ore body was laid out, stripping of overburden was commenced. The overburden was then hauled southeast of the pit and piled there. Note: this is where many of the Tioga Recreation Area mountain bike trails are located today.

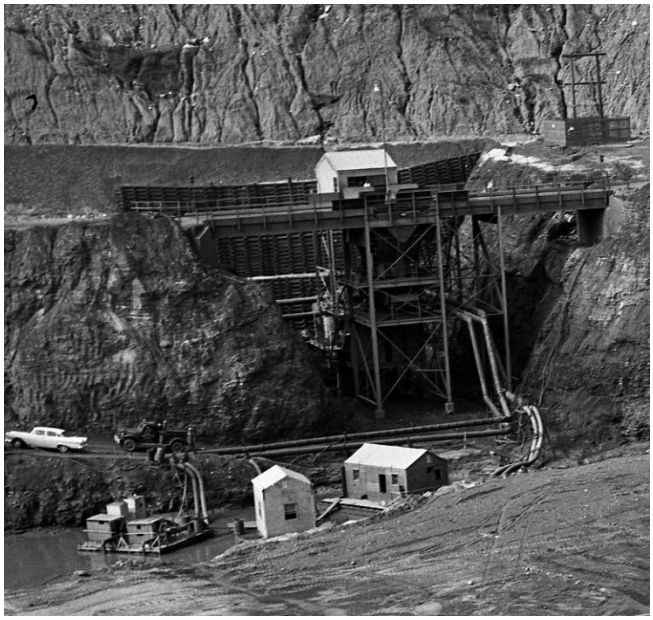


Mining the ore started with the trucks initially hauling the ore up to the plant. Due to the nature of the soil composition above the ore body being clay material, things moved very slowly when the ground was wet, as the truck could only sit and spin their wheels. The solution was the addition of a pit pocket and conveyor that lead to the wash plant on the surface.

Located at the bottom of the mine, along the western wall, the pit pocket would allow trucks to drive over a ramp to the top of the pocket. Their load would be dumped into a waiting bin below, and then driven off the other end.



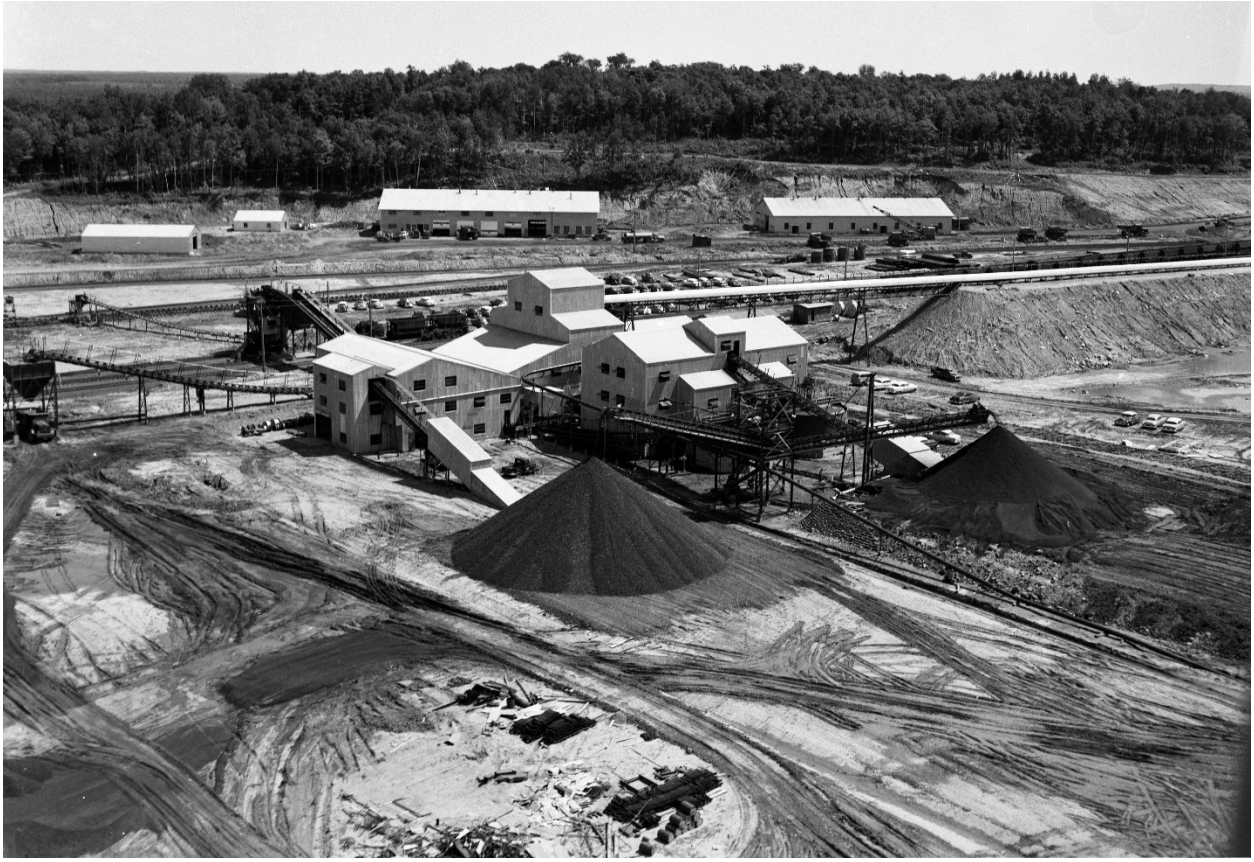
The pit pocket consisted of a screening plant and crusher. The smaller material went through the screen and up the main conveyor up to the surface. The oversized material was crushed down to match that of the material that had already gone through the screen.



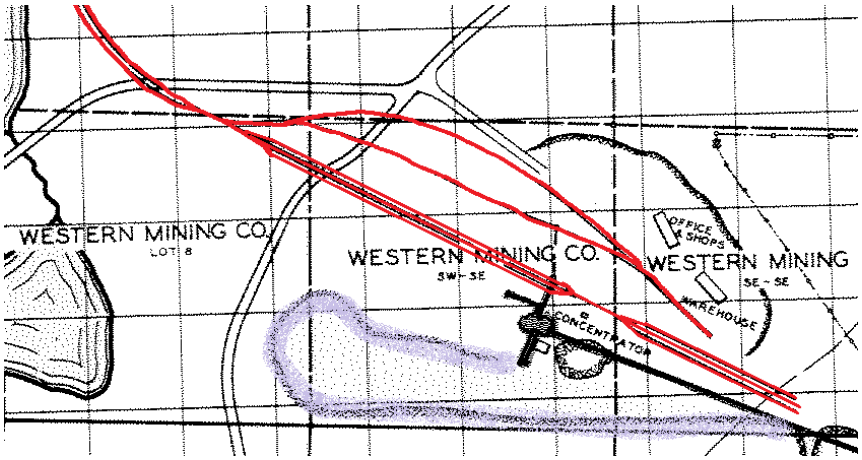
To reach the surface, a conveyor was built, traveling from the bottom of the pit pocket, to the surface. From the bottom of the pit, the conveyor would be routed through a tunnel. It was said, at the time it was built, it was the conveyor belt was the longest single section of conveyor on the world. Note: the spot where the conveyor's tunnel broke through to the surface is visible right off the NCT.

The conveyor would terminate at the top of the wash plant. The ore would be separated by size; the larger material (coarse), and the smaller material (fines).

Each had a different process for beneficiating the ore. Once separated, the ores were stored in separate surge piles outside the plant until it could be further processed.

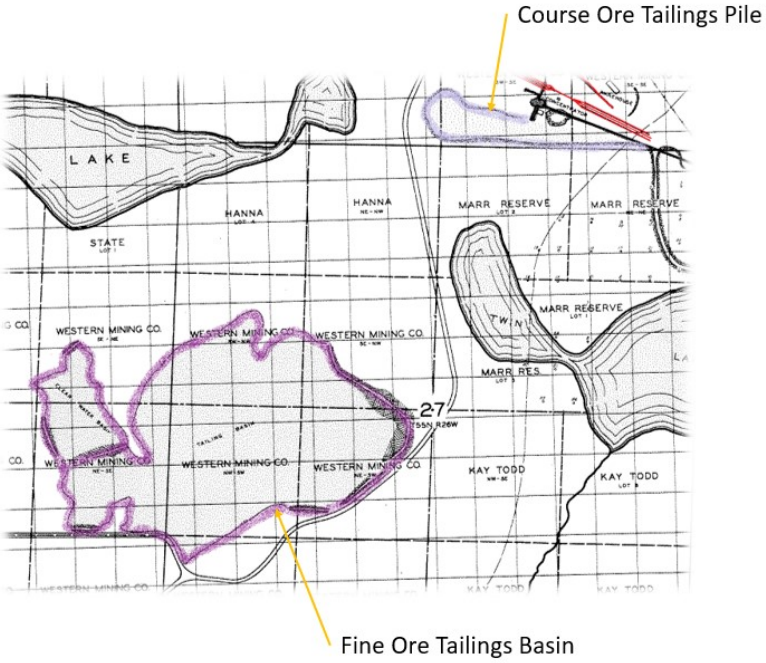


Once through the plant, the ores would be transferred to the rail loadout pockets. Both fines and coarse ores had their own loading pockets. Cars would be dropped by gravity from the tail tracks to the loadout pockets, spotted and loaded, then once again be dropped by gravity to the loads yard.



The Great Northern would deliver cars to the mine and shove them down the empties track to the tail tracks. They would then pick up the loads and head back to the main line. Note: the

The non-ore material that was removed in the beneficiation process was discarded according to its size. Coarse ore tailings were loaded into a dump truck and piled south of the wash plant. Fine ore tailings were pumped out to a tailings pond southwest of the wash plant. Note: the NCT will cross by the western edge of this fine tailings basin to the West of CR-17.



The Tioga #2 Mine operated until 1961 when it would shut down. Over the short life of the mine, 3.7 million tons of ore were shipped out from the property. By 1964, the structures, with exception of the shops and warehouse, were removed. A small operation called Iron Range Plastics would eventually move in. After that closed, Benes Well Drilling moved into the old buildings.

Today there isn't much evidence the operation was there. The pit and mine buildings are still there, but the coarse ore reject pile is slowly being removed as a source for road material. The fines tailing pond and stripping dump has been reclaimed by nature. Houses have popped up along and on the former GN roadbed.

Where does the NCT go in relation to the Tioga #2 Mine facilities?

Lind-Greenway Mine

Who owned and ran it: This was a Jones & Laughlin operation that split the Prairie River. In the middle left of the picture you can see the pit wall for the West Hill.