

The Environmental Responsibility Committee (ERC), that monitors the activities of Cooperative Mineral Resources (CMR) in the proposed Emily manganese project, met for the third time on Wednesday, October 14, to review data and information gained from aquifer and ore extraction tests that were conducted recently.

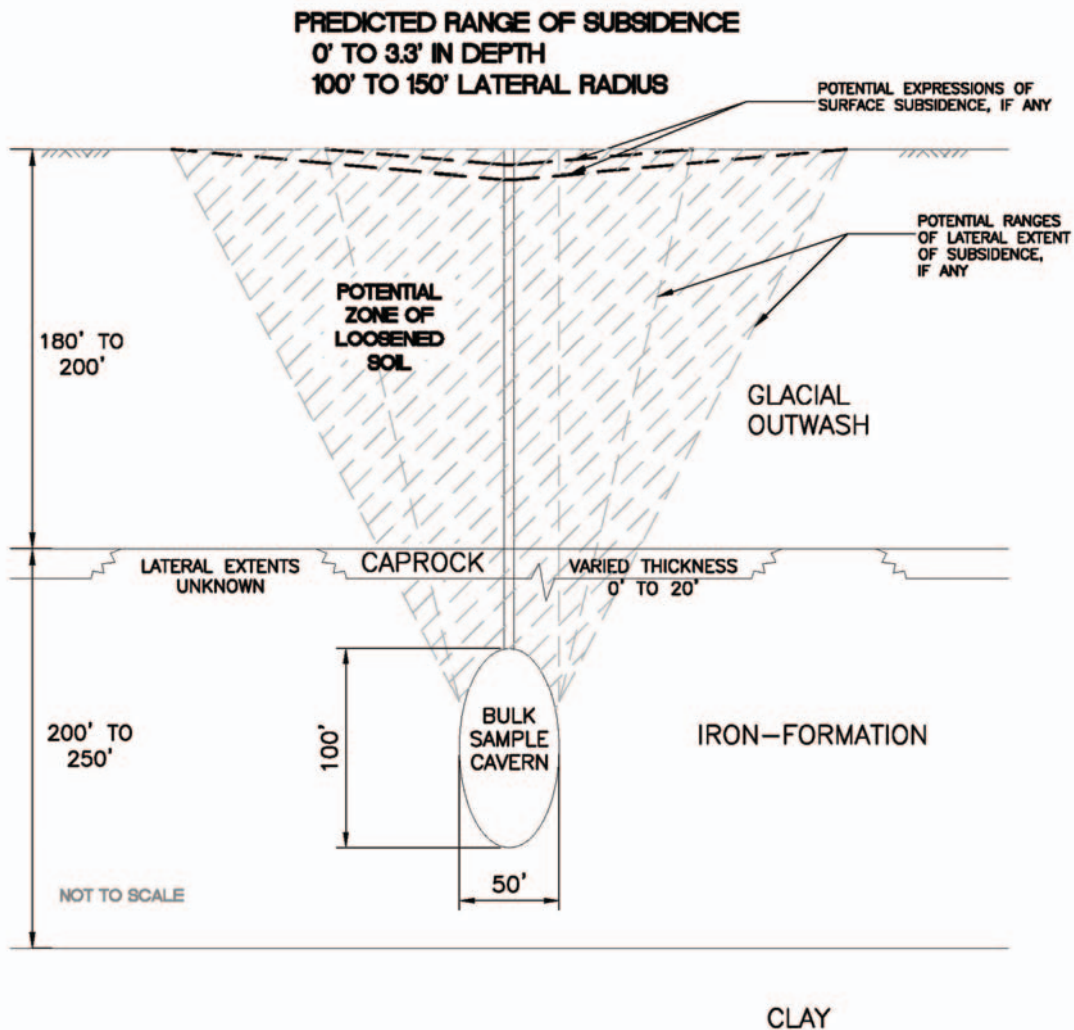
The tests allowed Barr Engineering, a twin cities based firm, and A.W. Research Laboratories from Brainerd to model what would happen to area lakes, groundwater, ground subsidence and residential drinking water should the actual ore extraction occur.

Water levels from seven lakes closest to the manganese site were monitored this summer and checked during the aquifer pumping test to make sure that the borehole extraction procedure planned by CMR to remove manganese would not affect area lake levels. The lakes monitored nearest to the land where the manganese lies were Anna, Andrews, Blue, Buchite, Davis, Roosevelt and Ruth. All of the lakes showed steady reductions in levels throughout the summer due to weather conditions and natural evaporation, but none were affected by the pumping test, as was proven by comparing similar area lakes (Gladstone, Lake Hubert, Little Pelican and Sorenson) that are not near the manganese site.

A study of the tests created a model that could predict what would happen in the spring to area lake levels and water quality, when CMR actually conducts a demonstration project. The demonstration is planned where 12,000 cubic yards of ore would be extracted to model what would be done should a commercial operation be allowed. Ray Wuolo Vice President and Principal Hydrologist from Barr Engineering, presented the findings and in summary said, "The maximum extent of the land where water levels could be affected would be .5 miles from the actual well used for the ore extraction. The maximum predicted reduction on any of the area lakes if anything would be Anna Lake, which is closest at perhaps 1/16th of an inch." Ray added that extremely small amount would likely be almost impossible to measure and that the demonstration planned for pumping and extracting would continue for 12 weeks at 8 hours a day and five days a week once all Environmental Assessments have been approved by the DNR and permits issued.

During the aquifer pumping test, water was pumped at 200 gallons per minute and then returned to the ground. The actual demonstration project planned for spring is estimated to pump water at 40 gallons per minute, but the engineering firm wanted to use an extreme case scenario, to insure the test was adequate.

A second model was presented to show what subsidence of land could occur during the extraction of 12,000 pounds of manganese. To create the model, Barr Engineering bored 429' down into the core of the manganese deposit in August and retrieved a bulk sample of the manganese and other rock. That sample was able to be used to predict what could happen to the surface land when the ore is removed from underground. The computer model indicated that there could be a depression of 3.3 feet with a radius of 100 to 150 feet on the surface.



All of the tests conducted this summer on the proposed manganese project are being done to satisfy regulatory agencies, including the MN DNR, MPCA, Department of Health and the Emily City Council and area residents, as CMR prepares a necessary Environmental Assessment Worksheet. The EAW is planned to be published in mid-November and that follows with a period of public comment, according to Brad Moore, project coordinator for Barr Engineering.

A report on MNDOT's plans indicated that they would require a turn lane on the southbound side of Hwy 6 at the entrance to the mineral land, but would not require a by-pass lane on the north bound side, however Crow Wing Power would like to pursue that as well for safety concerns. The ERC made a motion to request MNDOT to do a traffic speed study as well.

The ERC is made up of regulatory agencies, Emily planning and zoning, area lake associations and land owners. It was formed by CMR in the early summer to insure that all area concerns are heard and addressed and that the proposed manganese extraction project is environmentally sound and economically feasible.

CMR is a wholly owned subsidiary of Crow Wing Power, formed to potentially extract 1 billion pounds of manganese in a five acre plot of land, just north of Emily.