

CORRESPONDENCE/MEMORANDUM

DATE: May 4, 2011 FILE REF: Gogebic Taconite

TO: William Williams, President
Gogebic Taconite, LLC
402 Silver Street
Hurley, WI 54534

FROM: Philip Fauble – WA/5 *Philip Fauble*

SUBJECT: Exploration Borehole Site Inspection Report, Gogebic Taconite, Town of Anderson, Iron County, and Town of Morse, Ashland County Wisconsin

On April 19th, 2011, staff from the Wisconsin Department of Natural Resources (DNR) and Gogebic Taconite, LLC (Gogebic) inspected 8 proposed metallic mining exploratory borehole sites located along the Penokee Range south of Highway 77 in the Towns of Anderson, Iron County and Morse, Ashland County. The locations and description of the proposed exploration activities are detailed in the Notice of Intent to Drill dated March 21, 2011 and as revised on March 29, 2011. The Notice was submitted to the DNR in accordance with ch. NR 130.10(1) Wis. Adm. Code. The purpose of the inspection is to ensure the drill sites will be in compliance with the minimum standards in ch. NR 130.06(2) Wis. Adm. Code, to determine if additional permits might be needed, and to provide appropriate recommendations.

Attendees:WDNR

Philip Fauble – Mining Coordinator, Madison
John Spangberg – Water Reg. & Zoning, Ashland
Chris Saari – Remediation, Ashland
Charles Zinsmaster – Forestry, Mercer

Gogebic Taconite

Bill Williams, President
Tim Meyers, Mining Engineer

Drilling Plan

During the site inspection, several aspects of the drilling plan were modified or clarified by Gogebic. These include the following:

- Drilling water will be obtained from the City of Mellen (a treated municipal source). Since water will not be obtained from a surface water source, water withdrawal permits and disinfection are not required.
- Given the borehole depths, it is likely drilling muds (additives) will have to be used. Only drilling additives approved by the DNR can be used. Have your driller contact me if he does not have a list of approved additives.

- Gogebic indicated that they will be using self-contained drill rig units similar to the ones used by Kennecot at the Eagle Project (MI). The drilling fluids will be contained and collected in tanks. We recommend that spent drilling fluid be taken off site and discharged into a wastewater treatment plant. If you intend to discharge spent drilling fluid on-site, a Wastewater Discharge Permit may be needed. Please contact Sheri Snowbank (715-635-4131) for more information on obtaining a permit.
- The drill cuttings will be collected in tanks and removed off-site for further analysis. No on-site disposal of the cuttings.
- As mentioned in earlier comments, your site reclamation seed mix contains a grass, Kentucky Bluegrass, that is an invasive, non-native plant in Iron County. We recommend you use a seed mix specific to the area that does not include this seed type. We have attached an example seed mix that we feel would be successful. Other mixes are likely available at local nurseries or the County Highway Department.

Specific Borehole Site Comments

All the proposed drill sites are on recently disturbed areas including logging access roads and an old railway roadbed. It does not appear that any significant removal of woody vegetation will be necessary to access or construct the sites. At the time of the inspection, the ground was very soft and the access roads may need work to improve drainage or provide for a firmer subbase. If access road work is needed (i.e. bringing in gravel, culverts, matting), please contact John Spangberg (715-685-2923) to see if the work will require a Stormwater Management permit.

Borings P-26, 148-R, P-24, and P-22 – These drill sites are all located on an old railway grade that parallels the base of the Penokees. There were no locational issues noted for any of these sites. Noted an unabandoned old borehole at site **148-R**. While not required, we would appreciate it if Gogebic would consider cutting off the metal casing and properly abandoning this old borehole at the same time abandonment work is being performed on the new borehole.

Boring P-17 – No locational issues noted. Nice conglomeritic outcrop nearby – erratic or in-situ?

Boring P-18 – On old logging road. No locational issues noted.

Boring P-09 – On old logging road. Site is a bit wet; should be O.K. if the drilling activity is kept to the west, near higher ground.

Boring P-02 – On old logging road. Very wet; appears to be located in a drainageway. Suggest moving the drill site at least 100 feet further up the road (east) to avoid this area. May need fill, culverts or mats to get across this drainageway if it is still flowing when drilling commences (see comment on potential Stormwater permits).

Suggested Iron County reclamation seed mix

(1) Nurse Crop

A nurse crop is needed to quickly revegetate the area and help establish the permanent vegetation. Nurse crop varieties are generally cheap and greatly improve the chance of success. May choose one or a combination of the following:

- Annual rye grass Secale cereale (not perennial) @ 5 pounds per acre
- _ oats at 65 pounds per acre
- _ barley at 70 pounds per acre

If more than one variety is used, adjust ratio accordingly.

(2) Grass component in pounds per acre

Canada Wild Rye <u>Elymus canadensis</u>	3
Little bluestem <u>Schizachyrium scoparium</u>	10
Switchgrass <u>Panicum virgatum</u>	1
Big Bluestem <u>Andropogon gerardi</u>	1
Timothy <u>Phleum pratense</u>	4
Tall Fescue <u>Festuca arundinaceae</u>	5
Orchard grass <u>Dactylis glomerata</u>	3

(3) Forb component in pounds per acre

(a) Alfalfa <u>Medicago sativa</u>	10
Alsike clover <u>Trifolium hybridum</u>	3
White clover <u>Trifolium repens</u>	2

(b) Forbs in ounces per acre

Blackeyed Susan <u>Rudbeckia hirta</u>	1
Canada Tick-trefoil** <u>Desmodium canadensis</u>	5
Dotted Mint <u>Monarda punctata</u>	4
Bergamot <u>Monarda fistulosa</u>	5
Yellow coneflower <u>Ratibida pinnata</u>	3

* Kentucky Bluegrass should not be used (invasive species)