



July 2, 2013

Timothy J. Myers, Engineer  
Gogebic Taconite, LLC  
402 Silver Street  
Hurley, WI 54534

Subject: Bulk Sampling Plan – Necessary Approvals and Supplemental Information

Dear Mr. Myers:

The Department of Natural Resources has completed its initial review of the Bulk Sample Plan submitted by Gogebic Taconite, LLC on June 18, 2013. As required by s. 295.45(3), Stats., the Department is required to identify, in writing, all approvals that will be required before bulk sampling may be initiated.

Based on the information provided in the Bulk Sample Plan, the Department has determined that coverage under a storm water permit will be needed under s. 283.33, Stats. The storm water permit application should include all activities related to the proposed bulk sampling activity, including use and maintenance of any access routes and should also include areas affected by the ongoing exploration drilling. Other approvals, such as those related to air emissions, wetland and waterway protection and wastewater discharge, may also be needed but there is insufficient information contained in the plan to thoroughly assess whether other permits are required. For the Department to complete its review of the approvals that may be required and any waivers, exemptions or exceptions that may be potentially available for bulk sampling activities, the Department requests the following additional information.

1. Provide a more detailed description of the actual sampling procedures. For each bulk sampling location identify which member of the Ironwood Formation is being sampled, the approximate volume of material to be removed and the anticipated depth of excavation. Also include a representation of the approximate final site contours upon reclamation of the sites. Are any of the sites deep enough to intercept groundwater and if so, how will water such water be handled? Similarly, describe how water that accumulates in the sampled areas prior to reclamation will be handled. A wastewater discharge permit may be needed if the company intends to pump water from the excavations and discharge it to a waterway or groundwater.
2. Provide additional detail regarding the blasting activity including the approximate number of holes per area, depth and diameter of the holes and what type of explosive materials are anticipated to be used. How will drilling water and cuttings be controlled during the drilling process? Describe any dust control measures that will be implemented during blasting. Describe safety procedures related to blasting including pre-blast notification and designation of restricted access areas.
3. The plan indicates salvageable soil will be stockpiled separately from the rock removed from the sites prior to sampling and stored on-site for use in reclamation. Describe measures which will be taken to minimize erosion of the topsoil during the temporary storage period.

4. Describe the loading and transportation process in more detail. What type of heavy machinery will be used to load the rock onto the trucks? What measures will be taken to control dust during the loading process? What size and approximately how many trucks will be needed to transport the rock? Will the transport trucks be covered? Provide additional detail about the alternative procedure for handling the rock described in the plan including a specific location for the staging area, any site preparation necessary for the working pad, drainage control measures, access routes and descriptions of the vehicles that would be used to move the rock from the sampling sites to the staging area.
5. Describe what precautions will be taken in regard to rock and water handling procedures if any of the sampling sites encounters rock with visible or known quantities of sulfide mineralization (e.g., the lower Yale Member).
6. The letters from the landowners referenced on p. 6 of the plan were not included as part of the submittal. Please include them with your response to this letter.
7. The bulk sampling plan indicates the sampling and revegetation will occur between July 2013 and November 2014. Roughly how long will it take to complete the sampling phase for a given site? Will all bulk sampling be completed before any reclamation activity begins or will reclamation of individual sites take place as soon as the sampling is completed for that site?
8. The sampling plan refers to a preliminary wetland inventory for the site. The wetland delineation information must be submitted to the Department. This information is needed in order for the Department to determine if any bulk sampling activities including access route maintenance or improvements will require a wetland general permit or individual permit, as required by s. 295.60(3)(b), Stats. Department approval will be required prior to any work that results in a discharge of dredged material or fill material into a wetland. We will also need specific information about of bulk sampling and access route activities that may be located in or adjacent to any streams or other water bodies in order to determine if any permits are needed for navigable water activities as required by s. 295.605(2), Stats. To evaluate the need for wetland and waterway permits, detailed information regarding anticipated road maintenance work in specific locations involving wetlands and drainageways, must be submitted.
9. Elements of the proposed bulk sampling activity including blasting, loading and hauling may generate air pollutants, notably fugitive emissions of particulate matter. Based on the information provided, the Department cannot determine if an air pollution control construction permit is required for this activity. These emissions, on a maximum theoretical basis, may exceed the permitting thresholds in ch. NR 406, Wis. Adm. Code. To facilitate our regulatory determination of the need for a permit, Gogebic Taconite must develop an estimate of total particulate matter emissions (including PM10 and PM2.5 emissions) for the activity based on the anticipated level of activity and the proposed methods. This estimate should be based on available emission factors in EPA document AP-42 or other reliable sources of emission data for blasting, loading, road traffic and the other activities as applicable.
10. Additionally, given the documented occurrence of asbestiform minerals in ore bodies of similar nature in Minnesota and reports of similar minerals (amphiboles of the cummingtonite-grunerite series) in the vicinity of the proposed bulk sampling activity, it will also be necessary to evaluate the bulk sampling activity to determine whether regulation pertaining to control of asbestos emissions under Chapters NR 445 or NR 447, Wis. Adm. Code, is required. If these minerals are present or potentially present in an asbestiform habit within the excavated material, a percentage of the total emissions would likely be asbestos emissions. To calculate an estimate of the potential asbestos emissions, provide an estimate of the percentage, by weight, of the asbestiform mineral content of the material to be sampled and then calculate an estimated asbestos emission rate based on the total emission rate calculated above. This weight percent data for asbestos could be derived from actual measured quantities of asbestos in samples

collected from the site or could be based on review of data from studies of similar deposits that may be present in other taconite mining areas of Minnesota or other parts of the upper Midwest.

Section 295.45(3s), Stats., specifies that all applications for approvals related to bulk sampling are to be submitted at the same time. Once the Department has received the information outlined in this letter, we will be able to identify all of the required approvals.

The permits addressed in this letter only apply to regulatory requirements under the purview of the Department of Natural Resources. This letter does not consider any approvals, permits or other authorization required by federal, local or other state agencies. Gogebic Taconite, LLC is responsible for ensuring the proposed bulk sampling activity is conducted in compliance with all such requirements.

Please contact me if you have any questions concerning the information requested.

Sincerely,



Lawrence J. Lynch, P.G., Hydrogeologist  
Water Use Section  
Bureau of Drinking Water & Groundwater