



**EXPLORATION LICENSE
Gogebic Taconite, LLC
GTAC Exploration No. 2
December 31, 2013**



December 31, 2013

Wisconsin Department of Natural Resources
ATTN: Mr. Larry Lynch – WA/5
101 South Webster Street
PO Box 7921
Madison, WI 53707-7921

Dear Mr. Lynch:

Re: Exploration License
Wisconsin Statutes 295.44

Gogebic Taconite, LLC submits to your agency an Application for Exploration License per the requirements of the above standard for the period starting January 1 to June 30, 2014. A renewal application will be provided for the period of July 1, 2014 to June 30, 2015.

This Exploration Activity involves the drilling of 15 drillholes. The proposed exploration drilling compliments that 2013 drilling campaign. Access Road issues from the wet summer prohibited access to downslope areas of the ore body. This Exploration Plan addresses winter time road maintenance activities for wet areas as well as proposing additional holes to further define the geologic conditions.

No wetland or drainage impacts are proposed with this plan.

Included in this submittal, you will find:

- A Site Location Map
- A Property Owner Map
- An Exploration Plan
- A Reclamation Plan
- A Certificate of Insurance
- An Exploration License Fee in the amount of \$300.00
- A Reclamation Cost Estimate
- A Reclamation Surety Bond

Any questions should be directed to our Hurley office at (715) 561-2601. Our mailing address is:

Gogebic Taconite, LLC
402 Silver Street
Hurley, WI 54534

Sincerely,


Timothy J Myers
Engineer

TABLE OF CONTENTS

Drilling Plan	pg 1
Land Owner Letters	pg 17
Typical Site Plans	pg 21
Wetland Delineation Report	pg 25
Certificate of Liability Insurance	pg 225
Balance Sheet	pg 227
Surety Bond	pg 229
Reclamation Cost Estimate	pg 232
Map 1 – Site Location Map	rear pocket
Map 2 – Property Control Map	rear pocket

295.44 (2) EXPLORATION LICENSE

December 31, 2013

OVERVIEW

Gogebic Taconite, LLC is hereby applying for an Exploration License as described in Wisconsin Statutes 295.44 for the current period ending June 30, 2014. This project is identified as Gtac Exploration No. 2. The proposed project includes locations first proposed in May 2013 that were not drilled during the 2013 drilling campaign as well as new locations that provide additional geologic confirmation. The following pages address the requirements of the statute.

Gtac Exploration No. 2 project will occur in an area of previous exploration and prospecting. Activity in the area dates back to the 1850's with core drilling occurring as early as the 1920's with as many as 240 recorded sites.

Gtac Exploration No. 2 project proposes 12 new locations and reuse of an existing location (674-2) from Exploration License 43001. Also, Drillsites 655-3 and 646-2 will have each have two drillholes which will include an angled hole and a vertical hole. The total number of drillholes in this project will be 15 drillholes.

The drilling method will use hollow center wireline corehole techniques. The drilling method will use BTW size coring tools which will drill a 2.36 inch diameter hole. The rock sample will be 1.654 inch diameter. The rock samples will be collected and analyses will be performed offsite.

The target geologic formation for the drilling is the Ironwood Iron Formation. This formation is a sedimentary rock formation of Paleoproterozoic age.

Most of the drillholes will be drilled on an approximate 45 degree angle from horizontal to penetrate the ore body at near perpendicular to the bedding. Three drillholes are proposed to be drilled at near vertical in this program. The formation dips at 60 to 70 degrees from the horizontal in a north by northwest direction.

Wisconsin Statutes 295.44 requires that a person seeking an exploration license shall file an application that includes all of the following:

- Statute 295.44 (2)(a) An Exploration Plan – See Page 2
- Statute 295.44 (2)(b) A Reclamation Plan – See Page 13
- Statute 295.44 (2)(c) an Exploration License Fee – See Page 15
- Statute 295.44 (2)(d) A Bond – See Page 15
- Statute 295.44 (2)(e) A Certificate of Insurance – See Page 15

Statute 295.44 (2)(f) Financial Assurance – See Page 15

Statute 295.44 (2m) Confidentiality – See Page 16

Statute 295.44 (3) Surety Bond Requirements – See Page 16

295.44 (2)(a) Exploration Plan

295.44 (2)(a)(1)

A description of the site where the exploration will take place and a map of that area showing the locations of the exploration.

The project site is located in Ashland and Iron Counties of Wisconsin on privately owned lands. The project area has been commercially forested and existing roads will be used to access the drilling sites as well as serving as locations for the drilling sites.

Drillhole	Legal Description	Easting (Feet)	Northing (Feet)	Elevation (Ft)	Target Depth
566-1	T44N R2W S01 NW SW	1856745	420645	1512	1429
566-2	T44N R2W S01 SW SW	1856562	419263	1582	330
584-2	T44N R2W S01 NE SW	1858350	420290	1712	500
594-2	T44N R2W S01 NW SE	1859367	420363	1759	1300
608-1	T44N R2W S01 SE NE	1860895	422302	1586	1465
646-1	T45N R1W S31 SW SE	1864699	423911	1568	800
646-2	T44N R1W S06 NW NE	1864704	422632	1738	700
646-2V	T44N R1W S06 NW NE	1864681	422632	1738	600
655-1	T45N R1W S31 SE SE	1865570	423836	1582	1000
655-3V	T44N R1W S06 SE NE	1865571	422268	1855	280
655-3	T44N R1W S06 SE NE	1865576	422268	1855	350
666-1	T45N R1W S32 SW SW	1866665	424130	1620	1000
674-1	T45N R1W S32 SW SW	1867368	424096	1654	920
674-2V	T45N R1W S32 NW NW	1867588	423444	1758	700
686-2	T45N R1W S32 SE SW	1868723	423850	1734	600

Refer to Map 1 – Site Location Map for a map of the area showing locations of the exploration activity.

Land Owner letters are provided to document the legal right of entry for Gogebic Taconite, LLC to perform exploration activities on the privately owned lands.

295.44 (2)(a)(2)

A description of the means and method that will be used for the exploration.

METHOD

The drilling rig employs a diamond-impregnated hollow drill bit to bore into bedrock strata which produces a cylindrical rock sample. The rock sample provides an indication of strata conditions and provides materials for rock mechanics and geochemical testing.

The surface soils will be drilled to the top of bedrock. A steel pipe casing will be installed into the bedrock to serve as a surface casing. Once the steel casing has been seated into the bedrock, cement grout will be pumped through the interior of the casing under pressure. The cement grout will fill the void between the casing and the hole wall to form a seal. This steel casing serves to isolate the bedrock from the surface strata and to prevent groundwater cross contamination. At the end of drilling, the steel casing will remain open to allow additional studies from the exploration hole such as video scoping, static water elevation and hydrologic testing. The casing will be welded closed or provided with a locking device to prevent interference from the surface.

The hollow center drill bit and drill steel is inserted through the larger diameter surface casing to access the bedrock. Drill water is pumped through the center of the drill steel to cool and lubricate the drill bit. Only the use of DNR Bureau of Drinking Water and Groundwater approved additives will be used for lubricants. The proposed drilling lubricants to be used will be the NSF-approved Baroid products: EZ Mud Drilling Polymer, EZ Mud DP and EZ Mud Gold.

Twelve drill holes will be drilled at 45 degrees from horizontal to intercept the steeply dipping ore body. Three holes have been proposed for vertical drilling and they are designated by the letter V at the end of the hole name.

Rock cuttings are flushed out between the outside of the drill steel and the bedrock. A rock core sample remains in the interior of the drill steel and is removed by wireline methods. The BTW sized drilling tools create a 2.36-inch diameter hole and produce a 1.654-inch diameter rock sample.

A drill sump equipped with a solids pump will be located at the drillhole collar to pump the drill water and rock cuttings into a mobile collection tank. The drill cuttings will consist of surface sands and gravels, pulverized bedrock and drilling polymers. The

overflow water will be reused by discharging the overflow water into the drill rig tank located on the drill rig. The drill cuttings will be retained in the mobile collection tank. The drill cuttings will be removed from the drill site by means of the mobile collection tank. Refer to the Typical Site Plan for a piping arrangement.

The mobile collection tank will be used to transport the cuttings material to the Collection Tank Central Location within the project area. The Collection Tank Central Location (located at Drillsite 674-2) contains two temporary steel storage tanks. The temporary cuttings tank may be used, but due to the cold weather, an alternative cuttings storage method is proposed for a cuttings sump located near Site 674-2.

The cuttings sump will be constructed by excavating a hole to temporarily store drill cuttings until they can be transported off site. The cuttings sump will be excavated by heavy equipment to a dimension to contain a minimum 26 cubic yards. The expected volume of drill cuttings is approximately 6.4 cubic yards. The extra sump volume allows for drill water contained within the collection tank.

BTW size coring produces approximately 1.55 cubic feet of drill cutting per 100 feet of depth. The drill program is proposing 11,094 feet of drilling activity.

The cuttings sump will be lined with a non-woven geotextile to provide separation between the original ground and the drill cuttings. The geotextile also allows the drill water to disperse while retaining the drill cuttings. At the time that the cuttings are removed, the geotextile will be removed and disposed of with the drill cuttings at a licensed solid waste facility.

The drill cuttings will be disposed of off-site in approved licensed landfills in accordance with applicable regulations. Documentation from the landfill accepting the drill cuttings will be provided to DNR.

The drill cuttings may also be used for larger scale studies for permitting requirements including waste storage strength of material characterization. The studies would be performed offsite at a mineral processing laboratory.

The exploration holes and the drill sites may be temporarily abandoned upon completion of the drilling. Groundwater and geophysical tests may require that select exploration holes be left open for data gathering. Each exploration hole will have a welded or locking cap installed to prevent contamination from the surface.

If an exploration hole is found to create an artesian effect, the hole will be temporarily plugged with a mechanical packer assembly. The packer will be removed for testing and will be removed for permanent abandonment of the hole.

For permanent abandonment of the exploration holes, a drill rig will be mobilized to reenter the hole to provide grouting as required by the regulations. The bond amount has included the cost of grouting mobilization in the anticipation that a drill rig would be remobilized to perform the grouting activity.

Rock samples collected from the drilling will be removed from the site for further processing.

The drill project is located on private lands enrolled under the Managed Forestland regulations (Wisconsin Statutes 77.83 (2)). These company lands are open to the public for hunting, fishing, hiking, sight-seeing and cross-country skiing. Any other activities on these lands, including camping and operation of unauthorized engine driven vehicles are prohibited.

2013 Wisconsin Act 81 restricts the public from within 600 feet of fixed sampling equipment or within 600 feet of either side of a road that is used for purposes associated with ferrous mining. Statute 77.81(1m) defines "Fixed sampling equipment" as physical equipment that will be in the same location for more than 24 hours and that is used for the evaluation of a proposed ferrous mining site, including equipment that is used for boring, drilling, bulk sampling, or obtaining climatological data or other data relating to the environment or the state's natural resources. Refer to Map 1 – Site Location Map for the location of areas closed to the public during the exploration activity.

As a precaution, during drilling of strata with suspected higher pyrite concentration (specifically the Tyler Slate and the Yale member of the Ironwood Formation), drill water will be tested for pH with a pH meter and the results recorded. The drill water will be tested prior to drilling into the suspected strata and recorded. Testing will be performed a second time after the strata has been drilled. If the tests indicate that the drilling water pH is less than 6.0 standard units, the drilling water will be treated with approved drilling additives (soda ash or lime) to raise the pH above 6.0 standard units.

Water testing documentation will be available to DNR at the site upon request. Documentation of all pH testing will be provided to DNR with the abandonment reports.

295.44 (2)(a)(3)

A description of the grading and stabilization of the excavation, sides, and benches that will be conducted.

All excavations shall be graded as to provide stable slopes. The sites will be regraded to blend into the surrounding surface contours.

295.44 (2)(a)(4)

A description of how the grading and stabilization of any deposits of refuse will be conducted.

Cuttings materials produced from the drilling activity are proposed to be removed from the drill site area. Therefore, grading and stabilization of deposits of refuse does not apply.

BTW size coring produces approximately 1.55 cubic feet of drill cutting per 100 feet of depth.

295.44 (2)(a)(5)

A description of how any diversion and drainage of water from the exploration site will be conducted.

Surface Runoff shall be diverted away from the drill site by means of ditches, sediment fence, hay bale dikes and/or earthen berms. See the attached drawing "Typical Site Plan" for an example of surface runoff diversions. No new culverts are proposed.

295.44 (2)(a)(6)

A description of how any backfilling will be conducted.

It is proposed to leave the drillholes open after drilling to allow future access for groundwater testing. See response to 295.44 (2)(a)(2) on page 3 of this application.

A drill rig will be mobilized to perform grouting activities at Final Abandonment.

Each drillhole shall be grouted with neat cement or fine concrete grout following the requirements of Wisconsin Statutes 295.44 (5). The proposed method is to pump the neat cement or concrete grout through a conductor pipe and allow the neat cement or concrete grout to fill the cavity from the bottom of the hole towards the surface. The conductor pipe will be incrementally moved towards the surface during the grouting operation. The bottom end of the conductor pipe will be submerged in concrete grout or

neat cement at all times when concrete grout or neat cement grout is being placed under water. The drillhole will be filled at the same time that all or part of the drillhole casing is removed from an unconsolidated formation, such as sand or gravel, that the drillhole will not remain open upon abandonment and the end of the casing will be kept below the surface of the fill material throughout the operation.

Each drill site shall be regraded as to remove any unstable slopes. The drill site shall be regraded as to blend into the original contour that was in place prior to the exploration activity taking place.

295.44 (2)(a)(7)

A description of how any pollutant-bearing minerals or materials will be covered.

Any pollutant-bearing minerals or materials will be removed from the drill site prior to backfilling. All sources of hydrocarbons will have spill containment and absorbent materials placed beneath them, and upon abandonment, will be removed from the drill site and disposed of by approved methods prior to regrading and reclamation activities occurring.

295.44 (2)(a)(8)

A description of how the topsoils will be removed and stockpiled or how other measures will be taken to protect topsoils before exploration.

Since the proposed activity occurs on previously disturbed areas, topsoil is expected to have been excavated by heavy equipment during the construction of the roads and comingled with subsoil materials.

If a topsoil horizon is encountered, the topsoil will be removed and stockpiled. The topsoil would be used for final reclamation after the exploration activities have been completed. The topsoils would be stockpiled within the footprint of the drilling site by placing it within the berm or by stockpiling at one side of the site. The topsoil will be seeded and mulched to provide a protective vegetative cover. The topsoil may also be covered with tarps if vegetative conditions are not favorable, such as those conditions found during the winter months.

295.44 (2)(a)(9)

A description of how vegetative cover will be provided.

Temporary seeding and mulching will occur after the drilling sump has been backfilled. Final reclamation will occur within 30 days of the completion of testing procedures at the exploration holes.

In the event that any topsoil that had been stockpiled, it will be returned to the site and spread once regrading is completed.

All sites shall be seeded to establish vegetation. Composite soil samples will be collected. The samples will be submitted to the local agronomy center for available nutrient analysis. The analysis will provide a recommended fertilizer application rate.

Soil preparation may include raking, disking or harrowing to loosen the soil to a minimum depth of 4 inches. This activity would provide a means to loosen the soil from the compaction effort originating from the timbering activity as well as the exploration activity.

A seed mix approved by Wisconsin Department of Natural Resources will be used. The seed mix will not contain invasive species. The proposed seed mix may be changed (with DNR approval) to address any shortages in availability of specific species.

The proposed seed mix consists of:

- 68% Common Oats
- 14% Annual Rye
- 4% Timothy
- 7% Virginia Wild Rye
- 7% Canada Wild Rye
- 0.25% Black-eyed Susan

Seed will be planted at a rate of 73.25 pounds per acre.

A temporary cover mix will consist of Common Oats or Annual Rye.

Once fertilizer and seed have been applied, the seeded area will be raked, disked, harrowed or other methods utilized in order to cover the seed to a depth of not more than 1-1/2 inches.

Mulching material shall consist of straw or hay in an air-dry condition, wood excelsior fiber or wood chips. Mulch shall be spread at a thickness of ½ to 1-1/2 inches. Compacted bales are to be broken and scattered to create a loose blanket over the seeded area.

The roads utilized for this activity are preexisting and will be left in place for future use by the landowner. A large portion of the roads have had extensive use in the past and are aggregate covered. The roads have been constructed and maintained to manage highway logging trucks to transport logs to market. Road maintenance will be performed as necessary, maintaining the maintenance activity within the preexisting dimensions of the roadway. Existing culverts will be left in place.

295.44 (2)(a)(10)

A description of how any water impoundment will be accomplished.

No water impoundment is anticipated.

295.44 (2)(a)(11)

Identification of the means and method that will be used to prevent significant environmental pollution to the extent practicable.

The drilling contractor will use compact core drilling machines to fit the size constraints of the existing roads. It is not proposed to create new roads for accessing the drilling project.

ROAD MAINTENANCE

The project is proposed for cold weather activity. It is desirable to access areas that have been documented with wetland communities within the existing roadbeds. (See Attachment to Response for s.295.44(2)(a)(11) – Wetland Delineation Report). To access the drillsites without disturbing the wetland areas, a program is proposed to create roads on frozen ground and to use compacted snowfall to create additional frozen layers for running surfaces.

The project site had several areas of wet road conditions identified during the warm weather months in 2013. This drilling campaign is being performed during the winter months to take advantage of the cold weather to access wet areas, using similar techniques that the silveculture industry has employed.

Initially, a bulldozer will be utilized to push snow to clear the roadways and the drillsites. Once the snow cover has been removed, the freezing temperatures penetrate into the ground to create a deeper frozen soil zone. Continued maintenance is required to remove additional snowfall off the road to allow the ground to freeze further. Once frozen, any additional snowfall will either be removed or packed in place by vehicle traffic and allowed to freeze. The additional layers of snow can be packed by vehicles such as snowmobiles, UTV utility vehicles and pickup trucks. The packed snow will freeze to create structural layers to support loads.

At the end of the winter season, the ice roads will melt and the wetland boundaries and plants will have been maintained.

Also, timber mats are proposed for use where road beds will not freeze effectively enough for truck traffic. The timber mats would be placed to bridge over the non-frozen areas. The timber mats are 4 feet wide by 16 feet long constructed of 12" by 12" timbers. The timbers are bound together by bolts and/or cables. The timber mats will be arranged to span the drainages without changing the existing drainage conditions. The timber mats will not be placed in delineated wetlands.

Access Road 1 will be used as the primary access. Access Road 1 is a well travelled road with aggregate base and is located near the bedrock. Snow plowing is needed to maintain the road.

The project may extend past the winter season. In as much, no wetland or stream impacts are proposed in this project. Realizing that there is a finite window for cold weather access, the sequence for the drill hole locations will concentrate on the sites located along Access Roads 2, 4 and 5. Drillholes located on Access Road 1 will have a lower priority in the sequencing and may be drilled during the warm weather months if winter weather ends earlier than expected. Vehicle activity in wet road areas such as Access Roads 2, 4 and 5 will be minimized during wet periods.

Any of the following methods or a combination of methods is proposed to minimize the sedimentation load on access roads, allow drainage to continue to cross the existing roads and to minimize the sedimentation load:

- Use the existing road surface where the existing road conditions would not create a sediment load from vehicular traffic; or,
- Install temporary timber mats to isolate the vehicular traffic from the drainage; or,

- Construct a rock cobble road that allows the drainage to flow beneath the traffic level. A course of crushed rock is placed over clean cobbles to form a running surface.
- The use of best stormwater drainage techniques such as silt fence and hay bales.
- The use of winter techniques to freeze the ground of existing roads

The road identified as Access Road No. 1 on the attached map has been used for logging and has an aggregate base. Since the road is in a condition that new disturbance is not necessary, the acreage has not been included within the disturbed area calculation. Access Road No. 1 has been used for highway trucks to take the harvested timber to market. The road is located near the top of the ridge and minimal drainage activity is needed to maintain this road. The drillsites for Coreholes 566-2, 584-2, 594-2, 655-3, 655-3V, and 674-2V are located on this road. Access Road No. 1 may also be used for logging activity during the time frame of the drilling project. This road is approximately 20,000 feet long.

Access Road No. 2 is located in the western end of the project in Ashland County. The road is a logging road that has identified wetlands. It will only be used during the winter season using frozen road techniques. The drillsite for Corehole 566-1 is located on this road. The road is approximately 2,000 feet long.

Access Road No. 3 may be used to access the project, but is not proposed for use as primary access. It is a former railroad grade and runs from Moore's Park Road to the former CN mail line. The total length of Access Road 3 is approximately 11,000 feet.

Access Road 4 is a logging road located on the north slope of the ore body. It has been used for commercial logging in the past and has been found on mapping dating to 1960. The road has numerous locations where wetland communities have established even though silviculture activity on the road has been as recent as 2010. This road is proposed for drilling activities only during the winter season using frozen road techniques. Access Road 4 is approximately 9,000 feet long. Drillsites 608-1, 628-1, 646-1, 655-1, 666-1, 674-1 and 686-2 will be accessed from Access Road 4.

Access Road 5 is a logging road located on the north slope of the ore body near the top of the ridge. Access to for the drillsite for 646-2 and 646-2V will be from Access Road 5. Access Road 5 is approximately 1,000 feet long.

DRILL SITES

Drill sites have been selected to avoid impacts to wetland and/or drainage features. Wetland delineation has been performed on Access Roads 2, 4 and parts of 5. Those documented wetland sites will be avoided for siting drill pad locations. The wetland delineation report is included in Attachment to Response for s.295.44(2)(a)(11) at the rear of this submittal.

The drill sites will each be approximately 25 feet wide by 60 feet long in size. Twelve (12) new drill sites will be created, with drillsites 655-3 and 646-2 containing two drillholes at each location. Drill site 674-2 from the 2013 Exploration No. 1 activity will be reactivated to drill a vertical hole. The vertical hole will supplement information from previously drilled 674-2.

Disturbed Acreage

12 Drillsites	0.41 Acres
Drillsite 674-2	0.13 Acres
<u>Cuttings Sump</u>	<u>0.06 Acres</u>
Total disturbance	0.60 Acres

Site preparation would include stockpiling any topsoil material from the drill site area. Since the sites are located on existing disturbances, it is anticipated that no topsoil will be encountered.

Drill cuttings will be collected on site in a mobile collection tank and transported to the Collection Tank Central Location where dewatering will occur. The drill cuttings will be disposed of off- site in approved licensed landfills in accordance with applicable regulations. See the narrative on Page 4 addressing the requirements of Wisconsin Statutes 295.44 (2)(a)(2).

Each site will be provided with grading and drainage control as described below.

DRAINAGE CONTROL

Surface Runoff will be controlled by diverting stormwater away from the drilling site by the use of siltation fence, berms, hay bale dikes and/or ditches or other stormwater control methods.

See "Typical Site Plan" sketch for conceptual detail. A separate site plan has been prepared to Site 674-2 to illustrate the arrangement for the Collection Tank Central Location and the Cutting Sump.

WATER SOURCE

From Wisconsin NR141.15, drilling water must be from a known safe source free of bacterial and chemical contamination.

Water will be purchased from the municipal water system at the City of Mellen. This method would use a highway licensed water truck to bring the water to the project.

295.44 (2)(b) RECLAMATION PLAN

A reclamation plan, designed to minimize adverse effects to the environment to the extent practicable, that includes all of the following:

295.44 (2)(b)(1)

A description of how all toxic and hazardous wastes and other solid waste will be disposed of in solid or hazardous waste disposal facilities licensed under ch. 289 or 291 or otherwise in an environmentally sound manner.

Any materials identified as toxic or hazardous waste as defined by Wisconsin statutes 291.05(1), 291.05(2) or 291.05(4) will be disposed of at a licensed hazardous waste disposal facility. The drill cuttings from the 2013 drilling program were tested prior to disposal for classification as hazardous or toxic wastes. The testing results indicated that this material is not classified as a hazardous waste and the material was disposed of in a licensed landfill.

The drill cuttings will be disposed of off-site in an approved licensed landfill in accordance with applicable regulations or consumed off site for larger scale studies for waste storage characterization. The studies would be performed offsite at a mineral processing laboratory.

295.44 (2)(b)(2)

A description of how topsoil will be preserved for purposes of future use in reclamation.

Since the proposed activity occurs on previously disturbed areas, topsoil is not anticipated to be encountered. Existing roads that were constructed for use in the forestry industry are expected to have had the topsoil excavated and comingled with subsoil materials.

If topsoil is encountered, the topsoil will be removed and stockpiled. The topsoil would be used for final reclamation after the activities have been completed. Topsoil stockpiles will be protected by vegetation or covering with mulch or covering with tarps.

295.44 (2)(b)(3)

A description of how revegetation will be conducted to stabilize disturbed soils and prevent air and water pollution to the extent practicable.

Refer to the response to Wisconsin Statutes 295.44 (2)(a)(9) above for the final site reclamation revegetation.

Site vegetation will occur concurrently with site regrading activities.

295.44 (2)(b)(4)

A description of how disturbance to wetlands will be minimized to the extent practicable.

This application addresses a project with all roads and drillsites located on pre-existing disturbances that resulted from timbering and previous exploration activities. The project is proposed for winter activities to reach areas with wet road conditions during the summer months. Drill sites have been located to avoid wetland areas by using techniques such as wetland delineations, Wisconsin Wetland Inventory review and locating sites on higher elevations along the existing roads.

A small collection sump will be excavated with a hand shovel (approximately 1 cubic foot capacity) at the drill hole collar to place the collection pump. No excavated drilling sumps are proposed at the drill sites. No cuttings sumps are proposed. All drill cuttings are to be removed from the project using collection tanks and disposal to approved landfills.

Existing access roads will be used. Winter time frozen road activities will be used to freeze the road soils. See the response to 295.44(2)(a)(11) on page 9 of this plan for a more detailed description of how frozen roads will be managed.

295.44 (2)(b)(5)

A statement that all drillholes will be abandoned in compliance with 295.44 (5).

Drillholes will be abandoned as described in Wisconsin Statutes 295.44 (5).

295.44 (2)(c) EXPLORATION LICENSE FEE

295.44 (2)(c) Exploration License Fee of \$300.00

A check in the amount of \$300 has been provided.

295.44 (2)(d) SURETY BOND

295.44 (2)(d) Surety Bond

A bond, as provided in 295.44 (3)(a).

The Surety Bond is addressed in the response to 295.44 (3) found below.

295.44 (2)(e) CERTIFICATE OF INSURANCE

295.44 (2)(e) Certificate of Insurance

A certificate of insurance showing that the applicant has in force a liability insurance policy issued by an insurance company licensed to do business in this state covering all exploration conducted or contracted for by the explorer in this state and affording personal injury and property damage protection in a total amount determined to be adequate by the department, but not more than \$1,000,000 and not less than \$50,000.

A copy of the Certificate of Insurance follows this page. The Certificate of Insurance expires December 31, 2013. Once the 2014 Certificate of Insurance becomes available, a copy will be provided to the Wisconsin DNR.

295.44 (2)(f) FINANCIAL ASSURANCE

295.44 (2)(f) Financial

A copy of the applicant's most recent annual report to the federal securities and exchange commission on form 10-K, or, if this is not available, a report of the applicant's current assets and liabilities or other data necessary to establish that the applicant is competent to conduct exploration in this state.

See the Balance Sheet attachment.

295.44 (2m) CONFIDENTIALITY

295.44 (2m) CONFIDENTIALITY

The department and the state geologist shall protect as confidential any information, other than effluent data, contained in an application for an exploration license, upon a showing that the information is entitled to protection as a trade secret, as defined in s. 134.90 (1)(c), and any information relating to the location, quality, or quantity of a ferrous mineral deposit, to production and sales figures, or to processes or production unique to the applicant or that would tend to adversely affect the competitive position of the applicant if made public.

No items contained within this application would require consideration under 295.44 (2m).

295.44 (3) SURETY BOND

295.44 (3) Bond

An applicant shall submit, as part of the application for an exploration license, a bond in the amount of \$5,000 that is conditioned on faithful performance of the requirements of this section, that is issued by a surety company licensed to do business in this state, and that provides that the bond may not be canceled by the surety, except after not less than 90 days' notice to the department in writing by registered or certified mail.

A Reclamation Surety Bond in the amount of \$80,000 is provided. This amount exceeds our estimated reclamation bond amount.

295.44 (3)(d)

The department may require that the amount of the bond submitted under this subsection be increased at any time, if the department determines that the level of activity by the explorer makes it likely that the bond would be inadequate to fund the termination of all drillholes for which the explorer is responsible.

A Reclamation Cost Estimate has been included. See the attachment to 295.44 (3)(d) that follows this page.



December 31, 2013

Wisconsin Department of Natural Resources
ATTN: Mr. Larry Lynch – WA/5
101 South Webster Street
PO Box 7921
Madison, WI 53707-7921

Dear Mr. Lynch:

Re: Exploration License
Wisconsin Statutes 295.44

Gogebic Taconite, LLC submits to your agency an Application for Exploration License per the requirements of the above standard for the period starting January 1 to June 30, 2014. A renewal application will be provided for the period of July 1, 2014 to June 30, 2015.

This Exploration Activity involves the drilling of 15 drillholes. The proposed exploration drilling compliments that 2013 drilling campaign. Access Road issues from the wet summer prohibited access to downslope areas of the ore body. This Exploration Plan addresses winter time road maintenance activities for wet areas as well as proposing additional holes to further define the geologic conditions.

No wetland or drainage impacts are proposed with this plan.

Included in this submittal, you will find:

- A Site Location Map
- A Property Owner Map
- An Exploration Plan
- A Reclamation Plan
- A Certificate of Insurance
- An Exploration License Fee in the amount of \$300.00
- A Reclamation Cost Estimate
- A Reclamation Surety Bond

Any questions should be directed to our Hurley office at (715) 561-2601. Our mailing address is:

Gogebic Taconite, LLC
402 Silver Street
Hurley, WI 54534

Sincerely,

A handwritten signature in black ink that reads "Timothy J. Myers". The signature is written in a cursive, flowing style.

Timothy J Myers
Engineer

TABLE OF CONTENTS

Drilling Plan	pg 1
Land Owner Letters	pg 17
Typical Site Plans	pg 21
Wetland Delineation Report	pg 25
Certificate of Liability Insurance	pg 225
Balance Sheet	pg 227
Surety Bond	pg 229
Reclamation Cost Estimate	pg 232
Map 1 – Site Location Map	rear pocket
Map 2 – Property Control Map	rear pocket

295.44 (2) EXPLORATION LICENSE

December 31, 2013

OVERVIEW

Gogebic Taconite, LLC is hereby applying for an Exploration License as described in Wisconsin Statutes 295.44 for the current period ending June 30, 2014. This project is identified as Gtac Exploration No. 2. The proposed project includes locations first proposed in May 2013 that were not drilled during the 2013 drilling campaign as well as new locations that provide additional geologic confirmation. The following pages address the requirements of the statute.

Gtac Exploration No. 2 project will occur in an area of previous exploration and prospecting. Activity in the area dates back to the 1850's with core drilling occurring as early as the 1920's with as many as 240 recorded sites.

Gtac Exploration No. 2 project proposes 12 new locations and reuse of an existing location (674-2) from Exploration License 43001. Also, Drillsites 655-3 and 646-2 will have each have two drillholes which will include an angled hole and a vertical hole. The total number of drillholes in this project will be 15 drillholes.

The drilling method will use hollow center wireline corehole techniques. The drilling method will use BTW size coring tools which will drill a 2.36 inch diameter hole. The rock sample will be 1.654 inch diameter. The rock samples will be collected and analyses will be performed offsite.

The target geologic formation for the drilling is the Ironwood Iron Formation. This formation is a sedimentary rock formation of Paleoproterozoic age.

Most of the drillholes will be drilled on an approximate 45 degree angle from horizontal to penetrate the ore body at near perpendicular to the bedding. Three drillholes are proposed to be drilled at near vertical in this program. The formation dips at 60 to 70 degrees from the horizontal in a north by northwest direction.

Wisconsin Statutes 295.44 requires that a person seeking an exploration license shall file an application that includes all of the following:

- Statute 295.44 (2)(a) An Exploration Plan – See Page 2
- Statute 295.44 (2)(b) A Reclamation Plan – See Page 13
- Statute 295.44 (2)(c) an Exploration License Fee – See Page 15
- Statute 295.44 (2)(d) A Bond – See Page 15
- Statute 295.44 (2)(e) A Certificate of Insurance – See Page 15

Statute 295.44 (2)(f) Financial Assurance – See Page 15

Statute 295.44 (2m) Confidentiality – See Page 16

Statute 295.44 (3) Surety Bond Requirements – See Page 16

295.44 (2)(a) Exploration Plan

295.44 (2)(a)(1)

A description of the site where the exploration will take place and a map of that area showing the locations of the exploration.

The project site is located in Ashland and Iron Counties of Wisconsin on privately owned lands. The project area has been commercially forested and existing roads will be used to access the drilling sites as well as serving as locations for the drilling sites.

Drillhole	Legal Description	Easting (Feet)	Northing (Feet)	Elevation (Ft)	Target Depth
566-1	T44N R2W S01 NW SW	1856745	420645	1512	1429
566-2	T44N R2W S01 SW SW	1856562	419263	1582	330
584-2	T44N R2W S01 NE SW	1858350	420290	1712	500
594-2	T44N R2W S01 NW SE	1859367	420363	1759	1300
608-1	T44N R2W S01 SE NE	1860895	422302	1586	1465
646-1	T45N R1W S31 SW SE	1864699	423911	1568	800
646-2	T44N R1W S06 NW NE	1864704	422632	1738	700
646-2V	T44N R1W S06 NW NE	1864681	422632	1738	600
655-1	T45N R1W S31 SE SE	1865570	423836	1582	1000
655-3V	T44N R1W S06 SE NE	1865571	422268	1855	280
655-3	T44N R1W S06 SE NE	1865576	422268	1855	350
666-1	T45N R1W S32 SW SW	1866665	424130	1620	1000
674-1	T45N R1W S32 SW SW	1867368	424096	1654	920
674-2V	T45N R1W S32 NW NW	1867588	423444	1758	700
686-2	T45N R1W S32 SE SW	1868723	423850	1734	600

Refer to Map 1 – Site Location Map for a map of the area showing locations of the exploration activity.

Land Owner letters are provided to document the legal right of entry for Gogebic Taconite, LLC to perform exploration activities on the privately owned lands.

295.44 (2)(a)(2)

A description of the means and method that will be used for the exploration.

METHOD

The drilling rig employs a diamond-impregnated hollow drill bit to bore into bedrock strata which produces a cylindrical rock sample. The rock sample provides an indication of strata conditions and provides materials for rock mechanics and geochemical testing.

The surface soils will be drilled to the top of bedrock. A steel pipe casing will be installed into the bedrock to serve as a surface casing. Once the steel casing has been seated into the bedrock, cement grout will be pumped through the interior of the casing under pressure. The cement grout will fill the void between the casing and the hole wall to form a seal. This steel casing serves to isolate the bedrock from the surface strata and to prevent groundwater cross contamination. At the end of drilling, the steel casing will remain open to allow additional studies from the exploration hole such as video scoping, static water elevation and hydrologic testing. The casing will be welded closed or provided with a locking device to prevent interference from the surface.

The hollow center drill bit and drill steel is inserted through the larger diameter surface casing to access the bedrock. Drill water is pumped through the center of the drill steel to cool and lubricate the drill bit. Only the use of DNR Bureau of Drinking Water and Groundwater approved additives will be used for lubricants. The proposed drilling lubricants to be used will be the NSF-approved Baroid products: EZ Mud Drilling Polymer, EZ Mud DP and EZ Mud Gold.

Twelve drill holes will be drilled at 45 degrees from horizontal to intercept the steeply dipping ore body. Three holes have been proposed for vertical drilling and they are designated by the letter V at the end of the hole name.

Rock cuttings are flushed out between the outside of the drill steel and the bedrock. A rock core sample remains in the interior of the drill steel and is removed by wireline methods. The BTW sized drilling tools create a 2.36-inch diameter hole and produce a 1.654-inch diameter rock sample.

A drill sump equipped with a solids pump will be located at the drillhole collar to pump the drill water and rock cuttings into a mobile collection tank. The drill cuttings will consist of surface sands and gravels, pulverized bedrock and drilling polymers. The

overflow water will be reused by discharging the overflow water into the drill rig tank located on the drill rig. The drill cuttings will be retained in the mobile collection tank. The drill cuttings will be removed from the drill site by means of the mobile collection tank. Refer to the Typical Site Plan for a piping arrangement.

The mobile collection tank will be used to transport the cuttings material to the Collection Tank Central Location within the project area. The Collection Tank Central Location (located at Drillsite 674-2) contains two temporary steel storage tanks. The temporary cuttings tank may be used, but due to the cold weather, an alternative cuttings storage method is proposed for a cuttings sump located near Site 674-2.

The cuttings sump will be constructed by excavating a hole to temporarily store drill cuttings until they can be transported off site. The cuttings sump will be excavated by heavy equipment to a dimension to contain a minimum 26 cubic yards. The expected volume of drill cuttings is approximately 6.4 cubic yards. The extra sump volume allows for drill water contained within the collection tank.

BTW size coring produces approximately 1.55 cubic feet of drill cutting per 100 feet of depth. The drill program is proposing 11,094 feet of drilling activity.

The cuttings sump will be lined with a non-woven geotextile to provide separation between the original ground and the drill cuttings. The geotextile also allows the drill water to disperse while retaining the drill cuttings. At the time that the cuttings are removed, the geotextile will be removed and disposed of with the drill cuttings at a licensed solid waste facility.

The drill cuttings will be disposed of off-site in approved licensed landfills in accordance with applicable regulations. Documentation from the landfill accepting the drill cuttings will be provided to DNR.

The drill cuttings may also be used for larger scale studies for permitting requirements including waste storage strength of material characterization. The studies would be performed offsite at a mineral processing laboratory.

The exploration holes and the drill sites may be temporarily abandoned upon completion of the drilling. Groundwater and geophysical tests may require that select exploration holes be left open for data gathering. Each exploration hole will have a welded or locking cap installed to prevent contamination from the surface.

If an exploration hole is found to create an artesian effect, the hole will be temporarily plugged with a mechanical packer assembly. The packer will be removed for testing and will be removed for permanent abandonment of the hole.

For permanent abandonment of the exploration holes, a drill rig will be mobilized to reenter the hole to provide grouting as required by the regulations. The bond amount has included the cost of grouting mobilization in the anticipation that a drill rig would be remobilized to perform the grouting activity.

Rock samples collected from the drilling will be removed from the site for further processing.

The drill project is located on private lands enrolled under the Managed Forestland regulations (Wisconsin Statutes 77.83 (2)). These company lands are open to the public for hunting, fishing, hiking, sight-seeing and cross-country skiing. Any other activities on these lands, including camping and operation of unauthorized engine driven vehicles are prohibited.

2013 Wisconsin Act 81 restricts the public from within 600 feet of fixed sampling equipment or within 600 feet of either side of a road that is used for purposes associated with ferrous mining. Statute 77.81(1m) defines "Fixed sampling equipment" as physical equipment that will be in the same location for more than 24 hours and that is used for the evaluation of a proposed ferrous mining site, including equipment that is used for boring, drilling, bulk sampling, or obtaining climatological data or other data relating to the environment or the state's natural resources. Refer to Map 1 – Site Location Map for the location of areas closed to the public during the exploration activity.

As a precaution, during drilling of strata with suspected higher pyrite concentration (specifically the Tyler Slate and the Yale member of the Ironwood Formation), drill water will be tested for pH with a pH meter and the results recorded. The drill water will be tested prior to drilling into the suspected strata and recorded. Testing will be performed a second time after the strata has been drilled. If the tests indicate that the drilling water pH is less than 6.0 standard units, the drilling water will be treated with approved drilling additives (soda ash or lime) to raise the pH above 6.0 standard units.

Water testing documentation will be available to DNR at the site upon request. Documentation of all pH testing will be provided to DNR with the abandonment reports.

295.44 (2)(a)(3)

A description of the grading and stabilization of the excavation, sides, and benches that will be conducted.

All excavations shall be graded as to provide stable slopes. The sites will be regraded to blend into the surrounding surface contours.

295.44 (2)(a)(4)

A description of how the grading and stabilization of any deposits of refuse will be conducted.

Cuttings materials produced from the drilling activity are proposed to be removed from the drill site area. Therefore, grading and stabilization of deposits of refuse does not apply.

BTW size coring produces approximately 1.55 cubic feet of drill cutting per 100 feet of depth.

295.44 (2)(a)(5)

A description of how any diversion and drainage of water from the exploration site will be conducted.

Surface Runoff shall be diverted away from the drill site by means of ditches, sediment fence, hay bale dikes and/or earthen berms. See the attached drawing "Typical Site Plan" for an example of surface runoff diversions. No new culverts are proposed.

295.44 (2)(a)(6)

A description of how any backfilling will be conducted.

It is proposed to leave the drillholes open after drilling to allow future access for groundwater testing. See response to 295.44 (2)(a)(2) on page 3 of this application.

A drill rig will be mobilized to perform grouting activities at Final Abandonment.

Each drillhole shall be grouted with neat cement or fine concrete grout following the requirements of Wisconsin Statutes 295.44 (5). The proposed method is to pump the neat cement or concrete grout through a conductor pipe and allow the neat cement or concrete grout to fill the cavity from the bottom of the hole towards the surface. The conductor pipe will be incrementally moved towards the surface during the grouting operation. The bottom end of the conductor pipe will be submerged in concrete grout or

neat cement at all times when concrete grout or neat cement grout is being placed under water. The drillhole will be filled at the same time that all or part of the drillhole casing is removed from an unconsolidated formation, such as sand or gravel, that the drillhole will not remain open upon abandonment and the end of the casing will be kept below the surface of the fill material throughout the operation.

Each drill site shall be regraded as to remove any unstable slopes. The drill site shall be regraded as to blend into the original contour that was in place prior to the exploration activity taking place.

295.44 (2)(a)(7)

A description of how any pollutant-bearing minerals or materials will be covered.

Any pollutant-bearing minerals or materials will be removed from the drill site prior to backfilling. All sources of hydrocarbons will have spill containment and absorbent materials placed beneath them, and upon abandonment, will be removed from the drill site and disposed of by approved methods prior to regrading and reclamation activities occurring.

295.44 (2)(a)(8)

A description of how the topsoils will be removed and stockpiled or how other measures will be taken to protect topsoils before exploration.

Since the proposed activity occurs on previously disturbed areas, topsoil is expected to have been excavated by heavy equipment during the construction of the roads and comingled with subsoil materials.

If a topsoil horizon is encountered, the topsoil will be removed and stockpiled. The topsoil would be used for final reclamation after the exploration activities have been completed. The topsoils would be stockpiled within the footprint of the drilling site by placing it within the berm or by stockpiling at one side of the site. The topsoil will be seeded and mulched to provide a protective vegetative cover. The topsoil may also be covered with tarps if vegetative conditions are not favorable, such as those conditions found during the winter months.

295.44 (2)(a)(9)

A description of how vegetative cover will be provided.

Temporary seeding and mulching will occur after the drilling sump has been backfilled. Final reclamation will occur within 30 days of the completion of testing procedures at the exploration holes.

In the event that any topsoil that had been stockpiled, it will be returned to the site and spread once regrading is completed.

All sites shall be seeded to establish vegetation. Composite soil samples will be collected. The samples will be submitted to the local agronomy center for available nutrient analysis. The analysis will provide a recommended fertilizer application rate.

Soil preparation may include raking, disking or harrowing to loosen the soil to a minimum depth of 4 inches. This activity would provide a means to loosen the soil from the compaction effort originating from the timbering activity as well as the exploration activity.

A seed mix approved by Wisconsin Department of Natural Resources will be used. The seed mix will not contain invasive species. The proposed seed mix may be changed (with DNR approval) to address any shortages in availability of specific species.

The proposed seed mix consists of:

- 68% Common Oats
- 14% Annual Rye
- 4% Timothy
- 7% Virginia Wild Rye
- 7% Canada Wild Rye
- 0.25% Black-eyed Susan

Seed will be planted at a rate of 73.25 pounds per acre.

A temporary cover mix will consist of Common Oats or Annual Rye.

Once fertilizer and seed have been applied, the seeded area will be raked, disked, harrowed or other methods utilized in order to cover the seed to a depth of not more than 1-1/2 inches.

Mulching material shall consist of straw or hay in an air-dry condition, wood excelsior fiber or wood chips. Mulch shall be spread at a thickness of ½ to 1-1/2 inches. Compacted bales are to be broken and scattered to create a loose blanket over the seeded area.

The roads utilized for this activity are preexisting and will be left in place for future use by the landowner. A large portion of the roads have had extensive use in the past and are aggregate covered. The roads have been constructed and maintained to manage highway logging trucks to transport logs to market. Road maintenance will be performed as necessary, maintaining the maintenance activity within the preexisting dimensions of the roadway. Existing culverts will be left in place.

295.44 (2)(a)(10)

A description of how any water impoundment will be accomplished.

No water impoundment is anticipated.

295.44 (2)(a)(11)

Identification of the means and method that will be used to prevent significant environmental pollution to the extent practicable.

The drilling contractor will use compact core drilling machines to fit the size constraints of the existing roads. It is not proposed to create new roads for accessing the drilling project.

ROAD MAINTENANCE

The project is proposed for cold weather activity. It is desirable to access areas that have been documented with wetland communities within the existing roadbeds. (See Attachment to Response for s.295.44(2)(a)(11) – Wetland Delineation Report). To access the drillsites without disturbing the wetland areas, a program is proposed to create roads on frozen ground and to use compacted snowfall to create additional frozen layers for running surfaces.

The project site had several areas of wet road conditions identified during the warm weather months in 2013. This drilling campaign is being performed during the winter months to take advantage of the cold weather to access wet areas, using similar techniques that the silviculture industry has employed.

Initially, a bulldozer will be utilized to push snow to clear the roadways and the drillsites. Once the snow cover has been removed, the freezing temperatures penetrate into the ground to create a deeper frozen soil zone. Continued maintenance is required to remove additional snowfall off the road to allow the ground to freeze further. Once frozen, any additional snowfall will either be removed or packed in place by vehicle traffic and allowed to freeze. The additional layers of snow can be packed by vehicles such as snowmobiles, UTV utility vehicles and pickup trucks. The packed snow will freeze to create structural layers to support loads.

At the end of the winter season, the ice roads will melt and the wetland boundaries and plants will have been maintained.

Also, timber mats are proposed for use where road beds will not freeze effectively enough for truck traffic. The timber mats would be placed to bridge over the non-frozen areas. The timber mats are 4 feet wide by 16 feet long constructed of 12" by 12" timbers. The timbers are bound together by bolts and/or cables. The timber mats will be arranged to span the drainages without changing the existing drainage conditions. The timber mats will not be placed in delineated wetlands.

Access Road 1 will be used as the primary access. Access Road 1 is a well travelled road with aggregate base and is located near the bedrock. Snow plowing is needed to maintain the road.

The project may extend past the winter season. In as much, no wetland or stream impacts are proposed in this project. Realizing that there is a finite window for cold weather access, the sequence for the drill hole locations will concentrate on the sites located along Access Roads 2, 4 and 5. Drillholes located on Access Road 1 will have a lower priority in the sequencing and may be drilled during the warm weather months if winter weather ends earlier than expected. Vehicle activity in wet road areas such as Access Roads 2, 4 and 5 will be minimized during wet periods.

Any of the following methods or a combination of methods is proposed to minimize the sedimentation load on access roads, allow drainage to continue to cross the existing roads and to minimize the sedimentation load:

- Use the existing road surface where the existing road conditions would not create a sediment load from vehicular traffic; or,
- Install temporary timber mats to isolate the vehicular traffic from the drainage; or,

- Construct a rock cobble road that allows the drainage to flow beneath the traffic level. A course of crushed rock is placed over clean cobbles to form a running surface.
- The use of best stormwater drainage techniques such as silt fence and hay bales.
- The use of winter techniques to freeze the ground of existing roads

The road identified as Access Road No. 1 on the attached map has been used for logging and has an aggregate base. Since the road is in a condition that new disturbance is not necessary, the acreage has not been included within the disturbed area calculation. Access Road No. 1 has been used for highway trucks to take the harvested timber to market. The road is located near the top of the ridge and minimal drainage activity is needed to maintain this road. The drillsites for Coreholes 566-2, 584-2, 594-2, 655-3, 655-3V, and 674-2V are located on this road. Access Road No. 1 may also be used for logging activity during the time frame of the drilling project. This road is approximately 20,000 feet long.

Access Road No. 2 is located in the western end of the project in Ashland County. The road is a logging road that has identified wetlands. It will only be used during the winter season using frozen road techniques. The drillsite for Corehole 566-1 is located on this road. The road is approximately 2,000 feet long.

Access Road No. 3 may be used to access the project, but is not proposed for use as primary access. It is a former railroad grade and runs from Moore's Park Road to the former CN mail line. The total length of Access Road 3 is approximately 11,000 feet.

Access Road 4 is a logging road located on the north slope of the ore body. It has been used for commercial logging in the past and has been found on mapping dating to 1960. The road has numerous locations where wetland communities have established even though silviculture activity on the road has been as recent as 2010. This road is proposed for drilling activities only during the winter season using frozen road techniques. Access Road 4 is approximately 9,000 feet long. Drillsites 608-1, 628-1, 646-1, 655-1, 666-1, 674-1 and 686-2 will be accessed from Access Road 4.

Access Road 5 is a logging road located on the north slope of the ore body near the top of the ridge. Access to for the drillsite for 646-2 and 646-2V will be from Access Road 5. Access Road 5 is approximately 1,000 feet long.

DRILL SITES

Drill sites have been selected to avoid impacts to wetland and/or drainage features. Wetland delineation has been performed on Access Roads 2, 4 and parts of 5. Those documented wetland sites will be avoided for siting drill pad locations. The wetland delineation report is included in Attachment to Response for s.295.44(2)(a)(11) at the rear of this submittal.

The drill sites will each be approximately 25 feet wide by 60 feet long in size. Twelve (12) new drill sites will be created, with drillsites 655-3 and 646-2 containing two drillholes at each location. Drill site 674-2 from the 2013 Exploration No. 1 activity will be reactivated to drill a vertical hole. The vertical hole will supplement information from previously drilled 674-2.

Disturbed Acreage

12 Drillsites	0.41 Acres
Drillsite 674-2	0.13 Acres
<u>Cuttings Sump</u>	<u>0.06 Acres</u>
Total disturbance	0.60 Acres

Site preparation would include stockpiling any topsoil material from the drill site area. Since the sites are located on existing disturbances, it is anticipated that no topsoil will be encountered.

Drill cuttings will be collected on site in a mobile collection tank and transported to the Collection Tank Central Location where dewatering will occur. The drill cuttings will be disposed of off- site in approved licensed landfills in accordance with applicable regulations. See the narrative on Page 4 addressing the requirements of Wisconsin Statutes 295.44 (2)(a)(2).

Each site will be provided with grading and drainage control as described below.

DRAINAGE CONTROL

Surface Runoff will be controlled by diverting stormwater away from the drilling site by the use of siltation fence, berms, hay bale dikes and/or ditches or other stormwater control methods.

See "Typical Site Plan" sketch for conceptual detail. A separate site plan has been prepared to Site 674-2 to illustrate the arrangement for the Collection Tank Central Location and the Cutting Sump.

WATER SOURCE

From Wisconsin NR141.15, drilling water must be from a known safe source free of bacterial and chemical contamination.

Water will be purchased from the municipal water system at the City of Mellen. This method would use a highway licensed water truck to bring the water to the project.

295.44 (2)(b) RECLAMATION PLAN

A reclamation plan, designed to minimize adverse effects to the environment to the extent practicable, that includes all of the following:

295.44 (2)(b)(1)

A description of how all toxic and hazardous wastes and other solid waste will be disposed of in solid or hazardous waste disposal facilities licensed under ch. 289 or 291 or otherwise in an environmentally sound manner.

Any materials identified as toxic or hazardous waste as defined by Wisconsin statutes 291.05(1), 291.05(2) or 291.05(4) will be disposed of at a licensed hazardous waste disposal facility. The drill cuttings from the 2013 drilling program were tested prior to disposal for classification as hazardous or toxic wastes. The testing results indicated that this material is not classified as a hazardous waste and the material was disposed of in a licensed landfill.

The drill cuttings will be disposed of off-site in an approved licensed landfill in accordance with applicable regulations or consumed off site for larger scale studies for waste storage characterization. The studies would be performed offsite at a mineral processing laboratory.

295.44 (2)(b)(2)

A description of how topsoil will be preserved for purposes of future use in reclamation.

Since the proposed activity occurs on previously disturbed areas, topsoil is not anticipated to be encountered. Existing roads that were constructed for use in the forestry industry are expected to have had the topsoil excavated and comingled with subsoil materials.

If topsoil is encountered, the topsoil will be removed and stockpiled. The topsoil would be used for final reclamation after the activities have been completed. Topsoil stockpiles will be protected by vegetation or covering with mulch or covering with tarps.

295.44 (2)(b)(3)

A description of how revegetation will be conducted to stabilize disturbed soils and prevent air and water pollution to the extent practicable.

Refer to the response to Wisconsin Statutes 295.44 (2)(a)(9) above for the final site reclamation revegetation.

Site vegetation will occur concurrently with site regrading activities.

295.44 (2)(b)(4)

A description of how disturbance to wetlands will be minimized to the extent practicable.

This application addresses a project with all roads and drillsites located on pre-existing disturbances that resulted from timbering and previous exploration activities. The project is proposed for winter activities to reach areas with wet road conditions during the summer months. Drill sites have been located to avoid wetland areas by using techniques such as wetland delineations, Wisconsin Wetland Inventory review and locating sites on higher elevations along the existing roads.

A small collection sump will be excavated with a hand shovel (approximately 1 cubic foot capacity) at the drill hole collar to place the collection pump. No excavated drilling sumps are proposed at the drill sites. No cuttings sumps are proposed. All drill cuttings are to be removed from the project using collection tanks and disposal to approved landfills.

Existing access roads will be used. Winter time frozen road activities will be used to freeze the road soils. See the response to 295.44(2)(a)(11) on page 9 of this plan for a more detailed description of how frozen roads will be managed.

295.44 (2)(b)(5)

A statement that all drillholes will be abandoned in compliance with 295.44 (5).

Drillholes will be abandoned as described in Wisconsin Statutes 295.44 (5).

295.44 (2)(c) EXPLORATION LICENSE FEE

295.44 (2)(c) Exploration License Fee of \$300.00

A check in the amount of \$300 has been provided.

295.44 (2)(d) SURETY BOND

295.44 (2)(d) Surety Bond

A bond, as provided in 295.44 (3)(a).

The Surety Bond is addressed in the response to 295.44 (3) found below.

295.44 (2)(e) CERTIFICATE OF INSURANCE

295.44 (2)(e) Certificate of Insurance

A certificate of insurance showing that the applicant has in force a liability insurance policy issued by an insurance company licensed to do business in this state covering all exploration conducted or contracted for by the explorer in this state and affording personal injury and property damage protection in a total amount determined to be adequate by the department, but not more than \$1,000,000 and not less than \$50,000.

A copy of the Certificate of Insurance follows this page. The Certificate of Insurance expires December 31, 2013. Once the 2014 Certificate of Insurance becomes available, a copy will be provided to the Wisconsin DNR.

295.44 (2)(f) FINANCIAL ASSURANCE

295.44 (2)(f) Financial

A copy of the applicant's most recent annual report to the federal securities and exchange commission on form 10-K, or, if this is not available, a report of the applicant's current assets and liabilities or other data necessary to establish that the applicant is competent to conduct exploration in this state.

See the Balance Sheet attachment.

295.44 (2m) CONFIDENTIALITY

295.44 (2m) CONFIDENTIALITY

The department and the state geologist shall protect as confidential any information, other than effluent data, contained in an application for an exploration license, upon a showing that the information is entitled to protection as a trade secret, as defined in s. 134.90 (1)(c), and any information relating to the location, quality, or quantity of a ferrous mineral deposit, to production and sales figures, or to processes or production unique to the applicant or that would tend to adversely affect the competitive position of the applicant if made public.

No items contained within this application would require consideration under 295.44 (2m).

295.44 (3) SURETY BOND

295.44 (3) Bond

An applicant shall submit, as part of the application for an exploration license, a bond in the amount of \$5,000 that is conditioned on faithful performance of the requirements of this section, that is issued by a surety company licensed to do business in this state, and that provides that the bond may not be canceled by the surety, except after not less than 90 days' notice to the department in writing by registered or certified mail.

A Reclamation Surety Bond in the amount of \$80,000 is provided. This amount exceeds our estimated reclamation bond amount.

295.44 (3)(d)

The department may require that the amount of the bond submitted under this subsection be increased at any time, if the department determines that the level of activity by the explorer makes it likely that the bond would be inadequate to fund the termination of all drillholes for which the explorer is responsible.

A Reclamation Cost Estimate has been included. See the attachment to 295.44 (3)(d) that follows this page.

ATTACHMENT to RESPONSE for s.295.44(2)(a)(1)
LAND OWNER LETTERS

May 29, 2013

Wisconsin Department of Natural Resources
Mining Coordinator – WA/5
101 South Webster Street
PO Box 7921
Madison, WI 53707-7921

Dear Director:

Re: Gogebic Taconite, LLC
Exploration License
Right of Entry

This letter serves to inform your agency that through the Option Agreement signed by RGGS Land & Minerals, LTD., L.P. and Gogebic Taconite, LLC, the right to access the Optioned Lands and the right to perform Exploration and Environmental Studies on the Optioned Lands has been granted to Gogebic Taconite, LLC.

The Optioned Lands include parcels in the following areas of Iron County, Wisconsin:

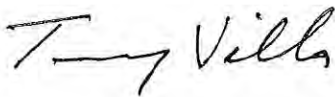
Sections 31, 32 and 33, Township 45 North, Range 1 West.

Sections 5 and 6, Township 44 North, Range 1 West.

The Optioned Lands include parcels in the following areas of Ashland County, Wisconsin

Sections 1, 2, 11 and 12, Township 44 North, Range 2 West.

The various roads that would be used in the Exploration Activity are used for timber harvesting operations on the property. These roads are to be left in place for future activities. The proposed reclamation of drill sites and roads as described in Gogebic Taconite, LLC's Exploration License application meets the requirements of RGGS Land & Minerals, LTD., L.P., the land owner.



Terry Villa
RGGS Land & Minerals, LTD., L.P.
PO Box 1266
Virginia, MN 55792

LAPOINTE IRON COMPANY
a Wisconsin corporation

TELEPHONE
218/262-0799

3920 13th Avenue East, Suite #7
Hibbing, Minnesota 55746

FAX
206/203-0098

May 29, 2013

Wisconsin Department of Natural Resources
Mining Coordinator – WA/5
101 South Webster Street
PO Box 7921
Madison, WI 53707-7921

Re: Gogebic Taconite, LLC – Exploration License & Right of Entry

Dear Director:

This letter serves to inform your agency that through the Option Agreement signed by LaPointe Iron Company and Gogebic Taconite, LLC, the right to access the Optioned Lands and the right to perform Exploration and Environmental Studies on the Optioned Lands has been granted to Gogebic Taconite, LLC.

The Optioned Lands include parcels in the following areas in Iron County, Wisconsin:

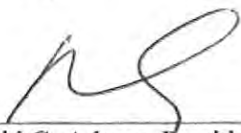
Township 45 North, Range 1 West, Sections 28 and 33

The Optioned Lands include parcels in the following areas in Ashland County, Wisconsin

Township 44 North, Range 2 West, Sections 1, 2, 11 and 12;

The various roads that would be used in the Exploration Activity are used in timbering operations on the property. These roads are to be left in place for future activities. Therefore, the proposed reclamation of the drill sites and roads as remaining in the road system on the property meets the requirements of LaPointe Iron Company, the land owner.

Sincerely,



David C. Adams, President
LaPointe Iron Company

CHESTER COMPANY, LIMITED

TELEPHONE
218/262-0799

3920 13th Avenue East, Suite # 7
Hibbing, Minnesota 55746

Fax
208/203-0088

May 29, 2013

Wisconsin Department of Natural Resources
Mining Coordinator – WA/5
101 South Webster Street
PO Box 7921
Madison, WI 53707-7921

Re: Gogebic Taconite, LLC – Exploration License & Right of Entry

Dear Director:

This letter serves to inform your agency that through the Option Agreement signed by Chester Company, Limited and Gogebic Taconite, LLC, the right to access the Optioned Lands and the right to perform Exploration and Environmental Studies on the Optioned Lands has been granted to Gogebic Taconite, LLC.

The Optioned Lands include parcels in the following areas in Iron County, Wisconsin:

Township 44 North, Range 1 West, Sections 5 and 6

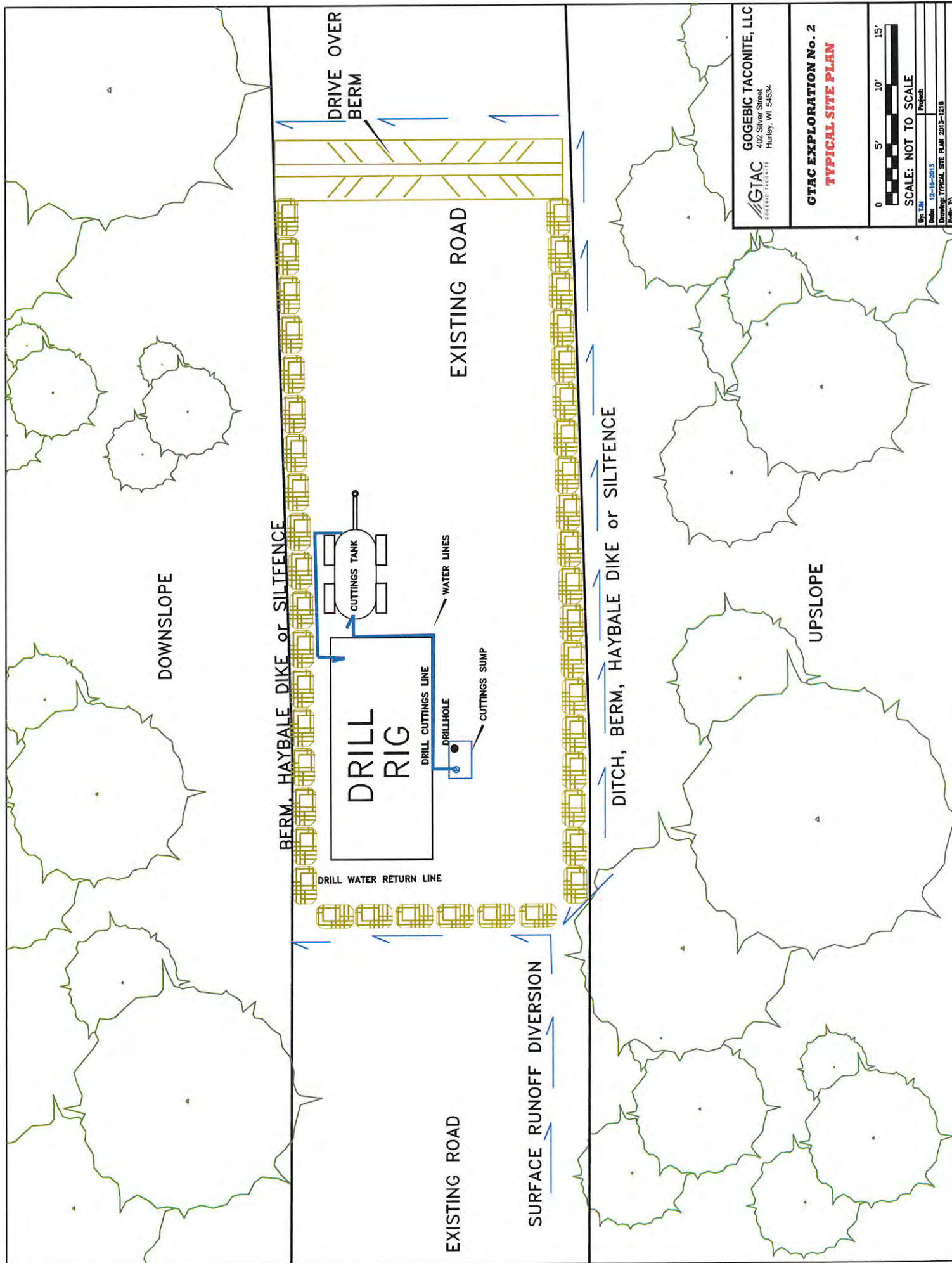
The various roads that would be used in the Exploration Activity are used in timbering operations on the property. These roads are to be left in place for future activities. Therefore, the proposed reclamation of the drill sites and roads as remaining in the road system on the property meets the requirements of Chester Company, Limited, the land owner.

Sincerely,



David C. Adams, President
CMMI, General Partner of Chester Company, Limited

ATTACHMENT TO RESPONSE FOR s.295.44 (2)(a)(11)
TYPICAL SITE PLAN



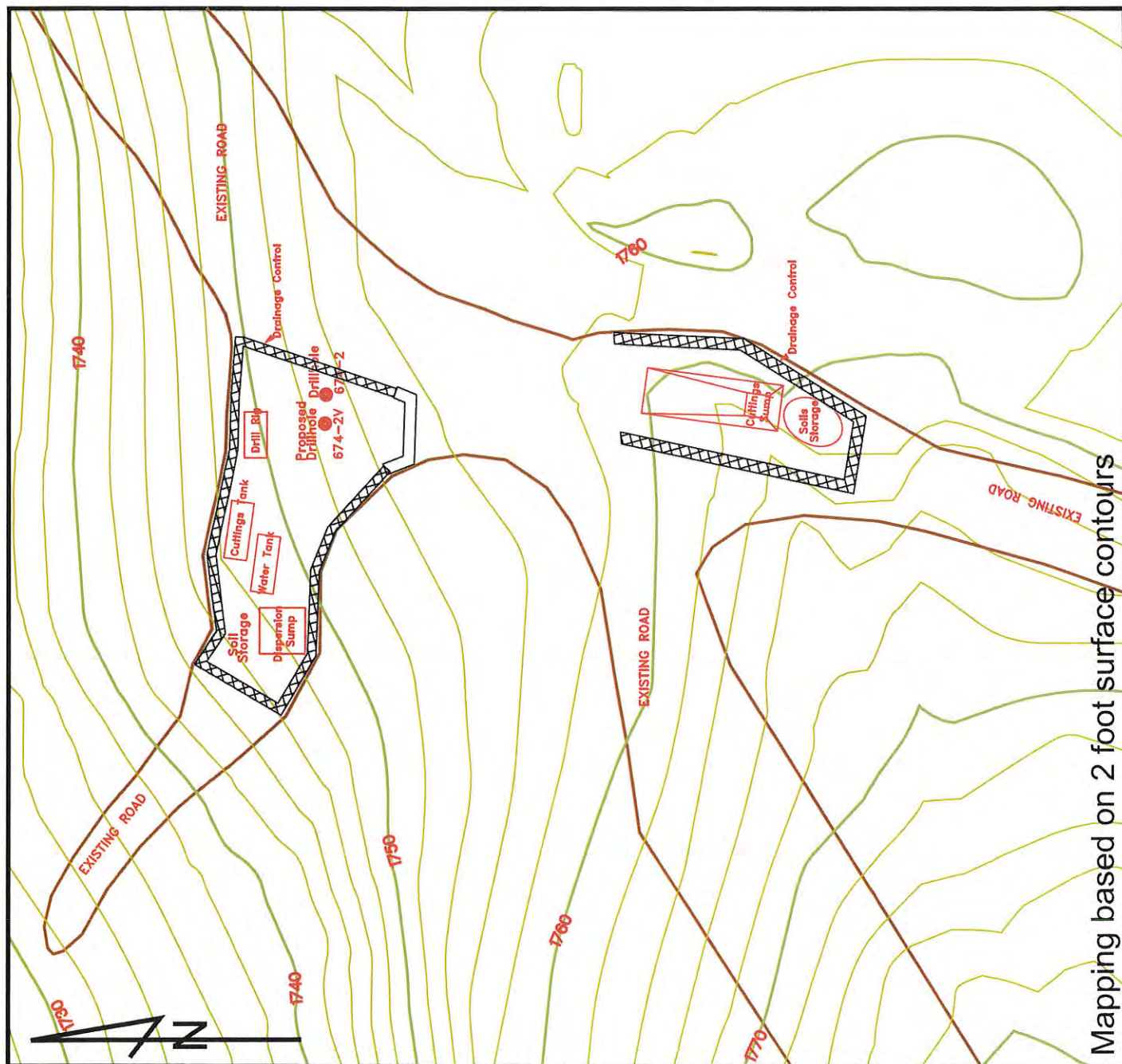
 GOGEBIC TACONITE, LLC 402 Silver Street Hurley, WI 54634	
GTAC EXPLORATION No. 2 TYPICAL SITE PLAN	
Scale: 1" = 10'-0" 0 5' 10' 15'	SCALE: NOT TO SCALE Project:
Date: 12-16-2013 Drawn: TYPICAL SITE PLAN 2013-1218 Packed: TN	

SITE LOCATION

Township 44 North, Range 1 West
NW NW Section 5

Disturbed Acreage 0.13 Acres
Site 674-2

Disturbed Acreage 0.06 Acres
Cuttings Sump



Gogebic Taconite
402 Silver Street
Hurley, WI 54534

GTAC EXPLORATION NO. 1

COLLECTION TANK CENTRAL LOC.
PLAN VIEW



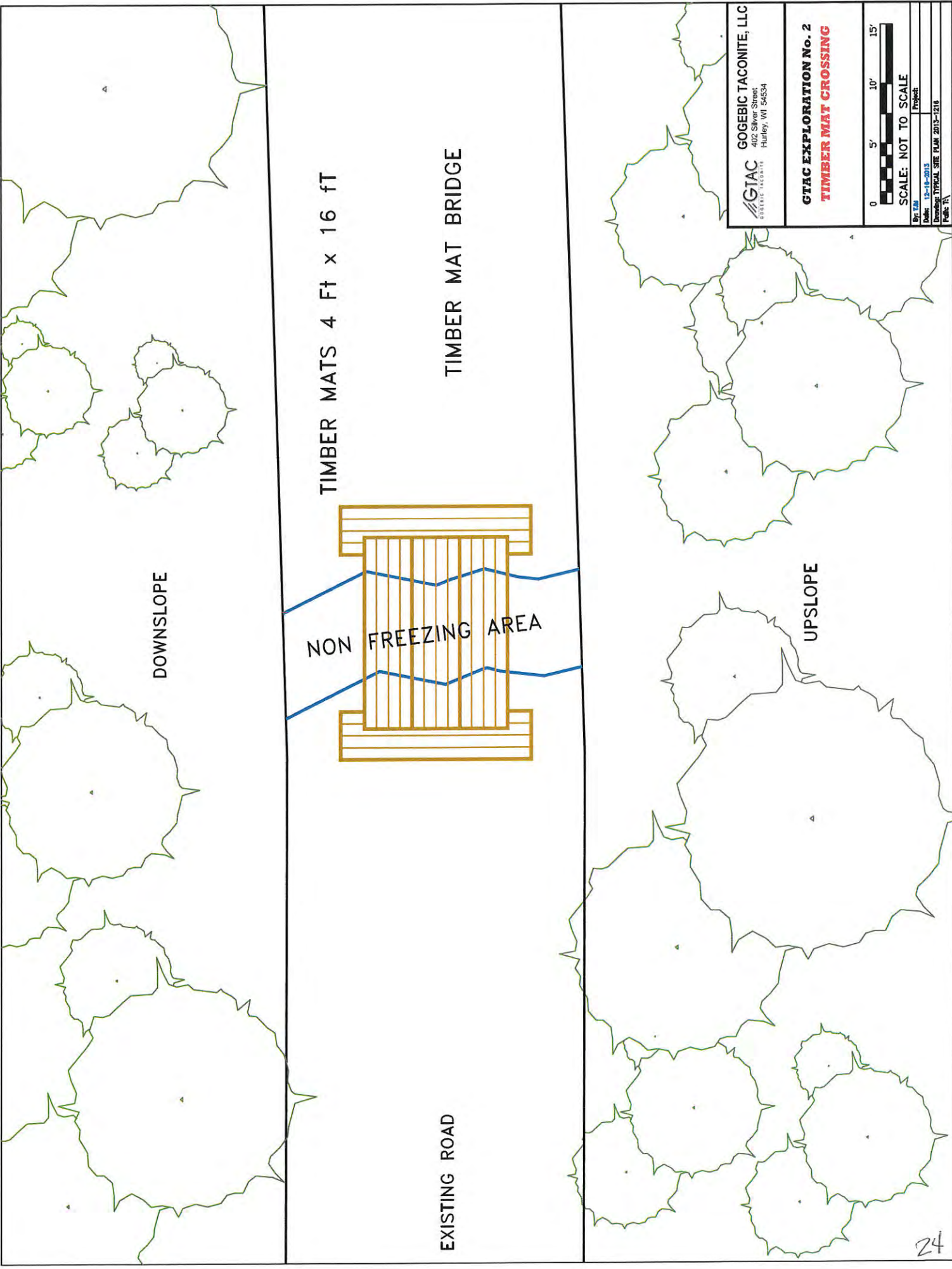
SCALE: NOT TO SCALE

By: TJM Project:

Date: 12-16-2013

Drawing: Drill Site 674-2 Layout

Path: EXPLORATION 2013-1216



ATTACHMENT to RESPONSE for s.295.44(2)(a)(11)
WETLAND DELINEATION REPORT



Wetland Delineation Report

Gogebic Taconite, LLC

Access Roads 2, 4 and 5

Town of Anderson, Iron County, Wisconsin

and

Town of Morse, Ashland County, Wisconsin

December 30, 2013





WETLAND DELINEATION REPORT

**GOGEBIC TACONITE, LLC
ACCESS ROADS 2, 4 AND 5
TOWN OF ANDERSON, IRON COUNTY, WISCONSIN
AND
TOWN OF MORSE, ASHLAND COUNTY, WISCONSIN**

December 30, 2013

Prepared for:

Mr. Tim Myers, P.E.
Chief Engineer
Gogebic Taconite, LLC
402 Silver Street
Hurley, Wisconsin 54534

Prepared By:

Wetlands and Waterways, LLC
5742 Warbonnet Lane
Hazelhurst, Wisconsin 54531
(715) 892-4211

Project Number: 007

Ann M. Michalski, PSS, PWS, CST
WDNR Professionally Assured Wetland Delineator



Table of Contents

Introduction	1
Study Methods	3
Results	4
Off-Site Survey	4
Field Delineation	5
Delineated Wetland Basins	5
Conclusions	8
References	10

Figures

Figure 1:	Site Location and Local Topography
Figure 2	Site Layout
Figure 2A-2D:	Wetland Location Map
Figure 3:	Wisconsin Wetland Inventory Map
Figure 4:	Ashland and Iron County Soil Survey Map

Appendices

Appendix A: Field Data Sheets	153 Pages
Appendix B: Site Photographs	22 Pages



Introduction

Gogebic Taconite, LLC contracted Wetlands and Waterways, LLC to delineate wetlands along portions of three existing forest roads referred to as Access Road 2, Access Road 4 and Access Road 5. Access Road 2 is located in Parts of Section 1 and 2 of Township 44 North, Range 2 West, Town of Morse, Ashland County, Wisconsin. Access Road 4 is located in Part of Section 1 of Township 44 North, Range 2 West and Parts of Sections 6, 31 and 32 of Township 45 North, Range 1 West, Town of Anderson, Iron County, Wisconsin. Access Road 5 is located in Part of Section 6, Township 45 North, Range 1 West, Town of Anderson, Iron County, Wisconsin. See Figure 1 for the property location and local topography.

The access routes and associated drill sites were examined on May 30th and June 3rd, 2013 by Ms. Ann Michalski, PSS, PWS, Wisconsin Department of Natural Resources (WDNR) Professionally Assured Wetland Delineator for areas meeting jurisdictional wetland criteria as specified in the 1987 Corps of Engineers Wetlands Delineation Manual and the Northcentral and Northeast Regional Supplement. A follow up site visit was conducted on June 19th, 2013 with representatives from WDNR and U.S. Army Corps of Engineers (USACOE) to review the delineated areas.

The study areas consist primarily of existing forest roads and areas immediately adjacent to the roads that were built for historic logging and mining activities. The forest roads are bordered on both sides by mature hardwood forests. Access Roads 2, 4 and 5 are referred to as secondary access routes for purposes of this report. One primary access road runs across the property from west to east with several secondary roads branching off of it. The primary access road is improved more so than the secondary access roads and will not require any alterations or permitting for purposes of accessing the drill sites. Therefore, the primary access road was not included as part of the delineation.

The purpose of delineating Access Roads 2, 4 and 5 and associated drill sites was to identify wetlands to be avoided or permitted for temporary impacts associated with equipment transport to the proposed drilling sites. Gogebic Taconite, LLC has since discussed using ice roads with appropriate regulatory agencies to access specific areas while protecting the identified wetlands. Figure 2 shows the overall site layout, access routes and associated drill sites. Some drill sites were adjusted based on the findings of the delineation in order to avoid wetland impacts. Figures 2A through 2D show the locations of Access Roads 2, 4 and 5 and delineated wetlands in greater detail. Representative data points were recorded at each sample site location and a Field Data Sheet was recorded for each location. The sample points are shown on Figures 2A through 2D and Field Data Sheets are included in Appendix A.

Per the Wisconsin Wetland Inventory (WWI) classification system, the wetlands identified for this study are classified primarily as E2K (Emergent/wet meadow, narrow-leaved persistent, palustrine, wet soil) and T3K (Forested, broad-leaved deciduous, palustrine, wet soil) wetlands. The Field Data Sheets classify the wetlands according to the Cowardin ET AL 1979 classification system as PEM1 (Palustrine, Emergent, Persistent) and PFO1 (Palustrine, Forested, Broad-Leaved Deciduous) and wetlands. Several of the wetlands identified had small,



intermittent drainageways flowing through them at the time of the first site visit. The drainageways were evaluated by USACOE and WDNR staff during the follow up site visit and most of them were dry at the time of that site visit.

Twenty-four wetlands were delineated within the study areas. Two other locations (SB1 and SB2) were evaluated in greater detail due to suspect vegetation but these areas did not meet wetland criteria. Overall, the majority of the wetlands areas within the study area along Access Roads 2, 4 and 5 are considered Significantly Disturbed due to the historic road construction resulting in removal of natural vegetation, alteration of soil profiles and development of depressional areas that now hold runoff from the adjacent hillsides. Many of these areas have soil compaction and rutting from historic activities, as well as recent ATV traffic. Despite the ATV disturbances being more recent, the wetlands were considered to have new normal circumstances since road construction occurred many years ago and hydric conditions likely began to develop at that time. Most areas immediately adjacent to the access roads were not considered Significantly Disturbed. Also, most areas observed were not considered Problematic with the exception of shallow rock at some sample sites preventing full soil profile viewing.

Wetland boundaries were identified using procedures outlined in the 1987 Corps of Engineers Wetland Delineation Manual and Northcentral and Northeast Regional Supplement. Boundaries for areas identified as wetlands were determined based on topographical changes, transitions from hydric soils and hydric vegetation to upland soils and upland vegetation and presence or lack of hydrology indicators. Regulatory personnel from USACOE and WDNR were present at the site on June 19th and reviewed the delineated areas.

Precipitation totals for this area were in general higher than normal throughout the 2013 growing season. The National Weather Service historical precipitation data reviewed for Duluth, Minnesota, Rhinelander, Wisconsin and Marquette, Michigan indicated that the month-to-date precipitation levels were near normal but the year-to-date precipitation levels were much higher than normal (+3 to +4" above normal) at the time of the delineation. The Palmer Drought Index also indicated that as of May 25th, the area was "very moist" with a +3.00 to +3.99 value indicating wetter than normal conditions.

Standing and flowing water was observed in many wetland areas at the time of the first site visit but by the June 19th site visit, most wetland areas observed only had saturated soils. Primary hydrology indicators present at the time of the site visits included Surface Water (A1), High Water Table (A2), Saturation (A3) and Water-Stained Leaves (B9) and secondary hydrology indicators including Drainage Patterns (B10), Geomorphic Position (D2) and FAC-neutral test (D5).

Hydric soil indicators applied at the site include Histosol (A1), Redox Dark Surface (F6), Depleted Dark Surface (F7) and Redox Depressions (F8), 2 CM Muck (A10) and Very Shallow Dark Surface (TF12). A few areas identified as wetlands did not meet hydric soil indicators, primarily due to shallow rock preventing full soil profile viewing but hydric soils were assumed based on hydrology indicators and vegetation in those locations.



Study Methods

Available topographic maps, survey maps, aerial photos, WWI maps, and the Ashland and Iron County Soil Survey maps were reviewed prior to visiting the property to identify potential wetland areas. The WWI is included as Figure 3. The combined Ashland and Iron County Soil Survey Map is included as Figure 4.

Examination of vegetation, soils and hydrology, as outlined in the 1987 U.S. Army Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987) and the Northcentral Regional Supplement, were used to characterize and determine wetland boundaries. The NRCS Field Indicators of Hydric Soils in the United States guide was also utilized to identify hydric soils at the site. Wetland edges were marked with pink flagging labeled "Wetland Delineation" for the purposes of photos and wetland boundary documentation during several of the site visits but flagging was then removed. The wetland edge was considered the highest extent of the jurisdictional wetland. Areas below the delineated wetland edge met required wetland criteria, while areas above did not. Wetland boundaries and sample site locations were located with a Trimble GeoXT 6000 Series GPS with sub-meter accuracy. The wetland boundaries and sample site locations are shown on Figures 2A, 2B, 2C and 2D with several wetlands identified being confined to the existing access road corridors and not extending into adjacent forested areas. Two additional locations (SB1 and SB2) were evaluated due to suspect vegetation and topographical position but the areas were determined to be uplands. A representative sample site was chosen at each location and a Field Data Sheet was completed.

In the location of the delineated wetlands, a sample transect was established in a representative wetland to upland transition zone. The transect was comprised of two sample points located along a line running perpendicular to the wetland edge, with one point in obvious wetland and one point in obvious upland. A field data form was completed for each of the upland and wetland sample points. Sample point locations for the wetland transects were also located with a GPS and are shown on Figures 2A through 2D. Field data forms are included in Appendix A.

Wetland classification was performed according to Cowardin and Wisconsin Wetland Inventory classification systems. Vegetation was identified using suitable keys (Eggers and Reed, 1987; Knoop, 1980; Courtenay/Zimmerman, 1972; Fassett, 1951; Chadde, 1998) and a plant's hydrophytic status was determined using the most recent Northcentral-Northeast Region – National Wetlands Plant List (U.S. Army Corps of Engineers, 2012).

Results

OFF-SITE SURVEY

The WWI/Hydric Soils map indicates several small wetland symbols (< 2 acres) in the vicinity of Access Roads 2, 4 and 5. Based on observations during the site visits, several of the wetlands delineated may be part of the mapped wetlands but not all mapped wetland symbols were necessarily within the immediate study areas. The WWI Surface Water Data Viewer does not indicate any intermittent or navigable streams in the location of Access Roads 2, 4 or 5. The Iron and Ashland County Soil Surveys indicate that the access roads and associated drill sites consist primarily of moderately well to well drained upland soils. No hydric soils or soils with hydric inclusions are mapped within the immediate areas of Access Roads 2, 4 and 5.

The Ashland and Iron County Soil Surveys indicate that the following soil series are present within the study areas:

5351C – Gogebic Silt Loam, 6 to 18% slopes, Very Stony, Rocky - These soils consist primarily of moderately well drained silt loam soils overlying fine sandy loam and gravelly fine sandy loam soils. These soils are typically formed on convex or linear crests, side slopes, base slopes, nose slopes or head slopes of till plains with gently rolling to moderately steep terrain. These soils are classified as Frigid Alfic Oxyaquic Fragiorthods. These soils are not listed on the Wisconsin or National Hydric Soils lists.

5351D – Gogebic Silt Loam, 18 to 35% slopes, Very Stony, Rocky - These soils consist primarily of moderately well drained silt loam soils overlying fine sandy loam and gravelly fine sandy loam soils. These soils are typically formed on convex or linear crests, side slopes, base slopes, nose slopes or head slopes of till plains with moderately steep to very steep terrain. These soils are classified as Frigid Alfic Oxyaquic Fragiorthods. These soils are not listed on the Wisconsin or National Hydric Soils lists.

5369D – Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18 to 35% slopes – These soils consist primarily of moderately well to well drained cobbly silt loam overlying cobbly loam or very stony loamy sand or sandy loam over bedrock. These soils are typically formed on convex or linear summits, backslopes, shoulders and footslopes of moraines with moderately steep to very steep terrain. These soils are classified as Frigid Oxyaquic Haplorthods, Alfic Oxyaquic Fragiorthods and Frigid Lithic Haplorthods. These soils are not listed on the Wisconsin or National Hydric Soils lists.

5369E – Michigamme-Schweitzer-Peshekee-Rock Outcrop Complex, 35 to 55% slopes - These soils consist primarily of well drained cobbly fine sandy loam and cobbly silt loam or very fine sandy loam overlying cobbly and/or gravelly soils over bedrock. These soils are typically formed on convex shoulders, backslopes, sideslopes and summits on hills and till plains with very steep to extremely steep terrain. These soils are classified as Frigid Fragic Haplorthods, Frigid Alfic



Fragiothods and Frigid Lithic Haplorthods. These soils are not listed on the Wisconsin or National Hydric Soils lists.

The combined Ashland and Iron County Soil Survey map is included as Figure 4.

FIELD DELINEATION

Twenty-four wetland areas were delineated during the site visit. Two other sample sites were also evaluated and identified as uplands. The following text describes the wetlands identified at the site and the basis for determining the wetland boundaries. See Appendix A for Wetland Data Forms. Refer to Figures 2A through 2D for the location of the delineated wetlands, the wetland sample points and transects and sample points along Access Roads 2, 4 and 5.

DELINEATED WETLANDS

Wetlands 1 through 24 are primarily PEM1 (Palustrine, Emergent, Persistent) wetlands with only Wetland 17 being classified as a PFO/PEM1 (Palustrine, Forested, Broad-Leaved Deciduous/ Palustrine, Emergent, Persistent) wetland because the sample point had to be located slightly off the edge of the roadway due to rocky soils within the roadway. Although many of these wetlands may extend beyond the edges of the access roads and would be classified as other types of wetlands, the classifications were applied to the areas within the immediate study area.

Overall, the majority of the wetlands within the study area along Access Roads 2, 4 and 5 are considered Significantly Disturbed due to the historic road construction resulting in removal of natural vegetation, alteration of soil profiles and development of depressional areas that now hold runoff from the adjacent hillsides. Many of these areas have soil compaction and rutting from historic activities, as well as recent ATV traffic. Despite the ATV disturbances being more recent, the wetlands were considered to have new normal circumstances since road construction occurred many years ago and hydric conditions likely began to develop at that time. Due to shallow rock throughout the site, a full soil profile could not be viewed at several of the wetland and upland sample points and these areas were considered Problematic. However, in most cases obvious transitions in hydrology and vegetation, as well as defined topographic breaks in most areas, were considered and most heavily evaluated in determining wetland boundaries. Reference sites were also evaluated where available.

Wetlands 1, 2, 5, 8, 9, 10, 12, 14, 15, 16, 17, 18, 19, 20, 21 and 22 had drainageways that were observed during the first site visit. Many of the drainageways had a small amount of flowing water at the time of that visit but likely due to several heavy precipitation events prior to the site visit. Almost all drainageways were dry at the time of the follow up site visit on June 19th. Primary hydrology indicators observed during the delineation of the study areas included Surface Water (A1), High Water Table (A2), Saturation (A3) and Water-Stained Leaves (B9) and secondary hydrology indicators including Drainage Patterns (B10), Geomorphic Position (D2) and FAC-neutral test (D5). Wetlands 3, 4, 6, 7, 11, 13, 23 and 24 appear to be confined to the road.



The wetland soils consist primarily of dark sandy loam and loamy sand soils with redoximorphic features, overlying shallow rock in many locations. Upland soils consist primarily of sandy loam and loamy sand soils lacking redoximorphic features, also overlying shallow rock in many locations. Hydric soil indicators applied at the site include Histosol (A1), Redox Dark Surface (F6), Depleted Dark Surface (F7) and Redox Depressions (F8), 2 CM Muck (A10) and Very Shallow Dark Surface (TF12). A few areas identified as wetlands did not meet hydric soil indicators, primarily due to shallow rock preventing full soil profile viewing but hydric soils were assumed based on hydrology indicators and vegetation in those locations.

SB1 and SB2 are sample points that were evaluated primarily due their topographic positions and suspect vegetation. Both of these sites were considered Significantly Disturbed because they had been created by historic earthmoving activities related to former mining and logging activities at the site. However, this was considered the new normal circumstance in all cases. Both of these areas were located in an area that appeared to be a former landing for logging activities. These areas did not meet the necessary wetland criteria and were determined to be uplands. A representative sample site was chosen and a Field Data Sheet was completed. Both areas were review by USACOE and WDNR personnel present at the site during the June 19th site visit.

The dominant vegetation found in the wetland sample site location includes the following:

Scientific Name	Common Name	Indicator
<i>Acer rubrum</i>	Red Maple	FAC
<i>Acer saccharum</i>	Sugar Maple	FACU
<i>Anemone canadensis</i>	Canada Anemone	FACW
<i>Barbarea vulgaris</i>	Yellow Rocket	FAC
<i>Betula alleghaniensis</i>	Yellow Birch	FAC
<i>Caltha palustris</i>	Marsh Marigold	OBL
<i>Carex crinita</i>	Fringed Sedge	OBL
<i>Carex cristatella</i>	Crested Sedge	FACW
<i>Carex lacustris</i>	Lake Sedge	OBL
<i>Equisetum arvense</i>	Common Horsetail	FAC
<i>Fragaria virginiana</i>	Virginia Strawberry	FACU
<i>Fraxinus nigra</i>	Black Ash	FACW
<i>Impatiens capensis</i>	Orange Jewelweed	FACW
<i>Mentha arvensis</i>	Field Mint	FACW
<i>Myosotis scorpioides</i>	Forget-Me-Not	OBL
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW
<i>Osmunda cinnamomea</i>	Cinnamon Fern	FACW
<i>Osmunda claytoniana</i>	Interrupted Fern	FAC
<i>Prunus virginiana</i>	Chokecherry	FACU
<i>Quercus alba</i>	White Oak	FACU
<i>Quercus rubra</i>	Northern Red Oak	FACU
<i>Rubus idaeus</i>	Red Raspberry	FAC
<i>Rubus pubescens</i>	Dwarf Raspberry	FACW
<i>Rumex altissimus</i>	Pale Dock	FACW
<i>Rumex obtusifolius</i>	Bitter Dock	FAC



<i>Schoenoplectus tabernaemontani</i>	Soft-Stem Bulrush	OBL
<i>Scirpus cyperinus</i>	Wool-Grass	OBL
<i>Solidago gigantea</i>	Giant Goldenrod	FACW
<i>Tilia americana</i>	American Basswood	FACU

The dominant vegetation found in the upland sample site locations at this site includes the following:

Scientific Name	Common Name	Indicator
<i>Acer rubrum</i>	Red Maple	FAC
<i>Acer saccharum</i>	Sugar Maple	FACU
<i>Allium tricoccum</i>	Wild Leek	FACU
<i>Arctium minus</i>	Common Burdock	FACU
<i>Betula alleghaniensis</i>	Yellow Birch	FAC
<i>Cardamine concatenata</i>	Cutleaf Toothwort	FACU
<i>Carex crinita</i>	Fringed Sedge	OBL
<i>Carex gracillima</i>	Graceful Sedge	FACU
<i>Carex pensylvanica</i>	Pennsylvania Sedge	UPL
<i>Caulophyllum thalictroides</i>	Blue Cohosh	UPL
<i>Dryopteris intermedia</i>	Evergreen Wood Fern	FAC
<i>Erythronium americanum</i>	Yellow Trout-Lily	UPL
<i>Eurybia macrophylla</i>	Large-Leaf Aster	UPL
<i>Fragaria virginiana</i>	Virginia Strawberry	FACU
<i>Fraxinus pennsylvanica</i>	Green Ash	FACW
<i>Gymnocarpium dryopteris</i>	Northern Oak Fern	FACU
<i>Hieracium aurantiacum</i>	Orange Hawkweed	UPL
<i>Lonicera canadensis</i>	American Fly Honeysuckle	FACU
<i>Lonicera tatarica</i>	Tartarian Honeysuckle	FACU
<i>Maianthemum canadense</i>	Canada Mayflower	FACU
<i>Matteuccia struthiopteris</i>	Ostrich Fern	FAC
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW
<i>Osmunda claytoniana</i>	Interrupted Fern	FAC
<i>Ostrya virginiana</i>	Ironwood	FACU
<i>Phlegopteris connectilis</i>	Northern Beech Fern	FACU
<i>Plantago major</i>	Greater Plantain	FACU
<i>Quercus rubra</i>	Northern Red Oak	FACU
<i>Ribes cynosbati</i>	Prickly Wild Gooseberry	FACU
<i>Rubus idaeus</i>	Red Raspberry	FAC
<i>Rumex altissimus</i>	Pale Dock	FACW
<i>Solidago altissima</i>	Canada Goldenrod	FACU
<i>Taraxacum officinale</i>	Common Dandelion	FACU
<i>Tilia americana</i>	American Basswood	FACU
<i>Uvularia sessifolia</i>	Sessile Leaf Bellwort	FACU
<i>Viola pubescens</i>	Yellow Violet	FACU

The wetland edges were identified based on the transition from upland vegetation to wetland vegetation and differences in soil and hydrology observed at upland and wetland sample points.

Conclusions

Three existing forest roads referred to as Access Road 2, Access Road 4 and Access Road 5 were delineated for this study. The access routes and associated drill sites were examined on May 30th and June 3rd, 2013 by Ms. Ann Michalski, PSS, PWS, WDNR Professionally Assured Wetland Delineator for areas meeting jurisdictional wetland criteria as specified in the 1987 Corps of Engineers Wetlands Delineation Manual and the Northcentral and Northeast Regional Supplement. A follow up site visit was conducted on June 19th, 2013 with representatives from WDNR and USACOE to review the delineated areas.

The areas examined consist primarily of existing forest roads that were built for historic logging and mining activities. The forest roads are bordered on both sides by mature hardwood forests. Access Roads 2, 4 and 5 are referred to as secondary access routes for purposes of this report. One primary access road runs across the property from west to east with several secondary roads branching off of it. The primary access road is improved more so than the secondary access roads and will not require any alterations or permitting for purposes of accessing the drill sites. Therefore, the primary access road was not included as part of the delineation.

The purpose of delineating Access Roads 2, 4 and 5 and associated drill sites was to identify wetlands to be avoided or permitted for temporary impacts associated with equipment transport to the proposed drilling sites. Gogebic Taconite, LLC has since discussed using ice roads with appropriate regulatory agencies to access specific areas while protecting the identified wetlands. Figure 2 shows the overall site layout, access routes and associated drill sites. Some drill sites were adjusted based on the findings of the delineation in order to avoid wetland impacts. Figures 2A through 2D show the locations of Access Roads 2, 4 and 5 and delineated wetlands in greater detail.

Twenty-four wetlands were delineated within the study areas. Two other locations (SB1 and SB2) were evaluated in greater detail due to suspect vegetation but these areas did not meet wetland criteria. Overall, the majority of the wetlands areas within the study area along Access Roads 2, 4 and 5 are considered Significantly Disturbed due to the historic road construction resulting in removal of natural vegetation, alteration of soil profiles and development of depressional areas that now hold runoff from the adjacent hillsides. Many of these areas have soil compaction and rutting from historic activities, as well as recent ATV traffic. Despite the ATV disturbances being more recent, the wetlands were considered to have new normal circumstances since road construction occurred many years ago and hydric conditions likely began to develop at that time. Most areas immediately adjacent to the access roads were not considered Significantly Disturbed. Also, most areas observed were not considered Problematic with the exception of shallow rock at some sample sites preventing full soil profile viewing.

Wetland boundaries were identified using procedures outlined in the 1987 Corps of Engineers Wetland Delineation Manual and Northcentral and Northeast Regional Supplement. The areas identified as wetland were primarily identified based on topographical changes, transitions from hydric soils and hydric vegetation to upland soils and upland vegetation and presence or lack of



hydrology indicators. Best professional judgment was also applied based on many years of conducting wetland delineations in northern Wisconsin.

The findings of this wetland delineation report are only valid for the site conditions which existed at the time of this investigation. All wetland boundaries were reviewed by representatives from USACOE and WDNR on June 19th, 2013.

The final authority for wetland boundaries and permit requirements rests with the government agencies which have jurisdiction over this project. Findings of this wetland delineation are subject to revision based upon natural or induced changes in weather, vegetation management, land use, topography, surface water flow, subsurface drainage, stormwater management, within or near the project site which may affect the soils, hydrology, or vegetative community on the project site.

This report provides a description of existing wetland conditions within the project area and does not include quantification of any temporary or permanent impacts to wetlands or waterbodies. Such impacts would require review and approval from all appropriate agencies. Activities which impact or potentially impact jurisdictional wetlands are currently regulated at several levels of government. Federal (USACOE), State (WDNR) and local government agencies may all be involved in reviewing a single project. To avoid potential penalties and project delays it is necessary to acquire necessary permits and approvals from all jurisdictional agencies before initiating activities in wetlands.



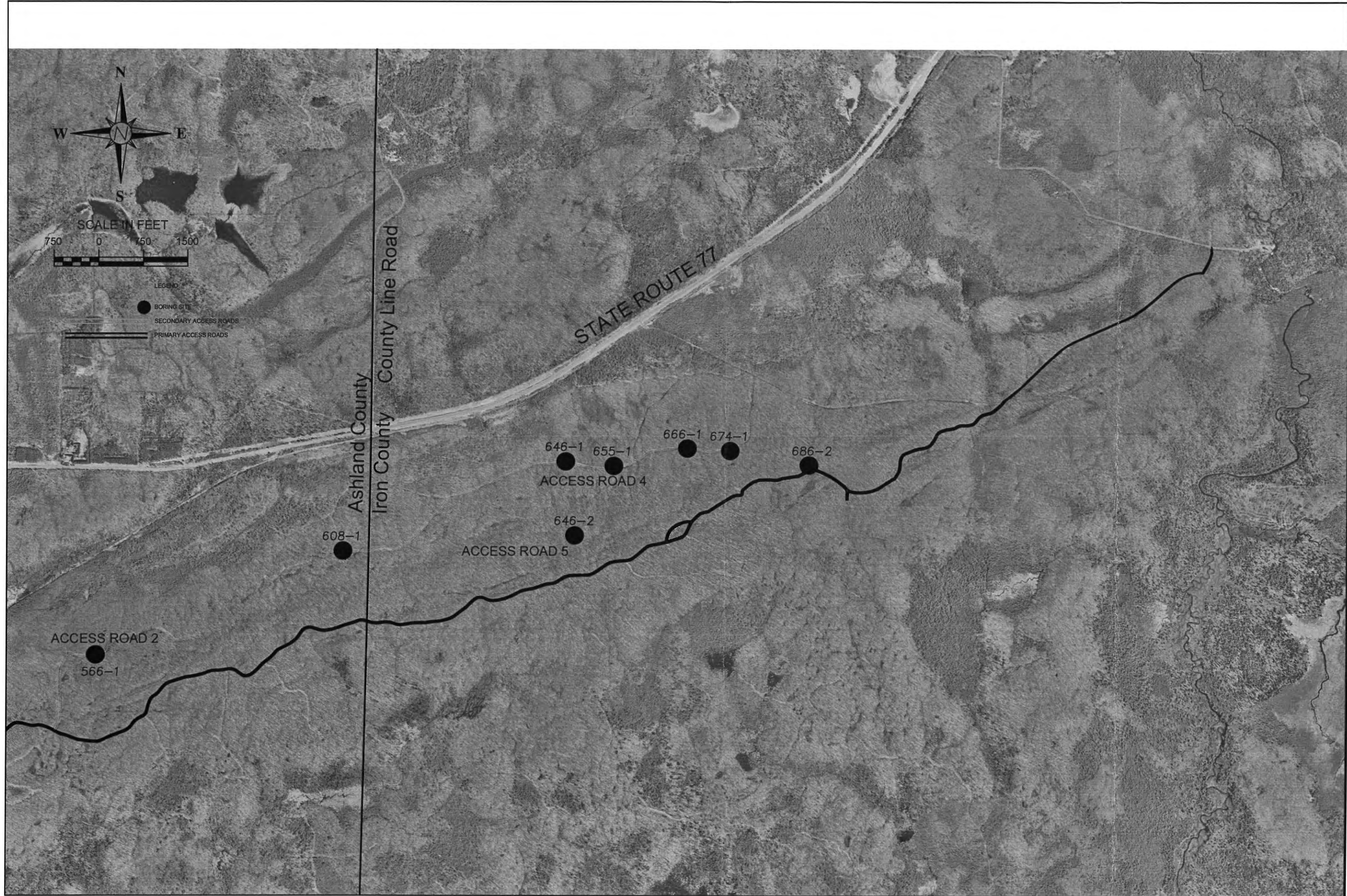
References

- Chadde, S.W., 1998. A Great Lakes Wetland Flora. Pocket Flora Press, Calumet, Michigan.
- Courtenay and Zimmerman, 1972. Wildflowers and Weeds. Toppan Printing Co., Ltd., Tokyo, Japan.
- Eggers and Reed, 1987. Wetland Plants and Plant Communities of Minnesota & Wisconsin. U.S. Army Corp of Engineers, St. Paul District.
- Environmental Laboratory, 1987. U.S. Army Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi.
- Fassett, N.C., 1950. Grasses of Wisconsin. University of Wisconsin Press, Madison.
- Little, E.L., 1980. The Audubon Society Field Guide to North American Trees. Chanticleer Press, Inc., New York.
- Mickelson, et. al., 1984. Pleistocene Stratigraphic Units of Wisconsin. Geological and Natural History Survey, University of Wisconsin-Extension, Madison, Wisconsin.
- National Weather Service Forecast Office. Duluth, MN, Marquette, MI, Rhinelander, WI - Archived Precipitation Data. www.weather.gov/climate/index (January 1 through June 3, 2013).
- Palmer Drought Index – Long Term Conditions.
<http://www.ncdc.noaa.gov/temp-and-precip/drought/weekly-palmers.php> (May 25, 2013).
- University of Wisconsin. Wisconsin State Herbarium.
<http://wiscinfo.doit.wisc.edu/moved/herbarium.htm> (May, 2013).
- USACOE Engineering Research and Development Center, October 2009. Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Regions.
- US Army Corps of Engineers, NWPL 2012. *National Wetland Plant List*.
- USDA Natural Resource Conservation Service, 2009. *Field Indicators of Hydric Soils in the United States*.
- USDA Natural Resource Conservation Service. *Official Soil Series Descriptions*.
<http://ortho.ftw.nrcs.usda.gov/cgi-bin/osd/osdname.cgi>
(May, 2013).



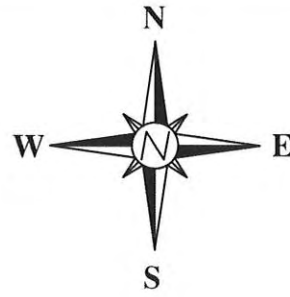
USDA Natural Resources Conservation Service. NCSS Web Soil Survey, Ashland and Iron County, Wisconsin. <http://websoilsurvey.nrcs.usda.gov/app/> (May, 2013).

Wisconsin Department of Natural Resources, 1992. Wisconsin Wetland Inventory Classification Guide. PUBL-WZ-WZ0223.



Wetlands & Waterways LLC		PROJECT NUMBER: 129	
		FIGURE NO. 2	
SITE LOCATION MAP ACCESS ROADS 2, 4 & 5		THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF WETLANDS & WATERWAYS LLC, AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS FURNISHED.	
		APPROVED BY: AIM	
		DRAWN BY: NLB	
		DATE: 12-20-13	SCALE: 1"=1500'
GOGEBIC TACONITE, LLC ASHLAND & IRON COUNTY, WISCONSIN			

SEE FIGURE 2A



- LEGEND:
- SECONDARY ACCESS ROADS
 - PRIMARY ACCESS ROADS
 - SAMPLE LOCATION
 - DELINEATION LIMITS
 - DRILL SITE LOCATION
 - DRAINAGEWAY



SEE FIGURE 2C

WETLAND LOCATION MAP
ACCESS ROADS 2, 4 & 5

GOGEBIC TACONITE, LLC
SEC. 1, T44N, R2W, TOWN OF MORSE, ASHLAND
COUNTY, SEC. 6, T45N, R1W, TOWN OF ANDERSON,
IRON COUNTY, WISCONSIN

APPROVED BY:
AMM

DRAWN BY:
NLB

DATE:
12-30-13

SCALE:
1"=300'

THIS DRAWING AND ALL INFORMATION
CONTAINED THEREON IS THE PROPERTY
OF WETLANDS & WATERWAYS LLC, AND
SHALL NOT BE COPIED OR USED EXCEPT
FOR THE PURPOSE FOR WHICH IT IS
FURNISHED.



PROJECT NUMBER:
129

FIGURE NO.

2B

SEE FIGURE 2B



- LEGEND:
- SECONDARY ACCESS ROADS
 - PRIMARY ACCESS ROADS
 - SAMPLE LOCATION
 - DELINEATION LIMITS
 - DRILL SITE LOCATION
 - DRAINAGEWAY



WETLAND LOCATION MAP
ACCESS ROADS 2, 4 & 5

GOGEBIC TACONITE, LLC
SEC. 6, 31 & 32, T45N, R1W, TOWN OF ANDERSON,
IRON COUNTY, WISCONSIN

APPROVED BY:
AMM
DRAWN BY:
NLE
DATE:
12-30-13
SCALE:
1"=300'

THIS DRAWING AND ALL INFORMATION
CONTAINED THEREON IS THE PROPERTY
OF WETLANDS & WATERWAYS LLC, AND
SHALL NOT BE COPIED OR USED EXCEPT
FOR THE PURPOSE FOR WHICH IT IS
FURNISHED.



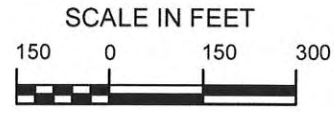
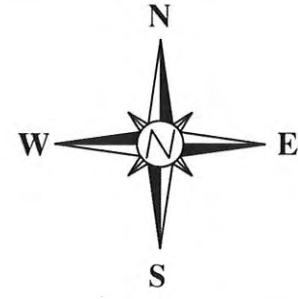
SEE FIGURE 2D

PROJECT NUMBER:
129

FIGURE NO.

2C

SEE FIGURE 2C



- LEGEND:
- SECONDARY ACCESS ROADS
 - PRIMARY ACCESS ROADS
 - SAMPLE LOCATION
 - DELINEATION LIMITS
 - DRILL SITE LOCATION



WETLAND LOCATION MAP
ACCESS ROADS 2, 4 & 5

GOGEBIC TACONITE, LLC
SEC. 32, T45N, R1W, TOWN OF ANDERSON, IRON
COUNTY, WISCONSIN

APPROVED BY:
AMM

DRAWN BY:
NLB

DATE:
12-30-13

SCALE:
1"=300'

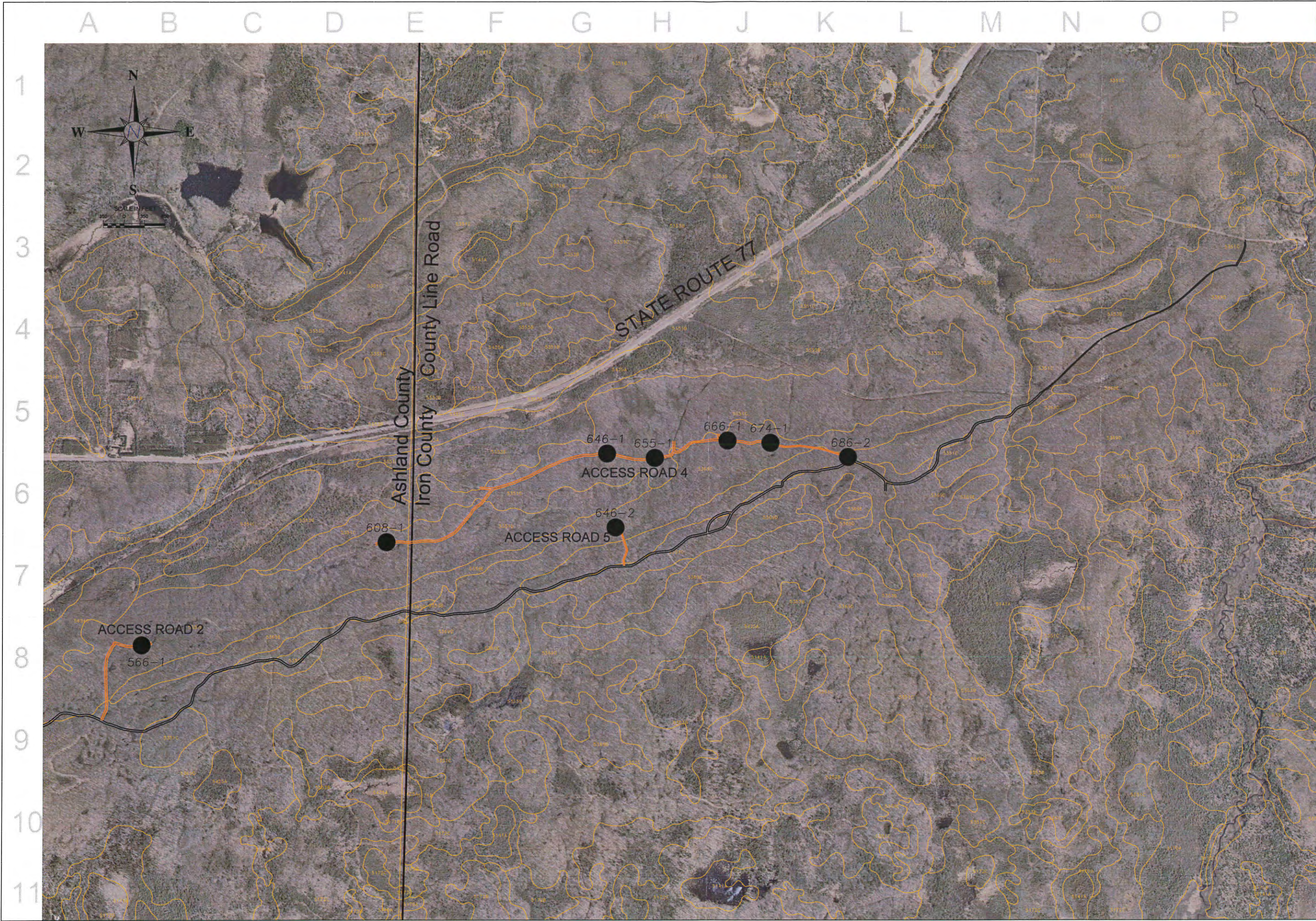
THIS DRAWING AND ALL INFORMATION
CONTAINED THEREON IS THE PROPERTY
OF WETLANDS & WATERWAYS LLC. AND
SHALL NOT BE COPIED OR USED EXCEPT
FOR THE PURPOSE FOR WHICH IT IS
FURNISHED.



PROJECT NUMBER:
129

FIGURE NO.

2D



PROJECT NUMBER: 129		FIGURE NO. 4	
 Wetlands & Waterways LLC			
THIS DRAWING AND ALL INFORMATION CONTAINED THEREON IS THE PROPERTY OF WETLANDS & WATERWAYS LLC. AND SHALL NOT BE COPIED OR USED EXCEPT FOR THE PURPOSE FOR WHICH IT IS FURNISHED.			
APPROVED BY: AMM	DRAWN BY: NLE	DATE: 12/30/13	SCALE: 1"=700'
SOIL SURVEY MAP		GOGEBIC TACONITE, LLC ASHLAND AND IRON COUNTY WISCONSIN	



APPENDIX A – FIELD DATA SHEETS

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Tonaw of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 1-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): Toeslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.316730 **Long.:** 90.569732 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils are problematic because the adjacent drainageway deposits new soils over hydric soils but a test indicator was applied and it is evident based on other information including hydrology, vegetation and topographic position that this location is wetland. Despite recent ATV disturbance, this area was considered to have new normal circumstances and was evaluated based on the current conditions.		

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -6 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Water flow through this wetland is from a drainageway on the south side of the wetland that flows onto the road pooling in tire ruts and compacted areas. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 1-1

Tree Stratum (Plot size: 15' x 240')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Fraxinus nigra	15	☒ 50.0%	FACW
2. Acer saccharum	15	☒ 50.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
30 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' x 60')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Acer saccharum	20	☒ 44.4%	FACU
2. Prunus virginiana	15	☒ 33.3%	FACU
3. Fraxinus nigra	10	☒ 22.2%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
45 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Carex crinita	50	☒ 50.0%	OBL
2. Osmunda cinnamomea	20	☒ 20.0%	FACW
3. Onoclea sensibilis	10	☐ 10.0%	FACW
4. Rubus pubescens	10	☐ 10.0%	FACW
5. Rubus idaeus	5	☐ 5.0%	FAC
6. Equisetum arvense	5	☐ 5.0%	FAC
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
100 = Total Cover			
Woody Vine Stratum (Plot size: 15' x 240')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 57.1% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>175</u> (A)	<u>410</u> (B)
Prevalence Index = B/A = <u>2.343</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 1-1

51

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 1-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): Footslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.316663 **Long.:** 90.569716 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions were much wetter than normal at the time of the visit based on the Palmer Drought Index and other available information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural and mining roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside and pooling in ruts and compacted depressional areas along the roads. Soils are disturbed within roadways and areas that were likely not wetlands prior to disturbance which now hold water and developed hydric soils. Most upland sample points were conducted on the edges of the roads in undisturbed reference sites and are much more representative of the original site conditions. The disturbed areas are considered to have new normal circumstances and were evaluated based on current conditions.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 1-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Acer saccharum	60	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
60 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Acer saccharum	35	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
35 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Erythronium americanum	30	☒ 66.7%	UPL
2. Acer saccharum	10	☒ 22.2%	FACU
3. Cardamine concatenata	5	☐ 11.1%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
45 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 110	x 4 = 440
UPL species 30	x 5 = 150
Column Totals: 140 (A)	590 (B)

Prevalence Index = B/A = 4.214

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 1-1

54

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Tonw of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 1B-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): Toeslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.316730 **Long.:** 90.569732 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils are problematic because the adjacent drainageway deposits new soils over hydric soils but a test indicator was applied and it is evident based on other information including hydrology, vegetation and topographic position that this location is wetland. Despite recent ATV disturbance, this area was considered to have new normal circumstances and was evaluated based on the current conditions.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -6 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 1B-1

Tree Stratum (Plot size: 15' x 240')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Fraxinus nigra	15	☒ 50.0%	FACW
2. Acer saccharum	15	☒ 50.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
30 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' x 60')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Acer saccharum	20	☒ 44.4%	FACU
2. Prunus virginiana	15	☒ 33.3%	FACU
3. Fraxinus nigra	10	☒ 22.2%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
45 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Carex crinita	50	☒ 50.0%	OBL
2. Osmunda cinnamomea	20	☒ 20.0%	FACW
3. Onoclea sensibilis	10	☐ 10.0%	FACW
4. Rubus pubescens	10	☐ 10.0%	FACW
5. Rubus idaeus	5	☐ 5.0%	FAC
6. Equisetum arvense	5	☐ 5.0%	FAC
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
100 = Total Cover			
Woody Vine Stratum (Plot size: 15' x 240')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 57.1% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>65</u>	x 2 = <u>130</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>50</u>	x 4 = <u>200</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>175</u> (A)	<u>410</u> (B)
Prevalence Index = B/A = <u>2.343</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 1B-1

57

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 2-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): Toeslope **Local relief (concave, convex, none):** concave **Slope:** 1.0 % / 0.6 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.318581 **Long.:** 90.569300 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the road was constructed many years ago and hydric conditions likely began to develop at that time.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 1 Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (Includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: A small drainageway flows through this wetland. The road and associated rutting does not appear to have altered this wetland or drainageway as significantly as in some areas of the site. The drainageway continues to flow across the road and this area appears to naturally be wetland regardless of the historical silvicultural activities. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Sampling Point: Wet 2-1

Tree Stratum	(Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Fraxinus nigra	20	☒ 66.7%	FACW
2.	Acer saccharum	10	☒ 33.3%	FACU
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		30	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Fraxinus nigra	5	☒ 100.0%	FACW
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		5	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Anemone canadensis	25	☒ 25.0%	FACW
2.	Rubus idaeus	25	☒ 25.0%	FAC
3.	Equisetum arvense	20	☒ 20.0%	FAC
4.	Solidago gigantea	10	☐ 10.0%	FACW
5.	Onoclea sensibilis	10	☐ 10.0%	FACW
6.	Schoenoplectus tabernaemontani	10	☐ 10.0%	OBL
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		100	= Total Cover	
Woody Vine Stratum	(Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 83.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>10</u>	x 1 = <u>10</u>
FACW species <u>70</u>	x 2 = <u>140</u>
FAC species <u>45</u>	x 3 = <u>135</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>135</u> (A)	<u>325</u> (B)
Prevalence Index = B/A = <u>2.407</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 2-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 2-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.318516 **Long.:** 90.569264 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Herbaceous vegetation is predominantly wool grass within the roadways. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 2-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	30	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	

Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Fraxinus pennsylvanica</i>	20	☒ 66.7%	FACW
2. <i>Acer saccharum</i>	10	☒ 33.3%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Cardamine concatenata</i>	25	☒ 33.3%	FACU
2. <i>Lonicera tatarica</i>	20	☒ 26.7%	FACU
3. <i>Ribes cynosbati</i>	15	☒ 20.0%	FACU
4. <i>Rubus idaeus</i>	10	☐ 13.3%	FAC
5. <i>Allium tricoccum</i>	5	☐ 6.7%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	

Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	0	☐ 0.0%	

Dominance Test worksheet:			
Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)	
Total Number of Dominant Species Across All Strata:	6	(B)	
Percent of dominant Species That Are OBL, FACW, or FAC:	16.7%	(A/B)	

Prevalence Index worksheet:			
Total % Cover of:		Multiply by:	
OBL species	0	x 1 =	0
FACW species	20	x 2 =	40
FAC species	10	x 3 =	30
FACU species	105	x 4 =	420
UPL species	0	x 5 =	0
Column Totals:	135	(A)	490 (B)
Prevalence Index = B/A =		3.630	

Hydrophytic Vegetation Indicators:	
☐ Rapid Test for Hydrophytic Vegetation	
☐ Dominance Test is > 50%	
☐ Prevalence Index is ≤ 3.0 ¹	
☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
☐ Problematic Hydrophytic Vegetation ¹ (Explain)	

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:	
Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.	
Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
Woody vine - All woody vines greater than 3.28 ft in height.	

Hydrophytic Vegetation Present?	
Yes ☐	No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 2-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 3-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): Road cut on shoulder slope **Local relief (concave, convex, none):** concave **Slope:** 1.0 % / 0.6 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.318763 **Long.:** 90.567273 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☒ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
--	--

Remarks: (Explain alternative procedures here or in a separate report.)

Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic here due to shallow rock preventing full soil profile viewing. Despite recent ATV disturbance this area is considered to have new normal circumstances since the roadway was constructed so many years ago and hydric conditions likely began to develop then in areas that were not originally wetland.

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)

Field Observations:		Wetland Hydrology Present? Yes ☒ No ☐
Surface Water Present? Yes ☐ No ☒	Depth (inches): _____	
Water Table Present? Yes ☒ No ☐	Depth (inches): -6	
Saturation Present? Yes ☒ No ☐ (includes capillary fringe)	Depth (inches): 0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This wetland appears to be completely confined to the road. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.

VEGETATION - Use scientific names of plants

Sampling Point: Wet 3-1

Tree Stratum (Plot size: 15' x 240')		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Fraxinus nigra	10	☒ 66.7%	FACW
2.	Betula alleghaniensis	5	☒ 33.3%	FAC
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' x 60')		15 = Total Cover		
1.	Fraxinus nigra	10	☒ 100.0%	FACW
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
Herb Stratum (Plot size: 5' radius)		10 = Total Cover		
1.	Carex crinita	30	☒ 37.5%	OBL
2.	Rubus idaeus	10	☒ 12.5%	FAC
3.	Impatiens capensis	10	☒ 12.5%	FACW
4.	Osmunda cinnamomea	10	☒ 12.5%	FACW
5.	Rubus idaeus ssp. strigosus	10	☒ 12.5%	FACW
6.	Schoenoplectus tabernaemontani	5	☐ 6.3%	OBL
7.	Onoclea sensibilis	5	☐ 6.3%	FACW
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
Woody Vine Stratum (Plot size: 15' x 240')		80 = Total Cover		
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 8 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>105</u> (A)	<u>190</u> (B)
Prevalence Index = B/A = <u>1.810</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 3-1

66

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 3-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 3.0 % / 1.7 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.318736 **Long.:** 90.567210 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): -14		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Sampling Point: Up 3-1

Tree Stratum	(Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Acer saccharum	30	☒ 85.7%	FACU
2.	Quercus rubra	5	☐ 14.3%	FACU
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		35	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Quercus rubra	20	☒ 50.0%	FACU
2.	Betula alleghaniensis	10	☒ 25.0%	FAC
3.	Fraxinus pennsylvanica	10	☒ 25.0%	FACW
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		40	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Erythronium americanum	15	☒ 25.0%	UPL
2.	Acer saccharum	10	☒ 16.7%	FACU
3.	Betula alleghaniensis	10	☒ 16.7%	FAC
4.	Carex pensylvanica	10	☒ 16.7%	UPL
5.	Quercus rubra	5	☐ 8.3%	FACU
6.	Dryopteris intermedia	5	☐ 8.3%	FAC
7.	Cardamine concatenata	5	☐ 8.3%	FACU
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		60	= Total Cover	
Woody Vine Stratum	(Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 37.5% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>75</u>	x 4 = <u>300</u>
UPL species <u>25</u>	x 5 = <u>125</u>
Column Totals: <u>135</u> (A)	<u>520</u> (B)

Prevalence Index = B/A = 3.852

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 3-1

69

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2

City/County: Town of Morse, Ashland Co.

Sampling Date: 30-May-13

Applicant/Owner: Gogebic Taconite

State: WI

Sampling Point: Wet 4-1

Investigator(s): Ann Michalski, WDNR Prof. Assured

Section, Township, Range: S. 1 T. T44N

R. R2W

Landform (hillslope, terrace, etc.): Road cut at toeslope

Local relief (concave, convex, none): concave

Slope: 1.0 % / 0.6 °

Subregion (LRR or MLRA): LRR K

Lat.: 46.318777

Long.: 90.566932

Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky

NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent disturbance from ATVs this area is considered to have new normal circumstances since the road was built so many years ago and hydric conditions likely began to develop then.		

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This wetland appears to be completely confined to the road. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Sampling Point: Wet 4-1

Tree Stratum	(Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Fraxinus nigra		5	☒ 100.0%	FACW
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		5	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Carex crinita		35	☒ 28.7%	OBL
2. Rubus idaeus		25	☒ 20.5%	FAC
3. Rubus pubescens		25	☒ 20.5%	FACW
4. Osmunda cinnamomea		10	☐ 8.2%	FACW
5. Impatiens capensis		10	☐ 8.2%	FACW
6. Onoclea sensibilis		10	☐ 8.2%	FACW
7. Acer rubrum		5	☐ 4.1%	FAC
8. Fraxinus nigra		2	☐ 1.6%	FACW
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		122	= Total Cover	
Woody Vine Stratum	(Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>62</u>	x 2 = <u>124</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>127</u> (A)	<u>249</u> (B)
Prevalence Index = B/A = <u>1.961</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 4-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 2 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 4-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.318723 **Long.:** 90.567053 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☒ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were problematic in this location due to shallow rock preventing full soil profile viewing. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks) Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____ Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.	

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 4-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	60	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
60 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Quercus rubra</i>	10	☒ 66.7%	FACU
2. <i>Fraxinus pennsylvanica</i>	5	☒ 33.3%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
15 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Hieracium aurantiacum</i>	25	☒ 41.7%	UPL
2. <i>Erythronium americanum</i>	15	☒ 25.0%	UPL
3. <i>Lonicera tatarica</i>	10	☐ 16.7%	FACU
4. <i>Acer saccharum</i>	10	☐ 16.7%	FACU
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
60 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>90</u>	x 4 = <u>360</u>
UPL species <u>40</u>	x 5 = <u>200</u>
Column Totals: <u>135</u> (A)	<u>570</u> (B)

Prevalence Index = B/A = 4.222

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 4-1

75

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 5-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 1.0 % / 0.6 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.323715 **Long.:** 90.549823 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☒ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic here due to shallow rock preventing full soil profile viewing. Also, flowing water can be problematic in soils because it prevents redox features from forming due to oxygenated soils. Despite recent ATV disturbance, this area is considered to have new normal circumstances since the road was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☒ High Water Table (A2) ☐ Aquatic Fauna (B13) ☒ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Drift deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: A small drainageway flows through this wetland. The road and associated rutting does not appear to have altered this wetland or drainageway as significantly as in some areas of the site. The drainageway continues to flow across the road and this area appears to naturally be a wetland. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.		

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 5-1

Tree Stratum (Plot size: 40' x 35')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Betula alleghaniensis</i>	10	☒ 100.0%	FAC
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
10 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Fraxinus nigra</i>	5	☒ 50.0%	FACW
2. <i>Acer rubrum</i>	5	☒ 50.0%	FAC
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
10 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Scirpus cyperinus</i>	30	☒ 31.6%	OBL
2. <i>Onoclea sensibilis</i>	20	☒ 21.1%	FACW
3. <i>Rubus idaeus</i>	20	☒ 21.1%	FAC
4. <i>Onoclea sensibilis</i>	10	☐ 10.5%	FACW
5. <i>Schoenoplectus tabernaemontani</i>	10	☐ 10.5%	OBL
6. <i>Equisetum arvense</i>	5	☐ 5.3%	FAC
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
95 = Total Cover			
Woody Vine Stratum (Plot size: 40' x 35')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>35</u>	x 2 = <u>70</u>
FAC species <u>40</u>	x 3 = <u>120</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u>	(A) <u>230</u> (B)
Prevalence Index = B/A = <u>2.000</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 5-1

78

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Morse, Ashland Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 5-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 1 T. T44N R. R2W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.323734 **Long.:** 90.549883 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were problematic in this location due to shallow rock preventing full soil profile viewing. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 5-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	60	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)	60 = Total Cover		
1. <i>Betula alleghaniensis</i>	25	☒ 55.6%	FAC
2. <i>Acer saccharum</i>	15	☒ 33.3%	FACU
3. <i>Quercus rubra</i>	5	☐ 11.1%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Herb Stratum (Plot size: 5' radius)	45 = Total Cover		
1. <i>Acer saccharum</i>	25	☒ 26.3%	FACU
2. <i>Erythronium americanum</i>	20	☒ 21.1%	UPL
3. <i>Eurybia macrophylla</i>	15	☒ 15.8%	UPL
4. <i>Rubus idaeus</i>	15	☒ 15.8%	FAC
5. <i>Tilia americana</i>	10	☐ 10.5%	FACU
6. <i>Betula alleghaniensis</i>	10	☐ 10.5%	FAC
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
Woody Vine Stratum (Plot size: 30' radius)	95 = Total Cover		
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	0 = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 28.6% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>50</u>	x 3 = <u>150</u>
FACU species <u>115</u>	x 4 = <u>460</u>
UPL species <u>35</u>	x 5 = <u>175</u>
Column Totals: <u>200</u> (A)	<u>785</u> (B)
Prevalence Index = B/A = <u>3.925</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 5-1

8

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 6-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 1.0 % / 0.6 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.323732 **Long.:** 90.548463 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☒ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic here due to shallow rock preventing full soil profile viewing. Despite recent ATV disturbance this area is considered to have new normal circumstances since this road was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This wetland appears to be completely confined to the road. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 6-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Acer rubrum</i>	10	☒ 100.0%	FAC
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)		10 = Total Cover	
1. <i>Acer saccharum</i>	5	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Herb Stratum (Plot size: 5' radius)		5 = Total Cover	
1. <i>Scirpus cyperinus</i>	50	☒ 45.5%	OBL
2. <i>Rubus idaeus</i>	20	☒ 18.2%	FAC
3. <i>Equisetum arvense</i>	15	☐ 13.6%	FAC
4. <i>Matteuccia struthiopteris</i>	15	☐ 13.6%	FAC
5. <i>Rubus pubescens</i>	10	☐ 9.1%	FACW
6.		☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
Woody Vine Stratum (Plot size: 30' radius)		110 = Total Cover	
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
		0 = Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>60</u>	x 3 = <u>180</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>125</u> (A)	<u>270</u> (B)
Prevalence Index = B/A = <u>2.160</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 6-1

84

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 6-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.323716 **Long.:** 90.548418 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Drift deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.		

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 6-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	60	☒ 75.0%	FACU
2. <i>Tilia americana</i>	10	☐ 12.5%	FACU
3. <i>Ostrya virginiana</i>	10	☐ 12.5%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
80 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	50	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
50 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	25	☒ 55.6%	FACU
2. <i>Cardamine concatenata</i>	15	☒ 33.3%	FACU
3. <i>Erythronium americanum</i>	5	☐ 11.1%	UPL
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
45 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 170	x 4 = 680
UPL species 5	x 5 = 25
Column Totals: 175 (A)	705 (B)

Prevalence Index = B/A = 4.029

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 6-1

87

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 30-May-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 7-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 6 T. T44N R. R1W

Landform (hillslope, terrace, etc.): Road cut on backslope Local relief (concave, convex, none): concave Slope: 1.0 % / 0.6 °

Subregion (LRR or MLRA): LRR K Lat.: 46.323740 Long.: 90.548138 Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	

Remarks: (Explain alternative procedures here or in a separate report.)

Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic here due to shallow rock preventing full soil profile viewing. Despite recent ATV disturbance this area was considered to have new normal circumstances since the road was constructed many years ago.

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☒ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☒ FAC-neutral Test (D5)	

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☒ No ☐ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0

Wetland Hydrology Present? Yes ☒ No ☐

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

This wetland appears to be completely confined to the road. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 7-1

Tree Stratum (Plot size: 30' x 25')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
= Total Cover			
Sapling/Shrub Stratum (Plot size: 30' x 25')			
1. Acer saccharum	2	☐ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
= Total Cover			
Herb Stratum (Plot size: 5' radius)			
1. Scirpus cyperinus	60	☒ 66.7%	OBL
2. Equisetum arvense	20	☒ 22.2%	FAC
3. Rubus idaeus	10	☐ 11.1%	FAC
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
= Total Cover			
Woody Vine Stratum (Plot size: 30' x 25')			
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
= Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>92</u> (A)	<u>158</u> (B)
Prevalence Index = B/A = <u>1.717</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 7-1

90

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 30-May-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Up 7-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 6 T. T44N R. R1W

Landform (hillslope, terrace, etc.): backslope Local relief (concave, convex, none): convex Slope: 5.0 % / 2.9 °

Subregion (LRR or MLRA): LRR K Lat.: 46.323735 Long.: 90.548129 Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky NWI classification: Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks: (Explain alternative procedures here or in a separate report.)

Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic in this location due to shallow rock preventing full soil profile viewing. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry Season Water Table (C2)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Crayfish Burrows (C8)
☐ Drift deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)
		☐ FAC-neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ☒	Depth (inches): _____	Wetland Hydrology Present? Yes ☐ No ☒
Water Table Present? Yes ☐ No ☒	Depth (inches): _____	
Saturation Present? (includes capillary fringe) Yes ☐ No ☒	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 7-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	40	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
40 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	30	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
30 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Cardamine concatenata</i>	25	☒ 29.4%	FACU
2. <i>Erythronium americanum</i>	25	☒ 29.4%	UPL
3. <i>Acer saccharum</i>	20	☒ 23.5%	FACU
4. <i>Dryopteris intermedia</i>	10	☐ 11.8%	FAC
5. <i>Rubus idaeus</i>	5	☐ 5.9%	FAC
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
85 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 15	x 3 = 45
FACU species 115	x 4 = 460
UPL species 25	x 5 = 125
Column Totals: 155 (A)	630 (B)

Prevalence Index = B/A = 4.065

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 7-1

93

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4

City/County: Town of Anderson, Iron Co.

Sampling Date: 30-May-13

Applicant/Owner: Gogebic Taconite

State: WI

Sampling Point: Wet 8-1

Investigator(s): Ann Michalski, WDNR Prof. Assured

Section, Township, Range: S. 6 T. T44N R. R1W

Landform (hillslope, terrace, etc.): Toeslope

Local relief (concave, convex, none): concave

Slope: 3.0 % / 1.7 °

Subregion (LRR or MLRA): LRR K

Lat.: 46.323835

Long.: 90.547220

Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky

NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic here due to shallow rock preventing full soil profile viewing. Also, flowing water can prevent redox features from forming due to oxygenated soils. Despite recent ATV disturbance, this area is considered to have new normal circumstances since the road was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: A small drainageway flows through this wetland. The road and associated rutting does not appear to have altered this wetland or drainageway as significantly as in some areas of the site. The drainageway continues to flow across the road and this area appears to be natural prior to the road construction. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 8-1

Tree Stratum	(Plot size: 40' x 25')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 40' x 25')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Tilia americana</i>		2	☐ 100.0%	FACU
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		2	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Scirpus cyperinus</i>		30	☒ 54.5%	OBL
2. <i>Rubus idaeus</i>		25	☒ 45.5%	FAC
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		55	= Total Cover	
Woody Vine Stratum	(Plot size: 40' x 25')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>2</u>	x 4 = <u>8</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>57</u> (A)	<u>113</u> (B)
Prevalence Index = B/A = <u>1.982</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 8-1

US Army Corps of Engineers Northcentral and Northeast Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 8-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): Foothills **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.323836 **Long.:** 90.547288 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were problematic in this location due to shallow rock preventing full soil profile viewing. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 8-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	30	☒ 75.0%	FACU
2. <i>Tilia americana</i>	10	☒ 25.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
40 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Ostrya virginiana</i>	10	☒ 66.7%	FACU
2. <i>Acer saccharum</i>	5	☒ 33.3%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
15 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Maianthemum canadense</i>	40	☒ 54.8%	FACU
2. <i>Acer saccharum</i>	15	☒ 20.5%	FACU
3. <i>Tilia americana</i>	10	☐ 13.7%	FACU
4. <i>Eurybia macrophylla</i>	5	☐ 6.8%	UPL
5. <i>Viola pubescens</i>	3	☐ 4.1%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
73 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 123	x 4 = 492
UPL species 5	x 5 = 25
Column Totals: 128 (A)	517 (B)

Prevalence Index = B/A = 4.039

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 8-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 9-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 3.0 % / 1.7 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.323911 **Long.:** 90.546836 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the road was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Flowing water is present but appears to be an upland drainage that feeds the wetland hydrology from upslope. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant
Species?
Rel.Strat.
Cover

Sampling Point: Wet 9-1

Tree Stratum (Plot size: 40' x 25')	Absolute % Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	☐ 0.0%	Number of Dominant Species That are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
2. _____	0	☐ 0.0%	
3. _____	0	☐ 0.0%	
4. _____	0	☐ 0.0%	
5. _____	0	☐ 0.0%	
6. _____	0	☐ 0.0%	
7. _____	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 40' x 25')			Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 30 x 1 = 30 FACW species 5 x 2 = 10 FAC species 55 x 3 = 165 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 Column Totals: 90 (A) 205 (B) Prevalence Index = B/A = 2.278
1. <i>Fraxinus nigra</i>	5	☒ 100.0% FACW	Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☒ Dominance Test is > 50% ☒ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____	0	☐ 0.0%	
3. _____	0	☐ 0.0%	
4. _____	0	☐ 0.0%	
5. _____	0	☐ 0.0%	
6. _____	0	☐ 0.0%	
7. _____	0	☐ 0.0%	
8. _____	0	☐ 0.0%	
9. _____	0	☐ 0.0%	
10. _____	0	☐ 0.0%	
11. _____	0	☐ 0.0%	
12. _____	0	☐ 0.0%	
Herb Stratum (Plot size: 5' radius)			Definitions of Vegetation Strata: Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.
1. <i>Scirpus cyperinus</i>	30	☒ 35.3% OBL	
2. <i>Rubus idaeus</i>	30	☒ 35.3% FAC	
3. <i>Osmunda claytoniana</i>	15	☐ 17.6% FAC	
4. <i>Equisetum arvense</i>	10	☐ 11.8% FAC	
5. _____	0	☐ 0.0%	
6. _____	0	☐ 0.0%	
7. _____	0	☐ 0.0%	
8. _____	0	☐ 0.0%	
9. _____	0	☐ 0.0%	
10. _____	0	☐ 0.0%	
11. _____	0	☐ 0.0%	
12. _____	0	☐ 0.0%	
Woody Vine Stratum (Plot size: 40' x 25')			Hydrophytic Vegetation Present? Yes ☒ No ☐
1. _____	0	☐ 0.0%	
2. _____	0	☐ 0.0%	
3. _____	0	☐ 0.0%	
4. _____	0	☐ 0.0%	
Total Cover			

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 9-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 9-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.323931 **Long.:** 90.546787 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Drift deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.		

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 9-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	75	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
75 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	30	☒ 75.0%	FACU
2. <i>Ostrya virginiana</i>	10	☒ 25.0%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
40 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	30	☒ 42.9%	FACU
2. <i>Cardamine concatenata</i>	25	☒ 35.7%	FACU
3. <i>Allium tricoccum</i>	10	☐ 14.3%	FACU
4. <i>Uvularia sessilifolia</i>	5	☐ 7.1%	FACU
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
70 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 185	x 4 = 740
UPL species 0	x 5 = 0
Column Totals: 185 (A)	740 (B)

Prevalence Index = B/A = 4.000

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 9-1

105

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 10-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 3.0 % / 1.7 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.324113 **Long.:** 90.546360 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV traffic, the disturbed areas are considered to have new normal circumstances because the original construction of these roads occurred long ago and development of hydric soils began many years ago as well.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☒ High Water Table (A2) ☐ Aquatic Fauna (B13) ☒ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Drift deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0 Wetland Hydrology Present? Yes ☒ No ☐		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Several small upland drainages flow into and out of this wetland. The drainages were mostly dry at the time of the visit but the wetland area had pooled water in the lowest lying areas. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other climatic data.		

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 10-1

Tree Stratum	(Plot size: 20' x 180')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	

Sapling/Shrub Stratum	(Plot size: 15' x 60')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	

Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Carex crinita		35	☒ 41.2%	OBL
2. Onoclea sensibilis		15	☒ 17.6%	FACW
3. Impatiens capensis		15	☒ 17.6%	FACW
4. Equisetum arvense		10	☐ 11.8%	FAC
5. Rubus idaeus		10	☐ 11.8%	FAC
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		85	= Total Cover	

Woody Vine Stratum	(Plot size: 20' x 180')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>35</u>	x 1 = <u>35</u>
FACW species <u>30</u>	x 2 = <u>60</u>
FAC species <u>20</u>	x 3 = <u>60</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>85</u>	(A) <u>155</u> (B)

Prevalence Index = B/A = 1.824

Hydrophytic Vegetation Indicators:

☒ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 10-1

108

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 10-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.324051 **Long.:** 90.546417 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 18 to 35% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions were much wetter than normal at the time of the visit based on the Palmer Drought Index and other available information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural and mining roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads which now hold water and have developed hydric soils in many areas. Most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. The disturbed areas are considered to have new normal circumstances and the site was evaluated based on current conditions.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? Yes ☐ No ☒ Depth (inches): _____ (includes capillary fringe) Wetland Hydrology Present? Yes ☐ No ☒		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.		

VEGETATION - Use scientific names of plants

Dominant
Species?
Rel.Strat.
Cover

Sampling Point: Up 10-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. <i>Acer saccharum</i>	35	☒ 70.0%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2. <i>Tilia americana</i>	15	☒ 30.0%	FACU	Total Number of Dominant Species Across All Strata: 7 (B)
3.	0	☐ 0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 14.3% (A/B)
4.	0	☐ 0.0%		
5.	0	☐ 0.0%		
6.	0	☐ 0.0%		
7.	0	☐ 0.0%		
Sapling/Shrub Stratum (Plot size: 15' radius)	50 = Total Cover			Prevalence Index worksheet:
1. <i>Tilia americana</i>	20	☒ 66.7%	FACU	Total % Cover of: Multiply by:
2. <i>Betula alleghaniensis</i>	10	☒ 33.3%	FAC	OBL species 0 x 1 = 0
3.	0	☐ 0.0%		FACW species 0 x 2 = 0
4.	0	☐ 0.0%		FAC species 10 x 3 = 30
5.	0	☐ 0.0%		FACU species 140 x 4 = 560
6.	0	☐ 0.0%		UPL species 0 x 5 = 0
7.	0	☐ 0.0%		Column Totals: 150 (A) 590 (B)
Herb Stratum (Plot size: 5' radius)	30 = Total Cover			Prevalence Index = B/A = 3.933
1. <i>Maianthemum canadense</i>	25	☒ 35.7%	FACU	Hydrophytic Vegetation Indicators:
2. <i>Cardamine concatenata</i>	20	☒ 28.6%	FACU	☐ Rapid Test for Hydrophytic Vegetation
3. <i>Acer saccharum</i>	15	☒ 21.4%	FACU	☐ Dominance Test is > 50%
4. <i>Taraxacum officinale</i>	10	☐ 14.3%	FACU	☐ Prevalence Index is ≤ 3.0 ¹
5.	0	☐ 0.0%		☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6.	0	☐ 0.0%		☐ Problematic Hydrophytic Vegetation ¹ (Explain)
7.	0	☐ 0.0%		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8.	0	☐ 0.0%		Definitions of Vegetation Strata:
9.	0	☐ 0.0%		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.	0	☐ 0.0%		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.
11.	0	☐ 0.0%		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.	0	☐ 0.0%		Woody vine - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30' radius)	70 = Total Cover			
1.	0	☐ 0.0%		
2.	0	☐ 0.0%		
3.	0	☐ 0.0%		
4.	0	☐ 0.0%		
	0 = Total Cover			
Hydrophytic Vegetation Present? Yes ☐ No ☒				
Remarks: (Include photo numbers here or on a separate sheet.)				

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 10-1

Northcentral and Northeast Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 11-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 3.0 % / 1.7 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.326336 **Long.:** 90.542942 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☒ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic due to shallow rock preventing full viewing of soil profile. Despite recent disturbance from ATV's, this area was considered to have new normal circumstances since the road was constructed many years ago and hydric conditions began to form long ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -3 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This wetland appears to be completely confined to the road. Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Sampling Point: Wet 11-1

Tree Stratum	(Plot size: 20' x 180')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
= Total Cover				
0				

Sapling/Shrub Stratum	(Plot size: 15' x 60')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
= Total Cover				
0				

Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Carex crinita		30	☒ 66.7%	OBL
2. Impatiens capensis		10	☒ 22.2%	FACW
3. Rubus idaeus		5	☐ 11.1%	FAC
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
= Total Cover				
45				

Woody Vine Stratum	(Plot size: 20' x 180')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
= Total Cover				
0				

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 30	x 1 = 30
FACW species 10	x 2 = 20
FAC species 5	x 3 = 15
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 45 (A)	65 (B)

Prevalence Index = B/A = 1.444

Hydrophytic Vegetation Indicators:

☒ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 11-1

[illegible]

114

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 11-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.326315 **Long.:** 90.542872 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal based on the Palmer Drought Index and other available information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. The disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 11-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	50	☒ 83.3%	FACU
2. <i>Tilia americana</i>	10	☐ 16.7%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
60 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	10	☒ 40.0%	FACU
2. <i>Fraxinus pennsylvanica</i>	10	☒ 40.0%	FACW
3. <i>Ostrya virginiana</i>	5	☒ 20.0%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
25 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Erythronium americanum</i>	60	☒ 52.2%	UPL
2. <i>Acer saccharum</i>	20	☐ 17.4%	FACU
3. <i>Rubus idaeus</i>	10	☐ 8.7%	FAC
4. <i>Tilia americana</i>	10	☐ 8.7%	FACU
5. <i>Onoclea sensibilis</i>	5	☐ 4.3%	FACW
6. <i>Cardamine concatenata</i>	5	☐ 4.3%	FACU
7. <i>Acer rubrum</i>	5	☐ 4.3%	FAC
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
115 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>15</u>	x 3 = <u>45</u>
FACU species <u>110</u>	x 4 = <u>440</u>
UPL species <u>60</u>	x 5 = <u>300</u>
Column Totals: <u>200</u> (A)	<u>815</u> (B)

Prevalence Index = B/A = 4.075

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 11-1

117

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 12-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): Road cut/footslope **Local relief (concave, convex, none):** concave **Slope:** 3.0 % / 1.7 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.326472 **Long.:** 90.542354 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance, this area was considered to have new normal circumstances because the road was constructed many years ago and hydric conditions likely began to form at that time.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -2 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This wetland appears to be completely confined to the road except for west end of the wetland where a stream flows through. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Sampling Point: Wet 12-1

Tree Stratum	(Plot size: 20' x 180')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:	
1.		0	☐ 0.0%		Number of Dominant Species That are OBL, FACW, or FAC:	2 (A)
2.		0	☐ 0.0%		Total Number of Dominant Species Across All Strata:	2 (B)
3.		0	☐ 0.0%		Percent of dominant Species That Are OBL, FACW, or FAC:	100.0% (A/B)
4.		0	☐ 0.0%		Prevalence Index worksheet:	
5.		0	☐ 0.0%		Total % Cover of:	Multiply by:
6.		0	☐ 0.0%		OBL species 50	x 1 = 50
7.		0	☐ 0.0%		FACW species 35	x 2 = 70
Sapling/Shrub Stratum (Plot size: 15' x 60')		0 = Total Cover			FAC species 15	x 3 = 45
1.		0	☐ 0.0%		FACU species 0	x 4 = 0
2.		0	☐ 0.0%		UPL species 0	x 5 = 0
3.		0	☐ 0.0%		Column Totals:	100 (A) 165 (B)
4.		0	☐ 0.0%		Prevalence Index = B/A = 1.650	
5.		0	☐ 0.0%		Hydrophytic Vegetation Indicators:	
6.		0	☐ 0.0%		☒ Rapid Test for Hydrophytic Vegetation	
7.		0	☐ 0.0%		☒ Dominance Test is > 50%	
8.		0	☐ 0.0%		☒ Prevalence Index is ≤ 3.0 ¹	
9.		0	☐ 0.0%		☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)	
10.		0	☐ 0.0%		☐ Problematic Hydrophytic Vegetation ¹ (Explain)	
11.		0	☐ 0.0%		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
12.		0	☐ 0.0%		Definitions of Vegetation Strata:	
Herb Stratum (Plot size: 5' radius)		0 = Total Cover			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.	
1. Carex crinita		50	☒ 50.0%	OBL	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..	
2. Impatiens capensis		20	☒ 20.0%	FACW	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
3. Rubus idaeus		15	☐ 15.0%	FAC	Woody vine - All woody vines greater than 3.28 ft in height.	
4. Solidago gigantea		10	☐ 10.0%	FACW		
5. Onoclea sensibilis		5	☐ 5.0%	FACW		
6.		0	☐ 0.0%			
7.		0	☐ 0.0%			
8.		0	☐ 0.0%			
9.		0	☐ 0.0%			
10.		0	☐ 0.0%			
11.		0	☐ 0.0%			
12.		0	☐ 0.0%			
Woody Vine Stratum (Plot size: 20' x 180')		100 = Total Cover				
1.		0	☐ 0.0%			
2.		0	☐ 0.0%			
3.		0	☐ 0.0%			
4.		0	☐ 0.0%			
		0 = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 12-1

120

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 30-May-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Up 12-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 6 T. T44N R. R1W

Landform (hillslope, terrace, etc.): backslope Local relief (concave, convex, none): convex Slope: 5.0 % / 2.9 °

Subregion (LRR or MLRA): LRR K Lat.: 46.326461 Long.: 90.542406 Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky NWI classification: Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. The disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 12-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	40	☒ 66.7%	FACU
2. <i>Ostrya virginiana</i>	20	☒ 33.3%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
60 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	15	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
15 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Erythronium americanum</i>	30	☒ 30.0%	UPL
2. <i>Acer saccharum</i>	20	☒ 20.0%	FACU
3. <i>Rubus idaeus</i>	15	☒ 15.0%	FAC
4. <i>Phegopteris connectilis</i>	15	☒ 15.0%	FACU
5. <i>Osmunda claytoniana</i>	10	☐ 10.0%	FAC
6. <i>Lonicera canadensis</i>	10	☐ 10.0%	FACU
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
100 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 14.3% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>120</u>	x 4 = <u>480</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>175</u> (A)	<u>705</u> (B)
Prevalence Index = B/A = <u>4.029</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 12-1

123

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 30-May-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 13-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 31 T. T45N R. R1W

Landform (hillslope, terrace, etc.): Road cut on backslope Local relief (concave, convex, none): concave Slope: 3.0 % / 1.7 °

Subregion (LRR or MLRA): LRR K Lat.: 46.327259 Long.: 90.540028 Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils are also problematic due to shallow rock that prevents full viewing of soil profile. Despite being significantly disturbed, this area is considered to have new normal circumstances and was evaluated as such.		

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -2 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data. This wetland is confined to the roadway.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 13-1

Tree Stratum	(Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Carex crinita		30	☒ 46.2%	OBL
2. Onoclea sensibilis		15	☒ 23.1%	FACW
3. Impatiens capensis		10	☐ 15.4%	FACW
4. Fragaria virginiana		5	☐ 7.7%	FACU
5. Equisetum arvense		5	☐ 7.7%	FAC
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		65	= Total Cover	
Woody Vine Stratum	(Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>5</u>	x 4 = <u>20</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>65</u>	(A) <u>115</u> (B)
Prevalence Index = B/A = <u>1.769</u>	

Hydrophytic Vegetation Indicators:

☒ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 13-1

126

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 13-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.327930 **Long.:** 90.540063 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 13-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	60	☒ 85.7%	FACU
2. <i>Tilia americana</i>	10	☐ 14.3%	FACU
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
70 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	30	☒ 75.0%	FACU
2. <i>Quercus rubra</i>	5	☐ 12.5%	FACU
3. <i>Tilia americana</i>	5	☐ 12.5%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
40 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. <i>Erythronium americanum</i>	50	☒ 66.7%	UPL
2. <i>Gymnocarpium dryopteris</i>	15	☒ 20.0%	FACU
3. <i>Eurybia macrophylla</i>	5	☐ 6.7%	UPL
4. <i>Osmunda claytoniana</i>	5	☐ 6.7%	FAC
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
75 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 5	x 3 = 15
FACU species 125	x 4 = 500
UPL species 55	x 5 = 275
Column Totals: 185 (A)	790 (B)

Prevalence Index = B/A = 4.270

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 13-1

129

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 14-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.327811 **Long.:** 90.537572 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
--	--

Remarks: (Explain alternative procedures here or in a separate report.)

Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are also disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent disturbance from ATVs, this area is considered to have new normal circumstances because the roadway was constructed many years ago and hydric conditions likely began to form at that time.

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)
☒ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Drainage Patterns (B10)
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry Season Water Table (C2)
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Crayfish Burrows (C8)
☐ Drift deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☒ Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)
		☒ FAC-neutral Test (D5)

Field Observations:

Surface Water Present?	Yes ☐ No ☒	Depth (inches):		Wetland Hydrology Present? Yes ☒ No ☐
Water Table Present?	Yes ☒ No ☐	Depth (inches):	-2	
Saturation Present? (includes capillary fringe)	Yes ☒ No ☐	Depth (inches):	0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data. Several small upland drainages flow into and out of this wetland, most of them dry at the time of the site visit.

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 14-1

Tree Stratum	(Plot size: 20' x 180')	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' x 60')	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. Fraxinus nigra		10	☒ 100.0%	FACW
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		10	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. Carex crinita		40	☒ 72.7%	OBL
2. Impatiens capensis		15	☒ 27.3%	FACW
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		55	= Total Cover	
Woody Vine Stratum	(Plot size: 20' x 180')	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>65</u>	(A) <u>90</u> (B)
Prevalence Index = B/A = <u>1.385</u>	

Hydrophytic Vegetation Indicators:

☒ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 14-1

132

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 30-May-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 14-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.327847 **Long.:** 90.537550 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ , **Soil** ☒ , **or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ , **Soil** ☐ , **or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal based on the Palmer Drought Index and other available information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Sampling Point: Up 14-1

Tree Stratum (Plot size: 30' radius)		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharum	65	☒	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	

Sapling/Shrub Stratum (Plot size: 15' radius)		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharum	30	☒	100.0%	FACU
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	

Herb Stratum (Plot size: 5' radius)		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Erythronium americanum	60	☒	60.0%	UPL
2. Acer saccharum	25	☒	25.0%	FACU
3. Caulophyllum thalictroides	10	☐	10.0%	UPL
4. Cardamine concatenata	5	☐	5.0%	FACU
5.	0	☐	0.0%	
6.	0	☐	0.0%	
7.	0	☐	0.0%	
8.	0	☐	0.0%	
9.	0	☐	0.0%	
10.	0	☐	0.0%	
11.	0	☐	0.0%	
12.	0	☐	0.0%	

Woody Vine Stratum (Plot size: 30' radius)		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐	0.0%	
2.	0	☐	0.0%	
3.	0	☐	0.0%	
4.	0	☐	0.0%	
		0	= Total Cover	

Dominance Test worksheet:
 Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
 Total Number of Dominant Species Across All Strata: 4 (B)
 Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 0 x 1 = 0
 FACW species 0 x 2 = 0
 FAC species 0 x 3 = 0
 FACU species 125 x 4 = 500
 UPL species 70 x 5 = 350
 Column Totals: 195 (A) 850 (B)
 Prevalence Index = B/A = 4.359

Hydrophytic Vegetation Indicators:
☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is > 50%
☐ Prevalence Index is ≤ 3.0 ¹
☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:
 Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
 Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.
 Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
 Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 14-1

135

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 15-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 31 T. T45N R. R1W

Landform (hillslope, terrace, etc.): Road cut/toeslope Local relief (concave, convex, none): concave Slope: 2.0 % / 1.1 °

Subregion (LRR or MLRA): LRR K Lat.: 46.327830 Long.: 90.536845 Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the roadway was constructed many years ago and hydric conditions likely began to develop at that time.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -8 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Several small upland drainages flow into and out of this wetland which were dry at the time of the visit. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 15-1

Tree Stratum (Plot size: 80' x 40')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
0 = Total Cover			

Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
0 = Total Cover			

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Carex crinita	50	☒ 55.6%	OBL
2. Impatiens capensis	15	☐ 16.7%	FACW
3. Onoclea sensibilis	15	☐ 16.7%	FACW
4. Solidago gigantea	10	☐ 11.1%	FACW
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
90 = Total Cover			

Woody Vine Stratum (Plot size: 80' x 40')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:
 Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
 Total Number of Dominant Species Across All Strata: 1 (B)
 Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 50 x 1 = 50
 FACW species 40 x 2 = 80
 FAC species 0 x 3 = 0
 FACU species 0 x 4 = 0
 UPL species 0 x 5 = 0
 Column Totals: 90 (A) 130 (B)
 Prevalence Index = B/A = 1.444

Hydrophytic Vegetation Indicators:
☒ Rapid Test for Hydrophytic Vegetation
☒ Dominance Test is > 50%
☒ Prevalence Index is ≤ 3.0¹
☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:
 Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
 Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..
 Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
 Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)
 Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 15-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 15-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.327801 **Long.:** 90.536908 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
--	--

Remarks: (Explain alternative procedures here or in a separate report.)

Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Drift deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
--	--	--

Field Observations:
 Surface Water Present? Yes ☐ No ☒ Depth (inches): _____
 Water Table Present? Yes ☐ No ☒ Depth (inches): _____
 Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____ **Wetland Hydrology Present?** Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.

VEGETATION - Use scientific names of plants

Sampling Point: Up 15-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. Acer saccharum	50	☒ 71.4%	FACU
2. Acer rubrum	10	☐ 14.3%	FAC
3. Tilia americana	10	☐ 14.3%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)		70 = Total Cover	
1. Acer saccharum	15	☒ 42.9%	FACU
2. Tilia americana	10	☒ 28.6%	FACU
3. Fraxinus pennsylvanica	5	☐ 14.3%	FACW
4. Ostrya virginiana	5	☐ 14.3%	FACU
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Herb Stratum (Plot size: 5' radius)		35 = Total Cover	
1. Erythronium americanum	50	☒ 50.0%	UPL
2. Acer saccharum	30	☒ 30.0%	FACU
3. Maianthemum canadense	10	☐ 10.0%	FACU
4. Caulophyllum thalictroides	10	☐ 10.0%	UPL
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
Woody Vine Stratum (Plot size: 30' radius)		100 = Total Cover	
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
		0 = Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>130</u>	x 4 = <u>520</u>
UPL species <u>60</u>	x 5 = <u>300</u>
Column Totals: <u>205</u> (A)	<u>860</u> (B)
Prevalence Index = B/A = <u>4.195</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 15-1

141

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13
 Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 16-1
 Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 31 T. T45N R. R1W
 Landform (hillslope, terrace, etc.): Road cut/toeslope Local relief (concave, convex, none): concave Slope: 2.0 % / 1.1 °
 Subregion (LRR or MLRA): LRR K Lat.: 46.327560 Long.: 90.534201 Datum: WGS84
 Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils are also problematic due to shallow rock preventing full viewing of the soil profile. Despite this area being recently disturbed by ATVs, the roadway is considered to have new normal circumstances because it was constructed many years ago and hydric conditions likely began to form at that time.		

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -8 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: A small upland drainage enters this wetland and a small upland drainage leaves this wetland but both were dry at the time of the visit. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available information.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 16-1

Tree Stratum	(Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. Carex crinita		50	☒ 83.3%	OBL
2. Impatiens capensis		5	☐ 8.3%	FACW
3. Equisetum arvense		5	☐ 8.3%	FAC
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		60	= Total Cover	
Woody Vine Stratum	(Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>60</u>	(A) <u>75</u> (B)
Prevalence Index = B/A = <u>1.250</u>	

Hydrophytic Vegetation Indicators:

☒ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 16-1

144

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 16-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.327542 **Long.:** 90.534081 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic information. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 16-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:
1. <i>Acer saccharum</i>	70	☒ 77.8%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 5 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
2. <i>Betula alleghaniensis</i>	10	☐ 11.1%	FAC	
3. <i>Ostrya virginiana</i>	10	☐ 11.1%	FACU	
4.	0	☐ 0.0%		
5.	0	☐ 0.0%		
6.	0	☐ 0.0%		
7.	0	☐ 0.0%		
Sapling/Shrub Stratum (Plot size: 15' radius)				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 10 x 2 = 20 FAC species 10 x 3 = 30 FACU species 150 x 4 = 600 UPL species 60 x 5 = 300 Column Totals: 230 (A) 950 (B) Prevalence Index = B/A = 4.130
1. <i>Acer saccharum</i>	30	☒ 75.0%	FACU	
2. <i>Ostrya virginiana</i>	10	☒ 25.0%	FACU	
3.	0	☐ 0.0%		
4.	0	☐ 0.0%		
5.	0	☐ 0.0%		
6.	0	☐ 0.0%		
Herb Stratum (Plot size: 5' radius)				Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Erythronium americanum</i>	60	☒ 60.0%	UPL	
2. <i>Cardamine concatenata</i>	20	☒ 20.0%	FACU	
3. <i>Acer saccharum</i>	10	☐ 10.0%	FACU	
4. <i>Fraxinus pennsylvanica</i>	10	☐ 10.0%	FACW	
5.	0	☐ 0.0%		
6.	0	☐ 0.0%		
Woody Vine Stratum (Plot size: 30' radius)				Definitions of Vegetation Strata: Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes ☐ No ☒
1.	0	☐ 0.0%		
2.	0	☐ 0.0%		
3.	0	☐ 0.0%		
4.	0	☐ 0.0%		
Remarks: (Include photo numbers here or on a separate sheet.)				

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 16-1

147

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 17-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 31 T. T45N R. R1W

Landform (hillslope, terrace, etc.): Road cut/toeslope Local relief (concave, convex, none): concave Slope: 2.0 % / 1.1 °

Subregion (LRR or MLRA): LRR K Lat.: 46.327685 Long.: 90.532505 Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky NWI classification: PEM1/PFO1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are also problematic due to shallow rock preventing full viewing of the soil profile. The roadway area is disturbed by recent ATV traffic but historic road work created most of the disturbance so the area is considered to have new normal circumstances. This area appears to be a natural forested wetland with a drainageway leading north from it where a culvert was installed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This area is a natural wetland that flows across the road with PFO1 wetland on the south side and a drainageway on the north side. Wetland was classified as a PFO1 outside of roadway but PEM1 within roadway. Conditions are wetter than normal based on the Palmer Drought Index and other available information.			

VEGETATION - Use scientific names of plants

Sampling Point: Wet 17-1

Tree Stratum (Plot size: 70' x 20')		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Fraxinus nigra	40	☒ 66.7%	FACW
2.	Acer saccharum	20	☒ 33.3%	FACU
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 70' x 20')		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Fraxinus nigra	10	☒ 50.0%	FACW
2.	Betula alleghaniensis	5	☒ 25.0%	FAC
3.	Quercus alba	5	☒ 25.0%	FACU
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		20	= Total Cover	
Herb Stratum (Plot size: 5' radius)		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	Caltha palustris	25	☒ 45.5%	OBL
2.	Carex cristatella	15	☒ 27.3%	FACW
3.	Impatiens capensis	15	☒ 27.3%	FACW
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		55	= Total Cover	
Woody Vine Stratum (Plot size: 70' x 20')		Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>25</u>	x 1 = <u>25</u>
FACW species <u>80</u>	x 2 = <u>160</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>25</u>	x 4 = <u>100</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>135</u> (A)	<u>300</u> (B)
Prevalence Index = B/A = <u>2.222</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 17-1

150

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Up 17-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 31 T. T45N R. R1W

Landform (hillslope, terrace, etc.): Foothills Local relief (concave, convex, none): convex Slope: 5.0 % / 2.9 °

Subregion (LRR or MLRA): LRR K Lat.: 46.327670 Long.: 90.532451 Datum: WGS84

Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky NWI classification: Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	

Remarks: (Explain alternative procedures here or in a separate report.)

Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils are naturally problematic in this location due to shallow rock preventing full soil profile viewing. However, despite the problematic soils and disturbed conditions, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)	
Primary Indicators (minimum of one required; check all that apply)			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)	
☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres along Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted or Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-neutral Test (D5)	

Field Observations:

Surface Water Present? Yes ☐ No ☒ Depth (inches): _____

Water Table Present? Yes ☐ No ☒ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____

Wetland Hydrology Present? Yes ☐ No ☒

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.

VEGETATION - Use scientific names of plants

Dominant Species?
Rel.Strat.
Cover

Sampling Point: Up 17-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Indicator Status	Dominance Test worksheet:
1. <i>Acer saccharum</i>	60	☒ 85.7% FACU	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2. <i>Quercus rubra</i>	10	☐ 14.3% FACU	Total Number of Dominant Species Across All Strata: 6 (B)
3.	0	☐ 0.0%	Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)	70 = Total Cover		Prevalence Index worksheet:
1. <i>Fraxinus pennsylvanica</i>	5	☒ 50.0% FACW	Total % Cover of: Multiply by:
2. <i>Quercus rubra</i>	5	☒ 50.0% FACU	OBL species 15 x 1 = 15
3.	0	☐ 0.0%	FACW species 5 x 2 = 10
4.	0	☐ 0.0%	FAC species 20 x 3 = 60
5.	0	☐ 0.0%	FACU species 85 x 4 = 340
6.	0	☐ 0.0%	UPL species 60 x 5 = 300
7.	0	☐ 0.0%	Column Totals: 185 (A) 725 (B)
Herb Stratum (Plot size: 5' radius)	10 = Total Cover		Prevalence Index = B/A = 3.919
1. <i>Erythronium americanum</i>	50	☒ 47.6% UPL	Hydrophytic Vegetation Indicators:
2. <i>Carex crinita</i>	15	☒ 14.3% OBL	☐ Rapid Test for Hydrophytic Vegetation
3. <i>Osmunda claytoniana</i>	15	☒ 14.3% FAC	☐ Dominance Test is > 50%
4. <i>Hieracium aurantiacum</i>	10	☐ 9.5% UPL	☐ Prevalence Index is ≤ 3.0 ¹
5. <i>Tilia americana</i>	10	☐ 9.5% FACU	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. <i>Dryopteris intermedia</i>	5	☐ 4.8% FAC	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
7.	0	☐ 0.0%	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8.	0	☐ 0.0%	Definitions of Vegetation Strata:
9.	0	☐ 0.0%	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.	0	☐ 0.0%	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..
11.	0	☐ 0.0%	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.	0	☐ 0.0%	Woody vine - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30' radius)	105 = Total Cover		
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	0 = Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)

Tied for dominants but does not meet FAC-neutral test even if non dominants are considered

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 17-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 18-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): Road cut/toeslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.327913 **Long.:** 90.531405 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are also problematic due to shallow rock preventing full viewing of the soil profile as well as sandy soils that lacked redox features but hydric soils were assumed based on all other indicators. Despite recent ATV disturbance, the roadway area and adjacent areas are considered to have new normal circumstances since the road was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☒ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☒ No ☐ Depth (inches): 3 Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This area appears to be part of a larger wetland that goes beyond the road area. Conditions are wetter than normal based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant
Species?
Rel.Strat.
Cover

Sampling Point: Wet 18-1

Tree Stratum (Plot size: 65' x 40')	Absolute % Cover	Indicator Status	Dominance Test worksheet:
1. <i>Fraxinus nigra</i>	30	☒ 75.0% FACW	Number of Dominant Species That are OBL, FACW, or FAC: 5 (A)
2. <i>Betula alleghaniensis</i>	10	☒ 25.0% FAC	Total Number of Dominant Species Across All Strata: 5 (B)
3.	0	☐ 0.0%	Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)	40 = Total Cover		Prevalence Index worksheet:
1. <i>Acer saccharum</i>	2	☐ 50.0% FACU	Total % Cover of: Multiply by:
2. <i>Betula alleghaniensis</i>	2	☐ 50.0% FAC	OBL species 75 x 1 = 75
3.	0	☐ 0.0%	FACW species 50 x 2 = 100
4.	0	☐ 0.0%	FAC species 37 x 3 = 111
5.	0	☐ 0.0%	FACU species 2 x 4 = 8
6.	0	☐ 0.0%	UPL species 0 x 5 = 0
7.	0	☐ 0.0%	Column Totals: 164 (A) 294 (B)
Herb Stratum (Plot size: 5' radius)	4 = Total Cover		Prevalence Index = B/A = 1.793
1. <i>Carex crinita</i>	30	☒ 25.0% OBL	Hydrophytic Vegetation Indicators:
2. <i>Myosotis scorpioides</i>	25	☒ 20.8% OBL	☐ Rapid Test for Hydrophytic Vegetation
3. <i>Schoenoplectus tabernaemontani</i>	20	☒ 16.7% OBL	☒ Dominance Test is > 50%
4. <i>Equisetum arvense</i>	15	☐ 12.5% FAC	☒ Prevalence Index is ≤ 3.0 ¹
5. <i>Carex cristatella</i>	10	☐ 8.3% FACW	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6. <i>Impatiens capensis</i>	5	☐ 4.2% FACW	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
7. <i>Onoclea sensibilis</i>	5	☐ 4.2% FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8. <i>Rumex obtusifolius</i>	5	☐ 4.2% FAC	Definitions of Vegetation Strata:
9. <i>Barbarea vulgaris</i>	5	☐ 4.2% FAC	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.	0	☐ 0.0%	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..
11.	0	☐ 0.0%	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.	0	☐ 0.0%	Woody vine - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 65' x 40')	120 = Total Cover		
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	0 = Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.) Plot sizes were altered to fit road area being evaluated.			Hydrophytic Vegetation Present? Yes ☒ No ☐

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 18-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 18-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.327862 **Long.:** 90.531430 **Datum:** WGS84
Soil Map Unit Name: Gogebic Silt Loam, 6 to 18% slopes, very stony, rocky **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other climatic data. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic in this location due to shallow rock preventing full soil profile viewing. However, despite the problematic soils and disturbed roadway, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances and were evaluated as such.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?
Rel.Strat.

Sampling Point: Up 18-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Indicator Status	Dominance Test worksheet:
1. <i>Acer saccharum</i>	20	✓ 36.4% FACU	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 7 (B) Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)
2. <i>Quercus rubra</i>	20	✓ 36.4% FACU	
3. <i>Ostrya virginiana</i>	15	✓ 27.3% FACU	
4.	0	0.0%	
5.	0	0.0%	
6.	0	0.0%	
7.	0	0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)	55 = Total Cover		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 0 x 2 = 0 FAC species 0 x 3 = 0 FACU species 155 x 4 = 620 UPL species 5 x 5 = 25 Column Totals: 160 (A) 645 (B) Prevalence Index = B/A = 4.031
1. <i>Ostrya virginiana</i>	20	✓ 57.1% FACU	
2. <i>Acer saccharum</i>	15	✓ 42.9% FACU	
3.	0	0.0%	
4.	0	0.0%	
5.	0	0.0%	
6.	0	0.0%	
Herb Stratum (Plot size: 5' radius)	35 = Total Cover		Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤ 3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <i>Gymnocarpium dryopteris</i>	40	✓ 57.1% FACU	
2. <i>Acer saccharum</i>	15	✓ 21.4% FACU	
3. <i>Allium tricoccum</i>	10	14.3% FACU	
4. <i>Eurybia macrophylla</i>	5	7.1% UPL	
5.	0	0.0%	
6.	0	0.0%	
Woody Vine Stratum (Plot size: 30' radius)	70 = Total Cover		Definitions of Vegetation Strata: Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes ☐ No ☒
1.	0	0.0%	
2.	0	0.0%	
3.	0	0.0%	
4.	0	0.0%	
	0 = Total Cover		

Remarks: (Include photo numbers here or on a separate sheet.)

Tied for dominants but does not meet FAC-neutral test even if non dominants are considered

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 18-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 19-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.328372 **Long.:** 90.529978 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance this area is considered to have new normal circumstances because the road was constructed many years ago and hydric conditions likely began to develop at that time.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: A small drainageway flows out of this wetland on the west end and was dry at the time of the visit but it appears water enters the road from a seep in the road cut.			

VEGETATION - Use scientific names of plants

Dominant
Species?
Rel.Strat.
Cover

Sampling Point: Wet 19-1

Tree Stratum (Plot size: 30' radius)

Absolute % Cover		Indicator Status
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	

Sapling/Shrub Stratum (Plot size: 15' radius)

Absolute % Cover		Indicator Status
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	

Herb Stratum (Plot size: 5' radius)

Absolute % Cover		Indicator Status
50	☒ 66.7%	OBL
10	☐ 13.3%	FAC
10	☐ 13.3%	FAC
5	☐ 6.7%	FACW
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	

Woody Vine Stratum (Plot size: 30' radius)

Absolute % Cover		Indicator Status
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	
0	☐ 0.0%	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B)
Percent of dominant Species That Are OBL, FACW, or FAC:	100.0%	(A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 50	x 1 = 50
FACW species 5	x 2 = 10
FAC species 20	x 3 = 60
FACU species 0	x 4 = 0
UPL species 0	x 5 = 0
Column Totals: 75	(A) 120 (B)
Prevalence Index = B/A =	1.600

Hydrophytic Vegetation Indicators:

- ☒ Rapid Test for Hydrophytic Vegetation
- ☒ Dominance Test is > 50%
- ☒ Prevalence Index is ≤ 3.0¹
- ☐ Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
- ☐ Problematic Hydrophytic Vegetation¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

- Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
- Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..
- Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
- Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic
Vegetation
Present?

Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 19-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4

City/County: Town of Anderson, Iron Co.

Sampling Date: 03-Jun-13

Applicant/Owner: Gogebic Taconite

State: WI

Sampling Point: Up 19-1

Investigator(s): Ann Michalski, WDNR Prof. Assured

Section, Township, Range: S. 31 T. T45N R. R1W

Landform (hillslope, terrace, etc.): backslope

Local relief (concave, convex, none): convex

Slope: 5.0 % / 2.9 °

Subregion (LRR or MLRA): LRR K

Lat.: 46.328360

Long.: 90.529927

Datum: WGS84

Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony

NWI classification: Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal based on the Palmer Drought Index and other available climatic data. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were problematic in this location due to shallow rock preventing full soil profile viewing. However, despite the problematic soils and disturbed roadway, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.		

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 19-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	70	☒ 93.3%	FACU
2. <i>Fraxinus pennsylvanica</i>	5	☐ 6.7%	FACW
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
75 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	50	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
50 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. <i>Allium tricoccum</i>	30	☒ 33.3%	FACU
2. <i>Acer saccharum</i>	20	☒ 22.2%	FACU
3. <i>Cardamine concatenata</i>	15	☐ 16.7%	FACU
4. <i>Maianthemum canadense</i>	15	☐ 16.7%	FACU
5. <i>Tilia americana</i>	10	☐ 11.1%	FACU
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
90 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>5</u>	x 2 = <u>10</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>210</u>	x 4 = <u>840</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>215</u> (A)	<u>850</u> (B)

Prevalence Index = B/A = 3.953

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

Tied for dominants but does not meet FAC-neutral test even if non dominants are considered

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 19-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13
 Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 20-1
 Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 31 T. T45N R. R1W
 Landform (hillslope, terrace, etc.): Road cut on backslope Local relief (concave, convex, none): concave Slope: 2.0 % / 1.1 °
 Subregion (LRR or MLRA): LRR K Lat.: 46.328494 Long.: 90.529484 Datum: WGS84
 Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the road was constructed many years ago and hydric conditions likely began to form at that time.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☒ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: A small drainageway flows out of this wetland and was dry at the time of the visit but it appears water enters the road from a seep in the road cut.			

166

VEGETATION - Use scientific names of plants

Dominant
Species?
Rel.Strat.
Cover

Sampling Point: Wet 20-1

Tree Stratum (Plot size: 40' x 25')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
0 = Total Cover			
Sapling/Shrub Stratum (Plot size: 40' x 25')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
0 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1. <i>Carex crinita</i>	30	☒ 50.0%	OBL
2. <i>Impatiens capensis</i>	15	☒ 25.0%	FACW
3. <i>Mentha arvensis</i>	10	☐ 16.7%	FACW
4. <i>Rumex obtusifolius</i>	5	☐ 8.3%	FAC
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
60 = Total Cover			
Woody Vine Stratum (Plot size: 40' x 25')	Absolute % Cover	Dominant Species? Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>30</u>	x 1 = <u>30</u>
FACW species <u>25</u>	x 2 = <u>50</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>0</u>	x 4 = <u>0</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>60</u>	(A) <u>95</u> (B)
Prevalence Index = B/A = <u>1.583</u>	

Hydrophytic Vegetation Indicators:

☒ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 20-1

168

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 20-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 31 T. T45N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.328490 **Long.:** 90.529430 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Conditions are wetter than normal for this time of year based on the Palmer Drought Index and othe available climatic data. Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils were also problematic in in this location due to shallow rock preventing full soil profile viewing. Despite the problematic soils and disturbed roadway, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____ Wetland Hydrology Present? Yes ☐ No ☒			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant
Species?

Sampling Point: Up 20-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. Acer saccharum	70	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)			
	70	= Total Cover	
1. Acer saccharum	40	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Herb Stratum (Plot size: 5' radius)			
	40	= Total Cover	
1. Allium tricoccum	50	☒ 71.4%	FACU
2. Acer saccharum	15	☒ 21.4%	FACU
3. Cardamine concatenata	5	☐ 7.1%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
Woody Vine Stratum (Plot size: 30' radius)			
	70	= Total Cover	
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 0	x 3 = 0
FACU species 180	x 4 = 720
UPL species 0	x 5 = 0
Column Totals: 180 (A)	720 (B)
Prevalence Index = B/A = 4.000	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

Tied for dominants but does not meet FAC-neutral test even if non dominants are considered

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 20-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 21-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 32 T. T45N R. R1W

Landform (hillslope, terrace, etc.): Road cut on backslope Local relief (concave, convex, none): concave Slope: 2.0 % / 1.1 °

Subregion (LRR or MLRA): LRR K Lat.: 46.328528 Long.: 90.528618 Datum: WGS84

Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present?	Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present?	Yes ☒ No ☐	
Wetland Hydrology Present?	Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the road was constructed many years ago and hydric conditions likely began to develop at that time.		

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: A small drainageway flows into and out of this wetland. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 21-1

Tree Stratum	(Plot size: 20' x 180')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' x 60')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Equisetum arvense		20	☒ 44.4%	FAC
2. Carex crinita		15	☒ 33.3%	OBL
3. Barbarea vulgaris		5	☐ 11.1%	FAC
4. Matteuccia struthiopteris		5	☐ 11.1%	FAC
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		45	= Total Cover	
Woody Vine Stratum	(Plot size: 20' x 180')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	15 x 1 = 15
FACW species	0 x 2 = 0
FAC species	30 x 3 = 90
FACU species	0 x 4 = 0
UPL species	0 x 5 = 0
Column Totals:	45 (A) 105 (B)

Prevalence Index = B/A = 2.333

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Wet 21-1

174

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Up 21-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 32 T. T45N R. R1W

Landform (hillslope, terrace, etc.): backslope Local relief (concave, convex, none): convex Slope: 5.0 % / 2.9 °

Subregion (LRR or MLRA): LRR K Lat.: 46.328510 Long.: 90.528546 Datum: WGS84

Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony NWI classification: Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Hydric Soil Present? Yes ☐ No ☒	
Wetland Hydrology Present? Yes ☐ No ☒	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 21-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	80	☒ 84.2%	FACU
2. <i>Tilia americana</i>	10	☐ 10.5%	FACU
3. <i>Ostrya virginiana</i>	5	☐ 5.3%	FACU
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
95 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	40	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
40 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Allium tricoccum</i>	25	☒ 41.7%	FACU
2. <i>Acer saccharum</i>	25	☒ 41.7%	FACU
3. <i>Dryopteris intermedia</i>	5	☐ 8.3%	FAC
4. <i>Uvularia sessilifolia</i>	5	☐ 8.3%	FACU
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
60 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 0	x 1 = 0
FACW species 0	x 2 = 0
FAC species 5	x 3 = 15
FACU species 190	x 4 = 760
UPL species 0	x 5 = 0
Column Totals: 195 (A)	775 (B)

Prevalence Index = B/A = 3.974

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

Tied for dominants but does not meet FAC-neutral test even if non dominants are considered

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: Up 21-1

177

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 22-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 32 T. T45N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.328364 **Long.:** 90.524714 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☒ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are also problematic due to shallow rock that prevents full viewing of soil profile. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the road was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☒ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)

Field Observations:		Wetland Hydrology Present? Yes ☒ No ☐
Surface Water Present? Yes ☐ No ☒	Depth (inches): _____	
Water Table Present? Yes ☒ No ☐	Depth (inches): 0	
Saturation Present? (Includes capillary fringe) Yes ☒ No ☐	Depth (inches): 0	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

A small drainageway flows into this wetland but the water seems to pool in the roadway and it was not evident if water sheet flows out of the roadway. This area appears to naturally be wetland based primarily on muck soils and hydrology.

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 22-1

Tree Stratum	(Plot size: 55' x 30')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Acer saccharum		10	☒ 100.0%	FACU
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		10	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Carex crinita		40	☒ 61.5%	OBL
2. Rumex altissimus		15	☒ 23.1%	FACW
3. Fraxinus nigra		5	☐ 7.7%	FACW
4. Rubus idaeus		5	☐ 7.7%	FAC
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		65	= Total Cover	
Woody Vine Stratum	(Plot size: 55' x 30')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>75</u> (A)	<u>135</u> (B)
Prevalence Index = B/A = <u>1.800</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 22-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 22-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 32 T. T45N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.328368 **Long.:** 90.524642 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas were considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☐ High Water Table (A2) ☐ Aquatic Fauna (B13) ☐ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Drift deposits (B3) ☐ Presence of Reduced Iron (C4) ☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.		

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 22-1

Tree Stratum	(Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>		60	☒ 75.0%	FACU
2. <i>Tilia americana</i>		20	☒ 25.0%	FACU
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		80	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>		50	☒ 100.0%	FACU
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		50	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>		60	☒ 44.4%	FACU
2. <i>Erythronium americanum</i>		35	☒ 25.9%	UPL
3. <i>Cardamine concatenata</i>		30	☒ 22.2%	FACU
4. <i>Caulophyllum thalictroides</i>		10	☐ 7.4%	UPL
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		135	= Total Cover	
Woody Vine Stratum	(Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>0</u>	x 3 = <u>0</u>
FACU species <u>220</u>	x 4 = <u>880</u>
UPL species <u>45</u>	x 5 = <u>225</u>
Column Totals: <u>265</u> (A)	<u>1105</u> (B)

Prevalence Index = B/A = 4.170

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

Tied for dominants but does not meet FAC-neutral test even if non dominants are considered

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 22-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 5 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Wet 23-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.324340 **Long.:** 90.535859 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐ Hydric Soil Present? Yes ☒ No ☐ Wetland Hydrology Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils are also problematic due to shallow rock that prevents full viewing of soil profile. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the roadway was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This wetland appears to be isolated but the west end of this wetland was not delineated since no access was required beyond this point. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Wet 23-1

Tree Stratum	(Plot size: 40' x 90')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
0 = Total Cover				
Sapling/Shrub Stratum	(Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
0 = Total Cover				
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Carex lacustris		50	☒ 62.5%	OBL
2. Acer saccharum		10	☐ 12.5%	FACU
3. Impatiens capensis		5	☐ 6.3%	FACW
4. Rumex altissimus		5	☐ 6.3%	FACW
5. Osmunda claytoniana		5	☐ 6.3%	FAC
6. Onoclea sensibilis		5	☐ 6.3%	FACW
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
80 = Total Cover				
Woody Vine Stratum	(Plot size: 40' x 90')	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
0 = Total Cover				

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>50</u>	x 1 = <u>50</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>5</u>	x 3 = <u>15</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>80</u> (A)	<u>135</u> (B)
Prevalence Index = B/A = <u>1.688</u>	

Hydrophytic Vegetation Indicators:

☒ Rapid Test for Hydrophytic Vegetation

☒ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 23-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 5 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 23-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.324289 **Long.:** 90.535748 **Datum:** _____
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, most upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: Up 23-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	50	☒ 71.4%	FACU
2. <i>Betula alleghaniensis</i>	10	☐ 14.3%	FAC
3. <i>Fraxinus pennsylvanica</i>	10	☐ 14.3%	FACW
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
70 = Total Cover			
Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	50	☒ 100.0%	FACU
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
50 = Total Cover			
Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. <i>Acer saccharum</i>	50	☒ 47.6%	FACU
2. <i>Erythronium americanum</i>	25	☒ 23.8%	UPL
3. <i>Rubus idaeus</i>	15	☐ 14.3%	FAC
4. <i>Cardamine concatenata</i>	10	☐ 9.5%	FACU
5. <i>Caulophyllum thalictroides</i>	5	☐ 4.8%	UPL
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
105 = Total Cover			
Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
0 = Total Cover			

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>160</u>	x 4 = <u>640</u>
UPL species <u>30</u>	x 5 = <u>150</u>
Column Totals: <u>225</u> (A)	<u>885</u> (B)

Prevalence Index = B/A = 3.933

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☐ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

Tied for dominants but does not meet FAC-neutral test even if non dominants are considered

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 23-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 5 City/County: Town of Anderson, Iron Co. Sampling Date: 03-Jun-13

Applicant/Owner: Gogebic Taconite State: WI Sampling Point: Wet 24-1

Investigator(s): Ann Michalski, WDNR Prof. Assured Section, Township, Range: S. 6 T. T44N R. R1W

Landform (hillslope, terrace, etc.): Road cut on backslope Local relief (concave, convex, none): concave Slope: 2.0 % / 1.1 °

Subregion (LRR or MLRA): LRR K Lat.: 46.32429 Long.: 90.53500 Datum: WGS84

Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony NWI classification: PEM1

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)

Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐

Are Vegetation ☐ , Soil ☐ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☒ No ☐	Is the Sampled Area within a Wetland? Yes ☒ No ☐
Hydric Soil Present? Yes ☒ No ☐	
Wetland Hydrology Present? Yes ☒ No ☐	
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance, this area is considered to have new normal circumstances because the road was constructed many years ago.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☒ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☒ No ☐ Depth (inches): -5 Saturation Present? (includes capillary fringe) Yes ☒ No ☐ Depth (inches): 0		Wetland Hydrology Present? Yes ☒ No ☐	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This wetland appears to be isolated but the west end of this wetland was not delineated since no access is required beyond this point. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant
Species?

Sampling Point: Wet 24-1

Tree Stratum	(Plot size: 60' x 20')	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot size: 15' x 60')	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. Acer saccharum		10	☒ 100.0%	FACU
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
5.		0	☐ 0.0%	
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
		10	= Total Cover	
Herb Stratum	(Plot size: 5' radius)	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1. Carex lacustris		60	☒ 57.1%	OBL
2. Matteuccia struthiopteris		20	☐ 19.0%	FAC
3. Onoclea sensibilis		10	☐ 9.5%	FACW
4. Impatiens capensis		10	☐ 9.5%	FACW
5. Equisetum arvense		5	☐ 4.8%	FAC
6.		0	☐ 0.0%	
7.		0	☐ 0.0%	
8.		0	☐ 0.0%	
9.		0	☐ 0.0%	
10.		0	☐ 0.0%	
11.		0	☐ 0.0%	
12.		0	☐ 0.0%	
		105	= Total Cover	
Woody Vine Stratum	(Plot size: 60' x 20')	Absolute % Cover	Rel.Strat. Cover	Indicator Status
1.		0	☐ 0.0%	
2.		0	☐ 0.0%	
3.		0	☐ 0.0%	
4.		0	☐ 0.0%	
		0	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>60</u>	x 1 = <u>60</u>
FACW species <u>20</u>	x 2 = <u>40</u>
FAC species <u>25</u>	x 3 = <u>75</u>
FACU species <u>10</u>	x 4 = <u>40</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>115</u> (A)	<u>215</u> (B)
Prevalence Index = B/A = <u>1.870</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid Test for Hydrophytic Vegetation

☐ Dominance Test is > 50%

☒ Prevalence Index is ≤ 3.0 ¹

☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)

☒ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☒ No ☐

Remarks: (Include photo numbers here or on a separate sheet.)

Plot sizes were altered to fit road area being evaluated.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Wet 24-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 5 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** Up 24-1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 6 T. T44N R. R1W
Landform (hillslope, terrace, etc.): backslope **Local relief (concave, convex, none):** convex **Slope:** 5.0 % / 2.9 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.32425 **Long.:** 90.53519 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed within the roadways and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite the roadway being disturbed, the upland sample points were conducted on the edges of the road at undisturbed reference sites and are much more representative of the original site conditions. Disturbed areas are considered to have new normal circumstances.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks) Secondary Indicators (minimum of 2 required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☐ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____ Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 	
Remarks: Conditions are wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.	

VEGETATION - Use scientific names of plants

Dominant
Species?
Rel.Strat.
Cover

Sampling Point: Up 24-1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Indicator Status	Dominance Test worksheet:
1. <i>Acer saccharum</i>	60	☒ 100.0% FACU	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	0	☐ 0.0%	Total Number of Dominant Species Across All Strata: 4 (B)
3.	0	☐ 0.0%	Percent of dominant Species That Are OBL, FACW, or FAC: 25.0% (A/B)
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
Sapling/Shrub Stratum (Plot size: 15' radius)	60 = Total Cover		Prevalence Index worksheet:
1. <i>Acer saccharum</i>	50	☒ 100.0% FACU	Total % Cover of: Multiply by:
2.	0	☐ 0.0%	OBL species 0 x 1 = 0
3.	0	☐ 0.0%	FACW species 0 x 2 = 0
4.	0	☐ 0.0%	FAC species 35 x 3 = 105
5.	0	☐ 0.0%	FACU species 180 x 4 = 720
6.	0	☐ 0.0%	UPL species 15 x 5 = 75
7.	0	☐ 0.0%	Column Totals: 230 (A) 900 (B)
Herb Stratum (Plot size: 5' radius)	50 = Total Cover		Prevalence Index = B/A = 3.913
1. <i>Cardamine concatenata</i>	50	☒ 41.7% FACU	Hydrophytic Vegetation Indicators:
2. <i>Matteuccia struthiopteris</i>	35	☒ 29.2% FAC	☐ Rapid Test for Hydrophytic Vegetation
3. <i>Acer saccharum</i>	20	☐ 16.7% FACU	☐ Dominance Test is > 50%
4. <i>Erythronium americanum</i>	15	☐ 12.5% UPL	☐ Prevalence Index is ≤ 3.0 ¹
5.	0	☐ 0.0%	☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
6.	0	☐ 0.0%	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
7.	0	☐ 0.0%	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8.	0	☐ 0.0%	Definitions of Vegetation Strata:
9.	0	☐ 0.0%	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
10.	0	☐ 0.0%	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..
11.	0	☐ 0.0%	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12.	0	☐ 0.0%	Woody vine - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: 30' radius)	120 = Total Cover		
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
	0 = Total Cover		
Remarks: (Include photo numbers here or on a separate sheet.) Tied for dominants but does not meet FAC-neutral test even if non dominants are considered			Hydrophytic Vegetation Present? Yes ☐ No ☒

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil

Sampling Point: Up 24-1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** SB1
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 32 T. T45N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.328474 **Long.:** 90.527227 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
 Are Vegetation ☒ , Soil ☒ , or Hydrology ☒ significantly disturbed? Are "Normal Circumstances" present? Yes ☒ No ☐
 Are Vegetation ☐ , Soil ☒ , or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Soils are also problematic due to shallow rock that prevents full viewing of soil profile. Despite the problematic soils and disturbed roadway, the upland sample point was conducted in a less disturbed area off to the edge of the roadway in an area likely more representative of normal conditions. Disturbed areas were evaluated as having new normal conditions. Regulatory agents reviewed this location and agreed it was not wetland.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This area was looked at closer on a second visit and much more upland vegetation emerged and the site was much drier than other areas being identified as wetlands. Conditions are wetter than normal for this time of year but despite the wet conditions this area was still dry.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: SB1

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status	Dominance Test worksheet:
1. _____	0	☐ 0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2. _____	0	☐ 0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
3. _____	0	☐ 0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
4. _____	0	☐ 0.0%		Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 20 x 1 = 20 FACW species 5 x 2 = 10 FAC species 20 x 3 = 60 FACU species 50 x 4 = 200 UPL species 5 x 5 = 25 Column Totals: 100 (A) 315 (B) Prevalence Index = B/A = 3.150
5. _____	0	☐ 0.0%		
6. _____	0	☐ 0.0%		
7. _____	0	☐ 0.0%		
Sapling/Shrub Stratum (Plot size: 15' radius)	0 = Total Cover			Hydrophytic Vegetation Indicators: ☐ Rapid Test for Hydrophytic Vegetation ☐ Dominance Test is > 50% ☐ Prevalence Index is ≤3.0 ¹ ☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) ☐ Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____	0	☐ 0.0%		
2. _____	0	☐ 0.0%		
3. _____	0	☐ 0.0%		
4. _____	0	☐ 0.0%		Definitions of Vegetation Strata: Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft in height.
5. _____	0	☐ 0.0%		
6. _____	0	☐ 0.0%		
7. _____	0	☐ 0.0%		
Herb Stratum (Plot size: 5' radius)	0 = Total Cover			Hydrophytic Vegetation Present? Yes ☐ No ☒
1. Plantago major	25	☒ 25.0% FACU		
2. Carex crinita	20	☒ 20.0% OBL		
3. Matteuccia struthiopteris	15	☒ 15.0% FAC		
4. Arctium minus	15	☒ 15.0% FACU		Remarks: (Include photo numbers here or on a separate sheet.) Tied for dominants but does not meet FAC-neutral test even if non dominants are considered
5. Carex gracillima	10	☐ 10.0% FACU		
6. Rubus idaeus	5	☐ 5.0% FAC		
7. Caulophyllum thalictroides	5	☐ 5.0% UPL		
8. Rumex altissimus	5	☐ 5.0% FACW		
9. _____	0	☐ 0.0%		
10. _____	0	☐ 0.0%		
11. _____	0	☐ 0.0%		
12. _____	0	☐ 0.0%		
Woody Vine Stratum (Plot size: 30' radius)	100 = Total Cover			
1. _____	0	☐ 0.0%		
2. _____	0	☐ 0.0%		
3. _____	0	☐ 0.0%		
4. _____	0	☐ 0.0%		
	0 = Total Cover			

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: SB1

[illegible]

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Gogebic Taconite - Access Road 4 **City/County:** Town of Anderson, Iron Co. **Sampling Date:** 03-Jun-13
Applicant/Owner: Gogebic Taconite **State:** WI **Sampling Point:** SB2
Investigator(s): Ann Michalski, WDNR Prof. Assured **Section, Township, Range:** S. 32 T. T45N R. R1W
Landform (hillslope, terrace, etc.): Road cut on backslope **Local relief (concave, convex, none):** concave **Slope:** 2.0 % / 1.1 °
Subregion (LRR or MLRA): LRR K **Lat.:** 46.328429 **Long.:** 90.525152 **Datum:** WGS84
Soil Map Unit Name: Dishno-Gogebic-Peshekee-Rock Outcrop Complex, 18-35%, very stony **NWI classification:** Upland

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☐ No ☒ (If no, explain in Remarks.)
Are Vegetation ☒ **, Soil** ☒ **, or Hydrology** ☒ **significantly disturbed?** **Are "Normal Circumstances" present?** Yes ☒ No ☐
Are Vegetation ☐ **, Soil** ☐ **, or Hydrology** ☐ **naturally problematic?** (If needed, explain any answers in Remarks.)

Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc

Hydrophytic Vegetation Present? Yes ☐ No ☒ Hydric Soil Present? Yes ☐ No ☒ Wetland Hydrology Present? Yes ☐ No ☒	Is the Sampled Area within a Wetland? Yes ☐ No ☒
Remarks: (Explain alternative procedures here or in a separate report.) Vegetation, soil and hydrology are significantly disturbed from historic silvicultural roads in this location and current ATV traffic, both of which have resulted in water flowing off the hillside to pool in tire ruts and compacted depressional areas along the roads. Soils are disturbed and areas that were likely not wetland prior to construction of the roads now hold water and have developed hydric soils in many areas. Despite recent ATV disturbance this area was considered to have new normal circumstances since the road was constructed many years ago. Regulatory agents review this location and agreed that it is not wetland.	

Hydrology

Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)	
☐ Surface Water (A1) ☐ High Water Table (A2) ☐ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres along Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)	☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes ☐ No ☒ Depth (inches): _____ Water Table Present? Yes ☐ No ☒ Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes ☐ No ☒ Depth (inches): _____		Wetland Hydrology Present? Yes ☐ No ☒	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: This wetland appears to be completely confined to the road. This area was evaluated on a second visit due to it being questionable as to if it met wetland criteria since it was much drier than other identified wetlands. Much more upland vegetation emerged by the second visit and the soils did not meet hydric soil criteria. Hydric soils are met only in certain locations and overall the area is very gravelly and does not have hydric soils. Conditions are much wetter than normal for this time of year based on the Palmer Drought Index and other available climatic data.			

VEGETATION - Use scientific names of plants

Dominant Species?

Sampling Point: SB2

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
= Total Cover			

Sapling/Shrub Stratum (Plot size: 15' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
= Total Cover			

Herb Stratum (Plot size: 5' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1. Onoclea sensibilis	25	☒ 33.3%	FACW
2. Fragaria virginiana	20	☒ 26.7%	FACU
3. Osmunda claytoniana	15	☒ 20.0%	FAC
4. Solidago altissima	15	☒ 20.0%	FACU
5.	0	☐ 0.0%	
6.	0	☐ 0.0%	
7.	0	☐ 0.0%	
8.	0	☐ 0.0%	
9.	0	☐ 0.0%	
10.	0	☐ 0.0%	
11.	0	☐ 0.0%	
12.	0	☐ 0.0%	
= Total Cover			

Woody Vine Stratum (Plot size: 30' radius)	Absolute % Cover	Rel. Strat. Cover	Indicator Status
1.	0	☐ 0.0%	
2.	0	☐ 0.0%	
3.	0	☐ 0.0%	
4.	0	☐ 0.0%	
= Total Cover			

Dominance Test worksheet:
 Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)

 Total Number of Dominant Species Across All Strata: 4 (B)

 Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)

Prevalence Index worksheet:
 Total % Cover of: Multiply by:
 OBL species 0 x 1 = 0
 FACW species 25 x 2 = 50
 FAC species 15 x 3 = 45
 FACU species 35 x 4 = 140
 UPL species 0 x 5 = 0
 Column Totals: 75 (A) 235 (B)

 Prevalence Index = B/A = 3.133

Hydrophytic Vegetation Indicators:
☐ Rapid Test for Hydrophytic Vegetation
☐ Dominance Test is > 50%
☐ Prevalence Index is ≤3.0 ¹
☐ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
☐ Problematic Hydrophytic Vegetation ¹ (Explain)

¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

 Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

 Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall..

 Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

 Woody vine - All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes ☐ No ☒

Remarks: (Include photo numbers here or on a separate sheet.)

This location is tied for dominants. Based on lack of hydrology during a wet season this area is not considered wetland.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Sampling Point: SB2

201



APPENDIX B – SITE PHOTOGRAPHS

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 1 - Looking North



Wetland 1 - Looking North



Wetland 1 - Looking South



Wetland 1 - Looking Southwest

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Upland Adjacent to Wetland 1 on South Side



Drainageway on Southeast Side of Wetland 1



Drainageway in Wetland 1 Where it Flows
Onto Road - Looking North



Wetland 2 - Looking West

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 2 and Upland Boundary - Looking Northeast



Drainageway Wetland 2 - Looking East



Drainageway on Southeast Side
of Wetland 2 - Looking Southeast



Wetland 3 - Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 3 - Looking East



Wetland 3 - Looking West



West end of Wetland 3 - Looking West



Upland Between Wetland 3 and 4 - Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



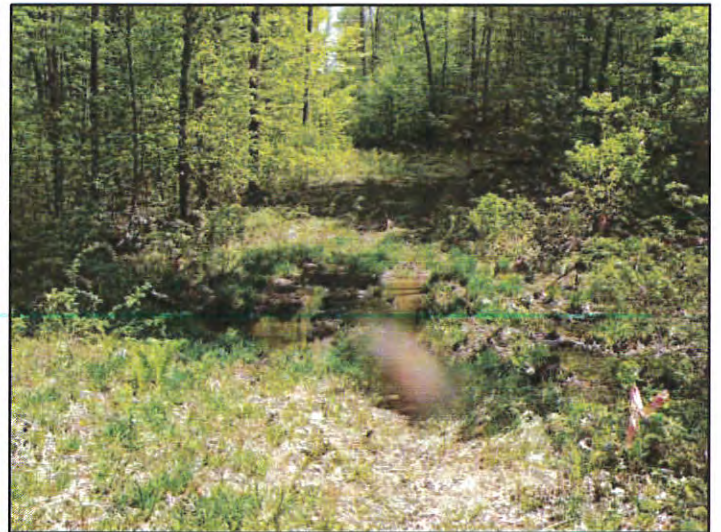
Wetland 4 - Looking East



Wetland 4 - Looking East



Wetland 4 and Upland Boundary - Looking West



Wetland 5 - Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Drainageway in Wetland 5 - Looking North



Drainageway in Wetland 5 - Looking South



Wetland 6 - Looking East



Wetland 6 - Looking West

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 7 - Looking East



Wetland 7 - Looking West



Wetland 8 - Looking East



Drainageway in Wetland 8 - Looking North

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Drainageway in Wetland 8 - Looking South



Wetland 9 - Looking Northeast



Wetland 9 - Looking Southwest



Wetland 10 - Looking Northeast

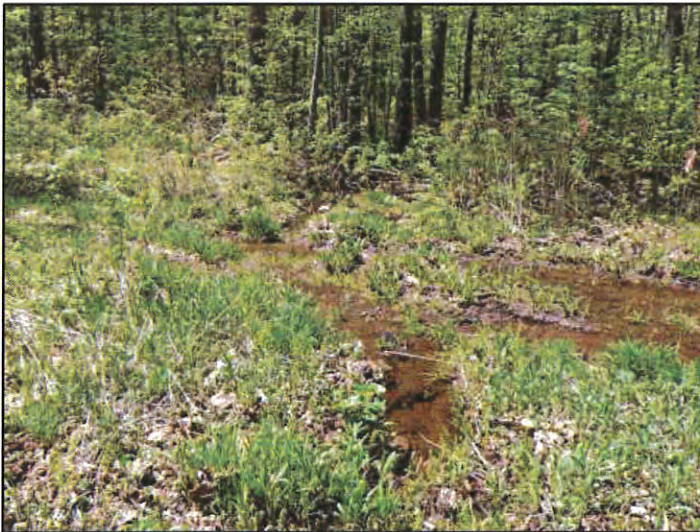
Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 10 - Looking Southwest



Wetland 10 - Looking Southwest



East End of Wetland 10 - Looking Southwest



East End of Wetland 10 - Looking Southwest

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



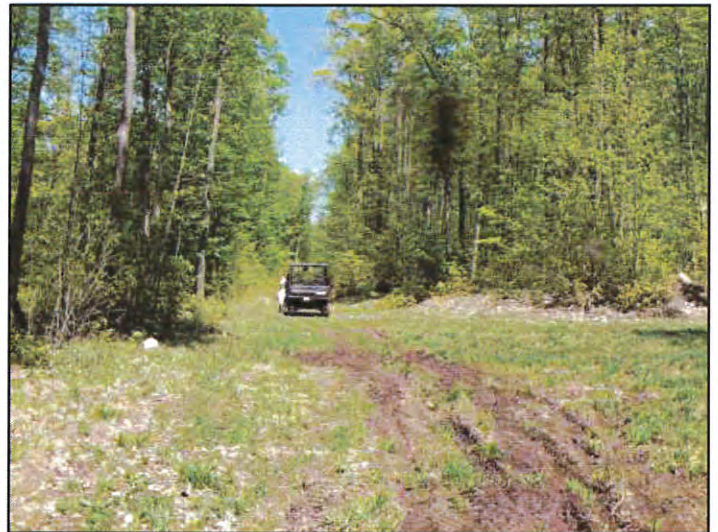
Wetland 11 - Looking East



Wetland 11 - Looking West



Wetland 12 - Looking East



Wetland 12 - Looking West

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 12 at Drainageway
Crossing - Looking East



Drainageway in Wetland 12 - Looking North



Drainageway in Wetland 12 - Looking South



Wetland 13 - Looking Southwest

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 14 - Looking West



Wetland 14 - Looking West



Wetland 14 - Looking West



Central Drainageway in Wetland 14 - Looking North

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Dry Drainageway on West End of
Wetland 14 - Looking South



East Drainageway in Wetland 14 - Looking South



Eastern Drainageway in Wetland 14 - Looking North



Middle Drainageway in Wetland 14 - Looking South

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 15 - Looking East



Wetland 15 - Looking West



Dry Drainageway on North Side of Wetland 15



Dry Drainageway on South Side of Wetland 15

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 16 - Looking East



Wetland 16 - Looking West



Drainageway Flowing Out of Wetland 16 - Looking North



Dry Drainageway on North Side of Wetland 16

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Drainageway on South Side of Wetland 16



Wetland 17 - Looking East



Wetland 17 - Looking West



Drainageway at Road Crossing in
Wetland 17 - Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Drainageway on East Side of Wetland 17
Flowing Into Wetland - Looking South



Drainageway on West End of Wetland 17
Flowing Into Wetland - Looking South



Drainageway on West End of Wetland 17
Flowing Out of Wetland - Looking North



Wetland 18 - Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 18 - Looking West



Wetland 19 - Looking East



Wetland 19 - Looking West



Wetland 20 - Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 21 - Looking East



Wetland 21 - Looking East



Wetland 21 - Looking West



Wetland 22 - Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 22 - Looking West



Dry Drainageway on Northwest Side of Wetland 22



Dry Drainageway on Southeast Side of Wetland 22



Wetland 23 - Looking West

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



Wetland 24 - Looking North



SB1 Looking East



SB1 Looking West



SB2 Looking East

Gogebic Taconite, LLC
Wetland Delineation - Access Roads 2,4,& 5
Site Photos



SB2 Looking East



SB2 Looking West

ATTACHMENT TO RESPONSE FOR s.295.44 (2)(e)
CERTIFICATE OF LIABILITY INSURANCE



210173

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

3/18/2013

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER Commercial Lines - (304) 327-3421 Wells Fargo Insurance Services of West Virginia Inc. 320 Federal Street Bluefield, WV 24701-3006	CONTACT NAME: Cheryl Vandermosten	
	PHONE (A/C, No, Ext): 865-450-1910	FAX (A/C, No): 877-870-2914
INSURED Gogebic Taconite of Michigan, LLC 402 Silver Street Hurley, WI 54534	E-MAIL ADDRESS: cheryl.vandermosten@wellsfargo.com	
	INSURER(S) AFFORDING COVERAGE	
	INSURER A: Federal Insurance Company	
	INSURER B:	
	INSURER C:	
	INSURER D:	
INSURER E:		
INSURER F:		
NAIC # 20281		

COVERAGES**CERTIFICATE NUMBER:** 5745816**REVISION NUMBER:** See below

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	GENERAL LIABILITY			37114535	12/31/2012	12/31/2013	EACH OCCURRENCE \$ 1,000,000
	☒ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 1,000,000
	☐ CLAIMS-MADE ☒ OCCUR						MED EXP (Any one person) \$ 10,000
							PERSONAL & ADV INJURY \$ 1,000,000
							GENERAL AGGREGATE \$ 2,000,000
							PRODUCTS - COMP/OP AGG \$ 2,000,000
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) \$
	☐ ANY AUTO						BODILY INJURY (Per person) \$
	☐ ALL OWNED AUTOS	☐ SCHEDULED AUTOS					BODILY INJURY (Per accident) \$
	☐ HIRED AUTOS	☐ NON-OWNED AUTOS					PROPERTY DAMAGE (Per accident) \$
	UMBRELLA LIAB						EACH OCCURRENCE \$
	EXCESS LIAB						AGGREGATE \$
	☐ DED	☐ RETENTION \$					
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						WC STATUTORY LIMITS OTH-ER
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)	☐ Y ☒ N	N/A				E.L. EACH ACCIDENT \$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE \$
							E.L. DISEASE - POLICY LIMIT \$

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Evidence of insurance with respects to any and all permits held by the Named Insured (s)

CERTIFICATE HOLDER**CANCELLATION**

Wisconsin Department of Natural Resources
101 S Webster Street
PO Box 7921
Madison, WI 53707

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

The ACORD name and logo are registered marks of ACORD

© 1988-2010 ACORD CORPORATION. All rights reserved.

ACORD 25 (2010/05)

(This certificate replaces certificate# 5460394 issued on 1/8/2013)

226

ATTACHMENT TO RESPONSE FOR s.295.44 (2)(f)
BALANCE SHEET

Balance Sheet

As of 12/31/2012

Gogebic Taconite, LLC (GTL)

ASSETS

Local Imprest Fund	\$45,579.34
Petty Cash	\$915.57
Other Prepaid Expenses	\$240,000.00
Machinery/Equip/Buildings	\$13,064.46
Accumulated Depreciation	-\$11,916.84

TOTAL ASSETS \$287,642.53

LIABILITIES

Accrued Payroll Taxes	\$168.00
Long-Term Debt	\$6,365,000.00

TOTAL LIABILITIES \$6,365,168.00

EQUITY

Member Equity	\$1,175,000.00
Retained Earnings	-\$7,252,525.47

TOTAL EQUITY -\$6,077,525.47

TOTAL LIABILITY AND EQUITY \$287,642.53

ATTACHMENT TO RESPONSE FOR s.295.44 (3)
SURETY BOND

DUPLICATE ORIGINAL

State of Wisconsin
Department of Natural Resources

FERROUS METALLIC MINERAL EXPLORATION BOND

KNOW ALL PERSONS BY THESE PRESENTS, that GOGEBIC TACONITE, LLC
(the Explorer)

of 402 HURLEY STREET, HURLEY, WI 54534, as Principal, and
(Address)

U.S. SPECIALTY INSURANCE COMPANY, a surety company organized and
(Name of Surety Company)

existing under the laws of the State of TEXAS and duly authorized to do surety business
in the State of Wisconsin, as Surety, are held and firmly bound unto the State of Wisconsin Department of

Natural Resources, as Obligee, in the penal sum of EIGHTY THOUSAND AND NO/100***** dollars

(\$ 80,000.00) for payment of which the Principal and the Surety bind themselves, their heirs, executors,
administrators, successors and assigns jointly and severally.

WHEREAS, this bond is written to satisfy the requirements of section 295.44(3) Stats., to ensure compliance with the
ferrous metallic mineral exploration licensing requirements, and shall inure to the benefit of the Obligee.

The insolvency or bankruptcy of the Principal shall not constitute a defense to the Surety with regard to any claim of
liability on the obligation of this bond.

The Surety hereby waives notification of any failure on the part of the Principal or any successor in interest to faithfully
comply with the requirements of s. 295 Stats. and lack of notice from the Obligee will not bar or limit recovery against
the Surety.

This bond is effective on the 20TH day of DECEMBER, 2013, and shall continue in force until
terminated as hereinafter provided. As long as any obligation of the Principal or any successor in interest for the ferrous
metallic mineral exploration license exists, this bond shall not be cancelled by the Surety unless a replacement bond
acceptable to the Obligee is provided to the Obligee. If the Surety proposes to cancel this bond, notice shall be provided
to the Obligee and the Principal in writing by registered or certified mail not less than 90 days prior to the proposed
cancellation date. Not less than 30 days prior to the expiration of the 90 day notice period, the Principal shall deliver to
the Obligee a replacement bond. In the absence of the delivery of a replacement bond, all exploration shall cease.

Signed, sealed and dated this 20TH day of DECEMBER, 2013.

GOGEBIC TACONITE, LLC

William J. Williams - PRESIDENT
Principal

U.S. SPECIALTY INSURANCE COMPANY
Surety

JEREMY C. ROSE
Attorney in Fact

Bond Number 1000904072

POWER OF ATTORNEY

AMERICAN CONTRACTORS INDEMNITY COMPANY U.S. SPECIALTY INSURANCE COMPANY

KNOW ALL MEN BY THESE PRESENTS: That American Contractors Indemnity Company, a California corporation, and U.S. Specialty Insurance Company, a Texas corporation (collectively, the "Companies"), do by these presents make, constitute and appoint:

Jeremy C. Rose, Richard C. Rose, Janice Fennell or Tara W. Mealer of Knoxville, Tennessee

its true and lawful Attorney(s)-in-fact, each in their separate capacity if more than one is named above, with full power and authority hereby conferred in its name, place and stead, to execute, acknowledge and deliver **any and all bonds, recognizances, undertakings or other instruments or contracts of suretyship to include riders, amendments, and consents of surety, providing the bond penalty does not exceed** *****Seventy Five Million***** Dollars (\$ **75,000,000.00**).

This Power of Attorney shall expire without further action on March 18, 2015. This Power of Attorney is granted under and by authority of the following resolutions adopted by the Boards of Directors of the Companies:

Be it Resolved, that the President, any Vice-President, any Assistant Vice-President, any Secretary or any Assistant Secretary shall be and is hereby vested with full power and authority to appoint any one or more suitable persons as Attorney(s)-in-Fact to represent and act for and on behalf of the Company subject to the following provisions:

Attorney-in-Fact may be given full power and authority for and in the name of and on behalf of the Company, to execute, acknowledge and deliver, any and all bonds, recognizances, contracts, agreements or indemnity and other conditional or obligatory undertakings, including any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts, and any and all notices and documents canceling or terminating the Company's liability thereunder, and any such instruments so executed by any such Attorney-in-Fact shall be binding upon the Company as if signed by the President and sealed end effected by the Corporate Secretary.

Be it Resolved, that the signature of any authorized officer and seal of the Company heretofore or hereafter affixed to any power of attorney or any certificate relating thereto by facsimile, and any power of attorney or certificate bearing facsimile signature or facsimile seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, The Companies have caused this instrument to be signed and their corporate seals to be hereto affixed, this 3rd day of October, 2011.

AMERICAN CONTRACTORS INDEMNITY COMPANY U.S. SPECIALTY INSURANCE COMPANY

Corporate Seals



By:


Daniel P. Aguilar, Vice President

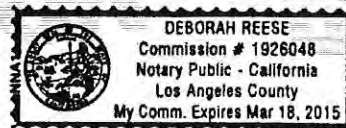
State of California

County of Los Angeles SS:

On this 3rd day of October, 2011, before me, Deborah Reese, a notary public, personally appeared Daniel P. Aguilar, Vice President of American Contractors Indemnity Company and U.S. Specialty Insurance Company who proved to me on the basis of satisfactory evidence to be the person whose name is subscribed to the within instrument and acknowledged to me that he executed the same in his authorized capacity, and that by his signature on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct. WITNESS my hand and official seal.

Signature Deborah Reese (Seal)



I, Jeannie Lee, Assistant Secretary of American Contractors Indemnity Company and U.S. Specialty Insurance Company, do hereby certify that the above and foregoing is a true and correct copy of a Power of Attorney, executed by said Companies, which is still in full force and effect; furthermore, the resolutions of the Boards of Directors, set out in the Power of Attorney are in full force and effect.

In Witness Whereof, I have hereunto set my hand and affixed the seals of said Companies at Los Angeles, California this 20TH day of DECEMBER, 2013

Corporate Seals



Bond No. 1000904072

Agency No. 16425


Jeannie Lee, Assistant Secretary

To inquire about this bond, please write to us at surety-bond-inquiry@hcc.com

ATTACHMENT TO RESPONSE FOR s.295.44 (3)(d)
RECLAMATION COST ESTIMATE

Gogebic Taconite, LLC
Exploration Project No. 2
Reclamation Cost Estimate
December 31, 2013

Page 1

Location	Activity	Number	Units	Unit Cost	Tot Cost	Location Cost
Grouting	Mobilization	1	lot	\$3,000	\$3,000	
						\$3,000
566-1	Grout	1429	Feet	\$3	\$4,287	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					\$5,242
566-2	Grout	330	Feet	\$3	\$990	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					\$1,945
584-2	Grout	500	Feet	\$3	\$1,500	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					\$2,455
594-2	Grout	1300	Feet	\$3	\$3,900	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					\$4,855
608-1	Grout	1465	Feet	\$3	\$4,395	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					\$5,350

SubTotal Page 1 \$22,847

Gogebic Taconite, LLC
Exploration Project No. 2
Reclamation Cost Estimate
December 31, 2013

Page 2

646-1	Grout	800	Feet	\$3	\$2,400
	Pull Collar	1	lot	\$200	\$200
	Regrading	2	Hours D6 dozer	\$110	\$220
	Seed	1	Pounds Seed	\$235	\$235
	Mulch	10	Straw Bales	\$10	\$100
	Seed Labor	4	Hours Labor	\$50	\$200
	TOTAL				\$3,355
646-2	Grout	700	Feet	\$3	\$2,100
	Pull Collar	1	lot	\$200	\$200
	Regrading	2	Hours D6 dozer	\$110	\$220
	Seed	1	Pounds Seed	\$235	\$235
	Mulch	10	Straw Bales	\$10	\$100
	Seed Labor	4	Hours Labor	\$50	\$200
	TOTAL				\$3,055
646-2V	Grout	600	Feet	\$3	\$1,800
	Pull Collar	1	lot	\$200	\$200
	Regrading		Hours D6 dozer	\$110	\$0
	Seed		Pounds Seed	\$235	\$0
	Mulch		Straw Bales	\$10	\$0
	Seed Labor		Hours Labor	\$50	\$0
	TOTAL				\$2,000
655-1	Grout	1000	Feet	\$3	\$3,000
	Pull Collar	1	lot	\$200	\$200
	Regrading	2	Hours D6 dozer	\$110	\$220
	Seed	1	Pounds Seed	\$235	\$235
	Mulch	10	Straw Bales	\$10	\$100
	Seed Labor	4	Hours Labor	\$50	\$200
	TOTAL				\$3,955
655-3	Grout	350	Feet	\$3	\$1,050
	Pull Collar	1	lot	\$200	\$200
	Regrading	2	Hours D6 dozer	\$110	\$220
	Seed	1	Pounds Seed	\$235	\$235
	Mulch	10	Straw Bales	\$10	\$100
	Seed Labor	4	Hours Labor	\$50	\$200
	TOTAL				\$2,005

SubTotal Page 2 \$14,370

Gogebic Taconite, LLC
Exploration Project No. 2
Reclamation Cost Estimate
December 31, 2013

Page 3

655-3V	Grout	280	Feet	\$3	\$840	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	0	Hours D6 dozer	\$110	\$0	
	Seed	0	Pounds Seed	\$235	\$0	
	Mulch	0	Straw Bales	\$10	\$0	
	Seed Labor	0	Hours Labor	\$50	\$0	
	TOTAL					
666-1	Grout	1000	Feet	\$3	\$3,000	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					
674-1	Grout	920	Feet	\$3	\$2,760	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					
674-2V	Grout	700	Feet	\$3	\$2,100	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					
686-2	Grout	600	Feet	\$3	\$1,800	
	Pull Collar	1	lot	\$200	\$200	
	Regrading	2	Hours D6 dozer	\$110	\$220	
	Seed	1	Pounds Seed	\$235	\$235	
	Mulch	10	Straw Bales	\$10	\$100	
	Seed Labor	4	Hours Labor	\$50	\$200	
	TOTAL					

SubTotal Page 3 \$13,480

Total Reclamation Bond Amount = \$50,697

235