

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Hubbard Sampling Date: 2015-07-07

Applicant/Owner: Enbridge State: Minnesota Sampling Point: HUC5107_200d1U

Investigator(s): BEH/KAT Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Side Slope Local Relief (concave, convex, none): VC Slope (%): 10

Subregion (LRR or MLRA): LRR K Latitude: 46.93305650 Longitude: -95.14134533 Datum: Minnesota State ...

Soil Map Unit Name: 260 NWI Classification: No

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes

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

Are Vegetation No, Soil No, or Hydrology No 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?	<u>No</u>	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: _____
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>No</u>	

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

Upland sample point located in a fire-dependent forest upslope from a sedge meadow depression.

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is 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 on 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/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? <u>No</u> Depth (inches) _____ Water Table Present? <u>No</u> Depth (inches) _____ Saturation Present? <u>No</u> Depth (inches) _____ (includes capillary fringe)	Wetland Hydrology Present? <u>No</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No primary or secondary wetland hydrology indicators were observed.

VEGETATION - Use scientific names of plants.

 Sampling Point: HUC5107_...

	Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot Size: <u>30'</u>)				Dominance Test worksheet:
1. <u>Populus tremuloides</u>	<u>30.00</u>	<u>Yes</u>	<u>FACU</u>	Number of Dominant Species
2. <u>Quercus rubra</u>	<u>15.00</u>	<u>Yes</u>	<u>FACU</u>	That Are OBL, FACW, or FAC: <u>0</u> (A)
3. <u>Quercus macrocarpa</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>	Total Number of Dominant
4. <u>Prunus serotina</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>	<u>5</u>
5. _____	<u>5.00</u>	<u>No</u>	<u>FACU</u>	Species Across All Strata: _____ (B)
6. <u>Pinus banksiana</u>	_____	_____	_____	Percent of Dominant Species
7. _____	_____	_____	_____	That Are OBL, FACW, or FAC: <u>0</u> (A/B)
	<u>70</u>	= Total Cover		Prevalence Index worksheet:
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15'</u>)				Total % Cover of:
1. <u>Corylus cornuta</u>	<u>15.00</u>	<u>Yes</u>	<u>FACU</u>	Multiply by:
2. _____	_____	_____	_____	OBL species <u>0.00</u> x 1 <u>0</u>
3. _____	_____	_____	_____	FACW species <u>0.00</u> x 2 <u>0</u>
4. _____	_____	_____	_____	FACU species <u>5.00</u> x 3 <u>500</u>
5. _____	_____	_____	_____	UPL species <u>50.00</u> x 4 <u>250</u>
6. _____	_____	_____	_____	Column Totals <u>180</u> (A) <u>765</u> (B)
7. _____	_____	_____	_____	Prevalence Index = B/A = <u>4.25</u>
	<u>15</u>	= Total Cover		Hydrophytic Vegetation Indicators:
<u>Herb Stratum</u> (Plot Size: <u>5'</u>)				_____ 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Carex pensylvanica</u>	<u>40.00</u>	<u>Yes</u>		<u>no</u> 2 - Dominance Test is > 50%
2. <u>Pteridium aquilinum</u>	<u>25.00</u>	<u>Yes</u>	<u>FACU</u>	<u>no</u> 3 - Prevalence Index is ≤ 3.0 ¹
3. <u>Rubus idaeus</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>	_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. <u>Oryzopsis asperifolia</u>	<u>10.00</u>	<u>No</u>		Problematic Hydrophytic Vegetation ¹ (Explain)
5. <u>Lathyrus venosus</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. <u>Thalictrum dioicum</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	Definitions of Vegetation Strata:
7. _____	_____	_____	_____	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
8. _____	_____	_____	_____	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. _____	_____	_____	_____	Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10. _____	_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>95</u>	= Total Cover		
<u>Woody Vine Stratum</u> (Plot Size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	<u>0</u>	=Total Cover		Hydrophytic Vegetation Present? _____
Remarks: (include photo numbers here or on a separate sheet.)				
Canopy is dominated by quaking aspen and northern red oak. Shrub component is beaked hazelnut. Ground cover is dominated by Pennsylvania sedge and bracken fern.				

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		
0-10	10YR 2 1	100					SL	
10-24	10YR 3 2	100					LS	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Dark Surface (S7) (LRR R, MLRA 149B)

☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)

☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)

☐ Loamy Mucky Mineral (F1) (LRR K, L)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soil³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)

☐ Coast Prairie Redox (A16)(LRR K, L, R)

☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)

☐ Dark Surface (S7) (LRR K, M)

☐ Polyvalue Below Surface (S8) (LRR K, L)

☐ Thin Dark Surface (S9) (LRR K, L)

☐ Iron-Maganese Masses (F12) (LRR K, L, R)

☐ Piedmont Floodplain Soils (F19) (MLRA 149B)

☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)

☐ Red Parent Material (F21)

☐ Very Shallow Dark Surface (TF12)

☐ Other (explain in remarks)

Restrictive Layer (if observed):

☐

Type: _____

Depth (inches): _____

Hydric Soil Present? No _____

Remarks:

Soil is dark brown sandy loam underlain by slightly lighter loamy sand; the profile does not meet any hydric soil indicators.