

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Wadena Sampling Date: 2015-06-30
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: WA004_200a1U
 Investigator(s): BEH/BCS Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Foot Slope Local Relief (concave, convex, none): LL Slope (%): 3-7
 Subregion (LRR or MLRA): LRR K Latitude: 46.7978329 Longitude: -94.909663 Datum: Minnesota State ...
 Soil Map Unit Name: 834 NWI Classification: _____

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? <u>No</u> 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.) The upland sample point is located in a fire-dependent forest dominated by quaking aspen.		

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>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: No primary or secondary hydrological indicators were observed.			

Sampling Point: WA004_2...

Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status
1.	Populus tremuloides	70.00	Yes	FACU
2.	Quercus macrocarpa	15.00	No	FACU
3.	Prunus serotina	1.00	No	FACU
4.				
5.				
6.				
7.				
Sapling/Shrub Stratum (Plot Size: 15')		86 = Total Cover		
1.	Corylus americana	45.00	Yes	FACU
2.	Populus tremuloides	20.00	Yes	FACU
3.	Quercus macrocarpa	5.00	No	FACU
4.	Quercus rubra	3.00	No	FACU
5.	Fraxinus pennsylvanica	3.00	No	FACW
6.				
7.				
Herb Stratum (Plot Size: 5')		76 = Total Cover		
1.	Corylus americana	15.00	Yes	FACU
2.	Oryzopsis asperifolia	15.00	Yes	
3.	Maianthemum canadense	10.00	No	FACU
4.	Streptopus lanceolatus	10.00	No	FACU
5.	Aralia nudicaulis	5.00	No	FACU
6.	Trientalis borealis	5.00	No	FAC
7.				
8.				
9.				
10.				
11.				
12.				
Woody Vine Stratum (Plot Size:)		60 = Total Cover		
1.				
2.				
3.				
4.				
		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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	0.00 x 1	0
FACW species	3.00 x 2	6
FACU species	5.00 x 3	796
UPL species	15.00 x 4	75
Column Totals	222 (A)	892 (B)

Prevalence Index = B/A = 4.0180180...

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation no

2 - Dominance Test is > 50% no

3 - Prevalence Index is ≤ 3.0¹ no

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

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

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.

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

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

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

Hydrophytic Vegetation Present?

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

The canopy is dominated by quaking aspen, while the shrub component is American hazelnut and quaking aspen saplings. Ground cover is primarily American hazelnut and rough-lea...

SOIL

Sampling Point: WA004_2...

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

[illegible]

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

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soil ³ :
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Coast Prairie Redox (A16)(LRR K, L, R)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Dark Surface (S7) (LRR K, M)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Depleted Below Dark Surface (A11)	☐ Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L)
☐ Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Sandy Gleyed Matrix (S4)		☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Redox (S5)		☐ Red Parent Material (F21)
☐ Stripped Matrix (S6)		☐ Very Shallow Dark Surface (TF12)
☐ Dark Surface (S7) (LRR R, MLRA 149B)		☐ Other (explain in remarks)
Restrictive Layer (if observed): ☐	Hydric Soil Present? <u>No</u>	
Type: _____		
Depth (inches): _____		
Remarks:		
Soil is dark sandy loam over a mixed layer of sandy clay loam. The profile does not meet any hydric soil indicators.		