

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 2015-07-08
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CLC5005d1W_R
 Investigator(s): ACM/LEB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local Relief (concave, convex, none): Conca... Slope (%): 0-2
 Subregion (LRR or MLRA): _____ Latitude: 47.6629538555... Longitude: -95.40717973... Datum: Minnesota State ...
 Soil Map Unit Name: 544 NWI Classification: PSS1B

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>Yes</u>	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: _____
Hydric Soil Present?	<u>Yes</u>	
Wetland Hydrology Present?	<u>Yes</u>	
Remarks: (Explain alternative procedures here or in a separate report.) The wetland is a fresh wet meadow located in a cleared pipeline corridor that is partially grazed and surrounded by a Shrub-Carr. It is largely dominate...		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>no</u> Surface Water (A1)	<u>no</u> Water-Stained Leaves (B9)	<u>no</u> Surface Soil Cracks (B6)
<u>yes</u> High Water Table (A2)	<u>no</u> Aquatic Fauna (B13)	<u>no</u> Drainage Patterns (B10)
<u>yes</u> Saturation (A3)	<u>no</u> Marl Deposits (B15)	<u>no</u> Moss Trim Lines (B16)
<u>no</u> Water Marks (B1)	<u>no</u> Hydrogen Sulfide Odor (C1)	<u>no</u> Dry-Season Water Table (C2)
<u>no</u> Sediment Deposits (B2)	<u>no</u> Oxidized Rhizospheres on Living Roots (C3)	<u>no</u> Crayfish Burrows (C8)
<u>no</u> Drift Deposits (B3)	<u>no</u> Presence of Reduced Iron (C4)	<u>no</u> Saturation Visible on Aerial Imagery (C9)
<u>no</u> Algal Mat or Crust (B4)	<u>no</u> Recent Iron Reduction in Tilled Soils (C6)	<u>yes</u> Stunted/Stressed Plants (D1)
<u>no</u> Iron Deposits (B5)	<u>no</u> Thin Muck Surface (C7)	<u>yes</u> Geomorphic Position (D2)
<u>no</u> Inundation Visible on Aerial Imagery (B7)	<u>no</u> Other (Explain in Remarks)	<u>no</u> Shallow Aquitard (D3)
<u>no</u> Sparsely Vegetated Concave Surface (B8)		<u>yes</u> Microtopographic Relief (D4)
		<u>yes</u> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? <u>No</u>	Depth (inches) _____	Wetland Hydrology Present? <u>Yes</u>
Water Table Present? <u>No</u>	Depth (inches) _____	
Saturation Present? <u>Yes</u> (includes capillary fringe)	Depth (inches) <u>0</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The wetland is located in a depression and is saturated at the surface.		

Sampling Point: CLC5005d...

		Absolute	Dominant	Indicator	Dominance Test worksheet: Number of Dominant Species _____ That Are OBL, FACW, or FAC: ² _____ (A) Total Number of Dominant _____ ² _____ Species Across All Strata: _____ (B) Percent of Dominant Species _____ That Are OBL, FACW, or FAC: ¹⁰⁰ _____ (A/B)
<u>Tree Stratum</u>	(Plot Size: _____)	% Cover	Species?	Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		0 _____	= Total Cover		Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species <u>29.00</u> x 1 <u>29</u> FACW species <u>64.00</u> x 2 <u>128</u> FACU species <u>5.00</u> x 3 <u>0</u> UPL species <u>0.00</u> x 4 <u>0</u> Column Totals <u>98</u> (A) <u>172</u> (B) Prevalence Index = B/A = <u>1.7551020...</u>
<u>Sapling/Shrub Stratum</u>	(Plot Size: _____)				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		0 _____	= Total Cover		Hydrophytic Vegetation Indicators: <u>yes</u> 1 - Rapid Test for Hydrophytic Vegetation <u>yes</u> 2 - Dominance Test is > 50% <u>yes</u> 3 - Prevalence Index is ≤ 3.0 ¹ _____ 4 - 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.
<u>Herb Stratum</u>	(Plot Size: <u>5 ft</u> _____)				
1.	<u>Phalaris arundinacea</u>	<u>50.00</u>	<u>Yes</u>	<u>FACW</u>	
2.	<u>Carex lacustris</u>	<u>25.00</u>	<u>Yes</u>	<u>OBL</u>	
3.	<u>Impatiens capensis</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
4.	<u>Urtica dioica</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	
5.	<u>Solidago gigantea</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
6.	<u>Asclepias incarnata</u>	<u>2.00</u>	<u>No</u>	<u>OBL</u>	
7.	<u>Equisetum sylvaticum</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	
8.	<u>Scirpus atrovirens</u>	<u>2.00</u>	<u>No</u>	<u>OBL</u>	
9.	<u>Equisetum pratense</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
		98 _____	= Total Cover		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 herbaceous (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.
<u>Woody Vine Stratum</u>	(Plot Size: _____)				Hydrophytic Vegetation Present? _____
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
		0 _____	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet.) The vegetation is largely dominated by reed canary grass and lake sedge.					

SOIL

Sampling Point: CLC5005d...

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? Yes _____	
Type: _____		
Depth (inches): _____		
Remarks:		
Soils were not sampled due to the location over existing pipelines. Soils are assumed to be hydric based on the landscape position and dominance of hydrophytic vegetation.		