

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: L3R City/County: Marshall Sampling Date: 2015-06-04
Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-155n46w2-g_R1
Investigator(s): BCS/LEB Section, Township, Range: S2 T155N R46W
Landform (hillslope, terrace, etc.): Dip Local Relief (concave, convex, none): LL Slope (%): 0-2
Subregion (LRR or MLRA): LRR F Latitude: 48.2749892352... Longitude: -96.52908112...
Datum: Minnesota State Plane North, NAD 83 (2011) U.S. feet
Soil Map Unit Name: I65A 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? YesAre Vegetation No, Soil Yes, 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?	Yes	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:
Hydric Soil Present?	Yes	
Wetland Hydrology Present?	Yes	

Remarks: (Explain alternative procedures here or in a separate report.)
Wetland is a fresh wet meadow fringe adjacent to a cattail marsh, and is dominated by slough sedge and reed canary grass. The wetland is located withi...

VEGETATION - Use scientific names of plants.

Tree Stratum	(Plot Size: 30)	Absolute % Cover	Dominant Species?	Indicator Status
1.				
2.				
3.				
4.				
		0	= Total Cover	
Sapling/Shrub Stratum	(Plot Size: 10)			
1.				
2.				
3.				
4.				
5.				
		0	= Total Cover	
Herb Stratum	(Plot Size: 5)			
1. Carex atherodes		45.00	Yes	OBL
2. Phalaris arundinacea		30.00	Yes	FACW
3. Rumex occidentalis		5.00	No	OBL
4. Mentha arvensis		5.00	No	FACW
5.				
6.				
7.				
8.				
9.				
10.				
		85	= Total Cover	
Woody Vine Stratum	(Plot Size:)			
1.				
2.				
		0	= Total Cover	
% Bare Ground in Herb Stratum		15		

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 (A/B)
Prevalence Index worksheet:
Total % Cover of: Multiply by:
OBL species 50.00 x 1 50
FACW species 35.00 x 2 70
FACU species 0.00 x 3 0
UPL species 0.00 x 4 0
Column Totals 85 (A) 120 (B)
Prevalence Index = B/A = 1.4117647...
Hydrophytic Vegetation Indicators:
yes 1 - Rapid Test for Hydrophytic Vegetation
yes 2 - Dominance Test is > 50%
yes 3 - Prevalence Index is ≤ 3.0¹
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.

Hydrophytic Vegetation Present?

Remarks:
Sample area is dominated by slough sedge and reed canary grass, with field mint and western dock interspersed.

SOIL

Sampling Point: w-155n46...

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

Depth	Matrix	Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-12	10YR 2 1	100					SCL		
12-22	10YR 2 1	100					VFSL		

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)

☐ 1cm Muck (A9) (LRR F, G, H)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ 2.5cm Mucky Peat or Peat (S2)(LRR G, H)

☐ 5cm Mucky Peat or Peat (S3) (LRR F)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ 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)

☐ High Plains Depressions (F16)

(MLRA 72 & 73 of LRR H)

Indicators for Problematic Hydric Soil³:

☐ 1cm Muck (A9) (LRR I, J)

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

☐ Dark Surface (S7) (LRR G)

☐ High Plains Depressions (F16)

(LRR H outside of MLRA 72 & 73)

☐ Reduced Vertic (F18)

☐ Red Parent Material (F21)

☐ Very Shallow Dark Surface (TF12)

☒ Other (explain in remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present): ☐

Type:

Depth (inches):

Hydric Soil Present? Yes

Remarks:

The soil profile is black with no visible redox; another hole dug nearby was also black throughout the profile. The profile does not meet any hydric soil indicators; however, soils are assumed to meet hydric indicator A12 based on the presence of surface water and dominance of hydrophytic vegetation. A depleted matrix is likely present much deeper in the profile.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

yes Surface Water (A1)

yes High Water Table (A2)

yes Saturation (A3)

Water Marks (B1)

Sediment Deposits (B2)

Drift Deposits (B3)

Algal Mat or Crust (B4)

Iron Deposits (B5)

Water-Stained Leaves (B9)

Inundation Visible on Aerial Imagery (B7)

Salt Crust (B11)

Aquatic Invertebrates (B13)

Hydrogen Sulfide Odor (C1)

Dry-Season Water Table (C2)

Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

Presence of Reduced Iron (C4)

Thin Muck Surface (C7)

Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

Surface Soil Cracks (B6)

Sparsely Vegetated Concave Surface (B8)

Drainage Patterns (B10)

Oxidized Rhizospheres on Living Roots (C3)

(where tilled)

Crayfish Burrows (C8)

Saturation Visible on Aerial Imagery (C9)

yes Geomorphic Position (D2)

FAC-Neutral Test (D5)

Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present? Yes

Water Table Present? Yes

Saturation Present? Yes

(includes capillary fringe)

Depth (inches) 1

Depth (inches) 0

Depth (inches) 0

Wetland Hydrology Present? Yes

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

Remarks:

1 inch of standing water was observed at sample point; water table and saturation are present at the surface.

Site Photograph 1

Sampling Point: w-155n46w2-g_R1