

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Date:	06/28/14
Applicant:	Enbridge	County:	Kittson
Investigators:	EAB/RAJ	State:	MN
Soil Unit:	1132A	Subregion (MLRA or LRR):	MLRA 56
Landform:	Depression	NWI Classification:	
Slope (%):	0 - 2%	Local Relief:	CL
	Latitude: 48.565527	Longitude: -96.933098	Datum:
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?	Are normal circumstances present?		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Section:			
Township:			
Range:			Dir:

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? Yes Hydric Soils Present? Yes

Wetland Hydrology Present? Yes **Is This Sampling Point Within A Wetland? Yes**

Remarks: **The wetland is a shallow marsh located within a roadside ditch. Woolly sedge dominates the site. A wheat field lies adjacent to the ditch to the east.**

HYDROLOGY

Wetland Hydrology Indicators (Check all that apply; Minimum of one primary or two secondary required):

<u>Primary:</u>		<u>Secondary:</u>
<input checked="" type="checkbox"/> A1 - Surface Water	<input type="checkbox"/> B11 - Salt Crust	<input type="checkbox"/> B6 - Surface Soil Cracks
<input type="checkbox"/> A2 - High Water Table	<input type="checkbox"/> B13 - Aquatic Fauna	<input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface
<input checked="" type="checkbox"/> A3 - Saturation	<input type="checkbox"/> C1 - Hydrogen Sulfide Odor	<input type="checkbox"/> B10 - Drainage Patterns
<input type="checkbox"/> B1 - Water Marks	<input type="checkbox"/> C2 - Dry Season Water Table	<input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (tilled)
<input type="checkbox"/> B2 - Sediment Deposits	<input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (not tilled)	<input type="checkbox"/> C8 - Crayfish Burrows
<input type="checkbox"/> B3 - Drift Deposits	<input type="checkbox"/> C4 - Presence of Reduced Iron	<input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery
<input type="checkbox"/> B4 - Algal Mat or Crust	<input type="checkbox"/> C7 - Thin Muck Surface	<input checked="" type="checkbox"/> D2 - Geomorphic Position
<input type="checkbox"/> B5 - Iron Deposits	<input type="checkbox"/> Other (Explain)	<input checked="" type="checkbox"/> D5 - FAC-Neutral Test
<input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery		<input type="checkbox"/> D7 - Frost-Heaved Hummocks (LRR F)
<input type="checkbox"/> B9 - Water-Stained Leaves		

Field Observations:

Surface Water Present? Yes <input checked="" type="checkbox"/>	Depth: <u>8</u> (in.)	Wetland Hydrology Present? <u>Y</u>
Water Table Present? Yes <input type="checkbox"/>	Depth: _____ (in.)	
Saturation Present? Yes <input checked="" type="checkbox"/>	Depth: <u>0</u> (in.)	

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

Remarks: **Recent rains have influenced the current surface water level. The water table depth is unknown since soils could not be sampled within the roadside ditch.**

SOILS

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix		Mottles				Texture	Remarks
	Color (Moist)	%	Color (Moist)	%	Type	Location		

NRCS Hydric Soil Field Indicators (check here if indicators are not present):

<input type="checkbox"/> A1 - Histosol	<input type="checkbox"/> S5 - Sandy Redox	Indicators for Problematic Soils¹
<input type="checkbox"/> A2 - Histic Epipedon	<input type="checkbox"/> S6 - Stripped Matrix	<input type="checkbox"/> A9 - 1 cm Muck (LRR I, J)
<input type="checkbox"/> A3 - Black Histic	<input type="checkbox"/> F1 - Loamy Mucky Mineral	<input type="checkbox"/> A16 - Cost Prairie Redox (LRR F, G, H)
<input type="checkbox"/> A4 - Hydrogen Sulfide	<input type="checkbox"/> F2 - Loamy Gleyed Matrix	<input type="checkbox"/> S7 - Dark Surface (LRR G)
<input type="checkbox"/> A5 - Stratified Layers (LRR F)	<input type="checkbox"/> F3 - Depleted Matrix	<input type="checkbox"/> F16 - High Plains Depressions (LRR H, outside MLRA 72, 73)
<input type="checkbox"/> A9 - 1 cm Muck (LRR FGH)	<input type="checkbox"/> F6 - Redox Dark Surface	<input type="checkbox"/> F18 - Reduced Vertic
<input type="checkbox"/> A11 - Depleted Below Dark Surface	<input type="checkbox"/> F7 - Depleted Dark Surface	<input type="checkbox"/> TF2 - Red Parent Material
<input type="checkbox"/> A12 - Thick Dark Surface	<input type="checkbox"/> F8 - Redox Depressions	<input type="checkbox"/> TF12 - Very Shallow Dark Surface
<input type="checkbox"/> S1 - Sandy Mucky Mineral	<input type="checkbox"/> F16 - High Plains Depressions (MLRA 72, 73 of LRR H)	<input checked="" type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)		
<input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat (LRR F)		
<input type="checkbox"/> S4 - Sandy Gleyed Matrix		

¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____ Depth: _____ **Hydric Soil Present? Y**

Remarks: **Soils could not be sampled due to potential buried utilities. Soils are assumed to be hydric based on the landscape position and dominance of hydrophytic vegetation.**

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Project/Site: **L3R** Sample Point: **w-159n49w25-d2**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft. radius)

1.	Species Name	% Cover	Dominant	Ind. Status
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

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)

Total Cover = 0

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	<u>65</u>	x 1 =	<u>65</u>
FACW spp.	<u>30</u>	x 2 =	<u>60</u>
FAC spp.	<u>0</u>	x 3 =	<u>0</u>
FACU spp.	<u>10</u>	x 4 =	<u>40</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>
Total		<u>105</u> (A)	<u>165</u> (B)

Prevalence Index = B/A = 1.571

Sapling/Shrub Stratum (Plot size: 15 ft. radius)

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Hydrophytic Vegetation Indicators:

 Rapid Test for Hydrophytic Vegetation

X Dominance Test is > 50%

X Prevalence Index is ≤ 3.0 *

 Morphological Adaptations (Explain) *

 Problem Hydrophytic Vegetation (Explain) *

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

Total Cover = 0

Herb Stratum (Plot size: 5 ft. radius)

1.	Carex pellita	60	Y	OBL
2.	Spartina pectinata	20	N	FACW
3.	Symphotrichum lanceolatum	10	N	FACW
4.	Cirsium arvense	5	N	FACU
5.	Alisma triviale	5	N	OBL
6.	Elymus repens	5	N	FACU
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Definitions of Vegetation Strata:

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

Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.

Herb - All herbaceous (non-woody) plants, regardless of size.

Woody Vines - All woody vines, regardless of height.

Total Cover = 105

Woody Vine Stratum (Plot size: 30 ft. radius)

1.				
2.				
3.				
5.				
4.				

Hydrophytic Vegetation Present? Y

Remarks: **The vegetation is dominated by woolly sedge. Prairie cordgrass and white aster are also common.**

Additional Remarks: