

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Subregion (MLRA or LRR):	MLRA 56	Date:	09/23/14
Applicant:	Enbridge	County:	Pennington	State:	MN
Investigators:	RAJ/BJC	NWI Classification:		Sample Point:	w-154n44w33-u1
Soil Unit:	I62A	Local Relief:	CC	Latitude:	48.122395
Landform:	Depression	Longitude:	-96.313804	Datum:	
Slope (%):	0 - 2%	Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?			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: **A sedge meadow dominated by woolly sedge, arctic rush, and other graminoids near a roadside ditch south of Highway 1. The wetland includes small scattered areas of fresh/wet meadow over the existing pipelines. All parameters of wetland conditions are met.**

HYDROLOGY

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

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

Surface Water Present? Yes <input type="checkbox"/> Depth: _____ (in.) Water Table Present? Yes <input type="checkbox"/> Depth: _____ (in.) Saturation Present? Yes <input type="checkbox"/> Depth: _____ (in.)	Wetland Hydrology Present? <u>Y</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: **Indicators of wetland hydrology are present.**

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
0-4	Hue_10YR	2/1	100					MMI	the mineral component is sandy clay loam	
4-6	Gley1	6/10GY	90	Hue_10YR	6/6	10	C	M	SC	calcic accumulation
6-18	Gley1	4/5GY	60						SC	
6-18	Hue_2.5Y	5/3	40						S	

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

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

Restrictive Layer Type: _____	Depth: _____	Hydric Soil Present? <u>Y</u>
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Remarks: **The soil has 4 inches of mucky mineral at the surface (with a sandy clay loam mineral component). Below that is a 2-inch gleyed layer of CaCO3 accumulation and below that a layer of mixed gleyed sandy clay and light olive-brown sand. Hydric soils are indicated.**

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: **L3R** Sample Point: **w-154n44w33-u1**

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

Tree Stratum (Plot size: 30 ft. radius)

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

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: 100.0% (A/B)

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

1.	<i>Salix discolor</i>	1	N	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Total Cover = 1

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	<u>21</u>	x 1 =	<u>21</u>
FACW spp.	<u>61</u>	x 2 =	<u>122</u>
FAC spp.	<u>1</u>	x 3 =	<u>3</u>
FACU spp.	<u>0</u>	x 4 =	<u>0</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>
Total	<u>83</u> (A)		<u>146</u> (B)

Prevalence Index = B/A = 1.759

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Juncus arcticus</i>	30	Y	FACW
2.	<i>Calamagrostis canadensis</i>	20	Y	FACW
3.	<i>Carex pellita</i>	15	N	OBL
4.	<i>Agrostis gigantea</i>	10	N	FACW
5.	<i>Scirpus pallidus</i>	3	N	OBL
6.	<i>Carex atherodes</i>	3	N	OBL
7.	<i>Bromus ciliatus</i>	1	N	FAC
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Total Cover = 82

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is > 50%

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.

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

1.				
2.				
3.				
5.				
4.				

Total Cover = 0

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.

Hydrophytic Vegetation Present? Y

Remarks: **A sedge meadow dominated by arctic rush and Canada bluejoint with woolly sedge and other graminoids. Hydrophytic vegetation is present.**

Additional Remarks: