

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site:	L3R	Subregion (MLRA or LRR):	MLRA 56	Date:	09/25/14
Applicant:	Enbridge	County:	Pennington	State:	MN
Investigators:	RAJ/BJC	NWI Classification:		Sample Point:	w-154n44w34-f1
Soil Unit:	I69A	Local Relief:	LC	Section:	
Landform:	Depression	Latitude:	48.110266	Longitude:	-96.297104
Slope (%):	0 - 2%	Datum:		Township:	
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 checked="" type="checkbox"/> Soil <input checked="" type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present?		
Are Vegetation <input checked="" type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Range:				Dir:	

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present?	Yes	Hydric Soils Present?	Yes
Wetland Hydrology Present?	Yes	<b>Is This Sampling Point Within A Wetland?</b>	<b>Yes</b>

Remarks: A swale in a disked field. The vegetation is disturbed from tillage. The soils are disturbed from tillage and probably from excavation. The wetland area looks to have been improved for field drainage.

**HYDROLOGY**

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

<p><u>Primary:</u></p> <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)	<p><u>Secondary:</u></p> <input type="checkbox"/> B6 - Surface Soil Cracks <input checked="" 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 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.)	<b>Wetland Hydrology Present?</b> <u>Y</u>
Water Table Present? Yes <input type="checkbox"/>	Depth: _____ (in.)	
Saturation Present? Yes <input type="checkbox"/>	Depth: _____ (in.)	

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

Remarks: Though this field has been disked it appears that there was much less wheat growing in this depression than in the surrounding uplands this year (based on the stubble visible in the tilled soil). The wetland area is also in an obvious linear depression.

**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		
0-4	Hue_2.5Y	4/2	100					SCL	mixed, within the tillage zone
4-11	Hue_2.5Y	5/2	60	Hue_10YR	6/8	40	C	M	COS
11-16	Hue_2.5Y	6/2	80	Hue_2.5Y	6/8	20	C	M	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 checked="" type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Mucky Mineral <input 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)	<p><b>Indicators for Problematic Soils<sup>1</sup></b></p> <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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<sup>1</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer	Type: Gravel	Depth: 16 inches	<b>Hydric Soil Present?</b> <u>Y</u>
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Remarks: Compact gravel was encountered at 16 inches which could not be dug through. The soil has a 4-inch surface of sandy clay loam with layers of depleted sands below. The profile fits indicator S5, Sandy Redox. It is likely that the surface soil in this wetland area was scraped off at some time to improve field drainage through this wetland.

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site: **L3R** Sample Point: **w-154n44w34-f1**

**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.				
		Total Cover =	<b>0</b>	

**Dominance Test Worksheet**

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)  
 Total Number of Dominant Species Across All Strata: **0** (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: **N/A** (A/B)

**Prevalence Index Worksheet**

Total % Cover of:		Multiply by:	
OBL spp.	<b>0</b>	x 1 =	<b>0</b>
FACW spp.	<b>0</b>	x 2 =	<b>0</b>
FAC spp.	<b>0</b>	x 3 =	<b>0</b>
FACU spp.	<b>0</b>	x 4 =	<b>0</b>
UPL spp.	<b>3</b>	x 5 =	<b>15</b>
Total		<b>3</b> (A)	<b>15</b> (B)
		Prevalence Index = B/A = <b>5.000</b>	

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

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		Total Cover =	<b>0</b>	

**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.

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Triticum aestivum</i>	<b>3</b>	<b>N</b>	<b>NI</b>
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
		Total Cover =	<b>3</b>	

**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.

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

1.				
2.				
3.				
5.				
4.				
		Total Cover =	<b>0</b>	

**Hydrophytic Vegetation Present?** Y

Remarks: **The only vegetation present at the sample point is sprouting wheat from grain spilled during harvest. The vegetation is disturbed from tillage.**

**Additional Remarks:**