

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site:	L3R	Date:	07/01/14
Applicant:	Enbridge	County:	Kittson
Investigators:	EAB/RAJ	State:	MN
Soil Unit:	1132A	Subregion (MLRA or LRR):	MLRA 56
Landform:	Rise	NWI Classification:	
Slope (%):	0 - 2%	Local Relief:	LL
	Latitude: 48.573624	Longitude: -96.938478	Datum:
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?			

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes      Hydric Soils Present? No

Wetland Hydrology Present? No      **Is This Sampling Point Within A Wetland? No**

Remarks: **The sample site is located on the edge of a box elder-dominated forest that slopes down into seasonally flooded black ash swamp.**

**HYDROLOGY**

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

<u>Primary:</u>		<u>Secondary:</u>
<input 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 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 till)	<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 type="checkbox"/> D2 - Geomorphic Position
<input type="checkbox"/> B5 - Iron Deposits	<input type="checkbox"/> Other (Explain)	<input 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 type="checkbox"/>	Depth: _____ (in.)	<b>Wetland Hydrology Present?</b> <u>N</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: **No wetland hydrology indicators were observed.**

**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		
0-8	Hue 10YR	2/1	100					SC	
8-18	Hue 10YR	2/1	60	Hue 2.5Y	4/1	40	D	M	SC
									5% coarse sand particles

**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 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)	<b>Indicators for Problematic Soils<sup>1</sup></b> <input type="checkbox"/> A9 - 1 cm Muck (LRR I, J) <input type="checkbox"/> A16 - Cost 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: _____	Depth: _____	<b>Hydric Soil Present?</b> <u>N</u>
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Remarks: **No hydric soil indicators were observed. The soil is wormed, and the sand suggests that the site may contain spoil excavated from a different area.**

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site: **L3R** Sample Point: **u-159n49w23-e1**

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

Tree Stratum (Plot size: 30 ft. radius)

	Species Name	% Cover	Dominant	Ind. Status
1.	<i>Acer negundo</i>	50	Y	FAC
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: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Total Cover = 50

**Prevalence Index Worksheet**

Total % Cover of:		Multiply by:	
OBL spp.	<u>0</u>	x 1 =	<u>0</u>
FACW spp.	<u>0</u>	x 2 =	<u>0</u>
FAC spp.	<u>60</u>	x 3 =	<u>180</u>
FACU spp.	<u>5</u>	x 4 =	<u>20</u>
UPL spp.	<u>90</u>	x 5 =	<u>450</u>
Total		<u>155</u> (A)	<u>650</u> (B)

Prevalence Index = B/A = 4.194

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

1.	<i>Acer negundo</i>	10	Y	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

**Hydrophytic Vegetation Indicators:**

         Rapid Test for Hydrophytic Vegetation

         X 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.

Total Cover = 10

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Bromus inermis</i>	90	Y	UPL
2.	<i>Cirsium arvense</i>	5	N	FACU
3.				
4.				
5.				
6.				
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 = 95

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

1.				
2.				
3.				
5.				
4.				

**Hydrophytic Vegetation Present?** Y

Total Cover = 0

Remarks: **The site is dominated by box elder in the canopy and smooth brome in the understory.**

**Additional Remarks:**