WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R		Date: 06/28/14
Applicant:	Enbridge		County: Kittson
Investigators:	EAB/RAJ	Subregion (MLRA or LRR): MLRA 56	State: MN
Soil Unit:	I132A	NWI Classification:	
Landform:	Talf	Local Relief: LL	Sample Point: **u-159n49w25-d1**
Slope (%):	0 - 2%	Latitude: 48.570444 Longitude: -96.932874	Datum:
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)		☐Yes ☑ No	Section:
Are Vegetation ☐ Soil ☑ or Hydrology ☐ignificantly disturbed?		Are normal circumstances present?	Township:
Are Vegetation ☐ Soil ☐ or Hydrology ☐aturally problematic?		☑ Yes ☐No	Range: Dir:

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present?	No	Hydric Soils Present? Yes	
Wetland Hydrology Present?	Yes	Is This Sampling Point Within A Wetland?	**No**

Remarks: The sample site is located in an uncropped, weedy field that drains into an adjacent roadside ditch. Curly dock and dog mustard dominate the community.

HYDROLOGY

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

Primary:
- ☐ A1 - Surface Water
- ☐ A2 - High Water Table
- ☑ A3 - Saturation
- ☐ B1 - Water Marks
- ☐ B2 - Sediment Deposits
- ☐ B3 - Drift Deposits
- ☐ B4 - Algal Mat or Crust
- ☐ B5 - Iron Deposits
- ☐ B7 - Inundation Visible on Aerial Imagery
- ☐ B9 - Water-Stained Leaves
- ☐ B11 - Salt Crust
- ☐ B13 - Aquatic Fauna
- ☐ C1 - Hydrogen Sulfide Odor
- ☐ C2 - Dry Season Water Table
- ☐ C3 - Oxidized Rhizospheres on Living Roots (not till
- ☐ C4 - Presence of Reduced Iron
- ☐ C7 - Thin Muck Surface
- ☐ Other (Explain)

Secondary:
- ☐ B6 - Surface Soil Cracks
- ☐ B8 - Sparsely Vegetated Concave Surface
- ☐ B10 - Drainage Patterns
- ☐ C3 - Oxidized Rhizospheres on Living Roots (tilled)
- ☐ C8 - Crayfish Burrows
- ☐ C9 - Saturation Visible on Aerial Imagery
- ☐ D2 - Geomorphic Position
- ☐ D5 - FAC-Neutral Test
- ☐ D7 - Frost-Heaved Hummocks (LRR F)

Field Observations:

Surface Water Present?	Yes	☐	Depth:	(in.)
Water Table Present?	Yes	☑	Depth: 14	(in.)
Saturation Present?	Yes	☑	Depth: 5	(in.)

Wetland Hydrology Present? Y

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

Remarks: Recent rains have influenced the current water table and saturation depths.

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)

	Matrix			Mottles						
Depth (In.)	Color (Moist)		%	Color (Moist)		%	Type	Location	Texture	Remarks
0-12	Hue_10YR	2/1	100						C	
12-18	Hue_2.5Y	4/1	80	Hue_10YR	3/6	1	C	M	C	
12-18	Hue_10YR	3/1	19						C	

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

- ☐ A1- Histosol
- ☐ A2 - Histic Epipedon
- ☐ A3 - Black Histic
- ☐ A4 - Hydrogen Sulfide
- ☐ A5 - Stratified Layers (LRR F)
- ☐ A9 - 1 cm Muck (LRR FGH)
- ☐ A11 - Depleted Below Dark Surface
- ☑ A12 - Thick Dark Surface
- ☐ S1 - Sandy Mucky Mineral
- ☐ S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)
- ☐ S3 - 5 cm Mucky Peat or Peat (LRR F)
- ☐ S4 - Sandy Gleyed Matrix
- ☐ S5 - Sandy Redox
- ☐ S6 - Stripped Matrix
- ☐ F1 - Loamy Mucky Mineral
- ☐ F2 - Loamy Gleyed Matrix
- ☐ F3 - Depleted Matrix
- ☐ F6 - Redox Dark Surface
- ☐ F7 - Depleted Dark Surface
- ☐ F8 - Redox Depressions
- ☐ F16 - High Plains Depressions (MLRA 72, 73 of LRR H)

Indicators for Problematic Soils[1]
- ☐ A9 - 1 cm Muck (LRR I, J)
- ☐ A16 - Cost Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outisde MLRA 72, 73)
- ☐ F18 - Reduced Vertic
- ☐ TF2 - Red Parent Material
- ☐ TF12 - Very Shallow Dark Surface
- ☐ Other (Explain in Remarks)

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

Restrictive Layer Type: Depth:

Hydric Soil Present? Y

Remarks: Soils have been disturbed by past farming activity and nearby powerline construction. The observed hydric soils may be relict or a result of these disturbances.

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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 = 0

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

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

Total Cover = 0

Herb Stratum (Plot size: 5 ft. radius)

1.	*Rumex crispus*	50	Y	FAC
2.	*Erucastrum gallicum*	25	Y	NI
3.	*Artemisia annua*	25	Y	FACU
4.	*Ambrosia trifida*	10	N	NI
5.	*Polygonum achoreum*	1	N	FACU
6				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

Total Cover = 111

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

1.				
2.				
3.				
5.				
4.				

Total Cover = 0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: ***33.3%*** (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	50	x 3 =	150
FACU spp.	26	x 4 =	104
UPL spp.	35	x 5 =	175
Total	111 (A)		429 (B)

Prevalence Index = B/A = ***3.865***

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.

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? N

Remarks: The vegetation is dominated by curly dock, dog mustard, and annual wormwood. The field is probably cropped in some years.

Additional Remarks: