WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: **L3R**		Date: **09/13/14**
Applicant: **Enbridge**		County: **Pennington**
Investigators: **BEH/MRK/RAJ**	Subregion (MLRA or LRR): **MLRA 56**	State: **MN**
Soil Unit: **I75A**	NWI Classification:	
Landform: **Talf**	Local Relief: **LL**	Sample Point: **u-154n44w31-g1**
Slope (%): **0 - 2%**	Latitude: **48.12253284** Longitude: **-96.35788063** 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 ☐significantly disturbed?	Are normal circumstances present?	Township:
Are Vegetation ☐ Soil ☐, or Hydrology ☐naturally problematic?	☑ Yes ☐ No	Range: Dir:

SUMMARY OF FINDINGS

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

Remarks: Upland sample point in a sparsely vegetated gravel pit. The sample point is located above an excavated wetland.

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 tilled)
- ☐ 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: _____ (in.)	**Wetland Hydrology Present? N**
Saturation Present?	Yes	☐	Depth: _____ (in.)	

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

Remarks: No primary or secondary hydrological 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 Color (Moist)	%	Mottles Color (Moist)	%	Type	Location	Texture	Remarks
0-1	Hue_10YR 2/2	100					FS	abundant pebbles
1-7	Hue_2.5Y 6/3	97	Hue_10YR 5/8	3	C	M	FS	abundant pebbles
7-14	Hue_2.5Y 8/2	85	Hue_10YR 6/8	12	C	M	FS	
			Hue_10YR 5/6	3	C	M	FS	
14-16	Hue_2.5YR 5/8	90	Hue_2.5YR 3/4	10	C	M	FS	oxidized iron

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 - Coast Prairie Redox (LRR F, G, H)
- ☐ S7 - Dark Surface (LRR G)
- ☐ F16 - High Plains Depressions (LRR H, outside 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: large rocks	Depth: 16 inches	**Hydric Soil Present? _____N_____**

Remarks: Soil was only sampled to 16 inches due to large rocks impeding digging. The profile is multiple layers of various-colored fine sand with varying percentages of redox concentrations. The bottom layer is very orange and appears to be oxidized iron masking the sand particles. No hydric soil indicators are met.

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Project/Site:	L3R	Sample Point:	u-154n44w31-g1

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)

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
	Total Cover =	0		

Herb Stratum (Plot size: 5 ft. radius)

	Species Name	% Cover	Dominant	Ind.Status
1.	Melilotus officinalis	20	Y	FACU
2.	Medicago lupulina	10	Y	FACU
3.	Salsola kali	5	N	FACU
4.	Ambrosia artemisiifolia	5	N	FACU
5.	Artemisia biennis	3	N	FACU
6	Panicum capillare	3	N	FAC
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
	Total Cover =	46		

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

	Species Name	% Cover	Dominant	Ind.Status
1.				
2.				
3.				
5.				
4.				
	Total Cover =	0		

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0   (A)

Total Number of Dominant Species Across All Strata: 2   (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0%   (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	3	x 3 =	9
FACU spp.	43	x 4 =	172
UPL spp.	0	x 5 =	0
Total	46 (A)		181 (B)

Prevalence Index = B/A =   3.935

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 sample site is dominated by sweetclover and black medick.

Additional Remarks: