

**WETLAND DETERMINATION DATA FORM - North Central and Northeast Region**

Project/Site: I3\_mainline City/County: Clearwater Sampling Date: 2017-06-14  
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-146n36w35-g3  
 Investigator(s): DPT, SMR Section, Township, Range: S35, T146N, R36W  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 0-2%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Latitude: 47.4220510432... Longitude: -95.22438484... Datum: NAD83  
 Soil Map Unit Name: 1164 NWI Classification: N/A  
 Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks)

**SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present?	<u>Yes</u>	<b>Is the Sampled Area within a Wetland?</b> If yes, optional Wetland Site ID: <u>w-146n36w35-g</u>
Hydric Soil Present?	<u>Yes</u>	
Wetland Hydrology Present?	<u>Yes</u>	
Remarks: (Explain alternative procedures here or in a separate report.)		

**HYDROLOGY**

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>	
<u>no</u> Surface Water (A1)	<u>      </u> Surface Soil Cracks (B6)
<u>yes</u> High Water Table (A2)	<u>      </u> Drainage Patterns (B10)
<u>yes</u> Saturation (A3)	<u>      </u> Moss Trim Lines (B16)
<u>      </u> Water Marks (B1)	<u>      </u> Dry-Season Water Table (C2)
<u>      </u> Sediment Deposits (B2)	<u>      </u> Crayfish Burrows (C8)
<u>      </u> Drift Deposits (B3)	<u>      </u> Saturation Visible on Aerial Imagery (C9)
<u>      </u> Algal Mat or Crust (B4)	<u>no</u> Stunted/Stressed Plants (D1)
<u>      </u> Iron Deposits (B5)	<u>yes</u> Geomorphic Position (D2)
<u>      </u> Inundation Visible on Aerial Imagery (B7)	<u>      </u> Shallow Aquitard (D3)
<u>      </u> Sparsely Vegetated Concave Surface (B8)	<u>      </u> Microtopographic Relief (D4)
<u>      </u> Water-Stained Leaves (B9)	<u>yes</u> FAC-Neutral Test (D5)
<u>      </u> Aquatic Fauna (B13)	
<u>      </u> Marl Deposits (B15)	
<u>      </u> Hydrogen Sulfide Odor (C1)	
<u>      </u> Oxidized Rhizospheres on Living Roots (C3)	
<u>      </u> Presence of Reduced Iron (C4)	
<u>      </u> Recent Iron Reduction in Tilled Soils (C6)	
<u>      </u> Thin Muck Surface (C7)	
<u>      </u> Other (Explain in Remarks)	

<b>Field Observations:</b>		<b>Wetland Hydrology Present?</b>	<u>Yes</u>
Surface Water Present?	<u>No</u>	Depth (inches)	<u>      </u>
Water Table Present?	<u>Yes</u>	Depth (inches)	<u>10</u>
Saturation Present? (includes capillary fringe)	<u>Yes</u>	Depth (inches)	<u>0</u>

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

Remarks:

**VEGETATION - Use scientific names of plants.**

Sampling Point: w-146n36w35-g3

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot Size: <u>30</u> )					
1. <u>Fraxinus nigra</u>	<u>10.00</u>	<u>Yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across All Strata: <u>6</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
2. <u>Ulmus americana</u>	<u>5.00</u>	<u>Yes</u>	<u>FAC</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>15</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: <span style="float:right">Multiply by:</span> OBL species <u>60.00</u> x 1 <u>60</u> FACW species <u>60.00</u> x 2 <u>120</u> FACU species <u>10.00</u> x 3 <u>40</u> UPL species <u>0.00</u> x 4 <u>0</u> Column Totals <u>185</u> (A) <u>385</u> (B) Prevalence Index = B/A = <u>2.0810810...</u>	
<b>Sapling/Shrub Stratum</b> (Plot Size: <u>15</u> )					
1. <u>Populus balsamifera</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>		
2. <u>Populus tremuloides</u>	<u>30.00</u>	<u>Yes</u>	<u>FAC</u>		
3. <u>Ulmus americana</u>	<u>10.00</u>	<u>No</u>	<u>FAC</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>70</u> = Total Cover					
<b>Herb Stratum</b> (Plot Size: <u>5</u> )					
1. <u>Carex intumescens</u>	<u>60.00</u>	<u>Yes</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> _____ 1 - Rapid Test for Hydrophytic Vegetation <u>yes</u> 2 - Dominance Test is > 50% <u>yes</u> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup> _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u>Poa palustris</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>		
3. <u>Cirsium arvense</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>		
4. <u>Thalictrum dasycarpum</u>	<u>10.00</u>	<u>No</u>	<u>FAC</u>		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
<u>100</u> = Total Cover					
<b>Woody Vine Stratum</b> (Plot Size: <u>30</u> )					
1. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/Shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
<u>0</u> = Total Cover					
				<b>Hydrophytic Vegetation Present?</b> <span style="float:right"><u>Yes</u></span>	

Remarks: (include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: w-146n36w35-g3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features					Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>			
0-5	10YR 2 1	100					FSL		
5-12	10YR 4 2	90	10YR 4 6	10	C	M	FSL		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soil <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16)(LRR K, L, R)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, M)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A1.1)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (explain in remarks)
Restrictive Layer (if observed): <input type="checkbox"/>		
Type: _____		Hydric Soil Present? Yes _____
Depth (inches): _____		
Remarks:		