

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: I3_mainline City/County: Aitkin Sampling Date: 2017-06-06

Applicant/Owner: Enbridge State: Minnesota Sampling Point: AI126_200a20U

Investigator(s): SMT,MRG Section, Township, Range: S2, T48N, R48W

Landform (hillslope, terrace, etc.): Rise Local Relief (concave, convex, none): VL Slope (%): 8-15%

Subregion (LRR or MLRA): _____ Latitude: 46.6698836116... Longitude: -93.34446033... Datum: NAD83

Soil Map Unit Name: 1150 NWI Classification: NA

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): No

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>No</u>	Is the Sampled Area	
Hydric Soil Present?	<u>No</u>	within a Wetland?	<u>No</u>
Wetland Hydrology Present?	<u>No</u>	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

WETS analysis shows antecedent precipitation below normal.

HYDROLOGY

Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)

Primary Indicators (minimum of one is required; check all that apply)

<u>Surface Water (A1)</u>	<u>Water-Stained Leaves (B9)</u>	<u>Surface Soil Cracks (B6)</u>
<u>High Water Table (A2)</u>	<u>Aquatic Fauna (B13)</u>	<u>Drainage Patterns (B10)</u>
<u>Saturation (A3)</u>	<u>Marl Deposits (B15)</u>	<u>Moss Trim Lines (B16)</u>
<u>Water Marks (B1)</u>	<u>Hydrogen Sulfide Odor (C1)</u>	<u>Dry-Season Water Table (C2)</u>
<u>Sediment Deposits (B2)</u>	<u>Oxidized Rhizospheres on Living Roots (C3)</u>	<u>Crayfish Burrows (C8)</u>
<u>Drift Deposits (B3)</u>	<u>Presence of Reduced Iron (C4)</u>	<u>Saturation Visible on Aerial Imagery (C9)</u>
<u>Algal Mat or Crust (B4)</u>	<u>Recent Iron Reduction in Tilled Soils (C6)</u>	<u>Stunted/Stressed Plants (D1)</u>
<u>Iron Deposits (B5)</u>	<u>Thin Muck Surface (C7)</u>	<u>Geomorphic Position (D2)</u>
<u>Inundation Visible on Aerial Imagery (B7)</u>	<u>Other (Explain in Remarks)</u>	<u>Shallow Aquitard (D3)</u>
<u>Sparsely Vegetated Concave Surface (B8)</u>		<u>Microtopographic Relief (D4)</u>
		<u>FAC-Neutral Test (D5)</u>

Field Observations:

Surface Water Present?	<u>No</u>	Depth (inches) _____	Wetland Hydrology Present? <u>No</u>
Water Table Present?	<u>No</u>	Depth (inches) _____	
Saturation Present?	<u>No</u>	Depth (inches) _____	
(includes capillary fringe)			

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

Remarks:

VEGETATION - Use scientific names of plants.

 Sampling Point: Al126_200a20U

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: <u>30</u>)				Dominance Test worksheet:
1. <u>Quercus alba</u>	<u>30.00</u>	<u>Yes</u>	<u>FACU</u>	Number of Dominant Species
2. <u>Quercus palustris</u>	<u>10.00</u>	<u>Yes</u>	<u>FAC</u>	That Are OBL, FACW, or FAC: <u>1</u> (A)
3. _____	_____	_____	_____	Total Number of Dominant
4. _____	_____	_____	_____	Species Across All Strata: <u>5</u> (B)
5. _____	_____	_____	_____	Percent of Dominant Species
6. _____	_____	_____	_____	That Are OBL, FACW, or FAC: <u>20</u> (A/B)
7. _____	_____	_____	_____	Prevalence Index worksheet:
	<u>40</u>	= Total Cover		Total % Cover of:
Sapling/Shrub Stratum (Plot Size: <u>15</u>)				Multiply by:
1. <u>Corylus cornuta</u>	<u>60.00</u>	<u>Yes</u>	<u>UPL</u>	OBL species <u>0.00</u> x 1 <u>0</u>
2. _____	_____	_____	_____	FACW species <u>0.00</u> x 2 <u>0</u>
3. _____	_____	_____	_____	FACU species <u>100.00</u> x 3 <u>400</u>
4. _____	_____	_____	_____	UPL species <u>85.00</u> x 4 <u>425</u>
5. _____	_____	_____	_____	Column Totals <u>195</u> (A) <u>855</u> (B)
6. _____	_____	_____	_____	Prevalence Index = B/A = <u>4.3846153...</u>
7. _____	<u>60</u>	= Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot Size: <u>5</u>)				_____ 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Galium boreale</u>	<u>70.00</u>	<u>Yes</u>	<u>FACU</u>	<u>no</u> 2 - Dominance Test is > 50%
2. <u>Fragaria vesca</u>	<u>25.00</u>	<u>Yes</u>	<u>UPL</u>	<u>no</u> 3 - Prevalence Index is ≤ 3.0 ¹
3. _____	_____	_____	_____	_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4. _____	_____	_____	_____	Problematic Hydrophytic Vegetation ¹ (Explain)
5. _____	_____	_____	_____	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	Definitions of Vegetation Strata:
7. _____	_____	_____	_____	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
8. _____	_____	_____	_____	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. _____	_____	_____	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10. _____	_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
11. _____	<u>95</u>	= Total Cover		Hydrophytic Vegetation Present? _____
12. _____				
Woody Vine Stratum (Plot Size: <u>30</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	<u>0</u>	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: AI126_200a20U

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 ¹	Loc ²		
0-10	10YR 2 1	100					SL	
10-24	10YR 3 2	100					FSL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☐ Histosol (A1)

☐ Histic Epipedon (A2)

☐ Black Histic (A3)

☐ Hydrogen Sulfide (A4)

☐ Stratified Layers (A5)

☐ Depleted Below Dark Surface (A11)

☐ Thick Dark Surface (A12)

☐ Sandy Mucky Mineral (S1)

☐ Sandy Gleyed Matrix (S4)

☐ Sandy Redox (S5)

☐ Stripped Matrix (S6)

☐ Dark Surface (S7) (LRR R, MLRA 149B)

☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)

☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)

☐ Loamy Mucky Mineral (F1) (LRR K, L)

☐ Loamy Gleyed Matrix (F2)

☐ Depleted Matrix (F3)

☐ Redox Dark Surface (F6)

☐ Depleted Dark Surface (F7)

☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soil³:

☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)

☐ Coast Prairie Redox (A16)(LRR K, L, R)

☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)

☐ Dark Surface (S7) (LRR K, M)

☐ Polyvalue Below Surface (S8) (LRR K, L)

☐ Thin Dark Surface (S9) (LRR K, L)

☐ Iron-Maganese Masses (F12) (LRR K, L, R)

☐ Piedmont Floodplain Soils (F19) (MLRA 149B)

☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)

☐ Red Parent Material (F21)

☐ Very Shallow Dark Surface (TF12)

☐ Other (explain in remarks)

Restrictive Layer (if observed):

☐

Type:

Depth (inches):

Hydric Soil Present? No

Remarks: