WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: RSA 22	City/County:	St. Louis San			mpling Date: 14-Sep-17	
Applicant/Owner: Enbridge		State:	MN	Sampling Point	w-50n19w21-e1	
Investigator(s): DPT	Section, To	ownship, Rang	e: S. 21	T. 50N	R. 19W	
Landform (hillslope, terrace, etc.): Lowland	Local relief (c	oncave, conve	x, none):	concave	Slope: <u>0.0</u> % / <u>0.0</u> °	
Subregion (LRR or MLRA): LRR K Lat.	46 48.5760	L	ong.: -92	2 45.6146	Datum: NAD 83	
Soil Map Unit Name: F135A	<u>1</u>			WI classificatio	n: PFOB	
	ntly disturbed? problematic?	(If neede	nal Circur d, explair	, explain in Rema nstances" presen n any answers in ansects, imp	nt? Yes • No O Remarks.)	
Hydrophytic Vegetation Present?YesNoHydric Soil Present?YesNoWetland Hydrology Present?YesNo		e Sampled Area n a Wetland?	a Yes	● No ○		
Remarks: (Explain alternative procedures here or in a separate rep	port.)					

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)					
Primary Indicators (minimum of one required;	check all that apply)	Surface Soil Cracks (B6)					
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)					
✓ High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)					
Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)					
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)					
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)					
Drift deposits (B3)	Presence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)					
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)					
Sparsely Vegetated Concave Surface (B8)		✓ FAC-neutral Test (D5)					
Field Observations:							
Surface Water Present? Yes O No 🖲	Depth (inches): 0						
Water Table Present? Yes No	Depth (inches): 2	rdrology Present? Yes 🖲 No 🔾					
Saturation Present? Yes • No ·	Wetland Hy Depth (inches): 0	rdrology Present? Yes 🔍 No 🔾					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Remarks:							

VEGETATION - Use scientific names of plants

VEGETATION - Ose scientific names of plants				Sampling Point: w-50n19w21-e1			
Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:			
1. Picea mariana	70		FACW	Number of Dominant Species That are OBL, FACW, or FAC: 3(A)			
2							
3				Total Number of Dominant			
4				Species Across All Strata: (B)			
				Percent of dominant Species			
5				That Are OBL, FACW, or FAC:(A/B)			
6 7.	0			Prevalence Index worksheet:			
1							
Sapling/Shrub Stratum (Plot size: 15)	=	Total Cover					
1. Ledum groenlandicum	10	\checkmark	OBL				
2	0			FACW species $70 \times 2 = 140$			
3				FAC species $0 \times 3 = 0$			
4				FACU species $0 \times 4 = 0$			
5	-			UPL species x 5 =			
6				Column Totals: (A) (B)			
7				Prevalence Index = B/A = 1.778			
		Total Cove					
Herb Stratum (Plot size: 5)	10 -			Hydrophytic Vegetation Indicators:			
1. Carex laslocarpa	10	\checkmark	OBL	Rapid Test for Hydrophytic Vegetation			
2				✓ Dominance Test is > 50%			
3				V Prevalence Index is \leq 3.0 ¹			
4				Morphological Adaptations ¹ (Provide supporting			
				data in Remarks or on a separate sheet)			
5				Problematic Hydrophytic Vegetation ¹ (Explain)			
6				¹ Indicators of hydric soil and wetland hydrology must			
7				be present, unless disturbed or problematic.			
8				Definitions of Vegetation Strata:			
9				-			
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
11				at breast height (DDF), regardless of height.			
12				Sapling/shrub - Woody plants less than 3 in. DBH and			
Woody Vine Stratum (Plot size: 30)	10 =	Total Cove		greater than 3.28 ft (1m) tall			
	0			Herb - All herbaceous (non-woody) plants, regardless of			
2	0			size, and woody plants less than 3.28 ft tall.			
3	0			Measter in a All was during a substantian 2 00 ft in			
3	0			Woody vine - All woody vines greater than 3.28 ft in height.			
7	0 =	Total Cove					
				Hydrophytic			
				Vegetation			
				Present? Yes V No U			
Remarks: (Include photo numbers here or on a separate she	et.)						

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

US Army Corps of Engineers

Open (Inches) Color (moles) % Color (moles) % Type * Loc* Texture Remarks 0.24 10/R 2/2 100 Prod Prod Prod 0.11 10/R 2/2 100 Prod Prod Prod 0.11 10/R 2/2 100 Prod Prod Prod Prod 0.11 10/R 10/R 10/R Prod	Profile Desci	ription: (Describe to	the depth r	needed to document	the indicator or	confirm the a	absence of indicators.)	
0.24 10YR 2/2 100 Peat 0.224 10YR 2/2 100 Peat 0.225 100 Peat Peat Peat 0.226 10YR 2 Cm Muck All State Peat 1 Piptogon (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 1498) Peat Peat 1 Phytogon Sulfak (A1) Polyvalue Below Surface (S3) (LRR K, L, R) Peat Peat 1 Phytogon Sulfak (A2) Phytogon Sulfak (A10) (RR K, L, R) Peat Peat 1 Phytogon Sulfak (A1) Dapteted Matrix (F2) Polyvalue Below Varks (S3) (RR K, L, R) Polyvalue Below Varks (S3) (RR K, L, R) 1 Depleted Bark Surface (A12) Depleted Dark Surface (F7) <t< th=""><th></th><th>Matrix</th><th></th><th>Re</th><th>lox Features</th><th></th><th></th><th></th></t<>		Matrix		Re	lox Features			
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators:	(inches)	Color (moist)	%	Color (moist)	% Туре	2 ¹ Loc ²	Texture	Remarks
Hydric Soil Indicators: Indicators for Problematic Hydric Soils : ³ Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Think Dark Surface (A12) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Depleted Dark Surface (F7) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Sandy Redox (S5) Redox Depressions (F8) Think cater (S7) (LRR R, MLRA 149B) Wesic Spodic (TA6) (MLRA 144A, 145, 149B) Mesic Spodic (TA6) Wesic Spodic (TA6) (MLRA 144B) Sandy Redox (S5) Wesic Soil Cater (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Wesic Spodic (TA6) (MLRA 144A, 145, 149B) Mesic Soil Cater (F6) Wesic Spodic (TA6) (MLRA 144B) Mesic Spodic (TA6) Mesic Spodic (TA6) (MLRA 144B) Mesic Spodic (TA6) Wesic Spodic (TA6) (MLRA 144B) Mesic Soil Cater (F7) Wesic Spodic (TA6) (MLRA 144A, 145, 149B) Mesic Spodici (T	0-24	10YR 2/2	100				Peat	
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Image: Stripped Matrix (S6) Image: Red Palent Material (121) Image: Depth (inches): Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material (121) Image: Red Palent Material							Mesic Spodic (TA6)	(MLRA 144A, 145, 149B)
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³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Dark Surf	face (S7) (LRR R, MLR)	A 149B)					
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Type: Depth (inches):	mulcators o		un and wellar	iu fiyulology filust be p	ilesent, unless uist			
Depth (inches): Hydric Soil Present? Yes No	Restrictive L	ayer (if observed):						
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	Depth (inc	hes):					Hydric Soil Present?	Yes $ullet$ No $igcup$
	Remarks:							