WETL	AND DETE	RMINATION DATA I	ORM - North Cer	ntral and No	rtheast Region		
Project/Site: L3R	Ci	City/County: Clearwater			Sampling Date: 2016-06-21		
Applicant/Owner: Enbridge		State: Minnesota			Sampling Point: w-149n37w34-ac1		
Investigator(s): DPT, ZCW		Section, Townshi	p, Range: S34, T149	9N, R37W			
Landform (hillslope, terrace, etc.): Depre	ession		Local Relief (conca	ave, convex, n	one): CC	Slope (%	
Subregion (LRR or MLRA):		Latitude: 47	7.6778076356		-95.38678740	Datum: NAD	
Soil Map Unit Name: 38C2				0		ification: PSS10	
Are climatic/hydrologic conditions on th	e site typic	al for this time of year	? (if no explain in R	Remarks):		Yes	
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hy					s" present? Yes		
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydr							
			c: (ii lieeded, expi	ani any answe			
SUMMARY OF FINDINGS - Attach sit	e map shov		cations, transects,	important fe	atures, etc.		
Hydrophytic Vegetation Present?	getation Present? Yes Is the Sampled Area			ea			
Hydric Soil Present?		Yes	within a Wetland		Yes		
Wetland Hydrology Present?		Yes	If yes, optional We	etland Site ID:	: <u>w-149n37w34-ac</u>		iC
HYDROLOGY							
Wetland Hydrology Indicators:					Secondary Indicato	ors (minimum of	two required)
Primary Indicators (minimum of one is r	equired; ch	eck all that apply)			Surface Soil	Cracks (B6)	
Surface Water (A1)		Water-Stained Leave	es (B9)	Drainage Patterns (B10)			
High Water Table (A2)					Moss Trim Lines (B16)		
Saturation (A3)	_	Marl Deposits (B15)			Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (0		or (C1)		Crayfish Burro	ws (C8)	
Sediment Deposits (B2)			es on Living Roots (C3)		Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)			l Iron (C4)		Stunted/Stressed Plants (D1)		
Algal Mat or Crust (B4)	al Mat or Crust (B4) Recent Iron Reducti		on in Tilled Soils (C6)		Yes Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface (C7)		27)		Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)			Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8	zetated Concave Surface (B8)				<u>Yes</u> FAC-Neutral Test (D5)		
Field Observations:							
Surface Water Present?	No	Depth (inches)					
Water Table Present?	No	Depth (inches)					
Saturation Present?	No	Depth (inches)		Wetla	and Hydrology Pre	sent?	Yes
(includes capillary fringe)							
Describe Recorded Data (stream gauge,	monitoring	gwell, aerial photos, p	revious inspections	s), if available:			
Remarks:							

VEGETATION - Use scientific names of plants.

Sampling Point: w-149n37...

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot Size: 30) % Cover	Species?	Status	Number of Dominant Species	
1. Fraxinus nigra		40.00	Yes	FACW	That Are OBL, FACW, or FAC: 4 (A)	
2. Populus tremuloides		10.00	Yes	FAC	Total Number of Dominant	
3				_	Species Across All Strata: <u>4</u> (B)	
4.					Percent of Dominant Species	
5.					That Are OBL, FACW, or FAC: 100 (A/B)	
6.					Prevalence Index worksheet:	
				_	Total % Cover of: Multiply by:	
		50	= Total Cover		OBL species 25.00 x 1 25	
Sapling/Shrub Stratum	(Plot Size: 15)		-		FACW species 125.00 x 2 250	
1. Fraxinus nigra		10.00	Yes	FACW	FACU species 0.00 x 3 0	
2.					UPL species 0.00 x 4 0	
					Column Totals 160 (A) 305 (B)	
4.			_		Prevalence Index = $B/A = 1.90625$	
5					Hydrophytic Vegetation Indicators:	
					1 - Rapid Test for Hydrophytic Vegetation	
7.					yes 2 - Dominance Test is > 50%	
/·		10	= Total Cover		yes 3 - Prevalence Index is $\leq 3.0^{1}$	
Herb Stratum (Plot Size:	.5)				4 - Morphological Adaptations ¹ (Provide	
1. Phalaris arundinacea	. <u> </u>	75.00	Yes	FACW	supporting data in Remarks or on a separate sheet)	
2. Carex stricta		25.00	Yes	OBL	– Problematic Hydrophytic Vegetation ¹ (Explain)	
3					¹ Indicators of hydric soil and wetland hydrology must be present, unless	
					disturbed or problematic.	
					Definitions of Vegetation Strata:	
					Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast	
					height (DBH), regardless of height.	
					-	
9					Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
10					_	
11					Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
12						
		100	= Total Cover		Woody vines - All woody vines greater than 3.28 ft in height.	
Woody Vine Stratum (P	lot Size: 30)					
1						
2.					Hydrophytic	
3.					Vegetation Present? <u>Yes</u>	
4.						
		0	=Total Cover			
Remarks: (include phot	o numbers here or on a separa	te sheet)				
Remarks. (include phot		te sheet.)				

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SOIL

1

Profile Descrip	tion: (Describe to the	e depth nee	eded to document th	e indica	tor or co	nfirm th	e absence of inc	dicators.)
Depth	Depth Matrix		Redox Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-3	10YR 2 1	100					<u>L</u>	
3-10	10YR 4 2	90	10YR 4 6	_ 10	<u>C</u>	Μ	FSL	
10-16	10YR 4 2	90	10YR 4 6	10	<u>C</u>	Μ	SCL	
16-24	10YR 3 2	100					cl	
						<u></u>		
				_				
				_				
							·	
						·		
						·	·	
¹ Type: C=Concen	tration, D=Depletion, RM	 =Reduced Ma	atrix. MS=Masked Sand G	– <u> </u>				
Hydric Soil Indica							Indicators for	Problematic Hydric Soil ³ :
			Polyvalue Below	Surface (58) (LRR R	, MLRA	_	
Histosol (A			└── 149B)				_	ck (A10) (LRR K, L, MLRA 149B)
Histic Epipe	edon (A2)		Thin Dark Surfac	e (S9) (LR	R R, MLRA	149B)	_	airie Redox (A16)(LRR K, L, R)
Black Histic	: (A3)		Loamy Mucky M	ineral (F1) (LRR K, L)	5 cm Mu	cky Peat or Peat (S3) (LRR K, L, R)
Hydrogen S	tydrogen Sulfide (A4)				Dark Surface (S7) (LRR K, M)			
Stratified L	ayers (A5)		 Depleted Matrix 	(F3)			Polyvalue	e Below Surface (S8) (LRR K, L)
Depleted B	elow Dark Surface (A11)		Redox Dark Surf	ace (F6)			Thin Dark	Surface (S9) (LRR K, L)
Thick Dark	Surface (A12)		Depleted Dark S	urface (F7)		Iron-Mag	anese Masses (F12) (LRR K, L, R)
Sandy Muc	ky Mineral (S1)	al (S1) Redox Depressions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sandy Gley	ed Matrix (S4)						Mesic Spo	odic (TA6) (MLRA 144A, 145, 149B)
Sandy Redo	ox (S5)						Red Pare	nt Material (F21)
Stripped M	atrix (S6)						Very Shal	llow Dark Surface (TF12)
Dark Surfac	ce (S7) (LRR R, MLRA 149	3)					Other (ex	xplain in remarks)
Restrictive Layer	(if observed):							
Туре:							Undria Cail Drasanta	Vos
Depth (inches):					Hydric Soil Present?	<u></u>		
Remarks:								

Site Photograph 1



Latitude: 47.6778272493255

Longitude: -95.3867991362655

Cowardin Classification: PFO

Circular 39: 1

Remarks:

Direction: east

Eggers & Reed: Seasonally Flooded Basin

Site Photograph 2

Sampling Point: w-149n37w34-ac1



Latitude: 47.6778063364771

Longitude: -95.3867880721534

Cowardin Classification: PFO

Circular 39: 1

Remarks:

Direction: west

Eggers & Reed: Seasonally Flooded Basin