WETL	AND DETERMINA	TION DATA FO	ORM - Great P	lains Region	
Project/Site: I3_decom	City/County: Red L	ake		Sampling	Date: 2017-06-22
Applicant/Owner: Enbridge		State: Mir	nnesota	Sampling	Point: u-150n41w2-aa1
Investigator(s): SMR, MRG		Section, Towns	ship, Range: S2	, T150N, R41W	
Landform (hillslope, terrace, etc.): Rise		Local Relie	ef (concave, cor	vex, none): VV	Slope (%): 3-7%
Latitude: 47.8450391348	Longitude:	-95.85895383	<u>.</u>		
Datum: NAD83					
Soil Map Unit Name: I7A				NWI Classi	fication: N/A
Are climatic/hydrologic conditions on the site ty	pical for this time of	year? (if no, exp	olain in Remarks	s):	Yes
Are Vegetation No , Soil No , or Hydrology	No significantly of	disturbed? Are "	'Normal Circum	stances" present? Yes	
Are Vegetation No , Soil No , or Hydrology N					
SUMMARY OF FINDINGS - Attach site map sh					
Hydrophytic Vegetation Present?	No	Is the Sam	npled Area		
Hydric Soil Present?	No	within a V	-	N	lo
Wetland Hydrology Present?	No	If yes, opt	ional Wetland S	ite ID:	
Remarks: (Explain alternative procedures here of	or in a separate repo	ort.)		-	
No digging allowed, due to potential utilities					
VEGETATION - Use scientific names of plan	ts.				
	Absolute	Dominant	Indicator	Dom in an ce Test workshee	::
Tree Stratum (Plot Size: 30) % Cover	Species?	Status	Number of Dominant Speci	es
1			_	That Are OBL, FACW, or FAC	: <u>0</u> (A)
2			_	Total Number of Dominant	
3		_		Species Across All Strata:	<u>4</u> (B)
4		_		Percent of Dominant Specie	25
	0	_ = Total Cover		That Are OBL, FACW, or FAC	C: 0 (A/B)
Sapling/Shrub Stratum (Plot Size: 15				Prevalence Index workshee	t:
1				Total % Cover of:	Multiply by:
2		_	_	_ OBL species	0.00 x 1 0
3		_	_	_ FACW species	0.00 x 2 0
4	<u> </u>			FACU species	0.00 x 3 400
5			_	UPL species	0.00 x 4 0
Harb Stratum (Diet Size 5	0	_ = Total Cover		Column Totals Prevalence Ind	100 (A) 400 (B)
Herb Stratum (Plot Size:5) 1. Taraxacum officinale	30.00	Yes	FACU	Hydrophytic Vegetation Inc	· -
2. Trifolium pratense	30.00	Yes	FACU	-	lydrophytic Vegetation
3. Bromus inermis	20.00	Yes	FACU	no 2 - Dominance Test	, , , ,
4. Medicago sativa	20.00	Yes	FACU	no 3 - Prevalence Inde	
5.				- 4 - Morphological A	Adaptations ¹ (Provide
6.				-	arks or on a separate sheet)
7.				Problematic Hydrophytic Ve	getation ¹
8.				(Explain)	
9				Indicators of hydric soil and wetlar	nd hydrology must be present,
10.			_	unless disturbed or problematic. —	
	100	= Total Cover			
Woody Vine Stratum (Plot Size: 30)					
1				Hydrophytic	
2.				Vegetation	No
	0	_ = Total Cover		Pre sent?	
% Bare Ground in Herb Stratum					
Remarks:		,	,		

<

rottle Description: (Describe to the denta her	eaea to aocument the indicator or confirm in	e absence of indicators.)
Pepth Matrix	eded to document the indicator or confirm th Redox Features	e absence of materiors,
inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
inches) Color (moist) //	Coloi (moist) /6 Type Loc	resture nemarks
		·
Type: C=Concentration, D=Depletion, RM=Reduced Ma	atrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=
ydric Soil Indicators:	·	Indicators for Problematic Hydric Soil ³ :
Histosol (A1)	Sandy Gleyed Matrix (S4)	1cm Muck (A9) (LRR I, J)
Histic Epipedon (A2)	☐ Sandy Red ox (S5)	Coast Prairie Redox (A16)(LRR K, L, R)
Black Histic (A3)	Stripped Matrix (S6)	Dark Surface (S7) (LRR G)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) (LRR K, L)	High Plains Depressions (F16)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	(LRR H outside of MLRA 72 & 73)
1cm Muck (A9) (LRR F, G, H)	Depleted Matrix (F3)	Reduced Vertic (F18)
Depleted Below Dark Surface (A11)	Re dox Dark Surface (F6)	Red Parent Material (F21)
\neg		
Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)	└── Very Shallow Dark Surface (TF12)
Sandy Mucky Mineral (S1)	Redox Depressions (F8)	Other (explain in remarks)
2.5cm Mucky Peat or Peat (S2)(LRR G, H)	High Plains Depressions (F16)	³ Indicators of hydrophytic vegetation and wetland hydrolo
5cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRR H)	must be present, unless disturbed or problematic.
Type:		Hydric Soil Present?
Type:		Hydric Soil Present?
Type: Depth (inches): emarks: I pland soils assumed due topography and upland. No c		Hydric Soil Present?
Type: Depth (inches): emarks: Upland soils assumed due topography and upland. No c		Hydric Soil Present?
Type: Depth (inches): emarks: Upland soils assumed due topography and upland. No complete the co	ligging due to potential utilities.	
Type: Depth (inches): emarks: Ipland soils assumed due topography and upland. No c IYDROLOGY Vetland Hydrology Indicators: rimary Indicators (minimum of one is required)	digging due to potential utilities.	Secondary Indicators (minimum of two requ
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11)	Secondary Indicators (minimum of two requ Surface Soil Cracks (B6)
Type: Depth (inches): emarks: pland soils assumed due topography and upland. No c YDROLOGY //etland Hydrology Indicators: rimary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2)	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13)	Secondary Indicators (minimum of two requ Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (minimum of two requestions Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)	Secondary Indicators (minimum of two requestions Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1)	Secondary Indicators (minimum of two requestions Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3)	Secondary Indicators (minimum of two requestions Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	Secondary Indicators (minimum of two requestions Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4)	Secondary Indicators (minimum of two requestions of two requestions of two requestions (B6) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7)	Secondary Indicators (minimum of two requestions of two requestions) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2)
Type:	digging due to potential utilities. d: check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (minimum of two requestions Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7)	Secondary Indicators (minimum of two requirements) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches) Depth (inches)	Secondary Indicators (minimum of two requestions of two requestions) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F)
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Secondary Indicators (minimum of two requestions Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5)
Depth (inches): emarks: Jpland soils assumed due topography and upland. No control of the property of the pr	digging due to potential utilities. d: check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches) Depth (inches) Depth (inches)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F) Wetland Hydrology Present? No
Type:	digging due to potential utilities. d; check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches) Depth (inches)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F) Wetland Hydrology Present? No
Type:	digging due to potential utilities. d: check all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches) Depth (inches) Depth (inches)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Pattems (B10) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) (LRR F) Wetland Hydrology Present? No