WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R							Date:	10/01/14		
Applicant:		Enbridge							County:	Red Lake		
Investigators	:	LEB/DGL			Subregion	(MLRA or LRR):	MLRA 56		State:	MN		
Soil Unit:	139A			_		NWI Classificat	ion:					
Landform:	Talf			Lo	cal Relief: I				Sample Point:	u-151n42w15-l1		
Slope (%):	0 - 2%		Latitude: 47.9			-96.025991	Datum:		1			
	, ,	nditions on the sit	71		ar? (If no, expl		⊡Yes	□ No	Section:			
Are Vegetation	on 📮 Soil	G or Hydrology	□gnificantl	y disturbed?		Are normal cir	cumstances pr	esent?	Township:			
Are Vegetation	on 📮 Soil	☐ or Hydrology	☐turally pro	oblematic?		☑ Y	es □No		Range:	Dir:		
SUMMARY C	OF FINDINGS	S										
Hydrophytic \	Vegetation P	resent?	No				Hydric Soi	Is Present?	No			
Wetland Hyd	Irology Prese	nt?	No		-		Is This Sa	mpling Poin	nt Within A W	etland? No		
Remarks:	The upland	sample point is lo	cated slightly	upslope from	the wetlan	d in a large cattle p	asture.					
HYDROLOG'	Υ											
		inatora (Chaak all	that apply: M	linimum of on	o primaru	or two accordany re	auirod\.					
		icators (Check all	that apply; iv	imimum or on	e primary o	or two secondary re	equirea):	Cocondon				
Primary:	A1 - Surface \	Water		П	B11 - Salt C	trust	Secondary:			oil Cracks		
	A2 - High Wa				B13 - Aquati					Vegetated Concave Sur	face	
	A3 - Saturatio					en Sulfide Odor			B10 - Drainage			
	B1 - Water M					ason Water Table				Rhizospheres on Living	Roots (tilled)	
	B2 - Sedimen					ed Rhizospheres on Liv	ving Roots (not til		C8 - Crayfish I			
	B3 - Drift Dep									Nisible on Aerial Image	ery	
	B4 - Algal Ma B5 - Iron Dep				Other (Expla				D2 - Geomorp D5 - FAC-Neu			
		on Visible on Aerial Im	nagery		Other (Exple	all 1)				aved Hummocks (LRR f	=)	
1 =	B9 - Water-St		lagery					_	D7 1100011100	rved Hammooko (Erkiki	,	
_												
Field Observ	vations:											
Surface Water		Yes 🔲	Denti	٠.	(in.)							
Water Table		Yes 🗆	Depti	n: n:	(in.)		Wetland F	lydrology l	Present?	N		
		_			(iii.)							
	Saturation Present? Yes Depth: (in.)											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:												
Describe Reco												
Describe Reco		stream gauge, moni or secondary indic										
Remarks:												
Remarks: SOILS	No primary	or secondary indic	cators of wetla	and hydrology	were obse	erved.						
Remarks: SOILS Profile Descri	No primary	or secondary indicates in the secondary indicate	cators of wetla	and hydrology	were obse	erved.	of indicators.)					
Remarks: SOILS Profile Descri	No primary	or secondary indicates in the secondary indicate	cators of wetla	and hydrology	were obse	erved.	of indicators.)					
Remarks: SOILS Profile Descri	No primary	or secondary indicates	cators of wetla	and hydrology	were obse	erved. Infirm the absence on: PL=Pore Lining, M=	of indicators.)					
Remarks: SOILS Profile Descri (Type: C=Concer	No primary	or secondary indicates	eeded to docu	ment the indi	were obse	orited. Infirm the absence on: PL=Pore Lining, M= Mottles	of indicators.) Matrix)					
Remarks: SOILS Profile Descri (Type: C=Concer	No primary	or secondary indicates to the depth neetion, RM=Reduced M Matrix Color (Moist)	eeded to docu atrix, CS=Covere	ment the indi	were obse	erved. Infirm the absence on: PL=Pore Lining, M=	of indicators.)	Texture		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer	No primary iption (Descriptration, D=Depl	or secondary indicates	eeded to docu	ment the indi	were obse	orited. Infirm the absence on: PL=Pore Lining, M= Mottles	of indicators.) Matrix)	Texture SICL		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer	No primary	or secondary indicates to the depth neetion, RM=Reduced M Matrix Color (Moist)	eeded to docu atrix, CS=Covere	ment the indi	were obse	orited. Infirm the absence on: PL=Pore Lining, M= Mottles	of indicators.) Matrix)	1		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8	No primary iption (Descriptration, D=Depl	or secondary indicates to the depth neetion, RM=Reduced M Matrix Color (Moist) 2/1	eeded to docu atrix, CS=Covere	ment the indi	were obse	orited. Infirm the absence on: PL=Pore Lining, M= Mottles	of indicators.) Matrix)	SICL		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8	No primary iption (Descriptration, D=Depl	or secondary indicates to the depth neetion, RM=Reduced M Matrix Color (Moist) 2/1	eeded to docu atrix, CS=Covere	ment the indi	were obse	orited. Infirm the absence on: PL=Pore Lining, M= Mottles	of indicators.) Matrix)	SICL		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8	No primary iption (Descriptration, D=Depl	or secondary indicates to the depth neetion, RM=Reduced M Matrix Color (Moist) 2/1	eeded to docu atrix, CS=Covere	ment the indi	were obse	orited. Infirm the absence on: PL=Pore Lining, M= Mottles	of indicators.) Matrix)	SICL		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8	No primary iption (Descriptration, D=Depl	or secondary indicates to the depth neetion, RM=Reduced M Matrix Color (Moist) 2/1	eeded to docu atrix, CS=Covere	ment the indi	were obse	orited. Infirm the absence on: PL=Pore Lining, M= Mottles	of indicators.) Matrix)	SICL		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18	No primary iption (Descrintration, D=Depl Hue_10YR Hue_10YR	or secondary indicates of secondary indicates	eeded to docu atrix, CS=Covere % 100	ment the indi	cator or cor Grains; Location	Infirm the absence on: PL=Pore Lining, M= Mottles % Type	of indicators.) Matrix)	SICL		Remarks		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18	No primary iption (Descrintration, D=Depl Hue_10YR Hue_10YR	or secondary indicates of secondary indicates	eeded to docu atrix, CS=Covere	ment the indi	cator or cor Grains; Location	Infirm the absence on: PL=Pore Lining, M= Mottles % Type	of indicators.) Matrix)	SICL CL				
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Description, D=Depl Hue_10YR Hue_10YR	or secondary indicates of secondary indicates	eeded to docuatrix, CS=Covere % 100 100 neck here if in	ment the indi d/Coated Sand Color (I	cator or cor Grains; Location Moist)	Infirm the absence on: PL=Pore Lining, M= Mottles % Type	of indicators.) Matrix) Location	SICL CL Indicators 1	for Problematic			
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Description, D=Depl Hue_10YR Hue_10YR A1- Histosol	or secondary indicators or secondary indicators indicat	eeded to docu atrix, CS=Covere % 100 100 neck here if in	ment the indi d/Coated Sand Color (I	cator or cor Grains; Location Moist) Moist) not present)	Infirm the absence on: PL=Pore Lining, M= Mottles % Type	of indicators.) Matrix) Location	SICL CL Indicators 1 A9 - 1 cm M	luck (LRR I, J)	c Soils ¹		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Description, D=Depl Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep	or secondary indicators or secondary indicators or secondary indicators ibe to the depth neetion, RM=Reduced Mineral Matrix Color (Moist) 2/1 4/2 Indicators (chapter of the color of the c	eeded to docu atrix, CS=Covere % 100 100	ment the indi d/Coated Sand Color (I dicators are r S5 - Sandy R S6 - Stripped	cator or cor Grains; Location Moist) Moist) not present) edox Matrix	infirm the absence on: PL=Pore Lining, M= Mottles % Type Discourse of the control of the cont	Dof indicators.) Matrix) Location	SICL CL Indicators 1 A9 - 1 cm M A16 - Coast	luck (LRR I, J) Prairie Redox (c Soils ¹		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Descrintration, D=Depl Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His	or secondary indicators or secondary indicators ibe to the depth neletion, RM=Reduced M Matrix Color (Moist) 2/1 4/2 Indicators (chain ipedon stic	eeded to docuatrix, CS=Covere % 100 100 neck here if in	ment the indi d/Coated Sand in Color (in dicators are recomply as a series of the se	were obsection or core cator or cator	mfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S6	luck (LRR I, J) Prairie Redox (urface (LRR G)	: Soils ¹ LRR F, G, H)		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Description, D=Depl Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Histic Ep A4 - Hydroge	or secondary indicators or secondary indicators ibe to the depth neletion, RM=Reduced M Matrix Color (Moist) 2/1 4/2 Indicators (chain ipedon stic	eeded to docuatrix, CS=Covere % 100 100 neck here if in	ment the indi d/Coated Sand Color (I dicators are r S5 - Sandy R S6 - Stripped	cator or cor Grains; Location Moist) Moist) not present) edox Matrix Mucky Mineral Gleyed Matrix	mfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S6	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression	c Soils ¹)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Descriptation, D=Depl Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified A9 - 1 cm Mu	or secondary indicators ibe to the depth neetion, RM=Reduced Mineral Matrix Color (Moist) 2/1 4/2 Indicators (chairpedon stic in Sulfide Layers (LRR F) ck (LRR FGH)	eeded to docuatrix, CS=Covere % 100 100 neck here if in	ment the indi d/Coated Sand of Color (I) dicators are r S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D	cator or cor Grains; Location Moist) Moist) not present) edox Matrix lucky Mineral Sileyed Matrix I Matrix ark Surface	nfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S1 F16 - High F F18 - Reduc	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression Ced Vertic Parent Material	2 Soils ¹ LRR F, G, H) DNS (LRR H, outside MLRA 72, 73		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Descrintration, D=Depl Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete	or secondary indicators be to the depth neetion, RM=Reduced M Matrix Color (Moist) 2/1 4/2 Indicators (chair) ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) dd Below Dark Surface	eeded to docuatrix, CS=Covere % 100 100 eeck here if in	dicators are r S5 - Sandy R S6 - Stripped F1 - Loamy C F2 - Loamy C F3 - Pepletec F6 - Redox D F7 - Depletec	Moist) edox Matrix Mucky Mineral Bleyed Matrix I Matrix Ark Surface Dark Surface	nfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S1 F16 - High F F18 - Red uc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression and Vertic Parent Material Shallow Dark S	: Soils ¹ LRR F, G, H) ONS (LRR H, outside MLRA 72, 73		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Descrintration, D=Depl Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D	or secondary indicators ibe to the depth neetion, RM=Reduced Minus Color (Moist) 2/1 4/2 Indicators (chairpedon stic in Sulfide Layers (LRR F) ck (LRR FGH) id Below Dark Surface ark Surface	eeded to docuatrix, CS=Covere % 100 100 neck here if in	ment the indi ad/Coated Sand of Color (I	Moist) edox Matrix Mucky Mineral Bleyed Matrix Mat	mfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S1 F16 - High F F18 - Red uc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression Ced Vertic Parent Material	: Soils ¹ LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M	or secondary indicators (chairpedon Sulfide Layers (LRR F) ck (LRR FGH) de la chair and surface aucky Mineral	eeded to docuatrix, CS=Covere % 100 100 neck here if in	ment the indi ad/Coated Sand of Color (I	Moist) edox Matrix Mucky Mineral Bleyed Matrix Mat	nfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S1 F16 - High F F18 - Red uc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression and Vertic Parent Material Shallow Dark S	: Soils ¹ LRR F, G, H) ONS (LRR H, outside MLRA 72, 73		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary Iption (Description	or secondary indicators (chapted on stic on Sulfide Indicators (chapted on stic on Sulfide Indicators (LRR F) ck (LRR FGH) dd Below Dark Surface ark S	eeded to docu atrix, CS=Covers % 100 100 neck here if in	ment the indi ad/Coated Sand of Color (I	Moist) edox Matrix Mucky Mineral Bleyed Matrix Mat	mfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S1 F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark S ain in Remarks)	E Soils ¹ LRR F, G, H) DNS (LRR H, outside MLRA 72, 73		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary iption (Descrintration, D=Depl Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	or secondary indicators in the total material ma	eeded to docu atrix, CS=Covers	ment the indi ad/Coated Sand of Color (I	Moist) edox Matrix Mucky Mineral Bleyed Matrix Mat	mfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location Location	Indicators of hardinators of hardina	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark S ain in Remarks)	: Soils ¹ LRR F, G, H) ONS (LRR H, outside MLRA 72, 73		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary Iption (Description	or secondary indicators in the total material ma	eeded to docu atrix, CS=Covers	ment the indi ad/Coated Sand of Color (I	Moist) edox Matrix Mucky Mineral Bleyed Matrix Mat	mfirm the absence on: PL=Pore Lining, M= Mottles % Type	Location Location	Indicators of hardinators of hardina	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression 2 Vertic Parent Material Shallow Dark S ain in Remarks) hydrophytic vegetal	E Soils ¹ LRR F, G, H) DNS (LRR H, outside MLRA 72, 73		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary Iption (Descrintration, D=Depl Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A11 - Deplete A12 - Thick D S1 - Sandy M S3 - 5 cm Mu S4 - Sandy G	or secondary indicators (characters (LRR F) and Below Dark Surface ark Surface ark Surface ark Surface ark Surface ark Surface ucky Mineral flucky Peat or Peat (LR Red Matrix)	eeded to docu atrix, CS=Covers	dicators are r S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy N F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D F16 - High Pl	Moist) Moist) edox Matrix Mucky Mineral Bleyed Matrix Matrix Matrix Matrix Matrix Matrix Matrix Matrix Dark Surface Pork Surface	mfirm the absence on: PL=Pore Lining, M= Mottles % Type I I See Sions (MLRA 72, 73 of	Location Location Location Location	Indicators of unless disturbed	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression 2 Vertic Parent Material Shallow Dark S ain in Remarks) hydrophytic vegetal	E Soils ¹ LRR F, G, H) DNS (LRR H, outside MLRA 72, 73		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-8 8-18 NRCS Hydr	No primary Iption (Descrintration, D=Depintration, D=Depintra	or secondary indicators (characters (LRR F) and Below Dark Surface ark Surface ark Surface ark Surface ark Surface ark Surface ucky Mineral flucky Peat or Peat (LR Red Matrix)	eeded to docu atrix, CS=Covers	ment the indi ad/Coated Sand of Color (I	Moist) Moist) edox Matrix Mucky Mineral Bleyed Matrix Matrix Matrix Matrix Matrix Matrix Matrix Matrix Dark Surface Pork Surface	mfirm the absence on: PL=Pore Lining, M= Mottles % Type I I See Sions (MLRA 72, 73 of	Location Location	Indicators of unless disturbed	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression 2 Vertic Parent Material Shallow Dark S ain in Remarks) hydrophytic vegetal	E Soils ¹ LRR F, G, H) DNS (LRR H, outside MLRA 72, 73		

WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-151n42w15-l1				
VEGETATION		non-native	species.)						
Tree Stratum (Plot size: 30 ft. radius)								
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet				
1.									
2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)				
3.									
4.					Total Number of Dominant Species Across All Strata:(B)				
5.									
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)				
7.									
8.					Prevalence Index Worksheet				
9.					Total % Cover of: Multiply by:				
10.					OBL spp. 15 x 1 = 15				
	Total Cover =	0			FACW spp. 30 x 2 = 60				
	1000 00101		_		FAC spp. 0 x 3 = 0				
Capling/Chrub (Stratum (Plot size: 15 ft. radius)								
1.	Stratum (Flot size. 15 it. radius)				FACU spp. 65				
2.					οι Ε σρφ. <u>υ</u> Λ Ο – <u>υ</u>				
					Total 110 (A) 205 (B)				
3.					Total 110 (A) 335 (B)				
4.									
5.					Prevalence Index = B/A = 3.045				
6.	_								
7.									
8.					Hydrophytic Vegetation Indicators:				
9.					Rapid Test for Hydrophytic Vegetation				
10.					Dominance Test is > 50%				
	Total Cover =	0			Prevalence Index is ≤ 3.0 *				
	-				Morphological Adaptations (Explain) *				
Herb Stratum (Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *				
1.	Poa pratensis	35	Υ	FACU					
2.	Agrostis gigantea	25	Υ	FACW	* Indicators of hydric soil and wetland hydrology must be				
3.	Carex pellita	15	N	OBL	present, unless disturbed or problematic.				
4.	Phleum pratense	15	N	FACU	Definitions of Vegetation Strata:				
5.	Taraxacum officinale	10	N	FACU	Dominiono di Vogotation di ata				
6	Juncus dudleyi	5	N	FACW	Trop				
7.		5	N	FACU	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.				
	Elymus repens	5	IN	FACU	. 5 · (
8.				_	Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.				
9.				-	Sapinig/Sirrub - Woody plants less than 5 m. DDM, Tegaluless of Height.				
10.									
11.									
12.					Herb - All herbaceous (non-woody) plants, regardless of size.				
13.									
14.									
15.					Woody Vines - All woody vines, regardless of height.				
	Total Cover =	110	_						
	-		_						
Woody Vine Str	ratum (Plot size: 30 ft. radius)								
1.	,								
2.									
3.					Hydrophytic Vegetation Present? N				
5.					Transpirate Togotation Trosonti Tr				
4.									
	Total Cover =	0		_					
Demarks:									
Remarks: The vegetation is dominated by non-hydrophytic species.									
Additional Remarks:									