## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R								Date: <u>09/30/15</u>
Applicant:		Enbridge								County: Pennington
Investigators:							,	MLRA 56		State: MN
Soil Unit:	I55A			_			Classification:			
Landform:	Dip				cal Relief:					Sample Point: w-153n44w11-d1
. ,	0 - 2%		titude: 48.08		Longitude:			Datum:		
Are climatic/h	nydrologic co	nditions on the site ty	pical for th	s time of yea	ar? (If no, exp	olain in rema	arks)	Yes	□ No	Section:
Are Vegetation			significantly	disturbed?		Are	e normal circum	nstances pr	esent?	Township:
Are Vegetation	on 🛭 Soil	□, or Hydrology □	aturally pro	blematic?			Yes	□ No		Range: Dir:
SUMMARY O	F FINDING:	5								
Hydrophytic V	Vegetation P	resent?	Yes		_			Hydric Soi	ls Present?	? Yes
Wetland Hydr	rology Prese	nt?	Yes					Is This Sa	mpling Poin	nt Within A Wetland? Yes
Remarks:	The sample	point is a wet meade	ow dominat	ed by reed c	anary gras	s, bird's	foot trefoil, and	l pale bulru	sh. All para	ameters of wetland conditions are met.
<b>HYDROLOGY</b>	Y									
		icators (Chack all th	ot apply: Mi	nimum of on	o primary	or two co	acandary raquir	.od):		
Primary:	•	icators (Check all th	at apply, ivii	minum or or	e primary	OI TWO SE	econdary requir	ea):	Secondary:	r.
	A1 - Surface	Water		П	B11 - Salt	Crust				<u>·</u> B6 - Surface Soil Cracks
	A2 - High Wa				B13 - Aqua			B8 - Sparsely Vegetated Concave Surface		
	A3 - Saturation				C1 - Hydro				_	B10 - Drainage Patterns
	B1 - Water M	arks			C2 - Dry S	eason Wa	ter Table			C3 - Oxidized Rhizospheres on Living Roots (tilled)
	B2 - Sedimen	•					pheres on Living	Roots (not till	€ □	C8 - Crayfish Burrows
	B3 - Drift Dep				C4 - Prese					C9 - Saturation Visible on Aerial Imagery
	B4 - Algal Ma				C7 - Thin N		ace		<b>☑</b>	D2 - Geomorphic Position D5 - FAC-Neutral Test
	B5 - Iron Dep	osits on Visible on Aerial Imag	erv	П	Other (Exp	nain)				D7 - Frost-Heaved Hummocks (LRR F)
		tained Leaves	СГУ							Dr - 110st-fleaved Fluitifflooks (Lixix I)
	20									
Field Observ	vations:									
Surface Water		Voc	Donth		(in )					
Water Table		Yes	Depth		_ (in.) _ (in.)			Wetland F	lydrology l	Present? Y
		Yes $\square$	Depth		_ (in.) - (in.)					<del></del>
Saturation Pro	esent?	Yes	Depth		_ (in.)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks:	Indicators o	f wetland hydrology a	are present.							
SOILS										
		be to the depth need								
(Type: C=Concen	itration, D=Depl	etion, RM=Reduced Matrix	k, CS=Covered	/Coated Sand	Grains; Loca	tion: PL=P	ore Lining, M=Matr	IX)		
		NA - Code				N A = (1)			1	T
1		Matrix		<b></b>		Mottle		T	┨	
Depth (In.)		Color (Moist)	%	Color (	Moist)	%	Type	Location	Texture	Remarks
0-7	Hue_10YR	2/1	100							
7-18	Hue_10YR	6/2	400						MMI	the mineral component is loam
			100						FS FS	the mineral component is loam
			100							the mineral component is loam
			100							the mineral component is loam
			100							the mineral component is loam
			100							the mineral component is loam
NDCC Harden	is Call Field					4\-				the mineral component is loam
NRCS Hydri	ic Soil Field	Indicators (chec		licators are i	not presen	t):			FS	
NRCS Hydri		Indicators (chec				t):			FS Indicators f	for Problematic Soils <sup>1</sup>
	A1- Histosol	,		S5 - Sandy R	edox	t):			Indicators f A9 - 1 cm M	for Problematic Soils <sup>1</sup> Muck (LRR I, J)
	A1- Histosol A2 - Histic Ep	ipedon		S5 - Sandy R S6 - Stripped	edox Matrix				Indicators f A9 - 1 cm M A16 - Coast	for Problematic Soils¹ Muck (LRR I, J) at Prairie Redox (LRR F, G, H)
	A1- Histosol A2 - Histic Ep A3 - Black His	ipedon stic		S5 - Sandy R S6 - Stripped F1 - Loamy M	edox Matrix Jucky Miner	al			Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	for Problematic Soils <sup>1</sup> Muck (LRR I, J) at Prairie Redox (LRR F, G, H) Surface (LRR G)
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge	ipedon stic n Sulfide	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy O	edox Matrix Jucky Miner Bleyed Matri	al		_ _ _	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S6 F16 - High F	for Problematic Soils <sup>1</sup> Muck (LRR I, J) At Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73)
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified	ipedon stic n Sulfide Layers (LRR F)		S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted	edox Matrix Nucky Miner Gleyed Matri Matrix	al x		_ _ _	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduce	for Problematic Soils <sup>1</sup> Muck (LRR I, J) At Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Acced Vertic
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH)	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy O	edox Matrix Mucky Miner Bleyed Matri Matrix Park Surface	al x		_ _ _	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S6 F16 - High F F18 - Reduct TF2 - Red P	for Problematic Soils <sup>1</sup> Muck (LRR I, J) St Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Iced Vertic Parent Material
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	nipedon etic n Sulfide l Layers (LRR F) ck (LRR FGH) ed Below Dark Surface	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D	edox Matrix Mucky Miner Gleyed Matri Matrix Park Surface Dark Surface	al x		_ _ _	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	for Problematic Soils <sup>1</sup> Muck (LRR I, J) At Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Acced Vertic
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) ed Below Dark Surface eark Surface	k here if ind	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	edox Matrix Mucky Miner Bleyed Matri Matrix Park Surface Dark Surfa Depressions	al x ace	RA 72, 73 of LRR		Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	for Problematic Soils <sup>1</sup> Muck (LRR I, J) At Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Acced Vertic Parent Material by Shallow Dark Surface
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm N	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	edox Matrix Mucky Miner Bleyed Matri Matrix Park Surface Dark Surfa Depressions	al x ace			Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	for Problematic Soils <sup>1</sup> Muck (LRR I, J) At Prairie Redox (LRR F, G, H) Surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Acced Vertic Parent Material by Shallow Dark Surface
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral fucky Peat or Peat (LRR cky Peat or Peat (LRR F	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	edox Matrix Mucky Miner Bleyed Matri Matrix Park Surface Dark Surfa Depressions	al x ace			Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red FTF12 - Very Other (Explain Indicators of In	for Problematic Soils¹  Muck (LRR I, J)  It Prairie Redox (LRR F, G, H)  Surface (LRR G)  Plains Depressions (LRR H, outside MLRA 72, 73)  Icced Vertic  Parent Material  y Shallow Dark Surface  lain in Remarks)  hydrophytic vegetation and wetland hydrology must be present,
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm N	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral fucky Peat or Peat (LRR cky Peat or Peat (LRR F	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	edox Matrix Mucky Miner Bleyed Matri Matrix Park Surface Dark Surfa Depressions	al x ace			Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red FTF12 - Very Other (Explain Indicators of In	for Problematic Soils¹ Muck (LRR I, J) Interpretation Problematic Soils¹ Muck (LRR I, J) Interpretation Redox (LRR F, G, H) Sourface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Inced Vertic Parent Material Interpretation Problematic Soils¹ Parent Material Interpretation Problematic Soils¹ Parent Material Interpretation Problematic Soils¹ Plains Depressions (LRR H, outside MLRA 72, 73) Interpretation Problematic Soils¹ Interpretation Problematic Soils² Interpretation
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral fucky Peat or Peat (LRR cky Peat or Peat (LRR F	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	edox Matrix Mucky Miner Bleyed Matri Matrix Park Surface Dark Surfa Depressions	al x ace			Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red FTF12 - Very Other (Explain Indicators of In	for Problematic Soils¹  Muck (LRR I, J)  It Prairie Redox (LRR F, G, H)  Surface (LRR G)  Plains Depressions (LRR H, outside MLRA 72, 73)  Icced Vertic  Parent Material  y Shallow Dark Surface  lain in Remarks)  hydrophytic vegetation and wetland hydrology must be present,
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral fucky Peat or Peat (LRR cky Peat or Peat (LRR F	k here if inc	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	edox Matrix Mucky Miner Bleyed Matri Matrix Park Surface Dark Surfa Pepressions ains Depres	al x ace	RA 72, 73 of LRR	H)	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High FF18 - Reduct TF2 - Red FF12 - Very Other (Explain Indicators of Frunless disturbed)	for Problematic Soils¹  Muck (LRR I, J)  It Prairie Redox (LRR F, G, H)  Surface (LRR G)  Plains Depressions (LRR H, outside MLRA 72, 73)  Icced Vertic  Parent Material  y Shallow Dark Surface  lain in Remarks)  hydrophytic vegetation and wetland hydrology must be present,
	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G	ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface eark Surface ucky Mineral flucky Peat or Peat (LRR cky Peat or Peat (LRR leyed Matrix	k here if ind	S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D F16 - High P	edox Matrix Mucky Miner Gleyed Matri Matrix Park Surface Dark Surfa Pepressions ains Depres	al x ace ssions (ML	RA 72, 73 of LRR	il Present?	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S6 F16 - High F18 - Reduct TF2 - Red F1712 - Very Other (Explain Indicators of Funless disturbed Y	for Problematic Soils¹  Muck (LRR I, J)  It Prairie Redox (LRR F, G, H)  Surface (LRR G)  Plains Depressions (LRR H, outside MLRA 72, 73)  Icced Vertic  Parent Material  y Shallow Dark Surface  lain in Remarks)  hydrophytic vegetation and wetland hydrology must be present,

## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: w-153n44w11-d1				
					•				
<b>VEGETATIO</b>	N (Species identified in all uppercase	are non-native	species.)						
Tree Stratum	(Plot size: 30 ft. radius)								
	Species Name	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet				
1.									
2.					Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)				
3.									
4.		-			Total Number of Dominant Species Across All Strata: 3 (B)				
5.					Total Number of Berninant Openies Noross All Strata.				
					Demonstrat Demoissant Conneissa That Ava ODL FACIAL av FAC: 66.70/ (A/D)				
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)				
7.									
8.					Prevalence Index Worksheet				
9.					Total % Cover of: Multiply by:				
10.		<u> </u>			OBL spp. 25 x 1 = 25				
	Total Cover	= 0			OBL spp. $\frac{25}{76}$ $x = \frac{25}{152}$ FACW spp. $\frac{76}{76}$ $x = \frac{25}{152}$				
					FAC spp. 20 x 3 = 60				
Sapling/Shrub	Stratum (Plot size: 15 ft. radius)				FACU spp. 30				
1.	Salix discolor	10	Υ	FACW	UPL spp. $0 \times 5 = 0$				
2.	Can'x discolor		<u> </u>	.,					
3.					Total 151 (A) 257 (B)				
					Total 151 (A) 357 (B)				
4.									
5.					Prevalence Index = B/A = 2.364				
6.									
7.		7							
8.					Hydrophytic Vegetation Indicators:				
9.					Rapid Test for Hydrophytic Vegetation				
10.					X Dominance Test is > 50%				
	Total Cover	= 10			X Prevalence Index is ≤ 3.0 *				
	Total Cover								
					Morphological Adaptations (Explain) *				
Herb Stratum (	Plot size: 5 ft. radius)			E4 0)4/	Problem Hydrophytic Vegetation (Explain) *				
1.	Phalaris arundinacea	50	Υ	FACW					
2.	Lotus corniculatus	25	Υ	FACU	* Indicators of hydric soil and wetland hydrology must be				
3.	Solidago gigantea	20	N	FAC	present, unless disturbed or problematic.				
4.	Scirpus pallidus	20	N	OBL	Definitions of Vegetation Strata:				
5.	Euthamia graminifolia	10	N	FACW					
6	Agrostis gigantea	5	N	FACW	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast				
7.	Carex pellita	5	N	OBL	height (DBH), regardless of height.				
			N	FACU					
8.	Cirsium arvense	5			Continue (Charaba - Woody plants loss than 2 in DRH regardless of height				
9.	Poa palustris	1	N	FACW	Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.				
10.									
11.									
12.					<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size.				
13.		1							
14.									
15.					Woody Vines - All woody vines, regardless of height.				
10.	Total Cover	_ 111			Troody Times				
	Total Cover	= 141							
Woody Vine St	ratum (Plot size: 30 ft. radius)								
1.									
2.									
3.					Hydrophytic Vegetation Present? Y				
5.									
4.		1							
	Total Cover	= 0							
Remarks:			canary gra	es and hi	rd's foot trefoil, with many additional species present at low coverages. In the long-				
ixemarks.		•							
	term time frame, the area is disturbed from	previous pr	peline acti	viues iii u	e vicinity. Hydrophytic vegetation is present.				
Additional Remarks:									