## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R									Date:	07/30/14	
Applicant:		Enbridge				0 1 .	/A 41 D A	1.55)			County:	Marshall	
Investigators		KRG/NTT				_Subregio	•	or LRR):	MLRA 56		State:	MN	
Soil Unit:	I23A					D - E - 6		I Classification				45747044	
Landform:	Rise 3 - 7%		Latitude: 48	2 4006		cal Relief:		106	Detuse		Sample Point:	u-157n47w21-a1	
Slope (%):		onditions on the site				Longitude:			Datum:	□ No	Section:		
						ai : (ii no, ex	1				1		
Are Vegetati Are Vegetati		□, or Hydrology □, or Hydrology	•	•			Ait	e normal circun ☑ Yes	⊓Stances pre □ No	esent?	Township: Range:	Dir:	
SUMMARY (			Haturally	proble	emane:			₪ 162	□ 1 <b>10</b>		Range.	DII.	
Hydrophytic			No	<u> </u>					Hydric Soil	ls Present?	No		
	drology Prese		No.			-					t Within A We	etland? <b>No</b>	
Remarks:					tween a ro	adside dito	ch wetlar	nd and an agric				getation is dominate	ed by
Tromanio.	Kentucky b	•	r a oligini rit	00 00.	oon a ro	adordo din	orr would	ia arra arragire	artarar mora	piainod iii e	ooyooano. vo	gotation to dominate	<i>3</i> 4 <i>5</i> 7
HYDROLOG		aog.aoo.											
		inatana (Obaali all	المام الم	N 41					,, , , , , , , , , , , , , , , , , , ,				
_		icators (Check all	i that apply	; iviinii	mum of or	e primary	or two s	econdary requi	rea):	Socondon.			
<u>Primary</u> □	<u>/.</u>	Water			П	B11 - Salt	Crust			Secondary:	B6 - Surface S	oil Cracks	
	A2 - High Wa					B13 - Aqua						egetated Concave Su	ırface
	A3 - Saturation	n				C1 - Hydro	gen Sulfic	de Odor			B10 - Drainage	Patterns	
	B1 - Water M					C2 - Dry S			<b>D</b> ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( ( (			Rhizospheres on Living	Roots (tilled)
	B2 - Sedimer B3 - Drift Dep	•						spheres on Living duced Iron	Roots (not till	• -	C8 - Crayfish E	Burrows I Visible on Aerial Imag	ion/
	B4 - Algal Ma					C7 - Thin N				ä	D2 - Geomorpl		ger y
	B5 - Iron Dep	osits				Other (Exp					D5 - FAC-Neut		
		on Visible on Aerial Im	nagery								D7 - Frost-Hea	ved Hummocks (LRR	F)
	B9 - Water-S	tained Leaves											
Field Observe													
Field Obser			_			/! \							
	ter Present?			epth: _		_ (in.)			Wetland H	lydrology I	Present?	N	
Water Table		Yes		epth:		_ (in.)				, 0,		<del></del>	
Saturation Present? Yes   Depth: (in.)													
Describe Rec	orded Data (	stream gauge, moni	itoring well,		l photos, pr	` ′	ections),	if available:					
Describe Rec Remarks:	<u>`</u>	stream gauge, moni		aerial		` ′	ections),	if available:					
Remarks:	<u>`</u>			aerial		` ′	ections),	if available:					
Remarks:	No indicato	rs of wetland hydro	ology were	aerial obse	rved.	- evious insp							
Remarks:  SOILS Profile Descr	No indicato	rs of wetland hydro	ology were	aerial obser	rved.	evious insp	onfirm th	e absence of ir					
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Remarks:  SOILS Profile Descr	No indicato	rs of wetland hydro ibe to the depth ne etion, RM=Reduced Ma	ology were	aerial obser	rved.	evious insp	onfirm th	e absence of ir ore Lining, M=Matı					
Remarks:  SOILS Profile Descr (Type: C=Conce	No indicato	rs of wetland hydro ibe to the depth ne etion, RM=Reduced Ma Matrix	eeded to do	aerial obse	rved. ent the indicoated Sand	evious insp cator or co Grains; Loca	onfirm th tion: PL=P	e absence of ir ore Lining, M=Matr	rix)	Texture		Remarks	
Remarks:  SOILS Profile Descr (Type: C=Conce	No indicato	rs of wetland hydrouse to the depth ne etion, RM=Reduced Matrix Color (Moist)	eeded to do	aerial obse	rved.	evious insp cator or co Grains; Loca	onfirm th	e absence of ir ore Lining, M=Matı		Texture		Remarks	
Remarks:  SOILS Profile Descr (Type: C=Conce	No indicato	ibe to the depth ne etion, RM=Reduced Marix Color (Moist)	eeded to do atrix, CS=Cov	aerial obser	rved. ent the indicoated Sand	evious insp cator or co Grains; Loca	onfirm th tion: PL=P	e absence of ir ore Lining, M=Matr	rix)	CL		Remarks	
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Remarks:  SOILS Profile Descr (Type: C=Conce)  Depth (In.) 0-12 12-18	No indicato iption (Description, D=Deplementation, D=Deplementation) Hue_10YR Hue_2.5Y	Matrix Color (Moist)  2/1 6/3	eeded to do atrix, CS=Cov	aerial obser	ent the indicoated Sand	cator or co	onfirm th	e absence of ir ore Lining, M=Mati es Type	rix)	CL		Remarks	
Remarks:  SOILS Profile Descr (Type: C=Conce)  Depth (In.) 0-12 12-18	No indicato	Matrix Color (Moist)  2/1 6/3	eeded to do atrix, CS=Cov	aerial obser	ent the indicoated Sand	cator or co	onfirm th	e absence of ir ore Lining, M=Matr	rix)	CL	or Problematic		
Remarks:  SOILS Profile Descr (Type: C=Conce	No indicato iption (Description, D=Deplementation, D=Deplementation) Hue_10YR Hue_2.5Y	Matrix Color (Moist)  2/1 6/3	eeded to do atrix, CS=Cov	aerial obser ocume vered/C	ent the indicoated Sand  Color (	cator or co Grains; Loca Moist)	onfirm th	e absence of ir ore Lining, M=Mati es Type	Location	CL CL	or Problematic		
Remarks:  SOILS Profile Descr (Type: C=Conce)  Depth (In.) 0-12 12-18	No indicato iption (Description, D=Deplementation, D=Deplementation) Hue_10YR Hue_2.5Y	matrix Color (Moist)  2/1 6/3  Indicators (ch	eeded to do atrix, CS=Cov	aerial obser	ent the indicoated Sand	cator or cograins; Loca  Moist)  not presented as a second content of the content	onfirm th	e absence of ir ore Lining, M=Mati es Type	Location	CL CL Indicators f A9 - 1 cm M	or Problematic luck (LRR I, J) Prairie Redox (	: Soils <sup>1</sup>	
Remarks:  SOILS Profile Descr (Type: C=Conce	Hue_10YR Hue_2.5Y  A1- Histosol A2 - Histic Ep A3 - Black His	matrix Color (Moist)  2/1 6/3  Indicators (characters)	eeded to do atrix, CS=Cov	aerial obser	cators are cators are cators are cators are cators are cators.	cator or cograins; Loca  Moist)  Moist)  not presented ox Matrix Mucky Miner	mottle which was al	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St	luck (LRR I, J) Prairie Redox ( urface (LRR G)	: Soils <sup>1</sup> LRR F, G, H)	
Remarks:  SOILS Profile Descr (Type: C=Conce	Hue_10YR Hue_2.5Y  Tric Soil Field  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge	matrix Color (Moist)  2/1 6/3  Indicators (characters)	eeded to do atrix, CS=Cov	aerial obser ocume vered/C	cators are	cator or cograins; Loca  Moist)  not presented with the company of	mottle which was al	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depressio	: Soils <sup>1</sup>	3)
Remarks:  SOILS Profile Descr (Type: C=Conce	Hue_10YR Hue_2.5Y  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified	matrix Color (Moist)  2/1 6/3  Indicators (characters)  Sipedon Stice of Sulfide Layers (LRR F)	eeded to do atrix, CS=Cov	aerial observered/C	cators are	cator or congrains; Loca  Moist)  Moist)  edox Matrix Mucky Miner Gleyed Matrix Matrix	mottle which was all x	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Reduce	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depressions eed Vertic	: Soils <sup>1</sup> LRR F, G, H)	3)
Remarks:  SOILS Profile Descr (Type: C=Conce	Hue_10YR Hue_2.5Y  Tric Soil Field  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	matrix Color (Moist)  Indicators (characters)	eeded to do atrix, CS=Cov	aerial obser  ocume vered/C  % 100 100 f indic  S S S S S S S S S S S S S S S S S S	cators are	cator or congrains; Loca  Moist)  Moist)  not presented with the congrains of the congrain of the congra	mottle which was all and a second conformation which was all and a second conformation with the conformation will be a sec	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduct TF2 - Red P	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depression red Vertic Parent Material	Soils <sup>1</sup> LRR F, G, H) ONS (LRR H, outside MLRA 72, 73	3)
Remarks:  SOILS Profile Descr (Type: C=Conce	Hue_10YR Hue_2.5Y  Tric Soil Field  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	matrix Color (Moist)  Indicators (chapted on Stice on Sulfide I Layers (LRR F) ck (LRR FGH) and Below Dark Surface	eeded to do atrix, CS=Cov	aerial observered/C	cators are	cator or congrains; Loca  Moist)  Moist)  not present  edox  Matrix  Mucky Miner  Gleyed Matrix  and Surface  d Dark Surface	mottle which was all and a second conformation which was all and a second conformation with the conformation will be a sec	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Reduct TF2 - Red P TF12 - Very	luck (LRR I, J) Prairie Redox ( urface (LRR G) Plains Depressions eed Vertic	Soils <sup>1</sup> LRR F, G, H) ONS (LRR H, outside MLRA 72, 73	3)
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## WETLAND DETERMINATION DATA FORM

**Great Plains Region** 

Project/Site:	L3R				Sample Point: u-157n47w21-a1		
					-		
VEGETATIO	N (Species identified in all uppercase a	re non-native	species.)				
Tree Stratum (	(Plot size: 30 ft. radius)						
	<u>Species Name</u>	% Cover	<u>Dominant</u>	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:1 (B)		
5.							
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)		
7.							
8.					Prevalence Index Worksheet		
9.					Total % Cover of: Multiply by:		
10.					OBL spp. $0   x   1 = 0$ FACW spp. $0   x   2 = 0$		
	Total Cover =	0			FACW spp 0		
					FAC spp. $20$ $\times 3 = 60$		
Sapling/Shrub	Stratum (Plot size: 15 ft. radius)				FACU spp85		
1.					UPL spp. $5$ $X 5 = 25$		
2.							
3.					Total 110 (A) 425 (B)		
4.							
5.					Prevalence Index = B/A = 3.864		
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	60	Υ	FACU			
2.	Sonchus arvensis	15	N	FAC	* Indicators of hydric soil and wetland hydrology must be		
3.	Lotus corniculatus	15	N	FACU	present, unless disturbed or problematic.		
4.	Cirsium arvense	5	N	FACU	Definitions of Vegetation Strata:		
5.	Equisetum arvense	5	N	FAC			
6	Glycine max	5	N	NI	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast		
7.	Melilotus officinalis	5	N	FACU	height (DBH), regardless of height.		
8.	INGINOUS OFFICINATIS	<u> </u>	11	17.00			
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.		
10.					Capining/Official - 11 com, present the man 2 min 2 min 1 com and the min 1 com and		
11.							
12.					<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size.		
13.					rierb - 7 in Horbacocas (Hori Woody) plants, regardoss of 6/25.		
14.					<b>Woody Vines -</b> All woody vines, regardless of height.		
15.	Tatal Carrett	440			Woody Vines - All woody vines, regardless of fleight.		
	Total Cover =	110					
Woody Vine St	ratum (Plot size: 30 ft. radius)						
1.							
2.							
3.					Hydrophytic Vegetation Present?N		
5.							
4.							
	Total Cover =						
Remarks:	Vegetation is dominated by Kentucky bluegr	ass with a	mix of wee	edy forbs.			
Additional Remarks:							