WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:										_							
		L3R								Date:	08/21/14						
Applicant:		Enbridge								County:	Marshall						
		RAJ/BEH	Subregion (MLRA or LRR): MLRA 56					State:	MN								
Investigators		KAJ/DEN			Subregion (MLRA or LRR): <u>MLRA 56</u>						IVIIN						
Soil Unit:	I24A					NWI Classification:											
Landform:	Dip				Local Relief:	CI			Sample Point	w-156n46w21-c1							
			10														
Slope (%):	0 - 2%		Latitude: 48.					Datum:									
Are climatic/	hydrologic co	nditions on the sit	te typical for	this time of	vear? (If no, ex	plain in rema	arks)	⊠ Yes	□ No	Section:							
										-							
Are Vegetati		□, or Hydrology					e normal circum	-	esent?	Township:							
Are Vegetati	on 🗆 Soil	□, or Hydrology	□aturally p	oroblematic?			⊠ Yes	🗆 No		Range:	Dir:						
SUMMARY (, ,							U							
Hydrophytic	Vegetation P	resent?	Yes	;				Hydric Soil	ls Present?	' Yes							
Wetland Hyd	Irology Prese	nt?	Yes					Is This Sar	mpling Poir	nt Within A W	etland? Yes						
Remarks:	The wetland	l is a sedge mead	low commun	nty. Vegetat	ion is disturb	bed by re	ecent mowing. A	All paramete	rs of wetlar	nd conditions	are met.						
HYDROLOG	Y																
Wetlend Lb	امما مسيام ما	aatana (Obaali al					a a a a al a m i na au ili	n e el) e									
wetland Hy	arology ind	cators (Check all	i that apply; i	iviinimum of	one primary	or two se	econdary requi	rea):									
Primary									Secondary:								
	A1 - Surface	Mater			□ B11 - Salt	Crust				B6 - Surface S	oil Cracks						
					B13 - Aqua												
	•										Vegetated Concave Surface						
	A3 - Saturatio				C1 - Hydro					B10 - Drainage							
	B1 - Water Mater	arks			C2 - Dry S	eason Wa	ater Table			C3 - Oxidized	Rhizospheres on Living Roots (tilled)						
	B2 - Sedimen	t Deposits					spheres on Living	Roots (not till	€ □	C8 - Crayfish E							
	B3 - Drift Dep						educed Iron			2	Nisible on Aerial Imagery						
									<u> </u>		• •						
	B4 - Algal Ma				🗆 C7 - Thin I		ace		\checkmark	D2 - Geomorp							
	B5 - Iron Dep	osits			Other (Exp	olain)			\checkmark	D5 - FAC-Neu	tral Test						
		n Visible on Aerial In	nagerv		х т ⁻	,					aved Hummocks (LRR F)						
	B9 - Water-St								-								
	Da - Waler-Si	anicu Leaves															
Field Obser	vations:																
			_		<i>(</i> ;)												
Surface Wat	er Present?	Yes 🛛	Dep	oth:	(in.)			Wotland H	lydrology	Brocont?	Y						
Water Table	Present?	Yes 🛛	Dep	oth [.]	(in.)				lydrology	Fresent?	Ĭ						
			•		\`												
Saturation P	resent?	Yes 🗆	Dep	oth:	(in.)												
Decerile o Dec	and al Data (a	4	the state of the second st														
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																	
	oraca Bata (c	aream gauge, mon	ntoring well, a	ierial photos,	previous insp	pections),	, if available:										
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Remarks:	,	low area that wo	.	•				Il test.									
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Remarks:	,	<u> </u>	.	•				Il test.									
Remarks: SOILS	The site is a	low area that wo	ould collect wa	ater, and the	e vegetation	passes t	he FAC-Neutra										
Remarks: SOILS Profile Descr	The site is a a iption (Descri	be to the depth ne	eeded to doc	ater, and the	e vegetation	passes t	he FAC-Neutra	idicators.)									
Remarks: SOILS Profile Descr	The site is a a iption (Descri	low area that wo	eeded to doc	ater, and the	e vegetation	passes t	he FAC-Neutra	idicators.)									
Remarks: SOILS Profile Descr	The site is a a iption (Descri	be to the depth ne	eeded to doc	ater, and the	e vegetation	passes t	he FAC-Neutra	idicators.)									
Remarks: SOILS Profile Descr	The site is a a iption (Descri	be to the depth ne	eeded to doc	ater, and the	e vegetation	passes t onfirm th tion: PL=P	he FAC-Neutra e absence of in ore Lining, M=Matr	idicators.)									
Remarks: SOILS Profile Descri (Type: C=Concer	The site is a a iption (Descri	be to the depth ne betion, RM=Reduced M Matrix	eeded to doc	ater, and the	ndicator or co	passes t onfirm th tion: PL=P Mottle	he FAC-Neutra e absence of in ore Lining, M=Matr	ndicators.) ^{ix)}									
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-19 19-23 19-23 NRCS Hydr	The site is a iption (Descrintration, D=Deple Hue_10YR Hue_10YR Hue_10YR ic Soil Field	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) 2/1 7/1 2/1 Indicators (ch	eeded to doc latrix, CS=Cove	ater, and the incred/Coated Same 6 Colo 6 Colo 90 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	e not presen	passes t onfirm th tion: PL=P Mottle %	he FAC-Neutra	Location	CL FS CL Indicators f A9 - 1 cm M A16 - Coast	for Problematio	<u>: Soils¹</u> LRR F, G, H)						
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-19 19-23 19-23 NRCS Hydr	The site is a iption (Descrintration, D=Deple Hue_10YR Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hist A4 - Hydroger A5 - Stratified A9 - 1 cm Mur A11 - Deplete	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) 2/1 7/1 2/1 1ndicators (ch ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surfac	eeded to doc latrix, CS=Cove	ater, and the incred/Coated Same 6 Color 6 Color 6 Color 6 Color 5	e not presen y Redox bed Matrix y Mucky Miner y Gleyed Matrix x Dark Surface eted Dark Surface	passes t onfirm th tion: PL=P Mottle %	he FAC-Neutra	Location	CL FS CL Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	for Problematic fuck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressio ced Vertic Parent Material Shallow Dark S	<mark>Surface</mark>						
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-19 19-23 19-23 NRCS Hydr	The site is a iption (Descrintration, D=Depletent Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black Histor A4 - Hydrogent A5 - Stratifiedt A9 - 1 cm Mur A11 - Depletent A12 - Thick D	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) 2/1 7/1 2/1 1ndicators (ch ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surfac ark Surface	eeded to doc latrix, CS=Cove	ater, and the in cument the in red/Coated Sau 6 Colo 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	e not presen y Redox bed Matrix y Mucky Miner y Gleyed Matri x Dark Surface eted Dark Surface	passes t onfirm th tion: PL=P Mottle %	he FAC-Neutra	Location	CL FS CL Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	for Problematic fuck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressio ced Vertic Parent Material	<mark>Surface</mark>						
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-19 19-23 19-23 NRCS Hydr	The site is a iption (Descrintration, D=Deple Hue_10YR Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hist A4 - Hydroger A5 - Stratified A9 - 1 cm Mur A11 - Depleter A12 - Thick D S1 - Sandy M	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) 2/1 7/1 2/1 1ndicators (ch ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surfac ark Surface	eeded to doc latrix, CS=Cove	ater, and the in cument the in red/Coated Sau 6 Colo 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	e not presen y Redox bed Matrix y Mucky Miner y Gleyed Matri x Dark Surface eted Dark Surface	passes t onfirm th tion: PL=P Mottle %	he FAC-Neutra	Location	CL FS CL Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	for Problematic fuck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressio ced Vertic Parent Material Shallow Dark S	<mark>Surface</mark>						
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-19 19-23 19-23 19-23 NRCS Hydr	The site is a iption (Descrintration, D=Deple Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR Comparison Hue_10YR Hue_10	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) 2/1 7/1 2/1 10 10 10 10 10 10 10 10 10 10 10 10 10	eeded to doc atrix, CS=Cove % 10 98 5 heck here if i	ater, and the in cument the in red/Coated Sau 6 Colo 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	e not presen y Redox bed Matrix y Mucky Miner y Gleyed Matri x Dark Surface eted Dark Surface	passes t onfirm th tion: PL=P Mottle %	he FAC-Neutra	Location	CL FS CL <u>Indicators f</u> A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	for Problemation Auck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark S ain in Remarks)	<u>2 Soils¹</u> LRR F, G, H) DNS (LRR H, outside MLRA 72, 73)						
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-19 19-23 19-23 19-23 NRCS Hydr	The site is a iption (Descrintration, D=Depleter Hue_10YR Hue_1	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) 2/1 7/1 2/1 10 10 10 10 10 10 10 10 10 10 10 10 10	eeded to doc atrix, CS=Cove % 10 98 5 heck here if i	ater, and the in cument the in red/Coated Sau 6 Colo 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	e not presen y Redox bed Matrix y Mucky Miner y Gleyed Matri teted Matrix x Dark Surface eted Dark Surface ted Dark Surface ted Dark Surface	passes t onfirm th tion: PL=P Mottle %	he FAC-Neutra	Location	CL FS CL <u>Indicators f</u> A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	for Problematic fuck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressio ced Vertic Parent Material Shallow Dark S ain in Remarks)	<u>2 Soils¹</u> LRR F, G, H) DNS (LRR H, outside MLRA 72, 73)						
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) 0-19 19-23 19-23 19-23 NRCS Hydr NRCS Hydr Restrictive Laye	The site is a iption (Descrintration, D=Depleter Hue_10YR Hue_10YR Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hist A4 - Hydroger A5 - Stratified A9 - 1 cm Mur A11 - Depleter A12 - Thick D S1 - Sandy M S2 - 2.5 cm Mur S3 - 5 cm Mur S4 - Sandy G r Type:	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) 2/1 7/1 2/1 7/1 2/1 indicators (ch ipedon etic n Sulfide Layers (LRR FGH) d Below Dark Surfac ark Surface ucky Mineral lucky Peat or Peat (LR eyed Matrix	eeded to doc atrix, CS=Cove % 10 98 5 heck here if i	ater, and the instant of the instant	e not presen y Redox bed Matrix y Mucky Miner y Gleyed Matri teted Matrix x Dark Surface eted Dark Surface ted Dark Surface ted Dark Surface	passes t onfirm th tion: PL=P Mottle %	he FAC-Neutra	Adicators.)	CL FS CL <u>Indicators f</u> A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	for Problematic fuck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressio ced Vertic Parent Material Shallow Dark S ain in Remarks)	<u>2 Soils¹</u> LRR F, G, H) DNS (LRR H, outside MLRA 72, 73)						
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WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: w-156n46w21-c1				
VEGETATIO		e non-native	species.)						
Tree Stratum ((Plot size: 30 ft. radius)				Densinger and Manhalites (
	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet				
1.									
2.					Number of Dominant Species that are OBL, FACW, or FAC: <u>5</u> (A)				
3.									
4.					Total Number of Dominant Species Across All Strata: 5 (B)				
5.									
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)				
7.	l								
8.					Prevalence Index Worksheet				
9.					Total % Cover of: Multiply by:				
10.	Tatal Osuar	0			OBL spp. 35 x 1 = 35				
	Total Cover =	0			FACW spp. <u>55</u> X $2 = 110$				
					FACW spp.55x2 =110FAC spp.5x3 =15FACU spp.0x4 =0				
	Stratum (Plot size: 15 ft. radius)				FACU spp. $0 \qquad x \ 4 = 0$				
1.	Salix petiolaris	20	Y	OBL	UPL spp X 5 =0				
2.									
3.					Total <u>95</u> (A) <u>160</u> (B)				
4.									
5.					Prevalence Index = $B/A = $ 1.684				
6.									
7.									
8.					Hydrophytic Vegetation Indicators:				
9.					Rapid Test for Hydrophytic Vegetation				
10.					X Dominance Test is > 50%				
	Total Cover =	20			X Prevalence Index is ≤ 3.0 *				
					Morphological Adaptations (Explain) *				
Herb Stratum (Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *				
1.	Carex pellita	15	Y	OBL					
2.	Argentina anserina	15	Y	FACW	* Indicators of hydric soil and wetland hydrology must be				
3.	Phalaris arundinacea	15	Y	FACW	present, unless disturbed or problematic.				
4.	Juncus arcticus	15	Y	FACW	Definitions of Vegetation Strata:				
5.	Agrostis gigantea	10	Ν	FACW					
6	Sonchus arvensis	5	Ν	FAC	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast				
7.					height (DBH), regardless of height.				
8.									
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless 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 =	75							
		10							
Woody Vine St	ratum (Plot size: 30 ft. radius)								
2.									
3.					Hydronbytic Vegetation Present?				
5.					Hydrophytic Vegetation Present? Y				
4.	Total Cover =	0							
Pomarka			had by rec	ont mourie	a but species are still identifiable. There are willows present and if not moved				
Remarks:			-		g, but species are still identifiable. There are willows present and, if not mowed,				
	the cover might indicate a Shrub-Carr, but as	s it present	uy appears	s, the willo					
Additional Remarks:									