WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R								Date: 09/15/14	
Applicant:		Enbridge								County: Pennington	
Investigators) :	BEH/RAJ/MRK			Subregio	•	or LRR):	MLRA 56		State: MN	
Soil Unit:	IGp			_			I Classification:	!			
Landform:	Talf				cal Relief:					Sample Point: u-154n44w31-h1	
Slope (%):	3 - 7%		atitude: 48.1		Longitude:			Datum:			
		onditions on the site			ar? (If no, exp	1			□ No	Section:	
Are Vegetation		, ,	•	/ disturbed?		Are	e normal circun	•	esent?	Township:	
Are Vegetation		, ,	⊐aturally pro	oblematic?				□ No		Range: Dir:	
SUMMARY C											
Hydrophytic \	•		No		-				Is Present?		
Wetland Hyd			No	<u> </u>						nt Within A Wetland? No	
Remarks:	Upland sam near a road		ge of a grav	el pit area. Th	ne site is a	djacent t	o an excavated	d wetland wi	thin the gra	evel pit. The sample site is on a shrubby strip	
HYDROLOG	Υ										
Wetland Hy	drology Ind	icators (Check all th	hat apply: M	inimum of or	e primary	or two se	econdary requi	red):			
Primary:	•	icators (Oncor an ti	nat apply, iv		c primary	OI TWO 3	condary requi	100).	Secondary:		
	A1 - Surface	Water			B11 - Salt (Crust				B6 - Surface Soil Cracks	
	A2 - High Wa				B13 - Aqua					B8 - Sparsely Vegetated Concave Surface	
	A3 - Saturation				C1 - Hydro					B10 - Drainage Patterns	
	B1 - Water M B2 - Sedimen				C2 - Dry Se		iter Table spheres on Living	Poots (not till	€ □	C3 - Oxidized Rhizospheres on Living Roots (tilled) C8 - Crayfish Burrows	
	B3 - Drift Dep	•			C4 - Prese			Noots (not till	, –	C9 - Saturation Visible on Aerial Imagery	
_	B4 - Algal Ma			_	C7 - Thin N					D2 - Geomorphic Position	
	B5 - Iron Dep				Other (Exp	lain)				D5 - FAC-Neutral Test	
		on Visible on Aerial Imaç	gery							D7 - Frost-Heaved Hummocks (LRR F)	
	B9 - Water-S	tained Leaves									
Field Observ	votiono										
		V.	Daniel		(in)						
Surface Water		Yes	Depti		_ (in.)			Wetland F	lydrology	Present? N	
Water Table		Yes		n:	_ (in.)						
Saturation Present? Yes Depth: (in.)											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:											
Remarks:	No primary	or secondary hydrol	logical indic	ators were ob	served.						
SOILS	intion (Doggr	ibo to the depth page	ded to dear	mont the indi	actor or oc	nefirm th	o obconoc of in	dicators \			
		Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)									
(Type: 0=concer	initiation, D-Dopi		rix CS-Covere	d/Coated Sand	Grains: Locat			'IX')			
	•		rix, CS=Covere	d/Coated Sand	Grains; Locat			ix)			
		etion, RM=Reduced Matr	rix, CS=Covere	d/Coated Sand	Grains; Locat	tion: PL=P	ore Lining, M=Matr	ix)			
Depth (In)		etion, RM=Reduced Matr Matrix				tion: PL=P	ore Lining, M=Matr		Texture	Remarks	
Depth (In.)	Hue 10VR	etion, RM=Reduced Matr Matrix Color (Moist)	%	Color (tion: PL=P	ore Lining, M=Matr	Location	Texture	Remarks	
0-5	Hue_10YR	Matrix Color (Moist) 2/2	% 100	Color (Moist)	Mottle %	ore Lining, M=Matres	Location	LFS	abundant pebbles	
0-5 5-18	Hue_10YR	Matrix Color (Moist) 2/2 4/3	% 100 75	Color (Moist)	tion: PL=P	ore Lining, M=Matr		LFS FS	abundant pebbles abundant pebbles and gravel	
0-5		Matrix Color (Moist) 2/2 4/3	% 100	Color (Moist)	Mottle %	ore Lining, M=Matres	Location	LFS	abundant pebbles	
0-5 5-18	Hue_10YR	Matrix Color (Moist) 2/2 4/3	% 100 75	Color (Moist)	Mottle %	ore Lining, M=Matres	Location	LFS FS	abundant pebbles abundant pebbles and gravel	
0-5 5-18	Hue_10YR	Matrix Color (Moist) 2/2 4/3	% 100 75	Color (Moist)	Mottle %	ore Lining, M=Matres	Location	LFS FS	abundant pebbles abundant pebbles and gravel	
0-5 5-18 18-21	Hue_10YR Hue_10YR	Matrix Color (Moist) 2/2 4/3 7/3	% 100 75 100	Color (Moist) 5/4	Mottle %	es Type C	Location	LFS FS	abundant pebbles abundant pebbles and gravel	
0-5 5-18 18-21	Hue_10YR	Matrix Color (Moist) 2/2 4/3 7/3	% 100 75 100	Color (Moist) 5/4	Mottle %	ore Lining, M=Matres	Location	LFS FS FS	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel	
0-5 5-18 18-21	Hue_10YR Hue_10YR	Matrix Color (Moist) 2/2 4/3 7/3	% 100 75 100	Color (Hue_10YR	Moist) 5/4 not present	Mottle %	es Type C	Location	LFS FS FS	abundant pebbles abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils ¹	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR Hue_10YR ric Soil Field A1- Histosol	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (cheen	% 100 75 100	Color (Hue_10YR dicators are i	Moist) 5/4 not presentedox	Mottle %	es Type C	Location	LFS FS FS Indicators 1 A9 - 1 cm M	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ luck (LRR I, J)	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR Hue_10YR Fic Soil Field A1- Histosol A2 - Histic Ep	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checking)	% 100 75 100	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped	Moist) 5/4 not presentedox Matrix	Mottle % 25	es Type C	Location	Indicators 1 A9 - 1 cm M A16 - Coast	abundant pebbles abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ luck (LRR I, J) Prairie Redox (LRR F, G, H)	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR Hue_10YR Hue_10YR Fic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checkles)	% 100 75 100	Color (Hue_10YR dicators are i S5 - Sandy R S6 - Stripped F1 - Loamy N	Moist) 5/4 not presentedox Matrix Mucky Minera	Mottle % 25 tt):	es Type C	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	abundant pebbles abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ fuck (LRR I, J) Prairie Redox (LRR F, G, H) furface (LRR G)	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR Hue_10YR Hue_10YR Fic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checking Sulfide	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O	Moist) 5/4 not presented with the second s	Mottle % 25 tt):	es Type C	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ fuck (LRR I, J) Prairie Redox (LRR F, G, H) furface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73)	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checkles)	% 100 75 100 ck here if in	Color (Hue_10YR dicators are i S5 - Sandy R S6 - Stripped F1 - Loamy N	Moist) 5/4 not present edox Matrix Mucky Minera Gleyed Matrix Matrix	Mottle % 25 t):	es Type C	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduce	abundant pebbles abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ fuck (LRR I, J) Prairie Redox (LRR F, G, H) furface (LRR G)	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR Hue_10YR Hue_10YR A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checking Sulfide I Layers (LRR F) ck (LRR FGH) ed Below Dark Surface	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted F6 - Redox E F7 - Depleted	Moist) 5/4 5/4 not present edox Matrix Mucky Minera Gleyed Matrix Mat	Mottle % 25 t):	es Type C	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ luck (LRR I, J) Prairie Redox (LRR F, G, H) urface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material Shallow Dark Surface	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR 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	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checkled of the Color Sulfide I Layers (LRR F) ck (LRR FGH) ed Below Dark Surface Park Surface	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	Moist) 5/4 5/4 not present edox Matrix Mucky Minera Gleyed Matrix ank Surface Dark Surface pepressions	Mottle % 25 t):	es Type C	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ fluck (LRR I, J) Prairie Redox (LRR F, G, H) furface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) fixed Vertic Parent Material	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR 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 S1 - Sandy M	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checkled Layers (LRR F) ck (LRR FGH) ed Below Dark Surface park Surface lucky Mineral	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	Moist) 5/4 5/4 not present edox Matrix Mucky Minera Gleyed Matrix ank Surface Dark Surface pepressions	Mottle % 25 t):	es Type C	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ luck (LRR I, J) Prairie Redox (LRR F, G, H) urface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material Shallow Dark Surface	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR 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 S1 - Sandy M S2 - 2.5 cm N	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checkled Color (LRR F)) ck (LRR FGH) cd Below Dark Surface Park Surface P	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	Moist) 5/4 5/4 not present edox Matrix Mucky Minera Gleyed Matrix ank Surface Dark Surface pepressions	Mottle % 25 t):	es Type C	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ fluck (LRR I, J) Prairie Redox (LRR F, G, H) urface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material Shallow Dark Surface ain in Remarks)	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR 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 S1 - Sandy M S2 - 2.5 cm N	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checkled of the color o	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	Moist) 5/4 5/4 not present edox Matrix Mucky Minera Gleyed Matrix ank Surface Dark Surface pepressions	Mottle % 25 t):	es Type C	Location	Indicators of PS Indicators o	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ luck (LRR I, J) Prairie Redox (LRR F, G, H) urface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) ced Vertic Parent Material Shallow Dark Surface	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR 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 S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (checkled of the color o	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	Moist) 5/4 5/4 not present edox Matrix Mucky Minera Gleyed Matrix ank Surface Dark Surface pepressions	Mottle % 25 t):	es Type C	Location	Indicators of PS Indicators o	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ fuck (LRR I, J) Prairie Redox (LRR F, G, H) furface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) forced Vertic Parent Material For Shallow Dark Surface fain in Remarks) hydrophytic vegetation and wetland hydrology must be present,	
0-5 5-18 18-21 NRCS Hydr	Hue_10YR 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 S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G	Matrix Color (Moist) 2/2 4/3 7/3 Indicators (check ipedon stic n Sulfide I Layers (LRR F) ck (LRR FGH) ed Below Dark Surface bark Surface lucky Mineral Mucky Peat or Peat (LRR leyed Matrix	% 100 75 100 ck here if in	Color (Hue_10YR dicators are I S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D F16 - High P	Moist) 5/4 5/4 not present edox Matrix Mucky Minera Gleyed Matrix ank Surface Dark Surface Depressions ains Depres	Mottle % 25 t):	es Type C RA 72, 73 of LRF	Location	Indicators of Page 1 Indicators of Page 2 Indicators of Page 3 Indicators of In	abundant pebbles and gravel abundant pebbles and gravel abundant pebbles and gravel for Problematic Soils¹ fuck (LRR I, J) Prairie Redox (LRR F, G, H) furface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) forced Vertic Parent Material For Shallow Dark Surface fain in Remarks) hydrophytic vegetation and wetland hydrology must be present,	
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WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-154n44w31-h1			
VEGETATIO	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:5(B)			
5.								
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 40.0% (A/B)			
7.								
8.					Prevalence Index Worksheet			
9.					Total % Cover of: Multiply by:			
10.					OBL spp. 0 $x = 0$ $x = 0$ FACW spp. 5 $x = 2$ 10			
	Total Cover	= 0	_		FACW spp. $\underline{\qquad}$ $X 2 = \underline{\qquad}$ $\underline{\qquad}$ 10			
					FAC spp. $10 X 3 = 30$			
Sapling/Shrub S	Stratum (Plot size: 15 ft. radius)				FACU spp. $\frac{25}{}$ $x 4 = \frac{100}{}$			
1.	Populus tremuloides	10	Υ	FAC	UPL spp75			
2.	Populus balsamifera	5	Υ	FACW				
3.					Total 115 (A) 515 (B)			
4.								
5.					Prevalence Index = B/A = 4.478			
6.								
7.								
8.					Hydrophytic Vegetation Indicators:			
9.					Rapid Test for Hydrophytic Vegetation			
10.					Dominance Test is > 50%			
	Total Cover	= 15			Prevalence Index is ≤ 3.0 *			
			_		Morphological Adaptations (Explain) *			
Herb Stratum (Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *			
1.	Solidago nemoralis	30	Υ	NI				
2.	Bromus inermis	25	Υ	UPL	* Indicators of hydric soil and wetland hydrology must be			
3.	Coronilla varia	20	Ү	NI	present, unless disturbed or problematic.			
4.	Oligoneuron rigidum	15	 N	FACU	Definitions of Vegetation Strata:			
5.	Symphyotrichum ericoides	5	N	FACU				
6	Poa compressa	5	N	FACU	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast			
7.	[1		17100	height (DBH), regardless of height.			
8.		-						
9.	1	1			Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.			
10.								
11.				,				
12.	1	-			Herb - All herbaceous (non-woody) plants, regardless of size.			
13.	<u> </u>	1			TICID - Carrier and Carrier an			
14.	<u> </u>							
15.					Woody Vines - All woody vines, regardless of height.			
15.	Total Cavar	100			Woody Villes - All Woody Villes, Togardioss of Height.			
	Total Cover	= 100	_					
	(7)							
Woody Vine St	ratum (Plot size: 30 ft. radius)							
1.								
2.					II. Local da Varadada Barardo N			
3.					Hydrophytic Vegetation Present?N			
5.								
4.	T. 1.0							
	Total Cover			- (T)				
Remarks:	Scattered quaking aspen and balsam popla	ar seedlings	are preser	nt. The gr	ound layer is dominated by gray goldenrod, smooth brome, and crown vetch.			
Additional Remarks:								
Ī								