Wetland No Points Index									
County	Feature ID	Survey Map Page	Datasheet Part Number						
Ashland	noasa1005	9	1						
Ashland	noasa1006	20, 21	3						
Ashland	noasa1007	20, 21	3						
Ashland	noasb1001	20	3						
Ashland	noasc1001	19, 20	3						
Ashland	noasc1002	19	2						
Ashland	noasc1005	19	2						
Ashland	noasc1006	19	2						
Ashland	noasc1007	18	2						
Ashland	noasc1008	3	1						
Ashland	noasc1009	3	1						
Ashland	noasd1003	27	3						
Ashland	noasd1006	22	3						
Ashland	noasd1008	3	1						
Ashland	noasd1009	20, 21	3						
Ashland	noasd1011	11	2						
Ashland	noasd1013	19	2						
Ashland	noasd1014	19	2						
Ashland	noasd1015	16	2						
Ashland	noase1001	14	1						
Ashland	noase1005	15	2						
Ashland	noase1008	15	2						
Ashland	noase1009	15	2						
Ashland	noase1010	14	1						
Ashland	noase1011	24	3						
Ashland	noase1013	17	2						
Bayfield	nobad1001	1	1						
Iron	noirc1001	46	4						
Iron	noirc1003	42	4						
Iron	noirc1004	42	4						
Iron	noirc1005	40	4						
Iron	noirc1006	39	4						
Iron	noird1001	32	4						

Project/Site: Line 5 Reloc	ation Proiect	City/0	County: Ashland	Samplin	g Date: <u>2020-06-11</u>	
Applicant/Owner: Enbridge	•			State: Wisconsin Samp		
Investigator(s): EJO/JSW						
Landform (hillslope, terrace, etc.						
Subregion (LRR or MLRA): Nor	thcentral Forests	Lat: 46 582100	Lang: -Q	1 856200	Datum: WGS8/	
Sublegion (LRK of MLRA).	onto and I Idii	20.00000000000000000000000000000000000	Long. <u>-31</u>	NN/I alaasiisaatiaa. D	_ Datum. <u>VVGS04</u> EM10	
Soil Map Unit Name: <u>Udorth</u>	•	·				
Are climatic / hydrologic condition						
Are Vegetation, Soil				Il Circumstances" present?	Yes <u>✓</u> No	
Are Vegetation, Soil	, or Hydrology _	naturally problem	atic? (If needed,	explain any answers in Rem	arks.)	
SUMMARY OF FINDING	S – Attach site	e map showing san	npling point location	ons, transects, impor	tant features, etc.	
Lindranh, tip Varieties Decom	-+2 V	No	Is the Sampled Area			
Hydrophytic Vegetation Preser Hydric Soil Present?		No No	within a Wetland?	Yes No _	✓	
Wetland Hydrology Present?		No		d Site ID:		
Remarks: (Explain alternative			ii yes, optional wetian	d one ib.		
The sample was reco	orded in a dis	turbed ditch filled	d with cobble, co	ncrete, gravel, and	l logs.	
Scattered bulrushes,	sedges, reed	d canary grass, d	common tansy, a	nd weedy legumes	dominate the	
area. The ditch has t	wo compacte	ed, linear ruts tha	t appear to colle	ct water at times. T	he ditch	
appears to be part of	•					
		0 0,		J		
HYDROLOGY						
Wetland Hydrology Indicator	re:			Secondary Indicators (min	imum of two required)	
Primary Indicators (minimum o		book all that apply)		Surface Soil Cracks (E		
Surface Water (A1)		Water-Stained Leave	as (RQ)	Drainage Patterns (B1		
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lines (B16		
Saturation (A3)		Marl Deposits (B15)		Moss Trim Lines (B16) Dry-Season Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Oc		Crayfish Burrows (C8)		
Sediment Deposits (B2)		Oxidized Rhizospher				
Drift Deposits (B3)		Presence of Reduce	-	Stunted or Stressed P		
Algal Mat or Crust (B4)		Recent Iron Reduction		✓ Geomorphic Position		
Iron Deposits (B5)		Thin Muck Surface (Shallow Aquitard (D3)		
Inundation Visible on Aeria		Other (Explain in Re		Microtopographic Reli		
Sparsely Vegetated Conca	• • • •	Out of (Explain in 10)	mano)	FAC-Neutral Test (D5		
Field Observations:	210 Garrage (20)				<u>'</u>	
Surface Water Present?	Yes No	✓ Depth (inches):				
Water Table Present?		✓ Depth (inches):				
Saturation Present?		✓ Depth (inches):		Hydrology Present? Yes	No_ 🗸	
(includes capillary fringe)						
Describe Recorded Data (stream	am gauge, monitorir	ng well, aerial photos, pre	evious inspections), if ava	ailable:		
Remarks:						
The sample plot is lo	cated in a na	ırrow, shallow, di	sturbed ditch wit	h two linear ruts th	at may collect	
water at times, but do	o not constitu	ıte a wetland.				
i .						

EGETATION – Use scientific names of plants				Sampling Point: noasc1008
Tree Stratum (Plot size:30)		Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 25 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cov	/er	OBL species15 x 1 =15
Sapling/Shrub Stratum (Plot size:)				FACW species5 x 2 =10
1				FAC species 2 x 3 = 6
2				FACU species x 4 = 108
3				UPL species $0 \times 5 = 0$ Column Totals: $49 \times 6 \times 139 \times 6$
4				Column Totals. <u>49</u> (A) <u>139</u> (B)
5				Prevalence Index = B/A = 2.84
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	_	= Total Cov		2 - Dominance Test is >50%
Herb Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0¹
1. Lotus corniculatus	9	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Tanacetum vulgare		Y	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Carex vulpinoidea</u>			OBL	
4. Scirpus cf. hattorianus			OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Phalaris arundinacea	_	N	FACW	
6. <i>Trifolium pratense</i>		Y	FACU	Definitions of Vegetation Strata:
7. Trifolium hybridum		N	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. <u>Carex stipata</u>		N	OBL	
9. Rumex britannica		N	OBL	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
In Divine a minute		NI	FAC	
10. <u>Rumex crispus</u> 11. <u>Poa pratensis</u>	-	N	FACU	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
•			IACO	Woody vines – All woody vines greater than 3.28 ft in
12		= Total Cov		height.
Washing Charles (District)	-43	= Total Cov	/ei	
Woody Vine Stratum (Plot size:30)				
1				
2.				
3				Hydrophytic Vegetation
4				Present? Yes _ v No
Remarks: (Include photo numbers here or on a separate		= Total Cov	/er	
The sample plot is dominated by reed	canary c	rass. co	ommon	tansy, birds-foot trefoil, and mosquito
bulrush. The plot and surrounding area				
sedges.			•	-

SOIL Sampling Point: noasc1008

Profile Description: (Describe to the	e depth nee	eded to docum	ent the ir	ndicator	or confirm	the absence	of indicators.)
Depth Matrix (inches) Color (moist)	% <u>Co</u>	Redox lor (moist)	Features %	Type ¹	Loc ²	Texture	Remarks
	<u>,, </u>	ioi (moist)	0	Турс	LOC	CI	Nomans
<u> </u>	<u> </u>						
							
¹ Type: C=Concentration, D=Depletion Hydric Soil Indicators:	n, RM=Redu	ced Matrix, MS	=Masked	Sand Gra	ains.		: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol (A1)	Р	olyvalue Below	Surface ((S8) (LRF	2 R.		luck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)		MLRA 149B)	· · · · · · · · · · · · · · · · · · ·	(55) (2111	,		Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3)		hin Dark Surfac					lucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)Stratified Layers (A5)	·	oamy Mucky M oamy Gleyed M			, L)		urface (S7) (LRR K, L) lue Below Surface (S8) (LRR K, L)
Stratified Layers (A5) Depleted Below Dark Surface (A*		epleted Matrix				-	ark Surface (S9) (LRR K, L)
Thick Dark Surface (A12)		edox Dark Surf					anganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)		epleted Dark S		7)			ont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)Sandy Redox (S5)	R	edox Depression	ons (F8)				Spodic (TA6) (MLRA 144A, 145, 149B) arent Material (F21)
Stripped Matrix (S6)							hallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLR	A 149B)						Explain in Remarks)
³ Indicators of hydrophytic vogetation (and watland	hydrology must	ha praga	nt unloca	diaturhad	ar problematic	
³ Indicators of hydrophytic vegetation a Restrictive Layer (if observed):	and welland	nyurology must	be preser	ni, uniess	disturbed	or problematic	•
Type: <u>Cobble</u>							
Depth (inches): 6.0						Hydric Soil	Present? Yes No
Remarks:							
	e clay loa	am over a	restrict	tive co	bble lay	yer at 6 in	ches. The sample plot and
surrounding area have va	rying an	nounts of v	vaste g	gravel,	concre	te, fill, col	oble, and old logs present
on the soil surface.	-						



noasc1008_E



noasc1008_N



noasc1008_S



noasc1008_W

Project/Site: Line 5 Relocation Project City.	/County: <u>Ashland</u> Sampling Date: <u>2020-06-1</u> 1
•	State: Wisconsin Sampling Point: noasc1009
Investigator(s): <u>EJO/JSW</u> Sec	tion, Township, Range: <u>Sec 03 T047N R004W</u>
	elief (concave, convex, none): None Slope (%): 0-2%
	Long: <u>-90.855795</u> Datum: <u>WGS84</u>
Soil Map Unit Name: Udorthents and Udipsamments, cut	
Are climatic / hydrologic conditions on the site typical for this time of year?	
	urbed? Are "Normal Circumstances" present? Yes _ ✓ No
Are Vegetation, Soil, or Hydrology naturally probler	
SUMMARY OF FINDINGS – Attach site map showing sa	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.) The sample plot was recorded in a former lumber	vard mostly devoid of vegetation. Path rush
Canada goldenrod, and great plantain are among	•
portion.	and definition operated about the intervention
LIVERGLOOV	
HYDROLOGY Westernd Hydrology Indicators	Connection (Indicators (minimum of two required))
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leav	Surface Soil Cracks (B6) ves (B9) Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B13	
Saturation (A3) Marl Deposits (B15	
Water Marks (B1) Hydrogen Sulfide C	
	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduce	
Algal Mat or Crust (B4) Recent Iron Reduct	
Iron Deposits (B5) Thin Muck Surface	(C7) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Re	emarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:
Remarks:	
No indicators of wetland hydrology were observed	.k

/EGETATION - Use scientific names of plants.				Sampling Point: noasc1009
Tree Stratum (Plot size:30)	Absolute % Cover		Indicator	Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant Species Across All Strata: 3 (B)
4				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC:33 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size:)				FACW species3 x 2 =6
1				FAC species 8 x 3 = 24 FACU species 13 x 4 = 52
2				UPL species x 5 = 0
3				Column Totals: 24 (A) 82 (B)
4				Prevalence Index = B/A = 3.41666666666666666666666666666666666666
5				
6				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation
7	_		· ——	2 - Dominance Test is >50%
		= Total Co	ver	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5		V	E A C	4 - Morphological Adaptations ¹ (Provide supporting
1. <u>Juncus tenuis</u>		<u>Y</u> Y	<u>FAC</u> FACU	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
2. Solidago canadensis			FACU	robicinate riyarophytic vegetation (Explain)
3. <u>Plantago major</u>4. <u>Salix bebbiana</u>		N	FACW	¹ Indicators of hydric soil and wetland hydrology must
4. <u>Salix bebbiana</u>5. <u>Tanacetum vulgare</u>			FACU	be present, unless disturbed or problematic.
6. Barbarea vulgaris		N	FAC	Definitions of Vegetation Strata:
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				
9				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10	_			Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	24	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes No
		= Total Co	ver	
Remarks: (Include photo numbers here or on a separate The sample plot is located in a retired leavered with mulch or bare soil. The dopath rush.	umber y			

SOIL Sampling Point: noasc1009

Profile Desc	ription: (Describe t	o the dep	th needed to docum	ent the i	indicator	or confirm	the absence o	of indicators.)
Depth	Matrix	0/		Feature		Loc ²	Texture	Remarks
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type'	LOC		Remarks
<u> </u>	7.5YR 2.5/2	<u>100</u>		0			SIL	
					·			
				ī				
				-				
		etion, RM:	=Reduced Matrix, MS	=Masked	d Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil								or Problematic Hydric Soils ³ :
Histosol			Polyvalue Below	Surface	(S8) (LRF	RR,		uck (A10) (LRR K, L, MLRA 149B)
Black Hi	oipedon (A2)		MLRA 149B) Thin Dark Surface	n (99) (I	RRR MI	RA 149R)		Prairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (A4)		Loamy Mucky M					urface (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed N			, ,		ue Below Surface (S8) (LRR K, L)
Depleted	d Below Dark Surface	e (A11)	Depleted Matrix				Thin Da	rk Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Sur					nganese Masses (F12) (LRR K, L, R)
-	Mucky Mineral (S1)		Depleted Dark S		-7)			nt Floodplain Soils (F19) (MLRA 149B)
	Bleyed Matrix (S4) Redox (S5)		Redox Depressi	UIS (FO)				Spodic (TA6) (MLRA 144A, 145, 149B) rent Material (F21)
-	Matrix (S6)							nallow Dark Surface (TF12)
	rface (S7) (LRR R, M	ILRA 149	3)					Explain in Remarks)
31								
	r nydropnytic vegetati Layer (if observed):	ion and we	etland hydrology must	be prese	ent, uniess	s disturbed	or problematic.	
	ravel/cobble							
							Hydric Soil F	Present? Yes No/_
	ches): <u>1.0</u>						Trydric con i	163 163
Remarks:	woro unablo	to ho c	ampled due to	a ara	vol/coh	hla lav	or approvi	mately 1 inch below
	d periods.	e positi	on and domin	ani ve	getatio	ii sugg	est the are	a does not hold water for
exteriuet	i perious.							



noasc1009_E



noasc1009_N



noasc1009_S



noasc1009_W

Project/Site: Line 5 Relo	cation Projec	ct	City/C	County: Ash	nland	Sa	mpling Date: <u>2</u>	<u>2020-06-11</u>
Applicant/Owner: Enbridge	•							
Investigator(s): KDF/AGC								
Landform (hillslope, terrace, e								e (%): 0-2%
Subregion (LRR or MLRA): N	orthcentral Forest	ts _{Lat}	46 582587	,	Long: -90	855567	Datum:	WGS84
Soil Map Unit Name: <u>Udort</u>	hents and Llu	 dins	amments cut o	or fill	2011g. <u>00</u>	NWI classification	n: PFM1C	110001
Are climatic / hydrologic condi		•	·					
			-					. No
Are Vegetation, Soil								NO
Are Vegetation, Soil	, or Hydrolog	у	naturally problem	atic?	(If needed, e	xplain any answers ir	ı Remarks.)	
SUMMARY OF FINDING	GS – Attach s	ite n	nap showing san	npling poi	nt locatio	ns, transects, in	nportant fea	ıtures, etc.
Hydrophytic Vegetation Pres	ent? Vec		No	Is the Sam	pled Area			
Hydric Soil Present?			No	within a W		Yes	No <u> </u>	
Wetland Hydrology Present?			No 🔽	If ves. option	nal Wetland	Site ID:		
Remarks: (Explain alternative	ve procedures here	or in	a separate report.)					
The feature is locate	ed within an	area	a previously us	ed for sto	oring log	s within a logg	ing mill. Th	ne area
is highly disturbed.								
LIVERGLOGY								
HYDROLOGY						Casandam, Indiantan	/m::::::::::::::::::::::::::::::::::::	
Wetland Hydrology Indicat						Secondary Indicators		vo required)
Primary Indicators (minimum	of one is required:					Surface Soil Cra	` ,	
Surface Water (A1)			Water-Stained Leave			Drainage Pattern		
High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Lines Dry-Season Wat		
Saturation (A3) Water Marks (B1)			Marl Deposits (B15) Hydrogen Sulfide Od	or (C1)		Crayfish Burrows		
Sediment Deposits (B2)			Oxidized Rhizospher			Saturation Visible		geny (C9)
Drift Deposits (B3)			Presence of Reduce	_		Stunted or Stress		
Algal Mat or Crust (B4)			Recent Iron Reduction			Geomorphic Pos		
Iron Deposits (B5)			Thin Muck Surface (0			Shallow Aquitard		
Inundation Visible on Ae	erial Imagery (B7)		Other (Explain in Rer			Microtopographic		
Sparsely Vegetated Con			` '	,		FAC-Neutral Tes		
Field Observations:								
Surface Water Present?	Yes No	~	_ Depth (inches):					
Water Table Present?	Yes No	~	_ Depth (inches):					
Saturation Present?	Yes No		Depth (inches):		Wetland H	ydrology Present?	Yes	No <u> </u>
(includes capillary fringe)					(') '('	7-1-1-		
Describe Recorded Data (str	eam gauge, monito	oring	weii, aeriai pnotos, pre	vious inspec	tions), ir avai	lable:		
Remarks:								
No indicators of we	tland hydrolc	av v	were observed	_				
	,	5,						

EGETATION – Use scientific names of plants				Sampling Point: noasd1008
Tree Stratum (Plot size: 30)		Dominant Species?		Dominance Test worksheet:
1				Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:3(B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:33 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cov	/er	OBL species5 x 1 =5
Sapling/Shrub Stratum (Plot size:)				FACW species 31 x 2 = 62
1				FACULT PROJECT
2				FACU species <u>54</u> x 4 = <u>216</u> UPL species <u>0</u> x 5 = <u>0</u>
3				Column Totals: 92 (A) 289 (B)
4				(i) <u>200</u> (ii)
5				Prevalence Index = B/A = 3.141304347826087
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Cov	/er	2 - Dominance Test is >50%
Herb Stratum (Plot size: 5				3 - Prevalence Index is ≤3.0¹
1. <u>Poa pratensis</u>	20	Y	<u>FACU</u>	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Agrostis cf. gigantea</u>	20	<u>Y</u>	<u>FACW</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <i>Phleum pratense</i>	20	<u>Y</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must
4. <u>Phalaris arundinacea</u>	10	N	<u>FACW</u>	be present, unless disturbed or problematic.
5. <u>Carex sp.</u>	5	<u>N</u>		Definitions of Vegetation Strata:
6. <u>Solidago altissima</u>	5	N	<u>FACU</u>	
7. <u>Lotus corniculatus</u>	5	N	<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. <u>Carex stipata</u>	5	N	OBL	Sapling/shrub – Woody plants less than 3 in. DBH
9. <u>Tanacetum vulgare</u>	_	N	<u>FACU</u>	and greater than or equal to 3.28 ft (1 m) tall.
10. <u>Carex gracillima</u>	2	N	<u>FACU</u>	Herb – All herbaceous (non-woody) plants, regardless
11. <u>Equisetum arvense</u>	2	N	FAC	of size, and woody plants less than 3.28 ft tall.
12. <u>Solidago gigantea</u>	1	N	FACW	Woody vines – All woody vines greater than 3.28 ft in
	97	= Total Cov	/er	height.
Woody Vine Stratum (Plot size:)				
1				
2.				
3.				Hydrophytic
4.				Vegetation
		= Total Cov	/er	Present? Yes No
Remarks: (Include photo numbers here or on a separate				
The vegetation is representative of upl	and dom			
•	ikely du	e to dist	urbance	e factors. The unidentified Carex sp. is
a member of the Ovales group.				

US Army Corps of Engineers

SOIL Sampling Point: noasd1008

Profile Desc	cription: ([Describe 1	o the dep	th needed to docum	nent the	indicator	or confirm	the absence of i	ndicators.)
Depth		Matrix			K Feature			- .	5
(inches)	Color (<u>%</u>	Color (moist)		Type ¹	Loc ²	<u>Texture</u>	Remarks
0-20	<u>5YR</u>	6/3	_30_		_0				
0-20	<u>5YR</u>	4/6	_70_		0			C	
									_
	-				-				
						· ——			
							-		
	-					. ———			
¹ Type: C=C	oncentratio	n, D=Depl	etion, RM=	Reduced Matrix, MS	=Maske	d Sand Gr	ains.	² Location: PL	_=Pore Lining, M=Matrix.
Hydric Soil			•	,					Problematic Hydric Soils ³ :
Histosol				Polyvalue Below		(S8) (LRI	RR,		(A10) (LRR K, L, MLRA 149B)
	pipedon (A2	2)		MLRA 149B)		DDD M	D A 440D)		rie Redox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (<i>A</i>	A4)		Thin Dark Surface Loamy Mucky M					y Peat or Peat (S3) (LRR K, L, R) ce (S7) (LRR K, L)
	d Layers (A			Loamy Gleyed N			, –,		Below Surface (S8) (LRR K, L)
	d Below Da		(A11)	Depleted Matrix					Surface (S9) (LRR K, L)
	ark Surface			Redox Dark Sur				_	anese Masses (F12) (LRR K, L, R)
-	Mucky Mine Bleyed Matr			Depleted Dark S Redox Depressi		-7)			Floodplain Soils (F19) (MLRA 149B) dic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)	(0 .)			0.10 (1.0)				t Material (F21)
	l Matrix (S6								ow Dark Surface (TF12)
Dark Su	rface (S7) (LRR R, N	ILRA 149E	3)				Other (Exp	lain in Remarks)
³ Indicators o	f hydrophyt	ic vegetat	ion and we	tland hydrology must	t be pres	ent. unles:	s disturbed	or problematic.	
Restrictive		-		a.ia iiyarelegy iiiae	. 50 p.00	,			
Type:									
Depth (in	ches):							Hydric Soil Pre	sent? Yes No <u>/</u>
Remarks:	,								
Soils thro	oughout	the pr	ofile ar	e a mixed mat	trix of	a brow	n clay a	and gray clay	loam. No indicators of
hydric so	oils were	obsei	ved.						



noasd1008_E



noasd1008_N



noasd1008_S



noasd1008_W

Project/Site: Line 5 Relo	cation Proiec	t	City/C	County: Bay	/field	Sa	ampling Date: _	2020-06-12	
Applicant/Owner: Enbridge				-					
Investigator(s): KDF/AGC									
			Local relief (concave, convex, none): None Slope (%): 0-2%						
			at: <u>46.575624</u> Long: <u>-91.026763</u> Datum: <u>WGS84</u>						
Soil Map Unit Name: Kellog									
Are climatic / hydrologic condi									
Are Vegetation, Soil								✓ No	
Are Vegetation, Soil								<u>/</u>	
-									
SUMMARY OF FINDING	GS – Attach si	te m	nap showing sam	ipling poi	nt locatio	ns, transects, ir	nportant fe	atures, etc.	
Hydrophytic Vegetation Pres	sent? Yes		No	Is the Sam					
Hydric Soil Present?	Yes _		No	within a W	etland?	Yes	No <u>/</u>		
Wetland Hydrology Present?			No	If yes, optio	onal Wetland	Site ID:			
Remarks: (Explain alternative The upland area is	/e procedures here	or in	a separate report.)	mosic h	ardwood	d forcet. The a	roa was i	dontified	
as a WWI but is rep			•	1111621611	iaiuwood	a lorest. The a	liea was it	Jennieu	
	nesentative o	n up	Jiai iu.						
HYDROLOGY									
Wetland Hydrology Indicat	ors:					Secondary Indicators	s (minimum of	two required)	
Primary Indicators (minimum	of one is required;					Surface Soil Cra	acks (B6)		
Surface Water (A1)			Water-Stained Leave			Drainage Patter			
High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Lines (B16)			
Saturation (A3)			Marl Deposits (B15)	- ··· (O4)		Dry-Season Wa			
Water Marks (B1)			Hydrogen Sulfide Od			Crayfish Burrow		(00)	
Sediment Deposits (B2)			Oxidized Rhizospher	_					
Drift Deposits (B3) Algal Mat or Crust (B4)			Presence of Reduced Recent Iron Reduction			Stunted or Stres Geomorphic Pos		.)	
Iron Deposits (B5)			Thin Muck Surface (C			Shallow Aquitar			
Inundation Visible on Ae	erial Imagery (B7)		Other (Explain in Rer	•		Microtopographi			
Sparsely Vegetated Con		_	Other (Explain in Nei	narko)		FAC-Neutral Te			
Field Observations:							()		
Surface Water Present?	Yes No _	~	Depth (inches):						
Water Table Present?			Depth (inches):						
Saturation Present?	Yes No _	~	Depth (inches):		Wetland H	ydrology Present?	Yes	No <u>~</u>	
(includes capillary fringe) Describe Recorded Data (str	ream gauge monito	ring	well aerial photos pre	vious inspec	tions) if avai	lahla.			
Describe recorded bata (str	cam gauge, monto	ning v	well, acrial priolos, pro	vious irispeci	dons, ii avai	ilabic.			
Remarks:	tland budrala	~ \ \	wara abaamiad						
No indicators of we	tiand hydrolog	gy v	were observed	•					

EGETATION – Use scientific names of plants.				Sampling Point: nobad1001				
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:				
1. <u>Acer saccharum</u>	_50_	Y	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: (A)				
2. Acer rubrum	_25_	Y	FAC	Total Number of Dominant				
з. <i>Populus grandidentata</i>		N	<u>FACU</u>	Species Across All Strata: (B)				
4. <u>Pinus strobus</u>	5	N	<u>FACU</u>	Percent of Dominant Species				
5. <u>Abies balsamea</u>	5	N	FAC	That Are OBL, FACW, or FAC: (A/B)				
6				Prevalence Index worksheet:				
7				Total % Cover of: Multiply by:				
	95	= Total Cov	ver	OBL species				
Sapling/Shrub Stratum (Plot size:15)				FACW species2 x 2 =4				
1. Corylus cornuta	15	Y	FACU	FAC species <u>43</u> x 3 = <u>129</u>				
2. <u>Abies balsamea</u>				FACU species <u>129</u> x 4 = <u>516</u>				
3. Pinus strobus				UPL species $0 \times 5 = 0$				
4.				Column Totals:174 (A)649 (B)				
5.				Prevalence Index = $B/A = 3.7298850574712645$				
6				Hydrophytic Vegetation Indicators:				
7				1 - Rapid Test for Hydrophytic Vegetation				
		= Total Cov		2 - Dominance Test is >50%				
Herb Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0¹				
1. <u>Pteridium aquilinum</u>	25	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)				
2. Quercus rubra		N	FACU	Problematic Hydrophytic Vegetation¹ (Explain)				
3. Trientalis borealis		N	FAC					
4. <u>Carex gracillima</u>		N	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
5. Pinus strobus		Y	FACU					
6. Acer rubrum		N	FAC	Definitions of Vegetation Strata:				
7. <u>Mitchella repens</u>		N	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
8. <u>Dryopteris carthusiana</u>			FACW					
9. Acer saccharum		N	FACU	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.				
10. Hieracium sp.	_ 	N	17100	Herb – All herbaceous (non-woody) plants, regardless				
11. Ranunculus acris	1	N	FAC	of size, and woody plants less than 3.28 ft tall.				
12.			1710	Woody vines – All woody vines greater than 3.28 ft in				
·		= Total Cov	/or	height.				
Woody Vine Stratum (Plot size: 30)		- rotal 00	VOI					
1								
2.								
3				Hydrophytic Vegetation				
4				Present? Yes No _ ✓				
Remarks: (Include photo numbers here or on a separate s		= Total Cov	vei					
The vegetation is representative of upla	ind dom	ninated I	by mapl	e species, with ground cover				

dominated by bracken fern and tree saplings represented in the canopy. Ground cover is limited by the duff layer.

SOIL Sampling Point: nobad1001

Profile Desc	ription: (D	escribe t	to the dep	th needed to docum	ent the i	indicator	or confirm	n the absence of indicators.)	
Depth		Matrix			<u>Feature</u>		. 2		
(inches)	Color (r		<u>%</u>	Color (moist)	<u>%</u>	Type'	Loc ²	Texture Remarks	—
0-4	<u>5YR</u>	3/3	100		_0_			_FSL_	_
4-20	<u>5YR</u>	4/3	100		0			FS	_
	-					·			_
									_
	-								_
									_
									_
									-
	-								_
	-								_
		n, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	d Sand Gr	ains.	² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil Histosol				Polyvalue Below	, Surface	(S9) (I DI	. D	Indicators for Problematic Hydric Soils ³ : 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
	oipedon (A2)		MLRA 149B)	Juliace	(30) (LKI	Χ ΙΧ,	Coast Prairie Redox (A16) (LRR K, L, MLRA 149B)	
Black Hi	stic (A3)			Thin Dark Surfa				5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
	en Sulfide (A			Loamy Mucky M			(, L)	Dark Surface (S7) (LRR K, L)	
	d Layers (At d Below Dar		e (A11)	Loamy Gleyed Matrix		()		Polyvalue Below Surface (S8) (LRR K, L)Thin Dark Surface (S9) (LRR K, L)	
-	ark Surface		,	Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)
	Mucky Miner			Depleted Dark S		- 7)		Piedmont Floodplain Soils (F19) (MLRA 149	
	Bleyed Matri Redox (S5)	x (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149ERed Parent Material (F21)	3)
	l Matrix (S6))						Very Shallow Dark Surface (TF12)	
	rface (S7) (I		ILRA 149E	3)				Other (Explain in Remarks)	
3									
Restrictive I		-		tland hydrology mus	t be prese	ent, unies:	s disturbed	or problematic.	
Type:	Layer (II ob	oci veaj.							
	ches).			<u> </u>				Hydric Soil Present? Yes No	
Remarks:	onioo)								_
	c soil ind	dicator	s were	observed.					

Project/Site: Line 5 Relocation Project	City/Co	unty: Ashland	Sar	mpling Date: <u>2020-06-03</u>	
Applicant/Owner: Enbridge					
Investigator(s): SBR/DGL	Section	ı, Township, Range: S	ec 05 T046N R	004W	
Landform (hillslope, terrace, etc.): Side Slope					
Subregion (LRR or MLRA): Northcentral Forests Lat	<u></u> : 46 501789	Long: -90	896649	Datum: WGS84	
Soil Map Unit Name: <u>Udorthents</u> , ravines and					
Are climatic / hydrologic conditions on the site typical f	•	·			
	•				
Are Vegetation, Soil, or Hydrology					
Are Vegetation, Soil, or Hydrology			explain any answers in		
SUMMARY OF FINDINGS – Attach site n	nap showing samp	ling point locatio	ons, transects, im	portant features, etc.	
Hydrophytic Vegetation Present? Yes		Is the Sampled Area			
	No \	within a Wetland?	Yes	No <u>/</u>	
Wetland Hydrology Present? Yes		If yes, optional Wetland	I Site ID:	_	
Remarks: (Explain alternative procedures here or in	a separate report.)	Satura The feat	ura ia haet deed	oribad as a	
The sample point documents a non forested upland with a sparse herba					
such as common lady fern and ostri	•	l IIIUStry Corisist	5 UI Ibai III.bi ai	iia ieiii shecies	
Such as confinion lady lent and osti	ich lein.				
HYDROLOGY					
Wetland Hydrology Indicators:				(minimum of two required)	
Primary Indicators (minimum of one is required; chec					
	Water-Stained Leaves	(B9)	Drainage Patterns (B10)		
	Aquatic Fauna (B13)		Moss Trim Lines (B16)		
	Marl Deposits (B15)	(04)	Dry-Season Water Table (C2)		
	Hydrogen Sulfide Odor		Crayfish Burrows (C8)		
	Oxidized Rhizospheres		oots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)		
	Presence of Reduced I Recent Iron Reduction		Stunted or Stress Geomorphic Posi		
	Thin Muck Surface (C7		Shallow Aquitard		
	Other (Explain in Rema		Microtopographic	, ,	
Sparsely Vegetated Concave Surface (B8)	Carlor (Explain in Trome	1110)	FAC-Neutral Test		
Field Observations:				. (20)	
Surface Water Present? Yes No _ 🗸	_ Depth (inches):				
Water Table Present? Yes No	Depth (inches):				
	_ Depth (inches):	Wetland F	lydrology Present?	Yes No	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	well periol photos provi	ous inspections) if over	ilabla		
Describe Recorded Data (stream gauge, monitoring	weii, aeriai priotos, previ	ous inspections), il ava	liable.		
Remarks:					
No indicators of wetland hydrology	were observed.				

t: SC:
C:1 (A)
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
et: Multiply by: $x = 0$
et: Multiply by: $x = 0$
C: 33 (A/B) et: Multiply by: $x 1 = 0$ $x 2 = 6$ $x 3 = 90$ $x 4 = 340$ $x 5 = 0$ (A) 436 (B)
Multiply by: x 1 = 0 x 2 = 6 x 3 = 90 x 4 = 340 x 5 = 0 (A) 436 (B)
Multiply by: x 1 = 0 x 2 = 6 x 3 = 90 x 4 = 340 x 5 = 0 (A) 436 (B)
$ \begin{array}{ccccccccccccccccccccccccccccccccccc$
$ \begin{array}{ccccccccccccccccccccccccccccccccc$
x = 3 = 90 x = 340 x = 0 (A) $x = 436$ (B)
x 5 = <u>0</u> (A) <u>436</u> (B)
(A) <u>436</u> (B)
A = 3.694915254237288
dicators:
phytic Vegetation
50%
≤3.0¹
ations ¹ (Provide supporting
n a separate sheet)
: Vegetation ¹ (Explain)
wetland hydrology must
or problematic.
trata:
.6 cm) or more in diameter
dless of height.
nts less than 3 in. DBH
3.28 ft (1 m) tall.
woody) plants, regardless
s than 3.28 ft tall.
nes greater than 3.28 ft in
No <u> </u>

SOIL Sampling Point: noasa1005

Profile Desc	cription: (Describe t	o the dep	th needed to docum	ent the i	indicator	or confirm	the absence of indicators.)	
Depth	Matrix			<u>Feature</u>		. 2		
(inches) 0-12	Color (moist) 7.5YR 2.5/3	<u>%</u>	Color (moist)	 O	Type'	Loc ²	Texture Re	emarks
12-20	<u>5YR 3/4</u>	100					SICL	
				-				
					·			
	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	d Sand Gr	ains.	² Location: PL=Pore Lining	
Hydric Soil Histosol			Polyvalue Below	, Surface	(S8) (I D I	D D	Indicators for Problematic 2 cm Muck (A10) (LRR	-
	oipedon (A2)		MLRA 149B)	Juliace	(30) (LI (I	ιι,	Coast Prairie Redox (A1	
	stic (A3)		Thin Dark Surface				5 cm Mucky Peat or Pea	
	en Sulfide (A4) d Layers (A5)		Loamy Mucky M Loamy Gleyed N			., L)	Dark Surface (S7) (LRRPolyvalue Below Surface	
	d Below Dark Surface	(A11)	Depleted Matrix	(F3)			Thin Dark Surface (S9)	
	ark Surface (A12)		Redox Dark Sur				Iron-Manganese Masse	
	Mucky Mineral (S1) Bleyed Matrix (S4)		Depleted Dark S Redox Depressi		-7)		Piedmont Floodplain SoMesic Spodic (TA6) (ML	
Sandy R	Redox (S5)			- (-)			Red Parent Material (F2	21)
	l Matrix (S6) rface (S7) (LRR R, M	I RA 149R	1)				Very Shallow Dark Surfa Other (Explain in Remains)	
	, , ,		,			P		,
	f hydrophytic vegetati Layer (if observed):	on and we	tiand nydrology musi	be prese	ent, unies:	s disturbed	or problematic.	
Type:								
Depth (in	ches):						Hydric Soil Present? Yes	No <u> </u>
Remarks:							<u> </u>	
No indica	ators of hydric	soil we	re observed.					



noasa1005_E



noasa1005_N



noasa1005_S



noasa1005_W

Project/Site: Line 5 Relocation Project	City/County:	Ashland	Sampling Date: 2020-07-06
•			isconsin Sampling Point: noasd1011
Investigator(s): DMP/AGG)46N R004W		
Landform (hillslope, terrace, etc.): Rise			
Subregion (LRR or MLRA): Northcentral Forests Lat:			
Soil Map Unit Name: Sanborg-Badriver com			
Are climatic / hydrologic conditions on the site typical for	•	•	
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site m	nap showing sampling	point locations, trans	sects, important features, etc.
	_ 110	Sampled Area	
Hydric Soil Present? Yes	_ 140	n a Wetland? Yes	No <u> </u>
		, optional Wetland Site ID:	
Remarks: (Explain alternative procedures here or in The sample plot was taken in a map	a separate report.) Sped NWI within a n	nived mesic forest 1	No wetland indicators
were observed.		iixed iiiesic ioiesi. i	No wettarid indicators
were observed.			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary	Indicators (minimum of two required)
Primary Indicators (minimum of one is required; chec	k all that apply)	Surfac	e Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Draina	ige Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss ⁻	Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry-Se	eason Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfis	sh Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres on L	iving Roots (C3) Satura	ition Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduced Iron (C4) Stunte	d or Stressed Plants (D1)
	Recent Iron Reduction in Til	led Soils (C6) Geome	orphic Position (D2)
	Thin Muck Surface (C7)		w Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microto	opographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-N	leutral Test (D5)
Field Observations:			
	Depth (inches):		
	Depth (inches):		
Saturation Present? Yes No (includes capillary fringe)	_ Depth (inches):	Wetland Hydrology F	Present? Yes No
Describe Recorded Data (stream gauge, monitoring v	well, aerial photos, previous i	nspections), if available:	
Demonto			
Remarks: No indicators of wetland hydrology v	were observed		
The management of menanta my andregy is			

/EGETATION - Use scientific names of plants				Sampling Point: noasd1011
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1. <u>Abies balsamea</u>	50	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2. <u>Acer rubrum</u>	5	_N_	FAC	Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 25 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	_55	= Total Cov	/er	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species4 x 2 =8
1. Fraxinus pennsylvanica	2	N	FACW	FAC species <u>65</u> x 3 = <u>195</u>
2. <u>Ostrya virginiana</u>			<u>FACU</u>	FACU species x 4 = 164
3				UPL species $0 \times 5 = 0$ Column Totals: $110 \times 6 \times 367$ (B)
4				Column Totals. 110 (A) 307 (B)
5				Prevalence Index = B/A = 3.336363636363636364
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov		2 - Dominance Test is >50%
Herb Stratum (Plot size:5				3 - Prevalence Index is ≤3.0¹
1. <u>Mitchella repens</u>	15	Y	<u>FACU</u>	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Pteridium aquilinum</u>			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Maianthemum canadense</u>		Υ	FACU	
4. <u>Toxicodendron rydbergii</u>		N	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Trientalis borealis		N	FAC	Definitions of Vegetation Strata:
6. <u>Fragaria virginiana</u>		N	FACU	_
7. <u>Rubus pubescens</u>			FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. Brachyelytrum erectum			FACU	Sapling/shrub – Woody plants less than 3 in. DBH
9.				and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Cov	/er	height.
Woody Vine Stratum (Plot size:)		•		
1				
2.				
3.				Hydrophytic
4				Vegetation
		= Total Cov	/er	Present? Yes No _ ✓
Remarks: (Include photo numbers here or on a separate		•		
The sample vegetation is representative while a variety of FACU and FAC spec			_	
, 1 1 2 3 3 3 4 5 6 6 6			J	•

SOIL Sampling Point: noasd1011

Profile Desc	ription: (D	escribe	to the dep	th needed to docum			or confirm	the absence of inc	dicators.)	
Depth (inches)	Color (Matrix moist)	%	Color (moist)	<u>Feature</u> %	s Type ¹	Loc ²	Texture	Remarks	
0-15	5YR		100	Color (molecy	0			FSL	romano	
15-20	5YR	4/4	100		0			FS	_	
		-, -								
-										
					-			·		
						. ——				
			letion, RM	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		Pore Lining, M=Matrix.	
Hydric Soil I				Dobardua Balau	Curtoso	(CO) (LDI	. B		roblematic Hydric Soils ³ :	
Histosol	(AT) ipedon (A2	2)		Polyvalue Below MLRA 149B)	Junace	(56) (LKI	ιк,		A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R)	
Black His		,		Thin Dark Surface					Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A			Loamy Mucky M			, L)		e (S7) (LRR K, L)	
	Layers (As Below Da		e (A11)	Loamy Gleyed NDepleted Matrix		2)		Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)		
	rk Surface		(,,,,	Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)		
-	ucky Minei			Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
	leyed Matr edox (S5)	ix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)Red Parent Material (F21)		
-	Matrix (S6))							v Dark Surface (TF12)	
	face (S7) (•	ILRA 1491	3)					nin in Remarks)	
3Indiantors of	h. dranh. #	ia va aatat	بيد امم مما	otland budralagu must	t ha nraa.	ant unlace	diaturbad	ar problematic		
Restrictive L		_		etland hydrology must	t be blest	ent, unies	disturbed	or problematic.		
Type:	``	,								
	:hes):							Hydric Soil Prese	ent? Yes No <u>/</u>	
Remarks:	,									
	orofile o	onsist	s of a r	eddish brown f	fine sa	andy lo	am ove	r a red fine sa	and. The profile is dry	
and no hy	ydric so	il indic	cators v	vere observed.						



noasd1011_E



noasd1011_N



noasd1011 S



noasd1011_W

Project/Site: Line 5 Relo	cation Project	City/C	County: Ashlar	<u>nd</u> s:	ampling Date: <u>2020-07-06</u>		
	•				Sampling Point: noasd1012		
Investigator(s): DMP/AGC					· -		
					Slope (%): <u>0-2%</u>		
					Datum: WGS84		
Soil Map Unit Name: Sanbo							
Are climatic / hydrologic condit	ions on the site typica	al for this time of year? Y	∕es <u> / </u>	(If no, explain in Rem	narks.)		
Are Vegetation, Soil	, or Hydrology _	significantly distur	rbed? Are '	"Normal Circumstances" pres	sent? Yes 🔽 No		
Are Vegetation, Soil				eeded, explain any answers i			
SUMMARY OF FINDING	3S – Attach site	map showing san	npling point le	ocations, transects, ir	mportant features, etc.		
Hydrophytic Vegetation Pres	ent? Yes	/ No	Is the Sampled	l Area			
Hydric Soil Present?	·	No	within a Wetlar	nd? Yes	No <u>~</u>		
Wetland Hydrology Present?	Yes	No	If yes, optional \	Wetland Site ID:	_		
Remarks: (Explain alternativ	e procedures here or	in a separate report.)	•				
The sample point w		• •		-	. ,		
was met, but the ve	•	•	it than that c	of the adjacent well	and. No other		
wetland parameters	were observe	d.					
HYDROLOGY							
Wetland Hydrology Indicate	ors:			Secondary Indicator	s (minimum of two required)		
Primary Indicators (minimum	of one is required; ch	eck all that apply)		Surface Soil Cra	acks (B6)		
Surface Water (A1)	_	Water-Stained Leave	es (B9)	Drainage Patterns (B10)			
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lines			
Saturation (A3)		Marl Deposits (B15)		Dry-Season Wa	Dry-Season Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Burrows (C8)			
Sediment Deposits (B2)		Oxidized Rhizospher					
Drift Deposits (B3)	_	Presence of Reduced	d Iron (C4)	Stunted or Stres	ssed Plants (D1)		
Algal Mat or Crust (B4)	_	Recent Iron Reduction	on in Tilled Soils (0	C6) Geomorphic Po	sition (D2)		
Iron Deposits (B5)	_	Thin Muck Surface (0	37)	Shallow Aquitard (D3)			
Inundation Visible on Ae	rial Imagery (B7) _	Other (Explain in Rer	marks)	Microtopographic Relief (D4)			
Sparsely Vegetated Con	cave Surface (B8)			FAC-Neutral Te	st (D5)		
Field Observations:							
Surface Water Present?		Depth (inches):					
Water Table Present?		Depth (inches):					
Saturation Present?	Yes No	Depth (inches):	We	etland Hydrology Present?	Yes No		
(includes capillary fringe) Describe Recorded Data (stre	eam daude, monitorin	ng well aerial photos, pre	evious inspections	a) if available:			
D0001100110001202 22121 (2.11	Juli gaaga,a	g won, aona. priotos, pri	771000 moposite	y, ii availabio.			
Remarks:							
No indicators of wet	land hydrology	/ were observed					

/EGETATION - Use scientific names of plants	i.			Sampling Point: noasd1012
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	t Indicator Status	Dominance Test worksheet:
1. <u>Abies balsamea</u>	50	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2. <u>Acer rubrum</u>	25	Y	FAC	Total Number of Dominant
3. <u>Fraxinus pennsylvanica</u>		N	<u>FACW</u>	Species Across All Strata: 4 (B)
4. Betula papyrifera	2	N	<u>FACU</u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	79	= Total Co	ver	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species2 x 2 =4
1.				FAC species <u>82</u> x 3 = <u>246</u>
2			-	FACU species9 x 4 =36
3.				UPL species x 5 = 0
4.				Column Totals: <u>93</u> (A) <u>286</u> (B)
5.				Prevalence Index = B/A = 3.075268817204301
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	_	= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 ¹
1. <u>Maianthemum canadense</u>	5	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Toxicodendron rydbergii</u>		Y	FAC	Problematic Hydrophytic Vegetation¹ (Explain)
3. Trientalis borealis			FAC	
4. Brachyelytrum erectum				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Carex sp.</u>				Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9	_			and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	16	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1	_			
2				
3.				Hydrophytic
4				Vegetation
		= Total Co	ver	Present? Yes <u>✓</u> No
Remarks: (Include photo numbers here or on a separate The sample vegetation is representative fir and red maple. The herbaceous layerspecies.	e of the			a. The canopy is dominated by balsam y a mixture of FAC and FACU

SOIL Sampling Point: noasd1012

Profile Desc	ription: (I	Describe t	o the dep	th needed to docum	ent the	indicator	or confirm	the absence of i	ndicators.)	
Depth		Matrix			(Feature					
(inches)		(moist)	400	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks	
<u> 0-4</u>	7.51R 5YR	2.5/2 3/3	100		0	·				
4-12										
12-20	<u>5YR</u>	4/4	<u>100</u>		_0_			<u> </u>		
		_								
			etion, RM:	=Reduced Matrix, MS	=Masked	d Sand Gr	ains.		_=Pore Lining, M=Matrix.	
Hydric Soil		:				(20) (1.2)			Problematic Hydric Soils ³ :	
Histosol	(A1) pipedon (A:	2)		Polyvalue Below MLRA 149B)	/ Surface	(S8) (LRI	RR,		(A10) (LRR K, L, MLRA 149B) rie Redox (A16) (LRR K, L, R)	
Black Hi		2)		Thin Dark Surface	ce (S9) (I	LRR R, MI	LRA 149B)		sy Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (Loamy Mucky M			, L)		ice (S7) (LRR K, L)	
	d Layers (A d Below Da		(//11)	Loamy Gleyed N		2)		-	Below Surface (S8) (LRR K, L)	
	ark Surface		(A11)	Depleted MatrixRedox Dark Surf					Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, R)	
	lucky Mine			Depleted Dark S				_	Floodplain Soils (F19) (MLRA 149B)	
	Sleyed Mat	rix (S4)		Redox Depressi	ons (F8)				dic (TA6) (MLRA 144A, 145, 149B)	
-	tedox (S5) Matrix (S6	3)							t Material (F21)	
	rface (S7)	,	LRA 149	3)				Very Shallow Dark Surface (TF12) Other (Explain in Remarks)		
Restrictive I			on and we	etland hydrology must	t be pres	ent, unless	s disturbed	or problematic.		
Type:		,.								
Depth (inc	ches):							Hydric Soil Present? Yes No		
Remarks:										
		consists	of a c	lark loam over	two re	eddish	brown	clay layers. I	No hydric soil indicators	
were obs	served.									



noasd1012_E



noasd1012_N



noasd1012_S



noasd1012_W

Project/Site: Line 5 Relocation Project	City/Coun	ty: Ashland	Sampling	g Date: <u>2020-05-19</u>	
Applicant/Owner: Enbridge					
Investigator(s): ARK/DMP	Section, ⁻	Гownship, Range: <u>S</u>	ec 20 T046N R004	W	
Landform (hillslope, terrace, etc.): Depression					
Subregion (LRR or MLRA): Northcentral Forests					
Soil Map Unit Name: Sanborg-Badriver of					
Are climatic / hydrologic conditions on the site typic	•	•			
Are Vegetation, Soil, or Hydrology				Voc. 4 No.	
Are Vegetation, Soil, or Hydrology			explain any answers in Rem		
SUMMARY OF FINDINGS – Attach sit	e map snowing sampli	ng point location	ons, transects, impor	tant features, etc.	
Hydrophytic Vegetation Present? Yes	110	the Sampled Area			
	140	thin a Wetland?	Yes No _		
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here of	-	es, optional Wetland	d Site ID:		
Moist depression in a hay field. T did not meet soil or vegetation pa					
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indicators (mini	mum of two required)	
Primary Indicators (minimum of one is required; of	heck all that apply)		Surface Soil Cracks (B	36)	
Surface Water (A1)	Water-Stained Leaves (B	.9)	Drainage Patterns (B1		
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)	24)	Dry-Season Water Table (C2)		
Water Marks (B1)	Hydrogen Sulfide Odor (0Oxidized Rhizospheres o		Crayfish Burrows (C8)Saturation Visible on A		
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced Iro		Saturation Visible on AStunted or Stressed P	=	
Algal Mat or Crust (B4)	Recent Iron Reduction in		✓ Geomorphic Position (
Iron Deposits (B5)	Thin Muck Surface (C7)	()	Shallow Aquitard (D3)	•	
	Other (Explain in Remark	is)	Microtopographic Relie		
Sparsely Vegetated Concave Surface (B8)			FAC-Neutral Test (D5)		
Field Observations:					
	✓ Depth (inches):				
	✓ Depth (inches):				
Saturation Present? Yes No _ (includes capillary fringe)	✓ Depth (inches):	Wetland I	Hydrology Present? Yes	No <u> </u>	
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previou	I is inspections), if ava	ailable:		
Remarks:					
The feature receives overland flo	w from the surround	ing hav field.	and, potentially, fro	m the tilled	
cropland to the west.		3 , ,	,,		

Tree Stratum (Plot size:30)	Absolute % Cover		t Indicator Status	Dominance Test worksheet:
1	_			Number of Dominant Species That Are OBL, FACW, or FAC:1(A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
45		= Total Co	over	OBL species0 x 1 =0 FACW species0 x 2 =0
Sapling/Shrub Stratum (Plot size: 15)				FAC species x3 =
1				FACU species 19 x 4 = 76
2.				UPL species0 x 5 =0
3				Column Totals: <u>32</u> (A) <u>115</u> (B)
4. 5.				Prevalence Index = B/A = 3.59
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0 ¹
1. Carex tenera	10	<u>Y</u>	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Carex gracillima</u>	10	Y	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Phleum pratense	5	N	<u>FACU</u>	The disease of budgis as it and westered budgets as well as
4. <u>Trifolium repens</u>	3	N	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Ranunculus acris	0	N	FAC	Definitions of Vegetation Strata:
6. Alopecurus pratensis	1	N	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. <u>Taraxacum officinale</u>	_ 1	N	<u>FACU</u>	at breast height (DBH), regardless of height.
8		-		Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10		-		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11		-		
12				Woody vines – All woody vines greater than 3.28 ft in height.
20	32	= Total Co	over	
Woody Vine Stratum (Plot size: 30)				
1				
2.				
3				Hydrophytic Vegetation
4	_	= Total Co		Present? Yes No
Remarks: (Include photo numbers here or on a separate		= Total CC)vei	
Sampled vegetation is representative of		ature.		

Sampling Point: noase1010

Profile Des	cription: (Describe	to the dept	h needed to docum	ent the	indicator	or confirm	the absence of in	dicators.)
Depth	Matrix			(Feature				
(inches)	Color (moist)		Color (moist)		Type'	Loc ²	<u>Texture</u>	Remarks
0-3	10YR 2/1	100		0	. ——		CL	
3-20	2.5YR 3/4	100		0			C	
	-							
	-	·						
		 -						
	concentration, D=Dep	letion, RM=	Reduced Matrix, MS	=Masked	d Sand Gr	ains.		=Pore Lining, M=Matrix.
Hydric Soil			Debarelya Balay	Curtoso	(Co) (LDI	. D		Problematic Hydric Soils ³ :
Histoso Histic E	pipedon (A2)	•	Polyvalue Below MLRA 149B)	Juliace	(56) (LKI	χκ,		(A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R)
Black H	listic (A3)		Thin Dark Surface				5 cm Mucky	Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4) d Layers (A5)		Loamy Mucky M Loamy Gleyed N			, L)		e (S7) (LRR K, L) elow Surface (S8) (LRR K, L)
	ed Below Dark Surface	e (A11)	Depleted Matrix		-)			surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Sur				_	nese Masses (F12) (LRR K, L, R)
-	Mucky Mineral (S1) Gleyed Matrix (S4)		Depleted Dark S Redox Depressi		- 7)			loodplain Soils (F19) (MLRA 149B) ic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)	•	Redox Depressi	0113 (1 0)				Material (F21)
	d Matrix (S6)		_					w Dark Surface (TF12)
Dark Su	urface (S7) (LRR R, N	ILRA 149B)				Other (Expl	ain in Remarks)
	of hydrophytic vegetat		land hydrology must	t be pres	ent, unless	s disturbed	or problematic.	
	Layer (if observed):							
Type:							Hudria Sail Draa	ont? You No ./
Depth (in	nches):		<u></u>				nyaric Soil Fres	ent? Yes No
Remarks:	beneath dark	clay lo	am. No redox	ohser	ved			
Trou day	bonoan aan	ciay io	am. 110 1000x	00001	voa.			



noase1010_E



noase1010_N



noase1010_S



noase1010_W

Project/Site: Line 5 Relocation Proje	ct City/C	County: Ashland	Sampling Date: <u>2020-05-19</u>					
			State: Wisconsin Sampling Point: noase1001					
· ·		Section, Township, Range: Sec 20 T046N R004W						
			ne): <u>Concave</u> Slope (%): <u>0-2%</u>					
	Subregion (LRR or MLRA): Northcentral Forests Lat: 46.447337 Long: -90.896157 Datum: WGS8-							
			NWI classification:					
Are climatic / hydrologic conditions on the site ty	•	•						
	-		I Circumstances" present? Yes No					
Are Vegetation, Soil, or Hydrolog	gynaturally problem	atic? (If needed, e	explain any answers in Remarks.)					
SUMMARY OF FINDINGS - Attach	site map showing san	npling point location	ons, transects, important features, etc.					
Hydrophytic Vegetation Present? Yes	✓ No	Is the Sampled Area						
	No	within a Wetland?	Yes No					
	No 🔽	If ves. optional Wetland	d Site ID:					
Remarks: (Explain alternative procedures her	e or in a separate report.)							
The sample plot is located within observed, however no other we		•	dropnytic vegetation was					
HYDROLOGY								
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one is required	d; check all that apply)		Surface Soil Cracks (B6)					
Surface Water (A1)	Water-Stained Leave	es (B9)	Drainage Patterns (B10)					
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)					
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2)					
Water Marks (B1)	Hydrogen Sulfide Od		Crayfish Burrows (C8)					
Sediment Deposits (B2)	Oxidized Rhizospher	- · · · · · · · · · · · · · · · · · · ·						
Drift Deposits (B3)	Presence of Reduce		Stunted or Stressed Plants (D1)					
Algal Mat or Crust (B4)	Recent Iron Reduction	` '	Geomorphic Position (D2)					
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (0		Shallow Aquitard (D3)					
Sparsely Vegetated Concave Surface (B8)		ilaiks)	Microtopographic Relief (D4) FAC-Neutral Test (D5)					
Field Observations:)		TAC-Neutral Test (D3)					
	Depth (inches):							
	Depth (inches):							
	Depth (inches):		Hydrology Present? Yes No/					
(includes capillary fringe)								
Describe Recorded Data (stream gauge, moni	toring well, aerial photos, pre	evious inspections), if ava	ailable:					
Remarks:								
The sample plot is located with	n a slight depression	on in the landsca	pe, however no other hydrology					
indicators were observed.								

	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:30)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4	<u> </u>			Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species15 x 1 =15
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1.				FAC species7 x 3 =21
2.				FACU species <u>28</u> x 4 = <u>112</u>
3				UPL species 0 x 5 = 0
4.				Column Totals:(A)(B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov		2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		= Total Co	VEI	3 - Prevalence Index is ≤3.0¹
1. Phleum pratense	25	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Carex cf stricta		Y	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Carex cf tenera		N	FAC	
4. Ranunculus acris		N	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
- 1 - 1	2	N	FACU	
			FACU	Definitions of Vegetation Strata:
6. <u>Fragaria virginiana</u>				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9				and greater than or equal to 3.26 it (1 iii) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12.				Woody vines – All woody vines greater than 3.28 ft in height.
	50	= Total Co	ver	
Woody Vine Stratum (Plot size: 30				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes ✓ No
	0	= Total Co	ver	
Remarks: (Include photo numbers here or on a separate The vegetation is representative of the in the surrounding uplands and wetland	depress	sion. Sa	mple pl	ot contains vegetation that was found

Sampling Point: noase1001

Profile Desc	cription: (Descri	oe to the dep	th needed to docun	nent the	indicator	or confirm	the absence of ir	ndicators.)
Depth	Matrix			x Feature		. 2	_	
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type'	Loc ²	<u>Texture</u>	Remarks
0-7	7.5YR 3/2			0			CL	
<u>7-20</u>	<u>5YR 4/4</u>	100		0			C	
	-							
				· 				
	-							
								
1- 0.0							21	
Hydric Soil		epletion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.		.=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :
Histosol			Polyvalue Belov	v Surface	(S8) (LR	R,		(A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		MLRA 149B)					rie Redox (A16) (LRR K, L, R)
	istic (A3) en Sulfide (A4)		Thin Dark Surfa Loamy Mucky M					y Peat or Peat (S3) (LRR K, L, R) ce (S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed I			, L)		Below Surface (S8) (LRR K, L)
Deplete	d Below Dark Sur	ace (A11)	Depleted Matrix	(F3)			Thin Dark S	Surface (S9) (LRR K, L)
	ark Surface (A12)		Redox Dark Sui	, ,			_	anese Masses (F12) (LRR K, L, R)
-	Mucky Mineral (S1 Gleyed Matrix (S4)		Depleted Dark S Redox Depress		-7)			Floodplain Soils (F19) (MLRA 149B) dic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)		Redex Deprese	10110 (1 0)				t Material (F21)
	d Matrix (S6)							ow Dark Surface (TF12)
Dark Su	ırface (S7) (LRR F	R, MLRA 149E	3)				Other (Exp	lain in Remarks)
³ Indicators o	of hydrophytic vege	etation and we	tland hydrology mus	t be pres	ent, unless	s disturbed	or problematic.	
Restrictive	Layer (if observe	d):						
Type:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes No/
Remarks:						NI-		diantanaaa ah aan ad
The soil	profile consi	sts of a d	ark clay loam	over a	a rea ci	ay. No	nyarıc soli in	dicators were observed.



noase1001_E



noase1001_N



noase1001_S



noase1001_W

Project/Site: Line 5 Relo	cation Project	t City/County: Ashland Sampling Date: 2020-						
	•	State: Wisconsin Sampling Point: noasd10						
•		Section, Township, Range: Sec 08 T046N R004W						
Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): None Slope (%):								
					Datum: WGS84			
Soil Map Unit Name: Sanbo								
Are climatic / hydrologic condit	ions on the site typica	al for this time of year? Y	∕es <u> / </u>	(If no, explain in Rem	narks.)			
Are Vegetation, Soil	, or Hydrology _	significantly distur	rbed? Are '	"Normal Circumstances" pres	sent? Yes 🔽 No			
Are Vegetation, Soil				eeded, explain any answers i				
SUMMARY OF FINDING	3S – Attach site	map showing san	npling point le	ocations, transects, ir	mportant features, etc.			
Hydrophytic Vegetation Pres	ent? Yes	/ No	Is the Sampled	l Area				
Hydric Soil Present?	·	No	within a Wetlar	nd? Yes	No <u>~</u>			
Wetland Hydrology Present?	Yes	No	If yes, optional \	Wetland Site ID:	_			
Remarks: (Explain alternativ	e procedures here or	in a separate report.)	•					
The sample point w		• •		-	. ,			
was met, but the ve	•	•	it than that c	of the adjacent well	and. No other			
wetland parameters	were observe	d.						
HYDROLOGY								
Wetland Hydrology Indicate	ors:			Secondary Indicator	s (minimum of two required)			
Primary Indicators (minimum	of one is required; ch	eck all that apply)		Surface Soil Cracks (B6)				
Surface Water (A1)	_	Water-Stained Leave	es (B9)	Drainage Patterns (B10)				
High Water Table (A2)		Aquatic Fauna (B13)			Moss Trim Lines (B16)			
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)				
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Burrows (C8)				
Sediment Deposits (B2)		Oxidized Rhizospher			ole on Aerial Imagery (C9)			
Drift Deposits (B3)	_	Presence of Reduced	d Iron (C4)	Stunted or Stressed Plants (D1)				
Algal Mat or Crust (B4)	_	Recent Iron Reduction	on in Tilled Soils (0					
Iron Deposits (B5)	_	Thin Muck Surface (0	37)	Shallow Aquitard (D3)				
Inundation Visible on Ae	rial Imagery (B7) _	Other (Explain in Rer	marks)	Microtopographic Relief (D4)				
Sparsely Vegetated Con	cave Surface (B8)			FAC-Neutral Te	st (D5)			
Field Observations:								
Surface Water Present?		Depth (inches):						
Water Table Present?		Depth (inches):						
Saturation Present?	Yes No	Depth (inches):	We	etland Hydrology Present?	Yes No			
(includes capillary fringe) Describe Recorded Data (stre	eam daude, monitorin	ng well, aerial photos, pre	evious inspections	s) if available:				
D0001100110001202 22121 (2.11	Juli gaaga,a	g won, aona. priotos, pri	771000 moposite	y, ii availabio.				
Remarks:								
No indicators of wet	land hydrology	/ were observed						

/EGETATION - Use scientific names of plants	i.			Sampling Point: noasd1012
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	t Indicator Status	Dominance Test worksheet:
1. <u>Abies balsamea</u>	50	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:3(A)
2. <u>Acer rubrum</u>	25	Y	FAC	Total Number of Dominant
3. <u>Fraxinus pennsylvanica</u>		N	<u>FACW</u>	Species Across All Strata: 4 (B)
4. Betula papyrifera	2	N	<u>FACU</u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	79	= Total Co	ver	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species2 x 2 =4
1.				FAC species <u>82</u> x 3 = <u>246</u>
2			-	FACU species 9 x 4 = 36
3.				UPL species x 5 = 0
4.				Column Totals: <u>93</u> (A) <u>286</u> (B)
5				Prevalence Index = B/A = 3.075268817204301
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	_	= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0 ¹
1. <u>Maianthemum canadense</u>	5	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Toxicodendron rydbergii</u>		Y	FAC	Problematic Hydrophytic Vegetation¹ (Explain)
3. Trientalis borealis			FAC	
4. Brachyelytrum erectum				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Carex sp.</u>				Definitions of Vegetation Strata:
6				
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9	_			and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	16	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1	_			
2				
3.				Hydrophytic
4				Vegetation
		= Total Co	ver	Present? Yes <u>✓</u> No
Remarks: (Include photo numbers here or on a separate The sample vegetation is representative fir and red maple. The herbaceous layerspecies.	e of the			a. The canopy is dominated by balsam y a mixture of FAC and FACU

Profile Desc	ription: (I	Describe t	o the dep	th needed to docum	ent the	indicator	or confirm	the absence of i	ndicators.)
Depth		Matrix			(Feature				
(inches)		(moist)	400	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
<u> </u>	7.51R 5YR	2.5/2 3/3	100		0	·			
4-12									
12-20	<u>5YR</u>	4/4	<u>100</u>		_0_			<u> </u>	
		_							
			etion, RM:	=Reduced Matrix, MS	=Masked	d Sand Gr	ains.		_=Pore Lining, M=Matrix.
Hydric Soil		:				(20) (1.2)			Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A:	2)		Polyvalue Below MLRA 149B)	/ Surface	(S8) (LRI	RR,		(A10) (LRR K, L, MLRA 149B) rie Redox (A16) (LRR K, L, R)
Black Hi		2)		Thin Dark Surface	ce (S9) (I	LRR R, MI	LRA 149B)		sy Peat or Peat (S3) (LRR K, L, R)
	n Sulfide (Loamy Mucky M			, L)		ice (S7) (LRR K, L)
	d Layers (A d Below Da		(//11)	Loamy Gleyed N		2)		-	Below Surface (S8) (LRR K, L)
	ark Surface		(A11)	Depleted MatrixRedox Dark Surf					Surface (S9) (LRR K, L) anese Masses (F12) (LRR K, L, R)
	lucky Mine			Depleted Dark S				_	Floodplain Soils (F19) (MLRA 149B)
	Sleyed Mat	rix (S4)		Redox Depressi	ons (F8)				dic (TA6) (MLRA 144A, 145, 149B)
-	tedox (S5) Matrix (S6	3)							it Material (F21) ow Dark Surface (TF12)
	rface (S7)	,	LRA 149	3)					ow bark Surface (11 12) plain in Remarks)
Restrictive I			on and we	etland hydrology must	t be pres	ent, unless	s disturbed	or problematic.	
Type:		,.							
Depth (inc	ches):							Hydric Soil Pre	sent? Yes No
Remarks:									
		consists	of a c	lark loam over	two re	eddish	brown	clay layers. I	No hydric soil indicators
were obs	served.								



noasd1012_E



noasd1012_N



noasd1012_S



noasd1012_W

Project/Site: Line 5 Relocation Project	City/County:	Sampling Date: 2020-07-06				
•			isconsin Sampling Point: noasd1011			
Investigator(s): DMP/AGG Section, Township, Range: Sec 08 T046N R004W						
Landform (hillslope, terrace, etc.): Rise						
Subregion (LRR or MLRA): Northcentral Forests Lat:						
Soil Map Unit Name: Sanborg-Badriver com						
Are climatic / hydrologic conditions on the site typical for	•	•				
Are Vegetation, Soil, or Hydrology						
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach site m	nap showing sampling	point locations, trans	sects, important features, etc.			
	_ 110	Sampled Area				
Hydric Soil Present? Yes	_ 140	n a Wetland? Yes	No <u> </u>			
		, optional Wetland Site ID:				
Remarks: (Explain alternative procedures here or in The sample plot was taken in a map	a separate report.) Sped NWI within a n	nived mesic forest 1	No wetland indicators			
were observed.		iixed iiiesic ioiesi. i	No wettarid indicators			
were observed.						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary	Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; chec	k all that apply)	Surfac	e Soil Cracks (B6)			
Surface Water (A1)	Water-Stained Leaves (B9)	Draina	ige Patterns (B10)			
High Water Table (A2)	Aquatic Fauna (B13)	Moss ⁻	Moss Trim Lines (B16)			
Saturation (A3)	Marl Deposits (B15)	Dry-Se	Dry-Season Water Table (C2)			
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfis	sh Burrows (C8)			
Sediment Deposits (B2)	Oxidized Rhizospheres on L	iving Roots (C3) Satura	ition Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Presence of Reduced Iron (C4) Stunte	d or Stressed Plants (D1)			
	Recent Iron Reduction in Til	led Soils (C6) Geome	orphic Position (D2)			
	Thin Muck Surface (C7)		w Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microto	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		FAC-N	leutral Test (D5)			
Field Observations:						
	Depth (inches):					
	Depth (inches):					
Saturation Present? Yes No (includes capillary fringe)	_ Depth (inches):	Wetland Hydrology F	Present? Yes No			
Describe Recorded Data (stream gauge, monitoring v	well, aerial photos, previous i	nspections), if available:				
Demonto						
Remarks: No indicators of wetland hydrology v	were observed					
The management of menanta my andregy is						

/EGETATION - Use scientific names of plants				Sampling Point: noasd1011
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1. <u>Abies balsamea</u>	50	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2. <u>Acer rubrum</u>	5	_N_	FAC	Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 25 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	_55	= Total Cov	/er	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species4 x 2 =8
1. Fraxinus pennsylvanica	2	N	FACW	FAC species <u>65</u> x 3 = <u>195</u>
2. <u>Ostrya virginiana</u>			<u>FACU</u>	FACU species x 4 = 164
3				UPL species $0 \times 5 = 0$ Column Totals: $110 \times 6 \times 367$ (B)
4				Column Totals. 110 (A) 307 (B)
5				Prevalence Index = B/A = 3.336363636363636364
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov		2 - Dominance Test is >50%
Herb Stratum (Plot size:5				3 - Prevalence Index is ≤3.0¹
1. <u>Mitchella repens</u>	15	Y	<u>FACU</u>	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Pteridium aquilinum</u>			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Maianthemum canadense</u>		Υ	FACU	
4. <u>Toxicodendron rydbergii</u>		N	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Trientalis borealis		N	FAC	Definitions of Vegetation Strata:
6. <u>Fragaria virginiana</u>		N	FACU	_
7. <u>Rubus pubescens</u>			FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. Brachyelytrum erectum			FACU	Sapling/shrub – Woody plants less than 3 in. DBH
9.				and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Cov	/er	height.
Woody Vine Stratum (Plot size:)		•		
1				
2.				
3.				Hydrophytic
4				Vegetation
		= Total Cov	/er	Present? Yes No _ ✓
Remarks: (Include photo numbers here or on a separate		•		
The sample vegetation is representative while a variety of FACU and FAC spec			_	• •
, 1 1 2 3 3 3 4 5 6 6 6			J	•

Profile Desc	ription: (E	escribe	to the dep	th needed to docum			or confirm	the absence of inc	dicators.)	
Depth (inches)	Color (Matrix moist)	%	Color (moist)	<u>Feature</u> %	s Type ¹	Loc ²	Texture	Remarks	
0-15	5YR		100	Color (molecy	0			FSL	romano	
15-20	5YR	4/4	100		0			FS	_	
		-, -								
-										
					-			·		
						. ——				
			letion, RM	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		Pore Lining, M=Matrix.	
Hydric Soil I				Dobardua Balau	Curtoso	(CO) (LDI	. B		roblematic Hydric Soils ³ :	
Histosol	(AT) ipedon (A2	2)		Polyvalue Below MLRA 149B)	Surface	(56) (LKI	ιк,		A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R)	
Black His		,		Thin Dark Surface					Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A			Loamy Mucky M			, L)	Dark Surface (S7) (LRR K, L)		
	Layers (As Below Da		e (A11)	Loamy Gleyed NDepleted Matrix		2)		Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)		
	rk Surface		(,,,,	Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)		
-	ucky Minei			Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
	leyed Matr edox (S5)	ix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)		
-	Matrix (S6))							v Dark Surface (TF12)	
	face (S7) (•	ILRA 1491	3)					nin in Remarks)	
3Indiantors of	h. dranh. #	ia va aatat	بيد امم مما	otland budralagu must	t ha nraa.	ant unlace	diaturbad	ar problematic		
Restrictive L		_		etland hydrology must	t be blest	ent, unies	disturbed	or problematic.		
Type:	``	,								
	:hes):							Hydric Soil Prese	ent? Yes No <u>/</u>	
Remarks:	,									
	orofile o	onsist	s of a r	eddish brown f	fine sa	andy lo	am ove	r a red fine sa	and. The profile is dry	
and no hy	ydric so	il indic	cators v	vere observed.						



noasd1011_E



noasd1011_N



noasd1011 S



noasd1011_W

Project/Site: Line 5 Relocation Project	City/County: Ashland Sampling Date: 2020-05-2						
Applicant/Owner: Enbridge	State: Wisconsin Sampling Point: noase1005						
stigator(s): DMP/ARK Section, Township, Range: sec 28 T046N R004W							
Landform (hillslope, terrace, etc.): Depression							
Subregion (LRR or MLRA): Northcentral Forests Lat: 46.436	774 Long	g: <u>-90.881613</u>	Datum: WGS84				
Soil Map Unit Name: Sanborg-Badriver complex, 0 t							
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes <u>✓</u> No _	(If no, explain in Rem	narks.)				
Are Vegetation, Soil, or Hydrology significa	intly disturbed? Are "I	Normal Circumstances" pres	sent? Yes No				
Are Vegetation, Soil, or Hydrology naturally	y problematic? (If nee	eded, explain any answers i	n Remarks.)				
SUMMARY OF FINDINGS - Attach site map show	ing sampling point lo	ocations, transects, i	mportant features, etc.				
Hydrophytic Vegetation Present? Yes No	Is the Sampled	Area					
Hydric Soil Present? Yes _ No No		d? Yes	No <u>~</u>				
Wetland Hydrology Present? Yes No		Vetland Site ID:					
Remarks: (Explain alternative procedures here or in a separate r	eport.)						
The non-wetland sample point was taken wi							
PEM/PFO wetland complex located just out							
at a slightly higher elevation than the wetlan	•	•					
indicators were met. The pictures show the	wetland just at the	edge of the crop fi	eld, but it is not				
within the survey boundary. See General Fo	rm noase1005 for	additional photos.					
HYDROLOGY							
Wetland Hydrology Indicators:		Secondary Indicator	s (minimum of two required)				
Primary Indicators (minimum of one is required; check all that app	oly)	Surface Soil Cracks (B6)					
Surface Water (A1) Water-Stair	ned Leaves (B9)	Drainage Patterns (B10)					
High Water Table (A2) Aquatic Fau	una (B13)	Moss Trim Lines (B16)					
Saturation (A3) Marl Depos	sits (B15)	Dry-Season Water Table (C2)					
	Sulfide Odor (C1)	Crayfish Burrows (C8)					
	hizospheres on Living Roots						
	of Reduced Iron (C4)		ssed Plants (D1)				
	Reduction in Tilled Soils (C						
Iron Deposits (B5) Thin Muck :		Shallow Aquitard (D3)					
	lain in Remarks)	Microtopograph					
Sparsely Vegetated Concave Surface (B8) Field Observations:		FAC-Neutral Te	St (D5)				
Surface Water Present? Yes No Depth (inc	hes):						
Water Table Present? Yes No _ ✓ Depth (inc	·						
Saturation Present? Yes No _ ✓ Depth (inc	·	tland Hydrology Present?	Yes No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pi	hotos provious inspections)	v if available:					
Describe Recorded Data (stream gauge, monitoring well, aerial p.	notos, previous inspections)	, if available:					
Remarks:			P 4				
The sample point was taken within a depres	sion, however no d	other hydrology ind	licators were				
observed.							

Trace Caretime (Diet sien) 20	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)	% Cover	Species?	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3				(,
4				Percent of Dominant Species That Are OBL, FACW, or FAC:0 (A/B)
5				That Are OBL, FACW, or FAC:(A/B)
6	_			Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species0 x 2 =0
1				FAC species x 3 =0
2				FACU species 7 x 4 = 28
3				UPL species 0 x 5 = 0 Column Totals: 7 (A) 28 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A =4_0
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		10141 00	•••	3 - Prevalence Index is ≤3.0 ¹
1. <u>Trifolium repens</u>	5	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Trifolium pratense		Y		Problematic Hydrophytic Vegetation ¹ (Explain)
3				
				¹Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
5				Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11	_			
12				Woody vines – All woody vines greater than 3.28 ft in height.
	7	= Total Co	ver	inolgi ili
Woody Vine Stratum (Plot size:)				
1				
2.				
3				Hydrophytic
4				Vegetation
	0	= Total Co	ver	163 163 160
Remarks: (Include photo numbers here or on a separate				
The vegetation within the sample point		_	•	
Scirpus cyperinus, Eleocharis cf ovata		a triviale	, and Ty	/pha sp. were observed just outside of
the survey area in a wet meadow comi	munity.			

Sampling Point: noase1005

Profile Desc	cription: (Describe t	o the dep	oth needed to docum	nent the	indicator	or confirm	the absence	of indicators.)		
Depth	Matrix Color (moist)	<u></u> %	Color (moist)	<u>K Feature</u> %	s Type ¹	_Loc ²	Texture	Remarks		
(inches)										
0-14	10YR 2/1		2.5YR 3/6	5	<u>C</u>	<u> </u>		Prominent redox		
<u> 14-20</u>	10YR 2/1	30	-	0			<u> </u>			
<u>14-20</u>	2.5YR 3/4	_70_		0			C			
					·					
	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	=Masked	d Sand Gra	ains.		n: PL=Pore Lining, M=Matrix.		
Hydric Soil						_		s for Problematic Hydric Soils ³ :		
Histosol	(A1) pipedon (A2)		Polyvalue Below MLRA 149B)	v Surface	(S8) (LRF	RR,		Muck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)		
	istic (A3)		Thin Dark Surfa	ce (S9) (I	LRR R, MI	_RA 149B)		Mucky Peat or Peat (S3) (LRR K, L, R)		
	en Sulfide (A4)		Loamy Mucky M			, L)		Surface (S7) (LRR K, L)		
	d Layers (A5) d Below Dark Surface	(A11)	Loamy Gleyed Matrix		2)		Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)			
	ark Surface (A12)	(7(1)	✓ Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, R)			
Sandy N	Mucky Mineral (S1)		Depleted Dark S	Surface (F			Piedmont Floodplain Soils (F19) (MLRA 149B)			
	Gleyed Matrix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
	Redox (S5) I Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)			
	rface (S7) (LRR R, M	LRA 1491	B)				Other (Explain in Remarks)			
3ladiaatara a	f budranbutia vagatati		otlond budrology mys	t ha nraa.	ant unland	a diaturba d	ar arablamati	_		
	f hydrophytic vegetatic Layer (if observed):	on and we	eliand hydrology mus	t be presi	ent, uniess	aisturbea	or probleman	С.		
Type:										
Depth (in	ches):						Hydric Soil	Present? Yes No		
Remarks:							1			
	• •		•		-			x Dark Surface was		
observed	d. The profile c	onsist	s of clay soils \	with a	mixed	lower la	ayer.			



noase1005_E



noase1005_N



noase1005_S



noase1005_W

Project/Site: Line 5 Relocation Project	ect City/County: As	hland s	Sampling Date: <u>2020-05-21</u>		
Applicant/Owner: Enbridge		State: Wisconsin	Sampling Point: noase1008		
Investigator(s): <u>DMP/ARK</u>	Section, Townshi	p, Range: sec 28 T046N	R004W		
Landform (hillslope, terrace, etc.): Depress					
Subregion (LRR or MLRA): Northcentral Fore					
Soil Map Unit Name: Flink sand, 0 to 3					
Are climatic / hydrologic conditions on the site t	•				
Are Vegetation, Soil, or Hydrolo					
Are Vegetation, Soil, or Hydrold		(If needed, explain any answers			
SUMMARY OF FINDINGS – Attach			,		
	110	npled Area Vetland?	No <u>~</u>		
	NO				
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures here	No If yes, opti	onal Wetland Site ID:			
The sample point was taken wi recently tilled. Tractor ruts were indicator that was observed, ar manipulation. Aerial photograp observed outside of the survey	e seen passing though the f nd that appears to be due to hy shows the feature leadin	eature. Hydrology was compacted soils and g to the field edges, a	s the only wetland mechanical		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicato	ors (minimum of two required)		
Primary Indicators (minimum of one is require		Surface Soil C	racks (B6)		
✓ Surface Water (A1)	Water-Stained Leaves (B9)		✓ Drainage Patterns (B10)		
High Water Table (A2)	Aquatic Fauna (B13)		Moss Trim Lines (B16)		
Saturation (A3)	Marl Deposits (B15)		Dry-Season Water Table (C2) Crayfish Burrows (C8)		
Water Marks (B1)	Hydrogen Sulfide Odor (C1)				
Sediment Deposits (B2)	Oxidized Rhizospheres on LivingPresence of Reduced Iron (C4)		ble on Aerial Imagery (C9)		
Drift Deposits (B3) Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled S		essed Plants (D1)		
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquita			
Inundation Visible on Aerial Imagery (B7)		Microtopograpl			
Sparsely Vegetated Concave Surface (B8		FAC-Neutral To			
Field Observations:	<u>, </u>		(/		
Surface Water Present? Yes ✔ No	Depth (inches): 3				
	Depth (inches):				
Saturation Present? Yes _ v No	Depth (inches): 0	Wetland Hydrology Present?	? Yes <u>/</u> No		
(includes capillary fringe) Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, previous inspe	L ctions), if available:			
Julia (eliusiii gaage, iiieii	nonnig men, denai prietee, premete mepe	suomoj, ii avanabioi			
Remarks: The feature collects runoff water	or from the currounding eari	aultural fields beweyer	. budrophytic		
	5 5	cultural field, flowever	, riyuropriyuc		
vegetation and hydric soils are	absent.				

Total Chrotium (Distriction 20	Absolute		Dominance Test worksheet:
Tree Stratum (Plot size:30)		Species? Status	Number of Dominant Species
1			That Are OBL, FACW, or FAC: (A)
2			Total Number of Dominant
3			Species Across All Strata:(B)
4			
5			That Are OBL, FACW, or FAC: (A/B)
6		-	Prevalence Index worksheet:
7		.	Total % Cover of: Multiply by:
	0	_ = Total Cover	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)			FACW species0 x 2 =0
1		<u> </u>	FAC species x 3 =0
2			FACU species 0 x 4 = 0
3			UPL species
4.			Column Totals:0 (A) (B)
5.			Prevalence Index = B/A =
6			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
7			2 - Dominance Test is >50%
_		_ = Total Cover	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5			4 - Morphological Adaptations ¹ (Provide supporting
1		-	data in Remarks or on a separate sheet)
2		<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3		<u> </u>	Indicators of hydric soil and wetland hydrology must
4		<u> </u>	be present, unless disturbed or problematic.
5	_	<u> </u>	Definitions of Vegetation Strata:
6			
7			Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8			
9.			Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10.			Harb All barbassaus (non woods) plants, regardless
			 Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11			Woody vines – All woody vines greater than 3.28 ft in
12		<u> </u>	height.
00		_ = Total Cover	
Woody Vine Stratum (Plot size: 30)			
1		-	
2			
3			Hydrophytic
4	_	<u> </u>	Vegetation Present? Yes No
	0	= Total Cover	100 NO
Remarks: (Include photo numbers here or on a separate			_
The sample plot was taken within a ma			,
	very lov	v percent withir	n the plot. Dactylis glomerata was seen
along the margin.			

Sampling Point: noase1008

Profile Desc	ription: (D	escribe t	to the dep	th needed to docum	ent the	indicator	or confirm	the absence of in	dicators.)			
Depth		Matrix			(Feature		. 2	_				
(inches)	Color (r			Color (moist)		Type ¹	Loc ²	<u>Texture</u>	Remarks			
0-3	<u>5YR</u>		100		0	<u> </u>		_SCL_				
3-20	<u>2.5YR</u>	3/4	100		0			SC				
	-				-				_			
	-											
	-						-					
	-											
	-				-							
Type: C=C Hydric Soil		ı, D=Depl	etion, RM=	Reduced Matrix, MS	=Maske	d Sand Gr	ains.	Location: PL=	=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :			
Histosol				Polyvalue Below	/ Surface	(S8) (LR	RR.		(A10) (LRR K, L, MLRA 149B)			
	oipedon (A2))		MLRA 149B)	. • • • • • • • • • • • • • • • • • • •	(00) (=:::	,		e Redox (A16) (LRR K, L, R)			
	istic (A3)	4		Thin Dark Surface					Peat or Peat (S3) (LRR K, L, R)			
	en Sulfide (A d Layers (A5			Loamy Mucky M Loamy Gleyed N			, L)		e (S7) (LRR K, L) elow Surface (S8) (LRR K, L)			
	d Below Dar	,	e (A11)	Depleted Matrix		-/		•	urface (S9) (LRR K, L)			
	ark Surface			Redox Dark Sur				-	nese Masses (F12) (LRR K, L, R)			
-	Mucky Minera Bleyed Matri			Depleted Dark S Redox Depressi		- 7)		Piedmont Floodplain Soils (F19) (MLRA 149B)Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
-	Redox (S5)	x (34)		Redux Deplessi	0115 (F6)			Red Parent Material (F21)				
-	Matrix (S6)								Very Shallow Dark Surface (TF12)			
Dark Su	rface (S7) (I	LRR R, N	ILRA 149E	B)				Other (Expla	ain in Remarks)			
³ Indicators o	f hydrophytic	c vegetat	ion and we	tland hydrology mus	t he pres	ent unless	s disturbed	or problematic				
Restrictive			ion and we	mana nyarology mao	. 50 proo	ont, amou	o alotarboa	- Problematic.				
Type:												
Depth (in	ches):							Hydric Soil Pres	ent? Yes No <u>/</u>			
Remarks:								1				
						andy c	lay. Alt	hough the pro	ofile is saturated at the			
surface,	no hydri	c soil	indicate	ors were obse	rved.							



noase1008_E



noase1008_N



noase1008_S



noase1008_W

Project/Site: Line 5 Relocation Project City/C	County: Ashland Sampling Date: 2020-05-22				
•	State: Wisconsin Sampling Point: noase1009				
Investigator(s): DMP/ARK Section					
Landform (hillslope, terrace, etc.): Talf Local rel					
Subregion (LRR or MLRA): Northcentral Forests Lat: 46.431860	Long: -90 872785 Datum: WGS84				
Soil Map Unit Name: Sanborg-Badriver complex, 0 to 6 pe					
Are climatic / hydrologic conditions on the site typical for this time of year? Y	•				
Are Vegetation, Soil, or Hydrology significantly distur					
Are Vegetation, Soil, or Hydrology naturally problems					
SUMMARY OF FINDINGS – Attach site map showing sam	ipling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes No✓	Is the Sampled Area				
Hydric Soil Present? Yes No	within a Wetland? Yes No				
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:				
Remarks: (Explain alternative procedures here or in a separate report.) The sample point was taken in a mapped NWI feat	ture. The sample plot is located within a young				
mesic hardwood forest. The forest has been thinne					
The sid Hardwood forest. The forest has been tilling	a. No welland parameters were observed.				
HYDROLOGY					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)				
Surface Water (A1) Water-Stained Leave High Water Table (A2) Aquatic Fauna (B13)					
Aquatic Faura (B13) Saturation (A3) Marl Deposits (B15)	livioss Tilli Lilies (BT6) Dry-Season Water Table (C2)				
Saturation (A3) Main Deposits (B13) Hydrogen Sulfide Od					
	d Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)				
Drift Deposits (B3) Presence of Reduced					
Algal Mat or Crust (B4) Recent Iron Reduction	· , ,				
Iron Deposits (B5) Thin Muck Surface (C	· / — · · · /				
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer					
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes No Depth (inches):					
Water Table Present? Yes No Depth (inches):					
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No/				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	vious inspections), if available:				
	,				
Remarks: No indicators of wetland hydrology were observed.					
The indicators of welland hydrology were observed	•				

	Absolute	Dominan	t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)			Status	Number of Dominant Species
1. <u>Acer rubrum</u>	5	<u>Y</u>	<u>FAC</u>	That Are OBL, FACW, or FAC:4 (A)
2. Pinus strobus	5	Y	<u>FACU</u>	Total Number of Dominant
3. <u>Abies balsamea</u>	2	N	FAC	Species Across All Strata: 8 (B)
4. <u>Picea glauca</u>	2	N	FACU	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6.				
7				Prevalence Index worksheet:
··-		= Total Co		Total % Cover of: Multiply by:
Operation (Objects Operations (Districts 15		= 10(a) 00	vei	OBL species0 x 1 =0 FACW species0 x 2 =0
Sapling/Shrub Stratum (Plot size: 15)	_	V	E40	FAC species x3 =63
1. Acer rubrum				FACU species 22 x 4 = 88
2. <u>Corylus americana</u>				UPL species
3	-			Column Totals: <u>43</u> (A) <u>151</u> (B)
4				
5				Prevalence Index = B/A = 3.511627906976744
6			- 	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	7	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0¹
1. Waldsteinia fragarioides	10	Y		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Mitchella repens	5	Y	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Trientalis borealis</u>		Υ	FAC	
4. Maianthemum canadense			FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Fragaria virginiana		N	FACU	,
6. Rhamnus cathartica			FAC	Definitions of Vegetation Strata:
		N	FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
<u>-</u>				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in height.
	30	= Total Co	over	noight.
Woody Vine Stratum (Plot size: 30)				
1. Lonicera hirsuta	2	Y	FAC	
2				
3				Hydrophytic
4.				Vegetation
	_	= Total Co	N/Ar	Present? Yes No
Remarks: (Include photo numbers here or on a separate s		_ 10tal 00	7001	
The vegetation at the sample point is re		tative o	f the sur	rounding area. Hydrophytic vegetation
was not observed.				

Sampling Point: noase1009

Profile Des	cription: (Describe	to the dept	h needed to docum	nent the	indicator	or confirm	the absence of in	dicators.)
Depth	Matrix			k Feature		. 2	_	
(inches)	Color (moist)	400	Color (moist)	 	Type'	Loc ²	Texture	Remarks
0-2	10YR 2/2	100						
2-20	2.5YR 3/4	100						
			_					_
	-							
¹ Type: C=C	oncentration, D=Depl	etion RM-	Reduced Matrix MS		d Sand Gr	ains	² Location: PL	=Pore Lining, M=Matrix.
Hydric Soil		otion, rtivi	readoca Matrix, Me		a Garia Gri	uii 10.		Problematic Hydric Soils ³ :
Histoso	` '		Polyvalue Below		(S8) (LR	RR,		(A10) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B) Thin Dark Surfa		LRR R. MI	LRA 149B)		ie Redox (A16) (LRR K, L, R) / Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A4)	•	Loamy Mucky M	lineral (F	1) (LRR K		Dark Surfac	ce (S7) (LRR K, L)
	d Layers (A5) d Below Dark Surface	- (Δ11)	Loamy Gleyed Note: Depleted Matrix		2)			Selow Surface (S8) (LRR K, L) Surface (S9) (LRR K, L)
	ark Surface (A12)	; (ATT)	Bepleted Matrix Redox Dark Sur					nese Masses (F12) (LRR K, L, R)
Sandy M	Mucky Mineral (S1)		Depleted Dark S		- 7)		Piedmont F	loodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4) Redox (S5)		Redox Depressi	ons (F8)				lic (TA6) (MLRA 144A, 145, 149B) Material (F21)
-	d Matrix (S6)							w Dark Surface (TF12)
Dark Su	ırface (S7) (LRR R, N	ILRA 149B)				Other (Expl	ain in Remarks)
³ Indicators o	of hydrophytic vegetat	ion and we	tland hydrology mus	t be pres	ent, unless	s disturbed	or problematic.	
Restrictive	Layer (if observed):							
Type:							Hardela Oall Day	
Depth (in	ches):						Hydric Soil Pres	sent? Yes No
Remarks:	nrofile consist	s of a da	ark loam over	a red	clay N	Jo hvdri	c soil indicat	ors were observed.
1110 0011	promo concion	0 01 a a	anticam over	u iou	olay. I	io nyan	o con maioat	010 11010 000011001



noase1009_NE



noase1009_NW



noase1009_SE



noase1009_SW

Project/Site: Line 5 Reloc	cation Project	City/C	County: Ashlar	nd	Sampling Date: 2020-07-08	
	•				n Sampling Point: noasd1015	
Investigator(s): DMP/AGO	à	Section	on, Township, Ra	ange: sec 27 T046N	R004W	
- ' '				=	Slope (%): <u>0-2%</u>	
					Datum: WGS84	
					ation:	
Are climatic / hydrologic conditi	ions on the site typica	al for this time of year? Y	/es <u> </u>	(If no, explain in Re	emarks.)	
Are Vegetation, Soil	✓, or Hydrology	significantly distur	rbed? Are	"Normal Circumstances" pr	resent? Yes No	
Are Vegetation, Soil				eeded, explain any answer		
SUMMARY OF FINDING	S - Attach site	map showing san	npling point l	ocations, transects,	important features, etc.	
Hydrophytic Vegetation Prese	ent? Yes	No	Is the Sampled	d Area		
Hydric Soil Present?		No 🗸	within a Wetlan	nd? Yes	No <u></u>	
Wetland Hydrology Present?		No 🔽	If yes, optional	Wetland Site ID:		
Remarks: (Explain alternative	e procedures here or	in a separate report.)	.1			
The sample plot was		• • •		•	_	
survey area. There	is a corn field	to the north and	a wetland t	o the south. No w	etland indicators	
were observed at the						
were observed at th	e sample plot.					
HYDROLOGY						
Wetland Hydrology Indicato	ors:			Secondary Indicat	ors (minimum of two required)	
Primary Indicators (minimum	of one is required; ch	eck all that apply)		Surface Soil Cracks (B6)		
Surface Water (A1)		Water-Stained Leave	— es (B9)	Drainage Patterns (B10)		
High Water Table (A2)		Aquatic Fauna (B13)		Moss Trim Lines (B16)		
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Od		Crayfish Burrows (C8)		
Sediment Deposits (B2)		Oxidized Rhizospher				
Drift Deposits (B3)	_	Presence of Reduced	d Iron (C4)	Stunted or Stressed Plants (D1)		
Algal Mat or Crust (B4)		Recent Iron Reduction		C6) Geomorphic F	Position (D2)	
Iron Deposits (B5)	_	Thin Muck Surface (0	37)	Shallow Aquit	ard (D3)	
Inundation Visible on Aer	rial Imagery (B7)	Other (Explain in Rer	marks)	Microtopograp	ohic Relief (D4)	
Sparsely Vegetated Cond	cave Surface (B8)			FAC-Neutral ⁻	Γest (D5)	
Field Observations:						
Surface Water Present?	Yes No•	Depth (inches):				
Water Table Present?	Yes No•	Depth (inches):				
Saturation Present?	Yes No	Depth (inches):	We	etland Hydrology Present	?? Yes No <u>✓</u>	
(includes capillary fringe)		a wall parial photos pro	wieue inenestien	a) if available.		
Describe Recorded Data (stre	am gauge, monitorin	ig weii, aeriai photos, pre	vious inspections	s), if available:		
Remarks:						
No indicators of wet	land hydrology	were observed				

Indicator Status FACW wer ver	Dominance Test worksheet: Number of Dominant Species 1 (A) Total Number of Dominant 4 (B) Percent of Dominant Species 4 (B) Percent of Dominant Species 25 (A/B) Prevalence Index worksheet: Multiply by: (A/B) OBL species 2 x 1 = 2 FACW species 5 x 2 = 10 FAC species 0 x 3 = 0 FACU species 7 x 4 = 28 UPL species 10 x 5 = 50 Column Totals: 24 (A) 90 Column Totals: 24 (A) 90 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting)
ver	That Are OBL, FACW, or FAC:
ver	Species Across All Strata: 4 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 2 $x 1 = 2$ FACW species 5 $x 2 = 10$ FAC species 0 $x 3 = 0$ FACU species 7 $x 4 = 28$ UPL species 10 $x 5 = 50$ Column Totals: 24 (A) 90 (B) Prevalence Index $= B/A = 3.75$ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is $> 50\%$ 3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations (Provide supporting)
ver	Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 2
ver	That Are OBL, FACW, or FAC: 25 (A/B) Prevalence Index worksheet:
ver	Prevalence Index worksheet: $Total \% Cover of:$ $Multiply by:$ OBL species 2 $x 1 = 2$ FACW species 5 $x 2 = 10$ FAC species 0 $x 3 = 0$ FACU species 7 $x 4 = 28$ UPL species 10 $x 5 = 50$ Column Totals: 24 (A) 90 Prevalence Index $= B/A = 3.75$ Hydrophytic Vegetation Indicators: $= 1$ </td
ver	Total % Cover of: Multiply by: OBL species 2 x 1 = 2 FACW species 5 x 2 = 10 FAC species 0 x 3 = 0 FACU species 7 x 4 = 28 UPL species 10 x 5 = 50 Column Totals: 24 (A) 90 (B) Prevalence Index = B/A = 3.75 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting)
ver	OBL species 2 $x 1 = 2$ FACW species 5 $x 2 = 10$ FAC species 0 $x 3 = 0$ FACU species 7 $x 4 = 28$ UPL species 10 $x 5 = 50$ Column Totals: 24 (A) 90 (B) Prevalence Index $= B/A = 3.75$ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is $> 50\%$ 3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations (Provide supporting)
ver	FACW species 5 $\times 2 = 10$ FAC species 0 $\times 3 = 0$ FACU species 7 $\times 4 = 28$ UPL species 10 $\times 5 = 50$ Column Totals: 24 (A) 90 (B) Prevalence Index $= B/A = 3.75$ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is $> 50\%$ 3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations (Provide supporting)
ver	FAC species 0 $x 3 = 0$ FACU species 7 $x 4 = 28$ UPL species 10 $x 5 = 50$ Column Totals: 24 (A) 90 (B) Prevalence Index $= B/A = 3.75$ Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is $> 50\%$ 3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations (Provide supporting)
ver	FACU species $ 7 $
ver	UPL species 10 x 5 = 50 Column Totals: 24 (A) 90 (B) Prevalence Index = B/A = 3.75 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\le 3.0^1$ 4 - Morphological Adaptations (Provide supporting)
ver	Prevalence Index = B/A = 3.75 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
ver	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
ver	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
ver	 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting)
ver	 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
<u>UPL</u>	4 - Morphological Adaptations ¹ (Provide supporting
<u>UPL</u>	
	data in Remarks or on a separate sheet)
	Problematic Hydrophytic Vegetation ¹ (Explain)
<u>FACU</u>	The disease of budgie cell and westered budgets were
OBL	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<u>FACU</u>	Definitions of Vegetation Strata:
	-
	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
	Sapling/shrub – Woody plants less than 3 in. DBH
	and greater than or equal to 3.28 ft (1 m) tall.
	Herb – All herbaceous (non-woody) plants, regardless
	of size, and woody plants less than 3.28 ft tall.
	Woody vines – All woody vines greater than 3.28 ft in
	height.
voi	
	Hada-abada
	Hydrophytic Vegetation
	Present? Yes No
ver	
	ver

Profile Description: (Describe to the	depth needed to docur	nent the ind	icator or confi	irm the absence of i	ndicators.)
Depth Matrix		x Features	- 1 . 2		
(inches) Color (moist) %	Color (moist)		Type ¹ Loc ²	Texture	Remarks
<u>0-20 5YR 4/3 10</u>)	0		_ <u>LS</u> _	
	 -	. ——— —			
		·			
		· 			-
		·			
¹ Type: C=Concentration, D=Depletion,	PM-Poducod Matrix MS	S-Mackad Sc	and Grains	² l ocation: DI	_=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Nivi=Neduced Matrix, IVIX	5-IVIASKEU S	and Grains.		Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Belov	w Surface (St	3) (LRR R ,		(A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2)	MLRA 149B)				rie Redox (A16) (LRR K, L, R)
Black Histic (A3)	Thin Dark Surfa				y Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4)Stratified Layers (A5)	Loamy Mucky N Loamy Gleyed I		LKK K, L)		ce (S7) (LRR K, L) Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11)				·	Surface (S9) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Su	rface (F6)		Iron-Manga	anese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	Depleted Dark S				Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Sandy Redox (S5)	Redox Depress	ions (F8)			dic (TA6) (MLRA 144A, 145, 149B) t Material (F21)
Sandy Redox (33) Stripped Matrix (S6)					ow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 1	49B)				lain in Remarks)
2					
³ Indicators of hydrophytic vegetation and Restrictive Layer (if observed):	wetland hydrology mus	t be present,	unless disturb	ed or problematic.	
Type:					
				Hydric Soil Pre	sent? Yes No/
Depth (inches):				Tryunc 3011 re	Sent: 1es NO
Remarks: The soil profile consists of a	uniform dry los	my cano	Ī		
	d dillioitii diy loe	iiiy Sanc	l •		



noasd1015_E



noasd1015_N



noasd1015_S



noasd1015_W

Project/Site: Line 5 Relocatio	n Proiect	City/C	county: Ashland	Sai	mpling Date: <u>2020-06-03</u>				
	-	State: Wisconsin Sampling Point: noase10							
		Section, Township, Range: Sec 35 T046N R004W							
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2									
	Subregion (LRR or MLRA): Northcentral Forests Lat: 46.419841 Long: -90.824566 Datum: WGS								
Soil Map Unit Name: Odanah si									
		•	•						
Are climatic / hydrologic conditions or		-							
Are Vegetation, Soil,		-							
Are Vegetation, Soil,	or Hydrology	naturally problema	atic? (If needed	d, explain any answers in	Remarks.)				
SUMMARY OF FINDINGS -	Attach site r	map showing sam	pling point loca	tions, transects, in	portant features, etc.				
Hydrophytic Vegetation Present?		No No	Is the Sampled Are within a Wetland?		No 🗸				
Hydric Soil Present? Wetland Hydrology Present?		No		and Site ID:					
Remarks: (Explain alternative proce			ii yes, optional wetta	ind Site ID.					
The sample plot was tak	en in a dep	ression on a st							
deposits) was observed,		•		tation criteria. Ho	wever, soils are				
non-hydric and the area	was deeme	ed non-wetland	•						
HYDROLOGY									
Wetland Hydrology Indicators:	-			Secondary Indicators	(minimum of two required)				
Primary Indicators (minimum of one	is required; chec	ck all that apply)		Surface Soil Cracks (B6)					
Surface Water (A1)	_	Water-Stained Leave	s (B9)	Drainage Patterns (B10)					
High Water Table (A2)		_ Aquatic Fauna (B13)		Moss Trim Lines	(B16)				
Saturation (A3)		Marl Deposits (B15)		Dry-Season Wate	er Table (C2)				
Water Marks (B1)		_ Hydrogen Sulfide Ode	or (C1)	Crayfish Burrows	s (C8)				
✓ Sediment Deposits (B2)		Oxidized Rhizosphere		 Saturation Visible 	e on Aerial Imagery (C9)				
Drift Deposits (B3)	·	Presence of Reduced	, ,	Stunted or Stress					
Algal Mat or Crust (B4)		Recent Iron Reductio		Geomorphic Pos					
Iron Deposits (B5)		Thin Muck Surface (C		Shallow Aquitard (D3)					
Inundation Visible on Aerial Ima	-	Other (Explain in Ren	narks)	Microtopographic	Relief (D4)				
Sparsely Vegetated Concave S	urface (B8)			∠ FAC-Neutral Tes	t (D5)				
Field Observations:	Na	Death (backers)							
		_ Depth (inches):							
	·	Depth (inches): _ Depth (inches):		d Hydrology Present?	Voc. // No				
(includes capillary fringe)					Tes_v NO				
Describe Recorded Data (stream ga	uge, monitoring	well, aerial photos, pre	vious inspections), if a	vailable:					
Remarks:									
Sediment deposits from	the nearby	stream were of	oserved on the	vegetation.					

Tree Stratum (Plot size: 30 % C 1.	Cover		Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A) Total Number of Dominant Species Across All Strata: 4 (B)
1.				That Are OBL, FACW, or FAC:4 (A) Total Number of Dominant
3				_
3				_
5				
6				Percent of Dominant Species
7				That Are OBL, FACW, or FAC: (A/B)
<u> </u>				Prevalence Index worksheet:
	_			Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15)	0_=	= Total Cov	er er	OBL species15 x 1 =15
				FACW species 7 x 2 = 14
1. Cornus racemosa	25_	Y	FAC	FAC species <u>27</u> x 3 = <u>81</u>
2				FACU species 0 x 4 = 0
3				UPL species $0 \times 5 = 0$ Column Totals: $49 \times 6 \times 110 $
4				(3)
5				Prevalence Index = B/A = 2.2448979591836733
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	<u> 25 </u>	= Total Cov	er er	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. <u>Scirpus cyperinus</u>	10	<u>Y</u>	OBL	data in Remarks or on a separate sheet)
2. <u>Scirpus microcarpus</u>	5	Y	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Lysimachia ciliata</u>	5	Y	<u>FACW</u>	The disease of budgie and questioned budgets on the second
4. <u>Rumex crispus</u>	2	N	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Anemone canadensis</u>	2	<u>N</u>	<u>FACW</u>	Definitions of Vegetation Strata:
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7				at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	<u> 24 </u>	= Total Cov	ver	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes No
<u></u>	0 =	= Total Cov	ver	Tresent: Tes_v No
Remarks: (Include photo numbers here or on a separate sheet The vegetation is representative of the arewith gray dogwood along the edges.		questior	n. The d	lepression is dominated by woolgrass

SOIL Sampling Point: noase1013

Profile Des	cription: (Des	cribe to	the dep	th needed to docum			or confirm	the absence of	f indicators.)	
Depth (inches)	Color (moi	atrix ist)	%	Color (moist)	<u>Feature</u> %	s Type ¹	Loc ²	Texture	Remarks	
0-20	7.5YR 3		100		0	.,,,,,		Cl	T.C.Mante	
0 20	<u>7.0110 C</u>	<i>7</i> 1	100							
						· 				
		D=Deple	tion, RM	=Reduced Matrix, MS	=Masked	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.	
Hydric Soil						(20) (1.5)			or Problematic Hydric Soils ³ :	
Histoso	ı (A1) pipedon (A2)			Polyvalue Below MLRA 149B)	Surface	(S8) (LR I	κк,		uck (A10) (LRR K, L, MLRA 149B) rairie Redox (A16) (LRR K, L, R)	
	listic (A3)			Thin Dark Surfa	ce (S9) (I	RR R, M	LRA 149B)		ucky Peat or Peat (S3) (LRR K, L, R)	
	en Sulfide (A4)			Loamy Mucky M			, L)		rface (S7) (LRR K, L)	
	d Layers (A5) d Below Dark S	Surface	(Δ11)	Loamy Gleyed Matrix		2)			ue Below Surface (S8) (LRR K, L) rk Surface (S9) (LRR K, L)	
	ark Surface (A		(// 11)	Redox Dark Sur					nganese Masses (F12) (LRR K, L, R)	
	Mucky Mineral (Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
	Gleyed Matrix (S4)		Redox Depressi	ons (F8)				podic (TA6) (MLRA 144A, 145, 149B)	
-	Redox (S5) d Matrix (S6)								ent Material (F21) allow Dark Surface (TF12)	
	urface (S7) (LR	R R, MI	LRA 149	3)					Explain in Remarks)	
³ Indicators of	of hydronhytic y	enetatio	on and we	etland hydrology mus	t he nrese	ent unles	s disturbed	or problematic		
	Layer (if obse	-	on and we	onana nyarology mas	t be prese	orit, armoo	o diotarbed	Problematio.		
Type:										
Depth (in	nches):							Hydric Soil F	Present? Yes No/	
Remarks:										
	-			rown clay loar	n thro	ughout	with no	o redox fea	tures. No hydric soil	
indicator	s were ob	serve	ed.							



noase1013_N



noase1013_NW



noase1013_SW



noase1013_W

Project/Site: Line 5 Relocation Project	City/County: As	hland	Sampling Date: <u>2020-06-09</u>						
•	State: Wisconsin Sampling Point: noasc100								
nvestigator(s): <u>EJO/JSW</u> Section, Township, Range: <u>sec 01 T045N R004W</u>									
Landform (hillslope, terrace, etc.): Side Slope Local relief (concave, convex, none): Convex Slope (%): 16-25									
Subregion (LRR or MLRA). Northcentral Forests Lat.	Subregion (LRR or MLRA): Northcentral Forests Lat: 46.405000 Long: -90.812670 Datum: WGS84								
Soil Map Unit Name: <u>Udorthents, ravines and escarpments, 25 to 60 percent slopes</u> NWI classification:									
Are climatic / hydrologic conditions on the site typical for									
Are Vegetation, Soil, or Hydrology									
Are Vegetation, Soil, or Hydrology									
SUMMARY OF FINDINGS – Attach site ma	ap showing sampling po	int locations, transe	ects, important features, etc.						
Hydrophytic Vegetation Present? Yes	No Is the San	npled Area							
	No v within a V	/etland? Yes _	No <u> </u>						
		onal Wetland Site ID:							
Remarks: (Explain alternative procedures here or in a	a separate report.)								
The sample plot is located in a mesic	•								
on a steep slope. The dominant vege		•	however, no other						
indicators of wetland hydrology or hy	dric soils were observ	ed.							
HYDROLOGY									
Wetland Hydrology Indicators:		Secondary I	ndicators (minimum of two required)						
Primary Indicators (minimum of one is required; check	all that apply)	·	Soil Cracks (B6)						
	Water-Stained Leaves (B9)		Drainage Patterns (B10)						
	Aquatic Fauna (B13)		rim Lines (B16)						
	Marl Deposits (B15)		ason Water Table (C2)						
	Hydrogen Sulfide Odor (C1)		n Burrows (C8)						
			ion Visible on Aerial Imagery (C9)						
	Presence of Reduced Iron (C4)		or Stressed Plants (D1)						
	Recent Iron Reduction in Tilled S		rphic Position (D2)						
	Thin Muck Surface (C7)		Aquitard (D3)						
	Other (Explain in Remarks)		pographic Relief (D4)						
Sparsely Vegetated Concave Surface (B8)	, ,		eutral Test (D5)						
Field Observations:									
Surface Water Present? Yes No	Depth (inches):								
	Depth (inches):								
	Depth (inches):	Wetland Hydrology Pr	resent? Yes No						
(includes capillary fringe)	all and all abotes and device in an	stinus) if available							
Describe Recorded Data (stream gauge, monitoring w	eli, aeriai priotos, previous inspe	ctions), if available:							
Remarks:									
Other than the FAC-Neutral test, no		, ,,	•						
hydrophytic vegetation is due to shall	llow mineral soil over o	clay, allowing surf	face saturation to be						
present for short periods. The area is	s prone to erosion. The	e slope is steep a	and drains quickly.						
	•								

VEGETATION – Use scientific names of plants				Sampling Point: noasc1007
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	t Indicator Status	Dominance Test worksheet:
1. <u>Fraxinus nigra</u>				Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant Species Across All Strata:
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6			·	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	20	= Total Co	ver	OBL species6 x 1 =6
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 = 146
1. <u>Alnus incana</u>	40	<u>Y</u>	<u>FACW</u>	FACULT PROJECT 15 x 3 = 45
2				FACU species 15 x 4 = 60 UPL species 0 x 5 = 0
3				Column Totals: 109 (A) 257 (B)
4				
5				Prevalence Index = B/A = 2.3577981651376145
6				Hydrophytic Vegetation Indicators:
7			<u></u>	1 - Rapid Test for Hydrophytic Vegetation
	40	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				y 3 - Prevalence Index is ≤3.0¹
1. Ribes americanum	6	Υ	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Glyceria striata		Υ	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Parthenocissus inserta		Y	FACU	
4. Cornus racemosa		N	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Clematis virginiana</u>		N	FAC	Definitions of Vegetation Strata:
6. <u>Fragaria virginiana</u>		Y	FACU	Definitions of Vegetation Strata.
7. <u>Equisetum arvense</u>		Y		Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. <u>Carex gracillima</u>		N	FACU	
9. Lysimachia ciliata		N	FACW	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10. <u>Carex bromoides</u>	2	N	FACW	Herb – All herbaceous (non-woody) plants, regardless
11. Carex intumescens	_ 	NI	FACW	of size, and woody plants less than 3.28 ft tall.
12. Galium triflorum	_ <u></u>	N	FACU	Woody vines – All woody vines greater than 3.28 ft in
12. Ganam umorum	_ <u>~</u> 	= Total Co		height.
Manda Vina Charles (Blat sina)	-43	= Total Co	vei	
Woody Vine Stratum (Plot size: 30)				
1				
2				
3				Hydrophytic Vegetation
4				Present? Yes _ v No
Remarks: (Include photo numbers here or on a separate		= Total Co	ver	
The sample plot was recorded in a trar dominated by speckled alder and black	nsitional	hardwo	od fores	st on a steep slope. The plot is
· ·				

SOIL Sampling Point: noasc1007

Profile Des	cription: (Describe t	o the de	oth needed to docur	nent the	indicator	or confirm	the absence o	f indicators.)
Depth	Matrix			x Feature		. 2		
(inches) 0-6	Color (moist) 7.5YR 2.5/2	<u>%</u>	Color (moist) 7.5YR 4/4	<u>%</u> 1	Type'	Loc ²	Texture	Remarks
6-20	7.5YR 4/4		7.511X 4/4			IVI		
0-20	7.51K 4/4	100			· ——			
				-				
					· ——			
					·			
1Typo: C-C	oncentration, D=Deple	otion DM	-Poducod Matrix M	S-Macko	d Sand Gr		² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil		ellon, Kiv	=Neduced Matrix, Mi	3=IVIASKE	J Sand Gi	airis.		or Problematic Hydric Soils ³ :
Histoso	` '		Polyvalue Belo		(S8) (LR I	R R,		uck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2) istic (A3)		MLRA 149B Thin Dark Surfa	,	IDDD M	I DA 140B\		rairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)		Loamy Mucky N					rface (S7) (LRR K, L)
Stratifie	d Layers (A5)		Loamy Gleyed	Matrix (F2		. ,	Polyvalu	ie Below Surface (S8) (LRR K, L)
	d Below Dark Surface ark Surface (A12)	(A11)	Depleted Matrix					rk Surface (S9) (LRR K, L)
	Mucky Mineral (S1)		Redox Dark Su Depleted Dark	. ,				nganese Masses (F12) (LRR K, L, R) nt Floodplain Soils (F19) (MLRA 149B)
	Gleyed Matrix (S4)		Redox Depress		.,			podic (TA6) (MLRA 144A, 145, 149B)
	Redox (S5)							rent Material (F21)
	d Matrix (S6) urface (S7) (LRR R, M	LRA 149	В)					allow Dark Surface (TF12) explain in Remarks)
	of hydrophytic vegetati	on and w	etland hydrology mus	st be pres	ent, unles	s disturbed	or problematic.	
	Layer (if observed):							
Type:							Hydric Soil B	resent? Yes No/
Depth (in Remarks:	ches):						Tryunc 30111	resent: res No
	re observed to	be cla	y loam over c	lay. No	hydrid	soil ind	dicators we	ere observed.



noasc1007_E



noasc1007_N



noasc1007_S



noasc1007_W

Project/Site: Line 5 Relocation Project City	//County: <u>Ashland</u> Sampling Date: <u>2020-06-05</u>								
•	State: Wisconsin Sampling Point: noasc1005								
Investigator(s): <u>EJO/JSW</u> Section, Township, Range: <u>sec 01 T045N R004W</u>									
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-20									
Subregion (LRR or MLRA): Northcentral Forests Lat: 46.401064 Long: -90.803429 Datum: WGS8									
	Dercent slopes NWI classification:								
	•								
Are climatic / hydrologic conditions on the site typical for this time of year?									
	turbed? Are "Normal Circumstances" present? Yes _ v No								
Are Vegetation, Soil, or Hydrology naturally proble	matic? (If needed, explain any answers in Remarks.)								
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area								
Hydric Soil Present? Yes No	within a Wetland? Yes No								
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:								
Remarks: (Explain alternative procedures here or in a separate report.)									
The sample plot was recorded in a shallow roads	, ,								
	common tansy. The ditch eventually connects to								
wetland wasc1031e, where it is a much deeper d	epression.								
HYDROLOGY									
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)								
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)								
Surface Water (A1) Water-Stained Lea									
High Water Table (A2) Aquatic Fauna (B1									
Saturation (A3) Marl Deposits (B15	Dry-Season Water Table (C2)								
Water Marks (B1) Hydrogen Sulfide 0	Odor (C1) Crayfish Burrows (C8)								
Sediment Deposits (B2) Oxidized Rhizosph	eres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)								
Drift Deposits (B3) Presence of Reduc									
Algal Mat or Crust (B4) Recent Iron Reduc									
Iron Deposits (B5) Thin Muck Surface									
Inundation Visible on Aerial Imagery (B7) Other (Explain in R									
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)								
Field Observations:									
Surface Water Present? Yes No Depth (inches):									
Water Table Present? Yes Nov _ Depth (inches): Saturation Present? Yes Nov _ Depth (inches):									
(includes capillary fringe)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), if available:								
Remarks:									
No primary indicators of wetland hydrology were	observed.								

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	-	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3			·	Species Across All Strata:3 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species7 x 2 =14
1				FAC species11 x 3 =33
2.				FACU species x 4 = 280
3.				UPL species <u>3</u> x 5 = <u>15</u>
4.				Column Totals: <u>91</u> (A) <u>342</u> (B)
5				Prevalence Index = B/A = <u>3.758241758241758</u>
6.				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
··· <u></u>		= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		= Total CC	ivei	3 - Prevalence Index is ≤3.0¹
1. <u>Tanacetum vulgare</u>	30	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Dactylis glomerata		Y	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Poa pratensis			FACU	
4. Solidago gigantea		N	FACW	¹ Indicators of hydric soil and wetland hydrology must
		N	FAC	be present, unless disturbed or problematic.
5. Equisetum arvense				Definitions of Vegetation Strata:
6. Rubus idaeus			<u>FAC</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. <u>Tragopogon pratensis</u>		_N_		at breast height (DBH), regardless of height.
8. <u>Leucanthemum vulgare</u>	2	_N_	<u>UPL</u>	Sapling/shrub – Woody plants less than 3 in. DBH
9. <u>Populus tremuloides</u>		<u>N</u>	<u>FAC</u>	and greater than or equal to 3.28 ft (1 m) tall.
10. <u>Linaria vulgaris</u>	1		·	Herb – All herbaceous (non-woody) plants, regardless
11. <u>Asclepias syriaca</u>	1	N	<u>UPL</u>	of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in height.
	95	= Total Co	ver	noight.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes No
	0	= Total Co	ver	rieseitt: 1es NO
Remarks: (Include photo numbers here or on a separate				
The sample plot is dominated by Kentu	icky blue	egrass,	commo	n tansy, and orchard grass.

Sampling Point: noasc1005

SOIL Sampling Point: noasc1005

Profile Description: (Describe to the d	-			or confirm	the absence of inc	dicators.)
Depth Matrix		x Features		1 2	T-14:	Damente
(inches) Color (moist) %	Color (moist)		Type ¹	Loc ²	Texture	Remarks
		- ————————————————————————————————————				
	-					
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix M	S=Masked	Sand Gra	ains.	²l ocation: PI =	Pore Lining, M=Matrix.
Hydric Soil Indicators:	m—rtoudocu mania, Mi	-iviaskeu	Junia Oli			roblematic Hydric Soils ³ :
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14)	•	.RA 149B) , L)	Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark St Iron-Mangar Piedmont Fle Mesic Spodi Red Parent Very Shallov Other (Explain	A10) (LRR K, L, MLRA 149B) e Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) e (S7) (LRR K, L) elow Surface (S8) (LRR K, L) urface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R) oodplain Soils (F19) (MLRA 149B) c (TA6) (MLRA 144A, 145, 149B) Material (F21) v Dark Surface (TF12) ain in Remarks)		
Restrictive Layer (if observed):						
Type:					Hydric Soil Prese	ent? Yes No
Remarks: Soils were not sampled due utilities. The dominant veget						



noasc1005_E



noasc1005_N



noasc1005_S



noasc1005_W

Project/Site: Line 5 Relocation	Project	City/C	ounty: <u>Ashla</u> ı	nd	Sampling [Date: <u>2020-06-05</u>			
	-	State: Wisconsin Sampling Point: noasc1006							
•	vestigator(s): <u>EJO/JSW</u> Section, Township, Range: <u>Sec 01 T045N R004W</u>								
andform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave Slope (%): 0-2%									
Subregion (LRR or MLRA). Northcentr	Subregion (LRR or MLRA): Northcentral Forests Lat: 46.399819 Long: -90.799531 Datum: WGS84								
Soil Map Unit Name: Portwing-He	rhster comple	x 0 to 6 ne	rcent slope	ng. <u>50.755</u>	VI classification:	Datum. <u>************************************</u>			
Are climatic / hydrologic conditions on the	•	•	•						
						an de Na			
Are Vegetation, Soil, or									
Are Vegetation, Soil, or				•	any answers in Remark	,			
SUMMARY OF FINDINGS – A	ttach site map s	howing sam	pling point l	locations, tr	ansects, importa	nt features, etc.			
Hydrophytic Vegetation Present?	Yes No	~	Is the Sample	d Area					
Hydric Soil Present?	Yes No		within a Wetla	ind?	res No	<u>~</u>			
Wetland Hydrology Present?	Yes No		If yes, optional	Wetland Site ID):				
Remarks: (Explain alternative procedu The sample point is locate	ures here or in a sepa	arate report.)							
grasses. The sample was hydrophytic species.									
HYDROLOGY				C	dom . La dia ata na (asiaina.	una af tuua na muina di			
Wetland Hydrology Indicators:	and the second s	-1 k A			dary Indicators (minimu				
Primary Indicators (minimum of one is					urface Soil Cracks (B6)				
Surface Water (A1)		r-Stained Leaves	s (B9)		rainage Patterns (B10)				
High Water Table (A2)		tic Fauna (B13)			oss Trim Lines (B16)	(00)			
Saturation (A3) Water Marks (B1)		Deposits (B15) ogen Sulfide Odo	or (C1)		ry-Season Water Table rayfish Burrows (C8)	(02)			
Sediment Deposits (B2)		zed Rhizosphere			aturation Visible on Aer	ial Imagery (C9)			
Drift Deposits (B3)		ence of Reduced	_		unted or Stressed Plan				
Algal Mat or Crust (B4)		nt Iron Reduction	` '		eomorphic Position (D2				
Iron Deposits (B5)		Muck Surface (C			nallow Aquitard (D3)	,			
Inundation Visible on Aerial Image		(Explain in Rem			crotopographic Relief ((D4)			
Sparsely Vegetated Concave Surf	iace (B8)			FA	AC-Neutral Test (D5)				
Field Observations:									
	No 🔽 Dept								
Water Table Present? Yes	No 🔽 Dept	th (inches):							
	No 🔽 Dept	th (inches):	w	etland Hydrolo	gy Present? Yes	No <u> </u>			
(includes capillary fringe) Describe Recorded Data (stream gauge)	ne. monitoring well. a	erial photos, prev	vious inspections	s), if available:					
	,-,,	μ, μ		-,,					
Remarks: No indicators of wetland h	wdrology word	obsorved	other than	the location	on in a challow	ewalo			
No indicators of wetland in	yurology were	observeu,	Other than	i tile locatio	Jii iii a siiaiiow	Swale.			

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)			Status_	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2		-		Total Number of Dominant
3	<u> </u>			Species Across All Strata:4 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	over	OBL species10 x 1 =10
Sapling/Shrub Stratum (Plot size:)				FACW species10 x 2 =20
1				FAC species0 x 3 =0
2				FACU species40 x 4 =160
				UPL species0 x 5 =0
3				Column Totals:60 (A)190 (B)
4				Prevalence Index = B/A = 3.16666666666666666
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
_	0	= Total Co	over	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5	40	V	E4011	4 - Morphological Adaptations ¹ (Provide supporting
1. <u>Trifolium repens</u>		<u> </u>	FACU	data in Remarks or on a separate sheet)
2. <u>Phleum pratense</u>		<u>Y</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Agrostis gigantea</u>		<u>Y</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must
4. <u>Poa pratensis</u>		<u>Y</u>	<u>FACU</u>	be present, unless disturbed or problematic.
5. Taraxacum officinale	_ <u>10</u> _	<u>N</u>	<u>FACU</u>	Definitions of Vegetation Strata:
6. <u>Scirpus cf. hattorianus</u>	5	N	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. <u>Juncus effusus</u>	5	N	OBL	at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
		= Total Co	over	height.
Woody Vine Stratum (Plot size:)		= 10tai 0t	, voi	
1				
2				
3				Hydrophytic Vegetation
4	_			Present? Yes No v
December (bedeate about a supplier by		= Total Co	over	
Remarks: (Include photo numbers here or on a separate The sample plot is located in an agricul	_{sneet.)} Itural fie	ld domi	inated by	pasture grasses. The vegetation
appears to have been recently sprayed				
appeare to have been recently operation				

Sampling Point: noasc1006

SOIL Sampling Point: noasc1006

Profile Desc	cription: (Describe to	the dep	th needed	to docur	nent the i	ndicator	or confirm	n the absence	of indicators.)		
Depth Matrix Redox Features (inches) Color (moint) % Color (moint) 1 co ²											
(inches)	Color (moist)	<u>%</u> 07	Color (r		<u>%</u>	Type'	Loc ²	<u>Texture</u>	Remarks		
0-14	7.5YR 2.5/2		5YR	4/6	3	<u> </u>	_M_				
14-20	7.5YR 4/3	95	<u> 51R</u>	4/6	5	<u> </u>	<u> </u>	LVFS			
					-						
1Type: C-C	oncentration, D=Deple	ation PM	-Reduced I	Matrix MG	S-Mackad			² l ocation	: PL=Pore Lining, M=Matrix.		
Hydric Soil		ction, ixivi	=rreduced i	viatrix, ivic	J-IVIASNOC	Janu Oi	airis.		for Problematic Hydric Soils ³ :		
Histosol			-		w Surface	(S8) (LR	R R,		Muck (A10) (LRR K, L, MLRA 149B)		
	oipedon (A2) stic (A3)			RA 149B) Dark Surfa		RRR M	LRA 149B)		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)		
	en Sulfide (A4)				/lineral (F				Surface (S7) (LRR K, L)		
	d Layers (A5)	(444)		-	Matrix (F2	2)			llue Below Surface (S8) (LRR K, L)		
-	d Below Dark Surface ark Surface (A12)	(A11)		ted Matrix Dark Su	rface (F6)				ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)		
	Mucky Mineral (S1)				Surface (F				Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)		
-	Gleyed Matrix (S4)		Redox	Depress	ions (F8)						
-	Redox (S5) I Matrix (S6)								arent Materiai (F21) Shallow Dark Surface (TF12)		
	rface (S7) (LRR R, M	LRA 149	B)						(Explain in Remarks)		
³ Indicators o	f hydrophytic vegetation	on and w	etland hydro	ology mus	st be prese	ent, unles	s disturbed	I or problemation	. .		
	Layer (if observed):				<u> </u>	<u> </u>		<u> </u>			
Type:											
	ches):							Hydric Soil	Present? Yes No		
Remarks:	ators of hydric	soil wa	ara ohea	rved							
INO IIIGICA	ators of flydric	SOII W	ore onse	orveu.							



noasc1006_E



noasc1006_NE



noasc1006_SW



noasc1006_W

Project/Site: Line 5 Relocat	ion Proiect	City/C	County: Ashland	Sampling	g Date: <u>2020-07-08</u>			
Applicant/Owner: Enbridge	•			State: Wisconsin Sample				
Investigator(s): DMP/AGG								
- ' '				ve, convex, none): Concave Slope (%): 0-2				
Subregion (LRR or MLRA): North	central Forests	at: 46 400584	Long: -9	0 794832	Datum: WGS84			
Soil Map Unit Name: Kellogg-A								
Are climatic / hydrologic conditions		•	•	•				
Are Vegetation, Soil								
Are Vegetation, Soil								
SUMMARY OF FINDINGS	 Attach site 	map showing sam	npling point locati	ions, transects, impor	tant features, etc.			
Hydrophytic Vegetation Present?	Yes	No	Is the Sampled Area					
Hydric Soil Present?		No	within a Wetland?	Yes No _	<u> </u>			
Wetland Hydrology Present?		No <u> </u>	If yes, optional Wetlar	nd Site ID:				
Remarks: (Explain alternative pr The sample plot was to	ocedures here or i	in a separate report.)	field No wetla	nd narameters were	a observed			
The sample plot was to	akenina sw	ale willill a con	i ileiu. No wella	nu parameters were	e observed.			
HYDROLOGY								
Wetland Hydrology Indicators:	-			Secondary Indicators (mini	mum of two required)			
Primary Indicators (minimum of c	one is required; che	eck all that apply)		Surface Soil Cracks (B	36)			
Surface Water (A1)		_ Water-Stained Leave		Drainage Patterns (B1				
High Water Table (A2)		_ Aquatic Fauna (B13)		Moss Trim Lines (B16)				
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)				
Water Marks (B1)		_ Hydrogen Sulfide Od		Crayfish Burrows (C8)				
Sediment Deposits (B2)		_ Oxidized Rhizospher						
Drift Deposits (B3)		_ Presence of Reduced	, ,	Stunted or Stressed Pl	, ,			
Algal Mat or Crust (B4)Iron Deposits (B5)		Recent Iron ReductionThin Muck Surface (0)		✓ Geomorphic Position (
Inundation Visible on Aerial I		Other (Explain in Rer	•	Shallow Aquitard (D3) Microtopographic Relief (D4)				
Sparsely Vegetated Concave		_ Other (Explain in Nei	ilaiks)	FAC-Neutral Test (D5)				
Field Observations:	S Gullace (DO)			TAO Nedital Test (Do)	1			
	′es No ✔	Depth (inches):						
		Depth (inches):						
		Depth (inches):		Hydrology Present? Yes	No _ 🗸			
(includes capillary fringe)				-9-61-				
Describe Recorded Data (stream	gauge, monitoring	g weii, aeriai priotos, pre	vious inspections), if av	/allable:				
Remarks:								
No primary indicators	of wetland h	ydrology were o	bserved.					

Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1			Number of Dominant Species
			That Are OBL, FACW, or FAC:(A)
2			Total Number of Dominant Species Across All Strata: (B)
3			Species Across Air Strata(b)
4			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5			That Are OBL, FACW, or FAC: (A/B)
6			Prevalence Index worksheet:
7			Total % Cover of: Multiply by:
	0	= Total Cover	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)			FACW species0 x 2 =0
1			FAC species0 x 3 =0
2.			FACU species0 x 4 =0
3			UPL species0 x 5 =0
			Column Totals: 0 (A) 0 (B)
4			Prevalence Index = B/A =
6			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
7			2 - Dominance Test is >50%
		= Total Cover	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5) 1. Zea mays	1	N	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2			Problematic Hydrophytic Vegetation ¹ (Explain)
3			¹ Indicators of hydric soil and wetland hydrology must
4			be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7			at breast height (DBH), regardless of height.
8			Sapling/shrub – Woody plants less than 3 in. DBH
9			and greater than or equal to 3.28 ft (1 m) tall.
10			Herb – All herbaceous (non-woody) plants, regardless
11			of size, and woody plants less than 3.28 ft tall.
12			Woody vines – All woody vines greater than 3.28 ft in
	1	= Total Cover	height.
Woody Vine Stratum (Plot size:)			
1			
2			
3			Hydrophytic
4			Vegetation Present? Yes No
	0	= Total Cover	1103CHL: 103 110
Remarks: (Include photo numbers here or on a separate The sample plot was taken in a swale within the swale.		corn field. Ther	e is little to no vegetation growing

Sampling Point: noasd1013

SOIL Sampling Point: noasd1013

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth					_						
(inches)	Color (r		%	Color (moist)		Type'	Loc ²	<u>Texture</u>	Remarks		
0-8	<u>5YR</u>	4/3	<u>100</u>		0			<u> </u>			
8-20	<u>5YR</u>	4/4	100		0			C			
			· <u></u>								
			· 								
			· 		-						
			. <u></u>								
			·								
			· 								
1- 0.0								21			
Hydric Soil			letion, Rivi=	Reduced Matrix, MS	=iviasked	sand Gra	ains.		L=Pore Lining, M=Matrix. Problematic Hydric Soils ³ :		
Histosol				Polyvalue Below	/ Surface	(S8) (LRF	RR,		(A10) (LRR K, L, MLRA 149B)		
	pipedon (A2	2)		MLRA 149B)					irie Redox (A16) (LRR K, L, R)		
	istic (A3) en Sulfide (A	(4)		Thin Dark Surfa Loamy Mucky M					ky Peat or Peat (S3) (LRR K, L, R) ace (S7) (LRR K, L)		
	d Layers (At			Loamy Gleyed N			, - /		Below Surface (S8) (LRR K, L)		
	d Below Dar		e (A11)	Depleted Matrix					Surface (S9) (LRR K, L)		
	ark Surface ⁄lucky Miner			Redox Dark Sur Depleted Dark S	, ,			-	anese Masses (F12) (LRR K, L, R)		
	Bleyed Matri			Redox Depressi		-7)		Piedmont Floodplain Soils (F19) (MLRA 149B)Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy F	Redox (S5)				,			Red Parent Material (F21)			
	Matrix (S6)								ow Dark Surface (TF12)		
Dark Su	rface (S7) (I	LRR R, IV	ILRA 149E	3)				Other (Exp	plain in Remarks)		
		-		tland hydrology mus	t be pres	ent, unless	disturbed	or problematic.			
Restrictive	Layer (if ob	served):									
Type:											
Depth (in	ches):							Hydric Soil Pre	esent? Yes No		
Remarks:	nrofilo o	anaiat	o of two	lovers of red	diah h	rown o	lov. No	budrio goil in	adiantara wara abaamad		
The Son	prome c	OHSISI	S OI LWC	layers or red	นเรท ม	IOWII C	ay. No	riyaric son n	ndicators were observed.		



noasd1013_E



noasd1013_N



noasd1013_S



noasd1013_W

Project/Site: Line 5 Relo	cation Projec	ct City	County: Ashland	Sai	mpling Date: <u>2020-07-08</u>				
	•		State: Wisconsin Sampling Point: noasd101						
Investigator(s): DMP/AGO									
Landform (hillslope, terrace, e									
Subregion (LRR or MLRA): N	orthcentral Forest	ts Lat: 46,400600	Lona:	-90.795719	Datum: WGS84				
Soil Map Unit Name: Kellog	ng-Allendale-A	shwabay complex	2 to 6 percent	SIODES NWI classification	n:				
Are climatic / hydrologic condi									
Are Vegetation _ ✓ _, Soil _									
Are Vegetation, Soil									
SUMMARY OF FINDING	GS – Attach si	ite map showing sa	mpling point loc	ations, transects, im	portant features, etc.				
Hydrophytic Vegetation Pres	sent? Yes	No <u></u> ✓	Is the Sampled A						
Hydric Soil Present?	Yes _	No	within a Wetland	? Yes	No <u>~</u>				
Wetland Hydrology Present?	Yes _	No	If yes, optional We	etland Site ID:					
Remarks: (Explain alternative	e procedures here	or in a separate report.)	within a corn f	iold Thoro is little	to no omorging				
The sample plot wa		•			to no emerging				
vegetation within th	e area. No w	eliano parameter	s were observ	ea.					
HYDROLOGY				O a a a dama la d'a atama	(and a large of the same and a same and				
Wetland Hydrology Indicat				-	(minimum of two required)				
Primary Indicators (minimum	of one is required;								
Surface Water (A1)		Water-Stained Leav			Drainage Patterns (B10)				
High Water Table (A2)		Aquatic Fauna (B13		Moss Trim Lines					
Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)					
Water Marks (B1)		Hydrogen Sulfide C		· ·	Crayfish Burrows (C8) B) Saturation Visible on Aerial Imagery (C9)				
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized Rhizosphi			= : : :				
Algal Mat or Crust (B4)		Recent Iron Reduct		Stunted or Stress					
Iron Deposits (B5)		Thin Muck Surface							
Inundation Visible on Ae	rial Imagery (R7)	Other (Explain in Re	` '	Shallow Aquitard (D3)Microtopographic Relief (D4)					
Sparsely Vegetated Cor			illaiks)	FAC-Neutral Tes					
Field Observations:	icave Surface (Bo)			TAC-Neutral Tes	t (D3)				
Surface Water Present?	Yes No	✓ Depth (inches):							
Water Table Present?		✓ Depth (inches):							
Saturation Present?	 -	✓ Depth (inches):		and Hydrology Present?	Yes No ✓				
(includes capillary fringe)									
Describe Recorded Data (str	eam gauge, monito	oring well, aerial photos, p	evious inspections),	if available:					
Remarks:									
No indicators of we	tland hydrolo	oav were observed	d.						
		9,							

Trace Christians (Distriction 20	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30	% Cover Species? Status	Number of Dominant Species
		That Are OBL, FACW, or FAC:(A)
2		Total Number of Dominant Species Across All Strata: (B)
3		(,,
4		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5		That Are OBL, FACW, or FAC: (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
	= Total Cover	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)		FACW species0 x 2 =0
1		FAC species x 3 =0
2		FACU species
3		UPL species0 x 5 =0 Column Totals:0 (A)(B)
4		Column Totals (A) (B)
5		Prevalence Index = B/A =
6.		Hydrophytic Vegetation Indicators:
7.		1 - Rapid Test for Hydrophytic Vegetation
	0 = Total Cover	2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		3 - Prevalence Index is ≤3.0 ¹
1. Zea mays	1N	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2		Problematic Hydrophytic Vegetation ¹ (Explain)
3.		
4		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5		
		Definitions of Vegetation Strata:
6		Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7		at breast height (DBH), regardless of height.
8		Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9		
10		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11		
12		Woody vines – All woody vines greater than 3.28 ft in height.
	1 = Total Cover	
Woody Vine Stratum (Plot size: 30)		
1		
2		
3		Hydrophytic
4		Vegetation Present? Yes No
	= Total Cover	
Remarks: (Include photo numbers here or on a separate The sample plot was taken in a unveg		eld.

Sampling Point: noasd1014

SOIL Sampling Point: noasd1014

Profile Desc	ription: (D	escribe	to the dep	th needed to docum	ent the i	ndicator	or confirm	the absence o	f indicators.)		
Depth Matrix					Feature						
(inches)	Color (r 7.5YR		100	Color (moist)	<u>%</u>	Type'	Loc ²	Texture SI	Remarks		
40.00						-		<u> </u>			
<u>12-20</u>	<u>7.5YR</u>	4/4	100		0				•		
					-						
					-						
		n, D=Dep	letion, RM	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.		
Hydric Soil I				5 5.		(00) (1.50	_		or Problematic Hydric Soils ³ :		
Histosol	(A1) pipedon (A2	`		Polyvalue Below MLRA 149B)	/ Surface	(S8) (LRI	RR,		rairie Redox (A16) (LRR K, L, MLRA 149B)		
Black Hi		,		Thin Dark Surface	ce (S9) (I	RR R, MI	RA 149B)		icky Peat or Peat (S3) (LRR K, L, R)		
	n Sulfide (A	4)		Loamy Mucky M					rface (S7) (LRR K, L)		
	d Layers (A			Loamy Gleyed N		2)		-	e Below Surface (S8) (LRR K, L)		
	d Below Dar ark Surface		e (A11)	Depleted Matrix Redox Dark Sur				Thin Dark Surface (S9) (LRR K, L)			
	lucky Miner			Depleted Dark S				Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B)			
	Bleyed Matri			Redox Depressi		.,		Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
	ledox (S5)							Red Parent Material (F21)			
	Matrix (S6)							Very Shallow Dark Surface (TF12)			
Dark Su	rface (S7) (I	LRR R, N	ILRA 149	3)				Other (E	xplain in Remarks)		
³ Indicators of	f hydrophyti	c vegetat	ion and w	etland hydrology must	t be prese	ent, unless	disturbed	or problematic.			
Restrictive I	_ayer (if ob	served):									
Type:											
Depth (inc	ches):							Hydric Soil P	resent? Yes No/		
Remarks:		_	_			_					
		onsist	s of a c	dry sandy loam	over	a clay	layer. N	lo hydric so	oil indicators were		
observed	1 .										



noasd1014_E



noasd1014_N



noasd1014_S



noasd1014_W

Project/Site: Line 5 Reloca	tion Project	City/C	County: Ashl	land	S	ampling Date:	2020-06-03	
Applicant/Owner: Enbridge					State: Wisconsin	Sampling Poin	t: <u>noasc1002</u>	
Investigator(s): EJO/JSW		Section	on, Township,	Range: Sec	06 T045N F	R003W		
Landform (hillslope, terrace, etc.):							oe (%): <u>0-2%</u>	
Subregion (LRR or MLRA): North								
Soil Map Unit Name: Kellogg-								
Are climatic / hydrologic condition	s on the site typical fo	or this time of year? Y	es 🔽 No	o (If r	no, explain in Rem	narks.)		
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? A	re "Normal Ci	rcumstances" pre	sent? Yes	<u>∕</u> No	
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If	f needed, expl	ain any answers	in Remarks.)		
SUMMARY OF FINDINGS	- Attach site m	nap showing sam	npling poin	t locations	s, transects, i	mportant fe	atures, etc.	
Hydrophytic Vegetation Present		_ No _ 🗸	Is the Samp		V	N- 4		
Hydric Soil Present?		No	within a We			No <u>/</u>		
Wetland Hydrology Present? Remarks: (Explain alternative p		No	If yes, option	al Wetland Sit	te ID:			
The feature is a narroweedy forbs and gram feature at the location	ninoiḋs. The fe	ature was reco					•	
HYDROLOGY								
Wetland Hydrology Indicators	:			<u>Se</u>	condary Indicator	rs (minimum of t	wo required)	
Primary Indicators (minimum of	•			Surface Soil Cracks (B6)				
Surface Water (A1)		Water-Stained Leaves		Drainage Patterns (B10)				
High Water Table (A2)		Aquatic Fauna (B13)		_	Moss Trim Lines (B16)			
Saturation (A3)		Marl Deposits (B15)	(04)	Dry-Season Water Table (C2)				
Water Marks (B1)		Hydrogen Sulfide Odd		Crayfish Burrows (C8)				
Sediment Deposits (B2)		Oxidized Rhizosphere Presence of Reduced						
Drift Deposits (B3) Algal Mat or Crust (B4)		Recent Iron Reduction		Stunted or Stressed Plants (D1)				
Iron Deposits (B5)		Thin Muck Surface (C		coils (C6) _v Geomorphic Position (D2) Shallow Aquitard (D3)				
Inundation Visible on Aerial		Other (Explain in Ren		Shallow Adultard (D3) Microtopographic Relief (D4)				
Sparsely Vegetated Concav	• · · · · —	Other (Explain in Ren	namo)		FAC-Neutral Te			
Field Observations:					_ 17.0 1104141 10	701 (20)		
Surface Water Present?	Yes No <u>✓</u>	_ Depth (inches):						
		Depth (inches):						
Saturation Present?		Depth (inches):		Wetland Hyd	rology Present?	Yes	No <u> </u>	
(includes capillary fringe) Describe Recorded Data (stream	n gauge, monitoring v	well, aerial photos, pre	vious inspection	ons), if availab	ole:			
		,,		,,				
Remarks: No indicators of wetla	nd hydrology	other than geo	morphic r	ocition v	vere observ	har		
I wella	na nyarology,	other than geo	morpine p	Josition, v	vere observ	eu.		
							1	

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:30)			Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co		OBL species
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1				FAC species x 3 = 60
				FACU species <u>54</u> x 4 = <u>216</u>
2				UPL species0 x 5 =0
3				Column Totals:(A)(B)
4				Prevalence Index = B/A = 3.72972972972973
5				
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	0	= Total Co	over	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5)				4 - Morphological Adaptations ¹ (Provide supporting
1. Ranunculus acris		<u>Y</u>	_FAC_	data in Remarks or on a separate sheet)
2. <u>Trifolium repens</u>		<u>Y</u>	<u>FACU</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Schedonorus arundinaceus</u>		<u>Y</u>	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must
4. Poa pratensis	15	Y	<u>FACU</u>	be present, unless disturbed or problematic.
5. <i>Plantago major</i>	4	N	<u>FACU</u>	Definitions of Vegetation Strata:
6				Tree Mandy plants 2 in (7.6 cm) or mars in diameter
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				Sapling/shrub – Woody plants less than 3 in. DBH
9.				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11			-	of size, and woody plants less than 3.28 ft tall.
				Woody vines – All woody vines greater than 3.28 ft in
12		= Total Co		height.
Waste Visa Oration (District		= Total Co	vei	
Woody Vine Stratum (Plot size:)				
1				
2.				
3				Hydrophytic
4				Vegetation Present? Yes No/
		= Total Co	over	
Remarks: (Include photo numbers here or on a separate The feature is a hay field dominated by		lover t	all butter	rcup Kentucky bluegrass, and tall
fescue.	Willia 0	10101, 1	an batto	reap, remainly bladgrade, and tall

Sampling Point: noasc1002

SOIL Sampling Point: noasc1002

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth											
(inches)	Color (moist)	<u>%</u>	Color (r			Type ¹	Loc ²	Texture	Remarks		
0-6	10YR 3/2	97	<u>5YR</u>	3/4	3	<u>C</u>	_M_	SICL			
6-20	7.5YR 4/4	95	<u>5YR</u>	4/6	5		<u> </u>	<u>LVFS</u>			
	-										
			-								
	-										
					-						
1 _{T. max} C. C			Dadwaad	Matrice NAC	. Maaliaa			21	DI Dave Lining M Metric		
Hydric Soil	oncentration, D=Deplementations:	etion, Rivi	=Reduced I	viatrix, ivis	5=IVIasked	Sand Gr	ains.	Indicators	PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :		
Histoso	I (A1)		-		w Surface	(S8) (LR I	RR,		uck (A10) (LRR K, L, MLRA 149B)		
	pipedon (A2) istic (A3)			RA 149B)		DD D M	LRA 149B)		Prairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R)		
	en Sulfide (A4)				/lineral (F				urface (S7) (LRR K, L)		
	d Layers (A5)	(* ()			Matrix (F2)			ue Below Surface (S8) (LRR K, L)		
-	d Below Dark Surface ark Surface (A12)	(A11)		ted Matrix	: (F3) rface (F6)				ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)		
	Mucky Mineral (S1)				Surface (F	7)		Piedmont Floodplain Soils (F19) (MLRA 149B)			
-	Gleyed Matrix (S4)		Redox	Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
-	Redox (S5) d Matrix (S6)							Red Parent Material (F21) Very Shallow Dark Surface (TF12)			
	urface (S7) (LRR R, M	LRA 149	3)					Other (Explain in Remarks)			
³ Indicators o	of hydrophytic vegetati	on and w	etland hydro	ology mus	t be prese	ent, unles	s disturbed	or problematic			
	Layer (if observed):		, , , , , , , , , , , , , , , , , , ,	3,		-, -		1			
Type:											
	ches):							Hydric Soil	Present? Yes No		
Remarks:	ators of hydric	coil w	oro obse	nyod							
INO IIIGIC	ators of flydric	SOII W	FIE ODS	siveu.							



noasc1002_NE



noasc1002_NW



noasc1002_SE



noasc1002_SW

Project/Site: Line 5 Reloca	tion Project	City/C	ounty: <u>Ashlan</u>	<u>d</u> :	Sampling Date: <u>2020-06-01</u>		
Applicant/Owner: Enbridge				State: Wisconsir	Sampling Point: noasc1001		
Investigator(s): EJO/JSW		Section	on, Township, Ran	nge: sec 07 T045N	R003W		
Landform (hillslope, terrace, etc.):							
Subregion (LRR or MLRA): North							
Soil Map Unit Name: Portwin							
Are climatic / hydrologic condition	s on the site typical fo	or this time of year? Y	es <u> </u>	(If no, explain in Rer	marks.)		
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "N	Normal Circumstances" pre	esent? Yes v No		
Are Vegetation, Soil				eded, explain any answers			
SUMMARY OF FINDINGS	- Attach site m	ap showing sam	pling point lo	ocations, transects,	important features, etc.		
Hydrophytic Vegetation Present	? Yes	No 🗸	Is the Sampled	Area			
Hydric Soil Present?		No <u>~</u>	within a Wetland	d? Yes	No <u> </u>		
Wetland Hydrology Present?		No 🔽	If yes, optional W	Vetland Site ID:			
Remarks: (Explain alternative p	rocedures here or in a	a separate report.)					
The area is within an	•	•	• •	•			
shrubs along with whi	-		_	-			
layer. The area is loca	ated between a	a hay field to th	e south and	a degraded wood	dand and roadside		
ditch to the north. No	wetland param	neters were obs	served.				
	·						
HYDROLOGY							
Wetland Hydrology Indicators	:			Secondary Indicate	ors (minimum of two required)		
Primary Indicators (minimum of	one is required; checl	k all that apply)		Surface Soil C	racks (B6)		
Surface Water (A1)		s (B9)	Drainage Patte	erns (B10)			
High Water Table (A2)	_	Aquatic Fauna (B13)		Moss Trim Line	Moss Trim Lines (B16)		
Saturation (A3)	_	Marl Deposits (B15)		Dry-Season W	Dry-Season Water Table (C2)		
Water Marks (B1)		Hydrogen Sulfide Ode		Crayfish Burrows (C8)			
Sediment Deposits (B2)		Oxidized Rhizosphere					
Drift Deposits (B3)		Presence of Reduced			essed Plants (D1)		
Algal Mat or Crust (B4)		Recent Iron Reductio					
Iron Deposits (B5)		Thin Muck Surface (C		Shallow Aquita			
Inundation Visible on Aerial		Other (Explain in Ren	narks)	Microtopograp			
Sparsely Vegetated Concav	e Surface (Bo)			FAC-Neutral T	esi (D5)		
	Ves No ✔	Depth (inches):					
		Depth (inches):					
		Depth (inches):		tland Hydrology Present	? Yes No <u> </u>		
(includes capillary fringe)					. 165 160 <u></u>		
Describe Recorded Data (stream	n gauge, monitoring v	vell, aerial photos, pre	vious inspections)	, if available:			
Remarks:							
No indicators of wetla	nd hydrology v	vere observed.					

/EGETATION – Use scientific names of plants.				Sampling Point: noasc1001			
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet: Number of Dominant Species			
1. <u>Malus sp.</u>	30	Y		That Are OBL, FACW, or FAC: (A)			
Fraxinus americana				Total Number of Dominant Species Across All Strata:			
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC: (A/B)			
6				Prevalence Index worksheet:			
7				Total % Cover of: Multiply by:			
	40	= Total Cov	/er	OBL species 0 x 1 = 0			
Sapling/Shrub Stratum (Plot size: 15)				FACW species 9 x 2 = 18			
1. Cornus racemosa	30	Υ	FAC	FAC species <u>41</u> x 3 = <u>123</u>			
2. Malus sp.				FACU species 27 x 4 = 108			
3. Cornus sericea				UPL species $5 \times 5 = 25$			
4. Salix bebbiana				Column Totals: <u>82</u> (A) <u>274</u> (B)			
5				Prevalence Index = B/A = <u>3.341463414634146</u>			
6.				Hydrophytic Vegetation Indicators:			
7.				1 - Rapid Test for Hydrophytic Vegetation			
		= Total Cov		2 - Dominance Test is >50%			
Herb Stratum (Plot size: 5)				3 - Prevalence Index is ≤3.0¹			
1. <u>Carex gracillima</u>	10	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
2. Ranunculus acris		Y	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. <u>Bromus inermis</u>		N	UPL				
4. <u>Fragaria virginiana</u>		Y	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
5. <u>Equisetum arvense</u>		N	FAC	Definitions of Vegetation Strata:			
6. Taraxacum officinale			FACU	_			
7. <u>Solidago gigantea</u>			FACW	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.			
8				Sapling/shrub – Woody plants less than 3 in. DBH			
9				and greater than or equal to 3.28 ft (1 m) tall.			
10				Herb – All herbaceous (non-woody) plants, regardless			
11				of size, and woody plants less than 3.28 ft tall.			
12				Woody vines – All woody vines greater than 3.28 ft in height.			
	35	= Total Cov	er/	neight.			
Woody Vine Stratum (Plot size:)							
1							
2							
3			-	Hydrophytic			
4				Vegetation Present? Yes No			
	0	= Total Cov	ver	100			
Remarks: (Include photo numbers here or on a separate s		to bo o	n abana	danad apple plantation or former ald			

The sample plot was recorded in what appears to be an abandoned apple plantation or former old field. Apple trees/shrubs are dominant in both the tree and shrub layers with old field vegetation in the ground layer.

SOIL Sampling Point: noasc1001

Profile Description: (Describe to the d	epth needed to docur	ment the ir	ndicator	or confirm	the absence of inc	dicators.)
Depth Matrix		x Features		. 2		
(inches) Color (moist) %	Color (moist)		Type'	Loc ²	Texture	Remarks
	_	· ———				
¹ Type: C=Concentration, D=Depletion, R	M=Reduced Matrix, MS	S=Masked	Sand Gra	ains.		Pore Lining, M=Matrix.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 14	Polyvalue Belov MLRA 149B) Thin Dark Surfa Loamy Mucky M Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark S Redox Depress	w Surface () ace (S9) (L Mineral (F1 Matrix (F2) ((F3) rface (F6) Surface (F6) Surface (F8)	(S8) (LRF RR R, MI) (LRR K	R R, .RA 149B) , L)	Indicators for P 2 cm Muck (Coast Prairie 5 cm Mucky Dark Surface Polyvalue Be Thin Dark Si Iron-Mangar Piedmont Fle Mesic Spodi Red Parent I Very Shallov Other (Explain	roblematic Hydric Soils ³ : A10) (LRR K, L, MLRA 149B) Pe Redox (A16) (LRR K, L, R) Peat or Peat (S3) (LRR K, L, R) Pelow Surface (S8) (LRR K, L) Pelow Surface (S8) (LRR K, L) Pese Masses (F12) (LRR K, L, R) Peodplain Soils (F19) (MLRA 149B) C (TA6) (MLRA 144A, 145, 149B) Material (F21) V Dark Surface (TF12) Lendin Demarks)
Restrictive Layer (if observed): Type: Depth (inches):					Hydric Soil Prese	ent? Yes No
Remarks: Soils were not sampled due utilities. Soils are likely nonare mapped as Portwing-He	hydric based or	n the la	ndsca	oe posi	tion and domi	nant vegetation. Soils



noasc1001_E



noasc1001_N



noasc1001 S



noasc1001_W

Project/Site: Line 5 Reloca	tion Project	City/C	ounty: Ashland	S	ampling Date: <u>2020-05-28</u>		
Applicant/Owner: Enbridge				State: Wisconsin	Sampling Point: noasb1001		
Investigator(s): SAM/KDF		Section	on, Township, Range	e: sec 08 T045N F	R003W		
Landform (hillslope, terrace, etc.)							
Subregion (LRR or MLRA): North							
Soil Map Unit Name: Kellogg-							
Are climatic / hydrologic condition	is on the site typical for	r this time of year? Y	es <u>/</u> No	(If no, explain in Rem	narks.)		
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "No	rmal Circumstances" pre	sent? Yes 🗸 No		
Are Vegetation, Soil				ed, explain any answers			
SUMMARY OF FINDINGS	- Attach site ma	ap showing sam	pling point loca	ations, transects, i	mportant features, etc.		
Hydrophytic Vegetation Present			Is the Sampled Arwithin a Wetland?		No <u>/</u>		
Hydric Soil Present? Wetland Hydrology Present?		No <u>/</u>					
Remarks: (Explain alternative p			ii yes, optional wet	tland Site ID:			
recharge hydrology be	•	• • •					
HYDROLOGY							
Wetland Hydrology Indicators				-	s (minimum of two required)		
Primary Indicators (minimum of	•		_				
Surface Water (A1)		Water-Stained Leave		Drainage Patter			
High Water Table (A2)		Aquatic Fauna (B13)			Moss Trim Lines (B16)		
Saturation (A3)		Marl Deposits (B15)	or (C4)	Dry-Season Water Table (C2)			
Water Marks (B1)		Hydrogen Sulfide Odd		Crayfish Burrows (C8) ots (C3) Saturation Visible on Aerial Imagery (C9)			
Sediment Deposits (B2) Drift Deposits (B3)		Oxidized Rhizosphere Presence of Reduced			ssed Plants (D1)		
Algal Mat or Crust (B4)		Recent Iron Reductio					
Iron Deposits (B5)		Thin Muck Surface (C		Shallow Aquitar			
Inundation Visible on Aerial		Other (Explain in Ren		Microtopograph			
Sparsely Vegetated Concar	- · · · · —	о штог (<u>=</u> хр.а гто		✓ FAC-Neutral Te			
Field Observations:					()		
Surface Water Present?	Yes No	Depth (inches):					
	Yes No						
Saturation Present?	Yes No			nd Hydrology Present?	Yes No		
(includes capillary fringe) Describe Recorded Data (strear	n gauge, monitoring w	ell, aerial photos, pre	vious inspections), if	available:			
· ·	0 0 7	, , , , ,	, ,,				
Remarks: Saturation below 12 in	achae but thara	was significa	nt rainfall in th	o nact 18 hours			
Saturation below 12 ii	iches but there	was signincal	iit iaiiiiaii iii tii	ie pasi 40 riours.			
I							

	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)			Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	over	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size:)				FACW species75 x 2 =150
1.				FAC species 2 x 3 = 6
2				FACU species x 4 = 84
3.				UPL species 10 x 5 = 50
4				Column Totals: <u>108</u> (A) <u>290</u> (B)
5				Prevalence Index = B/A =
6				Hydrophytic Vegetation Indicators:
7				
1.		= Total Co		∠ 2 - Dominance Test is >50%
Harb Chrahima (Plataina)		= Total Co	over	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5) 1. Onoclea sensibilis	75	V		4 - Morphological Adaptations¹ (Provide supporting
·		N	<u>FACW</u>	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain)
2. Bromus inermis			UPL	Froblematic Hydrophytic Vegetation (Explain)
3. <u>Dactylis glomerata</u>			<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must
4. <u>Poa pratensis</u>		_N_	FACU	be present, unless disturbed or problematic.
5. <u>Cirsium arvense</u>		<u>N</u>	<u>FACU</u>	Definitions of Vegetation Strata:
6. <u>Potentilla simplex</u>		N	<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. Carex arctata		N		at breast height (DBH), regardless of height.
8. Ranunculus acris	2	N	<u>FAC</u>	Sapling/shrub – Woody plants less than 3 in. DBH
9. <i>Fragaria virginiana</i>	_ 2	N	<u>FACU</u>	and greater than or equal to 3.28 ft (1 m) tall.
10. <u>Taraxacum officinale</u>			<u>FACU</u>	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11				
12				Woody vines – All woody vines greater than 3.28 ft in height.
	<u>110</u>	= Total Co	over	g.m
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4.				Vegetation Present? Yes <u>✓</u> No
	0	= Total Co	over	165 <u></u>
Remarks: (Include photo numbers here or on a separate		cmootl	h hromo	
Circular pocket of sensitive fern surrou	naea by	51110011	n brome	•

Sampling Point: noasb1001

SOIL Sampling Point: noasb1001

Profile Desc	cription: (Describe	o the dep	th needed	to docun	nent the i	ndicator	or confirm	the absence of	of indicators.)
Depth	Matrix				K Feature	. 2	_		
(inches)	Color (moist)	<u>%</u>	Color (m	noist)	<u>%</u>	Type'	Loc ²	<u>Texture</u>	Remarks
0-12	7.5YR 3/2	<u>100</u>			0			<u> </u>	
12-19	7.5YR 3/2	_95_	2.5YR	3/4	5	C	_M_	<u> </u>	
									
<u> </u>									
	oncentration, D=Depl	etion, RM	=Reduced M	latrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Hydric Soil Histosol			Polyva	lue Belov	y Surface	(S8) (LRI	D D		uck (A10) (LRR K, L, MLRA 149B)
	pipedon (A2)		-	RA 149B)		(OO) (LIKI	ν ιν,		Prairie Redox (A16) (LRR K, L, R)
	istic (A3)						LRA 149B)		ucky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4) d Layers (A5)			-	lineral (F [.] Matrix (F2	1) (LRR K	(, L)		urface (S7) (LRR K, L) ue Below Surface (S8) (LRR K, L)
	d Below Dark Surface	e (A11)		ed Matrix		.)			irk Surface (S9) (LRR K, L)
Thick D	ark Surface (A12)	,	Redox	Dark Sur	face (F6)			Iron-Ma	nganese Masses (F12) (LRR K, L, R)
-	Mucky Mineral (S1)				Surface (F	7)			nt Floodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4) Redox (S5)		Redox	Depressi	ons (F8)				Spodic (TA6) (MLRA 144A, 145, 149B) rent Material (F21)
-	d Matrix (S6)								nallow Dark Surface (TF12)
	ırface (S7) (LRR R, N	ILRA 149	3)						Explain in Remarks)
31	f hduambtiaaatat			l = =					
	f hydrophytic vegetat Layer (if observed):	ion and w	etiana nyaro	logy mus	t be prese	ent, unies:	s disturbed	or problematic.	
Type:									
	ches):							Hydric Soil F	Present? Yes No/
Remarks:									
Does no	t meet Redox	Dark S	urface.						



noasb1001_E



noasb1001_N



noasb1001_S



noasb1001_W

Project/Site: Line 5 Relocation Project City	y/County: Ashland Sampling Date: <u>2020-06-30</u>
•	State: Wisconsin Sampling Point: noasd1009
Investigator(s): DMP/AGG Se	
	relief (concave, convex, none): Concave Slope (%): 0-2%
	Long: <u>-90.756253</u> Datum: <u>WGS84</u>
	percent slopes NWI classification:
Are climatic / hydrologic conditions on the site typical for this time of year?	·
	turbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally proble	
SUMMARY OF FINDINGS – Attach site map showing sa	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	If yes, optional Wetland Site ID:
Remarks: (Explain alternative procedures here or in a separate report.) The sample plot was taken within a slight depres	sion in a hay field. Hydrophytic vegetation is
present, but no other wetland parameters were o	
process, such a cure menana parametere were e	2001104.
LIVEROL COV	
HYDROLOGY Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
Surface Water (A1) Water-Stained Lea	
High Water Table (A2) Aquatic Fauna (B1	
Saturation (A3) Marl Deposits (B15	
Water Marks (B1) Hydrogen Sulfide (
	neres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3) Presence of Reduc	
<u> </u>	ction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	· · · · · · · · · · · · · · · · · · ·
Inundation Visible on Aerial Imagery (B7) Other (Explain in F	
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches): _	
Water Table Present? Yes No Depth (inches): _	
Saturation Present? Yes No V Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	previous inspections), if available:
2 coords recorded 2 and (endam gauge, memoring non, as na process, p	nonous mopositions, in available.
Remarks: The only hydrologic indicator observed was geor	norphic position
The only hydrologic indicator observed was geor	norpriic position.

Trace Observations (Distriction 20	Absolute		Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant Species Across All Strata: 2 (B)
3				Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
5				That Are OBL, FACW, or FAC (AVB)
6			<u> </u>	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Co	ver	OBL species5 x 1 =5
Sapling/Shrub Stratum (Plot size:)				FACW species <u>55</u> x 2 = <u>110</u>
1				FAC species 4 x 3 = 12
2				FACU species 13 x 4 = 52
3				UPL species25
4				Column Totals. <u>102</u> (A) <u>304</u> (B)
5	- -		<u> </u>	Prevalence Index = B/A = <u>2.980392156862745</u>
6				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:5				3 - Prevalence Index is ≤3.0 ¹
1. Agrostis gigantea	50	Υ	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Leucanthemum vulgare</u>		Y	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Phleum pratense		N	FACU	
4. Juncus effusus		N	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Carex sp.	_	N	<u> </u>	
6. Phalaris arundinacea		N	FACW	Definitions of Vegetation Strata:
7. <u>Barbarea vulgaris</u>	_	N	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. Anthoxanthum odoratum		N	FACU	
9. Fragaria virginiana	_	N	FACU	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10. <u>Prunella vulgaris</u>			FAC	
11. Trifolium pratense	2	N	FACU	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12. Galium cf concinnum	2	NI	FACU	Woody vines – All woody vines greater than 3.28 ft in
12. Gandin Ci Concinnum	107	= Total Co		height.
Woody Vine Stratum (Plot size:30)	101	= Total Co	vei	
1				
2				
3				Hydrophytic Vegetation
4	_			Present? Yes No
Remarks: (Include photo numbers here or on a separate		= Total Co	ver	
The vegetation is representative of the		epressio	n. The	dominant plant is redtop, but there are
many other wetland and upland specie		•		1 1/
	•			

Sampling Point: noasd1009

SOIL Sampling Point: noasd1009

	cription: (D		o the dep	th needed				or confirm	the absence	of indicators.)
Depth (inches)	Matrix Redox Features Color (moist) % Color (moist) % Type ¹ Loc ²							Loc²	Texture	Remarks
0-20	5YR			7.5YR	,	2	C	M	SL	
0 20	0110	0/0		7.011	1/ 1					
-										
¹ Type: C=C			etion, RM	=Reduced I	Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil				Б.	. 5.	o ,	(OO) (I DI			for Problematic Hydric Soils ³ :
Histosol	(A1) pipedon (A2))		-	alue Belov R A 149B)	w Surface	(S8) (LR I	KK,		luck (A10) (LRR K, L, MLRA 149B) Prairie Redox (A16) (LRR K, L, R)
	istic (A3)	-)			,		.RR R, M	LRA 149B)		lucky Peat or Peat (S3) (LRR K, L, R)
Hydroge	en Sulfide (A	\4)				/lineral (F1				urface (S7) (LRR K, L)
	d Layers (A		(0.4.4)		-	Matrix (F2))			lue Below Surface (S8) (LRR K, L)
	d Below Dar ark Surface		(A11)		ted Matrix Dark Sui	rface (F6)				ark Surface (S9) (LRR K, L) anganese Masses (F12) (LRR K, L, R)
	Jucky Miner					Surface (F	7)			ont Floodplain Soils (F19) (MLRA 149B)
Sandy C	Sleyed Matri				Depress				Mesic S	Spodic (TA6) (MLRA 144A, 145, 149B)
· ·	Redox (S5)									arent Material (F21)
. —	l Matrix (S6) rface (S7) (•	Ι Ρ Δ 149	3)						hallow Dark Surface (TF12) Explain in Remarks)
Dark ou	111400 (07) (_	LIVA 143	٥,					Other (Explain in remains)
		-	on and w	etland hydro	ology mus	t be prese	ent, unles	s disturbed	or problematic	
Restrictive	Layer (if ob	served):								
Type:										
	ches):								Hydric Soil	Present? Yes No/
Remarks:	(1)							D . I.		Control of the control
										tions were observed
througho	out the p	rone, i	out no	nyaric s	soii ina	icators	were	observe	ea.	



noasd1009_E



noasd1009_N



noasd1009_S



noasd1009_W

Project/Site: Line 5 Relo	cation Project	t	City/C	ounty: Ash	nland	Sa	mpling Date: 2	2020-06-11		
Applicant/Owner: Enbridge	•									
J			Section, Township, Range: <u>sec 09 T045N R003W</u>							
			Local relief (concave, convex, none): None Slope (%): 0-2%							
Subregion (LRR or MLRA):	orthcentral Forests	S Lat:	Lat: <u>46.385538</u> Long: <u>-90.756188</u> Datum: <u>WGS84</u>							
Soil Map Unit Name: Kellog	g-Allendale-A	shw	abav complex.	2 to 6 per	cent slope	S NWI classificatio	n:			
Are climatic / hydrologic condi										
Are Vegetation, Soil								′ No		
Are Vegetation, Soil								110		
SUMMARY OF FINDING	Attach si	te m	ap snowing sam	ipling pol	nt location	is, transects, in	nportant fea	atures, etc.		
Hydrophytic Vegetation Pres			No	Is the Sam		V	NI- 4			
Hydric Soil Present?	Yes		No		etland?					
Wetland Hydrology Present?			_ No	If yes, option	onal Wetland S	Site ID:				
Remarks: (Explain alternative The area was previous Previ	ousiv delinea:	or in a	a separate report.) as a wetland ii	n 2019. k	out the fe	ature is more	represent	ative of		
an upland based or	-						-			
•			•	•	_	ilidicators. Do	illilalit ve	getation		
includes bracken fe	rn, large-lear	aste	er, and Kentuc	ky blueg	rass.					
HADBOI OCA										
HYDROLOGY Wetland Hydrology Indicat	ors:				ç	Secondary Indicators	(minimum of t	wo required)		
Primary Indicators (minimum		check	all that annly)			Surface Soil Cra		wo required)		
Surface Water (A1)	or one is required,		Water-Stained Leave			Drainage Patterr				
High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Lines (B16)				
Saturation (A3)			Marl Deposits (B15)		_	Dry-Season Water Table (C2)				
Water Marks (B1)			Hydrogen Sulfide Od	or (C1)	_	Crayfish Burrows (C8)				
Sediment Deposits (B2)			Oxidized Rhizosphere	es on Living I	Roots (C3)					
Drift Deposits (B3)			Presence of Reduced	d Iron (C4)	_	Stunted or Stress	sed Plants (D1))		
Algal Mat or Crust (B4)			Recent Iron Reductio		oils (C6)	Geomorphic Pos	sition (D2)			
Iron Deposits (B5)			Thin Muck Surface (C	27)		Shallow Aquitard				
Inundation Visible on Ae	• • • •	_	Other (Explain in Rer	narks)	_	Microtopographic				
Sparsely Vegetated Con	icave Surface (B8)				_	FAC-Neutral Tes	st (D5)			
Field Observations:										
Surface Water Present?			Depth (inches):							
Water Table Present?	<u> </u>		Depth (inches):							
Saturation Present? (includes capillary fringe)	Yes No _		Depth (inches):		Wetland Hy	drology Present?	Yes	No <u>/</u>		
Describe Recorded Data (str	eam gauge, monito	ring w	ell, aerial photos, pre	vious inspec	tions), if availa	able:				
,		ŭ		•	,,					
Remarks:	tland bydrala	~ \ \ \	vore cheerved							
No indicators of we	liand hydrolog	gy w	vere observed.	•						

/EGETATION - Use scientific names of plants.				Sampling Point: noasa1007			
<u>Tree Stratum</u> (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:			
1. <u>Fraxinus americana</u>	10	Y	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC:(A)			
2. <u>Tilia americana</u>	5	Y	<u>FACU</u>	Total Number of Dominant			
3. <u>Acer saccharum</u>		Y	<u>FACU</u>	Species Across All Strata:6 (B)			
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC:0 (A/B)			
6				Prevalence Index worksheet:			
7				Total % Cover of: Multiply by:			
		= Total Cov	/er	OBL species x 1 = 0			
Sapling/Shrub Stratum (Plot size:)				FACW species3 x 2 =6			
1				FAC species11 x 3 =33			
				FACU species60 x 4 =240			
2.				UPL species40 x 5 =200			
3				Column Totals:114 (A)479 (B)			
45				Prevalence Index = B/A = 4.201754385964913			
6.				Hydrophytic Vegetation Indicators:			
7				1 - Rapid Test for Hydrophytic Vegetation			
	_	= Total Cov		2 - Dominance Test is >50%			
Hart Obstance (Distriction F		= Total Cov	/ei	3 - Prevalence Index is ≤3.0¹			
Herb Stratum (Plot size: 5) 1. Eurybia macrophylla	25	Υ	UPL	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
2. Poa pratensis		Y	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. Leucanthemum vulgare			UPL				
4. Pteridium aquilinum		N	FACU	¹ Indicators of hydric soil and wetland hydrology must			
•		N	FAC	be present, unless disturbed or problematic.			
5. Osmunda claytoniana				Definitions of Vegetation Strata:			
6. <u>Fragaria virginiana</u>		_N_	<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7. <u>Hieracium aurantiacum</u>		_N_		at breast height (DBH), regardless of height.			
8. <u>Equisetum pratense</u>	_	_N_	<u>FACW</u>	Sapling/shrub – Woody plants less than 3 in. DBH			
9. <u>Ranunculus acris</u>		<u>N</u>	<u>FAC</u>	and greater than or equal to 3.28 ft (1 m) tall.			
10. Rhamnus cathartica	3	N	<u>FAC</u>	Herb – All herbaceous (non-woody) plants, regardless			
11				of size, and woody plants less than 3.28 ft tall.			
12				Woody vines – All woody vines greater than 3.28 ft in height.			
	99	= Total Cov	/er	noight.			
Woody Vine Stratum (Plot size:)							
1							
2							
3				Hydrophytic			
4				Vegetation			
		= Total Cov		Present? Yes No _ ✓			
Remarks: (Include photo numbers here or on a separate s							
The sample point is somewhat represe							
The surrounding area is forested with le	ess cove	er by we	edy her	baceous species.			

SOIL Sampling Point: noasa1007

Profile Descrip	otion: (Describe to	the depth	needed to docun	nent the i	ndicator	or confirm	the absence of inc	licators.)	
Depth	Matrix			K Features		1 2	Tand	Davis 1	
<u>(inches)</u>	Color (moist)		Color (moist)	%	Type ¹		Texture	Remarks	
		etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.		Pore Lining, M=Matrix. roblematic Hydric Soils ³ :	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Thick Dark Surface (S7) (LRR R, MLRA 149B) Thick Dark Surface (S7) (LRR R, MLRA 149B)							2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) or problematic.		
Туре:	yer (if observed):						Hydric Soil Prose	ent? Yes No	
	es):						Trydile doll i lest	JIII. 163 NO	
							vithin 100 ft. S	Soils are assumed to be c indicators.	



noasa1007_E



noasa1007_N



noasa1007_S



noasa1007_W

Project/Site: Line 5 Relo	County: Ash	nland	Sa	mpling Date: 20	020-06-09				
Applicant/Owner: Enbridg	-								
Investigator(s): SBR/DGI									
Landform (hillslope, terrace, e								(%): 0-2%	
Subregion (LRR or MLRA): $\frac{N}{N}$	orthcentral Fores	sts _{Lat}	+ 46 386046	ioi (oorioavo,	Long: -9 0	755479	Datum:	WGS84	
Soil Map Unit Name: Corn									
	•		•	•					
Are climatic / hydrologic cond								NI-	
Are Vegetation, Soil _								NO	
Are Vegetation, Soil _	, or Hydrolog	ду	naturally problem	atic? ((If needed, ex	plain any answers in	ı Remarks.)		
SUMMARY OF FINDIN	GS - Attach	site n	nap showing san	npling poi	nt locatior	ns, transects, in	nportant feat	tures, etc.	
Hydrophytic Vegetation Pres	sent? Yes		No	Is the Sam	pled Area				
Hydric Soil Present?			No	within a W	etland?	Yes	No <u> </u>		
Wetland Hydrology Present			No 🔽	If yes, option	nal Wetland S	Site ID:			
Remarks: (Explain alternation	ve procedures her	e or in	a separate report.)	. : 41 4					
The WWI feature is		•			•	•			
herbaceous layer w	/ith some pa	rtrid	geberry presen	it. No we	tland para	ameters were	observed.		
HYDROLOGY									
Wetland Hydrology Indica	tors:				ç	Secondary Indicators	(minimum of tw	o required)	
Primary Indicators (minimum		d chec	ck all that apply)			Surface Soil Cra		<u>o requirea)</u>	
Surface Water (A1)	TO ONO 10 TOQUITO		Water-Stained Leave			Drainage Pattern			
High Water Table (A2)			Aquatic Fauna (B13)			Moss Trim Lines (B16)			
Saturation (A3)			Marl Deposits (B15)		=	Dry-Season Water Table (C2)			
Water Marks (B1)			Hydrogen Sulfide Od		_	Crayfish Burrows (C8)			
Sediment Deposits (B2)	ı				· -	ots (C3) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)			Presence of Reduce	_		Stunted or Stress	_	, , ,	
Algal Mat or Crust (B4)		_	Recent Iron Reduction	on in Tilled Sc	oils (C6)	Geomorphic Pos	ition (D2)		
Iron Deposits (B5)			Thin Muck Surface (C7)	Shallow Aquitard (D3)				
Inundation Visible on A	erial Imagery (B7)	_	Other (Explain in Rei	marks)	_	Microtopographic	c Relief (D4)		
Sparsely Vegetated Cor	ncave Surface (B8)			=	FAC-Neutral Tes	st (D5)		
Field Observations:									
Surface Water Present?			_ Depth (inches):						
Water Table Present?	· · · · · · · · · · · · · · · · · · ·		_ Depth (inches):						
Saturation Present? (includes capillary fringe)	Yes No		_ Depth (inches):		Wetland Hy	drology Present?	Yes	No <u>~</u>	
Describe Recorded Data (st	ream daude moni	toring	well aerial photos pre	vious inspec	tions) if avail:	ahle.			
Describe Resorded Data (St	cam gaage, mom	toring	won, acriai priotos, pre	Wiodo iliopeo	tionoj, ii avaii	abio.			
Remarks:									
No indicators of we	tland hydrol	ogy '	were observed						
Î.								J	

VEGETATION - Use scientific names of plants				Sampling Point: noasa1006		
Tree Stratum (Plot size:30)	Absolute % Cover		t Indicator Status	Dominance Test worksheet:		
1. Tsuga canadensis			FACU	Number of Dominant Species That Are OBL, FACW, or FAC: (A)		
2. Acer rubrum		Y	FAC			
3. Fraxinus americana		N	FACU	Total Number of Dominant Species Across All Strata:4 (B)		
4. Populus tremuloides		N	FAC	Percent of Dominant Species		
5. <u>Betula alleghaniensis</u>				That Are OBL, FACW, or FAC:		
6.				Duayalan as Inday wantah ast.		
7				Prevalence Index worksheet: Total % Cover of: Multiply by:		
		= Total Co		OBL species x 1 =0		
Sapling/Shrub Stratum (Plot size:15)		•		FACW species0 x 2 =0		
1. Acer rubrum	5	Υ	FAC	FAC species <u>35</u> x 3 = <u>105</u>		
2				FACU species <u>95</u> x 4 = <u>380</u>		
3				UPL species0 x 5 =0		
4				Column Totals: <u>130</u> (A) <u>485</u> (B)		
5				Prevalence Index = B/A =3.73		
				Hydrophytic Vegetation Indicators:		
6				1 - Rapid Test for Hydrophytic Vegetation		
7				2 - Dominance Test is >50%		
Hart Otarium (Districtus	5 = Total Cover			3 - Prevalence Index is ≤3.0¹		
Herb Stratum (Plot size: 5) 1. Mitchella repens	30	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
Fraxinus americana			FACU	Problematic Hydrophytic Vegetation¹ (Explain)		
3						
4				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
5				Definitions of Vegetation Strata:		
6						
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
8				Sapling/shrub – Woody plants less than 3 in. DBH		
9.			_	and greater than or equal to 3.28 ft (1 m) tall.		
10				Herb – All herbaceous (non-woody) plants, regardless		
11.				of size, and woody plants less than 3.28 ft tall.		
12.				Woody vines – All woody vines greater than 3.28 ft in		
		= Total Co	over	height.		
Woody Vine Stratum (Plot size:)						
1						
2.						
3.				Hydrophytic		
				Hydrophytic Vegetation		
4		= Total Co		Present? Yes No		
Remarks: (Include photo numbers here or on a separate		_ Total CC				
The sample point represents the gener	al area.	There	is a lot o	of cover by leaf litter without		
herbaceous vegetation present.				-		
ğ ,						

SOIL Sampling Point: noasa1006

Profile Desc	ription: (Describe t	o the dept	h needed to docum	ent the i	indicator	or confirm	the absence of indic	cators.)
Depth	Matrix			(Feature				
(inches)	Color (moist)	400	Color (moist)		Type'	Loc ²	Texture	Remarks
0-12	5YR 2.5/2			_0_	· ——		SIL	
12-20	<u>5YR 4/4</u>	100		0	·		LVFS	
				-				
Type: C=Co	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	d Sand Gr	ains.		ore Lining, M=Matrix. blematic Hydric Soils³:
Histosol			Polyvalue Below	/ Surface	(S8) (LRI	RR,		10) (LRR K, L, MLRA 149B)
Histic Ep	pipedon (A2)		MLRA 149B)				Coast Prairie F	Redox (A16) (LRR K, L, R)
Black Hi	stic (A3) n Sulfide (A4)		Thin Dark Surface Loamy Mucky M					eat or Peat (S3) (LRR K, L, R) S7) (LRR K, L)
	d Layers (A5)		Loamy Gleyed N			, -)		ow Surface (S8) (LRR K, L)
	d Below Dark Surface	(A11)	Depleted Matrix					ace (S9) (LRR K, L)
	ark Surface (A12) Nucky Mineral (S1)		Redox Dark Sur Depleted Dark S					se Masses (F12) (LRR K, L, R) dplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4)		Redox Depressi		.,			(TA6) (MLRA 144A, 145, 149B)
-	ledox (S5)						Red Parent Ma	
	Matrix (S6) rface (S7) (LRR R, M	LRA 149B)				Other (Explain	Dark Surface (TF12) in Remarks)
	f hydrophytic vegetati	on and we	tland hydrology musi	t be prese	ent, unles:	s disturbed	or problematic.	
	_ayer (if observed):							
Type:	- L V						Hydric Soil Presen	t? Yes No_ <u>⊬</u> _
Remarks:	ches):						Tryuno con ricocn	100 <u> </u>
	ators of hydric	soils w	ere observed.					
	,							



noasa1006_E



noasa1006_N



noasa1006_S



noasa1006_W

Project/Site: Line 5 Reloc	cation Projec	:t	Cit	y/County: <u>As</u> ł	nland	Sa	ampling Date: <u>2020-06-06</u>	
Applicant/Owner: Enbridge	•						Sampling Point: noasd1006	
Investigator(s): AGG/OTO	à		Se	ction, Township	, Range: Se (c 15 T045N R	(003W	
							Slope (%): <u>0-2%</u>	
							Datum: WGS84	
							on:	
Are climatic / hydrologic condit								
							ent? Yes No	
Are Vegetation, Soil								
SUMMARY OF FINDING								
				Is the Sam		<u> </u>		
Hydrophytic Vegetation Present?			No <u>/</u>		etland?	Yes	No <u> </u>	
Wetland Hydrology Present?			No <u>v</u>	If ves. optio	onal Wetland S	Site ID:		
Remarks: (Explain alternative	e procedures here	or in a	separate report.)	•				
The area is a WWI-		_			The area	does not have	e hydric soil,	
wetland hydrology in	idicators, or	nyar	opnytic veg	etation.				
HYDROLOGY								
Wetland Hydrology Indicato	ors:				<u>S</u>	Secondary Indicators	s (minimum of two required)	
Primary Indicators (minimum	of one is required;	check a	all that apply)			Surface Soil Cra	cks (B6)	
Surface Water (A1)		V	Vater-Stained Lea	aves (B9)	_	Drainage Patterr	ns (B10)	
High Water Table (A2)		A	Aquatic Fauna (B1	3)	_	Moss Trim Lines	i (B16)	
Saturation (A3)		N	Marl Deposits (B1	5)	_	Dry-Season Water Table (C2)		
Water Marks (B1)		H	Hydrogen Sulfide (Odor (C1)	_	Crayfish Burrows	s (C8)	
Sediment Deposits (B2)		c	Oxidized Rhizosph	neres on Living	Roots (C3) _	Saturation Visibl	e on Aerial Imagery (C9)	
Drift Deposits (B3)			Presence of Redu	, ,		Stunted or Stres		
Algal Mat or Crust (B4)			Recent Iron Reduc		oils (C6)	Geomorphic Pos	sition (D2)	
Iron Deposits (B5)			hin Muck Surface	. ,	_	Shallow Aquitard		
Inundation Visible on Ae		c	Other (Explain in F	Remarks)	_	Microtopographi		
Sparsely Vegetated Con-	cave Surface (B8)				_	FAC-Neutral Tes	st (D5)	
Field Observations:								
Surface Water Present?			Depth (inches):					
Water Table Present?			Depth (inches): _		NA 41 111		v	
Saturation Present? (includes capillary fringe)	Yes No _		Depth (inches): _		Wetland Hy	drology Present?	Yes No	
Describe Recorded Data (stre	eam gauge, monito	ring we	ell, aerial photos, p	previous inspec	tions), if availa	able:		
Remarks: No indicators of wet	land hydrolo	av w	ara ohsarva	λd				
TWO ITIGICATORS OF WCT	iana myarolo	gy w	CIC ODSCIVE	.a.				

rit Indicator Status FAC FACU FACU FACU FACU FACU FACU FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A) Total Number of Dominant Species Across All Strata: 2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 1 x 2 = 2 FACW species 50 x 3 = 150 FACU species 50 x 4 = 144 UPL species 0 x 5 = 0 Column Totals: 87 (A) 296 (B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACU FACU FACU FACU FACU FACU FACU FACU	That Are OBL, FACW, or FAC:
FACU FACU FACU FACU FACU FACU FACU FACU	Total Number of Dominant Species Across All Strata:
FACU FACU FACU FACU FACU FACW	Species Across All Strata:2 (B) Percent of Dominant Species That Are OBL, FACW, or FAC:50 (A/B) Prevalence Index worksheet:
Sover FACU FACW	That Are OBL, FACW, or FAC:
cover FACU FACW	That Are OBL, FACW, or FAC:
cover FACU FACW	Total % Cover of: Multiply by: OBL species 0 x1 = 0 FACW species 1 x2 = 2 FAC species 50 x3 = 150 FACU species 36 x4 = 144 UPL species 0 x5 = 0 Column Totals: 87 (A) 296 (B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
cover FACU FACW	Total % Cover of: Multiply by: OBL species 0 x1 = 0 FACW species 1 x2 = 2 FAC species 50 x3 = 150 FACU species 36 x4 = 144 UPL species 0 x5 = 0 Column Totals: 87 (A) 296 (B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
cover FACU FACW	OBL species 0 x1 = 0 FACW species 1 x2 = 2 FAC species 50 x3 = 150 FACU species 36 x4 = 144 UPL species 0 x5 = 0 Column Totals: 87 (A) 296 (B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACU FACW	FACW species 1 x 2 = 2 FAC species 50 x 3 = 150 FACU species 36 x 4 = 144 UPL species 0 x 5 = 0 Column Totals: 87 (A) 296 (B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACU FACW	FACU species 36 x 4 = 144 UPL species 0 x 5 = 0 Column Totals: 87 (A) 296 (B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACU FACW	UPL species 0 x 5 = 0 Column Totals: 87 (A) 296 (B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACU FACW	Column Totals:87(A)296(B) Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators:1 - Rapid Test for Hydrophytic Vegetation2 - Dominance Test is >50%3 - Prevalence Index is ≤3.0¹4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACU FACW	Prevalence Index = B/A = 3.4022988505747125 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACU FACW	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACU FACW	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACU FACW	 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACU FACW	 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)
FACU FACW	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must
FACW	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) Indicators of hydric soil and wetland hydrology must
FACW	Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must
	¹ Indicators of hydric soil and wetland hydrology must
_	he present upless disturbed or problematic
	be present, unless disturbed of problematic.
	Definitions of Vegetation Strata:
	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
	at breast height (DBH), regardless of height.
	Sapling/shrub - Woody plants less than 3 in. DBH
	and greater than or equal to 3.28 ft (1 m) tall.
	Herb – All herbaceous (non-woody) plants, regardless
	of size, and woody plants less than 3.28 ft tall.
	Woody vines – All woody vines greater than 3.28 ft in height.
over	noight.
-	
	Hydrophytic
	Vegetation Present? Yes No _ ✓
over	165 No
	Cover Cover fir.

SOIL Sampling Point: noasd1006

Depth	Matrix		needed to document the indicator or confir Redox Features	_	,
(inches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹ Loc ²	<u>Texture</u>	Remarks
0-4	10YR 3/2		0	S	
				<u> </u>	
¹ Type: C=C		etion, RM=R	Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Indicators for Proble	
Histoso Histic E Black H Hydrogo Stratifie Deplete Thick D Sandy I Sandy I Stripped		_ _ _	Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)	2 cm Muck (A10) Coast Prairie Red 5 cm Mucky Peat Dark Surface (S7) Polyvalue Below S Thin Dark Surface Iron-Manganese N Piedmont Floodpl	(LRR K, L, MLRA 149B) ox (A16) (LRR K, L, R) or Peat (S3) (LRR K, L, R) (LRR K, L) Surface (S8) (LRR K, L) (S9) (LRR K, L) Masses (F12) (LRR K, L, R) ain Soils (F19) (MLRA 149B) 6) (MLRA 144A, 145, 149B) ial (F21) c Surface (TF12)
	f hydrophytic vegetati Layer (if observed):	on and wetla	and hydrology must be present, unless disturbe	d or problematic.	
Type: <u>C</u>					
	ches): <u>4.0</u>		_	Hydric Soil Present?	Yes No <u>/</u>
Remarks:		s were c	observed in the upper 4 inches.		



noasd1006_E



noasd1006_N



noasd1006_S



noasd1006_W

Project/Site: Line 5 Relo	cation Projec	ct	City/C	County: Ash	nland	Sa	mpling Date: 2	2020-05-28
Applicant/Owner: Enbridge	•							
Investigator(s): DMP/ARk								
Landform (hillslope, terrace, e								e (%): 0-2%
Subregion (LRR or MLRA): N								
Soil Map Unit Name: Udorth								
Are climatic / hydrologic condi			•	•	•			
Are Vegetation, Soil								No
Are Vegetation, Soil						plain any answers ir		
					•		,	
SUMMARY OF FINDING	- Attach Si	ite m	nap snowing sam	ipiing poi	nt location	ns, transects, in	iportant rea	itures, etc.
Hydrophytic Vegetation Pres	ent? Yes_	~	No	Is the Sam				
Hydric Soil Present?			No		etland?			
Wetland Hydrology Present?			No	If yes, option	nal Wetland	Site ID:		
Remarks: (Explain alternative The sample plot was	e procedures here s taken withi	or in	a separate report.) manned NWI f	eature F	-lvdronhv	tic vegetation	is met due	e to the
tree species, but the						•		
parameters were of		•		, ,	_		ci welland	
parameters were of	Jaci ved. Trie	Sai	Tiple plot was to	aken in e	l cicarca	nunting lane.		
HYDROLOGY								
Wetland Hydrology Indicat	ors:				5	Secondary Indicators	(minimum of tw	wo required)
Primary Indicators (minimum	of one is required;				<u>-</u>	Surface Soil Cra	cks (B6)	
Surface Water (A1)			Water-Stained Leave			Drainage Patterr		
High Water Table (A2)			Aquatic Fauna (B13)		Moss Trim Lines (B16)			
Saturation (A3)			Marl Deposits (B15)		Dry-Season Water Table (C2)			
Water Marks (B1)			Hydrogen Sulfide Od		Crayfish Burrows (C8) Roots (C3) Saturation Visible on Aerial Imagery (C9)			
Sediment Deposits (B2)			Oxidized Rhizosphere	_				
Drift Deposits (B3) Algal Mat or Crust (B4)			Presence of Reduced Recent Iron Reduction			Stunted or Stress		
Iron Deposits (B5)			Thin Muck Surface (C			Geomorphic PosShallow Aquitaro		
Inundation Visible on Ae	rial Imagery (R7)		Other (Explain in Ren	•		Microtopographic		
Sparsely Vegetated Con			Other (Explain in Nei	nano,	-	FAC-Neutral Tes		
Field Observations:	ears carrace (Be)				<u>-</u>		. (50)	
Surface Water Present?	Yes No	~	Depth (inches):					
Water Table Present?			Depth (inches):					
Saturation Present?	Yes No	~	Depth (inches):		Wetland Hy	drology Present?	Yes	No <u>~</u>
(includes capillary fringe)					('\) '('')	-1-1-		
Describe Recorded Data (str	eam gauge, monito	oring \	weii, aeriai pnotos, pre	vious inspec	tions), if availa	able:		
Remarks:								
No indicators of we	tland hydrolo	gy v	were observed.	•				

	VEGETATION – Use scientific names of plants.						
Tree Stratum (Plot size:)	Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test worksheet:			
1. Fraxinus pennsylvanica				Number of Dominant Species That Are OBL, FACW, or FAC:3(A)			
2. Acer rubrum							
3. <u>Prunus serotina</u>				Total Number of Dominant Species Across All Strata:			
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC:60 (A/B)			
6				Prevalence Index worksheet:			
7		-		Total % Cover of: Multiply by:			
	_ 55	= Total Co	ver	OBL species x 1 = 0			
Sapling/Shrub Stratum (Plot size: 15)				FACW species 30 x 2 = 60			
1. <u>Prunus virginiana</u>	20	Υ	FACU	FAC species <u>25</u> x 3 = <u>75</u>			
2. Fraxinus pennsylvanica				FACU species <u>62</u> x 4 = <u>248</u>			
3.				UPL species 0 x 5 = 0			
4				Column Totals:117 (A)383 (B)			
5				Prevalence Index = B/A = <u>3.2735042735042734</u>			
6				Hydrophytic Vegetation Indicators:			
				1 - Rapid Test for Hydrophytic Vegetation			
7				2 - Dominance Test is >50%			
	= Total Cover			3 - Prevalence Index is ≤3.0¹			
Herb Stratum (Plot size: 5)	0.5	V	E4011	4 - Morphological Adaptations ¹ (Provide supporting			
1. <u>Erythronium cf albidum</u>				data in Remarks or on a separate sheet)			
2. <u>Carex gracillima</u>			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
3. <u>Pteridium aquilinum</u>			FACU	¹ Indicators of hydric soil and wetland hydrology must			
4. <u>Taraxacum officinale</u>				be present, unless disturbed or problematic.			
5				Definitions of Vegetation Strata:			
6				Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7				at breast height (DBH), regardless of height.			
8				Sapling/shrub – Woody plants less than 3 in. DBH			
9				and greater than or equal to 3.28 ft (1 m) tall.			
10				Herb – All herbaceous (non-woody) plants, regardless			
11				of size, and woody plants less than 3.28 ft tall.			
12				Woody vines – All woody vines greater than 3.28 ft in			
	37	= Total Co	ver	height.			
Woody Vine Stratum (Plot size:)							
1							
1			-				
2				Hydrophytic			
2				Hydrophytic Vegetation			
2			Wer .	1			

SOIL Sampling Point: noase1011

Profile Desc	cription: (Describe	to the dept	h needed to docun	nent the	indicator	or confirm	the absence o	f indicators.)		
Depth	Matrix			x Feature		. 2				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks		
0-5	5YR 3/3	<u> 100</u>	_	0	·		<u> </u>			
5-16	5YR 4/2	100		0			FSL			
16-20	5YR 4/3	100		0			SCL			
1020	0110				·		<u> </u>			
			_							
		 -								
				-						
		<u> </u>								
1Type: C=C	oncentration D-Der	oletion PM-	Reduced Matrix, MS		d Sand Gr	aine	² Location:	PL=Pore Lining, M=Matrix.		
Hydric Soil		detion, ixivi–	rteduced Matrix, Mc	D-IVIASKE	Janu Or	allis.		or Problematic Hydric Soils	3.	
Histosol	(A1)	<u>.</u>	Polyvalue Belov	v Surface	(S8) (LRI	R,	2 cm Mu	uck (A10) (LRR K, L, MLRA 1	49B)	
. —	oipedon (A2)		MLRA 149B)					rairie Redox (A16) (LRR K, L		
Black Hi	, ,	-	Thin Dark Surfa					ucky Peat or Peat (S3) (LRR I	K, L, R)	
	en Sulfide (A4) d Layers (A5)	-	Loamy Mucky M Loamy Gleyed M			, L)	Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S8) (LRR K, L)			
	d Below Dark Surfac	e (A11)	Depleted Matrix		-/		Thin Dark Surface (S9) (LRR K, L)			
	ark Surface (A12)	-	Redox Dark Sur	, ,			Iron-Manganese Masses (F12) (LRR K, L, R)			
-	Mucky Mineral (S1)	-	Depleted Dark S		- 7)		Piedmont Floodplain Soils (F19) (MLRA 149B)			
	Gleyed Matrix (S4) Redox (S5)	-	Redox Depressi	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
	Matrix (S6)						Red Parent Material (F21) Very Shallow Dark Surface (TF12)			
	rface (S7) (LRR R, I	MLRA 149B)					Explain in Remarks)		
a										
	f hydrophytic vegeta Layer (if observed)		land hydrology mus	t be pres	ent, unles	s disturbed	or problematic.			
Type:	Layer (II observed)	=								
, <u> </u>							Hydric Soil B	Present? Yes No	/	
	ches):						Tiyane con i	resent: res no		
Remarks:	nrofile consist	ts of thre	ae lavers the	firet ie	reddis	h hrowi	n Ioam Se	cond is a grayish re	d fine	
			-					e no redox concentr		
_			ere observed		ilidy Ci	ay loan	i. There are	c no redox concenti	ations,	
and no n	yane son man	cators w	CIC ODSCIVCO	•						



noase1011_E



noase1011_N



noase1011_S



noase1011_W

Project/Site: Line 5 Relocation Project	City/County: Ash	land	Sampling Date: 2020-05-30	
			in Sampling Point: noasd1003	
Investigator(s): AGG/OTG	Section, Township	Range: <u>sec 32 T045N</u>	R002W	
Landform (hillslope, terrace, etc.): Side Slope				
Subregion (LRR or MLRA): Northcentral Forests Lat: 46				
Soil Map Unit Name: Foxpaw-Gay, stony comp				
Are climatic / hydrologic conditions on the site typical for this	is time of year? Yes N	lo (If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes No	
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed, explain any answer	rs in Remarks.)	
SUMMARY OF FINDINGS - Attach site map	showing sampling poi	nt locations, transects,	important features, etc.	
Hydrophytic Vegetation Present? YesN	Is the Sam	oled Area		
Hydric Soil Present? Yes N		etland? Yes	No	
Wetland Hydrology Present? YesN		nal Wetland Site ID:		
Remarks: (Explain alternative procedures here or in a se	parate report.)	-1	and A shall be it is a	
The sample point is located within an N				
wetland is present downslope of this ar				
areas of inundation present around the				
rains. The area is not a wetland due to	the dominance of FA	ACU species, the lac	ck of hydrology	
indicators, and the lack of hydric soils.				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum of one is required; check all	that apply)	Surface Soil (Cracks (B6)	
Surface Water (A1) Wa	ter-Stained Leaves (B9)	Drainage Pat	terns (B10)	
High Water Table (A2) Aqu	ıatic Fauna (B13)	Moss Trim Lines (B16)		
Saturation (A3) Mai	1 Deposits (B15)	Dry-Season V	Vater Table (C2)	
	drogen Sulfide Odor (C1)	Crayfish Burn	ows (C8)	
	dized Rhizospheres on Living F	Roots (C3) Saturation Vis	sible on Aerial Imagery (C9)	
	sence of Reduced Iron (C4)		ressed Plants (D1)	
	cent Iron Reduction in Tilled So			
	n Muck Surface (C7)	Shallow Aqui		
	er (Explain in Remarks)		phic Relief (D4)	
Sparsely Vegetated Concave Surface (B8) Field Observations:		FAC-Neutral	Test (D5)	
	epth (inches):			
	epth (inches):			
	pth (inches):	Wetland Hydrology Presen	t? Yes No <u> </u>	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well,	agrical photography inches	iona) if available:		
Describe Recorded Data (stream gauge, monitoring well,	aeriai priotos, previous irispect	ons), ii avaliable.		
Remarks:				
No indicators of wetland hydrology wer				
present in the area but it is assumed the	at this is due to rece	nt heavy rain events	5.	

VEGETATION – Use scientific names of plants.				Sampling Point: noasd1003
Tree Stratum (Plot size:30)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. Acer rubrum	_25_	<u>Y</u>	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:4 (A)
2. Fraxinus pennsylvanica				Total Number of Dominant
3. <u>Betula alleghaniensis</u>				Species Across All Strata: 8 (B)
4. <u>Tilia americana</u>	5	N	FACU	Percent of Dominant Species
5. <u>Abies balsamea</u>			FAC	That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	70	= Total Co	ver	OBL species
Sapling/Shrub Stratum (Plot size: 15)				FACW species30 x 2 =60
1. <u>Acer saccharum</u>	25	Y	<u>FACU</u>	FAC species60 x 3 =180
2. Ostrya virginiana	10	Y	<u>FACU</u>	FACU species <u>82</u> x 4 = <u>328</u>
3. <u>Tilia americana</u>	10	Y	<u>FACU</u>	UPL species $0 \times 5 = 0$ Column Totals: $172 \times 68 \times 68$ (B)
4. <u>Fraxinus pennsylvanica</u>	5	N	<u>FACW</u>	Column Totals(A)(B)
5				Prevalence Index = B/A = 3.302325581395349
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
	_50	= Total Co	ver	2 - Dominance Test is >50%
Herb Stratum (Plot size:)				3 - Prevalence Index is ≤3.0¹
1. Allium tricoccum	15	<u>Y</u>	<u>FACU</u>	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Carex pedunculata</u>				Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Athyrium angustum</u>		Y	FAC	1
4. <u>Maianthemum canadense</u>		N	<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. <u>Maianthemum racemosum</u>	5	N	<u>FACU</u>	Definitions of Vegetation Strata:
6. <u>Carex gracillima</u>		N	<u>FACU</u>	-
7. <u>Sanguinaria canadensis</u>			<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	52	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes No ✓
	0	= Total Co	ver	Tresent: TesNO
Remarks: (Include photo numbers here or on a separate see The sample plot is located within a moist		cforest	dominat	ted by red maple and green ash.

SOIL Sampling Point: noasd1003

Profile Desc	cription: (Describe	to the dept	h needed to docum	ent the i	indicator	or confirm	the absence of	indicators.)
Depth	Matrix	0/		Feature:		1 2	T	Demode
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type'	Loc ²	<u>Texture</u>	Remarks
0-10	10YR 2/2	100		0			<u> </u>	
		-						
		·						
	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	=Masked	d Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil			Daharahaa Dalaa	0 ((00) (LDI			Problematic Hydric Soils ³ :
Histosol	oipedon (A2)	-	Polyvalue Below MLRA 149B)	Surrace	(S8) (LRI	κк,		k (A10) (LRR K, L, MLRA 149B) iirie Redox (A16) (LRR K, L, R)
	istic (A3)	<u>-</u>	Thin Dark Surfa	ce (S9) (I	RR R, MI	LRA 149B)		ky Peat or Peat (S3) (LRR K, L, R)
	en Sulfide (A4)	-	Loamy Mucky M			, L)		ace (S7) (LRR K, L)
	d Layers (A5)	- (044)	Loamy Gleyed N		2)			Below Surface (S8) (LRR K, L)
-	d Below Dark Surface ark Surface (A12)	e (A11)	Depleted MatrixRedox Dark Sur					Surface (S9) (LRR K, L) ganese Masses (F12) (LRR K, L, R)
	Mucky Mineral (S1)	-	Depleted Dark S					Floodplain Soils (F19) (MLRA 149B)
-	Gleyed Matrix (S4)	-	Redox Depressi		,			odic (TA6) (MLRA 144A, 145, 149B)
-	Redox (S5)							nt Material (F21)
	l Matrix (S6) rface (S7) (LRR R, N	U DA 440B						low Dark Surface (TF12) plain in Remarks)
Dark Su	nace (S7) (LKK K, IV	ILKA 149D	1				Office (Ex	piairi iri Kemarks)
	f hydrophytic vegetat		land hydrology must	t be prese	ent, unless	s disturbed	or problematic.	
	Layer (if observed):							
Type: Bo								
	ches): <u>10.0</u>						Hydric Soil Pro	esent? Yes No <u>/</u>
Remarks:	!! !!!		- l					
No nyari	c soil indicator	s were	observea.					



noasd1003_E



noasd1003_N



noasd1003_S



noasd1003_W

Project/Site: Line 5 Reloc	cation Project	City/C	County: <u>Iron</u>		Sampling Date: <u>2020-05-26</u>		
Applicant/Owner: Enbridge	•				Sampling Point: noird1001		
Investigator(s): AGG/OTG	S/SAM	Section	on, Township, F	Range: sec 07 T045N	R001W		
					Slope (%): <u>3-7%</u>		
					Datum: WGS84		
Soil Map Unit Name: Goget							
Are climatic / hydrologic conditi	ions on the site typical	for this time of year? Y	res <u>r</u> No	(If no, explain in Rer	marks.)		
Are Vegetation, Soil	, or Hydrology	significantly distur	rbed? Are	e "Normal Circumstances" pre	esent? Yes <u>v</u> No		
Are Vegetation, Soil				needed, explain any answers			
SUMMARY OF FINDING	S - Attach site	map showing sam	npling point	locations, transects,	important features, etc.		
Hydrophytic Vegetation Prese	ent? Yes	No	Is the Sample				
Hydric Soil Present?		No <u> </u>	within a Wetla		_ No <u> </u>		
Wetland Hydrology Present?		No <u> </u>	If yes, optiona	l Wetland Site ID:			
Remarks: (Explain alternative The area is a mappe surrounding wetland seepage.	ed NWI polygor	n that does not r	•		-		
HYDROLOGY Wetland Hydrology Indicate	ors:			Secondary Indicato	ors (minimum of two required)		
Primary Indicators (minimum	of one is required; che	eck all that apply)		Surface Soil C	racks (B6)		
Surface Water (A1)	_	_ Water-Stained Leave			Drainage Patterns (B10)		
High Water Table (A2)		_ Aquatic Fauna (B13)			Moss Trim Lines (B16)		
Saturation (A3)		_ Marl Deposits (B15)		· · · · · · · · · · · · · · · · · · ·	/ater Table (C2)		
Water Marks (B1)		_ Hydrogen Sulfide Od		Crayfish Burro			
Sediment Deposits (B2)		_ Oxidized Rhizosphere			(C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)		
Drift Deposits (B3) Algal Mat or Crust (B4)		Presence of ReducedRecent Iron Reductio					
Iron Deposits (B5)		Thin Muck Surface (C		Shallow Aquita			
Inundation Visible on Aer		_ Other (Explain in Ren	•	Microtopograp			
Sparsely Vegetated Cond		_ 04101 (EAPIGHT III 1111	nano,	FAC-Neutral T			
Field Observations:	2010 2211211 (- /				331 (2 3)		
Surface Water Present?	Yes No	Depth (inches):					
Water Table Present?		Depth (inches):					
Saturation Present? (includes capillary fringe)		Depth (inches):		Vetland Hydrology Present?	? Yes No <u>/</u>		
Describe Recorded Data (stre	eam gauge, monitorinç	well, aerial photos, pre	evious inspection	ns), if available:			
Remarks: No indicators of wet	land hydrology	were observed					
Tro maioatoro or wot	iana nyarology	WOIO ODOOI VOO.	•				

	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30)		Species?		Number of Dominant Species
1. Acer saccharum		<u>Y</u>	FACU	That Are OBL, FACW, or FAC: (A)
2. <u>Ostrya virginiana</u>			<u>FACU</u>	Total Number of Dominant
3. <u>Quercus rubra</u>			<u>FACU</u>	Species Across All Strata: (B)
4. Acer rubrum	5	_N_	<u>FAC</u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 29 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	<u>75</u>	= Total Cov	/er	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1. Ostrya virginiana	10	Y	<u>FACU</u>	FAC species15 x 3 =45
2. Quercus rubra	5	Y	<u>FACU</u>	FACU species 92 x 4 = 368
3. <u>Acer rubrum</u>	5	Y	FAC	UPL species 0 x 5 = 0
4				Column Totals:107 (A)413 (B)
5				Prevalence Index = B/A = $\frac{3.8598130841121496}{1}$
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
		= Total Cov	/or	2 - Dominance Test is >50%
Herb Stratum (Plot size:5)		= 10tai 00t	701	3 - Prevalence Index is ≤3.0¹
1. Pteridium aquilinum	5	Υ	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. <u>Oryzopsis asperifolia</u>		Υ		Problematic Hydrophytic Vegetation ¹ (Explain)
3. Osmunda claytoniana			FAC	
4. Maianthemum canadense			FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5				
6				Definitions of Vegetation Strata:
7				Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				
9				Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11.				of size, and woody plants less than 3.28 ft tall.
				Woody vines – All woody vines greater than 3.28 ft in
12		= Total Cov		height.
Washi Vina Stratium (Blataine)		= 10(a) Co\	/ei	
Woody Vine Stratum (Plot size:30)				
1				
2				
3				Hydrophytic Vegetation
4	_			Present? Yes No v
Demander (leglisde whote assumb are horse or on a consustant		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate s The sample plot is located within a mes		wood fo	rest don	ninated by sugar maple.
сар. с р.с. с госаков п				ap.o.

Sampling Point: noird1001

SOIL Sampling Point: noird1001

Profile Desc	ription: (Describe t	o the depth	n needed to document the indicator or confirm	the absence of	indicators.)	
Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist) % Type ¹ Loc ²	Texture	Remarks	
0-12	5YR 2.5/1	100	0	L		
12-20				SI		
12 20	<u> </u>	_100				
-					_	
		etion, RM=F	Reduced Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :	
Hydric Soil I Histosol			Polyvalue Below Surface (S8) (LRR R,		ck (A10) (LRR K, L, MLRA 149B)	
	pipedon (A2)	_	MLRA 149B)		airie Redox (A16) (LRR K, L, R)	
Black His		_	Thin Dark Surface (S9) (LRR R, MLRA 149B)		cky Peat or Peat (S3) (LRR K, L, R)	
	n Sulfide (A4) d Layers (A5)	_	Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2)		face (S7) (LRR K, L) e Below Surface (S8) (LRR K, L)	
	d Below Dark Surface	e (A11) _	Depleted Matrix (F3)		k Surface (S9) (LRR K, L)	
Thick Da	ark Surface (A12)	_	Redox Dark Surface (F6)	Iron-Manganese Masses (F12) (LRR K, L, R)		
	lucky Mineral (S1)	_	Depleted Dark Surface (F7)		t Floodplain Soils (F19) (MLRA 149B)	
	edox (S5)	-	Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)Red Parent Material (F21)		
	Matrix (S6)				allow Dark Surface (TF12)	
Dark Sur	rface (S7) (LRR R, M	ILRA 149B)		Other (Ex	xplain in Remarks)	
³ Indicators of	hvdrophytic vegetati	ion and wetl	and hydrology must be present, unless disturbed	or problematic		
	_ayer (if observed):		ana nyarangy maerizo procesn, ameeo aletaizea			
Type:			<u></u>			
Depth (inc	ches):		<u></u>	Hydric Soil Pi	resent? Yes No/	
Remarks:				1		
No hydrid	c soil indicator	s were o	observed.			



noird1001_E



noird1001_N



noird1001_S



noird1001_W

Project/Site: Line 5 Relocation Project	City/County:	on	Sampling Date: <u>2020-05-23</u>		
Applicant/Owner: Enbridge					
Investigator(s): <u>EJO/JSW</u>	Section, Towns	ship, Range: sec 28 T046N	R001W		
Landform (hillslope, terrace, etc.): Talf					
Subregion (LRR or MLRA): Northcentral Forests Lat					
Soil Map Unit Name: Chabeneau-Channing-Gog					
Are climatic / hydrologic conditions on the site typical for					
	•				
Are Vegetation, Soil, or Hydrology					
Are Vegetation, Soil, or Hydrology					
SUMMARY OF FINDINGS – Attach site n	nap showing sampling p	oint locations, transects,	important features, etc.		
Hydrophytic Vegetation Present? Yes	No V Is the S	ampled Area			
	No v within a	Wetland? Yes	No		
Wetland Hydrology Present? Yes	No If yes, o	ptional Wetland Site ID:	_		
Remarks: (Explain alternative procedures here or in	a separate report.)	bardwood forest Can	any is dominated by		
Plot was recorded in a mapped NW	-				
sugar maple and green ash. Sugar	•	ire dominant in the gro	uliu layel. No		
wetland parameters were observed.					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum of one is required; chec	k all that apply)	Surface Soil 0	Cracks (B6)		
	Water-Stained Leaves (B9)		Drainage Patterns (B10)		
	Aquatic Fauna (B13)		Moss Trim Lines (B16)		
	Marl Deposits (B15)		Vater Table (C2)		
	Hydrogen Sulfide Odor (C1)	Crayfish Burro			
	Oxidized Rhizospheres on Livi		sible on Aerial Imagery (C9)		
	Presence of Reduced Iron (C4		ressed Plants (D1)		
	Recent Iron Reduction in Tilled	Soils (C6) Geomorphic F Shallow Aquit			
	Thin Muck Surface (C7) Other (Explain in Remarks)	Shallow Adult	, ,		
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Nemarks)	FAC-Neutral			
Field Observations:		170 Neutlai	1631 (150)		
	Depth (inches):				
	Depth (inches):				
	Depth (inches):		:? Yes No_ <u>✓</u>		
(includes capillary fringe)					
Describe Recorded Data (stream gauge, monitoring	weii, aeriai pnotos, previous ins	Dections), if available:			
Remarks:	1 (4) 1				
Microdepressions are present throu	•	nay be saturated at tim	ies, but do not		
appear to support hydrophytic vege	tation.				

/EGETATION – Use scientific names of plants.				Sampling Point: noirc1006		
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet: Number of Dominant Species		
1. <u>Acer saccharum</u>	15	Y	<u>FACU</u>	That Are OBL, FACW, or FAC: (A)		
2. <u>Fraxinus pennsylvanica</u>	10	Y	<u>FACW</u>	Total Number of Dominant		
3. <u>Thuja occidentalis</u>	7	_N_	<u>FACW</u>	Species Across All Strata:5 (B)		
4. <u>Fraxinus nigra</u>	5	_N	<u>FACW</u>	Percent of Dominant Species		
5. <u>Acer rubrum</u>	5	_N_	_FAC_	That Are OBL, FACW, or FAC:40 (A/B)		
6. <u>Betula alleghaniensis</u>	2	_N	FAC	Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
	44	= Total Cov	er er	OBL species0 x 1 =0		
Sapling/Shrub Stratum (Plot size: 15)				FACW species 27 x 2 = 54		
1. Acer saccharum	30	<u>Y</u>	<u>FACU</u>	FAC species <u>44</u> x 3 = <u>132</u>		
2. <u>Fraxinus nigra</u>	5	N	<u>FACW</u>	FACU species x 4 = 308		
3				UPL species $0 \times 5 = 0$ Column Totals: $148 \times 6 \times 494 \times 6$		
4				Column Totals. <u>148</u> (A) <u>494</u> (B)		
5				Prevalence Index = B/A = 3.3378378378378377		
6				Hydrophytic Vegetation Indicators:		
7				1 - Rapid Test for Hydrophytic Vegetation		
	35	= Total Cov	er	2 - Dominance Test is >50%		
Herb Stratum (Plot size: 5				3 - Prevalence Index is ≤3.0¹		
1. <u>Athyrium angustum</u>	20	Υ	FAC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2. <u>Acer saccharum</u>		Υ	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
3. <u>Dryopteris intermedia</u>		N	FAC	1		
4. <u>Cardamine diphylla</u>		N	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
5. Carex pedunculata	_	N	FAC	Definitions of Vegetation Strata:		
6. Phegopteris connectilis		N	FACU	-		
7. <u>Maianthemum canadense</u>			FACU	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
8. Trientalis borealis		N	FAC	Sapling/shrub – Woody plants less than 3 in. DBH		
9. Clintonia borealis	4	N	FAC	and greater than or equal to 3.28 ft (1 m) tall.		
10				Herb – All herbaceous (non-woody) plants, regardless		
11.				of size, and woody plants less than 3.28 ft tall.		
12.				Woody vines – All woody vines greater than 3.28 ft in		
		= Total Cov	ver	height.		
Woody Vine Stratum (Plot size:30)						
1						
2.						
3.				Hydrophytic		
4.				Vegetation		
		= Total Cov	er	Present? Yes No _ ✓		
Remarks: (Include photo numbers here or on a separate s		- 13141 001				
Sample plot recorded in mesic hardwood maple. Sugar maple is also dominant in herbaceous layer.	od fores					

SOIL Sampling Point: <u>noirc1006</u>

Depth Matrix Redox Features Remarks O-8 7.5YR 2.5/2 100 0 SIL 8-18 5YR 3/4 95 5YR 4/6 5 C M SIL "Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains." "Losal Grain Surface (S9) (LRR R, MS Surface
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. **Indicators:** Histosol (A1)
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, Indicators for Problematic Hydric Soils ² : Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Cast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S7) (LRR K, L) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Redox (S5) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Sardy Redox (S5) Cother (Explain in Remarks) sandrace (S7) (LRR R, MLRA 149B) sandrace (S7) (LRR R, MLRA 149B) This Dark Surface (F7) Cyery Shallow Dark Surface (F12) Other (Explain in Remarks)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Hydric Soil Indicators: Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Polyvalue ALRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Coast Prairie Redox (A16)
Histosol (A1)
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Loamy Mucky Mineral (F1) (LRR K, L) Depleted Below Dark Surface (A11) Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sardy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L) Thick Dark Surface (A11) Pepleted Matrix (F3) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Peleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Postrictive Laver (if observed):
Type: <u>Cobble</u> Depth (inches): 18.0 Hydric Soil Present? Yes No _ ✓
Depth (inches): 18.0 Hydric Soil Present? Yes No Remarks:
No indicators of hydric soils observed.



noirc1006_E



noirc1006_N



noirc1006_S



noirc1006_W

Project/Site: Line 5 Relo	cation Project	t		City/C	ounty: <u>Iror</u>	1	s	Sampling Date:	2020-05-22
Applicant/Owner: Enbridge	<u> </u>						State: Wisconsin	Sampling Poir	nt: <u>noirc1005</u>
Investigator(s): EJO/JSW									
Landform (hillslope, terrace, et									pe (%): 0-2%
Subregion (LRR or MLRA): No									
Soil Map Unit Name: Gogebio									
Are climatic / hydrologic condit									
Are Vegetation, Soil				-					✓ No
Are Vegetation, Soil			_	-					110
SUMMARY OF FINDING	- Attach Si	te m	ap snow	ing sam	ipling pol	nt location	ns, transects, i	mportant re	atures, etc.
Hydrophytic Vegetation Pres			_ No		Is the Sam		V	No.	
Hydric Soil Present?			_ No			etland?		No <u>/</u>	
Wetland Hydrology Present? Remarks: (Explain alternativ			_ No		If yes, optio	nal Wetland	Site ID:		
forest was selective	ly harvested	as e	evidenc	ed by s	tumps in	the feat	ure.		
HYDROLOGY							Coondon, Indicato	ro (minimum of	f true required)
Wetland Hydrology Indicate		obool	call that an	ابرام		-	Secondary Indicato		two required)
Primary Indicators (minimum	or one is required;						Surface Soil Cr		
Surface Water (A1) High Water Table (A2)			Water-Stai Aquatic Fa				Drainage Patterns (B10) Moss Trim Lines (B16)		
Saturation (A3)			Marl Depos			-	Moss Trim Lines (B16) Dry-Season Water Table (C2)		
Water Marks (B1)			Hydrogen S		or (C1)	-	Dry-Season Water Table (C2) Crayfish Burrows (C8)		
Sediment Deposits (B2)							Saturation Visil		nagery (C9)
Drift Deposits (B3)			Presence of		_		Stunted or Stre		
Algal Mat or Crust (B4)					n in Tilled Sc		Geomorphic Po		,
Iron Deposits (B5)			Thin Muck	Surface (C	27)	_	Shallow Aquita	rd (D3)	
Inundation Visible on Ae	rial Imagery (B7)		Other (Exp	lain in Ren	narks)	_	Microtopograph	nic Relief (D4)	
Sparsely Vegetated Con	cave Surface (B8)						FAC-Neutral Te	est (D5)	
Field Observations:			5 4 6						
Surface Water Present?	Yes No _								
Water Table Present? Saturation Present?	Yes No _ Yes No _					Wetland Hy	/drology Present?	y Voc	No 4
(includes capillary fringe)								163	. NO
Describe Recorded Data (str	eam gauge, monito	ring v	vell, aerial p	hotos, pre	vious inspec	tions), if avail	able:		
Remarks:									
No indicators of wet	lland hydrolog	gy c	bserve	d.					

/EGETATION – Use scientific names of plants				Sampling Point: noirc1005
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1. Acer saccharum	20	<u>Y</u>	FACU	Number of Dominant Species That Are OBL, FACW, or FAC:1 (A)
2. Fraxinus pennsylvanica				Total Number of Dominant Species Across All Strata: 6 (B)
3				
5				Percent of Dominant Species That Are OBL, FACW, or FAC:17 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	35	= Total Cov	/er	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species15 x 2 =30
1. <u>Acer saccharum</u>	5	<u>Y</u>	<u>FACU</u>	FAC species4 x 3 =12 FACU species37 x 4 =148
2	_			UPL species $0 \times 5 = 0$
3				Column Totals: <u>56</u> (A) <u>190</u> (B)
4	_			
5				Prevalence Index = B/A = 3.392857142857143
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
_	5	= Total Cov	/er	3 - Prevalence Index is ≤3.0¹
Herb Stratum (Plot size: 5			_	4 - Morphological Adaptations ¹ (Provide supporting
1. <u>Acer saccharum</u>			<u>FACU</u>	data in Remarks or on a separate sheet)
2. <u>cf. Brachyelytrum aristosum</u>				Problematic Hydrophytic Vegetation ¹ (Explain)
3. <u>Claytonia caroliniana</u>			<u>FACU</u>	¹ Indicators of hydric soil and wetland hydrology must
4. <u>Carex leptonervia</u>			<u>FAC</u>	be present, unless disturbed or problematic.
5. <u>Caulophyllum thalictroides</u>				Definitions of Vegetation Strata:
6. <u>Carex pedunculata</u>			<u>FAC</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. <u>Gymnocarpium dryopteris</u>			<u>FACU</u>	at breast height (DBH), regardless of height.
8. <u>Polygonatum pubescens</u>9.	_ 1	<u>N</u>	<u>FACU</u>	Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10.				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	23	= Total Cov	/er	height.
Woody Vine Stratum (Plot size:)				
1				
2				
3				Hydrophytic
4				Vegetation Present? Yes No ✓
		= Total Cov	/er	
Remarks: (Include photo numbers here or on a separate	sheet.) od fores	t with si	ınar ma	ple and green ash dominant in canopy
with Carolina spring beauty, sugar map			-	
was selectively harvested with stumps				•
: 3.22.2 2. 	,			- ,

SOIL Sampling Point: <u>noirc1005</u>

		to the depth	n needed to document the i		the absence of indic	ators.)	
Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist) %	Type ¹ Loc ²	Texture	Remarks	
0-2	10YR 2/2	100			<u> L </u>		
2-5	7.5YR 3/2	100			SIL		
5-16	5YR 3/4	100	0		SIL		
	-						
	_	· -				_	
		· -					
		· -					
		· -					
		letion, RM=F	Reduced Matrix, MS=Masked	Sand Grains.		ore Lining, M=Matrix.	
Hydric Soil			Dalamalus Balam Confess	(CO) (LDD D		olematic Hydric Soils ³ :	
Histoso Histic E	pipedon (A2)	=	Polyvalue Below Surface MLRA 149B)	(58) (LRR R,		0) (LRR K, L, MLRA 149B) edox (A16) (LRR K, L, R)	
Black H	istic (A3)	_	Thin Dark Surface (S9) (L		5 cm Mucky Pe	eat or Peat (S3) (LRR K, L, R)	
	en Sulfide (A4) d Layers (A5)	_	Loamy Mucky Mineral (F1Loamy Gleyed Matrix (F2		Dark Surface (\$	S7) (LRR K, L) w Surface (S8) (LRR K, L)	
	d Below Dark Surfac	e (A11) _	Depleted Matrix (F3)	,	·	ace (S9) (LRR K, L)	
	ark Surface (A12)	_	Redox Dark Surface (F6)	\		e Masses (F12) (LRR K, L, R)	
-	Mucky Mineral (S1) Gleyed Matrix (S4)	_	Depleted Dark Surface (FRedox Depressions (F8)	7)	Piedmont Floodplain Soils (F19) (MLRA 1498		
	Redox (S5)	_	Redox Depressions (Fo)		Mesic Spodic (TA6) (MLRA 144A, 145, 145, 145, 145, 145, 145, 145, 145		
	d Matrix (S6)				Very Shallow Dark Surface (TF12)		
Dark Su	ırface (S7) (LRR R, N	/ILRA 149B)			Other (Explain	in Remarks)	
			and hydrology must be prese	ent, unless disturbed	or problematic.		
	Layer (if observed):						
Туре: <u>С</u>			<u> </u>		Undria Sail Brasant	2 Van Na v	
	ches): <u>16.0</u>		<u> </u>		Hydric Soil Present	? Yes No <u>/</u>	
Remarks:	c soil indicator	rs observ	ved				
140 Hyan		00001	vou.				



noirc1005_NE



noirc1005_NW



noirc1005_SE



noirc1005_SW

Project/Site: Line 5 Relocation Project	City/County: Iron	Sampling Date: <u>2020-05-2</u>			
Applicant/Owner: Enbridge		State: Wisconsin Sampling Point: noirc100			
Investigator(s): <u>EJO/JSW</u>	Section, Township, I	Range: Sec 22 T046N R001W			
Landform (hillslope, terrace, etc.): Side Slope	Local relief (concave, co	onvex, none): None Slope (%): 0-2%			
Subregion (LRR or MLRA): Northcentral Forests Lat: 46.45	54546 L	.ong: -90.479116 Datum: WGS84			
Soil Map Unit Name: Gogebic, very stony-Pence, very stony					
Are climatic / hydrologic conditions on the site typical for this tim					
Are Vegetation, Soil, or Hydrology signi					
Are Vegetation, Soil, or Hydrology natur	•				
SUMMARY OF FINDINGS – Attach site map sho					
SUMMART OF FINDINGS - Attach site map site					
Hydrophytic Vegetation Present? Yes No					
Hydric Soil Present? Yes No	<u> </u>				
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separa		al Wetland Site ID:			
Feature is a mesic hardwood forest domin		ole and vellow birch in canopy and			
yellow trout lily in ground layer. Sample re	, , ,	• • • • • • • • • • • • • • • • • • • •			
Hardwood swamp occurs downslope of sa					
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that		Surface Soil Cracks (B6)			
	tained Leaves (B9)	Drainage Patterns (B10)			
	Fauna (B13)	Moss Trim Lines (B16) Dry-Season Water Table (C2)			
	en Sulfide Odor (C1)	Crayfish Burrows (C8)			
	Rhizospheres on Living Ro				
	e of Reduced Iron (C4)	Stunted or Stressed Plants (D1)			
	ron Reduction in Tilled Soils				
	ck Surface (C7)	Shallow Aquitard (D3)			
	explain in Remarks)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)	FAC-Neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes No _ ✓ _ Depth (inches):				
Water Table Present? Yes No Depth (
Saturation Present? Yes No Depth (inches): \	Wetland Hydrology Present? Yes No			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	al photos previous inspectic	ons) if available:			
Describe Recorded Data (stream gauge, morntoning well, acre	ii priotos, previous irispectie	nis), ii availasio.			
Remarks:	rod				
No indicators of wetland hydrology observ	eu.				

VEGETATION – Use scientific names of plants.	Sampling Point: noirc1004			
Tree Stratum (Plot size: 30)	Absolute % Cover		t Indicator Status	Dominance Test worksheet:
1. Betula alleghaniensis	_10_	Y	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2. Acer saccharum	_10_	Y	FACU	
3. Tsuga canadensis		N		Total Number of Dominant Species Across All Strata: 8 (B)
4. <u>Tilia americana</u>				Percent of Dominant Species
5.				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
		= Total Co		OBL species 0 x1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1. Acer saccharum	5	Υ	FACU	FAC species <u>27</u> x 3 = <u>81</u>
Lonicera canadensis			FACU	FACU species <u>29</u> x 4 = <u>116</u>
3. <u>Betula alleghaniensis</u>				UPL species0 x 5 =0
4				Column Totals:56 (A)197 (B)
5				Prevalence Index = B/A = 3.517857142857143
6				Hydrophytic Vegetation Indicators:
7.				1 - Rapid Test for Hydrophytic Vegetation
		= Total Co		2 - Dominance Test is >50%
Herb Stratum (Plot size:5)				3 - Prevalence Index is ≤3.0¹
1. Erythronium americanum	10	<u>Y</u>		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2. Dryopteris intermedia			FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Gymnocarpium dryopteris			<u>FACU</u>	1
4. Carex arctata	5	N		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. Carex pedunculata	5	N	FAC	Definitions of Vegetation Strata:
6. Rubus idaeus		N	FAC	
7. Trientalis borealis		N_	FAC	Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9.				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12.				Woody vines – All woody vines greater than 3.28 ft in
	35	= Total Co	ver	height.
Woody Vine Stratum (Plot size:30)				
1				
2				
3				Hydrophytic
4.				Vegetation
		= Total Co	ver	Present? Yes No
Remarks: (Include photo numbers here or on a separate s				
Feature is a mesic hardwood forest with	_	maple a	and yello	ow birch dominant in canopy and
yellow trout lily dominant in ground layer	r.			

SOIL Sampling Point: <u>noirc1004</u>

Profile Desc	cription: (Describe	to the depth	needed to document the indicator or confirm	the absence of	indicators.)			
Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist) % Type ¹ Loc ²	Texture	Remarks			
0-4	7.5YR 3/2	100		SIL				
4-16	5YR 3/4	100	0	SIL				
					_			
		 -						
			· · · · · · · · · · · · · · · · · · ·					
					·			
								
		·						
		 -						
¹ Type: C=Ce		letion, RM=F	Reduced Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :			
Histosol			_ Polyvalue Below Surface (S8) (LRR R,		ck (A10) (LRR K, L, MLRA 149B)			
Histic Ep	oipedon (A2)	_	MLRA 149B)	Coast Pra	airie Redox (A16) (LRR K, L, R)			
	istic (A3) en Sulfide (A4)	_	Thin Dark Surface (S9) (LRR R, MLRA 149B)Loamy Mucky Mineral (F1) (LRR K, L)		cky Peat or Peat (S3) (LRR K, L, R) face (S7) (LRR K, L)			
Stratified	d Layers (A5)	_	Loamy Gleyed Matrix (F2)	Polyvalue	e Below Surface (S8) (LRR K, L)			
-	d Below Dark Surfac ark Surface (A12)	e (A11) _	Depleted Matrix (F3) Redox Dark Surface (F6)		k Surface (S9) (LRR K, L) ganese Masses (F12) (LRR K, L, R)			
	Mucky Mineral (S1)	-	Depleted Dark Surface (F7)		t Floodplain Soils (F19) (MLRA 149B)			
	Gleyed Matrix (S4)	_	_ Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
	Redox (S5) I Matrix (S6)			Red Parent Material (F21) Very Shallow Dark Surface (TF12)				
	rface (S7) (LRR R, I	MLRA 149B)		Other (Explain in Remarks)				
³ Indicators o	f hydrophytic yeaeta	tion and wetl	and hydrology must be present, unless disturbed	or problematic.				
	Layer (if observed):			1				
Туре: <u>сс</u>	bble		<u> </u>					
	ches): <u>16.0</u>		_	Hydric Soil Pr	resent? Yes No/			
Remarks:	c soils observ	od						
ino riyuri	c solis observ	eu.						
					!			



noirc1004_E



noirc1004_N



noirc1004_S



noirc1004_W

Project/Site: Line 5 Relocation Project	City/Coun	ty: <u>Iron</u>	Sampling Date: 2	020-05-19		
Applicant/Owner: Enbridge			State: Wisconsin Sampling Point:	noirc1003		
_	Section, Township, Range: sec 15 T046N R001W					
Landform (hillslope, terrace, etc.): Depression				(%): 0-2%		
Subregion (LRR or MLRA): Northcentral Forests La	<u> </u>	Long: -9 0) 479535 Datum:	WGS84		
Soil Map Unit Name: Gogebic, very stony-Pence, v						
Are climatic / hydrologic conditions on the site typical						
				No		
Are Vegetation, Soil, or Hydrology				NO		
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach site I	map showing sampli	ng point locatio	ns, transects, important feat	tures, etc.		
Hydrophytic Vegetation Present? Yes	No Is	the Sampled Area				
	No v	thin a Wetland?	Yes No			
		es, optional Wetland	Site ID:			
Remarks: (Explain alternative procedures here or in	a separate report.)					
Sample recorded in mesic hardwood by Carex gracillima and yellow trou with stumps present. Logging activity	t lily. Area appears	to have beer	n thinned or previously log	gged		
some hydrophytic species.	are may have him		ogy, roodining in procent			
, , , , , , , , , , , , , , , , , , , ,						
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of tw	o required)		
Primary Indicators (minimum of one is required; che	ck all that apply)		Surface Soil Cracks (B6)	<u>o roquirou</u>		
	Water-Stained Leaves (B		Drainage Patterns (B10)			
	_ Aquatic Fauna (B13)	<i>5</i>)	Moss Trim Lines (B16)			
	Marl Deposits (B15)		Dry-Season Water Table (C2)			
	_ Hydrogen Sulfide Odor (C	Crayfish Burrows (C8)				
	Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Image					
	Presence of Reduced Iron		Stunted or Stressed Plants (D1)	,, ()		
_ , , , ,	Recent Iron Reduction in	, ,	✓ Geomorphic Position (D2)			
<u> </u>	Thin Muck Surface (C7)	(,	Shallow Aquitard (D3)			
	Other (Explain in Remark	s)	Microtopographic Relief (D4)			
Sparsely Vegetated Concave Surface (B8)		-,	FAC-Neutral Test (D5)			
Field Observations:						
Surface Water Present? Yes No 🗸	Depth (inches):					
	Depth (inches):					
	Depth (inches):		lydrology Present? Yes	No <u> </u>		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring	well parial photos proviou	s inspections) if ava	ilable:			
Describe Recorded Data (stream gauge, monitoring	well, aeriai priotos, previou	s irispections), ii ava	nable.			
Remarks:						
No evidence wetland hydrology obs	served other than (geomorpnic po	osition. Area may be com	pacted		
due to logging equipment.						

Tree Stratum (Plot size: 30)	Absolute		t Indicator	Dominance Test worksheet:
,		Species?		Number of Dominant Species
1. Acer saccharum				That Are OBL, FACW, or FAC:1 (A)
2.				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC:25 (A/B)
5				That Are OBL, FACW, or FAC:(A/B)
6			<u> </u>	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	20	= Total Co	ver	OBL species1 x 1 =1
Sapling/Shrub Stratum (Plot size: 15)				FACW species 2 x 2 = 4
1. <u>Rubus idaeus</u>	5	Y	FAC	FAC species6 x 3 =18
2		-		FACU species x 4 = 148
3				UPL species 0 x 5 = 0
4.				Column Totals:46 (A)171 (B)
5				Prevalence Index = B/A = <u>3.717391304347826</u>
6.				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7		= Total Co		2 - Dominance Test is >50%
F .		= Total Co	ver	3 - Prevalence Index is ≤3.0 ¹
Herb Stratum (Plot size: 5) 1. Carex gracillima	10	V	FACU	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Erythronium americanum			IACO	Problematic Hydrophytic Vegetation¹ (Explain)
			EACH	resistant ryarephyne regenation (Explain)
3. Anemone quinquefolia	_		FACU	¹ Indicators of hydric soil and wetland hydrology must
4. Carex intumescens		_N_	FACW	be present, unless disturbed or problematic.
5. <u>Uvularia sessilifolia</u>	_ 2	<u>N</u>	<u>FACU</u>	Definitions of Vegetation Strata:
6. <u>Juncus effusus</u>		N	OBL	Tree – Woody plants 3 in. (7.6 cm) or more in diameter
7. <u>Athyrium angustum</u>	1	N	<u>FAC</u>	at breast height (DBH), regardless of height.
8				Sapling/shrub – Woody plants less than 3 in. DBH
9				and greater than or equal to 3.28 ft (1 m) tall.
10				Herb – All herbaceous (non-woody) plants, regardless
11				of size, and woody plants less than 3.28 ft tall.
12				Woody vines – All woody vines greater than 3.28 ft in
	28	= Total Co	ver	height.
Woody Vine Stratum (Plot size:)				
1				
2.				
3.				Hudnanhudia
				Hydrophytic Vegetation
4	_			Present? Yes No V
Remarks: (Include photo numbers here or on a separate		= Total Co	ver	
Vegetation characteristic of surroundin				

Sampling Point: noirc1003

SOIL Sampling Point: <u>noirc1003</u>

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)													
Depth		Matrix		0-1/-		x Feature		12	Testore				
(inches)	Color (r	3/2	<u>%</u>	Color (r		<u>%</u> 2	Type'	Loc ²	SIL	Remarks Distinct redox			
				<u> </u>	3/ 4			IVI		Distilict redux			
<u>8-20</u>	<u>5YR</u>	3/4	100				-		SIL				
			-										
	-												
	-												
			-										
¹ Type: C=C	oncentration	D-Deni	etion PM	-Peduced I	Matrix MG	S-Macked			² Location	n: PL=Pore Lining, M=Matrix.			
Hydric Soil			etion, ixivi	-iveduced i	viatrix, ivic	J-IVIASKEC	Janu OI	airis.		s for Problematic Hydric Soils ³ :			
Histosol				-		w Surface	(S8) (LR	R R,		Muck (A10) (LRR K, L, MLRA 149B)			
	pipedon (A2 istic (A3)	()			RA 149B) Dark Surfa		RR R. M	LRA 149B)		Prairie Redox (A16) (LRR K, L, R) Mucky Peat or Peat (S3) (LRR K, L, R)			
	en Sulfide (A	(4)				Mineral (F				Surface (S7) (LRR K, L)			
	d Layers (A		- (044)			Matrix (F2	2)			alue Below Surface (S8) (LRR K, L)			
-	d Below Dai ark Surface		e (A11)		ted Matrix Dark Su	र (F3) rface (F6)				Dark Surface (S9) (LRR K, L) Manganese Masses (F12) (LRR K, L, R)			
	lucky Miner					Surface (F			Piedmont Floodplain Soils (F19) (MLRA 149B)				
-	Eleyed Matri	x (S4)		Redox	d Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
-	Redox (S5) I Matrix (S6))							Red Parent Material (F21) Very Shallow Dark Surface (TF12)				
	rface (S7) (ILRA 1491	3)					Other (Explain in Remarks)				
³ Indicators o	f hydrophyti	c vegetat	ion and we	etland hydro	ology mus	st be prese	ent, unles	s disturbed	or problemati	c.			
Restrictive	Layer (if ob	served):											
Type:													
	ches):								Hydric Soi	I Present? Yes No			
Remarks: No hydri	c soil ind	dicator	s ohse	rved									
140 Hyan	0 0011 1110	aloutoi	3 0030	i voa.									



noirc1003_E



noirc1003_N



noirc1003_S



noirc1003_W

Project/Site: Line 5 Relo	cation Projec	t	City/C	County: <u>Iror</u>	1	Sa	ampling Date:	<u> 2020-05-18</u>	
	•								
J			Section, Township, Range: Sec 03 T046N R001W						
Landform (hillslope, terrace, e								be (%): 0-2%	
Subregion (LRR or MLRA):	•								
Soil Map Unit Name: Sultz									
Are climatic / hydrologic condi	•		•						
Are Vegetation, Soil								. No	
								<u>/</u>	
Are Vegetation, Soil									
SUMMARY OF FINDING	GS – Attach si	te m	nap showing san	npling poi	nt locatio	ons, transects, in	nportant fe	atures, etc.	
Hydrophytic Vegetation Pres	sent? Yes		_ No _ 🗸	Is the Sam					
Hydric Soil Present?			No	within a W	etland?	Yes	No <u>/</u>		
Wetland Hydrology Present?			No	If yes, optic	onal Wetland	I Site ID:			
Remarks: (Explain alternative Sample is a small continuous)	/e procedures here	or in	a separate report.)	40 bo do		h		wm / i.a	
LIVEROLOGY									
HYDROLOGY						Canadami Indiantors	- (minimum of	two required)	
Wetland Hydrology Indicat		اممام	le all that apply			Secondary Indicators		two requirea)	
Primary Indicators (minimum	or one is required;					• •			
Surface Water (A1) High Water Table (A2)			Water-Stained Leave Aquatic Fauna (B13)			Drainage Patterns (B10) Moss Trim Lines (B16)			
Saturation (A3)			Marl Deposits (B15)			Dry-Season Wat			
Water Marks (B1)			Hydrogen Sulfide Od			Crayfish Burrows			
Sediment Deposits (B2)			Oxidized Rhizospher		Roots (C3)	Saturation Visibl		agery (C9)	
Drift Deposits (B3)			Presence of Reduce	d Iron (C4)		Stunted or Stres	sed Plants (D1	1)	
Algal Mat or Crust (B4)			Recent Iron Reduction	on in Tilled Sc	oils (C6)	<u> </u> Geomorphic Pos	sition (D2)		
Iron Deposits (B5)			Thin Muck Surface (0			Shallow Aquitard (D3)			
Inundation Visible on Ae	• • • •		Other (Explain in Rer	marks)		Microtopographi			
Sparsely Vegetated Cor	icave Surface (B8)					FAC-Neutral Tes	st (D5)		
Field Observations: Surface Water Present?	Ves No	,	Depth (inches):						
Water Table Present?			Depth (inches):						
Saturation Present?			Depth (inches):		Wetland F	lydrology Present?	Yes	No 🗸	
(includes capillary fringe)									
Describe Recorded Data (str	eam gauge, monito	ring v	well, aerial photos, pre	vious inspec	tions), if ava	iilable:			
Remarks:									
No indicators of we	tland hydrolog	gy c	observed.						

VEGETATION – Use scientific names of plants.				Sampling Point: noirc1001			
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:			
1. Pinus resinosa	5	Y	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: (A)			
2. Populus grandidentata	2	Y	<u>FACU</u>	Total Number of Dominant			
3.				Species Across All Strata: 9 (B)			
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC: 22 (A/B)			
6				Prevalence Index worksheet:			
7.				Total % Cover of: Multiply by:			
	7	= Total Co	ver	OBL species x 1 =0			
Sapling/Shrub Stratum (Plot size:)				FACW species0 x 2 =0			
1. <u>Sambucus racemosa</u>	5	Υ	FACU	FAC species4 x 3 =12			
2. <u>Ribes cynosbati</u>				FACU species19 x 4 =76			
3. <u>Rubus idaeus</u>				UPL species x 5 = 10			
4.				Column Totals: <u>25</u> (A) <u>98</u> (B)			
5				Prevalence Index = B/A = 3.92			
6				Hydrophytic Vegetation Indicators:			
7				1 - Rapid Test for Hydrophytic Vegetation			
		= Total Co		2 - Dominance Test is >50%			
Herb Stratum (Plot size:5)		= Total Co	VCI	3 - Prevalence Index is ≤3.0¹			
1. <u>Dryopteris intermedia</u>	2	V	ΕΛC	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)			
			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)			
2. <u>Fragaria virginiana</u>			FACU	residination yarophytic vegetation (Explain)			
3. <u>Anemone quinquefolia</u>				¹ Indicators of hydric soil and wetland hydrology must			
4. Eurybia macrophylla			<u>UPL</u>	be present, unless disturbed or problematic.			
5. <u>Oryzopsis asperifolia</u>			<u></u>	Definitions of Vegetation Strata:			
6. <u>Taraxacum officinale</u>			<u>FACU</u>	Tree – Woody plants 3 in. (7.6 cm) or more in diameter			
7. <u>Geum sp.</u>				at breast height (DBH), regardless of height.			
8				Sapling/shrub – Woody plants less than 3 in. DBH			
9				and greater than or equal to 3.28 ft (1 m) tall.			
10				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
11.			·				
12			·	Woody vines – All woody vines greater than 3.28 ft in height.			
	11	= Total Co	ver				
Woody Vine Stratum (Plot size: 30)							
1							
2							
3				Hydrophytic			
4			· ———	Vegetation Present? Yes No			
		= Total Co	ver				
Remarks: (Include photo numbers here or on a separate s Sample point appears to be dominated canes.		nmon re	ed raspb	erry based previous year's remnant			

SOIL Sampling Point: noirc1001

Profile Desc	cription: (Describe t	o the depth	needed to document the indicator or confirm	the absence o	f indicators.)		
Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist) % Type ¹ Loc ²	Texture	Remarks		
0-6	7.5YR 2.5/2	100		SCL			
6-20	5YR 4/4	100		SL			
					_		
-							
			· · · · · · · · · · · · · · · · · · ·				
1- 0.0				21	DI B. III MAN		
Hydric Soil		etion, RM=F	Reduced Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :		
Histosol	(A1)	_	_ Polyvalue Below Surface (S8) (LRR R,		uck (A10) (LRR K, L, MLRA 149B)		
Histic Ep	oipedon (A2)		MLRA 149B) _ Thin Dark Surface (S9) (LRR R, MLRA 149B)		rairie Redox (A16) (LRR K, L, R) ucky Peat or Peat (S3) (LRR K, L, R)		
	en Sulfide (A4)	_	Loamy Mucky Mineral (F1) (LRR K, L)		rface (S7) (LRR K, L)		
	d Layers (A5) d Below Dark Surface		_ Loamy Gleyed Matrix (F2) _ Depleted Matrix (F3)		ue Below Surface (S8) (LRR K, L) rk Surface (S9) (LRR K, L)		
	ark Surface (A12)	(A11) _	Depleted Matrix (F3) Redox Dark Surface (F6)		nganese Masses (F12) (LRR K, L, R)		
	Mucky Mineral (S1)	_	_ Depleted Dark Surface (F7)	Piedmont Floodplain Soils (F19) (MLRA 149B)			
	Gleyed Matrix (S4) Redox (S5)	_	Redox Depressions (F8)	Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)			
Stripped	Matrix (S6)			Very Shallow Dark Surface (TF12)			
Dark Su	rface (S7) (LRR R, M	ILRA 149B)		Other (E	explain in Remarks)		
³ Indicators of	f hydrophytic vegetati	ion and wetla	and hydrology must be present, unless disturbed	or problematic.			
	Layer (if observed):						
Type:			_	Livelvia Cail D	hacent? Vec No		
Depth (inc	ches):			nyaric Soil P	resent? Yes No		
Remarks:							



noirc1001_E



noirc1001_N



noirc1001 S



noirc1001_W