Project/Site: Atlantic Coast Pip	peline	City/Cou	unty: Nelson County		Sampling Date: 10/9/2015	
Applicant/Owner: Dominion			,		Sampling Point: wnea020f_w	
		Section	. Township, Range: No	PLSS in this area		
Landform (hillslope, terrace, etc						
Subregion (LRR or MLRA): N	Lot:	 37.90117064	Lang: -78.9	97188954	Glope (70)	
Soil Map Unit Name: Lew char	nnerv silt loam 15 to 25 n	ercent slones extreme	Long	NA// 1 'C'	None	
Are climatic / hydrologic conditi	• •	•			,	
Are Vegetation, Soil	, or Hydrology	significantly disturbe	ed? Are "Normal	Circumstances" p	resent? Yes No	
Are Vegetation, Soil	, or Hydrology	_ naturally problemati	c? (If needed, e	explain any answei	s in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ma	ap showing samp	ling point location	ons, transects	, important features, etc.	
Hydrophytic Vegetation Prese	ent? Yes 🔽	No				
Hydric Soil Present?	Yes V	·	s the Sampled Area			
Wetland Hydrology Present?		No	vithin a Wetland?	Yes	No	
Remarks:						
Wetland data point for a satura outflow from wetland enters st				culvert crossing ta	ken as an upland exclusion;	
HYDROLOGY						
Wetland Hydrology Indicato	ors:			Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum	of one is required; check	all that apply)		Surface Soil Cracks (B6)Sparsely Vegetated Concave Surface (B8)		
Surface Water (A1)	7	rue Aquatic Plants (B	14)			
High Water Table (A2)		Hydrogen Sulfide Odor		Drainage Pat	terns (B10)	
Saturation (A3)		Oxidized Rhizospheres		Moss Trim Li		
Water Marks (B1)		Presence of Reduced I			Vater Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burr		
Drift Deposits (B3)		Thin Muck Surface (C7			sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Iron Deposits (B5)	_ (Other (Explain in Rema	irks)	Geomorphic	ressed Plants (D1)	
Inundation Visible on Aer	rial Imagery (R7)			Shallow Aqui	` '	
Water-Stained Leaves (B					phic Relief (D4)	
Aquatic Fauna (B13)	,0)			FAC-Neutral		
Field Observations:					(– .)	
Surface Water Present?	Yes No	Depth (inches):				
Water Table Present?	Yes No					
Saturation Present?	Yes No		Wetland H	lydrology Presen	t? Yes 🗸 No	
(includes capillary fringe)		. , ,				
Describe Recorded Data (stre	eam gauge, monitoring we	ell, aerial photos, previ	ous inspections), if ava	iilable:		
Remarks:						
Nomano.						

00	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u> 25	Species?	Status FACU	Number of Dominant Species
1. Liriodendron tulipifera	10	Yes		That Are OBL, FACW, or FAC:6 (A)
2. Acer rubrum		Yes	FAC	Total Number of Dominant
3. Betula lenta	5	No	FACU	Species Across All Strata: 7 (B)
4				Beauty (Basilian)
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 85.71428571 (A/B)
6				
7.				Prevalence Index worksheet:
	40	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 20		total cover:_	8	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15)			,	FACW species 52
1 llex verticillata	20	Yes	FACW	FAC species 72 x 3 = 216
2. Acer rubrum	15	Yes	FAC	FACU species45
3. Rhododendron arborescens	7	No	FAC	UPL species 0 x 5 = 0
4. Kalmia latifolia	5	No	FACU	Column Totals: 169 (A) 500 (B)
- 12		No	FACU	(7)
5. Liriodendron tulipifera			FACU	Prevalence Index = B/A =2.95
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	52	= Total Cove		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover: 26	20% of	total cover:_	10.4	
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Microstegium vimineum	30	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Osmundastrum cinnamomeum	12	Yes	FACW	
3. Maianthemum stellatum	12	Yes	FACW	¹Indicators of hydric soil and wetland hydrology must
4. Impatiens capensis	8	No	FACW	be present, unless disturbed or problematic.
5. Athyrium asplenioides	5	No	FAC	Definitions of Four Vegetation Strata:
6. Circaea canadensis	5	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Persicaria virginiana	5	No	FAC	more in diameter at breast height (DBH), regardless of
				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
00.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>38.5</u>	20% of	total cover:_	15.4	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				Hydrophytic
5.				Vegetation
	0 :	= Total Cove		Present? Yes No
50% of total cover:0		total cover:_	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
(,			

(inches)	Matrix			x Features				
	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	7.5YR 3/2	100					SCL	
4-10	7.5YR 3/1	97	7.5YR 4/4	3	С	PL	SL	
10-18	7.5YR 4/1	97	7.5YR 4/4	3	С	PL	SL	
	-							
	_							
	-							
1Typo: C-C	oncontration D-Da	nlotion PM	=Reduced Matrix, M	S-Mackad	Sand Gr	nine	² Location: D	L=Pore Lining, M=Matrix.
Type. C=C Hydric Soil		epielion, Kiv	i=Reduced Matrix, M.	S=IVIASKEU	Sanu Gra	11115.		ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(97)				cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	, ,	- (S8) (N	Ι Ρ Δ 147		Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Su				0/	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, 1-0)	F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Ma		_,		<u> </u>	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		i)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surfa	ce (A11)	Depleted Da					Other (Explain in Remarks)
	ark Surface (A12)	, ,	Redox Depre				<u> </u>	,
	Mucky Mineral (S1)	(LRR N,	Iron-Mangan			_RR N,		
	A 147, 148)		MLRA 13					
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) (N	ILRA 13	6, 122)	³ Inc	licators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	ils (F19)	(MLRA 14	8) we	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Material (F2	1) (MLR .	A 127, 147	') un	less disturbed or problematic.
	Layer (if observed	l):						
Type: no	ne							
							Hydric Soil	Present? Yes No
Depth (in	ches):						-	
Depth (in	ches):						•	
	ches):							
	ches):							
	ches):							
	ches):							
	ches):							
	ches):							
	ches):							
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	ches):							
	ches):							
	ches):							
	ches):							
	ches):							
	ches):							
	ches):							
	ches):							
Depth (in	ches):							
	ches):							
	ches):							
	ches):							



Photo 1
Wetland data point wnea020f_w facing southwest



Photo 2Wetland data point wnea020f_w facing northeast

Project/Site: Atlantic Coast Pipeline		City/C		Sampling Date: 10/9/2015				
Applicant/Owner: Dominion					Sampling Point: wnea020_u			
			on, Township, Range: No					
Landform (hillslope, terrace, etc.): slop				e, convex, none): none Slope (%):				
Subregion (LRR or MLRA): N				Datum: WGS 1984				
Soil Map Unit Name: Lew channery silt	 t loam, 15 to 25 pe	ercent slopes, extren	mely bouldery	NWI classifica	ation: None			
Are climatic / hydrologic conditions on t					•			
Are Vegetation, Soil, or								
Are Vegetation, Soil, or								
SUMMARY OF FINDINGS – A								
SUMMART OF FINDINGS - A		ip snowing san	ipinig point locatio	, iransecis,	important leatures, etc.			
Hydrophytic Vegetation Present?	Yes		Is the Sampled Area					
Hydric Soil Present?	Yes	No	within a Wetland?	Yes	No			
Wetland Hydrology Present? Remarks:	Yes	No						
HYDROLOGY								
Wetland Hydrology Indicators:				Secondary Indicat	ors (minimum of two required)			
Primary Indicators (minimum of one is	required: check	all that apply)						
Surface Water (A1)	-			Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)		rue Aquatic Plants (l lydrogen Sulfide Odo		Sparsely vege Drainage Patt				
Saturation (A3)			es on Living Roots (C3)	Moss Trim Lin				
Water Marks (B1)		Presence of Reduced	=		Vater Table (C2)			
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Burro				
Drift Deposits (B3)		hin Muck Surface (C			sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Ren			ressed Plants (D1)			
Iron Deposits (B5)				Geomorphic F	Position (D2)			
Inundation Visible on Aerial Imag	ery (B7)			Shallow Aquit	ard (D3)			
Water-Stained Leaves (B9)					phic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral 1	Test (D5)			
Field Observations:								
		Depth (inches):						
		Depth (inches):			,			
Saturation Present? Yes _ (includes capillary fringe)	No [Depth (inches):	Wetland H	lydrology Present	? Yes No			
Describe Recorded Data (stream gau	ge, monitoring we	ell, aerial photos, pre	vious inspections), if avai	ilable:				
Remarks:								
no hydrology indicators present								
, , , , , , , , , , , , , , , , , , ,								

Sampling	Point: wnea020_u	u

•	Absolute	Dominant In	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Quercus rubra	30	Yes	FACU	That Are OBL, FACW, or FAC:2 (A)
2. Quercus alba	20	Yes	FACU	Total Number of Dominant
3. Liriodendron tulipifera	10	No	FACU	Species Across All Strata: 7 (B)
4. Nyssa sylvatica	5	No	FAC	
5. Quercus montana	5	No	UPL	Percent of Dominant Species That Are OBL, FACW, or FAC: 28.57142857 (A/B)
6				, , ,
7.				Prevalence Index worksheet:
	70	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 35		total cover:_	14	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15)		_		FACW species0 x 2 =0
1 Kalmia latifolia	15	Yes	FACU	FAC species26 x 3 =78
2. Hamamelis virginiana	10	Yes	FACU	FACU species 98 x 4 = 392
3. Rhododendron arborescens	5	No	FAC	UPL species 5 x 5 = 25
		No	FAC	Column Totals: 129 (A) 495 (B)
4. Nyssa sylvatica				Column Totals (A)
5. Liriodendron tulipifera		No	FACU	Prevalence Index = B/A =3.83
6. Betula lenta	5	No	FACU	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	45	= Total Cove	r	
50% of total cover: 22.5	20% of	total cover:_	9	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size:5				data in Remarks or on a separate sheet)
1. Microstegium vimineum	5	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Luzula bulbosa	3	Yes	FACU	
3				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	8	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 4	20% of	total cover:	1.6	Was desired Allowed with a constant to a CO 6 is
Woody Vine Stratum (Plot size:)				Woody vine – All woody vines greater than 3.28 ft in height.
1. Toxicodendron radicans	6	Yes	FAC	noight.
2				
3				
4				Hydrophytic
5		T 0		Vegetation Present? Yes No
50% of total cover: 3		= Total Cove	r 1.2	1100m: 100 NO
0070 01 total 00701:		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features	<u> </u>		
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc		Remarks	
0-5	7.5YR 4/3	100		SCL		
5-11	7.5YR 5/4	100		SCL		
11-20	7.5YR 5/6	100		SCL	-	
					-	
					-	
						
				<u> </u>		
1T 0 0	- D. D.		and and Matrice MO. Market and October	21 13 15	N. Daniel Later M. Matrix	
	Indicators:	pletion, RM=R	educed Matrix, MS=Masked Sand Grains.		L=Pore Lining, M=Matrix. ators for Problematic Hyd	lrio Coilo ³ .
-			David Courfe on (CZ)			
Histoso	i (A1) pipedon (A2)		Dark Surface (S7)		2 cm Muck (A10) (MLRA 14	7)
	pipedon (A2) listic (A3)		Polyvalue Below Surface (S8) (MLRAThin Dark Surface (S9) (MLRA 147, 14		Coast Prairie Redox (A16) (MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	•	Piedmont Floodplain Soils (F	=19)
	d Layers (A5)		Depleted Matrix (F3)	<u> </u>	(MLRA 136, 147)	13)
	uck (A10) (LRR N)		Redox Dark Surface (F6)	\	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	ce (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)	,
	ark Surface (A12)	, ,	Redox Depressions (F8)	_		
Sandy N	Mucky Mineral (S1)	(LRR N,	Iron-Manganese Masses (F12) (LRR N	٧,		
MLR	A 147, 148)		MLRA 136)			
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122		dicators of hydrophytic vege	
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR		etland hydrology must be pr	
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127	', 147) un	less disturbed or problemat	tic.
	Layer (if observed)):				
Type: no	ле		<u> </u>			
Depth (in	iches):			Hydric Soi	Present? Yes	No
Remarks:						



Photo 1 Upland data point wnea020_u facing south



Photo 2 Upland data point wnea020_u facing east

Project/Site: Atlantic Coast Pipeline	City/C	County: Nelson County	Sampling Date: 5/4/2016			
Applicant/Owner: DOMINION			e: VA Sampling Point: wnez001e_w			
Investigator(s): Team Z	on, Township, Range: No PLSS	in this area				
		Local relief (concave, convex, none): concave				
Subregion (LRR or MLRA): S	l at: 37.88220846	Long: -78.892654	Datum: WGS 1984			
Soil Map Unit Name: Craigsville very cobbly lo	am, 0 to 2 percent slopes, free	quently flooded N	WI classification: PUBFx			
Are climatic / hydrologic conditions on the site	ypical for this time of year? Y	res No (If no, o	explain in Remarks.)			
Are Vegetation, Soil, or Hydrold	ogy significantly distur	bed? Are "Normal Circur	mstances" present? Yes No			
Are Vegetation, Soil, or Hydrok						
SUMMARY OF FINDINGS – Attach						
Hydrophytic Vegetation Present? Yes	. v No					
Hydric Soil Present? Yes	No	Is the Sampled Area	Yes No			
	No_	within a Wetland?	res No			
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Secon	ndary Indicators (minimum of two required)			
Primary Indicators (minimum of one is require	d; check all that apply)	s	urface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic Plants (B14) S	parsely Vegetated Concave Surface (B8)			
✓ High Water Table (A2)	Hydrogen Sulfide Od	or (C1) D	rainage Patterns (B10)			
<u>✓</u> Saturation (A3)	Oxidized Rhizosphere	es on Living Roots (C3) N	loss Trim Lines (B16)			
Water Marks (B1)	Presence of Reduced		ry-Season Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction	n in Tilled Soils (C6) C	rayfish Burrows (C8)			
Drift Deposits (B3)	Thin Muck Surface (0		Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Rer		tunted or Stressed Plants (D1)			
Iron Deposits (B5)			Geomorphic Position (D2)			
Inundation Visible on Aerial Imagery (B7)			hallow Aquitard (D3)			
Water-Stained Leaves (B9)			licrotopographic Relief (D4)			
Aquatic Fauna (B13)		<u>_</u>	AC-Neutral Test (D5)			
Field Observations: Surface Water Present? Yes N	o Depth (inches):					
	o Depth (inches):	4				
	o Depth (inches):	2 Matlematikudasi	Hydrology Present? Yes V No			
Saturation Present? Yes Ves N	wetland Hydrol	ogy Present? Yes No				
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, pre	vious inspections), if available:				
Devents						
Remarks:						

VEGETATION (Four Strata) - Use scientific names of plants.

__)

50% of total cover: ___

50% of total cover: ___0

50% of total cover:

100 = Total Cover 50 20% of total cover: 20

50% of total cover: 0 20% of total cover:

30

Sapling/Shrub Stratum (Plot size: 15)

2. Persicaria sagittata

Tree Stratum (Plot size:

Herb Stratum (Plot size: ___ 1. Persicaria maculosa

1. Platanus occidentalis

nes of	plants.		Sampling Point: wnez001e_v	N
bsolute	Dominant I		Dominance Test worksheet:	
<u>6 Cover</u> 10	Species? Yes	FACW	Number of Dominant Species That Are OBL, FACW, or FAC: 2	(A)
			Total Number of Dominant Species Across All Strata: 2	(B)
			Percent of Dominant Species That Are OBL, FACW, or FAC: 100	(A/B
			Prevalence Index worksheet:	
10	= Total Cove		Total % Cover of: Multiply by:	
	total cover:	2	OBL species 10 x 1 = 10	_
•	_		FACW species 100	_
			FAC species0 x 3 =0	_
			FACU species 0 x 4 = 0	
			UPL species $0 \times 5 = 0$	_
			Column Totals: 110 (A) 210	– (B)
			()	_ (b)
			Prevalence Index = B/A = 1.9	_
			Hydrophytic Vegetation Indicators:	
			1 - Rapid Test for Hydrophytic Vegetation	
			2 - Dominance Test is >50%	
0	Tatal Caus		✓ 3 - Prevalence Index is ≤3.0 ¹	
	 Total Cove total cover: 	0	4 - Morphological Adaptations ¹ (Provide sup	portin
20% 01	lotal cover		data in Remarks or on a separate sheet)	
90	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain	in)
10	No	OBL		
10			¹ Indicators of hydric soil and wetland hydrology r be present, unless disturbed or problematic.	nust
			Definitions of Four Vegetation Strata:	
			Tree – Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regardl height.	
			Sapling/Shrub – Woody plants, excluding vines than 3 in. DBH and greater than or equal to 3.28 m) tall.	
	= Total Cove	r 20	Herb – All herbaceous (non-woody) plants, rega of size, and woody plants less than 3.28 ft tall.	rdless
_ 20% of	total cover:_		Woody vine – All woody vines greater than 3.28 height.	ft in
	= Total Cove	r 0	Hydrophytic Vegetation Present? Yes No	

Remarks: (Include photo numbers here or on a separate sheet.)

Woody Vine Stratum (Plot size: ______)

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type ¹	Loc ²	<u>Texture</u>	Remarks
0-3	10 YR 4/2	100					SIL	
3-16	7.5 YR 4/2	80	10 YR 5/6	20	С	PL/M	SCL	
1Tuno. C. C.	ancentration D. Don	lation DM	Daduard Matrix MS	Mooked (Cand Cr		² l continue D	Doro Lining M. Moteix
Hydric Soil		letion, Rivi	=Reduced Matrix, MS	=Masked S	Sand Gra	ains.		L=Pore Lining, M=Matrix. ators for Problematic Hydric Soils ³ :
-			Dorle Curfoso	(07)				
Histosol	oipedon (A2)		Dark Surface Polyvalue Be		o (SS) /N	II D A 147		cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16)
Histic E _l			Thin Dark Su				140) C	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			41, 140)	P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat		_,		<u> </u>	(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark S	, ,	5)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar					Other (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8))			
Sandy N	lucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Masses	s (F12) (LRR N,		
	A 147, 148)		MLRA 13	•				
	Sleyed Matrix (S4)		Umbric Surfa					licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N	1aterial (F2	1) (MLR	A 127, 147	<u>')</u> un	less disturbed or problematic.
	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes No
Remarks:								



Photo 1 Wetland data point wnez001e_w facing southeast



Photo 2
Wetland data point wnez001e_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Nelson County	/ Sampling Date: 5/4/2016			
Applicant/Owner: DOMINION		State: VA Sampling Point: wnez001_u			
	Section, Township, Range:				
	Local relief (concave, convex,				
Subregion (LRR or MLRA): S		78.89286508 Datum: WGS 1984			
	m, 0 to 2 percent slopes, frequently flooded	NWI classification: None			
Are climatic / hydrologic conditions on the site ty	pical for this time of year? Yes No	_ (If no, explain in Remarks.)			
		nal Circumstances" present? Yes No			
	y naturally problematic? (If needed				
		tions, transects, important features, etc.			
	No V Is the Sampled Are within a Wetland?				
	No v within a Wetland?	Yes No			
Remarks:					
LIVEROL COV					
HYDROLOGY		Occasion to the territory (which were at the constitution)			
Wetland Hydrology Indicators:	about all that analy	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required		Surface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)Oxidized Rhizospheres on Living Roots (C3)	Drainage Patterns (B10)			
Saturation (A3) Water Marks (B1)	Oxidized Kriizospheres on Living Roots (Cs Presence of Reduced Iron (C4)	B) Moss Trim Lines (B16) Dry-Season Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)			
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)		Geomorphic Position (D2)			
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)			
Water-Stained Leaves (B9)		Microtopographic Relief (D4)			
Aquatic Fauna (B13)		FAC-Neutral Test (D5)			
Field Observations:					
	Depth (inches):				
Water Table Present? Yes No	Depth (inches):				
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): Wetland	Wetland Hydrology Present? Yes No			
	oring well, aerial photos, previous inspections), if a	available:			
Remarks:					
ixemarks.					

Sampling	Point: wnez001_	u
Sambling	Point: Wildzoo i-	٠.

20	Absolute	Dominant In		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	<u>% Cover</u> 10		Status FACU	Number of Dominant Species
1. Juglans cinerea		Yes	FACU	That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Deminent
3				Total Number of Dominant Species Across All Strata: 4 (B)
				Opecies Across Air Cirata.
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6				Prevalence Index worksheet:
7				
	10	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover:5		total cover:_	2	OBL species x 1 = 0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1 Rosa multiflora	5	Yes	FACU	FAC species0 x 3 =0
"			17100	FACU species 60 x 4 = 240
2				0
3				UPL species X 5 =
4				Column Totals: (A) (B)
5				
				Prevalence Index = B/A =4
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	5	= Total Cove	r	
50% of total cover:		total cover:_	3	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)		_		data in Remarks or on a separate sheet)
1 Poa pratensis	40	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
••-		103	1700	
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Definitions of Four Vegetation offata.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.		·		
··· ·	40	Tatal Cause		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 20		= Total Cover total cover:	r 8	of size, and woody plants less than 3.20 it tall.
0070 01 total 00701:	20% 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
vvocay vine citatam (1 lot size:	-		FAOLI	height.
1. Vitis labrusca	5	Yes	FACU	
2		<u> </u>		
3.				
		<u> </u>		
4				Hydrophytic
5				Vegetation Present? Yes No
0.5		= Total Cove	r 1	Present? Yes No
50% of total cover: 2.5	20% of	total cover:_	<u>'</u>	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features		
inches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹ Lo		<u>Remarks</u>
0-4	10 YR 4/3	100		SIL	
4-18	10 YR 5/4	100		SIL	
					_
					_
				· ·	
		- — — —			
	-				_
				<u> </u>	
[vne: C-C	oncentration D-Den	Netion RM-Re	educed Matrix, MS=Masked Sand Grains.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators:	detion, rewi-re	educed Matrix, MO-Masked Sand Grains.		icators for Problematic Hydric Soils ³ :
-			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
Histosol			Dark Surface (S7)	147 149)	, , ,
	pipedon (A2) istic (A3)		Polyvalue Below Surface (S8) (MLRAThin Dark Surface (S9) (MLRA 147, 1		Coast Prairie Redox (A16)
			Loamy Gleyed Matrix (F2)	40)	(MLRA 147, 148)
	en Sulfide (A4)		Loarny Gleyed Matrix (F2) Depleted Matrix (F3)	_	Piedmont Floodplain Soils (F19)
	d Layers (A5) uck (A10) (LRR N)				(MLRA 136, 147)
		ο (Λ11)	Redox Dark Surface (F6)Depleted Dark Surface (F7)	_	Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	d Below Dark Surfac ark Surface (A12)	e (ATT)	Redox Depressions (F8)		Other (Explain in Remarks)
	dik Sullace (A12) Mucky Mineral (S1) (I	I DD N	Iron-Manganese Masses (F12) (LRR I	AI.	
	Mucky Millerai (31) (1 A 147, 148)	LKK N,	MLRA 136)	ν,	
			· · · · · · · · · · · · · · · · · · ·	31.	ndiantara of hydronhytic vegetation and
	Gleyed Matrix (S4) Redox (S5)		Umbric Surface (F13) (MLRA 136, 12)Piedmont Floodplain Soils (F19) (MLR		ndicators of hydrophytic vegetation and wetland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127		unless disturbed or problematic.
	Layer (if observed):	-	Red Falent Material (F21) (MLRA 121	, 147)	unless disturbed of problematic.
	Layer (II Observeu).	•			
Type:			_		
Depth (in	ches):		_	Hydric So	oil Present? Yes No
emarks:					



Photo 1 Upland data point wnez001_u facing east



Photo 2
Upland data point wnez001_u facing north

Project/Site: Atlantic Coast Pipeline	City/C	County: Nelson County	Sampling Date: 5/24/2016			
Applicant/Owner: DOMINION	State: VA Sampling Point: wnez002s_v					
		on, Township, Range: No PLSS in				
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope (%): 3						
Subregion (LRR or MLRA): N Lat: 37.85888957 Long: -78.87404462 Datum: WGS 19						
Soil Map Unit Name: Craigsville very cobbly lo	pam, 0 to 2 percent slopes, fre	quently flooded NW	I classification: None			
Are climatic / hydrologic conditions on the site	typical for this time of year?	'es No (If no, ex	plain in Remarks.)			
Are Vegetation, Soil, or Hydrol	ogy significantly distu	bed? Are "Normal Circums	tances" present? Yes No			
Are Vegetation, Soil, or Hydrol						
SUMMARY OF FINDINGS – Attach						
Hydrophytic Vegetation Present? Ye	s <u> </u>					
Hydric Soil Present? Ye	s No	Is the Sampled Area	es/ No			
	s No	within a Wetland? Ye	9S NO			
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Seconda	ary Indicators (minimum of two required)			
Primary Indicators (minimum of one is require	ed; check all that apply)	Suri	face Soil Cracks (B6)			
✓ Surface Water (A1)	True Aquatic Plants (ursely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Od		inage Patterns (B10)			
✓ Saturation (A3)	Oxidized Rhizospher	es on Living Roots (C3) Mos	ss Trim Lines (B16)			
Water Marks (B1)	Presence of Reduce	d Iron (C4) Dry-	-Season Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6) Cra	yfish Burrows (C8)			
Drift Deposits (B3)	Thin Muck Surface (0		uration Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Rei		nted or Stressed Plants (D1)			
Iron Deposits (B5)			omorphic Position (D2)			
Inundation Visible on Aerial Imagery (B7)		illow Aquitard (D3)			
Water-Stained Leaves (B9)			rotopographic Relief (D4)			
Aquatic Fauna (B13) Field Observations:		FAC	C-Neutral Test (D5)			
	No Depth (inches):	7				
	No Depth (inches):					
	No Depth (inches):	3 Wetland Hydrolog	y Present? Yes No			
(includes capillary fringe)			y 110301111 103 <u>110</u> 110			
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photos, pre	evious inspections), if available:				
Remarks:						
ixemarks.						

/EGETATION (Four Strata) – Use scientific na	ames or	piants.		Sampling Point: wile2002s_w	_
Tree Stratum (Plot size: 30)	Absolute	Dominant I		Dominance Test worksheet:	
TICC Ottatam (Flot 6120.		Species?	Status	Number of Dominant Species That Are OBL_FACW_or FAC: 5 (A)	
1				That Are OBL, FACW, or FAC: (A)	
2		·		Total Number of Dominant	
3				Species Across All Strata: 5 (B)	
4				Percent of Dominant Species	
5				That Are OBL, FACW, or FAC: 100 (A/I	В)
6					
7				Prevalence Index worksheet:	
	0	= Total Cove	er	Total % Cover of: Multiply by:	
50% of total cover: 0	20% of	total cover:_	0	OBL species X I =	
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =	
1. Lindera benzoin	40	Yes	FAC	FAC species x 3 = 210	
2. Sambucus nigra	30	Yes	FAC	FACU species0 x 4 =0	
3				UPL species0 x 5 =0	
				Column Totals:140 (A)300 (B	3)
4		· <u></u>			•
5		·		Prevalence Index = B/A = 2.14	
6				Hydrophytic Vegetation Indicators:	_
7				1 - Rapid Test for Hydrophytic Vegetation	
8		·		✓ 2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0 ¹	
		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporti	na
50% of total cover:35	20% of	total cover:_	14	data in Remarks or on a separate sheet)	.9
Herb Stratum (Plot size:5				1	
1. Carex lurida	30	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)	
2. Impatiens capensis	20	Yes	FACW	1	
3. Carex crinita	20	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
4					
_				Definitions of Four Vegetation Strata:	
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm)	or
•		· 		more in diameter at breast height (DBH), regardless of	of
7				height.	
8				Sapling/Shrub – Woody plants, excluding vines, less	3
9				than 3 in. DBH and greater than or equal to 3.28 ft (1	
10				m) tall.	
11				Herb – All herbaceous (non-woody) plants, regardles	s
		= Total Cove		of size, and woody plants less than 3.28 ft tall.	
50% of total cover: 35	20% of	total cover:_	14	Woody vine – All woody vines greater than 3.28 ft in	
Woody Vine Stratum (Plot size:)				height.	
1					
2					
3.		·			
4.					
5.				Hydrophytic	
J	0	Total Cava		Vegetation Present? Yes No	
50% of total cover:		= Total Cove total cover:_	0		
0070 01 total 00vc1.		total cover			
Remarks: (Include photo numbers here or on a separate s	neet.)				

Profile Desc	ription: (Describe t	o the dep	oth needed to docun	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	K Feature:	S1	. 2		
(inches) 0-3	Color (moist) 10YR 4/3	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> SIL	Remarks
		100						
3-17	7.5YR 4/2	90	10YR 5/8	10	С	PL/M	SIL	
·			·					
			-					
¹ Type: C=Co	oncentration, D=Depl	etion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)
Histic Ep	oipedon (A2)		Polyvalue Be				148) (Coast Prairie Redox (A16)
Black Hi			Thin Dark Su			147, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		F2)		F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Mat	. ,	,			(MLRA 136, 147)
	ick (A10) (LRR N)	(0.4.4)	Redox Dark S	,	,			/ery Shallow Dark Surface (TF12)
	d Below Dark Surface ark Surface (A12)	(ATT)	Depleted Dar Redox Depre				_ (Other (Explain in Remarks)
	fucky Mineral (S1) (L	RR N	Iron-Mangane			I RR N		
	147, 148)	1111 14,	MLRA 130		C3 (1 12) (LIXIX IV,		
	Gleyed Matrix (S4)		Umbric Surfa		MLRA 13	6. 122)	³ Inc	dicators of hydrophytic vegetation and
	ledox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					nless disturbed or problematic.
Restrictive I	_ayer (if observed):			-				-
Type:								
Depth (inc	ches):						Hydric Soi	I Present? Yes No
Remarks:	, <u>-</u>							



Photo 1
Wetland data point WNEZ002s_w facing east



Photo 2
Wetland data point WNEZ002s_w facing west

Project/Site: Atlantic Coast Pipeline	City/0	County: Nelson County	Sampling Date: 5/24/2016			
Applicant/Owner: DOMINION		Stat	te: VA Sampling Point: wnez002_u			
		on, Township, Range: No PLSS				
Landform (hillslope, terrace, etc.): Floodplain						
Subregion (LRR or MLRA): N						
Soil Map Unit Name: Wintergreen loam, 2 to 7	percent slopes	N	NWI classification: None			
Are climatic / hydrologic conditions on the site	typical for this time of year?	res No (If no,	explain in Remarks.)			
Are Vegetation, Soil, or Hydrold	ogy significantly distu	rbed? Are "Normal Circu	mstances" present? Yes No			
Are Vegetation, Soil, or Hydrok						
SUMMARY OF FINDINGS – Attach						
Hydrophytic Vegetation Present? Yes	s No					
	8 No	Is the Sampled Area	Yes No			
Wetland Hydrology Present? Yes	No	within a Wetland?	resNo			
Remarks:						
Upland area on edge of floodplain.						
HYDROLOGY						
Wetland Hydrology Indicators:		Saco	ndary Indicators (minimum of two required)			
Primary Indicators (minimum of one is require	nd: check all that annly)		Surface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic Plants		Surface Soli Clacks (Bb) Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Oc		Orainage Patterns (B10)			
Saturation (A3)	Oxidized Rhizospher		Moss Trim Lines (B16)			
Water Marks (B1)	Presence of Reduce		Dry-Season Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction					
Drift Deposits (B3)	Thin Muck Surface (Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Re	marks) S	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)		(Geomorphic Position (D2)			
Inundation Visible on Aerial Imagery (B7)		8	Shallow Aquitard (D3)			
Water-Stained Leaves (B9)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)		F	FAC-Neutral Test (D5)			
Field Observations:						
	o Depth (inches):					
	o Depth (inches):					
Saturation Present? Yes N (includes capillary fringe)	o V Depth (inches):	Wetland Hydrol	logy Present? Yes No			
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos, pre	evious inspections), if available:				
Remarks:						
romano.						

VEGETATION (Four Strata) - Use scientific names of plants.

____)

50% of total cover: ___

50% of total cover: ___15

% Cover Species? Status

= Total Cover
20% of total cover:

30 = Total Cover 20% of total cover: 6

20

Yes

90___ = Total Cover

0 = Total Cover

50% of total cover: 45 20% of total cover: 18

50% of total cover: 0 20% of total cover:

30

30

Sapling/Shrub Stratum (Plot size: 15)

3. Verbesina alternifolia

Tree Stratum (Plot size:

1. Rosa multiflora

Herb Stratum (Plot size: ___

1. Poa pratensis 2. Phleum pratense

	Sampling Poin	t: <u>wnezooz_u</u>	
ator	Dominance Test worksheet:		
<u>itus</u>	Number of Dominant Species That Are OBL, FACW, or FAC:	1	(A)
	Total Number of Dominant Species Across All Strata:	4	(B)
	Percent of Dominant Species That Are OBL, FACW, or FAC: _	25	(A/B)
	Prevalence Index worksheet:		
		Multiply by:	
,			
)	OBL species X 1 s	=0	_
	FACW species x 2:	=	_
ACU	FAC species 20 x 3		_
	FACU species100 x 4 :	400	_
	UPL species0 x 5	=0	_
	Column Totals: 120 (A)	460	(B)
	Prevalence Index = B/A =	3.83	
			_
	Hydrophytic Vegetation Indicato		
	1 - Rapid Test for Hydrophytic	Vegetation	
	2 - Dominance Test is >50%		
	3 - Prevalence Index is ≤3.0 ¹		
	4 - Morphological Adaptations	¹ (Provide sup	porting
	data in Remarks or on a se	parate sheet)	
	Problematic Hydrophytic Vege	tation¹ (Expla	in)
ACU	_ , , , ,	` .	,
ACU AC	¹ Indicators of hydric soil and wetlar be present, unless disturbed or pro		must
	Definitions of Four Vegetation S		
	Tree – Woody plants, excluding vir more in diameter at breast height (height.	nes, 3 in. (7.6	
	Sapling/Shrub – Woody plants, exthan 3 in. DBH and greater than or m) tall.	cluding vines equal to 3.28	s, less 3 ft (1
	Herb – All herbaceous (non-woody of size, and woody plants less than		rdless
	Woody vine – All woody vines gre height.	ater than 3.28	3 ft in
	Hydrophytic Vegetation Present? Yes	No <u>′</u>	

Remarks: (Include photo numbers here or on a separate sheet.)

Woody Vine Stratum (Plot size: _____)

Sampling Point: wnez002_u

Profile Desc	ription: (Describe t	o the depth	needed to docur	nent the i	ndicator	or confirm	the absenc	e of indicators.)
Depth	Matrix		Redo	x Features	3			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	<u>Remarks</u>
0-3	10YR 4/3	100					SIL	
3-17	10YR 5/4	100					SIL	
							-	
			-		-			-
·								, -
-								
<u> </u>								
	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indi	cators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
Black Hi			Thin Dark Su			47, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		F2)			Piedmont Floodplain Soils (F19)
	l Layers (A5)		Depleted Ma					(MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark					Very Shallow Dark Surface (TF12)
	Below Dark Surface	e (A11)	Depleted Dai					Other (Explain in Remarks)
	ark Surface (A12)	DD 14	Redox Depre			. DD N		
	lucky Mineral (S1) (L	KK N,	Iron-Mangan		es (F12) (LKK N,		
	147, 148)		MLRA 13		MI DA 12	6 122\	3 _{In}	diagtors of hydrophytic vogetation and
	edox (S5)		Umbric Surfa Piedmont Flo					dicators of hydrophytic vegetation and vetland hydrology must be present,
	Matrix (S6)		Red Parent N					nless disturbed or problematic.
	_ayer (if observed):		Red Falentin	nateriai (F	ZI) (IVILK	A 121, 141) u	Thess disturbed or problematic.
	-ayer (ii observed).							
Type:			_					
	ches):		_				Hydric So	il Present? Yes No
Remarks:								



Photo 1 Upland data point WNEZ002_u facing north



Photo 2
Upland data point WNEZ002_u facing east

Project/Site: Atlantic Coast Pipel	ine	City/C	county: Nelson		Sampling Date: 5/6/2015		
Applicant/Owner: Dominion					Sampling Point: wnea051f_w		
Investigator(s): GB, SA		Section	on, Township, Range: No	PLSS in this area			
Landform (hillslope, terrace, etc.)	: Stream shelf	Local rel	ief (concave, convex, nor	ne): microtopograph			
Subregion (LRR or MLRA): S	La ¹	t: <u>37.85766286</u>	Long: <u>-</u> 78.8	86582454	Datum: WGS 1984		
Soil Map Unit Name: Suches loa	m, 0 to 2 percent slop	oes, frequently flooded		NWI classificat	tion: None		
Are climatic / hydrologic condition	ns on the site typical f	for this time of year? Y	′es No	(If no, explain in Rer	marks.)		
Are Vegetation, Soil							
Are Vegetation, Soil							
SUMMARY OF FINDING							
			312				
Hydrin Soil Broomt?	t? Yes 🔽	No	Is the Sampled Area				
Hydric Soil Present? Wetland Hydrology Present?		No	within a Wetland?	Yes	No		
Remarks:	163	110					
HYDROLOGY							
Wetland Hydrology Indicators	s:			Secondary Indicato	ors (minimum of two required)		
Primary Indicators (minimum of	one is required; chec	ck all that apply)		Surface Soil C	racks (B6)		
Surface Water (A1)		True Aquatic Plants (B14)	Sparsely Vege	tated Concave Surface (B8)		
✓ High Water Table (A2)	_	Hydrogen Sulfide Od	or (C1)	✓ Drainage Patte	erns (B10)		
Saturation (A3)			es on Living Roots (C3)	Moss Trim Line			
Water Marks (B1)		Presence of Reduced			ater Table (C2)		
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Burro	: :		
Drift Deposits (B3)		Thin Muck Surface (C			ble on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Iron Deposits (B5)		Other (Explain in Rer	narks)	Geomorphic Po	essed Plants (D1)		
Inundation Visible on Aeria	I Imagery (B7)			Shallow Aquita	` '		
Water-Stained Leaves (B9)				✓ Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral T			
Field Observations:							
Surface Water Present?	Yes No	_ Depth (inches):					
	Yes No No		6				
Saturation Present?	Yes No		4 Wetland H	Hydrology Present?	? Yes <u>/</u> No		
(includes capillary fringe) Describe Recorded Data (streat	m gouge monitoring	well parial photos pro	vious inspections) if ava	vilable:			
Describe Necolded Data (streat	in gauge, monitoring	well, aeriai priotos, pre	vious irispections), ii ava	mable.			
Remarks:							

Sampling Po	oint: wnea051f_	w
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00	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Platanus occidentalis	20	Yes	FACW	That Are OBL, FACW, or FAC: 6 (A)
2. Liriodendron tulipifera	10	Yes	FACU	Total Number of Deminent
3				Total Number of Dominant Species Across All Strata: 8 (B)
4				(2)
_				Percent of Dominant Species That Are ORL FACW or FAC: 75
5				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7	30			Total % Cover of: Multiply by:
45	:	= Total Cove		OBL species 60 $x = 1$ $x = 60$
50% of total cover:15	20% of	total cover:_	6	ODL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x z =
1. Rosa multiflora	20	Yes	FACU	FAC species X 3 = 136
2. Lindera benzoin	15	Yes	FAC	FACU species x 4 =
3. Alnus serrulata	15	Yes	OBL	UPL species x 5 =
4 Platanus occidentalis	7	No	FACW	Column Totals:176 (A)385 (B)
5. Liriodendron tulipifera	4	No	FACU	
				Prevalence Index = B/A =2.18
6		-		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0¹
	61	= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: <u>30.5</u>	20% of	total cover:	12.2	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1. Juncus effusus	20	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Carex diandra	20	Yes	OBL	
3. Carex vulpinoidea	15	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must
Manakunyaka nyanlata	10	No	FACW	be present, unless disturbed or problematic.
4. Woodwardia areolata 5. Verbesina alternifolia	10		FAC	Definitions of Four Vegetation Strata:
·		No No		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Symplocarpus foetidus	10	No	OBL	more in diameter at breast height (DBH), regardless of
7				height.
8				Canling/Chrush Wasdy plants avaluating vines less
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	85	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 42.5		total cover:		or size, and woody plants less than 5.20 it tall.
0070 01 10101 00701.	20 /0 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
· (1 lot size.				height.
1			-	
2				
3				
4				Hydrophytic
5				Vegetation
	0 :	= Total Cove	er	Present? Yes No
50% of total cover: 0	20% of	total cover:_	0	
Remarks: (Include photo numbers here or on a separate s				
(menado proto namboro noto or on a coparato o	,			

Depth	Matrix		Redox Features			
(inches)	Color (moist)	%	Color (moist) % Type ¹	Loc ²	exture	Remarks
0-18	7.5YR 2.5/1	100			SL	
	-			-		
		· <u> </u>				
		·				
Type: C=C	oncentration. D=Dep	letion. RM=Re	educed Matrix, MS=Masked Sand Grain	ns. ² Lo	cation: PL=F	Pore Lining, M=Matrix.
	Indicators:					rs for Problematic Hydric Soils ³ :
-			Dark Surface (S7)			Muck (A10) (MLRA 147)
Histosol				DA 147 140		, , ,
	oipedon (A2)		Polyvalue Below Surface (S8) (ML			st Prairie Redox (A16)
_ Black Hi			Thin Dark Surface (S9) (MLRA 14	7, 148)		ILRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)			mont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)			ILRA 136, 147)
	ick (A10) (LRR N)		Redox Dark Surface (F6)			Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)		Othe	r (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (F8)			
	lucky Mineral (S1) (L	.RR N,	Iron-Manganese Masses (F12) (LF	RR N,		
	A 147, 148)		MLRA 136)		_	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136,			tors of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Floodplain Soils (F19) (N	/ILRA 148)	wetlar	nd hydrology must be present,
Stripped	Matrix (S6)		Red Parent Material (F21) (MLRA	127, 147)	unless	s disturbed or problematic.
estrictive	Layer (if observed):					
Type: no	ne					
Depth (in			_	Ц	ydric Soil Pro	esent? Yes V No
			-		yanc con i i	- 103 NO
Remarks:						



Photo 1Wetland data point WNEA051f_w facing northeast



Photo 2
Wetland data point WNEA051f_w facing west

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Nelson		Sampling Date: 5/6/2015			
Applicant/Owner: Dominion		State: \						
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area								
Landform (hillslope, terrace, etc.): slope			e, convex, none): none Slope (%): 6					
Subregion (LRR or MLRA): S								
Soil Map Unit Name: Suches loam, 0 to 2	percent slopes, free	quently flooded		NWI classifica	tion: None			
Are climatic / hydrologic conditions on the								
Are Vegetation, Soil, or Hy								
Are Vegetation, Soil, or Hy								
SUMMARY OF FINDINGS – Atta								
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Hydrophytic Vegetation Present?	Yes No.		Is the Sampled Area		.,			
Hydric Soil Present? Wetland Hydrology Present?	Yes No_ Yes No_	<u> </u>	within a Wetland?	Yes	_ No			
Remarks:	163140_							
HYDROLOGY								
Wetland Hydrology Indicators:				Socondary Indicat	ors (minimum of two required)			
Primary Indicators (minimum of one is re	equired: check all the	ot apply)						
	-		D11)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)				
Surface Water (A1) High Water Table (A2)		Aquatic Plants (f gen Sulfide Odd		Sparsely vegetated Concave Surface (B8) Drainage Patterns (B10)				
Saturation (A3)	-	-	es on Living Roots (C3)					
Water Marks (B1)		nce of Reduced		Dry-Season Water Table (C2)				
Sediment Deposits (B2)			n in Tilled Soils (C6)					
Drift Deposits (B3)	Thin N		Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)	Other	Other (Explain in Remarks) Stunted or Stressed Plants (D1)						
Iron Deposits (B5)				Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery	' (B7)			Shallow Aquitard (D3)				
Water-Stained Leaves (B9)				Microtopographic Relief (D4) FAC-Neutral Test (D5)				
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)			
Field Observations: Surface Water Present? Yes	No Depti	h /inahaa).						
	No Depti No Depti							
	No Depti No Depti			ludrologu Procent	? Yes No ✔			
(includes capillary fringe)	No _• Depti	1 (inches):	wetland h	lydrology Present	? Yes No			
Describe Recorded Data (stream gauge,	monitoring well, ae	rial photos, pre	vious inspections), if ava	ilable:				
Remarks:								
no hydrology indicators present								

րք wnea051_	_u
	າt: ^{wnea051} _

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Liriodendron tulipifera	20	Yes	FACU	That Are OBL, FACW, or FAC:5 (A)
2. Platanus occidentalis	20	Yes	FACW	Total Number of Dominant
3. Quercus alba	10	No	FACU	Species Across All Strata: 10 (B)
4. Quercus rubra	10	No	FACU	
5. Carya cordiformis	5	No	FACU	Percent of Dominant Species That Are ORL FACW or FAC: 50 (A/R)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
1	65	Tatal Cause		Total % Cover of: Multiply by:
50% of total cover: 32.5		= Total Cover total cover:	13	OBL species0 x 1 =0
15	20% 01	total cover		FACW species 26 x 2 = 52
Sapling/Shrub Stratum (Plot size:) 1 Lindera benzoin	20	Yes	FAC	FAC species 50 x 3 = 150
- ' ·	10		FACU	FACU species 90 x 4 = 360
2. Liriodendron tulipifera		Yes		
3. Rosa multiflora	10	Yes	FACU	UPL species $\begin{array}{c} 0 \\ \times 5 = \\ \end{array}$
4. Ailanthus altissima	5	No	FACU	Column Totals: (A) (B)
5. Quercus rubra	4	No	FACU	Prevalence Index = B/A = 3.38
6. Cornus florida	4	No	FACU	Trevalence mack = B/Tt =
7. Carya cordiformis	3	No	FACU	Hydrophytic Vegetation Indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
9				2 - Dominance Test is >50%
<u>. </u>	56	= Total Cove		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 28		total cover:	11.2	4 - Morphological Adaptations ¹ (Provide supporting
	2070 01	total cover		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:3) 1. Verbesina alternifolia	6	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Woodwardia areolata	4	Yes	FACW	
3. Alliaria petiolata	3	Yes	FACU	¹Indicators of hydric soil and wetland hydrology must
∆ Juncus effusus	2	No	FACW	be present, unless disturbed or problematic.
"				Definitions of Four Vegetation Strata:
5	-			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
o				more in diameter at breast height (DBH), regardless of
<i>l</i>				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11	-			Herb – All herbaceous (non-woody) plants, regardless
	15	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 7.5	20% of	total cover:	3	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1. Lonicera japonica	20	Yes	FAC	
2. Parthenocissus quinquefolia	6	Yes	FACU	
3. Toxicodendron radicans	4	No	FAC	
4.	-			
5.				Hydrophytic
J	30	T-1-1-0		Vegetation Present? Yes No
50% of total cover: 15		= Total Cover	r 6	100 100
0070 01 total 00701.		total cover:_		
Remarks: (Include photo numbers here or on a separate si	heet.)			

Color (moist)	Depth	Matrix		Redox Features		
A-20	(inches)			Color (moist) % Type ¹ Loc		Remarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : Histosol (A1)	0-4	7.5YR 2.5/3	100		SL	
Histosol (A1)	4-20	7.5YR 3/4	100		SL	
Histosol (A1)		-				
Histosol (A1)						
Histosol (A1)						
Histosol (A1)						
Histosol (A1)						
Histosol (A1)			<u> </u>			
Histosol (A1)	_					
Histosol (A1)						_
Histosol (A1)						-
Histosol (A1)						
Histosol (A1)						
Histosol (A1)					 ,	
Histosol (A1)			letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		
Histic Epipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S4) Stripped Matrix (S6) Stripped Matrix (S6) Depleted Below Dark Surface (F13) (MLRA 136, 122) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Depleted Surface or problematic. Hydric Soil Present? Yes No	lydric Soil	Indicators:			Indi	cators for Problematic Hydric Soils ³ :
Histic Epipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S4) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Polyvalue Below Surface (S8) (MLRA 147, 148) (MLRA 147, 148) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Jindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Depth (inches): Hydric Soil Present? Yes No	Histosol	(A1)		Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
Black Histic (A3)						
Loamy Gleyed Matrix (F2) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Hydric Soil Present? Yes No						
Stratified Layers (A5)						
2 cm Muck (A10) (LRR N)					_	
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Stripped Matrix (S6) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Depth (inches): Depleted Dark Surface (F7) Depth (inches): Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Iron-Manganese Masses (F12) (MLRA 136, 122) Iro						
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Sestrictive Layer (if observed): Type: Depth (inches): Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) Wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No			- (Δ11)			
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)			S (ATT)		_	Other (Explain in Remarks)
MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Stripped Matrix (S6) Restrictive Layer (if observed): _ Type: Depth (inches): _ Sandy Redox (S5) _ Depth (inches): _ MLRA 136) _ Umbric Surface (F13) (MLRA 136, 122) _ Hydric Soil Present? Yes No			DD N			
Sandy Gleyed Matrix (S4)			.KK N,		,	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: none Depth (inches): Hydric Soil Present? Yes No				· · · · · · · · · · · · · · · · · · ·	31	diantara of burdensky tip up actation and
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: none Depth (inches): Hydric Soil Present? Yes No V						
Restrictive Layer (if observed): Type: none Depth (inches): Hydric Soil Present? Yes No	-					
Type:				Red Parent Material (F21) (MLRA 127,	147) u	inless disturbed or problematic.
Depth (inches):						
	Type: no	ne		<u> </u>		
	Depth (in	ches):			Hydric So	oil Present? Yes No
		, -				
	tomanto.					



Photo 1 Upland data point WNEA051_u facing west



Photo 2 Upland data point WNEA051_u facing east

Project/Site: Atlantic Coast Pipeline	City/County: Nelson County	Sampling Date: 6/2/2016				
Applicant/Owner: DOMINION		State: VA Sampling Point: wnez004s_w				
	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Floodplain						
Subregion (LRR or MLRA): S						
Soil Map Unit Name: Delanco loam, 2 to 7 percent	slopes	NWI classification: PSS				
Are climatic / hydrologic conditions on the site typical						
Are Vegetation, Soil, or Hydrology _	significantly disturbed? Are "Norm	nal Circumstances" present? Yes No				
Are Vegetation, Soil, or Hydrology _						
		ions, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes	No le the Sempled Area					
	No Is the Sampled Area within a Wetland?	1 Yes ✓ No				
	No	162				
This is a fringe PSS wetland associated with snez0	02.					
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one is required; ch		Surface Soil Cracks (B6)				
✓ Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)				
	Hydrogen Sulfide Odor (C1)					
	Oxidized Rhizospheres on Living Roots (C3Presence of Reduced Iron (C4)					
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)					
Drift Deposits (B3)	Thin Muck Surface (C7)	Clayish Burlows (C6) Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)		Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)				
Water-Stained Leaves (B9)		Microtopographic Relief (D4)				
Aquatic Fauna (B13)		FAC-Neutral Test (D5)				
Field Observations:	_					
	Depth (inches):3					
	Depth (inches):					
	Depth (inches): Wetland	and Hydrology Present? Yes No				
(includes capillary fringe) Describe Recorded Data (stream gauge, monitorir	l ng well, aerial photos, previous inspections), if a	vailable:				
Remarks:						

EGETATION (Four Strata) – Use scientific na	ames of	plants.		Sampling Point: wnez004s_w
30	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size: 30) 1. none	% Cover 0	Species? S	<u>status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2		. <u> </u>		Total Number of Dominant
3		. <u> </u>		Species Across All Strata: 3 (B)
4		. <u> </u>		Descrit of Descionat Conscion
5		. <u> </u>		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6		. <u> </u>		
7				Prevalence Index worksheet:
	0	= Total Cover		Total % Cover of: Multiply by: ORL species 80 x 1 = 80
50% of total cover:0	20% of	total cover:	0	ODL species X I =
Sapling/Shrub Stratum (Plot size:)				FACW species x 2 =
1. Alnus serrulata	20	Yes	OBL	FAC species x 3 =
2. Salix nigra	10	Yes	OBL	FACU species x 4 =
3		. <u> </u>		UPL species $\frac{0}{80}$ $x = \frac{0}{80}$
4		. <u> </u>		Column Totals: (A) (B)
5				Prevalence Index = B/A =1
6				
7				Hydrophytic Vegetation Indicators:
8		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation2 - Dominance Test is >50%
9				✓ 2 - Dominance Test is >50% ✓ 3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cover		
50% of total cover:15		total cover:	6	4 - Morphological Adaptations¹ (Provide supporting
Herb Stratum (Plot size:5				data in Remarks or on a separate sheet)
1. Carex aquatilis	50	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Carex aquatilis	50	Yes	OBL	
3				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				
5				Definitions of Four Vegetation Strata:
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
8		· -		noight.
9.	-			Sapling/Shrub – Woody plants, excluding vines, less
40				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11.				,
	50	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 25		f total cover:	10	or orze, and weedy plante loos than orze it tall.
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
1. none	0			height.
2				
4 5.				Hydrophytic
J	0	Total Cover		Vegetation Present? Yes No
50% of total cover: 0		= Total Cover total cover:	0	
0070 01 total 00V01:		total cover		
Remarks: (Include photo numbers here or on a separate si	neet.)			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		Redox	c Features	3				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks	
0-6	5YR4/2	100					SCL		
6-20	5YR5/2	80	5YR5/6	20	С	PL/M	SCL		
					-				
					•				
			-		-				
				-	-				
¹ Type: C=Co	oncentration, D=Deple	etion, RM:	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators:						Indica	ators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)	
Histic Ep	ipedon (A2)		Polyvalue Bel	low Surfac	ce (S8) (N	ILRA 147,	148) C	Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (I	F2)		P	riedmont Floodplain Soils (F19)	
Stratified	Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)	
	ck (A10) (LRR N)		Redox Dark S	,	,			ery Shallow Dark Surface (TF12)	
	l Below Dark Surface	(A11)	Depleted Dar				<u> </u>	Other (Explain in Remarks)	
	rk Surface (A12)		Redox Depre						
	lucky Mineral (S1) (L	RR N,	Iron-Mangane		es (F12) (LRR N,			
	147, 148)		MLRA 136				3		
	leyed Matrix (S4)		Umbric Surfa					licators of hydrophytic vegetation and	
	edox (S5)		Piedmont Flo					etland hydrology must be present,	
	Matrix (S6)		Red Parent M	laterial (F2	21) (MLR	A 127, 147	7) un	less disturbed or problematic.	
	ayer (if observed):								
Type:									
Depth (inc	ches):						Hydric Soil	Present? Yes No	
Remarks:									



Wetland data point wnez004s_w facing east



Wetland data point wnez004s_w facing north

Project/Site: Atlantic Coast Pipeline		City/County: Nelson County Sampling Date: 6/2/2016					
Applicant/Owner: DOMINION		State: VA Sampling Point: wnez004_					
Investigator(s): Team Z Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): Floodplain	1	Local re	lief (concave, convex, nor	ne): none	Slope (%): ⁵		
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Delanco loam, 2 to 7 pe	ercent slopes			NWI classific	cation: UPL		
Are climatic / hydrologic conditions on the site							
Are Vegetation, Soil, or Hydro							
Are Vegetation, Soil, or Hydro							
SUMMARY OF FINDINGS – Attacl							
Lhidranhidia Vagatatian Brasant?	no No			<u> </u>	<u> </u>		
	es No_ es No_		Is the Sampled Area		1		
	es No_		within a Wetland?	Yes	No		
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:					ators (minimum of two required)		
Primary Indicators (minimum of one is requi				Surface Soil Cracks (B6)			
Surface Water (A1)		quatic Plants			getated Concave Surface (B8)		
High Water Table (A2)		gen Sulfide Od		_	atterns (B10)		
Saturation (A3)			• , ,	Moss Trim L			
Water Marks (B1)		nce of Reduce			Water Table (C2)		
Sediment Deposits (B2) Drift Deposits (B3)		uck Surface (on in Tilled Soils (C6)	ils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Explain in Re			Stressed Plants (D1)		
Iron Deposits (B5)	0.1.0.	(Explain in red	manoj		Position (D2)		
Inundation Visible on Aerial Imagery (B	7)			Shallow Aqu			
Water-Stained Leaves (B9)	,			Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutra			
Field Observations:							
Surface Water Present? Yes	No Depth	(inches):					
Water Table Present? Yes	No Depth	(inches):					
	No Depth	(inches):	Wetland H	lydrology Prese	nt? Yes No		
(includes capillary fringe) Describe Recorded Data (stream gauge, mo	onitoring well, aei	rial photos, pre	evious inspections), if ava	ilable:			
Remarks:							

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: wnez004_u

20	Absolute	Dominant Ir		Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover 40		Status	Number of Dominant Species
1. Liriodendron tulipifera	40	Yes	FACU	That Are OBL, FACW, or FAC:0 (A)
2				T. IN I CD
3				Total Number of Dominant Species Across All Strata: 3 (B)
		-		Species Across Air Strata (b)
4		-		Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC:0 (A/B)
6		·		Drawalanaa In day wantahaati
7				Prevalence Index worksheet:
	40	= Total Cover	r	Total % Cover of: Multiply by:
50% of total cover: 20		total cover:	8	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1 Rosa multiflora	30	Yes	FACU	FAC species0 x 3 =0
"				FACU species 100 x 4 = 400
2				0
3				UPL species
4				Column Totals: (A) (B)
5				
				Prevalence Index = B/A =4
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cover	r	
50% of total cover: 15	20% of	total cover:	6	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:5				data in Remarks or on a separate sheet)
1 Dactylis glomerata	30	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
			17100	
2		-		¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7		-		height.
8		-		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless
	30	= Total Cover	•	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 15		total cover:	6	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
1. none	0			height.
2				
3				
4				Lhadrombastic
5.				Hydrophytic Vegetation
	0	= Total Cover	,	Present? Yes No
50% of total cover: 0		total cover:	0	
30 % of total cover		total cover		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features	, _	
inches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹ Loc		Remarks
0-4	5YR4/3	100		SCL	
4-18	5YR5/4	100		SCL	
					
	-				_
					- , -
	oncentration D-Der	oletion PM-F	Reduced Matrix, MS=Masked Sand Grains.	² l ocation:	PL=Pore Lining, M=Matrix.
	Indicators:	JIGHOII, INIVI–I	Reduced Matrix, MO-Masked Sarid Grains.	Ind	icators for Problematic Hydric Soils ³ :
-			Dark Curfoss (C7)		
_ Histosol			Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 1		Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 14	8)	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	_	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Matrix (F3)		(MLRA 136, 147)
	uck (A10) (LRR N)	(Δ44)	Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surfac	ce (ATT)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	1 DD N	Redox Depressions (F8)		
	Mucky Mineral (S1) (LRK N,	Iron-Manganese Masses (F12) (LRR N	,	
	A 147, 148)		MLRA 136)	. 3.	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)		ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA		wetland hydrology must be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127,	147) (unless disturbed or problematic.
	Layer (if observed)	:			
		:	_		
estrictive	Layer (if observed)	:		Hydric Se	oil Present? Yes No
Type: Depth (in	Layer (if observed)	:	<u> </u>	Hydric Se	oil Present? Yes No
Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)			Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:	<u> </u>	Hydric Se	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric Se	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No <u>V</u>
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No <u>V</u>
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
Restrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
Restrictive Type:	Layer (if observed)	:		Hydric So	oil Present? Yes No
Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No
estrictive Type: Depth (in	Layer (if observed)	:		Hydric So	oil Present? Yes No



Upland data point wnez004_u facing south



Upland data point wnez004_u facing west

Project/Site: Atlantic Coast Pipeline	City/C	County: Nelson County	Sampling Date: 5/26/2016		
Applicant/Owner: DOMINION	State: VA Sampling Point: wnez003s_				
nvestigator(s): Team Z Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope (%): 3					
Subregion (LRR or MLRA): S					
Soil Map Unit Name: Delanco loam, 2 to 7 pero	ent slopes	NW	classification: None		
Are climatic / hydrologic conditions on the site t	pical for this time of year?	res No (If no, exp	olain in Remarks.)		
Are Vegetation, Soil, or Hydrolo	gy significantly distur	bed? Are "Normal Circums	tances" present? Yes No		
Are Vegetation, Soil, or Hydrolo					
SUMMARY OF FINDINGS – Attach					
Hydrophytic Vegetation Present? Yes	No				
Hydric Soil Present? Yes	✓ No	Is the Sampled Area within a Wetland? Ye	es No		
	✓ No	within a wetiant:	.s NO		
Remarks: This is a small fringe PSS wetland along snez(01.				
HYDROLOGY					
Wetland Hydrology Indicators:		Seconda	ary Indicators (minimum of two required)		
Primary Indicators (minimum of one is require	d: check all that apply)		race Soil Cracks (B6)		
✓ Surface Water (A1)	True Aquatic Plants (rsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide Od		nage Patterns (B10)		
Saturation (A3)	Oxidized Rhizospher		ss Trim Lines (B16)		
Water Marks (B1)	Presence of Reduce		Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6) Cray	yfish Burrows (C8)		
Drift Deposits (B3)	Thin Muck Surface (0	C7) Satu	uration Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Rei	marks) Stur	nted or Stressed Plants (D1)		
Iron Deposits (B5)		Geo	morphic Position (D2)		
Inundation Visible on Aerial Imagery (B7)		Sha	llow Aquitard (D3)		
Water-Stained Leaves (B9)			otopographic Relief (D4)		
Aquatic Fauna (B13)		FAC	c-Neutral Test (D5)		
Field Observations:		1			
	Depth (inches):	<u> </u>			
	Depth (inches):	3			
Saturation Present? Yes No	Depth (inches):	Wetland Hydrolog	y Present? Yes No		
Describe Recorded Data (stream gauge, mon	toring well, aerial photos, pre	evious inspections), if available:			
Remarks:					

'EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: wnez003s_w
20	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:30) 1.	% Cover	Species?	<u>Status</u>	Number of Dominant Species That Are OBL, FACW, or FAC:4 (A)
2.		·		
				Total Number of Dominant
3				Species Across All Strata:4 (B)
4	-			Percent of Dominant Species
5		· ——		That Are OBL, FACW, or FAC: 100 (A/B)
6				Describe as In day would not
7				Prevalence Index worksheet:
	0	= Total Cov	er	Total % Cover of: Multiply by:
50% of total cover:0	20% of	f total cover:	0	OBL species x 1 = 60
Sapling/Shrub Stratum (Plot size: 15)				FACW species60
1 Alnus serrulata	20	Yes	OBL	FAC species0 x 3 =0
		·		FACU species0 x 4 =0
2		·		UPL species0 x 5 =0
3				120 180
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =1.5
6	· <u> </u>			1 Tevalence mack = B/T(=
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
·		· ——		✓ 2 - Dominance Test is >50%
9	20			✓ 3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 10		= Total Cov	4	4 - Morphological Adaptations ¹ (Provide supporting
50 % of total 60 ver	20% of	f total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Impatiens capensis	40	Yes	FACW	1 Toblematic Trydrophytic Vegetation (Explain)
2. Carex crinita	40	Yes	OBL	1
3. Juncus effusus	20	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				
5				Definitions of Four Vegetation Strata:
		<u> </u>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7		· ——		height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cov		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50		f total cover:		or orzer, and mosal, prame rose than orzer train
Woody Vine Stratum (Plot size: 30)		10101 001011		Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Hydrophytic
5.				Vegetation
	0	= Total Cov	er	Present? Yes No
50% of total cover: 0		f total cover:	0	
Remarks: (Include photo numbers here or on a separate s		10101 00101.		
Remarks. (include photo numbers here or on a separate s	neet.)			

Profile Desc	ription: (Describe t	o the dep	th needed to docum	ent the ir	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redox	c Features				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-2	7.5YR 4/2	100					SL	
2-16	10YR 5/2	80	10YR 5/6	20	С	PL/M	SL	
					-			
								-
					-			
		etion, RM:	=Reduced Matrix, MS	=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.
Hydric Soil I	ndicators:						Indica	ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfac	e (S8) (N	ILRA 147,	148) C	oast Prairie Redox (A16)
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		⁻ 2)		P	iedmont Floodplain Soils (F19)
	Layers (A5)		Depleted Mat	, ,				(MLRA 136, 147)
	ck (A10) (LRR N)		Redox Dark S	,	,			ery Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dar				0	ther (Explain in Remarks)
	rk Surface (A12)		Redox Depre					
	lucky Mineral (S1) (L	RR N,	Iron-Mangane		es (F12) (LRR N,		
	147, 148)		MLRA 136		MI DA 40	C 400\	31	instant of hardensky disconnected in a seed
	leyed Matrix (S4)		Umbric Surfa					icators of hydrophytic vegetation and
	edox (S5) Matrix (S6)		Piedmont Flo Red Parent M					tland hydrology must be present,
	ayer (if observed):		Red Parent iv	iateriai (F2	21) (WILK	A 127, 147) uni	less disturbed or problematic.
	ayer (ii observeu).							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes No
Remarks:								



Photo 1
Wetland data point WNEZ003s_w facing east



Photo 2
Wetland data point WNEZ003s_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Nelson County Sampling Date: 5/26/20						
Applicant/Owner: DOMINION		State: VA Sampling Point: Wne					
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 1							
Subregion (LRR or MLRA): S							
Soil Map Unit Name: Occoquan loam, 25 to 50	0 percent slopes, very stony	25.19 N	WI classification: None				
Are climatic / hydrologic conditions on the site	typical for this time of year?	res ✓ No (If no, €	explain in Remarks.)				
Are Vegetation, Soil, or Hydrol							
Are Vegetation, Soil, or Hydrol							
SUMMARY OF FINDINGS – Attach							
		, ,	, , , , , , , , , , , , , , , , , , ,				
	s No s No	Is the Sampled Area					
	s No	within a Wetland?	Yes No				
Remarks:	<u> </u>						
This is an upland area on a hillside.							
HYDROLOGY							
Wetland Hydrology Indicators:		<u>Secor</u>	ndary Indicators (minimum of two required)				
Primary Indicators (minimum of one is require	ed; check all that apply)	S	urface Soil Cracks (B6)				
Surface Water (A1)	True Aquatic Plants	(B14) S	parsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide Oc		rainage Patterns (B10)				
Saturation (A3)	Oxidized Rhizospher		loss Trim Lines (B16)				
Water Marks (B1)	Presence of Reduce		ry-Season Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reduction		rayfish Burrows (C8)				
Drift Deposits (B3)	Thin Muck Surface (aturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in Re		tunted or Stressed Plants (D1)				
Iron Deposits (B5)	^\		eomorphic Position (D2) hallow Aquitard (D3)				
Inundation Visible on Aerial Imagery (B7Water-Stained Leaves (B9))		licrotopographic Relief (D4)				
Aquatic Fauna (B13)			AC-Neutral Test (D5)				
Field Observations:			No Noutal Fost (50)				
	No Depth (inches):						
	No Depth (inches):						
	No Depth (inches):		ogy Present? Yes No				
(includes capillary fringe)	79) 1 103CHL: 103 110						
Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos, pre	evious inspections), if available:					
Remarks:							
itemars.							

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: wnez003_u

•	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Liriodendron tulipifera	30	Yes	FACU	That Are OBL, FACW, or FAC:0 (A)
2. Quercus montana	30	Yes	UPL	T. 111 1 15
3.				Total Number of Dominant Species Across All Strata: 4 (B)
				Opedies Across Air otrata (b)
·· ·				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:0 (A/B)
6		-		Ducyalan as Inday wantabaati
7				Prevalence Index worksheet:
	60	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 30	20% of	total cover:	12	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15				FACW species0 x 2 =0
1 Rosa multiflora	30	Yes	FACU	FAC species0 x 3 =0
l'				FACU species 100 x 4 = 400
2		·		20 150
3				130 X 5 =
4				Column Totals: (A) (B)
5				Prevalence Index - R/A - 4.23
6				T Tevalence index = B/A =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cove	r	
50% of total cover:15	20% of	total cover:	6	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1 Parthenocissus quinquefolia	40	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
-			17100	
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7				height.
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless
	40	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 20		total cover:	_	
		10101 00 VOI		Woody vine – All woody vines greater than 3.28 ft in
vvoody vine ditatum (1 lot 3ize.				height.
1,				
2				
3				
4				
5.				Hydrophytic Vegetation
<u> </u>	0	= Total Cove		Present? Yes No
50% of total cover: 0		total cover:	^	
0070 01 total 00701:		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features	 -	
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc		Remarks
0-3	7.5YR 4/3	100		SL	
3-17	7.5YR 5/6	100		SL	
					
		·			
		. <u> </u>		<u> </u>	
					
		. <u> </u>			
		· -			
		letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:			Ind	dicators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
Histic E	oipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)	Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Surface (S9) (MLRA 147, 14	18)	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	ıck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
	ark Surface (A12)	, ,	Redox Depressions (F8)		-
	Mucky Mineral (S1) (L	RR N,	Iron-Manganese Masses (F12) (LRR N	I,	
	A 147, 148)	,	MLRA 136)	,	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122	2) 3	Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLR		wetland hydrology must be present,
-	Matrix (S6)		Red Parent Material (F21) (MLRA 127		unless disturbed or problematic.
	Layer (if observed):			, ,	arriode dictarged of problematic.
	Layer (ii observeu).				
Type:			_		,
Depth (in	ches):		_	Hydric S	Soil Present? Yes No
Remarks:					



Photo 1 Upland data point WNEZ003_u facing north



Photo 2 Upland data point WNEZ003_u facing west

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Nelson County		Sampling Date: 2/19/2016	
Applicant/Owner: Dominion				State: VA	Sampling Point: wnea401f_w	
nvestigator(s): GB, SA Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): microtopography Slope (%): 1						
Subregion (LRR or MLRA): S		37.81049215	Lona: -78.	79669624	Datum: WGS 1984	
Soil Map Unit Name: Colvard fine sandy	loam, 0 to 2 pe	rcent slopes, occasio	onally flooded	NWI classific	cation: None	
Are climatic / hydrologic conditions on th	e site typical for	this time of year? Y	es No	(If no, explain in R	Remarks.)	
Are Vegetation, Soil, or I	Hydrology	significantly distur	bed? Are "Normal	l Circumstances" ¡	oresent? Yes No	
Are Vegetation, Soil, or I						
SUMMARY OF FINDINGS – A						
Hydrophytic Vegetation Present?	Voc V	No				
Hydric Soil Present?		No	Is the Sampled Area	V	No	
Wetland Hydrology Present?		No	within a Wetland?	Yes	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)	
Primary Indicators (minimum of one is	required; check	all that apply)		Surface Soil		
✓ Surface Water (A1)	1	Γrue Aquatic Plants (B14)		getated Concave Surface (B8)	
High Water Table (A2)		Hydrogen Sulfide Od		Drainage Pa		
Saturation (A3)	0	Oxidized Rhizosphere	es on Living Roots (C3)	Moss Trim L	ines (B16)	
Water Marks (B1)	F	Presence of Reduced	I Iron (C4)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	F	Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Bur	rows (C8)	
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	(Other (Explain in Ren	narks)		tressed Plants (D1)	
Iron Deposits (B5)	 ->			<u>✓</u> Geomorphic		
Inundation Visible on Aerial Image	ry (B7)			Shallow Aquitard (D3)		
Water-Stained Leaves (B9)				✓ Microtopographic Relief (D4)✓ FAC-Neutral Test (D5)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)	
Field Observations: Surface Water Present? Yes	No. 🗸	Depth (inches):	1			
<u> </u>		Depth (inches):				
	No		0 Wetland h	Hydrology Preser	nt? Yes 🗸 No	
(includes capillary fringe)					190 <u></u>	
Describe Recorded Data (stream gaug	e, monitoring we	ell, aerial photos, pre	vious inspections), if ava	ilable:		
Remarks:						
Remarks.						

Sampling	Point: wnea401f_	w
Samonno	P() a	

00	Absolute	Dominant I		Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u> 25	Species?	Status	Number of Dominant Species
1. Platanus occidentalis	5	Yes	FACW	That Are OBL, FACW, or FAC:8 (A)
2. Liriodendron tulipifera		No	FACU	Total Number of Dominant
3				Species Across All Strata: 8 (B)
4				Beauty of Beauty of Oracine
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				, , ,
7.	-			Prevalence Index worksheet:
	30	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover: 15		total cover:	6	OBL species 50 x 1 = 50
Sapling/Shrub Stratum (Plot size: 15)		_		FACW species
1 Alnus serrulata	35	Yes	OBL	FAC species 42 x 3 = 126
2. Platanus occidentalis	15	Yes	FACW	FACU species15 x 4 =60
3. Lindera benzoin	4	No	FAC	UPL species 0 x 5 = 0
4. Rubus argutus	4	No	FACU	Column Totals: 177 (A) 376 (B)
~~		No	FACU	(7)
5. Liriodendron tulipifera	2		FACU	Prevalence Index = B/A =2.12
6. Juglans nigra		No	FACU	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 32	20% of	total cover:_	12.8	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				
1. Dichanthelium clandestinum	20	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Onoclea sensibilis	20	Yes	FACW	
3. Carex prasina	15	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. Dichanthelium scoparium	10	No	FACW	
5				Definitions of Four Vegetation Strata:
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				m) tan.
11	65			Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 32.5	. ——— ՝	= Total Cove	er 13	of size, and woody plants less than 3.28 ft tall.
00/0011010100101.	20% of	total cover:_	10	Woody vine – All woody vines greater than 3.28 ft in
/ (i lot size)	40	V	EAC	height.
1. Vitis rotundifolia	10	Yes	FAC	
2. Lonicera japonica	8	Yes	FAC	
3				
4				Hydrophytic
5				Vegetation
	18	= Total Cove	er	Present? Yes No No
50% of total cover: 9	20% of	total cover:_	3.6	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	ription: (Describe	to the dep	oth needed to docum	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Features	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-2	7.5YR 3/3	100					SL	
2-9	7.5YR 4/2	70	7.5YR 4/4	30	С	M	SCL	
9-18	7.5YR 4/1	75	7.5YR 4/6	25	С	М	SCL	
					-			
	-		·					
					-			
		etion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
Hydric Soil								cators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
Black Hi			Thin Dark Su			47, 148)		(MLRA 147, 148)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye Depleted Mat		F2)		'	Piedmont Floodplain Soils (F19) (MLRA 136, 147)
	ick (A10) (LRR N)		Redox Dark S		·6)		,	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	•	,			Other (Explain in Remarks)
	ark Surface (A12)	,	Redox Depre					,
Sandy M	lucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Masse	es (F12) (LRR N,		
	A 147, 148)		MLRA 13					
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					retland hydrology must be present,
	Matrix (S6)		Red Parent N	/laterial (F	21) (MLR	A 127, 147	7) ui	nless disturbed or problematic.
Type: no	Layer (if observed):							
								
Depth (inc	ches):						Hydric So	il Present? Yes No
Remarks:								



Photo 1
Wetland data point WNEA401f_w facing east



Photo 2
Wetland data point WNEA401f_w facing north

Project/Site: Atlantic Coast Pipeline	City/County: Nelson County	Sampling Date: 2/19/2016		
Applicant/Owner: Dominion		State: VA Sampling Point: wnea401_u		
	Section, Township, Range:			
	Local relief (concave, convex, n			
Subregion (LRR or MLRA): S		8.79679297 Datum: WGS 1984		
Soil Map Unit Name: Colvard fine sandy loam, 0 to	2 percent slopes, occasionally flooded	NWI classification: None		
Are climatic / hydrologic conditions on the site typic	al for this time of year? Yes No	(If no, explain in Remarks.)		
		nal Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology _				
		ions, transects, important features, etc.		
		· · · · · · · · · · · · · · · · · · ·		
	No V Is the Sampled Area within a Wetland?			
Wetland Hydrology Present? Yes	within a Wetland?	Yes No		
Remarks:	140			
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; cl	anck all that apply)	Surface Soil Cracks (B6)		
		Surface Soli Clacks (B6) Sparsely Vegetated Concave Surface (B8)		
Surface Water (A1) High Water Table (A2)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)		
Saturation (A3)	 Oxidized Rhizospheres on Living Roots (C3 			
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)			
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)		
Iron Deposits (B5)		Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)		
Water-Stained Leaves (B9)		Microtopographic Relief (D4)		
Aquatic Fauna (B13)		FAC-Neutral Test (D5)		
Field Observations:				
	Depth (inches):			
	Depth (inches):			
Saturation Present? Yes No! (includes capillary fringe)	Depth (inches): Wetland	Hydrology Present? Yes No		
Describe Recorded Data (stream gauge, monitoring)	ng well, aerial photos, previous inspections), if a	vailable:		
Remarks:				
no hydrology indicators present				

VEGETATION (Four Strata) - Use scientific names of plants.

5. Solanum carolinense 4 No

Sapling/Shrub Stratum (Plot size: 15)

Tree Stratum (Plot size:

1 Rubus argutus

2 Rosa multiflora

Herb Stratum (Plot size: __ 1. Schedonorus arundinaceus

3. Andropogon virginicus

2. Juncus effusus

4. Juncus tenuis

wer Dominant Species? = Total Cov % of total cover Yes Yes	Status	Dominance Test worksheet: Number of Dominant Species 0 (A) Total Number of Dominant Species Across All Strata: 3 (B) Percent of Dominant Species 0 (A/E Prevalence Index worksheet: 0 (A/E Prevalence Index worksheet: Multiply by: OBL species 0 x 1 = 0 FACW species 10 x 2 = 20 FAC species 5 x 3 = 15 FACU species 94 x 4 = 376 UPL species 0 x 5 = 0
= Total Cov % of total cover	rer 0	That Are OBL, FACW, or FAC: 0 (A) Total Number of Dominant Species Across All Strata: 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/E Prevalence Index worksheet:
% of total cover	FACU	Species Across All Strata: 3 (B) Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/E Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 10 x 2 = 20 FAC species 5 x 3 = 15 FACU species 94 x 4 = 376
% of total cover	FACU	That Are OBL, FACW, or FAC: 0 (A/E Prevalence Index worksheet:
% of total cover	FACU	Total % Cover of: Multiply by: OBL species 0 x 1 = 0 FACW species 10 x 2 = 20 FAC species 5 x 3 = 15 FACU species 94 x 4 = 376
% of total cover	FACU	OBL species 0 x 1 = 0 FACW species 10 x 2 = 20 FAC species 5 x 3 = 15 FACU species 94 x 4 = 376
% of total cover	FACU	FACW species 10 x 2 = 20 FAC species 5 x 3 = 15 FACU species 94 x 4 = 376
Yes	FACU	FACW species
		FACU species $\frac{94}{9}$ $\times 4 = \frac{376}{9}$
Yes	FACU	FACU species x 4 =
		0 0
		Column Totals: 109 (A) 411 (B
		Prevalence Index = B/A =3.77
		Hydrophytic Vegetation Indicators:
	· ——	1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is >50%
 		3 - Prevalence Index is ≤3.0 ¹
= Total Cov	2	4 - Morphological Adaptations ¹ (Provide supporting
% of total cover	:	data in Remarks or on a separate sheet)
		Problematic Hydrophytic Vegetation¹ (Explain)
Yes	FACU	Problematic Hydrophytic Vegetation (Explain)
No No	FACW	
No No	FACU	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
No	FAC	Definitions of Four Vegetation Strata:
No	FACU	Definitions of Four Vegetation Strata.
	·	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) of more in diameter at breast height (DBH), regardless of height.
		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
- Total Cov	/er	Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall.
		Woody vine – All woody vines greater than 3.28 ft in height.
	Yes No No No No Total Cover	Yes

Remarks: (Include photo numbers here or on a separate sheet.) area was recently bush hogged

Woody Vine Stratum (Plot size: ______)

Depth	Matrix		Redox Features	_		
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc ²		Remai	rks
0-3	7.5YR 2.5/3	100		SL		
3-10	7.5YR 3/3	100		SCL		
10-18	7.5YR 3/4	100		SCL		
10-10	7.511 3/4					
					_	
				<u> </u>		
	-					
	-					
					_	
¹ Type: C=C	oncentration, D=Dep	oletion, RM=R	educed Matrix, MS=Masked Sand Grains.	² Location:	PL=Pore Lining, M=Ma	trix.
Hydric Soil					licators for Problemation	
Histosol	I (A1)		Dark Surface (S7)		2 cm Muck (A10) (MLR	RA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 1	 47, 148)	Coast Prairie Redox (A	•
	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 147, 148)	•
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	<u></u>	Piedmont Floodplain S	oils (F19)
	d Layers (A5)		Depleted Matrix (F3)	<u></u>	(MLRA 136, 147)	. ,
2 cm Mi	uck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow Dark Sur	face (TF12)
Deplete	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)		Other (Explain in Rema	arks)
	ark Surface (A12)		Redox Depressions (F8)			
Sandy N	Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR N	,		
MLR	A 147, 148)		MLRA 136)			
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)		Indicators of hydrophytic	
Sandy F	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA	A 148)	wetland hydrology must	be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127,	147)	unless disturbed or prob	lematic.
Restrictive	Layer (if observed)	:				
Type:			_			
Depth (in	ches):		<u>_</u>	Hydric S	oil Present? Yes	No <u> </u>
Remarks:				L		



Photo 1
Upland data point WNEA401_u facing northwest



Photo 2
Upland data point WNEA401_u facing southwest

Project/Site: Atlantic Coast Pip	peline		City/County: Nel	Ison County	S	ampling Date: 2/19/2016
Applicant/Owner: Dominion						Sampling Point: wnea402e_w
Investigator(s): GB, SA						
Landform (hillslope, terrace, et						Slone (%)·2
Subregion (LRR or MLRA): S	o.,,	1 at: 37.80851548	i	1 ang: -78.79	638129	Clope (70)
Soil Map Unit Name: Colvard	ine sandy loam 0	to 2 percent slopes	occasionally flood	Long led	NNA// -1'6'	None
Are climatic / hydrologic condit						
Are Vegetation, Soil						
Are Vegetation, Soil	, or Hydrolog	y naturally p	roblematic?	(If needed, exp	olain any answers	in Remarks.)
SUMMARY OF FINDING	GS – Attach s	ite map showin	g sampling po	oint location	s, transects, i	mportant features, etc.
Hydrophytic Vegetation Prese	ent? Yes	✓ No				
Hydric Soil Present?	Yes	No		mpled Area Wetland?	Yes 🗸	Na
Wetland Hydrology Present?		✓ No	_ within a	wetiand?	res	NO
Remarks:			I			
by farm equipment. NCWAM	ated PEM Wetland = basin wetland.	l located at toe of sic Wetland is adjacent	ope in a nayrieid/nis to but does not ha	storic pasture; se ve a surface cor	eries of localized d inection to intermit	epressions most likely created tent stream snea402.
HYDROLOGY						
Wetland Hydrology Indicate	ors:			<u>S</u>	econdary Indicato	rs (minimum of two required)
Primary Indicators (minimum	of one is required	check all that apply; True Aquatic			_ Surface Soil Cr	, ,
Surface Water (A1)		_	Sparsely Veget	tated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Su		_	_ Drainage Patte	
Saturation (A3)			zospheres on Livin	g Roots (C3) _	Moss Trim Line	` '
Water Marks (B1)			Reduced Iron (C4)		Dry-Season Wa	` '
Sediment Deposits (B2)			Reduction in Tilled	Soils (C6)	Crayfish Burrov	,
Drift Deposits (B3)		Thin Muck Su		_		ole on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explai	n in Remarks)	_	Stunted or Stre Geomorphic Policy	ssed Plants (D1)
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery (R7)			<u>-</u>	Shallow Aquita	
Water-Stained Leaves (E				_	Shallow Aquita Microtopograph	` ,
Aquatic Fauna (B13)	19)				FAC-Neutral Te	` ,
Field Observations:						561 (20)
Surface Water Present?	Yes No.	Depth (inche	ie).			
Water Table Present?		Depth (inche				
Saturation Present?		Depth (inche	•	Wetland Hy	drology Present?	Yes No
(includes capillary fringe)						103
Describe Recorded Data (stre	eam gauge, monit	oring well, aerial pho	otos, previous inspe	ections), if availa	ıble:	
Remarks:						
Nomano.						

EGETATION (Four Strata) – Use scientific n	ames or	piants.		Sampling Point: wnea402e_w
	Absolute	Dominant I		Dominance Test worksheet:
T <u>ree Stratum</u> (Plot size:30) 1.	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2.				, , ,
3		·		Total Number of Dominant Species Across All Strata: 3 (B)
				Species Across All Strata: (B)
4		· 		Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				
	0	= Total Cove	_	
50% of total cover:0	20% of	f total cover:_	0	OBL species X I =
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =
1.				FAC species37
2		·		FACU species5 x 4 =20
_				UPL species0 x 5 =0
3				Column Totals: 76 (A) 175 (B)
4		· ——		(t)(D)
5				Prevalence Index = B/A =2.3
6	-	 		Hydrophytic Vegetation Indicators:
7		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9.				
	0	= Total Cove	r	✓ 3 - Prevalence Index is ≤3.0¹
50% of total cover: 0	20% of	f total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1 Dichanthelium clandestinum	20	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
1	12	Yes	OBL	
2. Carex lupulina				¹ Indicators of hydric soil and wetland hydrology must
3. Carex prasina	12	Yes	OBL	be present, unless disturbed or problematic.
4. Juncus effusus	10	No	FACW	Definitions of Four Vegetation Strata:
5. Verbesina alternifolia	10	No	FAC	
6. Solidago rugosa	7	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
Andropogon virginicus	5	No	FACU	more in diameter at breast height (DBH), regardless of height.
8.				Holghi.
				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10		· ——		m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 38	20% of	f total cover:_	15.2	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation Present? Yes ✓ No
0		= Total Cove	_	riesent? res No
50% of total cover:0	20% of	f total cover:_	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	ription: (Describe t	o the dept	h needed to docur	ment the i	ndicator	or confirm	the absenc	e of indicators.)
Depth	Matrix			x Features	3			
(inches) 0-3	Color (moist) 7.5YR 5/3	100	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> CL	Remarks
3-18	7.5YR 4/2	70	7.5YR 4/4	30	С	M	CL	
					-			
					-			-
¹ Type: C=Ce	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		ce (S8) (N	ILRA 147.		Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su				,	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye	, ,	•	, ,		Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
	ıck (A10) (LRR N)		Redox Dark					Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Da					Other (Explain in Remarks)
	ark Surface (A12) ⁄lucky Mineral (S1) (L	DD N	Redox Depre			I DD N		
	A 147, 148)	KK N,	Iron-Mangan MLRA 13		5 (F12) (LKK N,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6. 122)	³ In	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Material (F	21) (MLR	A 127, 147	') u	nless disturbed or problematic.
Restrictive I	Layer (if observed):							
Type: no	ne							
Depth (in	ches):						Hydric So	il Present? Yes No
Remarks:							•	



Photo 1 Wetland data point WNEA402e_w facing west



Photo 2
Wetland data point WNEA402e_w facing east

Project/Site: Atlantic Coast Pip	peline	City/C	ounty: Nelson County		Sampling Date: 2/19/2016
Applicant/Owner: Dominion					Sampling Point: wnea402_u
		Section	on, Township, Range: No		
Landform (hillslope, terrace, et					
Subregion (LRR or MLRA): S					
Subregion (LRR or MLRA):	fine sandy loam. 0 to 5	at: or socoooco	Long: 10.1	0042247	Datum: WGS 1984
Soil Map Unit Name: Colvard					
Are climatic / hydrologic condit		•			
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes No
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, ex	xplain any answe	rs in Remarks.)
SUMMARY OF FINDIN	GS – Attach site	map showing sam	pling point locatio	ns, transects	, important features, etc.
Lhudranhudia Vanatatian Dasa		No. 4			
Hydrophytic Vegetation Pres Hydric Soil Present?		No 🗸	Is the Sampled Area		
Wetland Hydrology Present?	Yes	No	within a Wetland?	Yes	No
Remarks:	100				
Upland data point taken abov	e toe or stope for a sat	turated i Elvi wetiand loc	агес он а поочрат.		
HYDROLOGY					
Wetland Hydrology Indicat	ors:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum	of one is required; che	eck all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	-	B14)	Sparsely Veg	getated Concave Surface (B8)	
High Water Table (A2)		_ Hydrogen Sulfide Ode		Drainage Pat	
Saturation (A3)		Oxidized Rhizosphere		Moss Trim Li	
Water Marks (B1)		_ Presence of Reduced		-	Water Table (C2)
Sediment Deposits (B2)	_	_ Recent Iron Reductio		Crayfish Buri	
Drift Deposits (B3)	_	_ Thin Muck Surface (C			sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	_ Other (Explain in Ren	narks)		tressed Plants (D1)
Iron Deposits (B5) Inundation Visible on Ae	rial Imagery (R7)			Geomorphic Shallow Aqui	
Water-Stained Leaves (E	• • • •				phic Relief (D4)
Aquatic Fauna (B13)	30)			FAC-Neutral	. , ,
Field Observations:					
Surface Water Present?	Yes No	, Depth (inches):			
Water Table Present?		Depth (inches):			
Saturation Present?		Depth (inches):		vdrology Presen	it? Yes No
(includes capillary fringe)		. , , , , , , , , , , , , , , , , , , ,			
Describe Recorded Data (str	eam gauge, monitoring	g weii, aeriai pnotos, pre	vious inspections), ir avai	iable:	
Remarks:					
no hydrology indicators prese	nt				

	<u>*</u>	ames of	-		Sampling Point: wnea402_u
Tree Stratum (Plot size:	30 \	Absolute % Cover	Dominant Ir Species?		Dominance Test worksheet:
1)	76 COVEI	Species:	Status	Number of Dominant Species That Are OBL, FACW, or FAC:0 (A)
2					That Ale OBE, I AGW, OI I AG (A)
_					Total Number of Dominant Species Across All Strata: 3 (B)
,. <u> </u>			· 		Species Across All Strata: (B)
T			· 		Percent of Dominant Species That Are OBL_FACW_or FAC: 0 (A/B)
•	_		· 		That Are OBL, FACW, or FAC: (A/B)
ö 7.			· 		Prevalence Index worksheet:
		0	= Total Cove	<u> </u>	Total % Cover of: Multiply by:
	50% of total cover:		total cover:	0	OBL species
Sapling/Shrub Stratum (Plot siz	e: 15)		_		FACW species10
Rubus argutus	,	10	Yes	FACU	FAC species $\frac{5}{}$ x 3 = $\frac{15}{}$
Rosa multiflora		5	Yes	FACU	FACU species 94 x 4 = 376
3			·		UPL species0 x 5 =0
					Column Totals: (A) (B)
_			· 		0.77
5 5					Prevalence Index = B/A =3.77
			·		Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
3					2 - Dominance Test is >50%
9		15	Total Cava		3 - Prevalence Index is ≤3.0 ¹
	50% of total cover: 7.5		= Total Cover total cover:	3	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:	5	2070 01	total oover		data in Remarks or on a separate sheet)
1 Schedonorus arundinaceus	/	65	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Andropogon virginicus		10	No	FACU	
3. Juncus effusus		10	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
s Juncus tenuis		5	No	FAC	be present, unless disturbed or problematic.
5. Solanum carolinense		4	No	FACU	Definitions of Four Vegetation Strata:
			· 		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
6					more in diameter at breast height (DBH), regardless of
7					height.
8. <u> </u>					Sapling/Shrub – Woody plants, excluding vines, less
9					than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
					iii) tali.
11		94	T / 10		Herb – All herbaceous (non-woody) plants, regardless
	50% of total cover: 47		= Total Cover total cover:		of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot size:	20	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
,	/				height.
			·		
3					
3. 4.					Hydrophytic
3			·		Vegetation
3. 4.		0	= Total Cover	^	

Sampling Point: wnea402_u

SOIL

Depth	Matrix		Redox Features	_		
(inches)	Color (moist)	%	Color (moist) % Type ¹ Loc ²		Remai	rks
0-3	7.5YR 2.5/3	100		SL		
3-10	7.5YR 3/3	100		SCL		
10-18	7.5YR 3/4	100		SCL		
10-10	7.511 3/4					
					_	
				<u> </u>		
	-					
	-					
					_	
¹ Type: C=C	oncentration, D=Dep	oletion, RM=R	educed Matrix, MS=Masked Sand Grains.	² Location:	PL=Pore Lining, M=Ma	trix.
Hydric Soil					licators for Problemation	
Histosol	I (A1)		Dark Surface (S7)		2 cm Muck (A10) (MLR	RA 147)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA 1	 47, 148)	Coast Prairie Redox (A	•
	istic (A3)		Thin Dark Surface (S9) (MLRA 147, 14		(MLRA 147, 148)	•
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	<u></u>	Piedmont Floodplain S	oils (F19)
	d Layers (A5)		Depleted Matrix (F3)	<u></u>	(MLRA 136, 147)	. ,
2 cm Mi	uck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow Dark Sur	face (TF12)
Deplete	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)		Other (Explain in Rema	arks)
	ark Surface (A12)		Redox Depressions (F8)			
Sandy N	Mucky Mineral (S1) (LRR N,	Iron-Manganese Masses (F12) (LRR N	,		
MLR	A 147, 148)		MLRA 136)			
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 122)		Indicators of hydrophytic	
Sandy F	Redox (S5)		Piedmont Floodplain Soils (F19) (MLRA	A 148)	wetland hydrology must	be present,
	d Matrix (S6)		Red Parent Material (F21) (MLRA 127,	147)	unless disturbed or prob	lematic.
Restrictive	Layer (if observed)	:				
Type:			_			
Depth (in	ches):		<u>_</u>	Hydric S	oil Present? Yes	No <u> </u>
Remarks:				L		



Photo 1 Upland data point WNEA402_u facing south



Photo 2 Upland data point WNEA402_u facing west

Project/Site: Atlantic Coast Pip	eline	City/0	County: Nelson County		Sampling Date: 8/26/2016		
Applicant/Owner: Dominion				State: VA	Sampling Point: Wney001e_w		
Investigator(s): KO, SA		Secti	ion, Township, Range: No	PLSS in this area	_ , , ,		
Landform (hillslope, terrace, etc							
Subregion (LRR or MLRA): N	,	l at: 37.79469218	Long: -78.	79547769	Datum: WGS 1984		
Soil Map Unit Name: Thurmon	t loam, 7 to 15 pe	ercent slopes		NWI classific	ation: PEM		
Are climatic / hydrologic conditi	ions on the site ty						
Are Vegetation, Soil	, or Hydrolog	gy significantly distu	rbed? Are "Normal	l Circumstances" p	resent? Yes No		
Are Vegetation, Soil							
					, important features, etc.		
Hydrophytic Vegetation Prese	ent? Yes	✓ No					
Hydric Soil Present?	Yes	✓ No	Is the Sampled Area within a Wetland?	Voc. V	No		
Wetland Hydrology Present?		✓ No	within a wetiand?	res	NO		
Remarks: Vegetation in wetland Wney00	01 is disturbed by	mowing					
vegetation in wettand wheyou	it is disturbed by	mowing.					
HYDROLOGY							
Wetland Hydrology Indicato					tors (minimum of two required)		
Primary Indicators (minimum	of one is required		(5)	Surface Soil			
Surface Water (A1)		True Aquatic Plants			etated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Oc		Drainage Pat			
Saturation (A3)		Oxidized Rhizospher		Moss Trim Li			
Water Marks (B1)		Presence of Reduce		Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction					
Drift Deposits (B3)		Thin Muck Surface (sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Re	marks)		ressed Plants (D1)		
Iron Deposits (B5)	:-! !			Geomorphic			
Inundation Visible on Aer				Shallow Aquitard (D3) Microtopographic Relief (D4)			
Water-Stained Leaves (B ✓ Aquatic Fauna (B13)	9)			✓ FAC-Neutral			
			1	FAC-Neutral	Test (D5)		
Field Observations: Surface Water Present?	Ves V No	Depth (inches):	3				
Water Table Present?		Depth (inches):	0				
Saturation Present?		Depth (inches):	0 Wetland b	lydrology Presen	t? Yes ✔ No		
(includes capillary fringe)	res No	Deptif (inches)	welland r	tydrology Fresen	tr res No		
Describe Recorded Data (stre	eam gauge, monit	toring well, aerial photos, pro	evious inspections), if ava	ilable:			
Remarks:							
Tromano.							

Sampling	Point: Wney001e_	W

0	Absolute	Dominant I		Dominance Test worksheet:				
Tree Stratum (Plot size: 0)	% Cover 0	Species?	Status	Number of Dominant Species				
1. none				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: 66.6666666 (A/B)				
6								
7				Prevalence Index worksheet:				
	0	= Total Cove	r	Total % Cover of: Multiply by:				
50% of total cover:0	20% of	total cover:_	0	OBL species 90 x 1 = 90				
Sapling/Shrub Stratum (Plot size: 0				FACW species x 2 =				
1. Alnus incana	5	Yes	FACU	FAC species x 3 =				
2				FACU species5 x 4 =20				
3				UPL species0 x 5 =0				
4				Column Totals:100(A)120(B)				
5								
				Prevalence Index = B/A =1.2				
6				Hydrophytic Vegetation Indicators:				
7				1 - Rapid Test for Hydrophytic Vegetation				
8				✓ 2 - Dominance Test is >50%				
9	5			✓ 3 - Prevalence Index is ≤3.0 ¹				
50% of total cover: 2.5		= Total Cove	r 1	4 - Morphological Adaptations ¹ (Provide supporting				
0070 01 total 00001.	20% of	total cover:_		data in Remarks or on a separate sheet)				
Herb Stratum (Plot size: 0)	5 0	V	ODI	Problematic Hydrophytic Vegetation ¹ (Explain)				
1. Leersia oryzoides	50	Yes	OBL	<u> </u>				
2. Scirpus atrovirens	25	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must				
3. Persicaria sagittata	15	No	OBL	be present, unless disturbed or problematic.				
4. Eupatorium perfoliatum	5	No	FACW	Definitions of Four Vegetation Strata:				
5								
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of				
7				height.				
8								
9.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1				
10.				m) tall.				
11.				Hart All hart access (accessed by placets accessed by				
· · ·	95	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
50% of total cover:47.5		total cover:_						
Woody Vine Stratum (Plot size: 0)		_		Woody vine – All woody vines greater than 3.28 ft in height.				
1. none	0			neight.				
2.								
3								
4				Hydrophytic				
5	0	T 0		Vegetation Present? Yes No				
50% of total cover: 0		= Total Cove total cover:	^	100 <u> </u>				
0070 01 total 00701		total cover:_						
Remarks: (Include photo numbers here or on a separate sl	neet.)							

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth	Matrix		Redox			_				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks		
0-8	2.5Y 4/1	85	10YR 3/6	15	С	M	SIC	Refusal due to rock.		
·										
¹ Type: C=Co	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.		L=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:						Indica	ators for Problematic Hydric Soils ³ :		
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)		
	pipedon (A2)		Polyvalue Be		ce (S8) (N	ILRA 147.		Coast Prairie Redox (A16)		
Black Hi			Thin Dark Su				, `	(MLRA 147, 148)		
	n Sulfide (A4)		Loamy Gleye			., .,	Р	riedmont Floodplain Soils (F19)		
	d Layers (A5)		<u>✓</u> Depleted Mat		,		:	(MLRA 136, 147)		
	ick (A10) (LRR N)		Redox Dark S		:6)		V	'ery Shallow Dark Surface (TF12)		
	d Below Dark Surface	(A11)	Depleted Dar	,				Other (Explain in Remarks)		
	ark Surface (A12)	(, , , ,	Redox Depre				_ ~	And (Explain in Normanie)		
	lucky Mineral (S1) (L l	RR N	Iron-Mangane			RR N				
	147, 148)	,	MLRA 130		00 (1 12) (1					
	Gleyed Matrix (S4)		Umbric Surfa		MI DA 13	6 122)	3Ind	icators of hydrophytic vegetation and		
	ledox (S5)		Piedmont Flo					etland hydrology must be present,		
	Matrix (S6)		Red Parent M							
			Red Falent iv	ialenai (F	ZI) (IVILK	A 121, 141) un	less disturbed or problematic.		
- roc	_ayer (if observed):									
Type: roc	0									
Depth (inc	ches): <u>8</u>						Hydric Soil	Present? Yes No		
Remarks:										



Wetland data point wney001e_w facing southeast



Wetland data point wney001e_w facing northwest

Project/Site: Atlantic Coast Pipeline			City/0	County: Nelson County		Sampling Date: 8/26/2016				
Applicant/Owner: Dominion					State: VA	Sampling Point: Wney001_u				
				ion, Township, Range: N						
Landform (hillslope, terrace, etc.): Footslo										
Subregion (LRR or MLRA): N										
Soil Map Unit Name: Thurmont loam, 7 to	15 percent s	lopes			NWI classifi	cation: UPLAND				
Are climatic / hydrologic conditions on the										
Are Vegetation, Soil, or Hy										
Are Vegetation, Soil, or Hy										
SUMMARY OF FINDINGS – Atta										
				T	<u> </u>					
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes			Is the Sampled Area		.,				
Wetland Hydrology Present?	Yes			within a Wetland?	Yes	No				
Remarks:										
HADBOLOCA										
HYDROLOGY Wetland Hydrology Indicators:					Socondary India	eators (minimum of two required)				
,	auirod: obool	call that	annlu)							
Primary Indicators (minimum of one is re			uatic Plants	(D14)	Surface Soil Cracks (B6)					
Surface Water (A1) High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)									
Saturation (A3)	_	Trim Lines (B16)								
Water Marks (B1)	s (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2)									
Sediment Deposits (B2)	ed Iron (C4) on in Tilled Soils (C6)									
Drift Deposits (B3)			ick Surface (Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)			Explain in Re		Stunted or Stressed Plants (D1)					
Iron Deposits (B5)					Geomorphic Position (D2)					
Inundation Visible on Aerial Imagery	(B7)				Shallow Aqu	uitard (D3)				
Water-Stained Leaves (B9)						raphic Relief (D4)				
Aquatic Fauna (B13)					FAC-Neutra	ıl Test (D5)				
Field Observations:										
	_ No									
	_ No									
Saturation Present? Yes (includes capillary fringe)	No	Depth ((inches):	Wetland	Wetland Hydrology Present? Yes No					
Describe Recorded Data (stream gauge,	monitoring w	vell, aeria	al photos, pr	evious inspections), if av	ailable:					
Remarks:										
Remarks.										

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: Wney001_u

0		Absolute	Dominant In		Dominance Test worksheet:	
Tree Stratum (Plot size:0)	% Cover	Species?	Status	Number of Dominant Species	
1. none		<u> </u>			That Are OBL, FACW, or FAC:1	A)
2					Tetal Newhorld Device of	
3					Total Number of Dominant Species Across All Strata: 3	В)
4					Species / to/oss / til otrata.	٥,
					Percent of Dominant Species	
5					That Are OBL, FACW, or FAC: 33.3333333333333333333333333333333333	A/B)
6					Prevalence Index worksheet:	
7						
		0 =	= Total Cover		Total % Cover of: Multiply by:	
50%	of total cover: 0	20% of	total cover:	0	OBL species X I =	
Sapling/Shrub Stratum (Plot size:	0				FACW species x 2 =	
1 none		0			FAC species5 x 3 =15	
					FACU species5	
2					5 25	
3					15 60	<i>(</i>
4					Column Totals:(A)	(B)
5					Prevalence Index = B/A = 4	
6					Trevalence index = b/A =	
					Hydrophytic Vegetation Indicators:	
7			-		1 - Rapid Test for Hydrophytic Vegetation	
8			-		2 - Dominance Test is >50%	
9					3 - Prevalence Index is ≤3.0 ¹	
		0	= Total Cover		4 - Morphological Adaptations ¹ (Provide suppo	rting
50%	of total cover: 0	20% of	total cover:	0		rung
Herb Stratum (Plot size: 0)				data in Remarks or on a separate sheet)	
1 Dichanthelium clandestinum	,	5	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)	
2. Plantago major		5	Yes	FACU		
3. Digitaria ischaemum		5	Yes	UPL	¹ Indicators of hydric soil and wetland hydrology mu	st
3. Digitaria iscriaemum			165	UFL	be present, unless disturbed or problematic.	
4			-		Definitions of Four Vegetation Strata:	
5						
6					Tree – Woody plants, excluding vines, 3 in. (7.6 cm	n) or
7					more in diameter at breast height (DBH), regardles height.	S OI
					noight.	
8					Sapling/Shrub – Woody plants, excluding vines, le	ess
9					than 3 in. DBH and greater than or equal to 3.28 ft	(1
10					m) tall.	
11					Herb – All herbaceous (non-woody) plants, regardl	ess
		15	= Total Cover		of size, and woody plants less than 3.28 ft tall.	000
50%	of total cover: 7.5		total cover:	3		
Woody Vine Stratum (Plot size:	0				Woody vine – All woody vines greater than 3.28 ft	in
1. none	/	0			height.	
2						
3						
4					Hydrophytic	
5.					Vegetation	
		0 -	= Total Cover		Present? Yes No	
50%	of total cover: 0		total cover:	0		
	<u></u>					
Remarks: (Include photo numbers he	re or on a separate sn	ieet.)				

	ription: (Describe t	o the depth				or confirm	the absen	ce of indicat	tors.)		
Depth	Matrix		Redo	x Features	S1	. 2	_		_		
(inches)	Color (moist)	<u></u> %	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>		Remarl	KS	
								_			
¹ Type: C=Co	oncentration, D=Depl	etion, RM=Re	educed Matrix, MS	S=Masked	Sand Gra	ains.	² Location:	PL=Pore Lir	ning, M=Mat	rix.	
Hydric Soil I							Ind	icators for F	Problematic	Hydric Soils	s ³ :
Histosol			Dark Surface	(S7)				2 cm Muck	(A10) (MLR	A 147)	
	pipedon (A2)	•	Polyvalue Be		ce (S8) (N	LRA 147	148)	Coast Prairi			
Black His		•	Tolyvalde Be		. , .			(MLRA 1		,	
	n Sulfide (A4)		Loamy Gleye	, ,	•	,0,		Piedmont F		nils (F19)	
	Layers (A5)	•	Depleted Ma		1 2)		_	(MLRA 1		/// (1 1 <i>0</i>)	
	ck (A10) (LRR N)		Redox Dark		:6\				w Dark Surf	200 (TE12)	
	Below Dark Surface	(111)	Nedox Dark \	•	,		_	Other (Expl			
	ark Surface (A12)	(ATT)					_	Other (Expi	alli III Nellia	11.5)	
		DD N	Redox Depre			DD N					
	lucky Mineral (S1) (L	KK N,	Iron-Mangan		es (F12) (1	LKK N,					
	147, 148)		MLRA 13	-			3,				
	leyed Matrix (S4)		Umbric Surfa							vegetation and	ıd
	edox (S5)	;	Piedmont Flo					wetland hydr			
	Matrix (S6)		Red Parent N	faterial (F	21) (MLR .	A 127, 147	<u>') </u>	unless distur	bed or probl	ematic.	
Restrictive L	ayer (if observed):										
Type: gra	ivei		_								
Depth (inc	ches): 0						Hydric So	oil Present?	Yes	No 🗸	/
Remarks:							1 -				
	due to gravel road.										
rager relacar	due to graver road.										



Upland data point wney001_u facing south



Upland data point wney001_u taken facing north

Project/Site: Atlantic Coast Pipeline		City/C	county: Nelson		Sampling Date: 5/4/2015				
Applicant/Owner: Dominion					Sampling Point: wnea050s_w				
			on, Township, Range: No						
Landform (hillslope, terrace, etc.): dr									
Subregion (LRR or MLRA). P	l at·	37.71220927	Long78.	7768641	Datum: WGS 1984				
Soil Map Unit Name: Elioak clay loar	n, 7 to 15 percent	slopes, severely erod	ed	NWI classific	eation: None				
Are climatic / hydrologic conditions o	n the site typical fo	r this time of year? Y	'es No	(If no, explain in R	emarks.)				
Are Vegetation, Soil,	or Hydrology	significantly distur	bed? Are "Normal	l Circumstances" p	present? Yes No				
Are Vegetation, Soil,									
SUMMARY OF FINDINGS -									
Hydrophytic Vegetation Present?	Yes 🗸	No							
Hydric Soil Present?		No	Is the Sampled Area within a Wetland?	Voc. V	No				
Wetland Hydrology Present?		No	within a wetland:	165					
Remarks:									
HYDROLOGY									
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)				
Primary Indicators (minimum of one	is required; check	all that apply)		Surface Soil Cracks (B6)					
Surface Water (A1)		True Aquatic Plants (Hydrogen Sulfide Od			getated Concave Surface (B8)				
High Water Table (A2)	Drainage Pa	tterns (B10)							
Saturation (A3)	• , ,	Moss Trim L	` '						
Water Marks (B1)		Presence of Reduced			Water Table (C2)				
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur					
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)				
Algal Mat or Crust (B4) Iron Deposits (B5)		Other (Explain in Rer	narks)	Stunted or Stressed Plants (D1)					
Inundation Visible on Aerial Im-	agery (R7)			✓ Geomorphic Position (D2)✓ Shallow Aquitard (D3)					
Water-Stained Leaves (B9)	agory (Dr)			Microtopographic Relief (D4)					
Aquatic Fauna (B13)				FAC-Neutral Test (D5)					
Field Observations:					,				
	s No 🗸	Depth (inches):							
	No		6						
	No		4 Wetland H	Hydrology Preser	nt? Yes ✔ No				
(includes capillary fringe)									
Describe Recorded Data (stream g	auge, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ailable:					
Remarks:									
Normanie.									

				Sampling Point: wneau50s_w
20	Absolute	Dominant I		Dominance Test worksheet:
<u>Free Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
k				Description of Description
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)
S				That rice OBE, Friew, of Frie (775)
7.				Prevalence Index worksheet:
	0	= Total Cove		Total % Cover of: Multiply by:
50% of total cover:		total cover:_	0	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)	20,00.			FACW species 65 x 2 = 130
Pinus taeda	25	Yes	FAC	FAC species 66 x 3 = 198
Acer rubrum	5	No	FAC	FACU species 12 x 4 = 48
3. Liriodendron tulipifera	4	No	FACU	UPL species0 x 5 =0
···	4	No	FAC	1/13 376
Aralia spinosa		INO	-FAC	Column Totals: (A) (B)
5				Prevalence Index = B/A =2.62
5				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
3				2 - Dominance Test is >50%
)				<u> </u>
	38	= Total Cove		✓ 3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 19		total cover:	7.6	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size:5)	<u></u>	_		data in Remarks or on a separate sheet)
Scirpus cyperinus	65	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
Eutrochium purpureum	12	No	FAC	
Athyrium asplenioides	8	No	FAC	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
ł				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
5				more in diameter at breast height (DBH), regardless of
7				height.
3				Sapling/Shrub – Woody plants, excluding vines, less
)				than 3 in. DBH and greater than or equal to 3.28 ft (1
0				m) tall.
11.		·		Hork All back assess (assessed a) planta assessed
	85	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 42.5		total cover:	17	
		_		Woody vine - All woody vines greater than 3.28 ft in
Moody Vine Stratum (Plot size 30)				
(i lot size.	12	Yes	FAC	height.
Lonicera japonica	<u>12</u> 8	Yes Yes	FACU	
Lonicera japonica Parthenocissus quinquefolia		Yes Yes	FACU FACU	
Lonicera japonica Parthenocissus quinquefolia 3.				
Lonicera japonica Parthenocissus quinquefolia				
Lonicera japonica Parthenocissus quinquefolia				Hydrophytic Vegetation
Lonicera japonica Parthenocissus quinquefolia .	20	Yes	FACU	height. Hydrophytic
Lonicera japonica Parthenocissus quinquefolia .	20	Yes	FACU	Hydrophytic Vegetation

Profile Des	cription: (Describe	to the dep	oth needed to docum	nent the i	ndicator	or confirm	the absenc	e of indicators.)
Depth	Matrix		Redo	x Feature	S1	. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-5	7.5YR 5/3	100					SCL	
5-10	7.5YR 4/2	96	7.5YR 4/6	4	С	PL/M	SCL	
10-20	7.5YR 5/1	96	7.5YR 4/6	4	С	PL/M	SCL	-
					-			
	-					· ——		_
								_
								-
					-	·		-
						·		-
¹ Type: C=C	Concentration, D=Dep	oletion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators:	•	,					cators for Problematic Hydric Soils ³ :
Histoso	l (A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	. ,	ce (S8) (N	/ILRA 147,		Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su	rface (S9)	(MLRA			(MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		_	Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mar					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	•	•			Very Shallow Dark Surface (TF12)
	ed Below Dark Surfac	ce (A11)	Depleted Dar					Other (Explain in Remarks)
	Park Surface (A12)	LDD N	Redox Depre			I DD N		
	Mucky Mineral (S1) (A 147, 148)	LKK N,	Iron-Mangan MLRA 13		es (F12) (LKK N,		
	Gleyed Matrix (S4)		Umbric Surfa		MIRA 13	86 122)	³ In	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					vetland hydrology must be present,
	d Matrix (S6)		Red Parent N					nless disturbed or problematic.
	Layer (if observed)	:		(-	, (,	, <u> </u>	
Type: _no	one `							
Depth (ir							Hydric So	il Present? Yes No
Remarks:	iones).						Tiyano oo	11 1000IR: 100 110
Nemaiks.								



Photo 1 Wetland data point WNEA050s_w facing east



Photo 2
Wetland data point WNEA050s_w facing west

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Nelson		Sampling Date: <u>5/4/2015</u>		
Applicant/Owner: Dominion			•		Sampling Point: wnea050_u		
		Section, Township, Range: No PLSS in this area					
Landform (hillslope, terrace, etc.): slop					Slope (%): <u>10</u>		
Subregion (LRR or MLRA): P		37.71216244	l ong: -78.7	77683467	Datum: WGS 1984		
Soil Map Unit Name: Elioak clay loam,	7 to 15 percent s	lopes, severely erode	ed	NWI classifica	ation: None		
Are climatic / hydrologic conditions on t							
Are Vegetation, Soil, or							
Are Vegetation, Soil, or							
SUMMARY OF FINDINGS – A							
				, , , , , , , , , , , , , , , , , , , ,	important reatures, etc.		
Hydrophytic Vegetation Present?	Yes		Is the Sampled Area				
Hydric Soil Present?	Yes	No	within a Wetland?	Yes	No		
Wetland Hydrology Present? Remarks:	Yes	No					
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum of one is	roquirod: abook	all that apply)					
-	-	rue Aquatic Plants (I	D14\	Surface Soil (
Surface Water (A1) High Water Table (A2)		or (C1)	Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)				
Saturation (A3)		es on Living Roots (C3)	Moss Trim Lir				
Water Marks (B1)		Presence of Reduced	-	Dry-Season Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reduction					
Drift Deposits (B3)	т	hin Muck Surface (C	(7)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	c	Other (Explain in Ren	narks)	Stunted or St	ressed Plants (D1)		
Iron Deposits (B5)				Geomorphic I			
Inundation Visible on Aerial Imag	ery (B7)			Shallow Aquit			
Water-Stained Leaves (B9)					phic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations: Surface Water Present? Yes	No. V	Depth (inches):					
		Depth (inches):					
		Depth (inches):		lydrology Present	? Yes No ✔		
(includes capillary fringe)					.: res No		
Describe Recorded Data (stream gau	ge, monitoring we	ell, aerial photos, pre	vious inspections), if ava	ilable:			
Remarks:							
no hydrology indicators present							

VEGETATION (Four Strata) - Use scientific names of plants.

50% of total cover: __ 15

50% of total cover: 46.5

50% of total cover: 30

50% of total cover: ___

30

Tree Stratum (Plot size: Quercus alba 2. Liriodendron tulipifera

Sapling/Shrub Stratum (Plot size:_

Quercus rubra

1 Pinus taeda

3. Acer rubrum

4. Prunus serotina

5. Cornus florida

2. Liriodendron tulipifera

Herb Stratum (Plot size: 1. Athyrium asplenioides

Woody Vine Stratum (Plot size:

3. Parthenocissus quinquefolia

1. Rubus argutus

2. Lonicera japonica

mes of	plants.		Sampling Point: wnea050_u						
Absolute	Dominant		Dominance Test worksheet:						
% Cover 5	Species? Yes	Status FACU	Number of Dominant Species That Are OBL FACW or FAC: 3						
4	Yes	FACU	That Are OBL, FACW, or FAC:3 (A)						
3	Yes	FACU	Total Number of Dominant Species Across All Strata: 7 (B)						
			Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85714285 (A/B)						
			Prevalence Index worksheet:						
12			Total % Cover of: Multiply by:						
	= Total Cove	2.4	OBL species $0 \times 1 = 0$						
20% of	total cover:		FACW species 0 x 2 = 0						
65	Yes	FAC	FAC species 87 x 3 = 261						
10	No	FACU	FACU species 61 x 4 = 244						
10	No	FAC	$\begin{array}{cccc} & & & & & & & & \\ & & & & & & & \\ & & & &$						
	No No	FACU	Column Totals: 148 (A) 505 (B)						
3	No	FACU	Coldinii Totals (A) (B)						
<u> </u>		FACO	Prevalence Index = B/A =3.41						
			Hydrophytic Vegetation Indicators:						
			1 - Rapid Test for Hydrophytic Vegetation						
			2 - Dominance Test is >50%						
93			3 - Prevalence Index is ≤3.0 ¹						
	= Total Cover:	10.6	4 - Morphological Adaptations ¹ (Provide supportin						
20% 01	lotal cover.		data in Remarks or on a separate sheet)						
3	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)						
			¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.						
			Definitions of Four Vegetation Strata:						
			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.						
			Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.						
3	= Total Cove	 er	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.						
20% of	total cover:	0.6	Woody vine – All woody vines greater than 3.28 ft in						
25	Yes	FACU	height.						
9	Yes	FAC							
6	No	FACU							
			Hydrophytic						

3 ___ = Total Cover 1.5 20% of total cover: 0.6

= Total Cover

20% of total cover:

Vegetation

Present?

Remarks: (Include photo numbers here or on a separate sheet.)

Yes _____ No ___

Profile Desc	ription: (Describe	to the depth	needed to docum	nent the i	ndicator	or confirm	the absen	ce of indicators.)	
Depth	Matrix		Redo	x Features	3				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-9	7.5YR 4/4	100					SCL		
9-22	7.5YR 4/6	100					SCL		
					-		-	_	
								<u> </u>	
	-				-		-		
1							2	<u> </u>	
	oncentration, D=Depl	etion, RM=R	Reduced Matrix, MS	S=Masked	Sand Gra	ains.		PL=Pore Lining, M=Matrix.	:103.
Hydric Soil							Ind	icators for Problematic Hydric So	iis :
Histosol			Dark Surface		(O =) ==			2 cm Muck (A10) (MLRA 147)	
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)	
Black Hi			Thin Dark Su			47, 148)		(MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gleye		F2)		_	Piedmont Floodplain Soils (F19)	
	d Layers (A5)		Depleted Mar		.0)			(MLRA 136, 147) Very Shallow Dark Surface (TF12)	
	ick (A10) (LRR N) d Below Dark Surface	\((\ 1 1 \)	Redox Dark S Depleted Dar				_	Other (Explain in Remarks)	
	ark Surface (A12)	(A11)	Redox Depre				_	Other (Explain in Remarks)	
	fucky Mineral (S1) (L	RR N	Iron-Mangan			I RR N			
	A 147, 148)	,	MLRA 13		33 (1 12) (Little it,			
	Gleyed Matrix (S4)		Umbric Surfa		MLRA 13	6. 122)	³	ndicators of hydrophytic vegetation a	and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,	
	Matrix (S6)		Red Parent N					unless disturbed or problematic.	
	Layer (if observed):				, ,		<u>, </u>	·	
Type: no									
Depth (in			_				Hydric S	oil Present? Yes No	~
Remarks:			_				,		
Remarks.									



Photo 1Upland data point WNEA050_u facing southeast



Photo 2
Upland data point WNEA050_u facing southwest

Project/Site: ACP	City/County: <u>Ne</u>	lson	Sampling Date: 7/14/15
Applicant/Owner: _ Pominion			_ Sampling Point: Wnepb01f
Investigator(s): FST (Turnbull, Po:	per) Section, Township,		
Landform (hillslope, terrace, etc.): drainage.	Local relief (concave, c	onvex, none): Conca	1eSlope (%): 15-20')
Subregion (LRR or MLRA): LLP U Lat:		.ong: -78.74773	Datum; W6584
Soil Map Unit Name: Bugley Channery 5		10Des NWI classific	ation: PFO
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology		re "Normal Circumstances" p	
Are Vegetation, Soil, or Hydrology	•	needed, explain any answe	
SUMMARY OF FINDINGS – Attach site m		•	•
	1		
	No Is the Samp		^
Hydric Soil Present? Yes	/	iand? Yes <u>∨</u>	No
Wetland Hydrology Present? Yes Remarks:	_ No	·	·
Remarks.			
HYDROLOGY	· · · · · · · · · · · · · · · · · · ·	-	
Wetland Hydrology Indicators:		· ·	tors (minimum of two required)
Primary Indicators (minimum of one is required; check		Surface Soil	` '
Surface Water (A1)	True Aquatic Plants (B14)		getated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Pa	
Saturation (A3)	Oxidized Rhizospheres on Living Re	· · · ·	, ,
Water Marks (B1)	Presence of Reduced Iron (C4)		Water Table (C2)
Sediment Deposits (B2) Drift Deposits (B3)	Recent Iron Reduction in Tilled Soil		· · ·
Algal Mat or Crust (B4)	Thin Muck Surface (C7) Other (Explain in Remarks)		sible on Aerial Imagery (C9)
Iron Deposits (B5)	Other (Explain in Nemarks)		tressed Plants (D1) Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu	
Water-Stained Leaves (B9)		· ·	aphic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral	· · · · · · · · · · · · · · · · · · ·
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		1
	Depth (inches): 50 (face		
Saturation Present? Yes No		Wetland Hydrology Preser	nt? Yes No
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring v	vell, aerial photos, previous inspecti	ons), if available:	
Remarks:			
portions of wetland	1 is used to 1		
To or welland	y mundared		
			1
			1
			ļ

6	-5	= Total Cov		Prevalence Index worksheet:
50% of total cover: 2:				Total % Cover of: Multiply by:
Sapling Stratum (Plot size: 30f+ x 30f4)		.	Cla (1)	OBL species
1. Fagus grandifolia		•	<u>PhW</u>	FAC species 30 x3 = 90
				FACU species 10 x4= 40
3				UPL species x 5 =
5				(-)
6		· 		Prevalence Index = B/A =
7		= Total Cov		Hydrophytic Vegetation Indicators:
50% of total cover: 2 i.3 Shrub Stratum (Plot size: <u>30++ x 30++</u>)	20% of	total cover	: 	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
1. hone				3 - Prevalence Index is ≤3.0¹
2				4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
3				Problematic Hydrophytic Vegetation¹ (Explain)
4				
5 6				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		= Total Co	ver	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	f total cover	:	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size: 30ff x 30ff)	70	W	-14	approximately 20 ft (6 m) or more in height and 3 in.
1. Athyrium aspenioides 2. Vactinium corymbosum	10	<u>À</u>	FAC	(7.6 cm) or larger in diameter at breast height (DBH).
34				Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
56				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
7		_		Herb - All herbaceous (non-woody) plants, including
8. 9.				herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
10				
11	- 146			Woody vine - All woody vines, regardless of height.
2		= Total Co	444	
50% of total cover: 2. Woody Vine Stratum (Plot size: 30ff x 30ff)	20% o	f total cove	r:_ <i>Q</i>	
1. Mone		_		
2				
3				
4		_		
5		_		Hydrophytic
	()	= 1000 (2		Vegetation

_	_		
c	~	ш	
•		ш	

Sampling Point: _____

Profile Desc	ription: (Describe	to the depti				or confirm	the absence	of indicators.)
Depth	Matrix		Redo	k Features				
(inches)	Color (moist)	%	Color (moist)		Type ¹	_Loc ²	<u>Texture</u>	Remarks
0-4	2.574/2	100	104R516	5		<u>M</u>	<u> </u>	
4-20	2.5 44/1	100					CL	
								
							-	
								
							·	
1								
	ncentration, D=Dep	letion, RM=l	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: P	L=Pore Lining, M=Matrix.
Hydric Soil I							Indica	ators for Problematic Hydric Solls ³ :
Histosol			Dark Surface					cm Muck (A10) (MLRA 147)
	ipedon (A2)		Polyvalue Be			_	148) C	Coast Prairie Redox (A16)
Black His			Thin Dark Su			47, 148)		(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye		F2)		P	Piedmont Floodplain Soils (F19)
	Layers (A5)		✓ Depleted Mat					(MLRA 136, 147)
	ck (A10) (LRR N) Below Dark Surfac	- (844)	Redox Dark S					/ery Shallow Dark Surface (TF12)
	rk Surface (A12)	# (A11)	Depleted Dar Redox Depre					Other (Explain in Remarks)
	ucky Mineral (S1) (L	PP N	Iron-Mangan			DDN		
	. 147, 148)		MLRA 13		:5 (1°12) (1			
	leyed Matrix (S4)		Umbric Surfa		MLRA 13	6, 122)	3Ind	licators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					aless disturbed or problematic.
	ayer (if observed):				/ (1	
Type:								
	ches):						Hydric Soil	I Present? Yes _ \(\sqrt{No}
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						nyunc son	resentr res 1/2 No
Remarks:								
		•						i
								,

Environmental Field Surveys Wetland Photo Page



Wetland data point wnep001f_w facing west.



Wetland data point wnep001f_w facing south.

Project/Site: ACP	City/County: Nelson Sampling Date: 7/14/15
Applicant/Owner: Dominion	State: VA Sampling Point: Whe 2001.
Investigator(s): ESICTORNBULL RODER	Section, Township, Range:
	Local relief (concave, convex, none): LONLANC Slope (%): 15-20
Subregion (LRR or MLRA): LLP P U Lat: 37. (
Soil Map Unit Name: Bugley Channery 5: It los	
Are climatic / hydrologic conditions on the site typical for this time	
Are Vegetation, Soil, or Hydrology signific	
Are Vegetation, Soil, or Hydrology natura	· · · · · · · · · · · · · · · · · · ·
	, contract in terms in the intermedia
SUMMARY OF FINDINGS – Attach site map show	ving sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	In the Country of Aug.
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	
	atic Plants (B14) Sparsely Vegetated Concave Surface (B8)
	Sulfide Odor (C1) Drainage Patterns (B10)
, · · · · · · · · · · · · · · · · · · ·	Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
	of Reduced Iron (C4) Moss //III Lilles (B10)
	on Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Surface (C7) Saturation Visible on Aerial Imagery (C9)
	plain in Remarks) Saturation visible on Aerial imagery (C9)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Geomorphic Position (D2) Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	1 AO-Neutral Test (D3)
	ches): NA
Water Table Present? Yes No Depth (in	ches); 171
John (1)	
Saturation Present? Yes No Depth (ir (includes capillary fringe)	ches): 100 Wetland Hydrology Present? Yes No 1
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Remarks:	

VEGETATION (Five Strata	– lise scienti	fic names of	nlante
* - O - 1 A 1 1 O 1 1	i ivo Otiata,	- Cae actetiti	no names or	piants.

Sampling Point: Wnco 001-W Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: 30ff x 30ff) % Cover Species? Status Number of Dominant Species 1. Fagus granditolia That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: 5 = Total Cover Total % Cover of: Multiply by: 50% of total cover: 7,5 20% of total cover: OBL species Sapling Stratum (Plot size: 30f+ x30f+) **FACW** species 1. Querus alba FAC species 2. Fagus aranditalia FACU species UPL species Column Totals: Prevalence Index = B/A = Z5 = Total Cover Hydrophytic Vegetation Indicators: 50% of total cover: 12,5 20% of total cover: __ 1 - Rapid Test for Hydrophytic Vegetation Shrub Stratum (Plot size: 30ff x 30ff) __ 2 - Dominance Test is >50% 1. Mone 3 - Prevalence Index is ≤3.01 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. ____ = Total Cover Definitions of Five Vegetation Strata: 50% of total cover: ____ 20% of total cover: Tree - Woody plants, excluding woody vines, Herb Stratum (Plot size: 30++ x30++) approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less Polystichum achostichoides than 3 in. (7.6 cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. 30 = Total Cover 50% of total cover: _______ 20% of total cover:___ Woody Vine Stratum (Plot size: 30++ x 30++) 1. None Hydrophytic _____ = Total Cover Vegetation Present? 50% of total cover: _____ 20% of total cover:___

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Descri	ption: (Describe t	o the dept	n needed to docur	nent the ind	icator o	r confirm	the abs	sence of indicat	tors.)		
Depth _	Matrix		Redo	x Features							
(inches)	Color (moist)	%	Color (moist)		Type¹.	Loc ²	Text	ure	Remarks	<u> </u>	
0-6	104 K5/3	100					CL				
6-20	10 YR 4/4	(00)					CL				
	10 110 11	,	· · · · ·								
							-				
								-			
											-
									 -	.	
											
¹Type: C=Con	centration, D=Dept	etion, RM=	Reduced Matrix, M	S=Masked S	and Grai	ns.	² Locati	on: PL=Pore Lir	ning, M=Matri	х.	
Hydric Soil Inc								Indicators for F	Problematic I	Hydric Soil	ls³:
Histosol (A			Dark Surface					2 cm Muck	(A10) (MLRA	147)	
Histic Epip			Polyvalue Be				148)	Coast Prairi	ie Redox (A16	3)	
Black Histi			Thin Dark Su			7, 148)		(MLRA 1			
	Sulfide (A4)		Loamy Gleye)				loodplain Soi	ls (F19)	
	ayers (A5)		Depleted Ma					(MLRA 1			
	k (A10) (LRR N) Below Dark Surface	. / ^ 4 4 \	Redox Dark Depleted Dark						w Dark Surfa		
	Surface (A12)	(A11)	Redox Depre	•	7)			Otner (Expi	ain in Remarl	(S)	
	cky Mineral (S1) (L	RR N	Iron-Mangan		(E12) (I	DD N					
	147, 148)		MLRA 13		(i iz) (m	ixix iv,					- 1
	yed Matrix (S4)		Umbric Surfa		LRA 136	. 122)		3Indicators of	hydronhylic y	e noitetana	nd
Sandy Red			Piedmont Flo				.8)		ology must b		"""
Stripped M			Red Parent					•	bed or proble	•	
	yer (if observed):			•			Í		0, p, 0, 1, 0		
Туре:											1
	es):						Hydri	c Soil Present?	Yes	No	
Remarks:							1,	- CONTINUES	163	140	
remails.											
											ļ
											1
											ļ
											1
											ļ
										,	

Environmental Field Surveys Wetland Photo Page



Upland data point wnep001_u facing northwest.



Upland data point wnep001_u facing North.

Project/Site: Atlantic Coast Pip	eline	City/C	County: Nelson County		Sampling Date: 1/9/2016		
Applicant/Owner: Dominion					Sampling Point: wnea023f_w		
		PLSS in this area					
Landform (hillslope, terrace, etc							
Subragion (LDD or MLDA): P	<i></i>	1 at: 37.66347072	Long: -78.	72172095			
Subregion (LRR or MLRA): P Soil Map Unit Name: Galtsmill	fine sandy loam (_ Lat	ionally flooded	NA/1 1 'C'			
Are climatic / hydrologic conditi							
Are Vegetation, Soil	, or Hydrolog	y significantly distur	bed? Are "Norma	l Circumstances" p	resent? Yes No		
Are Vegetation, Soil	, or Hydrolog	y naturally problemate	atic? (If needed, e	explain any answe	rs in Remarks.)		
SUMMARY OF FINDING	3S – Attach s	ite map showing san	npling point location	ons, transects	, important features, etc.		
Hydrophytic Vegetation Prese	ont? Voc	✓ No					
Hydric Soil Present?	Yes	No	Is the Sampled Area				
Wetland Hydrology Present?			within a Wetland?	Yes	No		
Remarks:							
Saturated PFO wetland in ana	pandoned channe	el of Mayo Creek, closest No	SWAM MAICH IS DASIN WE	euanu			
HYDROLOGY							
Wetland Hydrology Indicato	rs:			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)		True Aquatic Plants (getated Concave Surface (B8)		
High Water Table (A2)		Hydrogen Sulfide Od		✓ Drainage Par			
Saturation (A3)		Oxidized Rhizospher		Moss Trim Li			
Water Marks (B1)		Presence of Reduced		-	Water Table (C2)		
Sediment Deposits (B2) Drift Deposits (B3)		Recent Iron Reductio Thin Muck Surface (0		Crayfish Buri	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Rer			tressed Plants (D1)		
Iron Deposits (B5)		Other (Explain in Net	nanoj	Geomorphic			
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aqui			
Water-Stained Leaves (B				Microtopographic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral Test (D5)			
Field Observations:							
Surface Water Present?	Yes No	Depth (inches):					
Water Table Present?	Yes No	Depth (inches):					
Saturation Present?	Yes V No	Depth (inches):	Wetland I	Hydrology Presen	t? Yes V No No		
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monito	oring well, aerial photos, pre	vious inspections), if ava	ailable:			
,			, , ,				
Remarks:							

20	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Acer negundo	20	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Platanus occidentalis	15	Yes	FACW	Total New Long of Description
3				Total Number of Dominant Species Across All Strata: 7 (B)
				Openies / toross / tir etrata.
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 85.71428571 (A/B)
6				Prevalence Index worksheet:
7				
	35	= Total Cove		Total % Cover of: Multiply by: OBL species 0 x 1 = 0
50% of total cover:17.5	20% of	total cover:_	7	ODL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1 Acer negundo	7	Yes	FAC	FAC species37
2 Platanus occidentalis	6	Yes	FACW	FACU species5 x 4 =20
<u></u>				UPL species0 x 5 =0
3				60 185
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.68
6				Trevalence index = B/TC =
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover: 6.5	20% of	total cover:	2.6	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1 Elymus riparius	6	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Glechoma hederacea	5	Yes	FACU	
				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				3
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Herb – All herbaceous (non-woody) plants, regardless
	11	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 5.5		total cover:	2.2	or orac, and troody prairie root than orac it tam
	2070 01			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:) 1 Vitis rotundifolia	10	Yes	FAC	height.
1. Vilis roturidinolla		165	TAC	
2		-		
3		<u> </u>		
4				
5.				Hydrophytic
o	10			Vegetation Present? Yes No
50% of total cover: 5		= Total Cove	r 2	100 NO
0070 01 total 00V01:		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-5	10YR 4/2	90	10YR 4/6	10	C	PL/M	SICL	
5-18	10YR 4/1	85	7.5YR 4/6	15	С	M	SIC	
					-			
	-							
1Typo: C-C	oncontration D-Don	lotion PM	=Reduced Matrix, MS	S-Mackad	Sand Gr	oine	² Location: D	L=Pore Lining, M=Matrix.
Hydric Soil		ielion, Kiv	=Reduced Matrix, Mc	5=IVIASKEU	Sanu Gi	allis.		ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(97)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be	. ,	۸) (82) <u>۱۸</u>	/II R Δ 1 <i>4</i> 7		Coast Prairie Redox (A16)
	stic (A3)		Tolyvalde Be				((MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			147, 140)	P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma		<u>-</u>)		<u> </u>	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		6)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	,	,			Other (Explain in Remarks)
	ark Surface (A12)	,	Redox Depre		. ,			,
	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan			LRR N,		
	A 147, 148)		MLRA 13					
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (I	MLRA 13	6, 122)	³ Ind	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) we	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Naterial (F2	21) (MLR	A 127, 147) un	less disturbed or problematic.
Restrictive	Layer (if observed):							
Type: sil	ty clay							
Depth (in	ches): <u>5</u>						Hydric Soil	l Present? Yes No
Remarks:								



Photo 1Wetland data point WNEA023f_w facing northwest



Photo 2Wetland data point WNEA023f_w facing southeast

Project/Site: Atlantic Coast Pi	peline	City/	County: Nelson County		Sampling Date: 1/9/2016		
Applicant/Owner: Dominion				State: VA Sampling Point: wnea02			
Investigator(s): GB, SA		Sect	ion, Township, Range: No	PLSS in this area	_ ,		
Landform (hillslope, terrace, e							
Subragion (LDD or MLDA): P		1 at: 37.66338273	Long: -78.7	2182533	Glope (70)		
Subregion (LRR or MLRA): P Soil Map Unit Name: Galtsmil	I fine sandy loam (_ Lai	sionally flooded		None		
Are climatic / hydrologic condi		•					
Are Vegetation, Soil	, or Hydrology	y significantly distu	irbed? Are "Normal	Circumstances" pr	resent? Yes No		
Are Vegetation, Soil	, or Hydrology	ynaturally problem	natic? (If needed, e.	xplain any answer	s in Remarks.)		
SUMMARY OF FINDIN	GS – Attach si	ite map showing sai	mpling point locatio	ns, transects,	important features, etc.		
Hydrophytic Vegetation Pres	eont? Voc	✓ No					
Hydric Soil Present?	Yes	No V	Is the Sampled Area		4		
Wetland Hydrology Present?	Yes	No 🗸	within a Wetland?	Yes	_ No		
Remarks:		<u> </u>					
Upland data point for a satura	ned to temporarily i	nooded FFO wettand local	eu in an abandoneu chann	el of Mayo Creek.			
HYDROLOGY							
Wetland Hydrology Indicat	ors:			Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum	of one is required;			Surface Soil 0	` '		
Surface Water (A1)		True Aquatic Plants		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide O		Drainage Patterns (B10)			
Saturation (A3)			-				
Water Marks (B1)		Presence of Reduce					
Sediment Deposits (B2)		Recent Iron Reducti					
Drift Deposits (B3) Algal Mat or Crust (B4)		Thin Muck Surface (Other (Explain in Re			sible on Aerial Imagery (C9) ressed Plants (D1)		
Iron Deposits (B5)		Other (Explain in Ne	anaiks)	Geomorphic F			
Inundation Visible on Ae	erial Imagery (B7)			Shallow Aquit	, ,		
Water-Stained Leaves (I	,			Microtopographic Relief (D4)			
Aquatic Fauna (B13)	,			FAC-Neutral	, ,		
Field Observations:					. ,		
Surface Water Present?	Yes No	Depth (inches):					
Water Table Present?		Depth (inches):					
Saturation Present?		Depth (inches):		Wetland Hydrology Present? Yes No			
(includes capillary fringe)			ii	lahla:			
Describe Recorded Data (str	eam gauge, monito	oring well, aerial photos, pr	evious inspections), if avai	lable:			
Remarks:							
no hydrology indicators prese	ent						

Sampling Poir	າt: ^{wneaບ2} 3_u
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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1 Liriodendron tulipifera	20	Yes	FACU	That Are OBL, FACW, or FAC: 7 (A)
2. Fraxinus pennsylvanica	20	Yes	FACW	mar Arc ODE, I AOW, OF I AO.
3. Acer negundo	20	Yes	FAC	Total Number of Dominant
3. Noon noganae				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 63.63636363 (A/B)
6				
7				Prevalence Index worksheet:
	60	= Total Cove	er er	Total % Cover of: Multiply by:
50% of total cover: 30		total cover:	12	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species 32 x 2 = 64
1. Acer negundo	12	Yes	FAC	FAC species 71 x 3 = 213
	10		FAC	66 264
2. Lindera benzoin		Yes		15 75
3. Ligustrum sinense	6	No	FACU	UPL species $\frac{15}{184}$ $\times 5 = \frac{75}{616}$
4. Liriodendron tulipifera	5	No	FACU	Column Totals: (A) (B)
5				Prevalence Index = B/A = 3.34
6.				Trevalence mack = B/Tt =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	33	= Total Cove	er	
50% of total cover: 16.5	20% of	total cover:	6.6	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)	<u></u>	-		data in Remarks or on a separate sheet)
1 Glechoma hederacea	20	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
Outliness and other	15		FACU	
2. Galium aparine		Yes		¹ Indicators of hydric soil and wetland hydrology must
3. Stellaria media	15	Yes	UPL	be present, unless disturbed or problematic.
4. Elymus riparius	12	No	FACW	Definitions of Four Vegetation Strata:
5				
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
<i>1</i>				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	62	= Total Cove	er .	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 31		total cover:		, , , , , , , , , , , , , , , , , , , ,
Woody Vine Stratum (Plot size: 30)		50701.		Woody vine – All woody vines greater than 3.28 ft in
1 Vitis rotundifolia	15	Yes	FAC	height.
1				
2. Campsis radicans	8	Yes	FAC	
3. Lonicera japonica	6	Yes	FAC	
4.				Heater-sheet's
5.				Hydrophytic Vegetation
<u> </u>	29	Total Cov		Present? Yes V No No
50% of total cover: 14.5		= Total Cove		
		total cover:		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Sampling Point: wnea023_u

Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist) % Type ¹	Loc ² Te	exture	Remarks	
0-6	10YR 4/3	100			L		
6-18	10YR 4/4	100			SCL		
		· -					
		. <u> </u>					
		·					
		. <u> </u>					
		· —— —					
		· — — —					
		·					
		letion, RM=Re	educed Matrix, MS=Masked Sand Grain	s. ² Loc		Lining, M=Matrix.	
lydric Soil	Indicators:				Indicators fo	r Problematic Hy	dric Soils³:
Histosol	(A1)		Dark Surface (S7)		2 cm Mud	ck (A10) (MLRA 14	47)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLF	RA 147, 148)		airie Redox (A16)	
	istic (A3)		Thin Dark Surface (S9) (MLRA 147			\ 147, 148)	
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)			t Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)			A 136, 147)	,
	uck (A10) (LRR N)		Redox Dark Surface (F6)			llow Dark Surface	(TF12)
	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)			plain in Remarks)	. ,
	ark Surface (A12)	,	Redox Depressions (F8)			,	
	/lucky Mineral (S1) (L	RR N.	Iron-Manganese Masses (F12) (LR	R N.			
	A 147, 148)	- - -	MLRA 136)	,			
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136,	122)	³ Indicators of	of hydrophytic vege	etation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (M			drology must be p	
	Matrix (S6)		Red Parent Material (F21) (MLRA			turbed or problema	
	Layer (if observed):		Near arent waterial (121) (MENA	127, 147)	arricos ais	tarbea or probleme	
Type: no							
			<u> </u>				./
Depth (in	ches):		<u> </u>	Ну	dric Soil Presen	t? Yes	No
Remarks:							



Photo 1
Upland data point WNEA023_u facing southeast



Photo 2
Upland data point WNEA023_u facing northwest

Project/Site: Atlantic Coast Pi	peline		City/C	county: Nelson Count	y	Sampling Date: 1/9/2016		
Applicant/Owner: Dominion			,	State: VA Sampling Point: wnea022				
Investigator(s): GB, SA		No PLSS in this a						
Landform (hillslope, terrace, e								
Subragion (LDD or MLDA): P	10.).	Lot	37.66325839	Long:	78.71968815	Datum: WGS 1984		
Ocil Mara Hair Nama Wingina	loam 0 to 2 perce	Lai. ent slop	es occasionally flood	Long led	NA/I -1	Datum: WGS 1984 ification: PEM1A		
Are climatic / hydrologic condi	-		-					
					mal Circumstances	s" present? Yes No		
Are Vegetation, Soil	, or Hydrolog	ју	naturally problema	atic? (If neede	d, explain any ans	wers in Remarks.)		
SUMMARY OF FINDIN	GS - Attach s	site m	ap showing san	npling point loca	tions, transec	ts, important features, etc.		
Hydrophytic Vegetation Pres	sent? Yes	~	No					
Hydric Soil Present?	Yes	~	No	Is the Sampled Are within a Wetland?		No		
Wetland Hydrology Present?			No	within a wetiand?	res	NO		
Remarks:								
Wetland data point for a peric James River against the natu NCWAM key.	ral levee; culverts	and wa	and located in an artif iter control boxes pre:	icial depression and s sent to allow filling an	wale system const d drainage for wate	tructed on the floodplain of the erfowl habitat. Floodplain pool in		
HYDROLOGY								
Wetland Hydrology Indicat	ors:				Secondary Ind	icators (minimum of two required)		
Primary Indicators (minimum	of one is required				Surface S	, ,		
Surface Water (A1)			True Aquatic Plants (/egetated Concave Surface (B8)		
High Water Table (A2)			Hydrogen Sulfide Od		-	Patterns (B10)		
Saturation (A3)				es on Living Roots (C		Lines (B16)		
Water Marks (B1)			Presence of Reduced		Dry-Season Water Table (C2) Crayfish Burrows (C8)			
Sediment Deposits (B2)			Recent Iron Reductio		 ,	` '		
Drift Deposits (B3) Algal Mat or Crust (B4)			Thin Muck Surface (C Other (Explain in Rer			Visible on Aerial Imagery (C9) r Stressed Plants (D1)		
Iron Deposits (B5)			Other (Explain in Itel	nano,		nic Position (D2)		
Inundation Visible on Ae	erial Imagery (B7)					quitard (D3)		
Water-Stained Leaves (I					Microtopographic Relief (D4)			
Aquatic Fauna (B13)	,				FAC-Neut			
Field Observations:								
Surface Water Present?	Yes No	<u>'</u>	Depth (inches):					
Water Table Present?			Depth (inches):					
Saturation Present?	Yes No		Depth (inches):	Wetlan	d Hydrology Pres	sent? Yes <u>'</u> No		
(includes capillary fringe) Describe Recorded Data (str	ream gauge monit	oring w	rell aerial photos pre	vious inspections) if	available:			
Booonibo Mooonada Bala (dii	oam gaago, mom	omig W	on, donar priotos, pro	viodo inopodilorio), ir v	avanabio.			
Remarks:								
artificial depression used as g	geomorphic positio	n						

Sampling	Point: wnea022f_	W

30	Absolute	Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size: 30)	% Cover 25	Species? Yes	Status FACW	Number of Dominant Species	40	
1. Acer saccharinum	15			That Are OBL, FACW, or FAC: _	10	(A)
2. Acer negundo		Yes	FAC	Total Number of Dominant		
3. Acer rubrum	15	Yes	FAC	Species Across All Strata:	10	(B)
4				Barrers of Barrian of Constitution		
5				Percent of Dominant Species That Are OBL, FACW, or FAC:	100	(A/B)
6						(,,,,,)
7		<u> </u>		Prevalence Index worksheet:		
	55	= Total Cov		-	Multiply by:	
50% of total cover: 27.5		total cover:	11	OBL species0 x 1 :	=0	_
Sapling/Shrub Stratum (Plot size: 15)				FACW species88 x 2 :	=176	
1 Acer saccharinum	28	Yes	FACW	FAC species76 x 3	= 228	
2. Acer negundo	15	Yes	FAC	FACU species 0 x 4:	= 0	
3. Acer rubrum	10	No	FAC	UPL species 0 x 5		_
3.				164	404	(B)
4				Column Totals:(A)		(B)
5				Prevalence Index = B/A =	2.46	
6				Hydrophytic Vegetation Indicato		_
7				1 - Rapid Test for Hydrophytic		
8				2 - Dominance Test is >50%	vegetation	
9				✓ 3 - Prevalence Index is ≤3.0 ¹		
	E2	= Total Cov	er		1	
50% of total cover: 26.5		total cover:	400	4 - Morphological Adaptations		
Herb Stratum (Plot size:5)		•		data in Remarks or on a se	. ,	
1 Lysimachia nummularia	20	Yes	FACW	Problematic Hydrophytic Vege	tation ¹ (Expla	in)
2. Elymus riparius	15	Yes	FACW			
3. Carex blanda	15	Yes	FAC	¹ Indicators of hydric soil and wetlar		must
3. Carox biarida				be present, unless disturbed or pro	blematic.	
4				Definitions of Four Vegetation S	trata:	
5				Tree – Woody plants, excluding vir	200 2 in (7.6	om) or
6				more in diameter at breast height (
7				height.	,, - <u>3</u>	
8				Carling/Charle Washington		lasa
9				Sapling/Shrub – Woody plants, exthan 3 in. DBH and greater than or		
10				m) tall.	0400.10 0.20	(.
11.				Hart All back as a second for a second	A 1 1	
	50	= Total Cov		Herb – All herbaceous (non-woody of size, and woody plants less than		raiess
50% of total cover: 25		total cover:		or size, and weedy plants less than	10.20 11 1411.	
Woody Vine Stratum (Plot size: 30)	2070 01	total cover.		Woody vine – All woody vines gre	ater than 3.28	3 ft in
1 Smilax rotundifolia	4	Yes	FAC	height.		
2. Campsis radicans		Yes	FAC			
2. Campsis radicans			-170			
3						
4				Hydrophytic		
5				Vegetation		
	6:	= Total Cov		Present? Yes	No	
50% of total cover:3	20% of	total cover:	1.2			
Remarks: (Include photo numbers here or on a separate s	heet.)					

Depth	Matrix			<u>k Features</u>		. 2		
inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10YR 4/3	75	10YR 5/4	25	C	M	L	
					-			_
	-							
								-
					-			_
						· <u></u>		
				 .			2	
		letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gr	ains.	Location: P	PL=Pore Lining, M=Matrix.
dric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
Histosol	I (A1)		Dark Surface	(S7)			2	2 cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) (N	ILRA 147,	148) (Coast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
_ Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	- 2)		F	Piedmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
_ 2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)		\	/ery Shallow Dark Surface (TF12)
_ Deplete	d Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		0	Other (Explain in Remarks)
_ Thick D	ark Surface (A12)		Redox Depre	ssions (F8	3)			
_ Sandy N	Mucky Mineral (S1) (L	.RR N,	Iron-Mangane	ese Masse	es (F12) (LRR N,		
	A 147, 148)		MLRA 130		. , ,			
	Gleyed Matrix (S4)		Umbric Surfa	•	MLRA 13	6, 122)	³ Inc	dicators of hydrophytic vegetation and
	Redox (S5)		✓ Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent M					nless disturbed or problematic.
	Layer (if observed):			(1	, (, , , , , , , , , , , , ,	1	
Type: _nc								
Depth (in	ches):						Hydric Soi	I Present? Yes No
emarks:								



Photo 1
Wetland data point WNEA022f_w facing west



Photo 2
Wetland data point WNEA022f_w facing east

Project/Site: Atlantic Coast Pipeline	City/C	ounty: Nelson County	Sampling Date: 1/21/2016
Applicant/Owner: DOMINION		State: V	A Sampling Point: wnea022e_w
		n, Township, Range: No PLSS in the	
Landform (hillslope, terrace, etc.): Depression			
Subregion (LRR or MLRA): P	Lat: 37.66720357	Long: -78.71710617	Datum: WGS 1984
Soil Map Unit Name: Wingina loam, 0 to 2 perc	ent slopes, occasionally flood	ed NWI	classification: PEM1Fx
Are climatic / hydrologic conditions on the site t	pical for this time of year? Ye	es No (If no, expl	ain in Remarks.)
Are Vegetation, Soil, or Hydrolo	gy significantly disturb	ped? Are "Normal Circumsta	nnces" present? Yes 🔽 No
Are Vegetation, Soil, or Hydrolo			
SUMMARY OF FINDINGS – Attach			
Hydrophytic Vegetation Present? Yes	_ ∨ No		
Hydric Soil Present? Yes	<u>✓</u> No	Is the Sampled Area	No
	✓ No_	within a Wetland? Yes	NO
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondar	y Indicators (minimum of two required)
Primary Indicators (minimum of one is require	d; check all that apply)		ce Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (I		sely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odd		age Patterns (B10)
✓ Saturation (A3)	Oxidized Rhizosphere	es on Living Roots (C3) Moss	Trim Lines (B16)
Water Marks (B1)	Presence of Reduced	Iron (C4) Dry-S	Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	n in Tilled Soils (C6) Crayf	ish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C	Satur	ation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rem		ed or Stressed Plants (D1)
Iron Deposits (B5)		· · · · · · · · · · · · · · · · · · ·	norphic Position (D2)
Inundation Visible on Aerial Imagery (B7)			ow Aquitard (D3)
Water-Stained Leaves (B9)		_	topographic Relief (D4)
Aquatic Fauna (B13)		<u>✓</u> FAC-	Neutral Test (D5)
Field Observations:	V 5 4 6 4 5		
	Depth (inches):	0	
	Depth (inches):		
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland Hydrology	Present? Yes No
Describe Recorded Data (stream gauge, mon	toring well, aerial photos, pre	vious inspections), if available:	
Remarks:			
Wetland hydrology indicators present			

EGETATION (Four Strata) – Use scientific	c names of p	olants.		Sampling Point: wnea022e_w
T 0: (D) : 30		Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:30) 1	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
7				Prevalence Index worksheet:
	=	Total Cover		Total % Cover of: Multiply by:
50% of total cover:	0 20% of t	total cover:	0	OBL species 0 x 1 = 0
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1				FAC species x 3 = 30
				FACU species0 x 4 =0
3				UPL species0 x 5 =0
4				Column Totals: 20 (A) 50 (B)
T				
5				Prevalence Index = B/A = 2.5
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
		Total Cover		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of t	otal cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation¹ (Explain)
1. Phalaris arundinacea	10	<u>Yes</u>	FACW	Froblematic Hydrophytic Vegetation (Explain)
2. Verbesina alternifolia	10	Yes	FAC	
3				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Deminions of Four Vegetation Strata.
6				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
_				more in diameter at breast height (DBH), regardless of
<i>1</i>				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10		 ·		m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
		Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>Woody Vine Stratum</u> (Plot size:30)	10 20% of t	total cover:	4	Woody vine – All woody vines greater than 3.28 ft in height.
1				noight.
2.				
3			-	
-				Hydrophytic
5				Vegetation Present? Yes No
500/ - (1-1-1		Total Cover	^	110301111
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a separa	ite sheet.)			

Depth	NA - tuis				_		the absen	•
(inches)	Matrix Color (moist)	%	Color (moist)	x Features	sType ¹ _	Loc ²	Texture	Remarks
0-6	10 YR 4/2	97	10 YR 5/8	3	C	PL	CL	Itemarks
			·			· 		
6-18	10 YR 4/3	99	10 YR 5/8	1	С	PL	CL	<u> </u>
	· -		·		-		-	_
	-							_
							-	- -
	-							_
Type: C=0	Concentration, D=Depl	etion, RN	M=Reduced Matrix, MS	S=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
	Indicators:		,					icators for Problematic Hydric Soils ³ :
Histoso			Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	Epipedon (A2)		Polyvalue Be		ce (S8) (N	/ILRA 147.	148)	Coast Prairie Redox (A16)
	Histic (A3)		Thin Dark Su					(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, ,		Piedmont Floodplain Soils (F19)
	ed Layers (A5)		<u>✓</u> Depleted Ma		,			(MLRA 136, 147)
	luck (A10) (LRR N)		Redox Dark		·6)			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	(A11)	Depleted Dar		,			Other (Explain in Remarks)
	Oark Surface (A12)	,	Redox Depre					,
	Mucky Mineral (S1) (L	RR N.	Iron-Mangan			LRR N,		
	A 147, 148)	,	MLRA 13		(,		
	Gleyed Matrix (S4)		Umbric Surfa	-	MLRA 13	6, 122)	³	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	d Matrix (S6)		Red Parent N					unless disturbed or problematic.
	Layer (if observed):					<u> </u>	<u>, </u>	·
Type:	,							
	nches):						Hydric S	oil Present? Yes No
	icies).						nyuric 3	on Fresent? Tes No
	idicators present							
	ndicators present							
	dicators present							
	dicators present							
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	dicators present							
	dicators present							
	dicators present							
	dicators present							
	dicators present							
	dicators present							
Remarks: lydric soil in	dicators present							
	dicators present							
	dicators present							
	dicators present							
	dicators present							



Photo 1 Wetland data point wnea022e_w facing northwest



Photo 2
Wetland data point wnea022e_w facing northeast

Project/Site: Atlantic Coast Pipeline	City/County: Nelse	on County	Sampling Date: 1/9/2016
Applicant/Owner: Dominion			Sampling Point: wnea022_u
	Section, Township		
	Local relief (concave,		
Subregion (LRR or MLRA): P	. 37.66330149	Long: -78.71942191	Datum: WGS 1984
Soil Map Unit Name: Wingina loam, 0 to 2 percent slo	pes, occasionally flooded	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical f			
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach site n			
Attach site ii		The fooderoris, transcott	o, important reatares, etc.
Hydrophytic Vegetation Present? Yes		pled Area	
	No ✓ within a W		No
Wetland Hydrology Present? Yes Remarks:	No/		
HYDROLOGY			
Wetland Hydrology Indicators:			ators (minimum of two required)
Primary Indicators (minimum of one is required; chec	k all that apply)	Surface Soi	
	True Aquatic Plants (B14)		egetated Concave Surface (B8)
	Hydrogen Sulfide Odor (C1)		atterns (B10)
	Oxidized Rhizospheres on Living		
	Presence of Reduced Iron (C4)	· · · · · · · · · · · · · · · · · · ·	Water Table (C2)
	Recent Iron Reduction in Tilled So Thin Muck Surface (C7)		/isible on Aerial Imagery (C9)
	Other (Explain in Remarks)		Stressed Plants (D1)
Iron Deposits (B5)	(<u></u>		Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aqu	
Water-Stained Leaves (B9)			raphic Relief (D4)
Aquatic Fauna (B13)		✓ FAC-Neutra	
Field Observations:			
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	nt? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring)	well, aerial photos, previous inspec	tions), if available:	
	,	,,	
Remarks:			
insufficient hydrology indicators present			

Sampling	Point: wnea022_	u
Januaria	i Ollit. –	

•	Absolute	Dominant I	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	25	Yes	FACW	That Are OBL, FACW, or FAC:8 (A)
2. Acer saccharinum	15	Yes	FACW	Total Number of Dominant
3. Acer saccharinum	10	No	FACW	Species Across All Strata: 8 (B)
4. Juglans nigra	10	No	FACU	
5. Acer negundo	10	No	FAC	Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
r	70	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 35		total cover:	er 14	OBL species0 x 1 =0
15	20% 01	total cover		FACW species 114 x 2 = 228
Sapling/Shrub Stratum (Plot size:) 1 Acer saccharinum	10	Yes	FACW	FAC species 59
' ·				25 140
2. Acer negundo	10	Yes	FAC	FACU species x 4 = 0
3. Juglans nigra	5	No	FACU	UPL species
4. Acer rubrum	4	No	FAC	Column Totals: (A) (B)
5. Fraxinus pennsylvanica	4	No	FACW	Prevalence Index - B/A - 2.62
6				1 Tevalence mack = B/A =
7				Hydrophytic Vegetation Indicators:
			-	1 - Rapid Test for Hydrophytic Vegetation
8	-		-	✓ 2 - Dominance Test is >50%
9	33	T		✓ 3 - Prevalence Index is ≤3.0¹
50% of total cover: 16.5		= Total Cove total cover:	er 6.6	4 - Morphological Adaptations ¹ (Provide supporting
50 /0 01 total 00 vol	20% 01	total cover:_		data in Remarks or on a separate sheet)
TIEID Stratum (1 lot size.	50	V	E A O) A /	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Elymus riparius	50	Yes	FACW	
2. Glechoma hederacea	15	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Verbesina alternifolia	10	No	FAC	be present, unless disturbed or problematic.
4. Galium aparine	5	No	FACU	Definitions of Four Vegetation Strata:
5				Deminions of Four Vegetation Strata.
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
				noight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				m) tail.
11				Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:40	20% of	total cover:_	16	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1. Vitis rotundifolia	10	Yes	FAC	
2. Toxicodendron radicans	8	Yes	FAC	
3. Campsis radicans	7	Yes	FAC	
4.				
5.				Hydrophytic Vegetation
<u> </u>	25	= Total Cove		Present? Yes No No
50% of total cover: 12.5		total cover:	5	
		total cover		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Sampling Point: wnea022_u

Depth	Matrix		Redox Features				
(inches)	Color (moist)	%	Color (moist) % Type ¹	Loc ²	<u>Texture</u>	Remarks	i
8-0	10YR 3/4	100			L		
8-18	10YR 4/4	100		<u> </u>	L		
		· -				-	
		. <u> </u>					
		·					
		<u></u>					
		· —— —					
		· — — —					
		·					
		letion, RM=Re	educed Matrix, MS=Masked Sand C	Brains.		L=Pore Lining, M=Matrix	
lydric Soil	Indicators:				Indica	ators for Problematic H	lydric Soils³:
Histosol	(A1)		Dark Surface (S7)		2	cm Muck (A10) (MLRA	147)
Histic E	pipedon (A2)		Polyvalue Below Surface (S8)	(MLRA 147,	148) C	oast Prairie Redox (A16	6)
	stic (A3)		Thin Dark Surface (S9) (MLRA	•	, <u> </u>	(MLRA 147, 148)	•
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)	. ,	Pi	iedmont Floodplain Soil	s (F19)
	d Layers (A5)		Depleted Matrix (F3)			(MLRA 136, 147)	` ,
	uck (A10) (LRR N)		Redox Dark Surface (F6)		V	ery Shallow Dark Surfac	ce (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dark Surface (F7)			ther (Explain in Remark	, ,
	ark Surface (A12)	- (Redox Depressions (F8)			(]	-,
	Mucky Mineral (S1) (L	RR N.	Iron-Manganese Masses (F12)	(LRR N.			
	A 147, 148)		MLRA 136)	(=:::::,			
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA	136 122)	³ Indi	icators of hydrophytic ve	egetation and
	Redox (S5)		Piedmont Floodplain Soils (F19			tland hydrology must be	
-	Matrix (S6)		Red Parent Material (F21) (ML			ess disturbed or proble	
	Layer (if observed):		Near arent Material (121) (M2	17, 127, 147	, uiii	coo diotarbed or probler	natio.
Type: no							
			_				./
Depth (in	ches):		<u> </u>		Hydric Soil	Present? Yes	No
Remarks:							



Photo 1 Upland data point WNEA022_u facing west



Photo 2Upland data point WNEA022_u facing east

Project/Site: Atlantic Coast Pipeline	City/County: Nelson Count	y Sampling Date: 1/21/2016		
Applicant/Owner: DOMINION		State: VA Sampling Point: wnea022_u2		
Investigator(s): Team C	No PLSS in this area			
Landform (hillslope, terrace, etc.): Slight slope				
Subregion (LRR or MLRA). P	at: 37.66835068	78.71727266 _{Datum} . WGS 1984		
Soil Map Unit Name: Wingina loam, 0 to 2 percent s	slopes, occasionally flooded	NWI classification: None		
Are climatic / hydrologic conditions on the site typical				
Are Vegetation , Soil , or Hydrology	significantly disturbed? Are "Nor	mal Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology _				
		ations, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes	' No Is the Sampled Ar			
	No. 4/			
	No v within a Wetland?	Yes No		
Remarks:				
HADBOLOGA				
HYDROLOGY Wetland Hydrology Indicators		Connecting Indicators (minimum of two required)		
Wetland Hydrology Indicators:	ack all that apply)	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; ch		Surface Soil Cracks (B6)		
Surface Water (A1) High Water Table (A2)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)		
	 Trydrogen Suinde Odor (C1) Oxidized Rhizospheres on Living Roots (C			
· ·	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)		
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)		
Iron Deposits (B5)		Geomorphic Position (D2)		
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)		
Water-Stained Leaves (B9)		Microtopographic Relief (D4)		
Aquatic Fauna (B13)		FAC-Neutral Test (D5)		
Field Observations:				
	Depth (inches):			
	Depth (inches):			
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): Wetlar	d Hydrology Present? Yes No		
Describe Recorded Data (stream gauge, monitorin	g well, aerial photos, previous inspections), if	available:		
Damadua				
Remarks: No wetland hydrology indicators present				
No welland flydrology maleators present				

Sampling Point: wnea022_u2

00	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				Barrand of Barrian of Oracina
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6666666 (A/B)
6				That Ale OBE, 1 New, of 1 No (AB)
7				Prevalence Index worksheet:
	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:		total cover:	0	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)			-	FACW species 20
,				FAC species30 x 3 =90
1				FACU species 30 x 4 = 120
2				UPL species0 x 5 =0
3				Column Totals: 80 (A) 250 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A =3.12
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cover		
50% of total cover:0	20% of	total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5				data in Remarks or on a separate sheet)
1. Arctium minus	20	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Arthraxon hispidus	20	Yes	FAC	
3. Conium maculatum	20	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
Verbesina alternifolia	10	No	FAC	be present, unless disturbed or problematic.
5. Rubus argutus	10	No	FACU	Definitions of Four Vegetation Strata:
•			17100	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	80	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 40	20% of	total cover:	16	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3.				
4				
-				Hydrophytic
5	0			Vegetation Present? Yes No
50% of total cover: 0		= Total Cover	. 0	1100m: 100 NO
0070 01 total 00701.		total cover:		
Remarks: (Include photo numbers here or on a separate sl	heet.)			

Sampling Point: wnea022_u2

	Profile Des	cription: (Describe t	o the depth				or confirm	the absence	of indicat	ors.)		
Vype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ^2Location: PL=Pore Lining, M=Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils³: Lindicators for Problematic Hydric Soils³: 2 cm Muck (A10) (MLRA 147) Lincipate (R10)	Depth			Redo			. 2			_		
Sype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Tecation: PL=Pore Lining, M=Matrix.	(inches)			Color (moist)	%	Type'	Loc			Remar	ks	
ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Sandy Redox (S5) Stripped Matrix (S6) Redox Dark Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Redox Dark Surface (F19) (MLRA 148) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 148) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Type: Depth (inches): Piedmont Floodplain Soils (F19) (Plack 127, 147) Depth (inches): Hydric Soil Present? Yes No	0-18	10 YR 3/3	100					SL	-			
ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Sandy Redox (S5) Stripped Matrix (S6) Redox Dark Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Redox Dark Surface (F19) (MLRA 148) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 148) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Type: Depth (inches): Piedmont Floodplain Soils (F19) (Plack 127, 147) Depth (inches): Hydric Soil Present? Yes No												
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ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Sandy Redox (S5) Stripped Matrix (S6) Redox Dark Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Redox Dark Surface (F19) (MLRA 148) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 148) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Type: Depth (inches): Piedmont Floodplain Soils (F19) (Plack 127, 147) Depth (inches): Hydric Soil Present? Yes No												
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ydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Sandy Redox (S5) Stripped Matrix (S6) Redox Dark Surface (F13) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Redox Dark Surface (F19) (MLRA 148) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 148) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Red Parent Material (F21) (MLRA 127, 147) Red Parent Material (F21) (MLRA 127, 147) Depth (inches): Type: Depth (inches): Piedmont Floodplain Soils (F19) (Plack 127, 147) Depth (inches): Hydric Soil Present? Yes No	1- 00							2				
Histosol (A1)			etion, RM=R	educed Matrix, MS	s=Masked	Sand Gr	ains.					-:I-3.
Histic Epipedon (A2)	-										-	olis :
Black Histic (A3)												
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Depleted Matrix (F3) MLRA 136, 147) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) Wery Shallow Dark Surface (TF12) Other (Explain in Remarks) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Which Piedmont Floodplain Soils (F19) Wetland hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic. Wetland hydrology must be present, unless disturbed or problematic.						. , .		148) (16)	
					, ,	•	47, 148)					
						F2)		F	Piedmont Fl	loodplain So	oils (F19)	
)
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)			(A11)					c	Other (Expla	ain in Rema	rks)	
MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) _ Stripped Mat												
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)			RR N,	Iron-Mangan	ese Masse	es (F12) (LRR N,					
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No emarks:				MLRA 13	6)							
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No emarks:	Sandy 0	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Inc	licators of h	nydrophytic	vegetation	and
estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No emarks:	Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) we	etland hydro	ology must	be present	,
Type: Depth (inches): No emarks: Hydric Soil Present? Yes No	Stripped	d Matrix (S6)		Red Parent N	Naterial (F	21) (MLR	A 127, 147	') un	less distur	bed or probl	ematic.	
Type: Depth (inches): No emarks: Hydric Soil Present? Yes No	Restrictive	Layer (if observed):								-		
Depth (inches): Hydric Soil Present? Yes No vernarks:												
emarks:		achae):						Hudria Sail	Drocont?	Voc	No	~
		iciles)						Hydric 30ii	riesent?	162	NO_	
hydric soil present												
	lo hydric soi	I present										



Photo 1 Upland data point wnea022_u2 facing northwest



Photo 2
Upland data point wnea022_u2 facing northeast

Project/Site: Atlantic Coast Pip	eline	City/C	county: Nelson County		Sampling Date: 1/21/2016		
Applicant/Owner: DOMINION					Sampling Point: wnec052e_w		
		PLSS in this area					
Landform (hillslope, terrace, etc							
Subregion (LRR or MLRA): P		Lat: 37.67126388	Long: -78.	71822835	Datum: WGS 1984		
Soil Map Unit Name: Yogaville	loam, 0 to 2 perce	ent slopes, occasionally floo	ded	NWI classific	ation: None		
Are climatic / hydrologic conditi	ons on the site typ	pical for this time of year? Y	es No	(If no, explain in R	emarks.)		
Are Vegetation, Soil	, or Hydrolog	y significantly distur	bed? Are "Norma	I Circumstances" p	oresent? Yes No		
Are Vegetation, Soil							
					, important features, etc.		
Hydrophytic Vegetation Prese	ent? Yes	✓ No					
Hydric Soil Present?	Yes	✓ No	Is the Sampled Area within a Wetland?	Voc. V	No		
Wetland Hydrology Present?		✓ No	within a wetland?	res	NO		
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicato	rs:			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)		True Aquatic Plants (B14)	Sparsely Veg	getated Concave Surface (B8)		
✓ High Water Table (A2)		✓ Drainage Patterns (B10)					
✓ Saturation (A3)		Moss Trim Li	nes (B16)				
Water Marks (B1)		d Iron (C4)	Dry-Season	Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Burr	rows (C8)		
Drift Deposits (B3)		Thin Muck Surface (C			sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)		tressed Plants (D1)		
Iron Deposits (B5)	(D.7)			Geomorphic			
Inundation Visible on Aer	,		Shallow Aquitard (D3) Microtopographic Relief (D4)				
Water-Stained Leaves (B Aquatic Fauna (B13)	9)			✓ FAC-Neutral	• • •		
Field Observations:				TAC-Neutral	1631 (D3)		
Surface Water Present?	Ves V No	Depth (inches):	4				
Water Table Present?			0				
Saturation Present?		Depth (inches):	0 Wetland I	Hydrology Presen	it? Yes ✔ No		
(includes capillary fringe)					165 115		
Describe Recorded Data (stre	am gauge, monito	oring well, aerial photos, pre	vious inspections), if ava	ailable:			
Remarks:							
Wetland hydrology indicators p	oresent						
,							

EGETATION (Four Stra	ata) – Use scientific n		Sampling Point: wnec052e_w			
		Absolute	Dominant I		Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1					That Are OBL, FACW, or FAC: 1 (A)	
			·		Total Number of Dominant	
3		· 			Species Across All Strata: 2 (B)	
4					Percent of Dominant Species	
5					That Are OBL, FACW, or FAC: (A/B)	
6		· 			Prevalence Index worksheet:	
7		0			Total % Cover of: Multiply by:	
	50% of total cover: 0		= Total Cove	er O	OBL species x 1 = 15	
One I'm w/Ohm h Ohm har / (Plant	15	20% of	total cover:_		FACW species15	
Sapling/Shrub Stratum (Plot s	ılze:)				FAC species 25 x 3 = 75	
1		-			FACU species 25 x 4 = 100	
					UPL species $0 \times 5 = 0$	
3					Column Totals: 80 (A) 220 (B)	
		•	· · · · · · · · · · · · · · · · · · ·		(r)(b)	
_					Prevalence Index = B/A =2.75	
					Hydrophytic Vegetation Indicators:	
_					1 - Rapid Test for Hydrophytic Vegetation	
					2 - Dominance Test is >50%	
9		0			3 - Prevalence Index is ≤3.0 ¹	
	50% of total cover:		= Total Cove total cover:_	er O	4 - Morphological Adaptations ¹ (Provide supporting	
Herb Stratum (Plot size:	5 \ \	20 /6 01	total cover		data in Remarks or on a separate sheet)	
1 Andropogon virginicus)	25	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)	
2. Lonicera japonica		25	Yes	FAC		
3. Carex lupulina		15	No	OBL	¹ Indicators of hydric soil and wetland hydrology must	
Juncus effusus		15	No	FACW	be present, unless disturbed or problematic.	
					Definitions of Four Vegetation Strata:	
_					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or	
					more in diameter at breast height (DBH), regardless of height.	
_		-			neight.	
9.					Sapling/Shrub – Woody plants, excluding vines, less	
10.					than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.	
11.						
		80	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	
	50% of total cover: 40		total cover:			
Woody Vine Stratum (Plot size	e: 30)		_		Woody vine – All woody vines greater than 3.28 ft in height.	
1.	· · · · · · · · · · · · · · · · · · ·				noight.	
_						
4.					Underwhydia	
5.		•			Hydrophytic Vegetation	
		0	= Total Cove	r	Present? Yes No	
	50% of total cover: 0	20% of	total cover:_	0		
Remarks: (Include photo num	bers here or on a separate s	sheet.)				

Profile Desc	ription: (Describe t	o the depth	needed to docum	nent the ir	ndicator	or confirm	the abs	sence of indicators.)
Depth	Matrix		Redo	x Features	<u>. </u>			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Textu	
0-18	2.5 Y 4/2	95 7	.5 YR 4/6	5	С	PL/M	SIC	CL
					-			
								
								
¹ Type: C=C	oncentration, D=Deple	ation PM-P	educed Matrix MS	S-Mackad	Sand Gr	nine	² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil		elion, Kivi=K	educed Matrix, Mc	5=Waskeu	Sand Gra	ali 15.		Indicators for Problematic Hydric Soils ³ :
-			Dork Surface	(87)				2 cm Muck (A10) (MLRA 147)
Histosol	oipedon (A2)		Dark Surface Polyvalue Be		o (CO) /N	II D A 147	140\	Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su		. , .		140)	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			47, 140)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Ma		2)			(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark		8)			Very Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar					Other (Explain in Remarks)
	ark Surface (A12)	(, , , ,)	Redox Depre					
	Mucky Mineral (S1) (L	RR N.	Iron-Mangan			LRR N,		
	A 147, 148)	•	MLRA 13		· / ·	•		
	Gleyed Matrix (S4)		Umbric Surfa	-	MLRA 13	6, 122)		³ Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo				8)	wetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Naterial (F2	21) (MLR	A 127, 147	7)	unless disturbed or problematic.
Restrictive I	Layer (if observed):							
Type:			<u></u>					
Depth (in	ches):						Hvdri	c Soil Present? Yes No
Remarks:	, -		<u> </u>				<u> </u>	
	dicators present							
,	р. 200							



Photo 1 Wetland data point wnec052e_w facing southwest



Photo 2
Wetland data point wnec052e_w facing west

Project/Site: Atlantic Coast Pipeline		City/C	County: Nelson County		Sampling Date: 1/21/2016	
Applicant/Owner: DOMINION				State: VA	Sampling Point: wnec052_u	
Investigator(s): Team C						
Landform (hillslope, terrace, etc.): Sligh						
Subregion (LRR or MLRA): P		37.67136157	Long: -78.7	71839386	Datum: WGS 1984	
Soil Map Unit Name: Yogaville loam, 0		opes, occasionally floo	oded	NWI classific	ation: None	
Are climatic / hydrologic conditions on the	ne site typical fo	or this time of year? Y	′es No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	resent? Yes No	
Are Vegetation, Soil, or						
SUMMARY OF FINDINGS – A						
Hydrophytic Vegetation Present?	Yes	No ✔				
Hydric Soil Present?		No 🗸	Is the Sampled Area within a Wetland?	Vos	No	
Wetland Hydrology Present?	Yes	No 🗸	within a welland?	res	NO	
LIVEROL COV						
HYDROLOGY				O da mada di a	to an in the second to the second second	
Wetland Hydrology Indicators:		l. all that analy.			tors (minimum of two required)	
Primary Indicators (minimum of one is				Surface Soil		
Surface Water (A1) High Water Table (A2)		True Aquatic Plants (Hydrogen Sulfide Od		Sparsely veg	getated Concave Surface (B8)	
Saturation (A3)				Moss Trim Li		
Water Marks (B1)		Presence of Reduced	-		Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burr		
Drift Deposits (B3)		Thin Muck Surface (0		· ·	sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)	Stunted or St	tressed Plants (D1)	
Iron Deposits (B5)				Geomorphic	Position (D2)	
Inundation Visible on Aerial Image	∍ry (B7)			Shallow Aqui		
Water-Stained Leaves (B9)					phic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)	
Field Observations:	.	Death (technol)				
		Depth (inches): Depth (inches):				
		Depth (inches):		lydrology Presen	t? Yes No	
(includes capillary fringe)					II: 165 NO	
Describe Recorded Data (stream gaug No hydrology indicators	je, monitoring v	well, aerial photos, pre	evious inspections), if ava	ilable:		
Remarks:						
Tromano.						

VEGETATION (Four Strata) - Use scientific names of plants.

_)

50% of total cover: ___

50% of total cover: 20

50% of total cover: 22.5 20% of total cover: 9

30

Sapling/Shrub Stratum (Plot size: 15)

2. Cercis canadensis

2. Solidago altissima

Tree Stratum (Plot size: _

1. Platanus occidentalis

1 Rubus argutus

Herb Stratum (Plot size: ___ 1. Lonicera japonica

nes of	plants.		S	Sampling	Point:	wnec052_u	l			
bsolute	Dominant I		Dominance Test	workshee	et:					
<u>6 Cover</u> 20	Species? Yes	Status FACW	Number of Domin That Are OBL, FA			2	(A)			
			Total Number of E			4	(D)			
			Species Across A	ii Siraia.			(B)			
			Percent of Domin That Are OBL, FA			50	(A/B			
			Prevalence Index	k workshe	et:					
20	= Total Cove		Total % Cove		Mı	ultiply by:				
	total cover:	4	OBL species _	0	_ x 1 =	0	_			
	_		FACW species _	20	_ x 2 =	40	_			
25	Yes	FACU	FAC species _	40	_ x 3 =	120	_			
15	Yes	FACU	FACU species _	45	x 4 =	180				
			UPL species _	0	x 5 =	0	_			
			Column Totals: _	105	_ (A)	340	(B)			
			Prevalence	Index = B	/A =	3.23				
			Hydrophytic Veg	etation In	dicators	:				
			1 - Rapid Tes	t for Hydro	phytic V	egetation				
			2 - Dominance Test is >50%							
			3 - Prevalence Index is ≤3.0 ¹							
	= Total Cove	r 8	4 - Morpholog			Provide sur	portin			
20% of	total cover:_					arate sheet				
40			Problematic I							
40	Yes	FAC		.,	o rogota	(=,,,,,,,	,			
5	No No	FACU	¹ Indicators of hyd be present, unless				must			
			Definitions of Fo							
			T \\/			- 0:- (7.0				
			Tree – Woody pla more in diameter height.							
			Sapling/Shrub – than 3 in. DBH an							
			m) tall.	J		•	`			
	= Total Cove	 r 9	Herb – All herbac of size, and wood				ardless			
_ 20% of	total cover:_		Woody vine – All height.	woody vir	nes great	er than 3.2	8 ft in			
			Hydrophytic							
			Vegetation Present?	Yes	N	。 <i>、</i>				
0 ,	= Total Cove	r	r resent:	163		<u> </u>				

Remarks: (Include photo numbers here or on a separate sheet.)

50% of total cover: __ 0

Woody Vine Stratum (Plot size: ______)



Photo 1 Upland data point wnec052_u facing west



Photo 2
Upland data point wnec052_u facing south

Dominion VA
Applicant/Owner: Dominion State: VA Sampling Point: wnea021e.
Investigator(s): GB, SA Section, Township, Range: No PLSS in this area
Landform (hillslope, terrace, etc.): floodplain Local relief (concave, convex, none): concave Slope (%): 0
Subregion (LRR or MLRA): P Lat: 37.66648916 Long: -78.72100067 Datum: WGS 1984
Soil Map Unit Name: Batteau loam, 0 to 2 percent slopes, occasionally flooded NWI classification: PEM1A
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, et
Hydrophytic Vegetation Present? Yes V No Is the Sampled Area Within a Wetland? Yes V No
Hydric Soil Present? Yes V No Wetland? Yes V No V Wetland Hydrology Present? Yes V No V No V Yes V Ye
Remarks:
hydrology enhanced by berm/bed of paralleling RR track; area is maintained as wildlife habitat by the VA Dept. of Fish and Game; there are upland hummocks scattered throughout the mapped extent, but to diffuse to pull out.
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)
<u>✓</u> Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes No Depth (inches): 1
Water Table Present? Yes No Depth (inches):
Saturation Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No No
(includes capillary fringe)
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Demotion
Remarks:

Sampling Point: wnea021	e_w	
-------------------------	-----	--

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species
1. Acer rubrum	4	Yes	FAC	That Are OBL, FACW, or FAC: 10 (A)
2.				(, ,
				Total Number of Dominant
3				Species Across All Strata: (B)
4	-			Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 90.90909090 (A/B)
6				
7				Prevalence Index worksheet:
	4	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover: 2		total cover:	0.8	OBL species0 x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species75
1. Fraxinus pennsylvanica	3	Yes	FACW	FAC species 49 x 3 = 147
2. Ligustrum sinense	2	Yes	FACU	FACU species 7
	2			0
3. Platanus occidentalis		Yes	FACW	UPL species $\begin{array}{c} 0 \\ 131 \end{array}$ $\begin{array}{c} x \ 5 = \\ 325 \end{array}$ (D)
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.48
6.				Trevalence mack = B/TC =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	7	= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 3.5	20% of	total cover:	1.4	
Herb Stratum (Plot size: ⁵)				data in Remarks or on a separate sheet)
1 Panicum hemitomon	25	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2 Verbesina alternifolia	20	Yes	FAC	
2. verbesina aiternifolia 3. Solidago gigantea	15	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4. Dichanthelium scoparium	15	Yes	FACW	Definitions of Four Vegetation Strata:
5. Conium maculatum	10	No	FACW	_
6. Dipsacus fullonum	5	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Cyperus esculentus	5	No	FACW	more in diameter at breast height (DBH), regardless of height.
8.	-			noight.
0	-			Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	95	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>47.5</u>	20% of	total cover:	19	W 1 2 4 4 4 6 6 6 6 1
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
1 Vitis rotundifolia	10	Yes	FAC	height.
2. Lonicera japonica	10	Yes	FAC	
	5	Yes	FAC	
3. Campsis radicans		163	TAC	
4				Hydrophytic
5				Vegetation
	25	= Total Cove	er	Present? Yes No
50% of total cover:12.5		total cover:		
Remarks: (Include photo numbers here or on a separate s	neet.)			

(inches) 0-4 4-10 10-20	Color (moist) 10YR 3/2			x Features				
4-10	10VD 3/2	<u>%</u>	Color (moist)		Type ¹	Loc ²	Texture	Remarks
	10111 3/2	100					SIL	
10-20	10YR 4/2	90	10YR 3/6	10	С	PL/M	SICL	
	10YR 5/2	65	10YR 4/5	35		M	SIC	
								-
						<u>.</u>		
	· -							
				·		<u>.</u>		
1 T 0. 0		mleties DN	L Dadwaad Matrix M				21 tion . D	J. Dave Lining M. Matrix
	Indicators:	pletion, Riv	I=Reduced Matrix, MS	S=Masked Sa	and Grain	IS.		L=Pore Lining, M=Matrix. ators for Problematic Hydric Soils ³ :
•			Dorle Curfo on	(07)				
Histoso	pipedon (A2)		Dark Surface Polyvalue Be	, ,	(CO) /MI	DA 147		cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16)
	listic (A3)		Polyvalue Be				1 7 0) ((MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, 140)	P	Piedmont Floodplain Soils (F19)
	ed Layers (A5)		✓ Depleted Ma		,		<u> </u>	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	. ,			V	/ery Shallow Dark Surface (TF12)
	ed Below Dark Surfa	ce (A11)	Depleted Da	, ,	7)			Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	essions (F8)				
Sandy I	Mucky Mineral (S1)	(LRR N,	Iron-Mangan	ese Masses	(F12) (LR	RR N,		
	A 147, 148)		MLRA 13	•				
	Gleyed Matrix (S4)		Umbric Surfa					licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent N	Material (F21)) (MLRA	127, 147	') un	less disturbed or problematic.
Restrictive	Layer (if observed):						
Type: sil								.1
Depth (in	nches): <u>10</u>						Hydric Soil	Present? Yes No
Remarks:								



Photo 1
Wetland data point wnea021e_w facing northeast



Photo 2
Wetland data point wnea021e_w facing northwest

Project/Site: Atlantic Coast Pipeline		City/C	County: Nelson County		Sampling Date: 1/21/2016
Applicant/Owner: DOMINION				State: VA	Sampling Point: wnea021e_w2
Investigator(s): Team C			on, Township, Range: No		
Landform (hillslope, terrace, etc.): D					
Subregion (LRR or MLRA). P	La	at. 37.67094822	Long78.7	1742528	Datum. WGS 1984
Soil Map Unit Name: Yogaville loam	, 0 to 2 percent s	slopes, occasionally floo	oded	NWI classific	ation: None
Are climatic / hydrologic conditions of					
Are Vegetation, Soil,					
Are Vegetation, Soil,					
SUMMARY OF FINDINGS -					
				<u> </u>	· ·
Hydrophytic Vegetation Present? Hydric Soil Present?		No No	Is the Sampled Area		
Wetland Hydrology Present?		No	within a Wetland?	Yes	No
Remarks:	100				
LIVEROL COV					
HYDROLOGY Wetland Hydrology Indicators				Cocondon/Indica	toro (minimum of two required)
Wetland Hydrology Indicators:	o is required; she	ock all that apply)		Surface Soil	tors (minimum of two required)
Primary Indicators (minimum of one					
Surface Water (A1) High Water Table (A2)		True Aquatic Plants (Hydrogen Sulfide Od		Sparsely veg	getated Concave Surface (B8)
Saturation (A3)				Moss Trim Li	
Water Marks (B1)		Presence of Reduce	=		Water Table (C2)
Sediment Deposits (B2)	_	Recent Iron Reduction	` '	Crayfish Buri	
Drift Deposits (B3)		_ Thin Muck Surface (0		-	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	_ Other (Explain in Rei			tressed Plants (D1)
Iron Deposits (B5)			,	Geomorphic	
Inundation Visible on Aerial Im	agery (B7)			Shallow Aqui	tard (D3)
Water-Stained Leaves (B9)				Microtopogra	phic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:					
		Depth (inches):			
		Depth (inches):	4		
	3 <u>/</u> No	Depth (inches):	0 Wetland H	ydrology Presen	t? Yes <u>/</u> No
(includes capillary fringe) Describe Recorded Data (stream g	auge, monitoring	well, aerial photos, pre	evious inspections), if avai	lable:	
3	3	, . , , , , .			
Remarks:					
Wetland hydrology indicators prese	nt				

Sampling Po	oint: wnea021e_w2
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00	Absolute	Dominant In		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total North and Chambers
3				Total Number of Dominant Species Across All Strata: 1 (B)
4.				Operics / toross / till otrata.
· ·				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				
	0	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:	20% of	total cover:	0	OBL species x 1 =0
Sapling/Shrub Stratum (Plot size: 15)				FACW species5 x 2 =10
· · ·				FAC species80 x 3 =240
1		 -		FACU species 10 x 4 = 40
2				0 0
3				95 290
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 3.05
6				
_				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cover		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover:	0	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1 Panicum virgatum	80	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Andropogon virginicus	10	No	FACU	
3. Juncus effusus		No	FACW	¹ Indicators of hydric soil and wetland hydrology must
3. Junicus enusus			FACW	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
				neight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	95	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>47.5</u>	20% of	total cover:	19	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
· · · · · · · · · · · · · · · · · · ·				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0 .	= Total Cover		Present? Yes No
50% of total cover: 0		total cover:	0	
Remarks: (Include photo numbers here or on a separate s		_		
Tremains. (include photo numbers here of on a separate s	ileet.)			

Profile Desc	ription: (Describe t	o the de	pth needed to docun	nent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	x Feature:		. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u> 7	Type ¹ C	Loc ²	<u>Texture</u>	<u>Remarks</u>
0-10	10 YR 5/3	93	10 YR 5/8			M	C	
10-18	10 YR 5/2	90	7.5 YR 5/8	10	С	PL/M	С	
·								
	-							
							-	
-	-						-	
¹Type: C=Cd	ncentration D=Deni	etion RM	I=Reduced Matrix, MS	S-Masker	I Sand Gr	ains	² l ocation: F	PL=Pore Lining, M=Matrix.
Hydric Soil		Ction, reiv	i=rcadoca Matrix, Mc	J-Masket	oana or	anis.		ators for Problematic Hydric Soils ³ :
Histosol			Dark Surface	(\$7)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		ce (S8) (N	MI RA 147.		Coast Prairie Redox (A16)
Black Hi			Tolyvalde Be					(MLRA 147, 148)
	n Sulfide (A4)		Loamy Gleye	. ,	•	, . ,	F	Piedmont Floodplain Soils (F19)
	Layers (A5)		✓ Depleted Mat		,			(MLRA 136, 147)
2 cm Mu	ck (A10) (LRR N)		Redox Dark S	Surface (F	- 6)		\	/ery Shallow Dark Surface (TF12)
	Below Dark Surface	(A11)	Depleted Dar				(Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	lucky Mineral (S1) (L	RR N,	Iron-Mangane		es (F12) ((LRR N,		
	147, 148)		MLRA 130				3,	
	leyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6) ayer (if observed):		Red Parent N	riateriai (F	21) (WLK	A 127, 147	r) ur	nless disturbed or problematic.
	ayer (ii observed).							
Type:								
Depth (inc	ches):						Hydric Soi	I Present? Yes No
Remarks:								
Hydric soil ind	icators present							



Photo 1
Wetland data point wnea021e_w2 facing northeast



Photo 2
Wetland data point wnea021e_w2 facing northwest

Project/Site: Atlantic Coast Pipeline	City/County: Nelson C	County	Sampling Date: 1/9/2016
Applicant/Owner: Dominion			Sampling Point: wnea021_u
	Section, Township, R		
Landform (hillslope, terrace, etc.): floodplain			
Subregion (LRR or MLRA): P	Lat: 37.6663596	ng: -78.72123839	Datum. WGS 1984
Soil Map Unit Name: Batteau loam, 0 to 2 percen	t slopes, occasionally flooded	NWI classif	fication: None
Are climatic / hydrologic conditions on the site typ			
Are Vegetation, Soil, or Hydrology			
Are Vegetation, Soil, or Hydrology			
SUMMARY OF FINDINGS – Attach si			
Hydrophytic Vegetation Present? Yes _	No Is the Sample	d Area	
	No within a Wetla	and? Yes	No
Wetland Hydrology Present? Yes Remarks:	No		
Upland data point for a saturated PEM wetland to Dept. of Fish and Game.	cated on the hoodplain of the James River	, this area is Game Land	managed for wildlife by the VA
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required;	check all that apply)	Surface So	il Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely V	egetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage P	atterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living Roo	ots (C3) Moss Trim	Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Seasor	n Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils		ırrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)		Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)		Stressed Plants (D1)
Iron Deposits (B5)			ic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aq	
Water-Stained Leaves (B9)			raphic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutra	al Test (D5)
Field Observations:			
	Depth (inches):		
	Depth (inches):		_
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches): W	etland Hydrology Prese	ent? Yes No
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspection	s), if available:	
Remarks:			
insufficient hydrology indicators present			

Sampling	Point: wnea021_	_u
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•	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species _
1				That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant
3				Species Across All Strata: 9 (B)
4				(=)
				Percent of Dominant Species That Are ORL FACW or FAC: 55.5555555 (A/R)
5				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
2		= Total Cove	_	
50% of total cover: 0	20% of	total cover:_	0	OBL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1. Ligustrum sinense	10	Yes	FACU	FAC species x 3 =
2. Juniperus virginiana	5	Yes	FACU	FACU species25 x 4 =100
3. Fraxinus pennsylvanica	2	No	FACW	UPL species54
				Column Totals:141 (A)549 (B)
4				(-)
5				Prevalence Index = B/A =3.89
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	17	= Total Cove		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 8.5		total cover:	3.4	4 - Morphological Adaptations ¹ (Provide supporting
<u></u>	2070 01	total oover		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:) Avena sativa	40	Yes	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
'·				
2. Setaria faberi	10	Yes	UPL	¹ Indicators of hydric soil and wetland hydrology must
3. Rumex crispus	10	Yes	FAC	be present, unless disturbed or problematic.
4. Verbesina alternifolia	10	Yes	FAC	Definitions of Four Vegetation Strata:
5. Phytolacca americana	5	No	FACU	Definitions of Four Vegetation Strata.
6. Verbascum thapsus	5	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7. Conium maculatum	5	No	FACW	more in diameter at breast height (DBH), regardless of
8. Cirsium discolor	4	No	UPL	height.
8. Cirsiani discolor				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	89	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover:44.5		total cover:_		
Woody Vine Stratum (Plot size: 30)	=	_		Woody vine – All woody vines greater than 3.28 ft in
1 Lonicera japonica	20	Yes	FAC	height.
2 Campsis radicans	8	Yes	FAC	
<u></u>	7	Yes	FAC	
3. Vitis rotundifolia		163	170	
4				Hydrophytic
5				Vegetation
	35	= Total Cove	r	Present? Yes No
50% of total cover:17.5		total cover:_	7	
Remarks: (Include photo numbers here or on a separate s	heet.)			
Tromano: (molado prioto hamboro noro di on a doparato di	11001)			

Depth	<u>Matrix</u>		Redox Features			
inches)	Color (moist)	%	Color (moist) % Type ¹ Lo	<u>Textu</u>		
0-4	10YR 3/2	100 		SII	-	
4-12	10YR 4/3	100		SII	_	
12-20	10YR 4/4	100		SIC	;L	
					- -	
	•					
	•					
						
		pletion, RM=Re	educed Matrix, MS=Masked Sand Grains.		on: PL=Pore Lining, M=Matrix.	
ydric Soil	Indicators:				Indicators for Problematic Hyd	dric Soils ³ :
Histoso			Dark Surface (S7)		2 cm Muck (A10) (MLRA 14	7)
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA		Coast Prairie Redox (A16)	
	listic (A3)		Thin Dark Surface (S9) (MLRA 147, 1	148)	(MLRA 147, 148)	
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F	F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)	(TT (a)
	uck (A10) (LRR N)	(0.4.4)	Redox Dark Surface (F6)		Very Shallow Dark Surface ((TF12)
	ed Below Dark Surface	ce (A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)	
	ark Surface (A12)	(LDD N	Redox Depressions (F8)	NI.		
	Mucky Mineral (S1) (A 147, 148)	LKK N,	Iron-Manganese Masses (F12) (LRR MLRA 136)	IN,		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12	2)	³ Indicators of hydrophytic vege	atation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLI		wetland hydrology must be pr	
-	d Matrix (S6)		Red Parent Material (F21) (MLRA 12)		unless disturbed or problema	
	Layer (if observed)):	rea r arent material (r 2 r) (m2rt) r 12	1, ,	uniced distanced or problema	
Type: _nc		,-				
			_	l la calai	- Cail Brancout?	N= V
Depth (in	icnes):		_	Hydri	c Soil Present? Yes	No
temarks:						



Photo 1 Upland data point wnea021_u facing west-northwest



Photo 2
Upland data point wnea021_u facing south-southwest