Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 4/11/2016
Applicant/Owner: DOMINION		State: WV	Sampling Point: wrac106e_w
Investigator(s): Team C	Section, Tow	nship, Range: <u>No PLSS in this area</u>	3
Landform (hillslope, terrace, etc.): Depression	Local relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38	8.55466806	Long: <u>-80.13981476</u>	Datum: WGS 1984
Soil Map Unit Name: Buchanan and Ernest stony soils, 15	5 to 35 percent slopes	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for th	this time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes <u>/</u> No
Are Vegetation, Soil, or Hydrology	_naturally problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🗾 🗸 Yes 🗾 🗸	/	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:						

, 0,	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; che	eck all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Depending (B2) 		Sparsely Vegetated Concave Surface (B8) ✓ Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)	
Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water-Stained Leaves (E Aquatic Fauna (B13)	ial Imagery (B7) 9)	_ Recent from Reduction in Third Sc _ Thin Muck Surface (C7) _ Other (Explain in Remarks)	 Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes <u>v</u> No Yes <u>v</u> No Yes <u>v</u> No	Depth (inches): 2 Depth (inches): 0 Depth (inches): 0	Wetland Hydrology Present? Yes No
Describe Recorded Data (stre	am gauge, monitoring	y well, aerial photos, previous inspec	tions), if available:
Describe Recorded Data (stre	eam gauge, monitoring	g well, aerial photos, previous inspec	tions), if available:

Sampling Point: wrac106e_w

, , ,	A I I (.	-	- Pratan	Deminence Testmediatest
Tree Stratum (Plot size: 30)		Dominant II	Stotuo	Dominance Test worksneet:
	70 COVEI	<u>Species:</u>	Status	Number of Dominant Species
1		<u></u>		That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant
3		·		Species Across All Strata: (B)
4.				
r				Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: (A/B)
6				
7				Prevalence Index worksheet:
1		- <u></u>		Total % Cover of: Multiply by:
	0	= Total Cove	r	
50% of total cover: 0	20% of	f total cover	0	OBL species 55 x 1 = 55
	2070 01			EACW species 40 x 2 - 80
Sapling/Shrub Stratum (Plot size:)				$\frac{1}{2} = \frac{1}{2}$
1.				FAC species x 3 =
				FACU species 10 x 4 - 40
2		·		
3.				UPL species x 5 =
				Column Totals: 105 (A) 175 (B)
4		·		
5.				5 1 5 6
				Prevalence Index = $B/A = 1.00$
б				Hydrophytic Vegetation Indicators:
7				
				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9.				\mathbf{I} = \mathbf
	0	Total Caura	-	Y 3 - Prevalence Index Is ≤3.0
0			0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 0	20% of	f total cover:	0	
Herb Stratum (Plot size: 5)				data in Remarks of on a separate sheet)
· Phalaris arundinacea	40	Voo		Problematic Hydrophytic Vegetation ¹ (Explain)
1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	40	165	FACW	
_{2.} Typha angustifolia	35	Yes	OBL	
	20	No	OBI	¹ Indicators of hydric soil and wetland hydrology must
	20	110		be present, unless disturbed or problematic.
_{4.} Schizachyrium scoparium	10	No	FACU	Definitions of Four Vegetation Strates
				Deminitions of Four Vegetation Strata.
D				Tree Weady planta avaluding vince 2 in (7.6 cm) or
6.				iree – woody plants, excluding vines, 3 in. (7.6 cm) of
7				more in diameter at breast height (DBH), regardless of
1				neight.
8				One line (Ohmethin) Weissland to the standard in the standard
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 ln. DBH and greater than or equal to 3.28 ft (1
10		. <u> </u>		m) tall.
11				
···	105	· · · · · · · · · · · · · · · · · · ·		Herb – All herbaceous (non-woody) plants, regardless
	105	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 52.5	20% of	f total cover:	21	
Maadu Vina Stratum (Blat aiza: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
۲ <u>۰</u>				
3		. <u> </u>		
1				
4		· · · · · · · · · · · · · · · · · · ·		Hydrophytic
5				Vegetation
	0	- Total Cove	r	Present? Yes V No
			0	
50% of total cover:	20% 0	r total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	cription: (Describe t	o the dep	oth needed to docu	ment the i	ndicator	or confirm	the absence of	indicators.)	
Depth	Depth Matrix Redox Features								
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type'	Loc ²	Texture	Remarks	3
0-8	10 YR 4/2	98	10 YR 4/6	2	С	PL	SL		
8-18	10 YR 4/3	100					SL		
		<u> </u>							
. <u> </u>				. <u> </u>					
·									
							<u> </u>		
Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location: PL=F	Pore Lining, M=Matrix	<u>K.</u>
Hydric Soli	Indicators:			(- -)			Indicato	rs for Problematic F	iyaric Solis :
Histosol	(A1)		Dark Surface	e (S7)	(0.0) (1)		2 cm	1 Muck (A10) (MLRA	147)
Histic Ep	pipedon (A2)		Polyvalue Be	elow Surfac	ce (S8) (N	ILRA 147,	148) <u>Coa</u>	st Prairie Redox (A16	5)
Black Hi	ISTIC (A3)			unace (59)		47, 148)	(N Died	/ILRA 147, 148) Imant Elecatelein Sail	o (E10)
Hyuloge Stratified	d Lavers (A5)		Loanty Gleye	eu Maliix (r	-2)			MI PA 136 147)	5 (F19)
2 cm Mi	uck (A10) (I RR N)		Bedox Dark	Surface (Fi	6)		Verv	/ Shallow Dark Surfac	ce (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	(F7)		Othe	er (Explain in Remark	(s)
Thick Da	ark Surface (A12)	()	Redox Depre	essions (F8	3)			. (
Sandy N	/ucky Mineral (S1) (L	RR N.	Iron-Mangar	ese Masse	es (F12) (I	LRR N.			
MLR	A 147, 148)		MLRA 13	6)	· / ·				
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) (I	MLRA 13	6, 122)	³ Indica	tors of hydrophytic ve	egetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetla	nd hydrology must be	e present,
Stripped	l Matrix (S6)		Red Parent I	Material (F2	21) (MLR	A 127, 147	7) unles	s disturbed or problem	matic.
Restrictive	Layer (if observed):								
Туре:									
Depth (in	ches):						Hydric Soil Pr	esent? Yes 🖌	No
Remarks:									
Hydric soil inc	dicators present								
,	· · · · · · · · · · · · · · · · · · ·								



Photo 1 Wetland data point WRAC106e_w facing north



Photo 2 Wetland data point WRAC106e_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: <u>F</u>	Randolph County	_ Sampling Date: 4/11/2016
Applicant/Owner: DOMINION		State: WV	Sampling Point: wrac106_u
Investigator(s): Team C	Section, Town	ship, Range: No PLSS in this are	а
Landform (hillslope, terrace, etc.): Slight slo	ppe Local relief (conc:	ave, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>N</u>	Lat: <u>38.55460247</u>	Long: <u>-80.13970962</u>	Datum: WGS 1984
Soil Map Unit Name: Buchanan and Ernest	stony soils, 15 to 35 percent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the s	ite typical for this time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hyd	rology significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hyd	rology naturally problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks)	Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) bils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
 Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No∕
Remarks: No wetland hydrology indicators present	

Sampling Point: wrac106_u

		Absoluto	- Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	Dominance rest worksneet.
(1 lot bize:	/	/0 00101	000000	Olaluo	Number of Dominant Species
1			·	<u> </u>	That Are OBL, FACW, or FAC: (A)
2					Total Number of Dominant
3.					Species Across All Strata: 3 (B)
4				·	
4			·	<u> </u>	Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 0 (A/B)
6.					
7				·	Prevalence Index worksheet:
/		0	·		Total % Cover of: Multiply by:
		0	= Total Cove	r	
	50% of total cover: 0	20% of	total cover:	0	OBL species $x_1 = 0$
Sapling/Shrub Stratum (Plot siz	7e: 15				FACW species $\begin{array}{c} 0 \\ x 2 = \end{array}$
Quercus rubra	,,	30	Yes	FACU	EAC species $0 \times 3 = 0$
1. duorodo rubra					$\frac{80}{320}$
2			. <u> </u>		FACU species $x 4 = 0$
3.					UPL species $0 \times 5 = 0$
					Column Totals: 80 (A) 320 (B)
4			·	<u> </u>	
5					Prevalence Index $- B/A - 4$
6.					
7				·	Hydrophytic Vegetation Indicators:
/·			·	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8					2 Dominance Test is $\geq 50\%$
9					
o		30	Tatal Ora		3 - Prevalence Index is ≤3.0'
			= Total Cove	r 6	4 - Morphological Adaptations ¹ (Provide supporting
	50% of total cover: 15	20% of	total cover:	0	data in Remarks or on a congrate sheet)
Herb Stratum (Plot size:	5)				
1 Schizachyrium scoparium	,	30	Yes	FACU	Problematic Hydrophytic Vegetation' (Explain)
1. Salidaga aanadanaja		20	Vee	EACU	
2. Solidago canaderisis		20	165	FACU	¹ Indicators of hydric soil and wetland hydrology must
3					he present unless disturbed or problematic
4					be present, unless disturbed of problematic.
-			·		Definitions of Four Vegetation Strata:
5			·		Tree March relate evolution visco 2 in (7.0 err) er
6					Tree – woody plants, excluding vines, 3 in. (7.6 cm) or
7					hoight
/			·		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.
10					,
11			·		Herb – All herbaceous (non-woody) plants, regardless
		50	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 25	20% of	total cover:	10	
Woody Vine Stratum (Plot size	. 30)				Woody vine – All woody vines greater than 3.28 ft in
	/				neight.
1			·		
2			. <u> </u>		
3.					
<u> </u>			·		
4			·		Hydrophytic
5					Vegetation
		0	= Total Cove	r	Present? Yes No V
	50% of total cover: 0	20% of	total cover:	0	
		20 /0 01	total cover.		
Remarks: (Include photo numb	ers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	o the depth r	needed to docum	nent the in	dicator	or confirm	the absence of indicato	rs.)
Depth	Matrix Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 4/3	100					SL	
	·	<u> </u>					<u> </u>	
	·							
		·						
		<u> </u>						
1			de a d Martin M				21	
Type: C=C	oncentration, D=Deple	etion, RM=Re	duced Matrix, Ma	S=Masked	Sand Gra	ains.	Location: PL=Pore Linir	ng, M=Matrix.
Hyune Soli	indicators.			(- -)				
Histosol	(A1)	-	Dark Surface	(\$7)	(- -) (-)		2 cm Muck (A	(10) (MLRA 147)
Histic E	pipedon (A2)	-	Polyvalue Be	low Surfac	e (S8) (M	LRA 147,	148) Coast Prairie	Redox (A16)
Black H	istic (A3)	-	Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLRA 14)	7, 148)
Hydroge	en Sulfide (A4)	-	Loamy Gleye	d Matrix (F	-2)		Piedmont Flo	odplain Soils (F19)
Stratifie	d Layers (A5)	-	Depleted Ma	trix (F3)			(MLRA 13)	6, 147)
2 cm Mi	uck (A10) (LRR N)		Redox Dark S	Surface (F6	5) (==)		Very Shallow	Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explai	n in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F8)			
Sandy M	Aucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	s (F12) (I	_RR N,		
MLR	A 147, 148)		MLRA 13	6) (F10) (1			3	
Sandy C	Bleyed Matrix (S4)	-	Umbric Surfa	ce (F13) (I		6, 122)	Indicators of hy	drophytic vegetation and
Sandy F	Redox (S5)	-	Pleamont Fic	odpiain So	IIS (F19)	(MLRA 140	s) wetland hydrol	ogy must be present,
Stripped	Matrix (S6)	-	Red Parent N	laterial (F2	(MLR)	A 127, 147	unless disturbe	ed or problematic.
Restrictive	Layer (if observed):							
Туре:			_					
Depth (in	ches):		-				Hydric Soil Present?	Yes No 🔽
Remarks:								
No hydric soi	Inresent							



Photo 1 Upland data point WRAC106_u facing south



Photo 2 Upland data point WRAC106_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Rar	ndolph County	Sam	pling Date: 5/2/2016
Applicant/Owner: Dominion			State: <u>WV</u> Sa	ampling Point: <u>wrae207e_w</u>
Investigator(s): CG, KO	Section, Townsh	ip, Range: <u>No P</u>	LSS in this area	
Landform (hillslope, terrace, etc.): road	Local relief (concave	e, convex, none	_{):} none	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38.54620	0414	Long: <u>-80.13</u>	338128	Datum: WGS 1984
Soil Map Unit Name: Gilpin-Dekalb stony complex, moist, 35 to	70 percent slopes		NWI classification:	None
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	No 🔽 (If	no, explain in Remar	ks.)
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed?	Are "Normal C	ircumstances" preser	nt? Yes No 🔽
Are Vegetation, Soil, or Hydrology nature	ally problematic?	(If needed, exp	lain any answers in F	Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:						
Hydrology and soils significantly disturbe	d due to	o road o	cut in slope and com	paction of soil.		

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 I	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 Sc	oils (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):	
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	
Surface water Present? Yes No Depth (inches): Water Table Present? Yes _ Saturation Present? Yes _ Ves _ No Depth (inches): Includes capillary fringe) Yes _	Wetland Hydrology Present? Yes 🖌 No
Surface water Present? Yes No Depth (inches): Water Table Present? Yes _ Saturation Present? Yes _ Vater Table Present? Yes _ Saturation Present? Yes _ Includes capillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection)	Wetland Hydrology Present? Yes <u>V</u> No
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u> No</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes _ Saturation Present? Yes _ Vater Table Present? Yes _ No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes _ Saturation Present? Yes _ Yes _ No Depth (inches): Saturation Present? Yes _ Yes _ No Depth (inches): Includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: wrae207e_w

	Abaaluta	- Dominant Ir	diaatar	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet.
	/// 00101		Olulus	Number of Dominant Species
1		·		That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strate: 1 (P)
				Species Across All Strata. (B)
4				Percent of Dominant Species
5.				That Are OBL EACW or EAC 100 (A/B)
6				
0		·		Prevalence Index worksheet:
7		. <u> </u>		
	0	= Total Cover		I otal % Cover of: Multiply by:
50% of total cover: 0	20% of	total cover:	0	OBL species 85 x 1 = 85
15	20 /8 0			$E_{AC} = \frac{20}{100} \times 2 = \frac{40}{100}$
Sapling/Shrub Stratum (Plot size:)				FACIV species X Z =
1.				FAC species $3 \times 3 = 15$
				EACLU species $0 \times 4 = 0$
2				
3				UPL species $x_5 = -440$
1				Column Totals: (A) (B)
ч				
5		. <u> </u>		Prevalence Index = $B/A = 1.27$
6.				
7				Hydrophytic Vegetation Indicators:
/		·		1 - Rapid Test for Hydrophytic Vegetation
8				\checkmark 2 Dominando Tastia $= 50\%$
a				
9				\checkmark 3 - Prevalence Index is $\leq 3.0^{1}$
	0	= Total Cover		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 0	20% of	f total cover:	0	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Carex vulpinoidea	70	Vee		Problematic Hydrophytic Vegetation ¹ (Explain)
1. Carex vulpinoidea	70	Yes	OBL	
2. Carex prasina	15	No	OBL	
o Juncus effusus	10	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4. Poa palustris	10	No	FACW	Definitions of Four Vegetation Strata
5 Dichanthelium clandestinum	5	No	FAC	Deminions of Four Vegetation of ata.
		·		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		·		more in diameter at breast height (DBH) regardless of
7.				height.
~				g
ð				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		- <u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	110	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 55	20% of	f total cover:	22	
				Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1.				
2				
Z		·		
3		. <u> </u>		
4				
				Hydrophytic
5		·		Vegetation
	0	= Total Cover		Present? Yes <u>Ves</u> No
50% of total cover: 0	20% of	f total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	cription: (Describe to	o the dep	th needed to docur	nent the i	ndicator	or confirm	n the absence o	f indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	10YR 4/1	70	10YR 4/6	10	С	Μ	SC	
			·					
							<u> </u>	
			·,					
							<u> </u>	
¹ Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL=	Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicate	ors for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	e (S7)			2 cr	m Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) (N	ILRA 147,	, 148) Coa	ast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	Irface (S9)) (MLRA 1	47, 148)	(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Pie	dmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			(MLRA 136, 147)
2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Ver	y Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Date	rk Surface	e (F7)		Oth	er (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F	8)			
Sandy M	Mucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Mass	es (F12) (LRR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ice (F13)	(MLRA 13	6, 122)	³ Indica	ators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	48) wetla	and hydrology must be present,
Stripped	d Matrix (S6)		Red Parent N	Aaterial (F	21) (MLR	A 127, 147	7) unles	ss disturbed or problematic.
Restrictive	Layer (if observed):							
Type: ro	СК							
Depth (in	ches): <u>10</u>						Hydric Soil P	resent? Yes 🖌 No
Remarks:								



Photo 1 Wetland data point wrae207e_w facing east



Photo 2 Wetland data point wrae207e_w facing west

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline	City/County: Randol	lph County	Sampling Date: <u>5/2/2016</u>
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae207_u
Investigator(s): <u>cg, kno</u>	Section, Township, I	Range: <u>No PLSS in this area</u>	a
Landform (hillslope, terrace, etc.): hillslope	Local relief (concave	e, convex, none): <u>convex</u>	Slope (%): <u>45</u>
Subregion (LRR or MLRA): N Lat: 38.546	325054	_ Long: <u>-80.13650461</u>	Datum: WGS 1984
Soil Map Unit Name: Gilpin-Dekalb stony complex, moist, 35 to 70 per	rcent slopes	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No	o (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Ar	re "Normal Circumstances" p	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If	needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling poin	t locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>′</u> No <u>′</u> No <u>′</u>	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Significant precipitation recently					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U)	Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizospheres along Living F	Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils ((C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No <u>v</u> Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No _ Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No <u>V</u> Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No
Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: No Hydrology	Wetland Hydrology Present? Yes No tions), if available:

Sampling Point: wrae207_u

30	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. <u>Acer saccharum</u>	40	Yes	FACU	That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4				Demonstrat Demonstration
5				That Are OBL_EACW or EAC [·] 0 (A/B)
6.				
7.				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
···	40	= Total Cov	er	OBL species x 1 =0
50% of total cover: 20	20% of	total covor:	8	FACW species x 2 =0
Sepling/Shruh Stratum (Plot size)	20 /0 01			FAC species 15 x 3 = 45
<u>Saphing/Sillub Silaium</u> (Piol size)	30	Yes	LIPI	FACU species $90 \times 4 = 360$
	10	Voc		UPL species $\frac{35}{x5} = \frac{175}{x5}$
		165	FACU	$\begin{array}{c} 140 \\$
3. Betula alleghaniensis	5	No	FACU	
4				Prevalence Index = B/A = 4.14
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8.				$\frac{2}{2} = \frac{2}{2} = \frac{1}{2} = \frac{1}{2}$
	45	= Total Cov	er	5 - Prevalence index is \$5.0
50% of total cover: 22.5	20% of	total cover	9	Problematic Hydrophytic Vegetation (Explain)
Uarh Stratum (Blat size)	20 /0 01			
Herb Stratum (Plot size:)	35	Voc	FACU	¹ Indicators of hydric soil and wetland hydrology must
		<u> </u>	- 540	be present, unless disturbed or problematic.
2. Anemone canadensis	10		FAC	Definitions of Four Vegetation Strata:
3. Sanguinaria canadensis	5	No		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Viola bicolor	5	NO	FAC	more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All berbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10				
11				Woody vine – All woody vines greater than 3.28 ft in height
12				neight.
12	55	- Tatal Cau		
27.5			er 11	
50% of total cover:	20% of	total cover:		
Woody Vine Stratum (Plot size: 30)				
1				
2				
3				
4				
5.				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover: 0	20% of	total cover	0	Present? Yes No V
Demortes: (If abaan ad list merchological adaptations halo				
	w).			

SOIL

Profile Desc	ription: (Describe t	o the depth r	needed to docur	nent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Features	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 3/3	100					SIL	
		<u> </u>				<u> </u>		
				·				
. <u> </u>								
1 Type: C=Co	ncentration D=Denk	etion RM=Re	duced Matrix M	S=Masked	Sand Gr	ains	² Location:	PI =Pore Lining M=Matrix
Hvdric Soil I	ndicators: (Applica	ble to all LR	Rs. unless other	wise note	ed.)	unio.	Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Polyvaluo Bo		oo (S8) (I	DD C T III	1 cm 1	
	(AI) Vinadan (AQ)	-	Folyvalue Be	now Suna		.KK 3, 1, Uj T IIV		
HISTIC Ep	ipedon (AZ)	-		inace (59)) (LKK 5,	1,0)		
Black Hi	stic (A3)	-	Loamy Muck	y Mineral	(F1) (LRR	(0)	Reduc	ed Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)	-	Loamy Gleye	ed Matrix (F2)		Piedm	ont Floodplain Soils (F19) (LRR P, S, T)
Stratified	I Layers (A5)	-	Depleted Ma	trix (F3)			Anoma	alous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F	6)		(MLI	RA 153B)
5 cm Mu	cky Mineral (A7) (LR	R P, T, U)	Depleted Dai	rk Surface	(F7)		Red P	arent Material (TF2)
Muck Pr	esence (A8) (LRR U)		Redox Depre	essions (F8	8)		Very S	Shallow Dark Surface (TF12)
1 cm Mu	ck (A9) (LRR P, T)	_	Marl (F10) (L	.RR U)			Other	(Explain in Remarks)
Depleted	Below Dark Surface	e (A11)	Depleted Ocl	hric (F11)	(MLRA 1	51)		
Thick Da	ark Surface (A12)	. ,	Iron-Mangan	ese Masse	es (F12) (, LRR O. P. 1	F) ³ Indic	cators of hydrophytic vegetation and
Coast Pr	airie Redox (A16) (M	LRA 150A)	Umbric Surfa	ce (F13) (LRR P. T	. U)	wet	tland hydrology must be present
Sandy M	lucky Mineral (S1) (I		Delta Ochric	(F17) (MI	RA 151)	, .,	unl	ess disturbed or problematic
Candy N	loved Metrix (S4)		Delta Oelille	(1 17) (11) tio (E19) (MI DA 46	0A 150P)	um	ess disturbed of problematic.
Sandy D		-	Reduced Ver			(MI DA 440		
Sanuy R		-		ouplain S			9A) NA 40 A 450 O	4500)
Stripped	Matrix (S6)	<u> </u>	Anomalous E	sright Loar	ny Solis (I	F20) (MLRA	a 149A, 153C	, 153D)
Dark Sui	face (S7) (LRR P, S,	, I, U)					[
Restrictive L	Layer (if observed):							
Type: 100	ĸ		_					
Depth (inc	ches): <u>8</u>		_				Hydric Soil	Present? Yes No 🔽
Remarks:								



Photo 1 Upland data point wrae207_u facing east



Photo 2 Upland data point wrae207_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Ranc	lolph County	_ Sampling Date: 5/10/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae209e_w
Investigator(s): CG, KO	Section, Township	o, Range: No PLSS in this are	ea
Landform (hillslope, terrace, etc.): shoulder	Local relief (concave,	convex, none): <u>concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): <u>N</u>	_ Lat: <u>38.52963884</u>	Long: <u>-80.13444197</u>	Datum: WGS 1984
Soil Map Unit Name: Calvin silt loam, high base	substratum, 8 to 15 percent slopes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typ	pical for this time of year? Yes I	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrolog	y significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrolog	y naturally problematic?	(If needed, explain any answ	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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 Sc	oils (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 <u></u> No <u>Depth</u> (inches): <u>1</u>	
Surface Water Present? Yes	
Surface Water Present? Yes V Depth (inches): 1 Water Table Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0	Wetland Hydrology Present? Yes <u>✓</u> No
Surface Water Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No
Surface Water Present? Yes ✓ No Depth (inches): 1 Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes ✓ No Depth (inches): 1 Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Ves ✓ No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes ✓ No Depth (inches): Water Table Present? Yes ✓ No Depth (inches): Saturation Present? Yes ✓ No Depth (inches): Saturation Present? Yes ✓ No Depth (inches): One control of the second s	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes ✓ No Depth (inches): Water Table Present? Yes ✓ No Depth (inches): Saturation Present? Yes ✓ No Depth (inches): Saturation Present? Yes ✓ No Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Surface Water Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: wrae209e_w

	Absolute	Dominant lu	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksheet.
A Acer saccharinum	10	Yes	FACW	Number of Dominant Species
1. <u></u>				That Are OBL, FACVV, of FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
1				
4		·		Percent of Dominant Species
5		·	<u> </u>	That Are OBL, FACW, or FAC: /5 (A/B)
6				
7				Prevalence Index worksheet:
<i>I</i>	10			Total % Cover of: Multiply by:
		= Total Cove	, ,	$OBI \text{ on option}$ $55 \times 1 - 55$
50% of total cover:	20% of	total cover:	2	OBL Species X I =
Sapling/Shrub Stratum (Plot size: 15)				FACW species 20 $x 2 = 30$
1				FAC species $0 x 3 = 0$
I		·		$E_{ACII \text{ spacing}} = 0$ $\mathbf{x} \mathbf{A} = 0$
2		·	<u> </u>	
3				UPL species $x 5 = $
Λ				Column Totals: (A) (B)
4		·	·	
5		·	<u> </u>	Prevalence Index = $B/A = 1.31$
6.				
7				Hydrophytic Vegetation Indicators:
/		·		1 - Rapid Test for Hydrophytic Vegetation
8	<u></u>			\checkmark 2 - Dominance Test is >50%
9.				
•	0	Total Cove		Y 3 - Prevalence Index is ≤3.0°
	200/ -/		0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:	~	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1 Carex crinita	25	Yes	OBL	Problematic Hydrophytic Vegetation (Explain)
	20	Yes		
				¹ Indicators of hydric soil and wetland hydrology must
3. Cardamine pensylvanica	20	Yes	OBL	be present. unless disturbed or problematic.
Δ Impatiens capensis	15	No	FACW	
- Carex prasina	10	No	OBI	Definitions of Four vegetation Strata:
5. <u>04807 presine</u>		110		Troe - Woody plants excluding vines 3 in (7.6 cm) or
6	. <u> </u>			more in diameter at breast height (DBH) regardless of
7.				height.
·· <u></u>				
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9		<u></u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
· · · · · · · · · · · · · · · · · · ·				
	00	·		Herb – All herbaceous (non-woody) plants, regardless
	90	= Total Cove	r 	of size, and woody plants less than 3.28 tt tall.
50% of total cover: 45	20% of	total cover:	18	Manual All woods since another than 2.20 ft in
Woody Vine Stratum (Plot size: 30)				woody vine – All woody vines greater than 3.28 it in
,				
1		·		
2				
3				
۰ ۸				
4		·	<u> </u>	Hydrophytic
5	· ·			Vegetation
	0	= Total Cove	r	Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
	2078.01			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	5YR 3/3	100					SIC	
8-24	5YR 4/1	90	5YR 3/3	10	С	М	SIC	
¹ Type: C=0	Concentration, D=Depl	etion, RN	l=Reduced Matrix, M	S=Maskee	d Sand Gra	ains.	² Location: PL=Po	re Lining, M=Matrix.
Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Sandy	ol (A1) Epipedon (A2) Histic (A3) Jen Sulfide (A4) ed Layers (A5) Huck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L	(A11) RR N.	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depression Iron-Mangan 	e (S7) elow Surfa urface (S9 ed Matrix (trix (F3) Surface (I rk Surface essions (F esse Mass	ice (S8) (N) (MLRA 1 (F2) 56) ∋ (F7) 8) es (F12) (I	ILRA 147, 47, 148) LRR N,	2 cm M 2 cm M Coast (ML Very S Other m	Muck (A10) (MLRA 147) Prairie Redox (A16) RA 147, 148) ont Floodplain Soils (F19) RA 136, 147) shallow Dark Surface (TF12) (Explain in Remarks)
MLR Sandy Sandy Sandy	A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		MLRA 13 Umbric Surfa Piedmont Flo Red Parent I	6) ace (F13) bodplain S Material (F	(MLRA 13 Goils (F19) 521) (MLR	6, 122) (MLRA 14 A 127, 147	³ Indicator (8) wetland (7) unless o	rs of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Tuno	Layer (II ODServed):							
Dopth (achoo):						Hydria Sail Drea	vont? Von V No
Debru (II							nyuric Soli Pres	



Photo 1 Wetland data point wrae209e_w facing east



Photo 2 Wetland data point wrae209e_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Ran	dolph County	Sampling Date: 5/10/2016			
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae209_u			
Investigator(s): CG, KO	Section, Townshi	Section, Township, Range: No PLSS in this area				
Landform (hillslope, terrace, etc.): shoulder	Local relief (concave	e, convex, none): <u>convex</u>	Slope (%): <u>10</u>			
Subregion (LRR or MLRA): N Lat: 38	5.52952878	_ Long: <u>-80.13448424</u>	Datum: WGS 1984			
Soil Map Unit Name: Calvin silt loam, high base substratu	m, 8 to 15 percent slopes	NWI classific	ation: None			
Are climatic / hydrologic conditions on the site typical for th	his time of year? Yes	No (If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No			
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	rs in Remarks.)			

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	<u> イ イ イ イ </u>	Is the Sampled Area within a Wetland?	Yes	No	v
Remarks:							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 Sc	bils (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 Vo Depth (inches):	
Surface Water Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches):	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (include capacity frame) Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Ves No V Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Ves No V Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No V Depth (inches): Water Table Present? Yes No V Depth (inches): Saturation Present? Yes No V Depth (inches): (includes capillary fringe) No V Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks: Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec Remarks:	Wetland Hydrology Present? Yes No tions), if available:

Sampling Point: wrae209_u

	Absolute	- Dominant li	ndicator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Deminent Creation
Liriodendron tulipifera	25	Yes	FACU	That Aro OBL EACW or EAC: 2 (A)
Acer saccharinum	20	Yes	FACW	
2				Total Number of Dominant
3				Species Across All Strata:6 (B)
4.				
5				Percent of Dominant Species
-				That Are OBL, FACW, or FAC:(A/B)
6				Brovalanca Indax warkshoot
7				
	45	= Total Cove	r	I otal % Cover of: Multiply by:
50% of total cover: 22.5	20% of	total cover:	9	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15				FACW species 20 x 2 = 40
Equis grandifolia	25	Vec	FACU	FAC species 30 x 3 - 90
		165	TACO	$70 \times 3^{-}$
2. Betula alleghaniensis	25	Yes	FAC	FACU species $x 4 = \frac{100}{75}$
_{3.} Acer pensylvanicum	10	No	FACU	UPL species $15 \times 5 = 75$
1				Column Totals: ¹³⁵ (A) ⁴⁸⁵ (B)
4				
5				Prevalence Index = B/A = 3.59
6				
7.				nyurophytic vegetation indicators:
· ·				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is < 3.01
	60	= Total Cove	r	
50% of total cover: 30	20% of	total cover:	12	4 - Morphological Adaptations" (Provide supporting
				data in Remarks or on a separate sheet)
Function measurements	15			Problematic Hydrophytic Vegetation ¹ (Explain)
	10	Yes	UPL	
2. Acer saccharum	10	Yes	FACU	4
3 Acer rubrum	5	No	FAC	Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				I ree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				hore in diameter at breast height (DBH), regardless of
··				noight.
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				
· · · ·	30			Herb – All herbaceous (non-woody) plants, regardless
15		= Total Cove	r e	or size, and woody plants less than 3.26 it tall.
50% of total cover: 15	20% of	total cover:	0	Woody vine – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1.				
2				
Z				
3				
4		. <u></u>		Hydrophytic
5.				Vegetation
	0	Total Cava	-	Present? Yes No
			0	
	20% 0	total cover.		
Remarks: (Include photo numbers here or on a separate sl	heet.)			

Profile Des	cription: (Describe	o the depth	n needed to docum	nent the inc	dicator o	or confirm	the absence of	indicators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	R	emarks
0-4	7.5YR 3/2	100					SIL		
4-24	5YR 4/3	100					SIL		
		<u> </u>							
						<u> </u>			
		<u> </u>							
1							2		
'Type: C=C	oncentration, D=Depl	etion, RM=F	Reduced Matrix, MS	S=Masked S	Sand Gra	ains.	Location: PL=P	ore Lining, N	I=Matrix.
Hydric Soll	Indicators:			(0-)			Indicator	S for Proble	matic Hydric Solis :
Histoso	I (A1)		Dark Surface	(S7)			2 cm	Muck (A10)	(MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surface	e (S8) (M	LRA 147,	148) <u>Coas</u>	t Prairie Red	ox (A16)
Black H	ISTIC (A3)			rface (S9) (47, 148)	(M Diada	LKA 147, 14	8) sin Seile (E10)
Hyuloge Stratifio	d Lovers (A5)		Loany Gleye	riv (E2)	∠)				ain Sons (F 19) 7)
3tratille	u Layers (A3) uck (Δ10) (I RR N)		Depleted Ma	Surface (F6))		(Wi Verv	Shallow Darl	(Surface (TE12)
Deplete	d Below Dark Surface	(A11)	Depleted Dark	k Surface (I	, F7)		Othe	r (Explain in I	Remarks)
Thick D	ark Surface (A12)	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Redox Depre	ssions (F8)	,				(onland)
Sandy N	Mucky Mineral (S1) (L	RR N.	Iron-Mangan	ese Masses	s (F12) (L	RR N.			
MLR	A 147, 148)		MLRA 13	6)	· / ·				
Sandy (Gleyed Matrix (S4)		Umbric Surfa	, ce (F13) (M	ILRA 13	6, 122)	³ Indicat	ors of hydrop	hytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Soi	ls (F19)	(MLRA 14	8) wetlar	d hydrology i	must be present,
Stripped	d Matrix (S6)		Red Parent N	Aaterial (F2	1) (MLR/	A 127, 147) unless	disturbed or	problematic.
Restrictive	Layer (if observed):								
Туре:									
Depth (in	ches):						Hydric Soil Pre	esent? Yes	s No 🖍
Remarks:							l		



Photo 1 Upland data point wrae209_u facing east



Photo 2 Upland data point wrae209_u facing northwest

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/23/2016
Applicant/Owner: Dominion		State: WV	_ Sampling Point: wrae226e_w
Investigator(s): CG, RP	Section, Tow	nship, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): slope	Local relief (con-	cave, convex, none): <u>convex</u>	Slope (%): <u>15</u>
Subregion (LRR or MLRA): N Lat: 38.52	.809892	Long: <u>-80.13298692</u>	Datum: WGS 1984
Soil Map Unit Name: Dekalb extremely stony loam, moist, 35	to 70 percent slopes	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this t	time of year? Yes	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology nat	turally problematic?	(If needed, explain any answer	s in Remarks.)
			••••••

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Vegetation and hydrology clearly indicate	e wetland.				

	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; c	heck all that apply)	Surface Soil Cracks (B6)
Yrimary Indicators (minimum ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4)	or one is required; c	 Surrace Soll Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) ils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) 	
Iron Deposits (B5)	ial Imagany (PZ)		Geomorphic Position (D2)
Water-Stained Leaves (E Aquatic Fauna (B13)	9)		 Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes 🖌 No _	Depth (inches): 1	
Water Table Present?	Yes 🖌 No _	Depth (inches):0	
		0	
Saturation Present? (includes capillary fringe)	Yes 🔽 No	Depth (inches):	Wetland Hydrology Present? Yes <u>Ves</u> No
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>Y</u> No eam gauge, monitori	Depth (inches): ing well, aerial photos, previous inspect	ions), if available:

Sampling Point: wrae226e_w

,	Absoluto	Dominant l	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Deminent Crossies
1				That Are OBL EACW or EAC: 3 (A)
·· <u> </u>		·	·	
		·	·	Total Number of Dominant
3		·	<u> </u>	Species Across All Strata: (B)
4		·		Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 100 (A/B)
6.				
7				Prevalence Index worksheet:
··	0	Total Caura		Total % Cover of: Multiply by:
50% of total aguary	200% of		0	OBL species $30 \times 1 = 30$
	20% 0	total cover.		FACW species 37 x 2 - 74
Sapling/Shrub Stratum (Plot size:)				
1		. <u> </u>		FAC species $x_3 = 0$
2		. <u></u>	. <u> </u>	FACU species x 4 =
3.				UPL species x 5 =
4		·		Column Totals:67 (A)104 (B)
5		·		
0				Prevalence Index = B/A =1.55
6	-			Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		·		\checkmark 2 Dominance Test is $\sim 50\%$
9.				$\frac{1}{2}$ 2 - Dominance Test is >50%
	0	- Total Covo		Yerror 3 - Prevalence Index is ≤3.0'
50% of total cover: 0	20% of		0	4 - Morphological Adaptations ¹ (Provide supporting
	20% 0	total cover.	<u> </u>	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	20		54014	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Impatiens capensis	30	Yes	FACW	
2. Carex prasina	15	Yes	OBL	
_{3.} Carex canescens	15	Yes	OBL	Indicators of hydric soil and wetland hydrology must
A Boehmeria cylindrica	5	No	FACW	be present, unless disturbed of problematic.
F. Fraxinus pennsylvanica	2	No	FACW	Definitions of Four Vegetation Strata:
5. <u></u>			1700	Tree – Woody plants, excluding vines 3 in (7.6 cm) or
6		·	·	more in diameter at breast height (DBH), regardless of
7		. <u> </u>		height.
8		. <u></u>	. <u> </u>	Conting (Chrysh - Weeds related a such dia a visco loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
14		·	·	,
· · · · · · · · · · · · · · · · · · ·	67	·	·	Herb – All herbaceous (non-woody) plants, regardless
22 5		= Total Cove	r 124	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>33.5</u>	20% of	total cover:	13.4	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
	0	= Total Cove	r	Present? Yes <u> </u>
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe to	o the depth r	eeded to docun	nent the in	dicator o	or confirm	the absence of	of indicator	·s.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-8	5YR 3/3	100					SCL			
										-
·	·			<u> </u>						
·	·									
										-
·	·			<u> </u>						
¹ Type: C=C	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	iins.	² Location: PL	=Pore Linin	g, M=Matrix.	3
Hydric Soil	Indicators:						Indicat	ors for Pro	blematic Hy	dric Soils [°] :
Histosol	(A1)	-	Dark Surface	(S7)			2 c	cm Muck (A	10) (MLRA 1	47)
Histic E	pipedon (A2)	-	Polyvalue Be	low Surfac	e (S8) (M	LRA 147, [,]	148) Co	ast Prairie	Redox (A16)	
Black H	stic (A3)	-	Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 147	′, 148)	
Hydroge	en Sulfide (A4)	-	Loamy Gleye	d Matrix (F	2)		Pie	edmont Floo	odplain Soils	(F19)
Stratifie	d Layers (A5)	-	Depleted Mat	trix (F3)				(MLRA 136	5, 147)	
2 cm Mu	uck (A10) (LRR N)	-	Redox Dark \$	Surface (F6	6)		Ve	ry Shallow	Dark Surface	(TF12)
Deplete	d Below Dark Surface	(A11) _	Depleted Dar	k Surface	(F7)		Ot	her (Explair	n in Remarks)	1
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8)					
Sandy N	/lucky Mineral (S1) (Li	RR N, _	Iron-Mangan	ese Masse	s (F12) (L	.RR N,				
MLR	A 147, 148)		MLRA 13	6)			3			
Sandy G	Bleyed Matrix (S4)	-	Umbric Surfa	ce (F13) (N	/LRA 130	6, 122)	°Indic	cators of hy	drophytic veg	etation and
Sandy F	Redox (S5)	-	Piedmont Flo	odplain So	IS (F19)	(MLRA 148	B) weti	and hydrold	bgy must be p	oresent,
Stripped	i Matrix (S6)		Red Parent N	laterial (F2	(MLR/	a 127, 147)) unle	ess disturbe	a or problema	atic.
	Layer (If observed):									
Type:	0		-							
Depth (in	ches): ^ŏ		-				Hydric Soil F	Present?	Yes	No 🔽

Remarks:

No redox present but hydrology and vegetation clearly indicate wetland.



Photo 1 Wetland data point wrae226e_w facing north



Photo 2 Wetland data point wrae226e_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Randolph Co	ounty S	Campling Date: 5/23/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae226_u
Investigator(s): CG, RP	Section, Township, Rang	e: No PLSS in this area	
Landform (hillslope, terrace, etc.): slope	Local relief (concave, conve>	k, none): <u>convex</u>	Slope (%): <u>15</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.528</u>	07098 Long:	-80.13303172	Datum: WGS 1984
Soil Map Unit Name: Dekalb extremely stony loam, moist, 35 t	o 70 percent slopes	NWI classificat	ion: None
Are climatic / hydrologic conditions on the site typical for this til	ne of year? Yes 🖌 No _	(If no, explain in Rer	narks.)
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "No	ormal Circumstances" pre	esent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natu	Irally problematic? (If need	led, explain any answers	in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	<u> イ イ イ イ </u>	Is the Sampled Area within a Wetland?	Yes	No	v
Remarks:							

wettand hydrology indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Image: Comparison of the second se	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	

Sampling Point: wrae226_u

	A	Development la	P. a. t. a. a.	Deminence Test workshot
Tree Stratum (Plot size: 30)	Absolute % Cover	Species?	Status	Dominance Test worksneet:
A Acer rubrum	45	Yes	FAC	Number of Dominant Species
- Eagus grandifolia	15	Yes	FACU	That Are OBL, FACW, of FAC: (A)
2. 1 agus grandholla	10	<u></u>		Total Number of Dominant
3. Liriodendron tulipitera	10		FACU	Species Across All Strata: 6 (B)
4. Ostrya virginiana	5	No	FACU	
5.				Thet Are OBLE FACW or FAC: 16.66666666 (A/P)
6		·		That Ale OBL, FACW, OF FAC. (A/B)
o		·		Prevalence Index worksheet:
7	75	·		Total % Cover of: Multiply by:
		= Total Cover	45	
50% of total cover: <u>37.5</u>	20% of	f total cover:	15	OBL species $x_1 = 0$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = 0$
1.				FAC species $\frac{45}{x 3} = \frac{135}{x 3}$
2		·		FACU species 92 x 4 = 368
2		·		$\frac{1}{100} \frac{1}{100} \frac{1}$
3		·		$\frac{137}{137}$ (A) $\frac{503}{100}$ (D)
4				Column Totals: (A) (B)
5				Provolonce Index - P/A - 3.67
6.				
7		·		Hydrophytic Vegetation Indicators:
/·		·	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9		. <u> </u>		3 - Prevalence Index is <3.01
	0	= Total Cover		A Marchalagical Adaptations ¹ (Provide surgesting)
50% of total cover: 0	20% of	f total cover:	0	4 - Morphological Adaptations" (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
A Anemone quinquefolia	25	Yes	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
	10	<u> </u>		
2. Fagus grandifolia	10	res	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. Polystichum acrostichoides	10	Yes	FACU	be present, unless disturbed or problematic.
4. Allium tricoccum	10	Yes	FACU	Definitions of Four Vegetation Strates
5 Acer pensylvanicum	5	No	FACU	Demilions of Four vegetation Strata.
o Acer saccharum	2	No	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. Acer sacchardin			1 700	more in diameter at breast height (DBH), regardless of
7		·		height.
8				One line (Olympic - Manda all and a successful frame in a successf
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
				,
11	62	·		Herb – All herbaceous (non-woody) plants, regardless
	02	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 31	20% of	f total cover:	12.4	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: <u>30</u>)				height.
1.				
3				
		·		
٥		·		
4				Hydrophytic
5				Vegetation
	0	= Total Cove		Present? Yes No 🖌
50% of total cover: 0	20% of	f total cover:	0	
	2070 0			
Remarks: (Include photo numbers here or on a separate si	neet.)			

Profile Des	cription: (Describe to	o the depth	needed to docun	nent the in	dicator o	or confirm	the absence of in	ndicato	rs.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture		Remarks	
0-3	5YR 3/3	100					SCL			
3-16	5YR 3/4	100					SICL			
		<u> </u>		<u> </u>						
		. <u> </u>		·		<u> </u>				
		<u> </u>		······						
		<u> </u>								
	oncentration D-Denk	ation RM-R	educed Matrix MS	-Maskad	Sand Gra	line	² Location: PL-P	ore Linir	a M-Matrix	
Hydric Soil	Indicators:				Sanu Gra	uns.		s for Pro	oblematic H	dric Soils ³ :
Histoso	(A1)		Dark Surface	(\$7)			2 cm	Muck (A	10) (MI RA 1	47)
Histic E	pipedon (A2)		Polyvalue Be	low Surfac	e (S8) (M	LRA 147.	148) Coast	t Prairie	Redox (A16)	
Black H	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MI	LRA 147	7, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	-2)		Piedm	nont Flo	odplain Soils	(F19)
Stratifie	d Layers (A5)		Depleted Mat	rix (F3)			(MI	LRA 136	6, 147)	
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F6	6)		Very S	Shallow	Dark Surface) (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other	(Explai	n in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F8	5)					
Sandy M	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	s (F12) (I	_RR N,				
MLR	A 147, 148)		MLRA 13	6) (E40) (1			3			
Sandy C	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (N		6, 122)		ors of hy	drophytic veg	jetation and
Sandy F	Kedox (SS)		Pleamont Flo	oopiain So Actorial (E2	DIIS (F19)	(WILRA 14)	b) wetland	dioturbo	ogy must be	present,
Surpped	l wainx (SO)			ialenai (F2		4 127, 147) uniess	uistuibe		alle.
Tuno	Layer (il observeu).									
Type.	-h)-		_				Ukudaia Cail Das	40	Vee	
Deptn (in	cnes):		_				Hydric Soll Pre	sent?	tes	NO
Remarks:										



Photo 1 Upland data point wrae226_u facing north



Photo 2 Upland data point wrae226_u facing south

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	1	_ Sampling Date: 5/23/2016
Applicant/Owner: Dominion			State: WV	Sampling Point: wrae225e_w
Investigator(s): CG, RP	Section, Tov	vnship, Range: <mark>No</mark>	PLSS in this are	ea
Landform (hillslope, terrace, etc.): ridgetop Lo	ocal relief (con	ncave, convex, nor	ne): none	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.52471896</u>		Long: <u>-80.</u>	12695183	Datum: WGS 1984
Soil Map Unit Name: Dekalb extremely stony loam, moist, 3 to 15 per	rcent slopes		NWI classif	fication: None
Are climatic / hydrologic conditions on the site typical for this time of ye	rear?Yes	No	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal	Circumstances"	' present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic?	(If needed, e	explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling	g point locatio	ons, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ ✔ Yes _ ✔ Yes _ ✔	No No No	Is the Sampled Area within a Wetland?	Yes 🛩 No
Remarks: small depression located on historically l	logged ridge	top.		

Drimony Indiantora (minimum	Jrs:		Secondary Indicators (minimum of two required)			
Finally mulcalors (minimum	of one is required; che	ck all that apply)	Surface Soil Cracks (B6)			
 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)		pots (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 So	oils (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 Aer	ial Imagery (B7)		Shallow Aquitard (D3)			
 Water-Stained Leaves (B 	39)		Microtopographic Relief (D4)			
Aquatic Fauna (B13)			FAC-Neutral Test (D5)			
Field Observations:						
Surface Water Present?	Yes 🖌 No 🔄	Depth (inches): 3				
Water Table Present?	Yes 🖌 No	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes Vo No	_ Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No eam gauge, monitoring	Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes V No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>Y</u> No <u></u> eam gauge, monitoring	Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>V</u> No <u></u> eam gauge, monitoring	Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u> eam gauge, monitoring	Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u> aam gauge, monitoring	Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>V</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>v</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>v</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>V</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>v</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>v</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>v</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>v</u> No tions), if available:			
Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> No <u></u>	Depth (inches):	Wetland Hydrology Present? Yes <u>v</u> No tions), if available:			

Sampling Point: wrae225e_w

	Abcoluto	Dominant l	adicator	Dominanco Tost workshoot:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Device at Occasion
1				That Are OBLEACW or EAC: 1 (A)
-		·		
2				Total Number of Dominant
3		<u></u>		Species Across All Strata: 1 (B)
4.				
		·		Percent of Dominant Species
		- <u> </u>		That Are OBL, FACW, or FAC:(A/B)
6		·		Brovalance Index worksheet
7				Prevalence index worksneet:
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	f total cover:	0	OBL species $5 \times 1 = 5$
	20 /0 0			45 $y_2 = 90$
Sapling/Shrub Stratum (Plot size:)				$5 \qquad 15$
1				FAC species $x 3 = $
2.				FACU species x 4 =
2				UPL species $0 \times 5 = 0$
٥		·		Column Totolo: 55 (A) 110 (P)
4		·		(A)(B)
5				Dravalance Index B/A 2
6				
		· · · · · · · · · · · · · · · · · · ·		Hydrophytic Vegetation Indicators:
1		·		1 - Rapid Test for Hydrophytic Vegetation
8		. <u> </u>		\checkmark 2 - Dominance Test is >50%
9.				
	0	- Total Cava		Y 3 - Prevalence Index is ≤3.0 ⁺
	000/		0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% 01	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
_{1.} Leersia virginica	45	Yes	FACW	Problematic Hydrophytic Vegetation (Explain)
2 Acer rubrum	5	No	FAC	
2	5	No	OBI	¹ Indicators of hydric soil and wetland hydrology must
3. Carex prasma	5		UBL	be present, unless disturbed or problematic.
4		<u></u>		Definitions of Four Vegetation Strata
5.				Deminions of Four Vegetation of ata.
<u> </u>		- <u> </u>		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
o		·		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		·		III) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	55	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5	20% of	f total cover:	11	
M_{control} (Distribution 30				Woody vine – All woody vines greater than 3.28 ft in
woody vine Stratum (Piot size)				height.
1				
2.				
3				
3		·		
3 4				Hydrophytic
3 4 5		·		Hydrophytic Vegetation
3 4 5	0	= Total Cove	 	Hydrophytic Vegetation Present? Yes <u>Ý</u> No
3 4 5 5	0	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>Ý</u> No
3 4 5 50% of total cover:0	0 20% of	= Total Cove f total cover:_	r 0	Hydrophytic Vegetation Present? Yes <u>✓</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of sheet.)	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>V</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>V</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of hheet.)	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>✓</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>Y</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>V</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>V</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	20% of	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>V</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	20% of	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>V</u> No
34550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	20% of	= Total Cover	r 0	Hydrophytic Vegetation Present? Yes <u>V</u> No

Profile Desc	cription: (Describe to	o the depth	needed to docun	nent the ir	ndicator	or confirm	n the absence of indicators.)
Depth	Matrix		Redo	x Features	;		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-16	10YR 5/1	100					SICL
							· · · _
							· · · _
	· · · · · ·						
	·		<u> </u>				
¹ Type: C=C	oncentration D=Deple	tion RM=R	Reduced Matrix MS	S=Masked	Sand Gra	ains	² Location: PI =Pore Lining M=Matrix
Hydric Soil	Indicators:			maenea	euna en		Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)
Histic Fi	pipedon (A2)		Polyvalue Be	low Surfac	e (S8) (N	ILRA 147.	148) Coast Prairie Redox (A16)
Black H	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47. 148)	(MLRA 147, 148)
Hvdroae	en Sulfide (A4)		Loamv Gleve	d Matrix (F	. =2)	, -,	Piedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		 Depleted Mat 	trix (F3)	,		(MLRA 136, 147)
2 cm Mi	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Very Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)
Thick Da	ark Surface (A12)	、 ,	Redox Depre	ssions (F8	3)		
Sandy N	/ucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) (I	LRR N,	
MLR	A 147, 148)		MLRA 13	6)			
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (I	MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	(8) wetland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (F2	21) (MLR	A 127, 147	7) unless disturbed or problematic.
Restrictive	Layer (if observed):						
Туре:							
Depth (in	ches):						Hydric Soil Present? Yes 🖌 No
Remarks:	·						

soil is very wet; sampled from b horizon



Photo 1 Wetland data point wrae225e_w facing east



Photo 2 Wetland data point wrae225e_w facing north
Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/23/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae225_u
Investigator(s): CG, RP	Section, Tow	nship, Range: No PLSS in this are	a
Landform (hillslope, terrace, etc.): ridgetop	Local relief (con	cave, convex, none): none	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38	.52466247	Long: <u>-80.1268871</u>	Datum: WGS 1984
Soil Map Unit Name: Dekalb extremely stony loam, moist,	3 to 15 percent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for th	nis time of year? Yes	No (If no, explain in F	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 answe	ers in Remarks.)
		, naint le sations, transsat	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	マ マ マ	Is the Sampled Area within a Wetland?	Yes	No	<u>٧</u>
Remarks:							
Upland area adjacent to small depression	on PEM wetland						

Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) 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) Sadiment Dapagite (B2) Resent Irap Reduction in Tilled Scile (C6) Cravifieb Rurrows (C9)
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 Dapagite (P2) Reduction in Tilled Soils (C6) Cravitish Burrows (C9)
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 Deposite (R2) Resent Iron Pediation in Tilled Seile (C6) Cravifieb Rurrows (C9)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Dependence (P2) Becapt Iron Beduction in Tilled Soils (C6) Crautich Burrows (C9)
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):
Water Table Present? Yes No 🖌 Depth (inches):
Saturation Present? Yes No V Depth (inches): Wetland Hydrology Present? Yes No V
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
no nyarology present

Sampling Point: wrae225_u

	Alterative	Descionant la	Pastan	Deminence Test workshoet
Trop Stratum (Plot size: 30)	Absolute	Dominant Ir	Status	Dominance Test worksheet:
Acer rubrum	<u>60</u>	Yes	FAC	Number of Dominant Species
	25	<u> </u>	FACU	That Are OBL, FACW, or FAC: (A)
2. Fagus granditolia		fes	FACU	Total Number of Dominant
3. Prunus serotina	15	No	FACU	Species Across All Strata: 6 (B)
_{4.} Betula alleghaniensis	10	No	FAC	
5				Percent of Dominant Species
		·		That Are OBL, FACW, or FAC: (A/B)
6		·		Prevalence Index worksheet:
7	- 110	·		
	110	= Total Cover		O
50% of total cover: 55	20% of	total cover:	22	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =0
A Fagus grandifolia	10	Yes	FACU	FAC species $82 \times 3 = 246$
Acer pensylvanicum	5	Ves	FACU	EACLI species $\frac{87}{x4} = \frac{348}{348}$
2. Acer pensylvanicum		165	TACU	40 <u>5</u> 200
3		<u> </u>		UPL species $x = 704$
4.				Column Totals: (A) (B)
5				0.70
<u>.</u>				Prevalence Index = $B/A = 3.79$
o		·		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 Dominance Test is > E0%
9.				
	15			3 - Prevalence Index is ≤3.0'
50% of total cover: 7.5	20% of		3	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.	20% 0	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	20			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Dryopteris campyloptera	30	Yes	UPL	
2. Anemone quinquefolia	30	Yes	FACU	4
3 Erythronium rostratum	10	No	UPL	Indicators of hydric soil and wetland hydrology must
A Carex blanda	10	No	FAC	be present, unless disturbed or problematic.
- Acer pensylvanicum	2	No	FACU	Definitions of Four Vegetation Strata:
5. Acer pensylvanicum			FACU	Tree Woody plants evaluating vince 2 in (7.6 cm) or
6. Acer rubrum	2	No	FAC	more in diameter at breast height (DBH) regardless of
7.				height.
8				
o				Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1
10	. <u> </u>	·		m) tall.
11		·		Herb – All herbaceous (non-woody) plants, regardless
	84	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 42	20% of	total cover:	16.8	
Weedy Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1		·		
2				
3.				
4				
				Hydrophytic
Э		·		Vegetation
	0	= Total Cover		Present? resNo
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the depth	needed to docur	nent the in	ndicator of	or confirm	the absence of indica	tors.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 2/2	100					SCL	
6-16	10YR 4/6	100					SCL	
	·					·		
	·							
<u></u>	·							
1							2	
Type: C=Co	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	Location: PL=Pore Li	ning, M=Matrix.
	indicators:			(07)			indicators for	
Histosol	(A1)		Dark Surface	e (S7) Janu Curta a	- (CO) / M		2 cm Muck	(A10) (MLRA 147)
HISTIC Ep	bipedon (AZ)		Polyvalue Be	now Surrac	(58) (IV	ILRA 147,	148) Coast Prai	
	SIIC (A3) $(A4)$			Matrix (E		47, 140)		I47, I40) Floodolain Soile (E10)
Tryuruge	H avers (A5)		Loany Gleye	triv (F3)	2)			1000piairi 30iis (F19)
0.ratiliet	uck (A10) (I RR N)		Bedox Dark	Surface (Ff	3)		Very Shalle	w Dark Surface (TE12)
Depleter	d Below Dark Surface	(A11)	Depleted Da	k Surface	(F7)		Other (Exp	lain in Remarks)
Thick Da	ark Surface (A12)	()	Redox Depre	essions (F8	5)			
Sandy M	/ucky Mineral (S1) (L	RR N.	Iron-Mangan	ese Masse	, s (F12) (I	LRR N.		
MLRA	A 147, 148)	·	MLRA 13	6)	· / ·			
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ice (F13) (MLRA 13	6, 122)	³ Indicators of	hydrophytic vegetation and
Sandy R	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	B) wetland hyd	rology must be present,
Stripped	l Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR	A 127, 147) unless distu	rbed or problematic.
Restrictive I	Layer (if observed):							
Туре:			_					
Depth (in	ches):						Hydric Soil Present?	?Yes No 🔽
Remarks:							1	



Photo 1 Upland data point wrae225_u facing south



Photo 2 Upland data point wrae225_u facing north

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/20/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae223e_w
Investigator(s): CG, KO	Section, Tow	nship, Range: <u>No PLSS</u> in this area	
Landform (hillslope, terrace, etc.): <u>bench</u>	Local relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): N Lat: 38.5	1768447	Long: <u>-80.12153447</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high	base	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil 🖌 , or Hydrology si	gnificantly disturbed?	Are "Normal Circumstances" p	oresent? Yes No _
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answe	rs in Remarks.)
			in a stant facture of the

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:						
Wetland data point taken in mine spoils.						

Wettand Hydrology maleat	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) 	-	Sparsely Vegetated Concave Surface (B8)	
 High Water Table (A2) 	_	Drainage Patterns (B10)	
 Saturation (A3) 	_	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 S	oils (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 Ae	rial Imagery (B7)		Shallow Aquitard (D3)
✓ Water-Stained Leaves (E)	39)		Microtopographic Relief (D4)
 Aquatic Fauna (B13) 			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes 🖌 No 🔜	Depth (inches):3	
		•	
Water Table Present?	Yes 🖌 No _	Depth (inches):0	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes <u>/</u> No Yes <u>/</u> No	Depth (inches):0 Depth (inches):0	Wetland Hydrology Present? Yes <u></u> No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes <u> </u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (str	Yes <u>Yes</u> No <u></u> Yes <u>Yes</u> No <u></u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stru Remarks:	Yes <u>Y</u> No <u>No</u> Yes <u>Yes</u> No <u>No</u> <u>No</u> <u>Yes</u> Yes <u>Yes</u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stru- Remarks:	Yes <u>Y</u> No <u>Yes</u> No <u>Res</u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (str Remarks:	Yes <u>Yes</u> No <u></u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>Yes</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stru Remarks:	Yes <u>Y</u> No <u></u> Yes <u>Yes</u> No <u></u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>Yes</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>Yes</u> No <u></u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stru- Remarks:	Yes <u>Y</u> No <u></u> Yes <u>Yes</u> No <u></u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stru Remarks:	Yes <u>Y</u> No <u></u> Yes <u>Yes</u> No <u></u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stru Remarks:	Yes <u>Y</u> No <u></u> Yes <u>Yes</u> No <u></u>	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>Yes</u> No <u></u> Yes <u>Yes</u> No <u></u> eam gauge, monitorin	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (str Remarks:	Yes <u>Yes</u> No <u></u> Yes <u>Yes</u> No <u></u> eam gauge, monitorin	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (str Remarks:	Yes <u>Yes</u> No <u></u> Yes <u>Yes</u> No <u></u> eam gauge, monitorin	Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No

Sampling Point: wrae223e_w

	Absolute	Dominant lu	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 2 (A)
2			·	
2		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4				Demonst of Dominant Species
5.				That Are OBL EACW/ or EAC: 100 (A/B)
6				
		·		Prevalence Index worksheet:
/		·	. <u> </u>	Total % Cover of Multiply by
	0	= Total Cove	r	
50% of total cover:0	20% of	total cover:	0	$\begin{array}{c} \text{OBL species} \\ 100 \end{array} \text{X 1} = \\ 100 \end{array}$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x 2 = 200$
Alnus serrulata	10	Yes	OBL	FAC species $0 x 3 = 0$
·			·	A = 0
2		·	·	
3				$\begin{array}{c} \text{OPL species} \\ 110 \end{array} x \ 5 = \underline{} \\ 210 \end{array}$
4.				Column Totals: (A) (B)
5				
			·	Prevalence Index = $B/A = 1.9$
6		·	. <u> </u>	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.				
9				2 - Dominance Test is >50%
- 5	10			\checkmark 3 - Prevalence Index is ≤3.0 ¹
		= I otal Cove	r 2	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 5	20% of	total cover:	2	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
_{1.} Phalaris arundinacea	90	Yes	FACW	Problematic Hydrophytic Vegetation (Explain)
2 Eleocharis tenuis	5	No	FACW	
		No	EACW/	¹ Indicators of hydric soil and wetland hydrology must
3. Sciipus cyperinus		INU	FACW	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata
5.				Sommone of Four Poyotation of atal
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
0		·		more in diameter at breast height (DBH), regardless of
7		·	. <u> </u>	height.
8		<u></u>		Capling/Chrub Woody plants evoluting vines loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10			·	
11	100	·	·	Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	Weedwine All weedwines greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30)				beight
1				noight.
·			·	
2		·	·	
3				
4				Liver and which
5				Vegetation
	0	Tatal Cause		Present? Yes V No
		= Total Cove	r O	· · · · · · · · · · · · · · · · ·
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe to	o the dep	th needed to docum	ent the i	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	Features	6			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 5/2	90	10YR 5/6	10	С	М	SIC	Disturbed mine spoils with 20% gravel
¹ Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: F	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	pipedon (A2)		Polyvalue Bel	ow Surfa	ce (S8) (N	LRA 147,	148) (Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Sur	face (S9)	(MLRA 1	47, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F2)		F	Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Mat	rix (F3)				(MLRA 136, 147)
2 cm Mu	ıck (A10) (LRR N)		Redox Dark S	Surface (F	6)		\	Very Shallow Dark Surface (TF12)
Depletee	d Below Dark Surface	(A11)	Depleted Darl	k Surface	(F7)		(Other (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depres	ssions (F	3)			
Sandy N	lucky Mineral (S1) (Li	RR N,	Iron-Mangane	ese Masse	es (F12) (I	_RR N,		
MLR/	A 147, 148)		MLRA 136	5)			з.	
Sandy G	Bleyed Matrix (S4)		Umbric Surfac	ce (F13) (MLRA 13	6, 122)	šino	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Floo	odplain S	oils (F19)	(MLRA 14	8) we	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	') ur	hless disturbed or problematic.
Restrictive	Layer (if observed):							
Type: 100	л О							
Depth (in	ches): <u>6</u>						Hydric Soi	l Present? Yes 🚩 No
Remarks:								

Refusal at 6 inches. Disturbed soil.



Photo 1 Wetland data point wrae223e_w facing west



Photo 2 Wetland data point wrae223e_w facing north

_ City/County: Randolph County	Sampling Date: 5/20/2016
State: <u>WV</u>	Sampling Point: wrae223_u
_ Section, Township, Range: <u>No PLSS in this area</u>	a
ocal relief (concave, convex, none): <u>convex</u>	Slope (%): <u>5</u>
Long: -80.12150715	Datum: WGS 1984
NWI classific	cation: None
year? Yes 🔽 No (If no, explain in R	Remarks.)
ly disturbed? Are "Normal Circumstances" p	present? Yes No _
oroblematic? (If needed, explain any answe	ers in Remarks.)
	_ City/County: Randolph County _ State: WV _ Section, Township, Range: No PLSS in this area ocal relief (concave, convex, none): convex _ Long: -80.12150715 NWI classifie //ear? Yes ✓ No (If no, explain in F ly disturbed? Are "Normal Circumstances" problematic? (If needed, explain any answer

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No 🖌
Remarks:					
Upland data point taken in mine spoils.					

Secondary Indicators (minimum of two required)
Surface Soil Cracks (B6)
Sparsely Vegetated Concave Surface (B8)
Drainage Patterns (B10)
C3) Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial Imagery (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)
nd Hydrology Present? Yes No
available:

Sampling Point: wrae223_u

	Absoluto	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Demisert Operator
1		<u> </u>		Number of Dominant Species $3 \qquad (A)$
1				
2				Total Number of Dominant
3				Species Across All Strata:4 (B)
4.				
5				Percent of Dominant Species
-				That Are OBL, FACW, or FAC: 73 (A/B)
6				Brovalanca Index workshoot:
7				Flevalence muex worksheet.
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	total cover:	0	OBL species x 1 =0
	2070 01			FACW species $0 \times 2 = 0$
Saping/Shrub Stratum (Piot size:)	-	N/s s	540	55 165
1. <u>Acer rubrum</u>	5	res	FAC	FAC species $x_3 = $
2				FACU species 40 x 4 = 100
3				UPL species $0 x 5 = 0$
				Column Totals: 95 (A) 325 (B)
4				
5				Prevalence Index - B/A - 3.42
6.				
7	-			Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				$\frac{1}{2} = 2 = 2 = 2 = 1 = 1 = 1 = 1 = 1 = 1 = 1$
	5		r	3 - Prevalence Index is ≤3.0
50% of total cover: 2.5	20% of	total covor:	່ 1	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.	20% 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Dendrolycopodium obscurum	40	Yes	FACU	
₂ Festuca paradoxa	30	Yes	FAC	
 Lycopodium clavatum 	20	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must
S	10	No		be present, unless disturbed or problematic.
4. Spragnum sp.	10	INO		Definitions of Four Vegetation Strata:
5				, C
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7	·	. <u> </u>		height.
8		<u> </u>		Sanling/Shruh Woody planta avaluding vines loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10	-			m) tall
10				
11		<u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	90	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	
Woody Vine Stratum (Plot size: 30)		_		Woody vine – All woody vines greater than 3.28 ft in
				neight.
1				
2				
3.				
4				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes Vo No
50% of total cover: 0	20% of	total cover:	0	
Demorker (Include shote sumbers here as an a concrete s	heat)			
Remarks: (include photo numbers here or on a separate s	sneet.)			

Profile Desc	cription: (Describe to	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence of indicators.)
Depth	Matrix		Redo	x Features	6		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-13	10YR 4/4	100					SIL
						<u> </u>	
·							
	·						· · · · · _ ·
	oncentration D-Deple	tion RM-R	educed Matrix MS	S-Masked	Sand Gra	ains	² Location: PL =Pore Lining M=Matrix
Hvdric Soil	Indicators:						Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(\$7)			2 cm Muck (A10) (MI RA 147)
Histic Fi	ninedon (A2)		Polyvalue Be	low Surfa	ce (S8) (N	II R 147	148) Coast Prairie Redox (A16)
Black H	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLRA 147, 148)
Hvdroge	en Sulfide (A4)		Loamy Gleve	d Matrix (I	(<u>_</u>	,,	Piedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		Depleted Mar	trix (F3)			(MLRA 136, 147)
2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Verv Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)
Thick Da	ark Surface (A12)	· · ·	Redox Depre	ssions (F8	3)		
Sandy N	/lucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Masse	es (F12) (I	LRR N,	
MLR	A 147, 148)		MLRA 13	6)			
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetland hydrology must be present,
Stripped	l Matrix (S6)		Red Parent M	Aaterial (F	21) (MLR	A 127, 147	7) unless disturbed or problematic.
Restrictive	Layer (if observed):						
Type: roo	ck						
Depth (in	ches): 13						Hydric Soil Present? Yes No
Remarks:							

Mine spoils present with 40% gravel.



Photo 1 Upland data point wrae223_u facing southeast



Photo 2 Upland data point wrae223_u facing north

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/20/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae222e_w
Investigator(s): CG, KO	Section, Tov	vnship, Range: No PLSS in this area	3
Landform (hillslope, terrace, etc.): <u>bench</u>	Local relief (con	ncave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38.51629	9945	Long: <u>-80.1209022</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base	e	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	No (If no, explain in R	Remarks.)
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed?	Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology natura	ally problematic?	(If needed, explain any answe	ers in Remarks.)
CLIMMARY OF FINDINGS Attack site man aka	wing compline	naint leastions transacts	important factures ato

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	<i>v</i> <i>v</i> <i>v</i>	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:						
Wetland data point taken in mine spoils.						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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	3) 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): 3	
Water Table Present? Yes 🖌 No Depth (inches): 0	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetland	d Hydrology Present? Yes 🖌 No
(includes capillary fringe)	voilable:
Describe Recorded Data (stream gauge, monitoring weil, achai photos, previous inspections), il a	
Remarks:	

Sampling Point: wrae222e_w

	Abcoluto	- Dominant I	ndicator	Dominanco Tost workshoot:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksheet.
	/0 00101	000000.	Otatao	Number of Dominant Species
1		·		That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
		· · · · · · · · · · · · · · · · · · ·		
4				Percent of Dominant Species
5				That Are OBL FACW or FAC 66.66666666 (A/B)
6				
		·		Prevalence Index worksheet:
7		·		Total % Cover of: Multiply by:
	0	= Total Cove	r	
50% of total cover: 0	20% of	total cover:	0	OBL species x 1 =
Conling/Chruh Stratum (Blat aize) 15				FACW species 60 x 2 = 120
<u>Saping/Shrub Stratum</u> (Piot size)	10	N/s s	F 40	10 10 30
1. Acer rubrum	10	Yes	FAC	FAC species $x_3 = $
2				FACU species x 4 =
				UPL species $0 \times 5 = 0$
3				$70 \times 150 \times 150$
4				Column Totals: (A) (B)
5				0.44
-		·		Prevalence Index = B/A = 2.14
6		·	<u> </u>	Hydrophytic Vegetation Indicators:
7				Donid Toot for Understand Manufacture
0				1 - Rapid Test for Hydrophytic Vegetation
0		·		2 - Dominance Test is >50%
9				\checkmark 3 - Prevalence Index is <3 0 ¹
	10	= Total Cove	r	
50% of total cover: 5	20% of	total cover.	2	4 - Morphological Adaptations' (Provide supporting
50% of total cover.	2070 01			data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Scirpus cyperinus	60	Yes	FACW	
2 Sphaqnum sp.	35	Yes		
2		·		¹ Indicators of hydric soil and wetland hydrology must
3		·		be present, unless disturbed or problematic.
4.				Definitions of Four Vegetation Strates
5				Deminions of Four vegetation Strata.
^{3.}		· <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.
				g.m
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.
10. <u></u>				,
11				Herb – All herbaceous (non-woody) plants, regardless
	60	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 47.5	20% of	total cover:	19	
Weedy Vine Stratum (Plataine) 30				Woody vine – All woody vines greater than 3.28 ft in
				height.
1		·		
2.				
	-	·		
3		· <u> </u>		
4				Hydrophytic
5.				Vegetation
	0			Present? Yes V No
	0	= Total Cove	er O	
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Inchesity Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-4 MUCKY PEAT 100	Depth	Matrix		Redo	ox Feature	S			
0-4 MUCKY PEAT 100 mucky peat soil texture 4-8 N 3/ 95 10YR 4/6 5 C M SIC 20% gravel 4-8 N 3/ 95 10YR 4/6 5 C M SIC 20% gravel	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
4-8 N 3/ 95 10YR 4/6 5 C M SIC 20% gravel 4-8 N 3/ 95 10YR 4/6 5 C M SIC 20% gravel 4-8 N 3/ 95 10YR 4/6 5 C M SIC 20% gravel 4-8 N 3/ 95 10YR 4/6 5 C M SIC 20% gravel 4-8 N 3/ 95 10YR 4/6 5 C M SIC 20% gravel	0-4	MUCKY PEAT	100						mucky peat soil texture
image:	4-8	N 3/	95	10YR 4/6	5	С	М	SIC	20% gravel
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils ³									
Ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. ydric Soil Indicators: Indicators for Problematic Hydric Soils ³ Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) ✓ Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: rock No Yes V Type: Peth (inches): 8 Hydric Soil Present? Yes No No									
ydric Soil Indicators: Indicators for Problematic Hydric Soils ³ _ Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) _ Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) _ Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) _ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) _ Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) _ 2 cm Muck (A10) (LRR N) ✓ Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) _ Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) _ Thinck Dark Surface (A12) Redox Depressions (F8) Umbric Surface (F13) (MLRA 136, 122) NLRA 136, _ Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. _ Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. _ Type: mck mless disturbed or problematic. No _ Type: mck mless disturbed or problematic. No	Гуре: С=С	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	S=Masked	d Sand Gra	ains.	² Location: F	PL=Pore Lining, M=Matrix.
	ydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
_ Thick Dark Surface (A12) Redox Depressions (F8) _ Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, _ MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, _ Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³Indicators of hydrophytic vegetation and _ 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. estrictive Layer (if observed): rock rock MLRA _ Depth (inches): 8 Muck Muck Mo	 Histoso Histic E Black H Hydroge Stratifie 2 cm Me Deplete 	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface	e (A11)	Dark Surfac Polyvalue Ba Thin Dark S Loamy Gley Depleted Ma _✔ Redox Dark Depleted Da	e (S7) elow Surfa urface (S9 ed Matrix (atrix (F3) Surface (F ırk Surface	ce (S8) (N) (MLRA 1 (F2) 	ILRA 147, 47, 148)	148)	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
MLRA 147, 148) MLRA 136) _ Sandy Gleyed Matrix (S4) _ Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. _ Stripped Matrix (S6) _ Red Parent Material (F21) (MLRA 127, 147) wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if observed): _ rock _ Hydric Soil Present? Yes _ No	_ Thick D _ Sandy N	ark Surface (A12) ⁄lucky Mineral (S1) (L	RR N,	Redox Depr Iron-Mangar	essions (F nese Mass	8) es (F12) (I	LRR N,		
_ Sandy Gleyed Matrix (S4) _ Umbric Surface (F13) (MLRA 136, 122) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. _ Sandy Redox (S5) _ Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. _ Stripped Matrix (S6) _ Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): _ rock _ _ Depth (inches): 8 _ _	MLR	A 147, 148)		MLRA 13	86)	. , .			
_ 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. estrictive Layer (if observed): Type: rock Depth (inches): 8 Hydric Soil Present? Yes _ ✓ No	Sandy (Gleyed Matrix (S4)		Umbric Surfa	ace (F13)	(MLRA 13	6, 122)	³ Inc	dicators of hydrophytic vegetation and
_ Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: rock Depth (inches): 8 No	Sandy F	Redox (S5)		Piedmont Fl	oodplain S	oils (F19)	(MLRA 14	18) w	etland hydrology must be present,
estrictive Layer (if observed): Type: rock Depth (inches): 8 Hydric Soil Present? Yes Ves	Stripped	d Matrix (S6)		Red Parent	Material (F	21) (MLR	A 127, 147	7) ur	nless disturbed or problematic.
Type: rock Depth (inches): 8 Hydric Soil Present? Yes	estrictive	Layer (if observed):							
Depth (inches): ⁸ No	Type: <u>ro</u>	CK							
	Depth (in	ches): <u>8</u>						Hydric Soi	l Present? Yes 🖌 No

Refusal at 8. Disturbed soil.



Photo 1 Wetland data point wrae222e_w facing east



Photo 2 Wetland data point wrae222e_w facing west

Project/Site: Attantic Coast Presine City/County: Nandolph County Sampling Date: 0/20	2010
Applicant/Owner: Dominion State: WV Sampling Point: WI	ae222_u
Investigator(s): CG, KO Section, Township, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): bench Local relief (concave, convex, none): Convex Slope (%	%): <u>2</u>
Subregion (LRR or MLRA): N Lat: <u>38.51614521</u> Long: <u>-80.12082465</u> Datum: W	GS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base NWI classification: None	
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, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken in mine spoils.					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 Sc	bils (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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection)	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: Remarks:	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>No</u> tions), if available:

Sampling Point: wrae222_u

Tree Stratum (Plot size:30)	Absolute % Cover	Dominant I Species?	ndicator Status	Dominance Test worksheet:
_{1.} Betula alleghaniensis	60	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2. Acer rubrum	30	Yes	FAC	Tatal Number of Demissrat
3.				Species Across All Strata: 6 (B)
4.				(-,
5.				Percent of Dominant Species
6				That Are OBL, FACW, of FAC. (A/B)
7				Prevalence Index worksheet:
/	90	Tatal Cause		Total % Cover of:Multiply by:
50% of total cover: 45	:	= Total Cove	er 18	OBL species $0 x 1 = 0$
So % of total cover.	20% 01	total cover.		FACW species 0 $x_2 = 0$
Sapling/Shrub Stratum (Plot size:)	15	Vec	FAC	EAC species $180 \times 3 = 540$
	15	<u> </u>		130 species $30 stat$ $120 species$
2. Acer rubrum	15	res	FAC	FACU species $x = 0$
3				UPL species 210 $x 5 = 660$
4				Column Totals: (A) (B)
5				Dravalance Index D/A 314
6.				
7.				Hydrophytic vegetation indicators:
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9	30			3 - Prevalence Index is $≤3.0^1$
500/ 5/15/15/15/15/15/15/15/15/15/15/15/15/15		= I otal Cove	er 6	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:5	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	<u> </u>			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Lycopodium ciavatum	60	Yes	FAC	
2. Dendrolycopodium obscurum	30	Yes	FACU	¹ Indiantors of hydric coil and watland hydrology must
3		. <u> </u>		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5.				Demittons 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
7				neight.
o		·		Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		<u> </u>		m) tall.
11		. <u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	90	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45	20% of	total cover:	18	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2.				
3				
4				
5		·		Hydrophytic
-3	0	Table		Present? Yes No
500/ of total covery	:	= Total Cove	er O	
	20% 01	total cover.		
Remarks: (include photo numbers here or on a separate s	neet.)			

Profile Des	cription: (Describe t	o the dep	oth needed to docu	ment the	indicator	or confirm	n the absence	e of indicators.)
Depth	Matrix		Redo	ox Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 3/2	100					SICL	mine spoils with 10% gravel
4-10	7.5YR 5/2	95	7.5YR 5/6	5	С	Μ	SIC	mine spoils with 30% gravel
				C Maalua			² 1	N. Dava Linian M. Mateiu
Hydric Soil	Indicators:		=Reduced Matrix, M	S=IVIASKed	a Sand Gra	ains.	Location: P	ators for Problematic Hydric Soils ³ :
Histoso	(A1)		Dark Surface	a (S7)				2 cm Muck (A10) (MI PA 147)
Histic E	ninedon (A2)		Dark Sunace	olow Surfa	(S8) (N		148) (
Black H	istic (A3)		Thin Dark Su	urface (SQ) (MI PA 1	121(A 147,	(140) <u>(</u>	(MI PA 147 148)
Black II	an Sulfide (ΔA)			anace (55 ad Matrix	(F2)	47, 140)	F	Diedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		✓ Depleted Ma	atrix (F3)	(12)		'	(MI RA 136, 147)
2 cm M	uck (A10) (I RR N)		Redox Dark	Surface (I	-6)		``	(mErch 100, 147) /erv Shallow Dark Surface (TE12)
✓ Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	e (F7)			Other (Explain in Remarks)
Thick D	ark Surface (A12)	(,)	Redox Depr	essions (F	8)			
Sandy M	Mucky Mineral (S1) (L	RR N.	Iron-Mangar	iese Mass	es (F12) (LRR N.		
MLR	A 147, 148)	,	MLRA 13	6)		····,		
Sandy (Gleved Matrix (S4)		Umbric Surfa	ace (F13)	(MLRA 13	6, 122)	³ Inc	licators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Fl	oodplain S	oils (F19)	(MLRA 14	18) we	etland hydrology must be present.
Stripped	d Matrix (S6)		Red Parent	Material (F	21) (MLR	、 A 127, 147	7) ur	less disturbed or problematic.
Restrictive	Layer (if observed):				<i>i</i> .		-	·
Type: ^{ro}	ck							
Depth (in	ches): 10						Hydric Soi	l Present? Yes 🖌 No
Remarks:							1	

Refusal at 10. Disturbed soil.



Photo 1 Upland data point wrae222_u facing west



Photo 2 Upland data point wrae222_u facing east

Project/Site: Atlantic Coast Pipeline	City/County: Randolph County S	ampling Date: 5/20/2016
Applicant/Owner: Dominion	State: WV	Sampling Point: wrae220e_w
Investigator(s): CG, KO	Section, Township, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): bench	ocal relief (concave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.51340901</u>	Long: <u>-80.12039174</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base	NWI classificati	on: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in Rem	narks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstances" pre	sent? Yes No 🔽
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers	in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 (C	3) 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):	
Water Table Present? Yes <u>/</u> No Depth (inches): <u>8</u>	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetlan	nd Hydrology Present? Yes 🖌 No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	available:
,,,,,,,,,,	
Remarks:	

Sampling Point: wrae220e_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
2		·		Total Number of Dominant
3		·	······	Species Across All Strata: (B)
4		·		Percent of Dominant Species
5	·			That Are OBL, FACW, or FAC: 100 (A/B)
6				
7.				Prevalence Index worksheet:
	0	- Total Cove		Total % Cover of: Multiply by:
50% of total covor: 0	20% of		0	OBL species $0 x 1 = 0$
	20 % 01	total cover.		EACW species 100 y $2-200$
Sapling/Shrub Stratum (Plot size:)				$\frac{1}{10000000000000000000000000000000000$
1		·		FAC species $x_3 = 0$
2		<u></u> .		FACU species $4 = 0$
3.				UPL species $0 x 5 = 0$
Λ				Column Totals: ¹⁰⁰ (A) ²⁰⁰ (B)
		·		
5		·	<u> </u>	Prevalence Index = B/A =2
6		·		Hydrophytic Vegetation Indicators
7				1 Popid Tost for Hydrophytic Vesstation
8.				
0			·	2 - Dominance Test is >50%
9	0			\checkmark 3 - Prevalence Index is ≤3.0 ¹
0		= Total Cove	r O	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Brakle and in Hedrarks of on a separate sheet)
_{1.} Phalaris arundinacea	70	Yes	FACW	Problematic Hydrophytic Vegetation (Explain)
2 Scirpus cyperinus	20	No	FACW	
o Sphagnum sp	10	No		¹ Indicators of hydric soil and wetland hydrology must
	10			be present, unless disturbed or problematic.
4. Juncus emusus	10	INO	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
/				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.				Here All hereacous (non-woody) plants, reporting
	110		r	of size, and woody plants less than 3 28 ft tall
50% of total cover: 55	20% of		22	
	20 % 01	total cover.		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1		·		
2				
3.				
4		·		
4		·		Hydrophytic
5		·		Vegetation
	0	= Total Cove	r	Present? Yes <u> </u>
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate sl	heet.)			1
	,			

Depth	Matrix		Redo	x Features	\$				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-12	10YR 3/1	85	7.5YR 4/6	15	C	PL	CL		
¹ Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, M	 S=Masked	Sand Gra	ains.	² Location: PL=	Pore Lining, M=Matrix.	
Hydric Soil	Indicators:		· · · ·				Indicato	ors for Problematic Hy	/dric Soils ³ :
Histosol Histic E Black H Hydroge Stratifie 2 cm Mu Deplete Thick D Sandy M	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L I A 147, 148)	(A11) R R N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma ✔ Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 13 	e (S7) elow Surfac urface (S9) ed Matrix (I trix (F3) Surface (F rk Surface essions (F8 esse Masse (6)	ce (S8) (M (MLRA 1 F2) 6) (F7) 3) es (F12) (I	ILRA 147, 47, 148) LRR N,	, 148) 2 cr , 148) Coa (I Piec (I Ver Oth	n Muck (A10) (MLRA 1 ast Prairie Redox (A16) MLRA 147, 148) dmont Floodplain Soils MLRA 136, 147) y Shallow Dark Surface er (Explain in Remarks	47) (F19) e (TF12))
Sandy (Sandy F Stripped	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Layer (if observed):		Umbric Surfa Piedmont Flo	ace (F13) (bodplain So Material (F2	MLRA 13 oils (F19) 21) (MLR	6, 122) (MLRA 14 A 127, 14	³ Indica 48) wetla 7) unles	ators of hydrophytic veg and hydrology must be as disturbed or problem	getation and present, atic.
	avol								

Refusal at 12. Disturbed soil.



Photo 1 Wetland data point wrae220e_w facing west



Photo 2 Wetland data point wrae220e_w facing east

Project/Site: Atlantic Coast Pipeline	City/County: Ra	andolph County	Sampling Date: 5/20/2016
Applicant/Owner: Dominion		State: WV	_ Sampling Point: wrae220s_w
Investigator(s): CG, KO	Section, Townsl	hip, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): bench	Local relief (concav	/e, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38.5137498	9	Long:80.12082571	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classifica	ation: None
Are climatic / hydrologic conditions on the site typical for this time of	year?Yes 🖌	_ No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed?	Are "Normal Circumstances" p	resent? Yes No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any answer	s in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖍 No	
Remarks:					

wenanu nyurulogy indicato	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; o	check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water-Stained Leaves (B Aquatic Fauna (B13) 	ial Imagery (B7) 9)	 True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) 	
Field Observations:			
Surface Water Present?	Yes 🖌 No	Depth (inches): 3	
Water Table Present?	Yes 🖌 No	Depth (inches): 0	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes 🔽 No _ Yes 🔽 No _	Depth (inches): 0 Depth (inches): 0	Wetland Hydrology Present? Yes <u></u> No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree	Yes <u>v</u> No _ Yes <u>v</u> No _	Depth (inches): 0 Depth (inches): 0 ing well, aerial photos, previous inspec	Wetland Hydrology Present? Yes V Stions), if available: No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> No Yes <u>v</u> No eam gauge, monitor	Depth (inches): 0 Depth (inches): 0 ing well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:

Sampling Point: wrae220s_w

		Absolute	Dominant In	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
1. Alnus serrulata		20	Yes	OBL	That Are OBL, FACW, or FAC: 4 ((A)
2.						
3		-			Total Number of Dominant	D)
						D)
4			·	<u> </u>	Percent of Dominant Species	
5			·		That Are OBL, FACW, or FAC: 100 ((A/B)
6						
7.					Prevalence Index worksheet:	
· · ·		20			Total % Cover of: Multiply by:	
	EON/ of total approx			4	OBL species $65 \times 1 = 65$	
	50% of total cover:	20% 01	total cover:		$\frac{30}{30} \times 3 = \frac{60}{10}$	
Sapling/Shrub Stratum (Plot siz	ze:)				$\frac{20}{20} = \frac{60}{20}$	
1. Alnus serrulata		40	Yes	OBL	FAC species 20 x 3 = 00	
2.					FACU species $0 x 4 = 0$	
					UPL species $0 \times 5 = 0$	
3			·		Colump Totolo: 115 (A) 185	(D)
4						(D)
5					Dravelance Index D/A 16	
6					Prevalence Index = B/A =	
7			·		Hydrophytic Vegetation Indicators:	
/			·	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation	
8					✓ 2 - Dominance Test is >50%	
9.						
		40			Yerevalence Index is ≤3.0°	
	E0% of total approx 20	200/ of		8	4 - Morphological Adaptations ¹ (Provide suppo	orting
	50% of total cover	20% 0	total cover.		data in Remarks or on a separate sheet)	
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)	,
1. Eleocharis tenuis		30	Yes	FACW		,
2. Solidago rugosa		20	Yes	FAC		
 Alnus serrulata 		5	No	OBL	¹ Indicators of hydric soil and wetland hydrology mu	ust
3. <u></u>				002	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
-					more in diameter at breast height (DBH), regardles	ss of
1			·		neight.	
8			·		Sanling/Shrub - Woody plants, excluding vines 10	955
9					than 3 in. DBH and greater than or equal to 3.28 ft	: (1
10					m) tall.	
10					,	
11		EE	·		Herb – All herbaceous (non-woody) plants, regard	less
		55	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.	
	50% of total cover: 27.5	20% of	total cover:	11	Meedu vine All woods vince greater than 2.20 ft	
Woody Vine Stratum (Plot size	30)				beight	. In
1	,				neight.	
1			·			
2			·			
3						
4.						
5					Hydrophytic	
J					Present? Yes V	
	0		= I otal Cove	r O		
	50% of total cover: 0	20% of	total cover:	0		
Remarks: (Include photo numb	ers here or on a separate s	heet.)				

Profile Desc	cription: (Describe to	o the dep	th needed to docur	nent the i	ndicator	or confirm	the absence of indicators.)	
Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-6	10YR 4/1	80	10YR 3/6	20	С	PL/M	SIC	
	·							
								<u> </u>
¹ Type: C=C	oncentration D=Deple	etion RM	=Reduced Matrix MS	S=Masked	I Sand Gra	ains	² Location: PL=Pore Lining M=Matrix	
Hydric Soil	Indicators:		- roddood manny me				Indicators for Problematic Hydric Se	oils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic F	pipedon (A2)		Polyvalue Be	low Surfa	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)	
Hvdroae	en Sulfide (A4)		Loamy Gleve	d Matrix (F2)	, ,	Piedmont Floodplain Soils (F19)	
Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)	,		(MLRA 136, 147)	
2 cm Mi	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Very Shallow Dark Surface (TF12))
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	, (F7)		Other (Explain in Remarks)	,
Thick D	ark Surface (A12)	, ,	Redox Depre	ssions (F	8)		<u> </u>	
Sandy N	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	, es (F12) (I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)	. , .			
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation	and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetland hydrology must be present	,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F	21) (MLR	A 127, 147) unless disturbed or problematic.	
Restrictive	Layer (if observed):							
Type: Ro	ock							
Depth (in	ches): 6						Hydric Soil Present? Yes 🖌 No	
Remarks:	,							

Refusal at 6. Disturbed soil.



Photo 1 Wetland data point wrae220s_w facing east



Photo 2 Wetland data point wrae220s_w facing west

Project/Site: Atlantic Coast Pipeline	_ City/County: F	Randolph County	_ Sampling Date: 5/20/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae220_u
Investigator(s): CG, KO	Section, Towr	nship, Range: No PLSS in this area	a
Landform (hillslope, terrace, etc.): slope	Local relief (conc	ave, convex, none): <u>convex</u>	Slope (%): <u>20</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.5134779</u>		Long: <u>-80.12036379</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typical for this time of	year?Yes 🔽	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significant	tly disturbed?	Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology naturally p	problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Weitana Hyarology maloators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	EAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No V
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:

Sampling Point: wrae220_u

	•	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1.					That Are OBL, FACW, or FAC ¹ (A)
2					
2					Total Number of Dominant
3					Species Across All Strata: (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 0 (A/B)
6.					
7					Prevalence Index worksheet:
		0	- Total Covo	r	Total % Cover of: Multiply by:
	50% of total cover: 0	20% of	total cover:	0	OBL species $0 x 1 = 0$
	15 \(\)	20 % 01	total cover.		ACW species 0 $x_2 = 0$
Sapling/Shrub Stratum (Plot siz	ze:)				$\frac{1}{1} = \frac{1}{1} = \frac{1}$
1					$\begin{array}{c} \text{FAC species} \\ \hline \\ $
2					FACU species $x 4 = 0$
3					UPL species $0 \times 5 = 0$
4.					Column Totals:65 (A)260 (B)
5					
<u>.</u>					Prevalence Index = B/A =4
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 ≤3.0
	50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Diat aiza:	5 \				data in Remarks or on a separate sheet)
Anthoxanthum odoratum)	60	Vaa	EACU	Problematic Hydrophytic Vegetation ¹ (Explain)
			res	FACU	
2. Taraxacum officinale		5	NO	FACU	¹ Indicators of hydric soil and wetland hydrology must
3					be present, unless disturbed or problematic.
4.					Definitions of Four Vegetation Strate
5					Deminions of Four Vegetation Strata.
6					Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
0					more in diameter at breast height (DBH), regardless of
7				<u> </u>	height.
8					Sanling/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					
		65	Total Cava		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall
	50% of total cover: 32.5	20% of	total cover:	13	
Maashu Mina Chrotum (Distaire	. 30	2070 01			Woody vine – All woody vines greater than 3.28 ft in
woody vine Stratum (Piot size)				height.
1					
2					
3				. <u> </u>	
4.					the beaute die
5					Hydrophytic
		0	Tatal Caus		Present? Yes No
	EON/ of total approx			0	
		20% 01	total cover.		
Remarks: (Include photo numb	ers here or on a separate s	heet.)			

Profile Des	cription: (Describe to	o the depth r	needed to docum	nent the ir	dicator o	or confirm	the absence	of indicato	ors.)		
Depth	Matrix	Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
0-12	10YR 4/3	100					SCL	30% Grav	el and spoil		
	,										
								_			
	;										
¹ Type: C=C	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: P	L=Pore Lini	ng, M=Matrix	ζ.	
Hydric Soil	Indicators:		· · · · · ·				Indic	ators for Pr	oblematic H	lydric Soils ³ :	
Histoso	l (A1)		Dark Surface	(S7)			2	cm Muck (A	(MLRA	147)	
Histic E	pipedon (A2)		Polyvalue Be	low Surfac	e (S8) (M	LRA 147,	148) (Coast Prairie	Redox (A16	i)	
Black H	istic (A3)	_	Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 14	7, 148)		
Hydroge	en Sulfide (A4)	-	Loamy Gleye	d Matrix (F	2)		F	viedmont Flo	odplain Soils	s (F19)	
<u>Stratifie</u>	d Layers (A5)	_	Depleted Mat	trix (F3)				(MLRA 13	6, 147)		
2 cm M	uck (A10) (LRR N)	-	Redox Dark \$	Surface (F6	6)		V	ery Shallow	Dark Surfac	e (TF12)	
Deplete	d Below Dark Surface	(A11) _	Depleted Dar	k Surface	(F7)		C	Other (Explai	n in Remark	s)	
Thick D	ark Surface (A12)	-	Redox Depre	essions (F8)						
Sandy M	Mucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Masse	s (F12) (I	_RR N,					
MLR	A 147, 148)		MLRA 13	6)			2				
Sandy (Gleyed Matrix (S4)	-	Umbric Surfa	ce (F13) (I	MLRA 13	6, 122)	°Inc	licators of hy	/drophytic ve	getation and	
Sandy F	Redox (S5)	-	Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	8) we	etland hydro	logy must be	present,	
Stripped	d Matrix (S6)	-	Red Parent N	Aaterial (F2	21) (MLR	A 127, 147) un	less disturb	ed or probler	natic.	
Restrictive	Layer (if observed):										
Type: 10			-								
Depth (in	ches): <u>12</u>		_				Hydric Soil	Present?	Yes	No	_
Remarks:											
Disturbed eai	Bofusal at 12										

Disturbed soil. Refusal at 12.



Photo 1 Upland data point wrae220_u facing north



Photo 2 Upland data point wrae220_u facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	_ Sampling Date: <u>5/20/2016</u>
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae221e_w
Investigator(s): CG, KO	Section, Tow	nship, Range: <u>No PLSS in this are</u>	ea
Landform (hillslope, terrace, etc.): bench	_ Local relief (con	cave, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N Lat: 38.513857	787	Long: <u>-80.12028962</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classi	fication: None
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 signification	antly disturbed?	Are "Normal Circumstances'	' present? Yes No
Are Vegetation, Soil, or Hydrology natural	ly problematic?	(If needed, explain any answ	vers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>v</u> No Yes <u>v</u> No Yes <u>v</u> No	0 0	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators: Secondary Indicators (minimu	m 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 Vegetated Conc	ave Surface (B8)
Image: Market All All All All All All All All All Al	
✓ 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 Aeria	al Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plant	is (D1)
Iron Deposits (B5) Geomorphic Position (D2))
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)	
Water-Stained Leaves (B9) Microtopographic Relief (I	D4)
Aquatic Fauna (B13) YAC-Neutral Test (D5)	
Field Observations:	
Surface Water Present? Yes No _	
Water Table Present? Yes <u>V</u> No Depth (inches): 0	
Saturation Present? Yes <u>Ves</u> No Depth (inches): 0 Wetland Hydrology Present? Yes <u>Ves</u>	No
(Includes capillary tringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

Sampling Point: wrae221e_w

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 2 (A)
2				
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL EACW or EAC 100 (A/B)
6				
7				Prevalence Index worksheet:
[¹	0			Total % Cover of Multiply by
		= Total Cover	0	$\frac{1}{OPL} = \frac{60}{x + 1} = \frac{60}{x}$
50% of total cover:	20% of	total cover:	0	$\frac{100}{50}$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = 100$
1.				FAC species x 3 =
2				FACU species $0 x 4 = 0$
Z				1 IPL species 0 $x_5 = 0$
3				$110 \times 110 \times 110$
4				Column Totals: (A) (B)
5				Dravelance Index D/A 145
6				Prevalence Index = B/A = 1.43
7				Hydrophytic Vegetation Indicators:
1			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				\checkmark 2. Derivation of leader is <2.0 ¹
	0	= Total Cove	r	
50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations' (Provide supporting
Lieth Charture (Dist size: 5	207001			data in Remarks or on a separate sheet)
Turpha X glauca	60	Maa		Problematic Hydrophytic Vegetation ¹ (Explain)
1. Typna × glauca	00	Yes	OBL	
2. Onoclea sensibilis	30	Yes	FACW	
_{3.} Scirpus cyperinus	10	No	FACW	he present unless disturbed or problematic
Juncus effusus	10	No	FACW	be present, unless disturbed of problematic.
				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				
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) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
	110	= Total Cover	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 55	20% of	total cover:	22	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				
				Hydrophytic
o	0			Vegetation Present 2 Ves V No
	0	= Total Cover	0	
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate sh	neet.)			

Profile Desc	cription: (Describe to	o the dep	oth needed to docur	nent the i	ndicator	or confirm	the absence	e of indicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	7.5YR 2.5/1	100						Muck	
4-12	2.5Y 4/3	90	7.5YR 4/6	10	С	PL	SICL		
·									
¹ Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location: F	PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:		· · · ·				Indic	ators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Dark Surface	e (S7)			2	2 cm Muck (A10) (MLRA 147)	
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) (N	ILRA 147,	148) (Coast Prairie Redox (A16)	
Black H	istic (A3)		Thin Dark Su	urface (S9)) (MLRA 1	47, 148)		(MLRA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		F	Piedmont Floodplain Soils (F19)	
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)	
👱 2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		\	/ery Shallow Dark Surface (TF12)	
Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	e (F7)		(Other (Explain in Remarks)	
Thick D	ark Surface (A12)		Redox Depre	essions (F	8)				
Sandy M	/lucky Mineral (S1) (Ll	RR N,	Iron-Mangan	ese Mass	es (F12) (I	LRR N,			
MLR	A 147, 148)		MLRA 13	6)					
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) ((MLRA 13	6, 122)	³ Inc	dicators of hydrophytic vegetation and	
Sandy F	Redox (S5)		Piedmont Flor	odplain S	oils (F19)	(MLRA 14	8) we	etland hydrology must be present,	
Stripped	l Matrix (S6)		Red Parent M	Material (F	21) (MLR	A 127, 147	') ur	nless disturbed or problematic.	
Restrictive	Layer (if observed):								
Type: Gr	avel								
Depth (in	ches): <u>12</u>						Hydric Soi	l Present? Yes 🖌 No	
Remarks:							4		

Refusal at 12. Disturbed soil.



Photo 1 Wetland data point wrae221e_w facing east



Photo 2 Wetland data point wrae221e_w facing west
Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: <u>5/20/2016</u>
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae221_u
Investigator(s): CG, KO	Section, Tow	nship, Range: <u>No PLSS in this ar</u>	ea
Landform (hillslope, terrace, etc.): <u>slope</u>	Local relief (con	cave, convex, none): <u>convex</u>	Slope (%): <u>20</u>
Subregion (LRR or MLRA): N Lat: 38.5139971	7	Long: <u>-80.12035756</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classi	fication: None
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 significar	ntly disturbed?	Are "Normal Circumstances'	" present? Yes No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any answ	vers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 S	oils (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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Yes No Percent (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspector Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes <u>No</u> ctions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No

Sampling Point: wrae221_u

		Absolute	Dominant li	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	Number of Deminerat Creasing
1	,				That Are OBL EACW or EAC: 1 (A)
·					
2					Total Number of Dominant
3					Species Across All Strata:3 (B)
4					
5					Percent of Dominant Species
o					That Are OBL, FACW, of FAC:(A/B)
б					Prevalence Index worksheet:
7					
		0	= Total Cove	r	
	50% of total cover: 0	20% of	total cover:	0	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot siz	, 15)				FACW species x 2 =0
A Robinia pseudoacacia	/	20	Yes	FACU	FAC species 40 x 3 = 120
Rotulo alloghaniansia			No	EAC	FACU species 90 x 4 = 360
2. Betula allegriamensis				FAC	$\begin{array}{c} \text{FACO Species} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
3. Acer rubrum		5	No	FAC	UPL species $x 5 = \frac{120}{480}$
4.					Column Totals: (A) (B)
5					
<u>.</u>					Prevalence Index = B/A =3.69
б				<u> </u>	Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
8.					
0					2 - Dominance Test is >50%
3		30			3 - Prevalence Index is ≤3.0 ¹
	15	:	= Total Cove	r 6	4 - Morphological Adaptations ¹ (Provide supporting
	50% of total cover: 15	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size:	5)				
1. Anthoxanthum odoratum		70	Yes	FACU	Problematic Hydrophytic Vegetation (Explain)
2 Lycopodium clavatum		30	Yes	FAC	
2					¹ Indicators of hydric soil and wetland hydrology must
3			<u> </u>		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			<u> </u>		height.
8					Sapling/Shrub Woody plants excluding vines loss
9					than 3 in. DBH and greater than or equal to 3.28 ft (1
10					m) tall.
10					,
11		100			Herb – All herbaceous (non-woody) plants, regardless
		100	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 50	20% of	total cover:	20	Woody vine All woody vines greater than 2.29 ft in
Woody Vine Stratum (Plot size:	30)				height
1					
2			. <u> </u>		
3					
4					Hydrophytic
5.					Vegetation
		0	- Total Covo	r	Present? Yes No
	E0% of total cover: 0	20% of		0	
		20% 01	total cover.		
Remarks: (Include photo numb	ers here or on a separate s	heet.)			

Depth (inches) Matrix Color (moist) Redox Features Color (moist) reture % Remarks 0-12 10YR 4/3 100	Profile Desc	cription: (Describe to	o the depth	needed to docur	nent the i	ndicator	or confirm	n the absence of indicators.)
Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-12 10YR 4/3 100 100 CL CL<	Depth	Matrix		Redo	x Features	3		
0-12 10YR 4/3 100 CL	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
Image: Stripped Matrix (S4) Sandy Mucky Mineral (S1) (LRR N) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N) MicRA 136, 122) Piedmont Floodplain Soils (F12) (MLRA 147, 148) Image: Stripped Matrix (S6) Predmont Floodplain Soils (F12) (MLRA 147, 148) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	0-12	10YR 4/3	100					CL
Image:								
Image: Solution in the image: Solutin the image: Solution in the image: Solution in								
Image: Stratified Layers (A5) Depleted Matrix (F3) Stratified Layers (A5) Depleted Dark Surface (F6) Stratified Surface (A1) Depleted Dark Surface (F6) Stratified Surface (S1) Coast Prairie Redox (A16) Muck A10 (MLRA 147, 148) (MLRA 147, 148) Histos (A1) Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Suffide (A4) Loamy Gieyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) Stratified Redow Dark Surface (A11) Depleted Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Matrix (F3) MLRA 136, 122) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 127, 147) Stratified Cayers (ff observed): Type: Mcck Meth (inches): 12 Hydric Soil Present? Yes								
Image:								
'Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ?Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils?: Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 147, 148) Polyvalue Below Dark Surface (A11) Depleted Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Boark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F6) Sandy Mucky Mineral (S1) (LRR N, Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock Red Parent Material (F21) (MLRA 127, 147) Inless disturbed or problematic. Type: Rock Hydric Soil Present? Yes No V Deputh (inches): 12 Hydric Soi								
Image:								
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loarny Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock No V Type: 12 Hydric Soil Present? Yes No V Depth (inches): 12 No V No V								
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, MLRA 136, 122) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) HLRA 197, 148) MLRA 197, 148 HLRA 197, 148 Situpped Matrix (S6) No Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147								
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histosol (A2) Polyvalue Below Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 136, 122) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock No ✓ Depth (inches): 12 Hydrogen Sufface (F7) Hydrogen Sufface (F13) (MLRA 136, 122) *Indicators of hydrophytic vegetation and wetland								
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock Red Parent Material (F21) (MLRA 127, 147) Inless disturbed or problematic. Priedmont Floodplain Soils (F19) Hydric Soil Present? Yes No Yes No Yes				,				
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :								
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 147, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock Hydric Soil Present? Yes No V Depth (inches): 12 Deptend Huterial (F21) (MLRA 127, 147) Hydric Soil Present? Yes No								
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrigen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 147, 148) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock No V Depth (inches): 12 Hydric Soil Present? Yes No V Dependicic 12 No V No V	¹ Type: C=C	oncentration, D=Deple	etion. RM=Re	educed Matrix. MS	S=Masked	Sand Gra	ains	² Location: PI =Pore Lining, M=Matrix,
	Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils ³ :
Induction (III)	Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MI RA 147)
	Histic F	pipedon (A2)		Polyvalue Be	low Surfac	e (S8) (N	II RA 147.	148) Coast Prairie Redox (A16)
	Black H	stic (A3)		Thin Dark Su	Inface (S9)	(MLRA 1	47. 148)	(MLRA 147, 148)
	Hydroge	en Sulfide (A4)		Loamy Gleve	d Matrix (I	(<u>-</u>	,,	Piedmont Floodplain Soils (F19)
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, 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: No ✓ Depth (inches): 12 Hydric Soil Present? Yes No ✓	Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)	_/		(MLRA 136, 147)
	2 cm M	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Verv Shallow Dark Surface (TF12)
	Deplete	d Below Dark Surface	(A11)	Depleted Da	k Surface	(F7)		Other (Explain in Remarks)
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 136, 122) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock Depth (inches): 12 Hydric Soil Present? Yes No	Thick D	ark Surface (A12)	()	Redox Depre	essions (F8	3)		
MLRA 147, 148) MLRA 136)	Sandy N	/ucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Masse	, es (F12) (I	LRR N,	
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 136, 122) Piedmont Floodplain Soils (F19) (MLRA 148) Wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock Depth (inches): 12 Hydric Soil Present? Yes No Yes	MLR	A 147, 148)		MLRA 13	6)			
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: Hydric Soil Present? Yes No Depth (inches): 12 No ✓	Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and
Stripped Matrix (S6)Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: Rock Depth (inches): 12 Hydric Soil Present? Yes No Restrictive Layer (if observed):	Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	(8) wetland hydrology must be present,
Restrictive Layer (if observed): Type: Rock Depth (inches): 12 No ✓	Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR	A 127, 147	7) unless disturbed or problematic.
Type: Rock Depth (inches): 12 Barnada: Hydric Soil Present? Yes No	Restrictive	Layer (if observed):						
Depth (inches): 12 Hydric Soil Present? Yes No 🖌	Type: Ro	ock						
Demodel	Depth (in	ches): 12						Hydric Soil Present? Yes No 🗸
Remarks:	Remarks:	/ -		_				

Refusal at 12. Disturbed soil.



Photo 1 Upland data point wrae221_u facing north



Photo 2 Upland data point wrae221_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: Randolph County S	ampling Date: 5/20/2016
Applicant/Owner: Dominion	State: WV	Sampling Point: wrae220e_w
Investigator(s): CG, KO	Section, Township, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): bench	ocal relief (concave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.51340901</u>	Long: <u>-80.12039174</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base	NWI classificati	on: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes 🖌 No (If no, explain in Rem	narks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Normal Circumstances" pre	sent? Yes No 🔽
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, explain any answers	in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 (C	3) 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):	
Water Table Present? Yes <u>/</u> No Depth (inches): <u>8</u>	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetlan	nd Hydrology Present? Yes 🖌 No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	available:
,,,,,,,,,,	
Remarks:	

Sampling Point: wrae220e_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
2		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4		·		Percent of Dominant Species
5	·			That Are OBL, FACW, or FAC: 100 (A/B)
6				
7.				Prevalence Index worksheet:
	0	- Total Cove		Total % Cover of: Multiply by:
50% of total covor: 0	20% of		0	OBL species $0 x 1 = 0$
	20 % 01	total cover.		EACW species 100 y $2-200$
Sapling/Shrub Stratum (Plot size:)				$\frac{1}{10000000000000000000000000000000000$
1		·		FAC species $x_3 = 0$
2		<u></u> .		FACU species $4 = 0$
3.				UPL species $0 x 5 = 0$
Λ				Column Totals: ¹⁰⁰ (A) ²⁰⁰ (B)
		·		
5		·	<u> </u>	Prevalence Index = B/A =2
6		·		Hydrophytic Vegetation Indicators
7				1 Popid Tost for Hydrophytic Vesstation
8.				
0			·	2 - Dominance Test is >50%
9	0			\checkmark 3 - Prevalence Index is ≤3.0 ¹
0		= Total Cove	r O	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Deable section to dear builty (constration 1 (Four table))
_{1.} Phalaris arundinacea	70	Yes	FACW	Problematic Hydrophytic Vegetation (Explain)
2 Scirpus cyperinus	20	No	FACW	
o Sphagnum sp	10	No		¹ Indicators of hydric soil and wetland hydrology must
	10			be present, unless disturbed or problematic.
4. Juncus emusus	10	INO	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
/				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.				Here All hereacous (non-woody) plants, reporting
	110		r	of size, and woody plants less than 3 28 ft tall
50% of total cover: 55	20% of		22	
	20 % 01	total cover.		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1		·		
2				
3.				
4		·		
4		·		Hydrophytic
5		·		Vegetation
	0	= Total Cove	r	Present? Yes <u> </u>
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate sl	heet.)			1
	,			

Depth	Matrix		Redo	x Features	\$				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-12	10YR 3/1	85	7.5YR 4/6	15	C	PL	CL		
¹ Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, M	 S=Masked	Sand Gra	ains.	² Location: PL=	Pore Lining, M=Matrix.	
Hydric Soil	Indicators:		· · · ·				Indicato	ors for Problematic Hy	/dric Soils ³ :
Histosol Histic E Black H Hydroge Stratifie 2 cm Mu Deplete Thick D Sandy M	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L I A 147, 148)	(A11) R R N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma ✔ Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 13 	e (S7) elow Surfac urface (S9) ed Matrix (I trix (F3) Surface (F rk Surface essions (F8 esse Masse (6)	ce (S8) (M (MLRA 1 F2) 6) (F7) 3) es (F12) (I	ILRA 147, 47, 148) LRR N,	, 148) 2 cr , 148) Coa (I Piec (I Ver Oth	n Muck (A10) (MLRA 1 ast Prairie Redox (A16) MLRA 147, 148) dmont Floodplain Soils MLRA 136, 147) y Shallow Dark Surface er (Explain in Remarks	47) (F19) e (TF12))
Sandy (Sandy F Stripped	Gleyed Matrix (S4) Redox (S5) I Matrix (S6) Layer (if observed):		Umbric Surfa Piedmont Flo	ace (F13) (bodplain So Material (F2	MLRA 13 oils (F19) 21) (MLR	6, 122) (MLRA 14 A 127, 14	³ Indica 48) wetla 7) unles	ators of hydrophytic veg and hydrology must be as disturbed or problem	getation and present, atic.
	avol								

Refusal at 12. Disturbed soil.



Photo 1 Wetland data point wrae220e_w facing west



Photo 2 Wetland data point wrae220e_w facing east

Project/Site: Atlantic Coast Pipeline	City/County: Ra	andolph County	Sampling Date: 5/20/2016
Applicant/Owner: Dominion		State: WV	_ Sampling Point: wrae220s_w
Investigator(s): CG, KO	Section, Townsl	hip, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): bench	Local relief (concav	/e, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38.5137498	9	Long:80.12082571	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classifica	ation: None
Are climatic / hydrologic conditions on the site typical for this time of	year?Yes 🖌	_ No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significar	ntly disturbed?	Are "Normal Circumstances" p	resent? Yes No _
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any answer	s in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖍 No	
Remarks:					

wenanu nyurulogy indicato	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; o	check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water-Stained Leaves (B Aquatic Fauna (B13) 	ial Imagery (B7) 9)	 True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled S Thin Muck Surface (C7) Other (Explain in Remarks) 	
Field Observations:			
Surface Water Present?	Yes 🖌 No	Depth (inches): 3	
Water Table Present?	Yes 🖌 No	Depth (inches): 0	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes 🔽 No _ Yes 🔽 No _	Depth (inches): 0 Depth (inches): 0	Wetland Hydrology Present? Yes <u></u> No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree	Yes <u>v</u> No _ Yes <u>v</u> No _	Depth (inches): 0 Depth (inches): 0 ing well, aerial photos, previous inspec	Wetland Hydrology Present? Yes V Stions), if available: No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> No Yes <u>v</u> No eam gauge, monitor	Depth (inches): 0 Depth (inches): 0 ing well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No ctions), if available:

Sampling Point: wrae220s_w

		Absolute	Dominant In	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	Status	Number of Dominant Species	
1. Alnus serrulata		20	Yes	OBL	That Are OBL, FACW, or FAC: 4 ((A)
2.						
3		-			Total Number of Dominant	D)
						D)
4			·	<u> </u>	Percent of Dominant Species	
5			·		That Are OBL, FACW, or FAC: 100 ((A/B)
6						
7.					Prevalence Index worksheet:	
· · ·		20			Total % Cover of: Multiply by:	
	EON/ of total approx			4	OBL species $65 \times 1 = 65$	
	50% of total cover:	20% 01	total cover:		$\frac{30}{30} \times 3 = \frac{60}{10}$	
Sapling/Shrub Stratum (Plot siz	ze:)				$\frac{20}{20} = \frac{60}{20}$	
1. Alnus serrulata		40	Yes	OBL	FAC species 20 x 3 = 00	
2.					FACU species $0 x 4 = 0$	
					UPL species $0 \times 5 = 0$	
3			·		Colump Totolo: 115 (A) 185	(D)
4						(D)
5					Dravelance Index D/A 16	
6					Prevalence Index = B/A =	
7			·		Hydrophytic Vegetation Indicators:	
/			·	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation	
8					✓ 2 - Dominance Test is >50%	
9.						
		40			Yerevalence Index is ≤3.0°	
	E0% of total approx 20	200/ of		8	4 - Morphological Adaptations ¹ (Provide suppo	orting
	50% of total cover	20% 0	total cover.		data in Remarks or on a separate sheet)	
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)	,
1. Eleocharis tenuis		30	Yes	FACW		,
2. Solidago rugosa		20	Yes	FAC		
Alnus serrulata		5	No	OBL	¹ Indicators of hydric soil and wetland hydrology mu	ust
3. <u></u>				002	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
-					more in diameter at breast height (DBH), regardles	ss of
7			·		neight.	
8			·		Sanling/Shrub - Woody plants, excluding vines 10	955
9					than 3 in. DBH and greater than or equal to 3.28 ft	: (1
10					m) tall.	
10					,	
11		EE	·		Herb – All herbaceous (non-woody) plants, regard	less
		55	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.	
	50% of total cover: 27.5	20% of	total cover:	11	Meedu vine All woods vince greater than 2.20 ft	
Woody Vine Stratum (Plot size	30)				beight	. In
1	,				neight.	
1			·			
2			·			
3						
4.						
5					Hydrophytic	
J					Present? Yes V	
	0		= I otal Cove	r O		
	50% of total cover: 0	20% of	total cover:	0		
Remarks: (Include photo numb	ers here or on a separate s	heet.)				

Profile Desc	cription: (Describe te	o the dep	th needed to docur	nent the i	ndicator	or confirm	the absence of indicators.)	
Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-6	10YR 4/1	80	10YR 3/6	20	С	PL/M	SIC	
	·							
								<u> </u>
¹ Type: C=C	oncentration D=Deple	etion RM	=Reduced Matrix MS	S=Masked	I Sand Gra	ains	² Location: PL=Pore Lining M=Matrix	
Hydric Soil	Indicators:		- roddood manny me				Indicators for Problematic Hydric Se	oils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic F	pipedon (A2)		Polyvalue Be	low Surfa	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)	
Hvdroae	en Sulfide (A4)		Loamy Gleve	d Matrix (F2)	, ,	Piedmont Floodplain Soils (F19)	
Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)	,		(MLRA 136, 147)	
2 cm Mi	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Very Shallow Dark Surface (TF12))
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	, (F7)		Other (Explain in Remarks)	,
Thick D	ark Surface (A12)	, ,	Redox Depre	ssions (F	8)		<u> </u>	
Sandy N	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	, es (F12) (I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)	. , .			
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation	and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetland hydrology must be present	,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F	21) (MLR	A 127, 147) unless disturbed or problematic.	
Restrictive	Layer (if observed):							
Type: Ro	ock							
Depth (in	ches): 6						Hydric Soil Present? Yes 🖌 No	
Remarks:	,							

Refusal at 6. Disturbed soil.



Photo 1 Wetland data point wrae220s_w facing east



Photo 2 Wetland data point wrae220s_w facing west

Project/Site: Atlantic Coast Pipeline	_ City/County: F	Randolph County	_ Sampling Date: 5/20/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae220_u
Investigator(s): CG, KO	Section, Towr	nship, Range: No PLSS in this area	a
Landform (hillslope, terrace, etc.): slope	Local relief (conc	ave, convex, none): <u>convex</u>	Slope (%): <u>20</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.5134779</u>		Long: <u>-80.12036379</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typical for this time of	year?Yes 🔽	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significant	tly disturbed?	Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology naturally p	problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Totalia liyalology maloatolol	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	EAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches):	Wetland Hydrology Present? Yes No V
(includes capillary fringe)	
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:

Sampling Point: wrae220_u

	•	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1.					That Are OBL, FACW, or FAC: 0 (A)
2					
2					Total Number of Dominant
3					Species Across All Strata: (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 0 (A/B)
6.					
7					Prevalence Index worksheet:
· · ·		0	Total Cava		Total % Cover of: Multiply by:
	50% of total approx			0	OBL species $0 x 1 = 0$
	15 .	20% 01	total cover.	<u> </u>	$EACW$ species 0 $x_2 = 0$
Sapling/Shrub Stratum (Plot siz	ze:)				$\frac{1}{10000000000000000000000000000000000$
1					FAC species $3 = 260$
2				. <u> </u>	FACU species $4 = 200$
3.					UPL species x 5 =
4					Column Totals:65 (A)260 (B)
				·	
0					Prevalence Index = B/A =4
6					Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
8					1 = Rapid Test for Hydrophytic Vegetation
9					
		0	Total Cava		3 - Prevalence Index is ≤3.01
	EON/ of total agricer 0			0	4 - Morphological Adaptations ¹ (Provide supporting
	50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	00			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Antnoxantnum odoratum		60	Yes	FACU	
2. Taraxacum officinale		5	No	FACU	1
3.					Indicators of hydric soil and wetland hydrology must
4					be present, unless disturbed of problematic.
					Definitions of Four Vegetation Strata:
5			. <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.					
9					Sapling/Shrub – Woody plants, excluding vines, less
10					m) tall
10:			·		
11				<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
		60	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 32.5	20% of	total cover:	13	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size	:30)				height.
1.					
2					
2					
3					
4					Hydrophytic
5					Vegetation
		0	= Total Cove	r	Present? Yes No V
	50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numb	ers here or on a separate s	heet.)			
		,			

Profile Des	cription: (Describe to	o the depth r	needed to docun	nent the ir	dicator	or confirm	the absence	of indicato	ors.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-12	10YR 4/3	100					SCL	30% Grav	el and spoil	
¹ Type: C=C	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: P	L=Pore Lini	ng, M=Matrix	
Hydric Soil	Indicators:						Indic	ators for Pr	oblematic H	ydric Soils ³ :
Histoso	l (A1)		Dark Surface	(S7)			2	cm Muck (A	(MLRA	147)
Histic E	pipedon (A2)	_	Polyvalue Be	low Surfac	e (S8) (M	LRA 147,	148) (oast Prairie	Redox (A16)
Black H	istic (A3)	-	Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 14	7, 148)	
Hydroge	en Sulfide (A4)	-	Loamy Gleye	d Matrix (F	2)		F	edmont Flo	odplain Soils	s (F19)
Stratifie	d Layers (A5)	-	Depleted Mat	trix (F3)				(MLRA 13	6, 147)	
2 cm M	uck (A10) (LRR N)	-	Redox Dark \$	Surface (F6	6)		V	ery Shallow	Dark Surfac	e (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		C	Other (Explai	n in Remark	s)
Thick D	ark Surface (A12)	-	Redox Depre	ssions (F8)					
Sandy M	Mucky Mineral (S1) (Ll	RR N,	Iron-Mangan	ese Masse	s (F12) (I	_RR N,				
MLR	A 147, 148)		MLRA 13	6)			2			
Sandy (Gleyed Matrix (S4)	-	Umbric Surfa	ce (F13) (I	ILRA 13	6, 122)	°Inc	licators of hy	/drophytic ve	getation and
Sandy F	Redox (S5)	-	Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	8) we	etland hydro	logy must be	present,
Stripped	d Matrix (S6)	-	Red Parent N	Aaterial (F2	21) (MLR	A 127, 147) un	less disturb	ed or problen	natic.
Restrictive	Layer (if observed):									
Type: 10			-							
Depth (in	iches): <u>12</u>		-				Hydric Soil	Present?	Yes	No
Remarks:										
Disturbed esi	I Defused at 12									

Disturbed soil. Refusal at 12.



Photo 1 Upland data point wrae220_u facing north



Photo 2 Upland data point wrae220_u facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	_ Sampling Date: 5/19/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae219e_w
Investigator(s): CG, KO	Section, Tow	nship, Range: No PLSS in this are	a
Landform (hillslope, terrace, etc.): bench	_ Local relief (cond	cave, convex, none): <u>none</u>	Slope (%): <u>0</u>
Subregion (LRR or MLRA): N Lat: 38.513175	54	Long: <u>-80.12016158</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed?	Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology natural	ly problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:						
Historic strip mine						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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 R	oots (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 Soi	ls (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): 2	
Water Table Present? Yes <u></u> No <u>Depth</u> (inches): 0	
Saturation Present? Yes <u>V</u> No Depth (inches): 0	Wetland Hydrology Present? Yes <u></u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspecti	ons), if available:
Remarks:	

Sampling Point: wrae219e_w

, , ,	Abcoluto	- Dominant In	dicator	Dominanco Tost workshoot:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	
1				That Aro OBL EACING or EAC: 1 (A)
		· <u> </u>		
2		<u> </u>		Total Number of Dominant
3				Species Across All Strata: 1 (B)
4				
5				Percent of Dominant Species
<u>.</u>				That Are OBL, FACW, or FAC:(A/B)
b		·		Prevalence Index worksheet:
7		<u> </u>		
	0	= Total Cover		I otal % Cover of: Multiply by:
50% of total cover:	0 20% of	total cover:	0	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15)			FACW species $x = 200$
	./			FAC species $0 \times 3 = 0$
L				
2				$\begin{array}{c} \text{FACU species} \\ 0 \\ \end{array} \qquad \begin{array}{c} x \\ 4 \\ 0 \\ \end{array} \qquad \begin{array}{c} 0 \\ 0 \\ \end{array}$
3				UPL species 400 x 5 = 0
4				Column Totals: (A) (B)
ວ				Prevalence Index = B/A = 2
6		<u> </u>		Hydrophytic Vegetation Indicators:
7				1 - Ranid Test for Hydronhytia Vacatation
8.				
0				2 - Dominance Test is >50%
9				Y 3 - Prevalence Index is ≤3.0 ¹
		= Total Cover	0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	0 20% of	total cover:	0	data in Remarks or on a soparate shoot)
Herb Stratum (Plot size: 5)				
1 Scirpus cyperinus	100	Yes	FACW	Problematic Hydrophytic Vegetation' (Explain)
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		<u> </u>		height.
8				Sanling/Shrub Woody plants excluding vines loss
9				than 3 in, DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10				, ,
- TL	100			Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover:	50 20% of	total cover:	20	Woody vine All woody vines greater than 2.28 ft in
Woody Vine Stratum (Plot size: 30)				height
1.				
2		·		
3				
4				Hydrophytic
5.				Vegetation
	0	- Total Cover		Present? Yes <u>V</u> No
50% of total covor	0 20% of	total covor:	0	
	20/801			
Remarks: (Include photo numbers here or on a separation of the separation of the second secon	rate sheet.)			

Depth	Matrix		Redo	x Features	3				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	marks
0-8	10YR 4/1	80	10YR 4/4	20	С	M	SCL		
Гуре: С=С	oncentration, D=Deple	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location: PL	L=Pore Lining, M=	Matrix.
ydric Soil	Indicators:						Indica	ators for Problem	atic Hydric Soils ³ :
_ Histosol	(A1)		Dark Surface	e (S7)			2	cm Muck (A10) (N	/LRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surface	ce (S8) (M	ILRA 147,	, 148) C	oast Prairie Redox	k (A16)
Black H	istic (A3)		Thin Dark Sι	urface (S9)	(MLRA 1	47, 148)		(MLRA 147, 148))
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)		Pi	iedmont Floodplai	n Soils (F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147))
2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		V	ery Shallow Dark	Surface (TF12)
_ Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	(F7)		0	ther (Explain in Re	emarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F8	3)				
_ Sandy M	/lucky Mineral (S1) (Ll	RR N,	Iron-Mangan	ese Masse	es (F12) (I	_RR N,			
MLR	A 147, 148)		MLRA 13	6)					
_ Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) (MLRA 13	6, 122)	³ Indi	icators of hydroph	ytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	18) we	tland hydrology m	ust be present,
_ Stripped	l Matrix (S6)		Red Parent M	Material (F	21) (MLR	A 127, 14	7) unl	ess disturbed or p	roblematic.
estrictive	Layer (if observed):								
Type: ro	ck								
Depth (in	ches): ⁸						Hydric Soil	Present? Yes	✓ No
omarke:	,						,,.		

refusal at 8 inches. disturbed soil



Photo 1 Wetland data point wrae219e_w facing east



Photo 2 Wetland data point wrae219e_w facing north

ty: Randolph County Sampling Date: 5/19/2016
State: <u>WV</u> Sampling Point: <u>wrae219_u</u>
Fownship, Range: <u>No PLSS in this area</u>
concave, convex, none): <u>none</u> Slope (%): <u>0</u>
Long: <u>-80.12027497</u> Datum: WGS 1984
NWI classification: None
✓ No (If no, explain in Remarks.)
? Are "Normal Circumstances" present? Yes No _
(If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 S	oils (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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Yes No Percent (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes <u>No</u> ctions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No

Sampling Point: wrae219_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 0 (A)
··		·		
2	·	·		Total Number of Dominant
3	·	·		Species Across All Strata: (B)
4		·		Percent of Dominant Species
5				That Are OBL. FACW. or FAC: 0 (A/B)
6.				
7				Prevalence Index worksheet:
	0			Total % Cover of: Multiply by:
	200/ of		0	OBL species $0 x 1 = 0$
50% of total cover	20% 0	total cover.		EACW species 0 x 2 = 0
Sapling/Shrub Stratum (Plot size:)				
1		·		FAC species $x_3 = 280$
2	. <u> </u>			FACU species 70 $x 4 = 200$
3.				UPL species 10 x 5 = 50
4				Column Totals: (A) (B)
		·		
0				Prevalence Index = $B/A = 4.12$
6		·		Hydrophytic Vegetation Indicators:
7	·			1 - Rapid Test for Hydrophytic Vegetation
8				2 Dominance Test is 50%
9				
	0			3 - Prevalence Index is ≤3.0 ¹
E0% of total cover; 0	20% of		0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.	20% 0	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	05			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Phieum pratense	35	Yes	FACU	
2. Dactylis glomerata	35	Yes	FACU	1
_{3.} Sphagnum sp.	20	Yes		Indicators of hydric soil and wetland hydrology must
A Plantago lanceolata	10	No	UPL	be present, unless disturbed of problematic.
				Definitions of Four Vegetation Strata:
o		·	·	Tree – Woody plants, excluding vines 3 in (7.6 cm) or
6		·		more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				Sapling/Snrub – Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1
10		·		m) tall.
10		·	·	
11	100			Herb – All herbaceous (non-woody) plants, regardless
-	100	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	Woody vine – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: <u>30</u>)				height.
1				
2				
3		·		
	·	·		
4	·	·		Hydrophytic
5		·		Vegetation
	0	= Total Cove	r	Present? Yes No ·
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
	,			

Profile Description: (Describe to the depth needed to document the indicator or confirm the al	osence of indicators.)
Depth Matrix Redox Features	
(inches) Color (moist) % Color (moist) % Type ¹ Loc ² Tex	ture Remarks
0-6 10YR 3/2 100 S	CL
· · · · ·	
· .	
·	
·	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Loca	tion: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Dark Surface (S7)	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148)	Coast Prairie Redox (A16)
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148)	(MLRA 147, 148)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19)
Stratified Layers (A5) Depleted Matrix (F3)	(MLRA 136, 147)
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6)	Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7)	Other (Explain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8)	
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,	
MLRA 147, 148) MLRA 136)	
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)	³ Indicators of hydrophytic vegetation and
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):	
Туре:	
Depth (inches): 6 Hyd	ric Soil Present? Yes No
Pomorko:	
Remarks.	



Photo 1 Upland data point wrae219_u facing south



Photo 2 Upland data point wrae219_u facing north

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	_ Sampling Date: 5/19/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae218e_w
Investigator(s): CG, KO	Section, Tow	vnship, Range: <u>No PLSS in this area</u>	a
Landform (hillslope, terrace, etc.): bench	Local relief (con	ncave, convex, none): <u>concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): N Lat: 38.513867	'81	Long: <u>-80.11639444</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology significa	antly disturbed?	Are "Normal Circumstances"	present? Yes No 🖌
Are Vegetation, Soil, or Hydrology naturall	y problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	レ レ レ	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:						
Historic strip mine.						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)		
✓ Surface Water (A1) 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 So	oils (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 V No Depth (inches): 3			
Water Table Present? Yes <u>V</u> No Depth (inches): 0			
Water Table Present? Yes V Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0	Wetland Hydrology Present? Yes 🗸 No		
Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) ✓ No Depth (inches): 0	Wetland Hydrology Present? Yes <u>✓</u> No		
Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) ✓ No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective 0 0	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) ✓ No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes Ves Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Yes ✓ No Depth (inches): 0 Saturation Present? Yes ✓ No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		

Sampling Point: wrae218e_w

,	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL FACW or FAC: 2 (A)
		·	·	
Z		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL_EACW_or EAC ² 100 (A/B)
6.				
7				Prevalence Index worksheet:
1	0		<u> </u>	Total % Cover of: Multiply by:
		= Total Cove	r O	OBL species $15 \times 1 - 15$
50% of total cover: 0	20% of	total cover:	0	30 60
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = 0$
1				FAC species $3 = 0$ $x = 0$
2				FACU species x 4 =0
2			·	UPL species $0 \times 5 = 0$
		·		Column Totals: 45 (A) 75 (B)
4		·	. <u> </u>	
5		. <u> </u>		Prevalence Index = $B/A = 1.66$
6				Hydrophytic Vogotation Indicators
7.				nyurophytic vegetation indicators:
0			·	1 - Rapid Test for Hydrophytic Vegetation
o		·	·	2 - Dominance Test is >50%
9		·		✓ 3 - Prevalence Index is $\leq 3.0^1$
	0	= Total Cove	r	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover:	0	
Herb Stratum (Plot size: ⁵)				data in Remarks or on a separate sneet)
1 Eleocharis tenuis	25	Yes	FACW	Problematic Hydrophytic Vegetation' (Explain)
Alisma subcordatum	15	Yes	OBI	
				¹ Indicators of hydric soil and wetland hydrology must
3. Juncus enusus	5		FACW	be present, unless disturbed or problematic.
4		. <u> </u>		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
/		·	·	height.
8				Sanling/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				
	45			Herb – All herbaceous (non-woody) plants, regardless
22.6		= Total Cove	r o	or size, and woody plants less than 3.28 it tall.
50% of total cover: <u>22.3</u>	20% of	total cover:	9	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
		·		
S		·	·	
4		·		Hydrophytic
5		. <u> </u>		Vegetation
	0	= Total Cove	r	Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
Bemerke: (Include phote numbers here or on a concrete a	hoot)			
Remarks. (include proto numbers here of on a separate s	neet.)			

	Matrix		Redo	x Features	3			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10YR 4/1	80	7.5YR 4/6	20	C	PL	SIC	
ype: C=C vdric Soil	Concentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.	Location: PL=P	ore Lining, M=Matrix. s for Problematic Hydric Soil
 Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I 	bl (A1) Epipedon (A2) Histic (A3) Hen Sulfide (A4) ed Layers (A5) Huck (A10) (LRR N) ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) (L	e (A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Se Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depression Iron-Mangar 	e (S7) elow Surfac urface (S9) ed Matrix (f thrix (F3) Surface (F rk Surface essions (F lese Masse	ce (S8) (M (MLRA 1 F2) 6) (F7) 3) es (F12) (I	ILRA 147, 47, 148) -RR N,	2 cm Coas M Piedr (M Very Other	Muck (A10) (MLRA 147) t Prairie Redox (A16) LRA 147, 148) mont Floodplain Soils (F19) LRA 136, 147) Shallow Dark Surface (TF12) r (Explain in Remarks)
Sandy	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		MLRA 13 Umbric Surfa Piedmont Flo Red Parent I	ace (F13) (bodplain Se Material (F	MLRA 13 oils (F19) 21) (MLR	6, 122) (MLRA 14 A 127, 147	³ Indicate 18) wetlan 7) unless	ors of hydrophytic vegetation and hydrology must be present, and disturbed or problematic.
_ Strippe	Laura (Challer and B						1	

refusal at 8. disturbed soil



Photo 1 Wetland data point wrae218e_w facing northwest



Photo 2 Wetland data point wrae218e_w facing northeast

_ City/County: F	Randolph County	_ Sampling Date: 5/19/2016
	State: WV	Sampling Point: wrae218_u
_ Section, Towr	nship, Range: <u>No PLSS in this are</u>	a
ocal relief (conc	ave, convex, none): <u>convex</u>	Slope (%): <u>15</u>
	Long: <u>-80.11645182</u>	Datum: WGS 1984
	NWI classif	ication: None
year?Yes 🔽	No (If no, explain in	Remarks.)
ly disturbed?	Are "Normal Circumstances"	present? Yes No
oroblematic?	(If needed, explain any answ	ers in Remarks.)
	City/County: <u>F</u> Section, Towr ocal relief (conc rear? Yes <u>Y</u> y disturbed?	_ City/County: Randolph County State: WV Section, Township, Range: No PLSS in this are ocal relief (concave, convex, none): convex Long: -80.11645182 NVI classif rear? Yes ✓ No (If no, explain in y disturbed? Are "Normal Circumstances" roblematic? (If needed, explain any answ

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

	Secondary indicators (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) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled S Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No _ Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Image: Comparison of the comparison	ctions), if available:

Sampling Point: wrae218_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1.				That Are OBL, FACW, or FAC ¹ (A)
2		·		
		·	·	Total Number of Dominant
3		·	·	Species Across All Strata: (B)
4		·	<u> </u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6.				
7				Prevalence Index worksheet:
	0	- Total Cova		Total % Cover of: Multiply by:
E0% of total cover			0	OBL species $0 x 1 = 0$
50% of total cover.	20% 0	total cover.		EACW species 0 x 2 = 0
Sapling/Shrub Stratum (Plot size:)				
1		. <u> </u>		FAC species $x_3 = 280$
2				FACU species 70 $x 4 = 200$
3.				UPL species 20 x 5 = 100
4				Column Totals: (A) (B)
 E				, , ,
0				Prevalence Index = $B/A = 4.22$
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		. <u> </u>		2 Dominoneo Testio - 50%
9				
	0	- Total Cova		3 - Prevalence Index is ≤3.0'
E0% of total power: 0	20% of		0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.	20% 0	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	00			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Phieum pratense	30	Yes	FACU	
2. Dactylis glomerata	30	Yes	FACU	1
_{3.} Plantago lanceolata	20	Yes	UPL	Indicators of hydric soil and wetland hydrology must
A Fragaria virginiana	10	No	FACU	be present, unless disturbed of problematic.
		·	·	Definitions of Four Vegetation Strata:
5		· · · · · · · · · · · · · · · · · · ·	. <u> </u>	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		·		more in diameter at breast height (DBH), regardless of
7		<u></u>		height.
8				Conting (Chrysh - Weeds related as showing a lase
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10				,
· · · · · · · · · · · · · · · · · · ·	90		. <u> </u>	Herb – All herbaceous (non-woody) plants, regardless
45		= Total Cove	r 10	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>45</u>	20% of	total cover:	10	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2.				
3				
		·	·	
4		·	······	Hydrophytic
5		·	. <u> </u>	Vegetation
	0	= Total Cove	r	Present? Yes <u>No</u>
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			1
	,			
1				

Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-10 10YR 4/3 100 SC 20% gravel
Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-10 10YR 4/3 100 SC 20% gravel
0-10 10YR 4/3 100 SC 20% gravel
¹ Type: C-Concentration D-Depletion RM-Reduced Matrix MS-Masked Sand Grains ² Location: PL-Pore Lining M-Matrix
Hype: 0-00 heritation, D-Depletion, Hum-Reddeed Matrix, Mo-Masked Band Glands. Indicators for Problematic Hydric Soils ³ :
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MI RA 147)
Histic Eninedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16)
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148)
Hydrogen Sulfide (A4) Loamy Gleved Matrix (F2) Piedmont Floodplain Soils (F19)
Stratified Lavers (A5) Depleted Matrix (F3) (MLRA 136, 147)
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)
Thick Dark Surface (A12) Redox Depressions (F8)
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
MLRA 147, 148) MLRA 136)
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and
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: rock
Depth (inches): ¹⁰
Remarks:

refusal at 10. disturbed soil



Photo 1 Upland data point wrae218_u facing east



Photo 2 Upland data point wrae218_u facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/19/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae217e_w
Investigator(s): CG, KO	Section, Tow	nship, Range: No PLSS in this area	l
Landform (hillslope, terrace, etc.): bench	Local relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>0</u>
Subregion (LRR or MLRA): N Lat: 38.514	100921	Long: <u>-80.1144491</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high ba	ase	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology sign	nificantly disturbed?	Are "Normal Circumstances" p	oresent? Yes No _
Are Vegetation, Soil, or Hydrology natu	urally problematic?	(If needed, explain any answe	rs in Remarks.)
		• · • • • • •	• • • • • •

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicate	ors:				Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is re	quired; ch	eck all that apply)		Surface Soil Cracks (B6)
 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)		<u>.</u>	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 S	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 Aer	ial Imagery	(B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B	9)				Microtopographic Relief (D4)
Aquatic Fauna (B13)					 FAC-Neutral Test (D5)
Field Observations:					
			5		
Surface Water Present?	Yes 📕	No	Depth (inches):		
Surface Water Present? Water Table Present?	Yes 🔽	No No	Depth (inches):0		
Surface Water Present? Water Table Present? Saturation Present?	Yes V Yes V Yes V	No No No	Depth (inches): 0 Depth (inches): 0 Depth (inches): 0	Wetland I	Hydrology Present? Yes No
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe)	Yes V Yes V Yes V	No No No	Depth (inches): 0 Depth (inches): 0 Depth (inches): 0	Wetland H	Hydrology Present? Yes <u>✓</u> No
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u> eam gauge,	No No No	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland I	Hydrology Present? Yes <u> V</u> No ailable:
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strees)	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u> eam gauge,	No No No monitoring	Depth (inches): 0 Depth (inches): Depth (inches): g well, aerial photos, previous inspe	Wetland I ctions), if ava	Hydrology Present? Yes <u> </u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u> eam gauge,	No No No monitoring	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland H	Hydrology Present? Yes <u> V</u> No ailable:
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u> eam gauge,	No No monitoring	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland I	Hydrology Present? Yes <u>/</u> No ailable:
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u>	No No monitoring	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland I	Hydrology Present? Yes <u> V</u> No ailable:
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u> eam gauge,	No No monitoring	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland I	Hydrology Present? Yes <u> V</u> No ailable:
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u>	No No monitorin	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland I	Hydrology Present? Yes <u> </u>
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stree Remarks:	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u>	No No monitoring	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland I	Hydrology Present? Yes _ ✔_ No ailable:
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u>	No No monitoring	Depth (inches): 0 Depth (inches): Depth (inches): g well, aerial photos, previous inspe	Wetland I	Hydrology Present? Yes <u> V</u> No ailable:
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>v</u> Yes <u>v</u> eam gauge,	No No monitorin	Depth (inches): 0 Depth (inches):0 Depth (inches):0 g well, aerial photos, previous inspe	Wetland H	Hydrology Present? Yes <u>V</u> No ailable:

Sampling Point: wrae217e_w

	Absolute	Dominant lu	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	
1 1				Number of Dominant Species
			······	
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
				()
-				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
7				Prevalence Index worksheet:
	0	Tatal Ora		Total % Cover of: Multiply by:
0		= Total Cove	r O	OBL species 20 x 1 - 20
50% of total cover: 0	20% of	total cover:	0	$\frac{60}{120}$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = \frac{120}{2}$
1				FAC species $0 \times 3 = 0$
··			·	FACII species = 0 x 4 - 0
2				
3				UPL species $x_{5} = -$
4				Column Totals: (A) (B)
-				
5				Prevalence Index = $B/A = 1.75$
6				Hydrophytic Vegetation Indicators
7.				riyorophytic vegetation indicators:
			·	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				\checkmark 2. Browsloppe Index is <2.0 ¹
	0	- Total Cove	r	
E0% of total cover: 0	20% of		0	4 - Morphological Adaptations ¹ (Provide supporting
	20% 0	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Droblemetic Lludrenbutic (constation ¹ (Evaluin)
_{1.} Eleocharis tenuis	40	Yes	FACW	
2 Carex canescens	20	Yes	OBL	
		Vee		¹ Indicators of hydric soil and wetland hydrology must
3. Scirpus cyperinus	20	fes	FACW	be present, unless disturbed or problematic.
4.				Definitions of Four Vegetation Strata
5				Deminions of Four Vegetation Strata.
-	-			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6			<u> </u>	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				
	80		·	Herb – All herbaceous (non-woody) plants, regardless
10		= Total Cove	r 40	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 40	20% of	total cover:	10	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height
1				Toight.
1				
2				
3.				
-				Hydrophytic
5			. <u> </u>	Vegetation
	0	= Total Cove	r	Present? Yes <u>Yes</u> No
50% of total cover: 0	20% of	total cover:	0	
Demortion (Include abote numbers here or on a constants o	haat)			
Remarks: (include photo numbers here of on a separate s	neet.)			

Depth	Matrix		Redo	x Features	;			
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 3/1	85	10YR 3/6	15	C	PL/M	C	
		etion PM-		S-Masked	Sand Gra		² Location: PL-Po	re Lining M-Matrix
vdric Soil	Indicators:			J-Maskeu		unio.	Indicators	for Problematic Hydric Soils ³ :
 Histosol Histic E Black H Hydroge Stratifier 2 cm Mi Deplete Thick D Sandy M MLRA 	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L A 147, 148)	e (A11) RR N,	Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma ✔ Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 13	e (S7) Inface (S9) ad Matrix (F trix (F3) Surface (Fi rk Surface essions (F8 ese Masse 6)	ce (S8) (M (MLRA 1 ⁷ 2) 6) (F7) 8) 25 (F12) (I	ILRA 147, 47, 148) LRR N,	2 cm M 148) Coast (ML Piedm (ML Very S Other	Muck (A10) (MLRA 147) Prairie Redox (A16) RA 147, 148) ont Floodplain Soils (F19) RA 136, 147) hallow Dark Surface (TF12) (Explain in Remarks)
_ Sandy C	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Umbric Surfa Piedmont Flo Red Parent N	nce (F13) (bodplain So Material (F2	MLRA 13 bils (F19) 21) (MLR	6, 122) (MLRA 14 A 127, 147	³ Indicator (8) wetland (7) unless of	rs of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Sandy F Stripped				(•	-	·
_ Sandy F _ Stripped estrictive Type: _ ^{ro}	Layer (if observed): ck							

refusal at 7 in. disturbed soil



Photo 1 Wetland data point wrae217e_w facing south



Photo 2 Wetland data point wrae217e_w facing west
Project/Site: Atlantic Coast Pipeline	_ City/County: F	Randolph County	_ Sampling Date: 5/19/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae217_u
Investigator(s): CG, KO	_ Section, Town	ship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): bench	_ocal relief (conca	ave, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N Lat: 38.51398161	1	Long: <u>-80.11435579</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this time of y	year?Yes 🔽 🗸	No (If no, explain in I	Remarks.)
Are Vegetation, Soil 🖌 or Hydrology significant	tly disturbed?	Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	problematic?	(If needed, explain any answ	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No	<u>v</u>
Remarks:						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 S	oils (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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No ✓ Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspector Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes <u>No</u> ctions), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: No hydrology	Wetland Hydrology Present? Yes No

Sampling Point: wrae217_u

, , ,	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1.				That Are OBL, FACW, or FAC: 0 (A)
2				
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6.				
7				Prevalence Index worksheet:
	0			Total % Cover of: Multiply by:
E0% of total cover			0	OBL species $0 x 1 = 0$
50% of total cover.	20% 0	total cover:		EACW species 0 x 2 = 0
Sapling/Shrub Stratum (Plot size:)				
1				FAC species $x_3 = 320$
2				FACU species $4 = 520$
3.				UPL species $10 \times 5 = 50$
4				Column Totals: (A) (B)
т. <u> </u>				
0				Prevalence Index = B/A =4.11
6		·		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 Dominance Test in 2004
9				
	0	Total Cava		3 - Prevalence Index is ≤3.0 ¹
E0% of total covery 0	200% of		0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% 01	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	40			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Phieum pratense	40	Yes	FACU	
2. Dactylis glomerata	40	Yes	FACU	1
_{3.} Plantago lanceolata	10	No	UPL	Indicators of hydric soil and wetland hydrology must
A Stellaria crassifolia	10	No		be present, unless disturbed of problematic.
т. <u> </u>				Definitions of Four Vegetation Strata:
o				Tree – Woody plants, excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10				,
11	100			Herb – All herbaceous (non-woody) plants, regardless
	100	= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
3	-			
4			<u> </u>	Hydrophytic
5				Vegetation
	0	= Total Cove	•	Present? Yes No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			1
	,			

Profile Desc	ription: (Describe t	o the depth r	needed to docum	nent the i	ndicator	or confirm	the absence	e of indicato	rs.)	
Depth	Matrix		Redox	Features	5					
(inches) 0-5	Color (moist) 10YR 3/1	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture SIC	·	Remarks	
						·				
						·				<u>.</u>
								·		
			<u> </u>			·				<u> </u>
						· <u>·····</u>		·		
			<u> </u>			<u> </u>		· ·		
						<u> </u>		·		
¹ Type: C=Co	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	=Masked	Sand Gra	ains.	² Location: F	PL=Pore Linir	ng, M=Matrix.	
Hydric Soil I	ndicators:						Indic	ators for Pr	oblematic Hy	dric Soils ³ :
Histosol	(A1)	-	Dark Surface	(S7)			2	2 cm Muck (A	10) (MLRA 1 4	17)
Histic Ep	pipedon (A2)	-	Polyvalue Be	ow Surfac	ce (S8) (N	ILRA 147,	148) (Coast Prairie	Redox (A16)	
Black Hi	stic (A3)	-	Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 14)	7, 148)	540
Hydroge	n Sulfide (A4)	-	Loamy Gleye	d Matrix (I	-2)		I		odplain Soils (F19)
Stratified	Layers (A5)	-	Depleted Mat	rix (F3) Surface (E	6)		,	(MLRA 13)	Dark Surfage	(TE12)
2 cm Mu	CK (ATU) (LKK N) Below Dark Surface	(Δ11)	Redux Dark 3	k Surface	0) (E7)			Very Shallow Other (Evolui	Dark Surface	(1712)
Depleted	ark Surface (A12)	(///)	Bedox Depre	ssions (F8	(i <i>r)</i> R)		`			
Sandy M	lucky Mineral (S1) (I	RR N.	Iron-Mangane	se Masse		RR N				
	147. 148)	<u> </u>	MLRA 136	500 Masse 5)	55 (1 12) (1	,				
Sandy G	leved Matrix (S4)		Umbric Surfa	-, ce (F13) (MLRA 13	6. 122)	³ Inc	dicators of hy	drophytic vea	etation and
Sandy R	edox (S5)	-	Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) w	etland hydrol	ogy must be p	resent,
Stripped	Matrix (S6)	-	Red Parent M	laterial (F	21) (MLR	A 127, 147	, 7) ur	nless disturbe	ed or problema	itic.
Restrictive L	ayer (if observed):									
Type: roc	:k		_							
Depth (inc	ches): <u>5</u>		_				Hydric Soi	I Present?	Yes	No 🔽
Remarks:										
spoil										



Photo 1 Upland data point wrae217_u facing north



Photo 2 Upland data point wrae217_u facing east

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/19/2016
Applicant/Owner: Dominion		State: WV	_ Sampling Point: wrae216e_w
Investigator(s): CG, KO	Section, Tov	vnship, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): toeslope	Local relief (con	ncave, convex, none): <u>concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): N Lat: 38.512405	545	Long: <u>-80.11017612</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone and shale, high base		NWI classifica	tion: None
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes	No (If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology _ 🖌 significa	antly disturbed?	Are "Normal Circumstances" pr	esent? Yes No _
Are Vegetation, Soil, or Hydrology naturally	y problematic?	(If needed, explain any answer	s in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	_ No
Remarks:						
Strip mine bench						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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 Sc	ils (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 <u>/</u> No Depth (inches): 0	
Saturation Present? Yes <u>/</u> No Depth (inches): 0	Wetland Hydrology Present? Yes <u>/</u> No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Pemerke:	
Remarks.	

Sampling Point: wrae216e_w

	A h = = h + t =	Dentered	P	Deminente Test werdet est
Trop Strotum (Plot size: 30)		Dominant II	Stotuo	Dominance Test worksheet:
	% Cover	<u>Species?</u>	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				
2				Total Number of Dominant
3		. <u> </u>		Species Across All Strata: 5 (B)
4				
-T				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: ⁶⁰ (A/B)
6				
-				Prevalence Index worksheet:
/		- <u></u>		Total % Cover of Multiply by
	0	= Total Cove	r	<u>I otal % Cover or:</u> <u>Multiply by:</u>
50% of total cover: 0	20% of	f total cover:	0	OBL species 30 x 1 = 30
15	2070 01			5000000000000000000000000000000000000
Sapling/Shrub Stratum (Plot size: 10)				$\frac{10}{10} x \ge 2$
1 Acer rubrum	10	Yes	FAC	FAC species x 3 = 30
- Viburnum prupifolium	5	Voc	EACU	FACU species 5 x 4 - 20
2. Vibumum prumonum	5	165	FACU	$\begin{array}{c} 1 \text{ ACO species} \\ 0 \\ 0 \\ \end{array}$
3				UPL species 0 x 5 = 0
				Column Totals: 75 (A) 140 (B)
4				
5				1.86
				Prevalence Index = $B/A = 1.00$
6				Hydrophytic Vegetation Indicators:
7.				Tryarophytic vegetation indicators.
··-				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				
	15			Y 3 - Prevalence Index is ≤3.0'
		= I otal Cove	r	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 7.8	20% of	f total cover:	3	
Horb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Turba anguatifalia	20			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Typna angustifolia	30	Yes	OBL	
2 Scirpus cyperinus	25	Yes	FACW	
2. <u></u>				¹ Indicators of hydric soil and wetland hydrology must
3. Sphagnum sp.	20	Yes		be present unless disturbed or problematic
⊿ Juncus effusus	5	No	FACW	
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
0				more in diameter at breast height (DBH), regardless of
7				height.
8				
8				Sapling/Shrub – Woody plants, excluding vines, less
9				
		. <u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10	·	·		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10 11				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
10 11	60			than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10 11	60	= Total Cove		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10 11 50% of total cover:40	60 20% of	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
10	60 20% of	= Total Cove f total cover:_	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in beight
10	60 20% of	= Total Cove f total cover:_	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
10	60 20% of	= Total Cove f total cover:_	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
10	60 20% of	= Total Cove f total cover:_	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0	60 20% of	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0	60 20% of	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0	60 20% of	= Total Cove f total cover:		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
0	60 20% of	= Total Cove f total cover:	r 16	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic
0	60 20% of	= Total Cove f total cover:	16	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation
10	60 20% of	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
0	60 20% of 	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	60 20% of 	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	60 20% of 	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	60 20% of 	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	60 60 20% of 0 20% of sheet.)	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	60 20% of 0 20% of	= Total Cove f total cover:	r 16	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>
10	60 20% of 0 20% of 20% of	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	60 20% of 0 20% of sheet.)	= Total Cove f total cover:	r 16	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>
10	60 20% of 0 20% of 20% of	= Total Cove f total cover:	r 16	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>
10	60 20% of 20% of 20% of 20% of	= Total Cove f total cover:	r 16	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>
10	60 20% of 	= Total Cove f total cover:	r 16	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>
10	60 20% of 0 20% of sheet.)	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
10	60 20% of 0 20% of 	= Total Cove f total cover:	r 16	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes _ ✓ No

Profile Desc	cription: (Describe to	o the depth	needed to docun	nent the in	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	PEAT	100						mucky peat
4-16	10YR 5/1	100					CL	B HORIZON
¹ Type: C=C	oncentration. D=Deple	etion. RM=R	educed Matrix. MS	S=Masked	Sand Gra	ains.	² Location:	PL=Pore Lining, M=Matrix,
Hydric Soil	Indicators:	,	·····,				Indic	cators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			:	2 cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polvvalue Be	low Surfac	e (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 Gleve	d Matrix (F	- -2)			Piedmont Floodplain Soils (F19)
Stratifie	d Lavers (A5)		 Depleted Mat 	trix (F3)	,			(MLRA 136, 147)
🖌 2 cm Mi	uck (A10) (LRR N)		Redox Dark S	Surface (F6	6)		,	Very Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)			Other (Explain in Remarks)
Thick Da	ark Surface (A12)	· · ·	Redox Depre	ssions (F8	3)			
Sandy N	/lucky Mineral (S1) (LI	RR N,	Iron-Mangane	ese Masse	, s (F12) (I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)	· / ·			
Sandy C	Gleved Matrix (S4)		Umbric Surfa	, ce (F13) (MLRA 13	6, 122)	³ In	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	. 8) w	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR	A 127, 147	') u	nless disturbed or problematic.
Restrictive	Layer (if observed):				, ,			·
Type:								
Depth (in	ches):						Hvdric So	il Present? Yes 🖌 No
Remarks:							.,	
Nomaina.								



Photo 1 Wetland data point wrae216e_w facing east



Photo 2 Wetland data point wrae216e_w facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/19/2016		
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae216_u		
Investigator(s): CG, KO	Section, Tov	wnship, Range: <u>No PLSS in this are</u>	а		
Landform (hillslope, terrace, etc.):	Local relief (cor	ncave, convex, none): <u>none</u>	Slope (%): <u>1</u>		
Subregion (LRR or MLRA): N Lat: 38.51230)886	Long: <u>-80.1101916</u>	Datum: WGS 1984		
Soil Map Unit Name: Udorthents, mudstone and shale, high base	e	NWI classifi	cation: None		
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes	✓ No (If no, explain in F	Remarks.)		
Are Vegetation, Soil, or Hydrology signified	cantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No		
Are Vegetation, Soil, or Hydrology natura	Illy problematic?	(If needed, explain any answe	ers in Remarks.)		

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No _	<u> </u>
Remarks:						

Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) 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) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4) FAC-Neutral Test (D5)
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)
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)
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)
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)
 Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) FAC-Neutral Test (D5)
Water-Stained Leaves (B9) Microtopographic Relief (D4) Aquatic Fauna (B13) FAC-Neutral Test (D5) Field Observations:
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Tield Observations.
Surface Water Present? Yes No 🖌 Depth (inches):
Water Table Present? Yes No 🖌 Depth (inches):
Saturation Present? Yes No 🖌 Depth (inches): Wetland Hydrology Present? Yes No ✓
(Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Sampling Point: wrae216_u

, , , , , , , , , , , , , , , , , , ,	Abaaluta	Dominant l	adiaatar	
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksneet.
1				Number of Dominant Species
			·	
2			. <u> </u>	Total Number of Dominant
3		<u> </u>		Species Across All Strata:5 (B)
4				
5.				Thet Are ORL EACING or EAC: 40 (A/R)
<u> </u>			·	
0		- <u></u>	<u> </u>	Prevalence Index worksheet:
7		<u> </u>		Total % Cover of: Multiply by:
	0	= Total Cove	r	
50% of total cover:0	20% of	f total cover:	0	OBL species $x_1 = 0$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x = 0$
1 Acer rubrum	20	Yes	FAC	FAC species x 3 =210
Picea rubens	5	Yes	FACU	FACU species $30 \times 4 = 120$
2				$\frac{1}{1}$
3			. <u> </u>	$100 \times 330 \times 100 \times 330 \times 100 \times 1000 \times 100 \times 100$
4		<u> </u>		Column Totals: (A) (B)
5				Drovolonce Index D/A 33
6				Prevalence index = B/A =
7				Hydrophytic Vegetation Indicators:
/				1 - Rapid Test for Hydrophytic Vegetation
8		- <u> </u>		2 - Dominance Test is >50%
9		<u> </u>		$3 - \text{Prevalence Index is } \leq 30^1$
	25	= Total Cove	r	
50% of total cover: 12.5	20% of	f total cover:	5	4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Eestuca paradoxa	50	Voc	EAC	Problematic Hydrophytic Vegetation ¹ (Explain)
		<u> </u>		
2. Denarolycopodium obscurum	25	Yes	FACU	¹ Indicators of hydric soil and wotland hydrology must
_{З.} Sphagnum sp.	20	Yes		be present unless disturbed or problematic
4				Deficitions of Four Manatation Official
5		<u></u> -	·	Definitions of Four vegetation Strata:
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6			. <u> </u>	more in diameter at breast height (DBH), regardless of
7		<u></u>		height.
8				
9.				Sapling/Shrub – Woody plants, excluding vines, less
10		<u></u>	·	m) tall.
10				
11		<u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	75	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 47.5	20% of	f total cover:	19	Weedwaine All weedwaines greater than 2.20 ft in
Woody Vine Stratum (Plot size: 30)				beight
1				Tolght.
··			·	
3		<u> </u>		
4				Hydrophytic
5.				Vegetation
	0		r	Present? Yes No
E0% of total cover:	20%		0	
	20% 0	r total cover.		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	ription: (Describe t	o the depth	needed to docur	nent the in	ndicator o	or confirm	the absence	of indicato	rs.)	
Depth	Matrix		Redo	x Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-12	10YR 4/3	100					SIC			
						·				
·					. <u> </u>					
						·				
¹ Type: C=C	oncentration, D=Depl	etion. RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains	² Location: P	I =Pore I inii	ng. M=Matrix.	
Hvdric Soil	Indicators:			, maone a			Indica	ators for Pr	oblematic Hydric Soils	s ³ :
Histosol	(Δ1)		Dark Surface	(\$7)			2	cm Muck (4	(MI RA 147)	
Listic Er	(A)			low Surfoo	(CO) /M		149) 2	CITI MUCK (F	$\frac{1}{10} \left(\frac{1}{10} \right) \left(\frac{1}{10} \right)$	
	offic (A2)			iow Sunac		AT 440	140)		T 449)	
						47, 140)			1, 140) adalain Caila (510)	
			Loamy Gleye	iu matrix (F	-2)		P			
Stratified	Layers (A5)			(F3)	2)				(7, 147)	
2 cm Mi	ICK (A10) (LRR N)		Redox Dark	Surface (F6	o)		V	ery Shallow	Dark Surface (TF12)	
Deplete	Below Dark Surface	e (A11)	Depleted Dai	k Surface	(F7)			other (Explai	n in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	essions (F8	5)					
Sandy N	lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	s (F12) (l	_RR N,				
MLR	A 147, 148)		MLRA 13	6)			2			
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Ind	licators of hy	drophytic vegetation an	ld
Sandy F	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) we	etland hydro	ogy must be present,	
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR/	A 127, 147) un	less disturbe	ed or problematic.	
Restrictive	_ayer (if observed):									
Type: roo	:k									
Dopth (in	_{abos}). 12						Hydric Soil	Procont?	Voc No P	/
							Hyune Son	Flesent:		
Remarks:										



Photo 1 Upland data point wrae216_u facing east



Photo 2 Upland data point wrae216_u facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 6/20/2016	
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae261e_w	
Investigator(s): CG, SA	Section, Tow	vnship, Range: <u>No PLSS in this area</u>	1	
Landform (hillslope, terrace, etc.): Drainage	Local relief (con	icave, convex, none): <u>concave</u>	Slope (%): <u>1</u>	
Subregion (LRR or MLRA): N Lat: 38.5481641		Long: <u>-80.07681066</u>	Datum: WGS 1984	
Soil Map Unit Name: Buchanan and Ernest stony soils, 3 to 15 perce	cent slopes	NWI classific	cation: PEM	
Are climatic / hydrologic conditions on the site typical for this time of	year?Yes	No (If no, explain in R	emarks.)	
Are Vegetation, Soil, or Hydrology _	ntly disturbed?	Are "Normal Circumstances"	oresent? Yes No 🖌	
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any answe	rs in Remarks.)	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes No	
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 Ro	ots (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):	
Water Table Present? Yes No <u></u>	
Saturation Present? Yes <u>No</u> Depth (inches): V (includes capillary fringe)	Vetland Hydrology Present? Yes <u>✓</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ns), if available:
Remarks:	

Sampling Point: wrae261e_w

	Absoluto	- Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksheet.
, none	0	<u></u>	otatuo	Number of Dominant Species
1. <u></u>		·		That Are OBL, FACW, of FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				
		· · <u>· · · · · · · · · · · · · · · · · </u>		Percent of Dominant Species
D		·		That Are OBL, FACW, or FAC: (A/B)
6				Development in development of
7.				Prevalence Index worksheet:
	0	- Total Cove	r	Total % Cover of: Multiply by:
E0% of total approx	200/ of		0	OBL species 30 x 1 = 30
50% of iotal cover	20% 0	total cover:		60 x 2 - 120
Sapling/Shrub Stratum (Plot size:)				$\begin{array}{c} \text{FACW species} \\ \hline \\ 0 \\ \hline \hline 0 \\ 0 \\$
1. none	0			FAC species $x_3 = 0$
2				FACU species 30 x 4 = 120
				UPL species $5 \times 5 = 25$
3				$\frac{125}{125}$ (A) $\frac{295}{125}$ (D)
4		. <u></u>		Column Totals: (A) (B)
5.				
6				Prevalence Index = $B/A = 2.30$
0				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
9				2 - Dominance Test is >50%
9	0			\checkmark 3 - Prevalence Index is ≤3.0 ¹
0		= I otal Cove	r O	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 0	20% of	total cover:	0	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Eleocharis tenuis	50	Yes	FACW	Problematic Hydrophytic Vegetation' (Explain)
Carex vulpinoidea	30	Yes	OBI	
		<u> </u>		¹ Indicators of hydric soil and wetland hydrology must
3. Poa annua	25	res	FACU	be present, unless disturbed or problematic.
4. Juncus effusus	10	No	FACW	Definitions of Four Vagatation Strata
ج Plantago lanceolata	5	No	UPL	Deminions of Four Vegetation Strata.
o Trifolium pratense	5	No	EACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. monum pratense		INU	TACO	more in diameter at breast height (DBH), regardless of
7				height.
8.				
9				Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 In. DBH and greater than or equal to 3.28 ft (1
10				m) tan.
11				Herb – All herbaceous (non-woody) plants, regardless
	125	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 62.5	20% of	total cover:	25	
M_{act}	20/00			Woody vine – All woody vines greater than 3.28 ft in
<u>vvoody vine Stratum</u> (Piot size:)	0			height.
1. none	0	. <u></u>		
2.				
3				
		·		
4		·		Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes 🖌 No
50% of total cover: 0	20% of	total cover:	0	
	20/00			
Remarks: (Include photo numbers here or on a separate s	heet.)			
1				

Profile Desc	cription: (Describe t	o the dep	oth needed to docun	nent the i	indicator	or confirm	the absence of i	ndicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-12	10YR 3/1	80	7.5Y 4/6	20	D	PL/M	SIC		
12-16	2.5Y 5/2	90	2.5Y 5/6	10	С	М	SIC		
¹ Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	² Location: PL=P	ore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicator	s for Problematic Hydr	ic Soils ³ :
Histosol Histic E	(A1) pipedon (A2)		Dark Surface Polyvalue Be	(S7) Iow Surfa	.ce (S8) (N	ILRA 147,	2 cm 148) Coas	Muck (A10) (MLRA 147 t Prairie Redox (A16))
Black H	istic (A3)		Thin Dark Su	rface (S9)) (MLRA 1	47, 148)	(M	LRA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix ((F2)		Piedr	nont Floodplain Soils (F	19)
Stratified	d Layers (A5)		Depleted Mat	(FIX (F3) Dumferen (F	-0)		(IVI) \ (ami	LRA 136, 147) Challous Dark Curtage (T	
2 cm Mi	JCK (A10) (LRR N) d Bolow Dork Surfood	(11)	✓ Redox Dark : Depleted Der	Surface (F	-0) (E7)		Very	Shallow Dark Surface (1	F12)
Depleter Thick D:	u below Dark Sullace	(ATT)		k Sunace	;(<i>Г1)</i> 8)			(Explain in Remarks)	
Sandy M	Aucky Mineral (S1) (L		Iron-Mangan	ese Mass	o) es (F12) (
	A 147, 148)		MLRA 13	6)	00 (1 12) (,			
Sandy C	Gleved Matrix (S4)		Umbric Surfa	ce (F13) ((MLRA 13	6. 122)	³ Indicate	ors of hydrophytic yeaeta	ation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetlan	d hvdrology must be pre	sent.
Stripped	Matrix (S6)		Red Parent M	Aterial (F	21) (MLR	、 A 127, 147	') unless	disturbed or problemation	C.
Restrictive	Laver (if observed):			,	, ,	,		•	
Type:									
Depth (in	ches):						Hydric Soil Pre	esent? Yes 🖌	No
Remarks:							1		



Wetland data point wrae261e_w facing south



Wetland data point wrae261e_w facing north

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 6/20/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae261_u
Investigator(s): CG, SA	Section, Tov	wnship, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): slope	Local relief (cor	ncave, convex, none): <u>convex</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38.54813	798	Long: <u>-80.07670713</u>	Datum: WGS 1984
Soil Map Unit Name: Buchanan and Ernest stony soils, 3 to 15 p	ercent slopes	NWI classific	ation: UPL
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes	✓ No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natura	lly problematic?	(If needed, explain any answer	rs in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	<u> イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ</u>	Is the Sampled Area within a Wetland?	Yes	No	<u>v</u>
Remarks:							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 Livin	ng 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	d 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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Yes No ✓ Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	Wetland Hydrology Present? Yes No
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: Remarks:	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No pections), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No pections), if available:
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks: No hydrology present	Wetland Hydrology Present? Yes <u>No</u> pections), if available:

Sampling Point: wrae261_u

· · · ·	<u> </u>	• •	P 4	
Tree Stratum (Plataine) 30	Absolute	Dominant In	dicator	Dominance Test worksheet:
<u>Iree Stratum</u> (Plot size:)		Species	Status	Number of Dominant Species
1. none		· ·		That Are OBL, FACW, or FAC: (A)
2				
2				Total Number of Dominant
		· ·		
4				Percent of Dominant Species
5				That Are OBL. FACW. or FAC: 0 (A/B)
6				,
-		· ·		Prevalence Index worksheet:
7		· ·		Total % Cover of Multiply by
	0	= Total Cover	-	
50% of total cover: 0	20% of	total cover:	0	OBL species 0 $x = 0$
Sapling/Shrub Stratum (Plot size: 15)	_		_	FACW species x 2 =0
	0			FAC species $0 \times 3 = 0$
1. <u></u>	<u> </u>	· ·		$\frac{110}{110} = \frac{440}{110}$
2				FACU species $x = 0$
3.				UPL species x 5 =
		· ·		Column Totals: ¹¹⁰ (A) ⁴⁴⁰ (B)
4				
5				Prevalence Index = $B/A = 4$
6.				
7		· ·		Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9.				
	0	- Total Cover		3 - Prevalence Index is ≤3.0
50% of total approx			0	4 - Morphological Adaptations ¹ (Provide supporting
	20% 0	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: >)				
_{1.} Poa annua	25	Yes	FACU	Problematic Hydropnytic Vegetation (Explain)
Anthoxanthum odoratum	25	Yes	FACU	
Z. Thirle wateree	45		5400	¹ Indicators of hydric soil and wetland hydrology must
3. Tritolium pratense	15	res	FACU	be present, unless disturbed or problematic.
4. Achillea millefolium	10	No	FACU	Definitions of Equit Vagatation Strata
🕞 Ambrosia artemisiifolia	10	No	FACU	Deminitions of Four vegetation Strata.
Dission maior	10	No	5400	Tree – Woody plants, excluding vines, 3 in, (7.6 cm) or
6. Plantago major	10	INO	FACU	more in diameter at breast height (DBH), regardless of
7. Trifolium repens	10	No	FACU	height.
Asclepias syriaca	5	No	FACU	
				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				
	100			Herb – All herbaceous (non-woody) plants, regardless
FF		= Total Cover	່າງ	or size, and woody plants less than 3.26 it tall.
50% of total cover: 55	20% of	total cover:	22	Woody vine – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1 none	0			
··		· ·		
2		· ·		
3		·		
4				
		· ·		Hydrophytic
5		· ·		Vegetation
	0	= Total Cover	_	Present? Yes No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	hoot)			
	neer.			

Profile Desc	ription: (Describe to	o the depth	needed to docum	nent the ir	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Features	5			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	10YR 3/4	100					CL	
						<u> </u>		
						<u> </u>		
	oncentration D-Denk	tion RM-R	educed Matrix M	-Maskad	Sand Gra	aine	² Location: Pl	-Pore Lining M-Matrix
	Indicators:			-maskeu		unio.	Indica	ators for Problematic Hydric Soils ³ :
Histosol	(Δ1)		Dark Surface	(97)			2	cm Muck (A10) (MI PA 147)
Listic Er	(A1)			(07) Iow Surfac	o (S9) /N		149)	cont Brairia Boday (A16)
Flack Hi	stic (A3)		Folyvalue Be	rface (SQ)		12 TA 147,	140) <u> </u>	(MI PA 1/7 1/8)
Diack Th	suc (A3) $(A4)$			d Matrix (F		47, 140)	P	iedmont Floodplain Soils (F19)
Tryatogo			Depleted Mat	riv (F3)	2)		'	(MI RA 136 147)
Orraniec	ick (A10) (I RR N)		Bedox Dark 9	Surface (Fi	6)		V	ery Shallow Dark Surface (TE12)
2 cm we	d Below Dark Surface	(A11)	Repleted Dark	k Surface	(F7)			ther (Explain in Remarks)
Depicted	ark Surface (A12)	(////)	Redox Depre	ssions (F8	(17)		0	
Sandy M	lucky Mineral (S1) (L	R N.	Iron-Mangan	ese Masse	,, es (F12) (I			
<u> </u>	147. 148)	,	MLRA 13	6)	,	,		
Sandy G	Bleved Matrix (S4)		Umbric Surfa	-, ce (F13) (I	MLRA 13	6. 122)	³ Ind	icators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) we	tland hydrology must be present.
Stripped	Matrix (S6)		Red Parent M	laterial (F2	21) (MLR	A 127. 147) unl	less disturbed or problematic.
Restrictive I	Laver (if observed):			(/ (,		
Type								
Depth (in							Undria Sail	
Deptil (int			_				Hyunc Soli	
Remarks:								



Upland data point wrae261_u facing north



Upland data point wrae261_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: Ra	ndolph County	Sampling Date: 5/18/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae215f_w
Investigator(s): CG, KO	Section, Townsh	nip, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): hillslope	Local relief (concav	re, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): N Lat: 38.	.5118456	Long: <u>-80.10770239</u>	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25	percent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for th	is time of year? Yes	No (If no, explain in F	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 answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	No No No	Is the Sampled Area within a Wetland?	Yes N	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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 R	oots (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 Soil	ls (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 <u></u> No <u>Depth</u> (inches): <u>4</u>	
Water Table Present? Yes 🖌 No Depth (inches): 0	
Water Table Present? Yes	Wetland Hydrology Present? Yes 🖌 No
Water Table Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present? Yes V Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) Ves V No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection No No No No	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes ✓ No Depth (inches): O Saturation Present? Yes ✓ No Depth (inches): O (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present? Yes	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes No Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ons), if available:
Water Table Present? Yes No Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 (includes capillary fringe) Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes <u>v</u> No ons), if available:

Sampling Point: wrae215f_w

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
_{1.} Betula alleghaniensis	50	Yes	FAC	That Are OBL, FACW, or FAC: 3 (A)
2 Picea rubens	25	Yes	FACU	
2		· ·		Total Number of Dominant
3		• ·	<u> </u>	Species Across All Strata: (B)
4		· ·		Percent of Dominant Species
5				That Are OBL EACW or EAC 50 (A/B)
6				
-		· ·		Prevalence Index worksheet:
7	75	• ·		Total % Cover of: Multiply by:
	75	= Total Cover		$\frac{20}{20} + \frac{20}{20}$
50% of total cover: <u>37.5</u>	20% of	total cover:	15	OBL species 20 $x_1 = 40$
Sapling/Shrub Stratum (Plot size: 15)				FACW species 20 $x 2 = 40$
1 Picea rubens	10	Yes	FACU	FAC species $50 x 3 = 150$
·		·		FACU species $55 \times 4 = 220$
2		• ·		
3				$\begin{array}{c} \text{OPL species} \\ 145 \\ 145 \\ 145 \\ 143 \\ $
4.				Column Totals: (A) (B)
5				
<u>.</u>		· ·		Prevalence Index = B/A = 2.96
٥		· ·		Hydrophytic Vegetation Indicators:
7		. <u> </u>		1 - Rapid Test for Hydrophytic Vegetation
8.				
9		- <u> </u>		2 - Dominance Test is >50%
9	10			\checkmark 3 - Prevalence Index is $\leq 3.0^1$
F	10	= Total Cover	2	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:5	20% of	total cover:	2	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Dendrolycopodium obscurum	20	Yes	FACU	Problematic Hydrophytic Vegetation' (Explain)
o Viola cucullata	20	Yes	FACW	
	15	Vee		¹ Indicators of hydric soil and wetland hydrology must
3. Carex vulpinoidea	15	res	UBL	be present, unless disturbed or problematic.
4. Carex canescens	5	No	OBL	Definitions of Four Vegetation Strata
5				Deminiono or rour regenation orana.
0		· ·		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
0		· ·		more in diameter at breast height (DBH), regardless of
7		·		height.
8				One line (Olympic - March and a star such at the second star
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10		· ·		m) tall
10		· ·		
11		· ·		Herb – All herbaceous (non-woody) plants, regardless
	60	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>30</u>	20% of	total cover:	12	
Woody Vine Stratum (Plot size: 30)				woody vine – All woody vines greater than 3.28 ft in
1				
I. <u></u>		· ·		
2		· ·		
3		.		
4.				
		· ·		Hydrophytic
5		· ·		Present 2 Ves V
â	0	= Total Cover		
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	cription: (Describe to	o the dep	oth needed to docur	nent the i	indicator	or confirm	the absence of in	dicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 3/1	100					SCL		
4-16	10YR 5/1	90	10YR 5/8	10	С	PL/M	SIC		
		tion PM					² l agostion: Pl – Po	ro Lipipa M-Motrix	
	Indicators:		=Reduced Matrix, Ma	S=IVIASKed	a Sanu Gra	ains.	Location: PL=Poi	for Broblomatic H	udric Soils ³ :
Histosol Histic Eµ Black Hi Hydroge Stratified 2 cm Mu ✓ Depletee Thick Da Sandy M	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) ducky Mineral (S1) (LI	(A11)	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleyee ✓ Depleted Mai Redox Dark Suppreted Dark Depleted Dark Redox Depreted Dark Redox Depreted Dark 	(S7) low Surfa rface (S9 d Matrix (trix (F3) Surface (F k Surface essions (F esse Mass	ce (S8) (N) (MLRA 1 (F2) 56) 2 (F7) 8) es (F12) ()	ILRA 147, 47, 148) LRR N.	2 cm M 2 cm M 148) Coast I (MLI Piedmo (MLI Very S Other (luck (A10) (MLRA Prairie Redox (A16) RA 147, 148) ont Floodplain Soils RA 136, 147) hallow Dark Surface Explain in Remarks	(F19) (TF12)
MLR/ Sandy G Sandy F Stripped	A 147, 148) Gleyed Matrix (S4) Redox (S5) I Matrix (S6)	,	MLRA 13 Umbric Surfa Piedmont Flo	6) ce (F13) odplain S /aterial (F	(MLRA 13 ioils (F19)	6, 122) (MLRA 14 A 127, 147	³ Indicator 8) wetland 7) unless d	s of hydrophytic ve hydrology must be listurbed or problem	jetation and present, natic.
Restrictive	Layer (if observed):								
Type:	- ` '								
Depth (in	ches):						Hydric Soil Pres	ent? Yes 🖌	No
Remarks:							1		



Photo 1 Wetland data point wrae215f_w facing southeast



Photo 2 Wetland data point wrae215f_w facing northwest

Project/Site: Atlantic Coast Pipeline	City/County: Ran	dolph County	Sampling Date: 5/18/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae215_u
Investigator(s): CG, KO	Section, Townshi	p, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): slope	Local relief (concave	, convex, none): <u>convex</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N Lat: 38.5	51184777	Long: <u>-80.10780954</u>	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25 p	ercent slopes	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrologys	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology r	naturally problematic?	(If needed, explain any answe	rs in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	マ マ マ	Is the Sampled Area within a Wetland?	Yes	No	v
Remarks:							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1) 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	g 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 S	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 <u>/</u> Depth (inches):				
Water Table Present? Yes No <u></u>				
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Yes No ✓	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Ves No ✓ Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ _ Depth (inches): Saturation Present? Yes No _ ✓ _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes <u>No</u>			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology	Wetland Hydrology Present? Yes No			
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective. Remarks: No hydrology	Wetland Hydrology Present? Yes No			

Sampling Point: wrae215_u

, ,	Abaaluta	Dominant In	diaatar	Dominance Test worksheet:	
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet.	
Prunus serotina	50	Yes	FACU	Number of Dominant Species	、 、
1. Piece rubene	25	Ves	FACIL	That Are OBL, FACW, or FAC: (A	.)
2. Picea Tuberis			TACO	Total Number of Dominant	
3. Betula alleghaniensis	10	NO	FAC	Species Across All Strata: 4 (B	5)
4. Acer rubrum	5	No	FAC		·
5 Quercus rubra	5	No	FACU	Percent of Dominant Species	
<u>.</u>				That Are OBL, FACW, or FAC: (A	/B)
6				Prevalence Index worksheet:	
7					
	95	= Total Cover		I otal % Cover of: Multiply by:	
50% of total cover: 47.5	20% of	total cover:	19	OBL species 0 x 1 = 0	
Sapling/Shrub Stratum (Plot size: 15				FACW species 0 x 2 = 0	
<u>Bices rubens</u> (FIOLSIZE)	35	Voc	EACU	FAC species 15 $x_3 = 45$	
1. <u>Ficea fuberis</u>	- 35	165	TACU	115×160	
2				FACU species 40 x 4 = 50	
3.				UPL species $10 \times 5 = 50$	
1				Column Totals: 140 (A) 555 (I	B)
			<u> </u>		<i>`</i>
5				Prevalence Index = $B/A = 3.96$	
6				Hydrophytic Vegetation Indicators:	
7.					
0				1 - Rapid Test for Hydrophytic Vegetation	
o				2 - Dominance Test is >50%	
9				3 - Prevalence Index is ≤3.0 ¹	
	35	= Total Cover	_	A Marphalagical Adaptations ¹ (Provide support	ting
50% of total cover: 17.5	20% of	total cover:	7		ung
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)	
Frythronium rostratum	10	Ves	LIPI	Problematic Hydrophytic Vegetation ¹ (Explain)	
1		103	OL		
2				¹ Indiantara of hydria pail and watland hydrology mus	+
3				he present unless disturbed or problematic	i
4				be present, unless disturbed of problematic.	
				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.	. 01
8					
o				Sapling/Shrub - Woody plants, excluding vines, les	SS
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.	
11				Herb - All berbaceous (non-woody) plants, regardle	
	10	- Total Cover		of size, and woody plants less than 3.28 ft tall.	.55
50% of total cover: 5	20% of	total cover:	2		
	20 % 01			Woody vine - All woody vines greater than 3.28 ft in	n
Woody Vine Stratum (Plot size:)				height.	
1					
2.					
3					
4				Hydrophytic	
5				Vegetation	
	0	= Total Cover		Present? Yes No V	
50% of total cover: 0	20% of	total cover:	0		
Remarks: (Include photo numbers here or on a separate s	heat)				
Remarks. (include photo numbers here of on a separate si	neet.)				

Depth Matrix Redox Features Type Loc ² Texture Remarks 0-3 10YR 2/1 100	Profile Desc	cription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence of indic	ators.)	
Cloir (moist) % Color (moist) % Type' Loc' Texture Remarks 0.3 10YR 2/1 100	Depth	Matrix		Redo	x Features	3				
0-3 10YR 2/1 100 L 3-5 7.5YR 3/1 100 SICL 5-16 10YR 5/6 100 SIC	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remark	S
3-5 7.5YR 3/1 100 SICL 5-16 10YR 5/6 100 SIC	0-3	10YR 2/1	100					L		
5-16 10YR 5/6 100 SIC SIC SIC Sic Sic	3-5	7.5YR 3/1	100					SICL		
Image:	5-16	10YR 5/6	100					SIC		
Image:										
'Type:										
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. 2 ⁻ Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1)										
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Black Histic (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Strattified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:										
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :										
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Park Surface (F6) Very Shallow Dark Surface (TF12) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Other (Explain in Remarks) Sandy Gleyed Matrix (S6) Red Parent Material (F21) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:										
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Indicators for Problematic Hydric Soils ³ : Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Sandy Mucky Mineral (S1) (LRR N, Iron-Marganese Masses (F12) (LRR N, Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) alndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: No V Type: Depth (inches): No V Depth (inches): </td <td></td>										
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :	¹ Type: C=C	oncentration, D=Depl	etion, RM=l	Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location: PL=Pore	_ining, M=Matr	ix.
	Hydric Soil	Indicators:						Indicators fo	Problematic	Hydric Soils ³ :
	Histosol	(A1)		Dark Surface	e (S7)			2 cm Muo	k (A10) (MLR	A 147)
Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type:	Histic E	pipedon (A2)		Polyvalue Be	elow Surfac	ce (S8) (M	LRA 147,	148) Coast Pra	airie Redox (A1	6)
	Black H	istic (A3)		Thin Dark Su	urface (S9)	(MLRA 1	47. 148)	, (MLRA	147. 148)	,
Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Other (Explain in Remarks) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:	Hydroge	en Sulfide (A4)		Loamy Gleve	ed Matrix (I	-2)	, ,	Piedmont	Floodplain So	ils (F19)
2 cm Muck (A10) (LRR N)	Stratifie	d Lavers (A5)		Depleted Ma	trix (F3)	,		(MLRA	136, 147)	
Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Restrictive Layer (if observed): Type: Depth (inches): Remarks:	2 cm Mi	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Verv Sha	low Dark Surfa	ace (TF12)
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Memarks:	Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	(F7)		Other (E)	plain in Remai	·ks)
Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Restrictive Layer (if observed): Type: Depth (inches): Remarks:	Thick Da	ark Surface (A12)	()	Redox Depre	essions (F8	3)		(•	,
MLRA 147, 148) MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Type:	Sandy N	/uckv Mineral (S1) (L	RR N.	Iron-Mangan	ese Masse	, es (F12) (I	RR N.			
	MLR/	A 147. 148)	,	MLRA 13	6)		,			
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:	Sandy G	Gleved Matrix (S4)		Umbric Surfa	ace (F13) (MLRA 13	6, 122)	³ Indicators of	of hydrophytic v	vegetation and
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type:	Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	B) wetland hy	drology must b	e present.
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Stripped	d Matrix (S6)		Red Parent	Material (F:	21) (MLR	、 A 127, 147) unless dist	urbed or proble	ematic.
Type:	Restrictive	Laver (if observed):			,	, (, 		
Depth (inches):	Type:	,								
Remarks:	Depth (in	ches):						Hydric Soil Presen	t? Yes	No 🔽
	Remarks:							1		



Photo 1 Upland data point wrae215_u facing north



Photo 2 Upland data point wrae215_u facing northwest

Project/Site: Atlantic Coast Pipeline	City/County: F	Randolph County	_ Sampling Date: 5/18/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae214f_w
Investigator(s): CG, KO	Section, Towr	nship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): hillslope	Local relief (conc	ave, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N Lat: 38.510	67482	Long: <u>-80.10752968</u>	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25 perc	ent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes 🗾 🗸	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology 💉 sign	ificantly disturbed?	Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology natu	arally problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:						
Hydrology driven by road runoff						

wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living R Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled So Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	
Field Observations:	
Surface Water Present? Yes No 🔽 Depth (inches):	
Water Table Present? Yes No V Depth (inches):	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No

Sampling Point: wrae214f_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1. Acer rubrum	40	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2 Betula alleghaniensis	30	Yes	FAC	
		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4				Percent of Dominant Species
5		<u></u>		That Are OBL, FACW, or FAC: 100 (A/B)
6.				
7		·		Prevalence Index worksheet:
/·	70			Total % Cover of: Multiply by:
27.1	5	= Total Cove	er 15	OBL species 1 $x_1 = 1$
50% of total cover:	20% of	total cover:	10	$\frac{50}{50} \times 1 = \frac{100}{100}$
Sapling/Shrub Stratum (Plot size:)				FACW species $x 2 = \frac{100}{210}$
1				FAC species 70 x 3 = 210
2				FACU species $0 x 4 = 0$
		·		UPL species $0 \times 5 = 0$
3		·		$\begin{array}{c} 120 \\ \hline 121 \\ 1$
4		·		Column Totals: (A) (B)
5				Drevelence Index D/A 2.57
6				$Prevalence index = B/A = \underline{2.07}$
7				Hydrophytic Vegetation Indicators:
/		·		1 - Rapid Test for Hydrophytic Vegetation
8				\checkmark 2 - Dominance Test is >50%
9.				
	0	- Total Cove		· 3 - Prevalence Index Is ≤3.0
50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.	20 /0 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	20			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Impatiens capensis	20	Yes	FACW	
2. Boehmeria cylindrica	15	Yes	FACW	1
_{3.} Packera aurea	15	Yes	FACW	Indicators of hydric soil and wetland hydrology must
√ Carex prasina	1	No	OBL	be present, unless disturbed of problematic.
-		·		Definitions of Four Vegetation Strata:
5		·		Trop Woody planta avaluding vince 2 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
8				
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 berbaceous (non-woody) plants regardless
	51	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 25.5	20% of	total cover:	10.2	
$\frac{30}{30}$	2070 01			Woody vine - All woody vines greater than 3.28 ft in
woody vine Stratum (Plot size:)				height.
1		·		
2				
3.				
1		·		
-		·		Hydrophytic
5		·		Vegetation
	0	= Total Cove	r	Present? Yes <u>No</u> No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
	,			

Donth	Motrix	o the dep			mulcator	or comm	i the absence of h	nuicators.)	
(inches)	Color (moist)	%	Color (moist)	<u>x reature</u> %	Tvpe ¹	Loc ²	Texture	Remarks	
0-6	10YR 4/1	95	10YR 3/6	5	C	M	SICL		
6-12	10YR 3/1	90	10 YR 4/6	10	С	PL/M	SICL		
¹ Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	S=Maske	d Sand Gra	ains.	² Location: PL=P	ore Lining, M=Matrix	
Hydric Soil	Indicators:						Indicators	s for Problematic H	ydric Soils ³ :
 Histosol Histic E Black H Hydroge Stratifie 2 cm Me Deplete Thick D Sandy M 	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (I	(A11)	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma ✓ Redox Dark Depleted Da Redox Depression 	e (S7) elow Surfa urface (S9 ed Matrix trix (F3) Surface (I rk Surface essions (F	ace (S8) (N) (MLRA 1 (F2) F6) e (F7) (8) es (F12) (ILRA 147, 47, 148)	2 cm 148) Coasi (Mi Piedn (Mi Very Other	Muck (A10) (MLRA t Prairie Redox (A16) L RA 147, 148) nont Floodplain Soils L RA 136, 147) Shallow Dark Surfac t (Explain in Remarks	1 47) (F19) e (TF12) s)
Oandy N	A 147, 148)	х х х ,	MLRA 13	6)	663 (1 12) (1	LIXIX IN,			
Sandy (Sandy F Stripped	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Umbric Surfa Diedmont Flo Red Parent N	ace (F13) bodplain S Material (F	(MLRA 13 Soils (F19) F21) (MLR	6, 122) (MLRA 14 A 127, 147	³ Indicato (8) wetlan (7) unless	ors of hydrophytic ve d hydrology must be disturbed or problen	getation and present, natic.
Restrictive	Layer (if observed):								
Туре:									
Depth (in	ches):						Hydric Soil Pre	sent? Yes 🖌	No
Remarks:							1		



Photo 1 Wetland data point wrae214f_w facing west



Photo 2 Wetland data point wrae214f_w facing east

Project/Site: Atlantic Coast Pipeline	City/County: Rand	dolph County	Sampling Date: 5/18/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae214e_w
Investigator(s): CG, KO	Section, Township	p, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): flat	Local relief (concave	, convex, none): <u>none</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): N Lat: 38.5	1048904	Long: <u>-80.10712696</u>	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25 pe	ercent slopes	NWI classificat	ion: None
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes	No (If no, explain in Rer	marks.)
Are Vegetation, Soil, or Hydrology si	ignificantly disturbed?	Are "Normal Circumstances" pre	esent? Yes No _
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answers	in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
Hydrology affected by road.					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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 <u><</u> No <u>Depth</u> (inches): 0	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetla (includes capillary fringe)	and Hydrology Present? Yes 🖌 No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),	if available:
Remarks:	

Sampling Point: wrae214e_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1				That Are OBL FACW or FAC: 2 (A)
·· <u> </u>				
Z		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4		<u></u>		Percent of Dominant Species
5				That Are OBL_EACW_or EAC [·] 100 (A/B)
6.				
7				Prevalence Index worksheet:
/·	0			Total % Cover of: Multiply by:
		= Total Cove	r O	OBL species 0 $x_1 = 0$
50% of total cover: 0	20% of	total cover:	0	$\frac{100}{100} = \frac{200}{200}$
Sapling/Shrub Stratum (Plot size: 13)				FACW species $x_2 = 0$
1				FAC species $0 x 3 = 0$
2.				FACU species x 4 =0
2				UPL species $0 \times 5 = 0$
		·		Column Totals: 100 (A) 200 (B)
4		·	······	
5		. <u> </u>		Prevalence index $= B/A = 2$
6				
7.				nyaropnytic vegetation indicators:
·· <u> </u>				1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9			<u> </u>	✓ 3 - Prevalence Index is $\leq 3.0^1$
	0	= Total Cove	r	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover:	0	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Juncus effusus	50	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
	50	Ves	FACW	
2. 0011003 030011103		103	1700	¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata
5.				Deminions of Four Vegetation of data.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
		·		more in diameter at breast height (DBH), regardless of
7		·		height.
8		·		Sanling/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				
	100			Herb – All herbaceous (non-woody) plants, regardless
50	100	= Total Cove	r 20	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 50	20% of	total cover:	20	Woody vine – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1				
2				
2		·		
		·		
4		·		Hydrophytic
5		<u></u>		Vegetation
	0	= Total Cove	r	Present? Yes Vo No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet)			
	neet.)			

Profile Desc	cription: (Describe to	the dept	h needed to docun	nent the in	ndicator	or confirm	the absen	ce of indicato	ors.)	
Depth	Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-8	10YR 4/1	90	10YR 5/6	10	C	M	SICL	<u> </u>		
		<u> </u>								
¹ Type: C=C	oncentration, D=Deple	tion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location:	PL=Pore Lini	ng, M=Matrix	
Hydric Soil	Indicators:						Ind	icators for Pr	oblematic H	ydric Soils ³ :
Histosol Histic E	(A1) pipedon (A2)		Dark Surface	(S7) low Surfac	ce (S8) (N	ILRA 147,	148)	2 cm Muck (A Coast Prairie	A10) (MLRA ⁻ Redox (A16)	147))
Black H	istic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 14	7, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	F2)			Piedmont Flo	odplain Soils	(F19)
Stratifie	d Layers (A5)		 Depleted Mat 	trix (F3)				(MLRA 13	6, 147)	
2 cm Mu	uck (A10) (LRR N)		Redox Dark S	Surface (F	6)			Very Shallow	Dark Surface	e (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)			Other (Explai	n in Remarks	s)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)					
Sandy M	/lucky Mineral (S1) (LF	RR N,	Iron-Mangan	ese Masse	es (F12) (I	LRR N,				
MLR	A 147, 148)		MLRA 13	6)						
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) (I	MLRA 13	6, 122)	3	ndicators of hy	/drophytic ve	getation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetland hydrology must be present,			present,
Stripped	d Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR	A 127, 147	7) (unless disturbe	ed or problem	natic.
Restrictive	Layer (if observed):									
Type: ro	ck						1			
Depth (in	ches): <u>8</u>						Hydric Se	oil Present?	Yes 🖌	No
Remarks:										

Refusal at 8 in



Photo 1 Wetland data point wrae214e_w facing south



Photo 2 Wetland data point wrae214e_w facing north
_ City/County: Randolph Coun	ty Sa	ampling Date: 5/18/2016
	State: WV	Sampling Point: wrae214_u
_ Section, Township, Range: N	o PLSS in this area	
ocal relief (concave, convex, no	one): <u>convex</u>	Slope (%):25
Long: <u>-80</u>	.10715104	Datum: WGS 1984
opes	NWI classification	on: None
year?Yes 🖌 No	(If no, explain in Rem	arks.)
ly disturbed? Are "Norma	al Circumstances" pres	sent? Yes No _
problematic? (If needed,	explain any answers i	n Remarks.)
	_ City/County: <u>Randolph Count</u> _ Section, Township, Range: <u>N</u> .ocal relief (concave, convex, no <u>6</u> Long: <u>-80</u> .opes year? Yes <u>✓</u> No <u></u> ly disturbed? Are "Norma problematic? (If needed,	_ City/County: Randolph County Sa State: WV _ State: WV _ Section, Township, Range: No PLSS in this area .ocal relief (concave, convex, none): convex Long: -80.10715104 .opes NWI classification year? Yes _ ✓ No (If no, explain in Rem ly disturbed? Are "Normal Circumstances" pres problematic? (If needed, explain any answers i

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

wettand Hydrology indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No <u>v</u> Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	ctions), if available:

Sampling Point: wrae214_u

	Absolute	Dominant Ir	dicator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Descine of Operation
Acer rubrum	20	Yes	FAC	That Are OBL EACW or EAC: 4 (A)
Retula alleghaniensis	10	Yes	FAC	
2. Detuia allegriaritensis		103	TAO	Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				()
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 80 (A/B)
6				
7				Prevalence Index worksheet:
·	30			Total % Cover of: Multiply by:
15		= Total Cover	6	$\frac{1}{0}$ OBL species 0 $x_1 = 0$
50% of total cover: 15	20% of	total cover:		$\frac{40}{40} = \frac{80}{80}$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = \frac{100}{100}$
1 Prunus pensylvanica	15	Yes	FACU	FAC species $40 x 3 = 120$
- Acer rubrum	10	Ves	FAC	FACIJ species 40 x4 - 160
2	10	163	TAC	
3				UPL species $x 5 = 70$
۵				Column Totals:135 (A)435 (B)
-				
5				Prevalence Index = $B/A = 3.22$
6				Hydrophytic Vogetation Indicators
7.				Hydrophytic vegetation indicators:
-				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				\sim 2. Providence Index is <2.0 ¹
	25			3 - Prevalence Index is \$3.0
E0% of total appears 12.5			5	4 - Morphological Adaptations ¹ (Provide supporting
	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Drahlamatic Lludrank, tic Vanatation ¹ (Europia)
_{1.} Huperzia lucidula	40	Yes	FACW	Problematic Hydrophytic Vegetation (Explain)
o Daucus carota	15	No	UPI	
Z. Doctulio silemente	45			¹ Indicators of hydric soil and wetland hydrology must
3. Dactylis giomerata	15	NO	FACU	be present, unless disturbed or problematic.
_{4.} Potentilla simplex	5	No	FACU	Definitions of Four Verstation Strate:
Prunus pensvlvanica	5	No	FACU	Definitions of Four vegetation Strata.
5. <u></u>			17100	Tree – Woody plants excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
0				
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				
· · ·	80			Herb – All herbaceous (non-woody) plants, regardless
10	- 00	= 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 vince greater than 2.39 ft in
Woody Vine Stratum (Plot size: 30)				beight
1				
۱				
2				
3				
Λ				
4		······		Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes No
50% of total cover: 0	20% of	total cover:	0	
Deventer (lealede alecter eventer berg berg and an eventer eventer berg berg berg berg berg berg berg be	= 0 / 0 0.			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe to	o the depth i	needed to docum	nent the ir	ndicator o	or confirm	the absence	of indicator	rs.)	
Depth	Matrix	<u> </u>	Redox	x Features	1					
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type'	Loc	Texture		Remarks	
0-12	10YR4/2	100					CL	CNA at 12	Inches, rock/g	gravei
			<u>.</u>							
						<u> </u>				
1							2			
Type: C=Co	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	uns.	Location: P	L=Pore Linin	g, M=Matrix.	drie Ceile ³ .
Hydric Soli I	indicators:			(0-)			indica	ators for Pro		aric Solis :
Histosol	(A1)		Dark Surface	(\$7)	. (00) (14		2	cm Muck (A	10) (MLRA 14	47)
HISTIC Ep	orpedon (AZ)	•	Polyvalue Be	IOW SUITAC	(58) (IVI	LRA 147,	148)		Redox (A16)	
	siic (A3) n Sulfida (A4)		Thin Dark Su	d Motrix (E		47, 140)	D	(IVILKA 147	n , 140) Adalain Saile (E10)
Tryuroge		•	Loanty Gleye	u Matrix (F3)	2)		r	(MI RA 136	5000111 50115 (5 147)	[19]
0.ratilieu 2 cm Mu	red (A10) (I RR N)		Bedox Dark S	Surface (Fr	3)		V	erv Shallow	Dark Surface	(TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)			ther (Explain	in Remarks)	(
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	5)				,	
Sandy M	lucky Mineral (S1) (LI	RR N,	 Iron-Mangane	ese Masse	s (F12) (I	.RR N,				
MLRA	A 147, 148)		MLRA 130	6)	. , .					
Sandy G	leyed Matrix (S4)	-	Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Ind	icators of hyd	drophytic veg	etation and
Sandy R	edox (S5)	-	Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	8) we	etland hydrolo	ogy must be p	resent,
Stripped	Matrix (S6)		Red Parent M	laterial (F2	21) (MLR/	A 127, 147) un	less disturbe	d or problema	atic.
Restrictive I	ayer (if observed):									
Type: roo	:k		_							
Depth (ind	ches): <u>12</u>		-				Hydric Soil	Present?	Yes	No 🖌

Remarks:

Spoil material, auger refusal at 12 inches due to rock/gravel.



Photo 1 Upland data point wrae214_u facing east



Photo 2 Upland data point wrae214_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: F	Randolph County	_ Sampling Date: 5/18/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae214f_w
Investigator(s): CG, KO	Section, Towr	nship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): hillslope	Local relief (conc	ave, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N Lat: 38.510	67482	Long: <u>-80.10752968</u>	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25 perc	ent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes 🗾 🗸	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology 💉 sign	ificantly disturbed?	Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology natu	arally problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:				·		
Hydrology driven by road runoff						

wenanu nyurology mulcators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	
Field Observations:	
Surface Water Present? Yes No 🔽 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
·	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No

Sampling Point: wrae214f_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Dominant Species
1. Acer rubrum	40	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2 Betula alleghaniensis	30	Yes	FAC	
		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4				Percent of Dominant Species
5		<u></u>		That Are OBL, FACW, or FAC: 100 (A/B)
6.				
7		·		Prevalence Index worksheet:
/·	70			Total % Cover of: Multiply by:
27.1	5	= Total Cove	er 15	OBL species 1 $x_1 = 1$
50% of total cover:	20% of	total cover:	10	$\frac{50}{50} \times 1 = 100$
Sapling/Shrub Stratum (Plot size:)				FACW species 270 $x 2 = 210$
1				FAC species 70 x 3 = 210
2				FACU species $0 x 4 = 0$
		·		UPL species $0 \times 5 = 0$
3		·		$\begin{array}{c} 120 \\ \hline 121 \\ 1$
4		·		Column Totals: (A) (B)
5				Drevelence Index D/A 2.57
6				$Prevalence index = B/A = \underline{2.07}$
7				Hydrophytic Vegetation Indicators:
/		·		1 - Rapid Test for Hydrophytic Vegetation
8				\checkmark 2 - Dominance Test is >50%
9.				
	0	- Total Cove		· 3 - Prevalence Index Is ≤3.0
50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.	20 /0 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	20			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Impatiens capensis	20	Yes	FACW	
2. Boehmeria cylindrica	15	Yes	FACW	1
_{3.} Packera aurea	15	Yes	FACW	Indicators of hydric soil and wetland hydrology must
√ Carex prasina	1	No	OBL	be present, unless disturbed of problematic.
-				Definitions of Four Vegetation Strata:
5		·		Trop Woody planta avaluding vince 2 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
10				m) tall.
11		·		Herb – All berbaceous (non-woody) plants, regardless
	51	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 25.5	20% of	total cover:	10.2	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
woody vine Stratum (Piot size)				height.
1		·		
2				
3.				
4				
		·		Hydrophytic
5		·		Vegetation
	0	= Total Cove	er o	Present? Yes <u>No</u> No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Donth	Motrix	o the dep			mulcator	or comm	i the absence of i	indicators.)	
(inches)	Color (moist)	%	Color (moist)	<u>x reature</u> %	Tvpe ¹	Loc ²	Texture	Remarks	
0-6	10YR 4/1	95	10YR 3/6	5	C	M	SICL		
6-12	10YR 3/1	90	10 YR 4/6	10	С	PL/M	SICL		
¹ Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, M	S=Maske	d Sand Gra	ains.	² Location: PL=P	ore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indicator	s for Problematic H	ydric Soils ³ :
 Histosol Histic E Black H Hydroge Stratifie 2 cm Me Deplete Thick D Sandy M 	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (L)	(A11)	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma ✓ Redox Dark Depleted Da Redox Depression 	e (S7) elow Surfa urface (S9 ed Matrix trix (F3) Surface (I rk Surface essions (F	ace (S8) (N) (MLRA 1 (F2) F6) e (F7) (8) es (F12) (ILRA 147, 47, 148)	2 cm 148) Coas (M Piedr (M Very Othe	Muck (A10) (MLRA ⁴ tt Prairie Redox (A16) LRA 147, 148) mont Floodplain Soils LRA 136, 147) Shallow Dark Surface r (Explain in Remarks	(F19) ∈ (TF12) ;)
Oandy N	A 147, 148)	х х х ,	MLRA 13	6)	663 (I 12) (I	LIXIX IN,			
Sandy (Sandy F Stripped	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Umbric Surfa Diedmont Flo Red Parent N	ace (F13) bodplain S Material (F	(MLRA 13 Soils (F19) F21) (MLR	6, 122) (MLRA 14 A 127, 147	³ Indicat (8) wetlan (7) unless	ors of hydrophytic veg d hydrology must be disturbed or problem	getation and present, natic.
Restrictive	Layer (if observed):								
Туре:									
Depth (in	ches):						Hydric Soil Pre	esent? Yes 🖌	No
Remarks:							<u> </u>		



Photo 1 Wetland data point wrae214f_w facing west



Photo 2 Wetland data point wrae214f_w facing east

Project/Site: Atlantic Coast Pipeline	City/County: Rand	olph County S	Campling Date: 5/18/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae214e_w
Investigator(s): CG, KO	Section, Township	, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): <u>flat</u>	Local relief (concave,	convex, none): <u>none</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): N Lat: 38.5	1048904	Long: <u>-80.10712696</u>	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25 pe	ercent slopes	NWI classificat	ion: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes N	No (If no, explain in Rer	narks.)
Are Vegetation, Soil, or Hydrology sig	gnificantly disturbed?	Are "Normal Circumstances" pre	esent? Yes No _
Are Vegetation, Soil, or Hydrology na	aturally problematic? (If needed, explain any answers	in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
Hydrology affected by road.					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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 <u><</u> No <u>Depth</u> (inches): 0	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetla (includes capillary fringe)	and Hydrology Present? Yes 🖌 No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections),	if available:
Remarks:	

Sampling Point: wrae214e_w

Trop Stratum (Plot eize: 30)		
I THE STIRIUM (MOUSIZE)/ COVER_SPECIES / STATUS Number of Deminant Species		
1 That Are OBL_EACW or EAC	2	(A)
		(,,)
^{2.} Total Number of Dominant	2	
3 Species Across All Strata:	2	(B)
4 Dereent of Deminent Species		
5 That Are OBL_EACW or EAC	100	(A/B)
6.		(,,,,,,)
Prevalence Index worksheet:		
0 Total % Cover of: M	ultiply by:	
$\frac{1}{1 - 1} = 1 \text{ otal Cover} \qquad \frac{1}{1 - 1} = 1 \text{ otal Cover} $	0	
50% of total cover: 0 20% of total cover: 0 002 species 10	200	
Sapling/Shrub Stratum (Plot size:)		
1 FAC species x 3 =		
FACU species x 4 =	0	
UPL species 0 x 5 =	0	
3 Column Totals: 100 (Δ)	200	(B)
4 (A)		_ (D)
5 Prevalence Index = B/A =	2	
7.	.	
The second	egetation	
o 2 - Dominance Test is >50%		
9 9		
$\frac{0}{1} = \text{Total Cover}$	Provide supp	orting
50% of total cover: 0 20% of total cover: 0		oning
Herb Stratum (Plot size: 5)	arate sneet)	
Juncus effusus 50 Yes FACW Problematic Hydrophytic Vegeta	ation' (Explain	1)
Scirpus cyperinus 50 Yes FACW		
² . <u>Somption of pointing</u> <u>1</u> Indicators of hydric soil and wetland	l hydrology m	ust
3 be present, unless disturbed or prob	lematic.	
4 Definitions of Four Vegetation Str	ata:	
5		
6 Tree – Woody plants, excluding vine	es, 3 in. (7.6 c	m) or
more in diameter at breast height (D	BH), regardle	ess of
/		
8 Sapling/Shrub – Woody plants, exc	ludina vines.	less
9 than 3 in. DBH and greater than or e	qual to 3.28 f	ft (1
10. m) tall.		
100 Tatal Occurrence of size, and weady plants less than (plants, regard	dless
$\frac{100}{200} = 10 \text{ tail Cover} \qquad 01 \text{ size, and woody plants less than 3}$	5.20 It lall.	
50% of total cover: <u>50%</u> 20% of total cover: <u>20</u> Woody vine – All woody vines great	ter than 3.28	ft in
Woody Vine Stratum (Plot size:) height.		
1		
2.		
2		
4 Hvdrophytic		
1.		
5 Vegetation		
5 U = Total Cover Vegetation Present? Yes Veg	lo	
5 0 = Total Cover Vegetation Present? Yes \checkmark N	lo	
5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 Remarks: (Include photo numbers here or on a separate sheet.) Yes Vegetation	lo	
5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 Remarks: (Include photo numbers here or on a separate sheet.) Yes Vegetation	lo	
5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 Remarks: (Include photo numbers here or on a separate sheet.) Yes ✓	lo	
5. 0 = Total Cover Vegetation 50% of total cover: 0 20% of total cover: 0 Remarks: (Include photo numbers here or on a separate sheet.) Yes ×	lo	

Profile Des	cription: (Describe to	the dept	h needed to docun	nent the i	ndicator	or confirm	the absen	ce of indicators	s.)	
Depth	Matrix		Redo	x Features	3					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-8	10YR 4/1	90	10YR 5/6	10	C	M	SICL			
¹ Type: C=C Hydric Soil	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	 ains.	² Location:	PL=Pore Lining	g, M=Matrix. blematic Hy	/dric Soils ³ :
Histosol Histic E Black H Hydroge Stratifie 2 cm Mi Deplete Thick D Sandy M	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LF	(A11) RR N.	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Mathematical Redox Dark S Depleted Dar Redox Depreter Iron-Mangang 	(S7) low Surfac rface (S9) d Matrix (I surface (F3) Surface (F4) k Surface ssions (F8) ese Masse	ce (S8) (N (MLRA 1 F2) 6) (F7) 3) es (F12) ()	ILRA 147, 47, 148) LRR N.	148) 	2 cm Muck (A1 Coast Prairie R (MLRA 147, Piedmont Floo (MLRA 136, Very Shallow E Other (Explain	0) (MLRA 1 Redox (A16) 1 48) dplain Soils 1 47) Dark Surface in Remarks	47) (F19) • (TF12))
MLR. Sandy (Sandy F Stripped Restrictive	A 147, 148) Gleyed Matrix (S4) Redox (S5) Matrix (S6) Layer (if observed): ck		MLRA 130 Umbric Surfa Piedmont Flo Red Parent M	6) ce (F13) (odplain So laterial (F2	MLRA 13 bils (F19) 21) (MLR	6, 122) (MLRA 14 A 127, 147	3 8) 7)	Indicators of hyd wetland hydrolo unless disturbec	lrophytic veg gy must be d or problem	letation and present, atic.
Depth (in	ches): <u>8</u>						Hydric S	oil Present?	Yes 🖌	No
Remarks:							•			

Refusal at 8 in



Photo 1 Wetland data point wrae214e_w facing south



Photo 2 Wetland data point wrae214e_w facing north

_ City/County: Randolph Coun	ty Sa	ampling Date: 5/18/2016
	State: WV	Sampling Point: wrae214_u
_ Section, Township, Range: N	o PLSS in this area	
ocal relief (concave, convex, no	one): <u>convex</u>	Slope (%):25
Long: <u>-80</u>	.10715104	Datum: WGS 1984
opes	NWI classification	on: None
year?Yes 🖌 No	(If no, explain in Rem	arks.)
ly disturbed? Are "Norma	al Circumstances" pres	sent? Yes No _
problematic? (If needed,	explain any answers i	n Remarks.)
	_ City/County: <u>Randolph Count</u> _ Section, Township, Range: <u>N</u> .ocal relief (concave, convex, no <u>6</u> Long: <u>-80</u> .opes year? Yes <u>✓</u> No <u></u> ly disturbed? Are "Norma problematic? (If needed,	_ City/County: Randolph County Sa State: WV _ State: WV _ Section, Township, Range: No PLSS in this area .ocal relief (concave, convex, none): convex Long: -80.10715104 .opes NWI classification year? Yes _ ✓ No (If no, explain in Rem ly disturbed? Are "Normal Circumstances" pres problematic? (If needed, explain any answers i

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wettand Tydrology Indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary Indicators (minimum of one is required; check all that apply)	
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No <u>v</u> Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	ctions), if available:

Sampling Point: wrae214_u

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Descine of Operation
Acer rubrum	20	Yes	FAC	That Are OBL EACW or EAC: 4 (A)
Retula alleghaniensis	10	Yes	FAC	
2. Detuia allegriaritensis		103	TAO	Total Number of Dominant
3				Species Across All Strata: 5 (B)
4				()
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 80 (A/B)
6				
7				Prevalence Index worksheet:
·	30			Total % Cover of: Multiply by:
15		= Total Cover	6	$\frac{1}{0}$ OBL species 0 $x_1 = 0$
50% of total cover: 15	20% of	total cover:		$\frac{40}{40}$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x^2 = \frac{100}{100}$
1 Prunus pensylvanica	15	Yes	FACU	FAC species $40 x 3 = 120$
- Acer rubrum	10	Ves	FAC	FACIJ species 40 x4 - 160
2	10	163	TAC	
3				UPL species $x 5 = 70$
۵				Column Totals:135 (A)435 (B)
-				
5				Prevalence Index = $B/A = 3.22$
6				Hydrophytic Vogetation Indicators
7.				Hydrophytic vegetation indicators:
-				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				\sim 2. Providence Index is <2.0 ¹
	25	- Total Cover		3 - Prevalence Index is \$3.0
E0% of total appears 12.5			5	4 - Morphological Adaptations ¹ (Provide supporting
	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				Drahlamatic Lludrank, tic Vanatation ¹ (Europia)
_{1.} Huperzia lucidula	40	Yes	FACW	Problematic Hydrophytic Vegetation (Explain)
o Daucus carota	15	No	UPI	
Z. Doctulio silemente	45			¹ Indicators of hydric soil and wetland hydrology must
3. Dactylis giomerata	15	NO	FACU	be present, unless disturbed or problematic.
_{4.} Potentilla simplex	5	No	FACU	Definitions of Four Verstation Strate:
Prunus pensvlvanica	5	No	FACU	Definitions of Four vegetation Strata.
5. <u></u>			17100	Tree – Woody plants excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
0				
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				
· · ·	80			Herb – All herbaceous (non-woody) plants, regardless
10	- 00	= 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 vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30)				beight
1				
۱				
2				
3				
Λ				
4		······		Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes No
50% of total cover: 0	20% of	total cover:	0	
Deventer (lealede alecter eventer berg berg and an eventer eventer berg berg berg berg berg berg berg be	= 0 / 0 0.			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe to	o the depth i	needed to docum	nent the ir	ndicator o	or confirm	the absence	of indicator	rs.)	
Depth	Matrix	<u> </u>	Redox	x Features	1					
(inches)	Color (moist)	<u>%</u>	Color (moist)		Type'	Loc	Texture		Remarks	
0-12	10YR4/2	100					CL	CNA at 12	Inches, rock/g	gravei
			<u>.</u>							
						<u> </u>				
1							2			
Type: C=Co	oncentration, D=Deple	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gra	uns.	Location: P	L=Pore Linin	g, M=Matrix.	drie Ceile ³ .
Hydric Soli I	indicators:			(0-)			indica	ators for Pro		aric Solis :
Histosol	(A1)		Dark Surface	(S7)	. (00) (14		2	cm Muck (A	10) (MLRA 14	47)
HISTIC Ep	orpedon (AZ)	•	Polyvalue Be	IOW SUITAC	(58) (IVI	LRA 147,	148)		Redox (A16)	
	siic (A3) n Sulfida (A4)		Thin Dark Su	d Motrix (E		47, 140)	D	(IVILKA 147	n , 140) Adalain Saile (E10)
Tryuroge		•	Loanty Gleye	u Matrix (F3)	2)		r	(MI RA 136	5000111 50115 (5 147)	[19]
0.ratilieu 2 cm Mu	red (A10) (I RR N)		Bedox Dark S	Surface (Fr	3)		V	erv Shallow	Dark Surface	(TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)			ther (Explain	n in Remarks)	(
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	5)				,	
Sandy M	lucky Mineral (S1) (LI	RR N,	 Iron-Mangane	ese Masse	s (F12) (I	.RR N,				
MLRA	A 147, 148)		MLRA 130	6)	. , .					
Sandy G	leyed Matrix (S4)	-	Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Ind	icators of hyd	drophytic veg	etation and
Sandy R	edox (S5)	-	Piedmont Flo	odplain Sc	oils (F19)	(MLRA 14	8) we	etland hydrolo	ogy must be p	resent,
Stripped	Matrix (S6)		Red Parent M	laterial (F2	21) (MLR/	A 127, 147) un	less disturbe	d or problema	atic.
Restrictive I	ayer (if observed):									
Type: roo	:k		_							
Depth (ind	ches): <u>12</u>		-				Hydric Soil	Present?	Yes	No 🖌

Remarks:

Spoil material, auger refusal at 12 inches due to rock/gravel.



Photo 1 Upland data point wrae214_u facing east



Photo 2 Upland data point wrae214_u facing south

Project/Site: Atlantic Coast Pipeline	_ City/County:	Randolph County	Sampling Date: <u>4/29/2016</u>
Applicant/Owner: DOMINION		State: WV	Sampling Point: wrac115e_w
Investigator(s): Team C	_ Section, Tow	nship, Range: <u>No PLSS in this ar</u>	ea
Landform (hillslope, terrace, etc.): Slight depression	ocal relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): N Lat: 38.509181		Long: <u>-80.108667</u>	Datum: WGS 1984
Soil Map Unit Name: Dekalb extremely stony loam, moist, 3 to 15 per	rcent slopes	NWI classi	fication: None
Are climatic / hydrologic conditions on the site typical for this time of y	/ear?Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed?	Are "Normal Circumstances	" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally p	oroblematic?	(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling	point locations, transec	ts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ ✔ Yes _ ✔ Yes _ ✔	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks: Wetland located primarily within tire rut	t and drains into r	oadside ditch			
HYDROLOGY					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	✓ Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) ✓ FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Remarks: Wetland hydrology indicators present	

Sampling Point: wrac115e_w

	Abaaluta	- Dominant li	diaatar	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksneet:
1			orarao	Number of Dominant Species
l		·		
2		·		Total Number of Dominant
3		·		Species Across All Strata:3 (B)
4		·		Percent of Dominant Species
5				That Are OBL_EACW_or EAC· 100 (A/B)
6				
7		·		Prevalence Index worksheet:
/	0			Total % Cover of: Multiply by:
0		= Total Cove	r O	OBL species $25 \times 1 - 25$
50% of total cover:	20% of	total cover:	0	$\frac{55}{55} = \frac{110}{110}$
Sapling/Shrub Stratum (Plot size: 13)				FACW species $x = $
1		<u></u> .		FAC species $x_3 = 0$
2.				FACU species $x 4 =0$
2				UPL species $0 x 5 = 0$
		·		Column Totals: 95 (A) 195 (B)
4		·		
5				Prevalence index = $B/A = 2.05$
6				Ludrenhytic Vegetation Indicatory
7.				Hydrophytic vegetation indicators:
•				1 - Rapid Test for Hydrophytic Vegetation
o		·	<u> </u>	2 - Dominance Test is >50%
9		·		✓ 3 - Prevalence Index is ≤3.0 ¹
	0	= Total Cove	r o	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:0	20% of	total cover:	0	dete in Demorte en en e concrete abast)
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sneet)
Viola blanda	30	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
	25	Yes	FACW	
	20			¹ Indicators of hydric soil and wetland hydrology must
3. Eleocharis palustris	25	res	OBL	be present, unless disturbed or problematic.
4. Potentilla simplex	10	No	FACU	Definitions of Four Vegetation Strata:
_{5.} Rubus allegheniensis	5	No	FACU	
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
-		·		more in diameter at breast height (DBH), regardless of
/		·	<u> </u>	height.
8		·		Sanling/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				
···	95			Herb – All herbaceous (non-woody) plants, regardless
50% of total access 47 F	5 000/ 1	= Total Cove	1Q	or size, and woody plants less than 3.26 it tall.
50% of total cover:	20% of	total cover:	15	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
	0	= Total Cove	r	Present? Yes Vo No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet)			
Remarks. (include photo numbers here of on a separate s	snoot.)			

Jepin	Matrix		Redo	x Features						
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-8	2.5 Y 4/1	97	2.5 Y 5/6	3	С	PL	SL			
ype: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, M	S=Masked S	and Gra	ains.	² Location:	PL=Pore Lin	ing, M=Matrix	
ydric Soil	Indicators:						Ind	icators for P	roblematic H	ydric Soils ³ :
1.12 - 4										
_ HISTOSO	(A1)		Dark Surface	e (S7)				2 cm Muck ((A10) (MLRA	147)
<pre>_ Histoso _ Histic E</pre>	l (A1) pipedon (A2)		Dark Surface Polyvalue Be	e (S7) elow Surface	(S8) (M	LRA 147,	, 148)	2 cm Muck (Coast Prairie	(A10) (MLRA e Redox (A16	147))
 Histoso Histic E Black H 	l (A1) pipedon (A2) istic (A3)		Dark Surface Polyvalue Be Thin Dark Su	e (S7) elow Surface irface (S9) (I	(S8) (M MLRA 1	LRA 147, 47, 148)	, 148)	2 cm Muck (Coast Prairie (MLRA 14	(A10) (MLRA e Redox (A16 47, 148)	147))
_ Histoso _ Histic E _ Black H _ Hydrog	l (A1) pipedon (A2) istic (A3) en Sulfide (A4)		Dark Surface Polyvalue Be Drin Dark Su Loamy Gleye	e (S7) elow Surface Irface (S9) (I ed Matrix (F2	e (S8) (M MLRA 1 2)	LRA 147, 47, 148)	, 148)	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fl	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils	147)) s (F19)
 Histoso Histic E Black H Hydrog Stratifie 	l (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5)		Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye	e (S7) elow Surface Irface (S9) (I ed Matrix (F2 trix (F3)	(S8) (M MLRA 1 2)	LRA 147, 47, 148)	, 148)	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fl (MLRA 13	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147)	147)) s (F19)
 Histoso Histic E Black H Hydrog Stratifie 2 cm M 	l (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N)		Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye V Depleted Ma Redox Dark	e (S7) elow Surface Irface (S9) (I ed Matrix (F2 trix (F3) Surface (F6)	• (S8) (M MLRA 1 2)	LRA 147, 47, 148)	, 148)	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fla (MLRA 13 Very Shallow	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac	147)) s (F19) e (TF12)
_ Histoso _ Histic E _ Black H _ Hydrog _ Stratifie _ 2 cm M _ Deplete	l (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface	(A11)	Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark Depleted Da	e (S7) elow Surface Irface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F	(S8) (M MLRA 1 2) 77)	LRA 147, 47, 148)	, 148) 	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fli (MLRA 13 Very Shallow Other (Expla	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks	147)) s (F19) e (TF12) s)
 Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D 	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12)	(A11)	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Su Depleted Da Redox Deprese 	e (S7) elow Surface irface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F essions (F8)	• (S8) (M MLRA 1 2) =7)	LRA 147, 47, 148)	, 148) 	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fli (MLRA 13 Very Shallow Other (Expla	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks	147)) s (F19) e (TF12) s)
Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LI	(A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depres Iron-Mangan 	e (S7) elow Surface inface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F essions (F8) ese Masses	(S8) (M MLRA 1 2) 77) (F12) (L	LRA 147, 47, 148) ⊾RR N,	, 148) 	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fli (MLRA 13 Very Shallow Other (Expla	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks	147)) s (F19) e (TF12) s)
Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I MLR	I (A1) pipedon (A2) istic (A3) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LI A 147, 148)	(A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark Surface Depleted Dai Redox Depresimation Iron-Mangan MLRA 13 	e (S7) elow Surface inface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F6) rk Surface (F8) ese Masses 6)	(S8) (M MLRA 1 2) 57) (F12) (I	LRA 147, 47, 148) ₋RR N,	, 148) 	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fl (MLRA 13 Very Shallow Other (Expla	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks	147)) ≋ (F19) e (TF12) s)
Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I Sandy 0	I (A1) pipedon (A2) istic (A3) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LI A 147, 148) Bleyed Matrix (S4)	(A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark Su Depleted Dai Redox Depresion Iron-Mangan MLRA 13 Umbric Surface 	e (S7) elow Surface inface (S9) (I ed Matrix (F2) trix (F3) Surface (F6) rk Surface (F6) essions (F8) ese Masses 6) ace (F13) (M	(S8) (M MLRA 1 2) =7) (F12) (I LRA 13	LRA 147, 47, 148) _RR N, 6, 122)	, 148) 	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fle (MLRA 13 Very Shallow Other (Explain ndicators of h	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks	147)) s (F19) e (TF12) s) getation and
 Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I MLR Sandy I 	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LI A 147, 148) Gleyed Matrix (S4) Redox (S5)	(A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark 3 Depleted Dai Redox Depres Iron-Mangan Umbric Surfa Piedmont Flo 	e (S7) elow Surface urface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F6) essions (F8) ese Masses 6) ace (F13) (M podplain Soil	(S8) (M MLRA 1 2) (F12) (LRA 13 (S (F19) (LRA 147, 47, 148) _RR N, 6, 122) (MLRA 14	, 148) , 148) 48)	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fle (MLRA 13 Very Shallow Other (Explain ndicators of h wetland hydro	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks	147)) s (F19) e (TF12) s) getation and present,
 Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I Sandy I Sandy I Sandy I Stripped 	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LI A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)	(A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark 3 Depleted Dai Redox Depression Redox Depression NLRA 13 Piedmont Floor Red Parent Marce 	e (S7) elow Surface urface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F6) essions (F8) esse Masses 6) icce (F13) (M podplain Soil Material (F21	(S8) (M MLRA 1 2) (F12) (I LRA 13 (S (F19)) () (MLR)	LRA 147, 47, 148) -RR N, 6, 122) (MLRA 14 A 127, 147	, 148) 48) 7)	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fle (MLRA 13 Very Shallow Other (Explain ndicators of h wetland hydro unless disturb	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks hydrophytic ve blogy must be bed or problem	147)) s (F19) e (TF12) s) getation and present, natic.
Histoso Histoc E Histic E Hydrog Stratifie 2 cm M Deplete Thick D Sandy I Sandy I Sandy I Sandy I Sandy I	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LI A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed):	(A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark 1 Redox Depre Iron-Mangan MLRA 13 Umbric Surfa Piedmont Flo Red Parent M 	e (S7) elow Surface inface (S9) (I ed Matrix (F2) trix (F3) Surface (F6) rk Surface (F6) rk Surface (F6) esse Masses 6) icce (F13) (M podplain Soil Material (F21)	(S8) (M MLRA 1 2) (F12) (I LRA 13 (S (F19) 1) (MLR)	LRA 147, 47, 148) -RR N, 6, 122) (MLRA 14 A 127, 147	, 148) 	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fli (MLRA 13 Very Shallow Other (Explain ndicators of h wetland hydro	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks hydrophytic ve blogy must be bed or problem	147)) s (F19) e (TF12) s) getation and present, natic.
 Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I Sandy I Sandy I Stripped Stripped Type: R 	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) (LI A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed): ock	(A11) RR N,	 Dark Surface Polyvalue Be Thin Dark Su Loamy Gleyee ✓ Depleted Ma Redox Dark Surface Redox Deprese Iron-Mangan MLRA 13 Umbric Surfa Piedmont Flor Red Parent Maximum 	e (S7) elow Surface inface (S9) (I ed Matrix (F2 trix (F3) Surface (F6) rk Surface (F6) rk Surface (F6) ese Masses 6) ace (F13) (M podplain Soil Material (F21	(S8) (M MLRA 1 2) (F12) (I LRA 130 (S (F19) 1) (MLR)	LRA 147, 47, 148) -RR N, 6, 122) (MLRA 14 A 127, 143	, 148) 48) 7)	2 cm Muck (Coast Prairie (MLRA 14 Piedmont Fli (MLRA 13 Very Shallow Other (Explain ndicators of h wetland hydro unless disturb	(A10) (MLRA e Redox (A16 47, 148) oodplain Soils 36, 147) w Dark Surfac ain in Remarks hydrophytic ve blogy must be bed or problem	147)) s (F19) e (TF12) s) getation and present, natic.

Hydric soil indicators present



Photo 1 Wetland data point WRAC115e_w facing east



Photo 2 Wetland data point WRAC115e_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Rai	ndolph County	Sampling Date: 4/29/2016
Applicant/Owner: DOMINION		State: WV	_ Sampling Point: wrac115_u
Investigator(s): Team C	Section, Townsh	nip, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): Slight slope	Local relief (concav	e, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>3</u>	8.509276	Long: <u>-80.108708</u>	Datum: WGS 1984
Soil Map Unit Name: Dekalb extremely stony loam, moist	t, 3 to 15 percent slopes	NWI classifica	ation: None
Are climatic / hydrologic conditions on the site typical for t	this time of year? Yes	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	_naturally problematic?	(If needed, explain any answer	rs in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	<u> イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ イ</u>	Is the Sampled Area within a Wetland?	Yes	No	<u>v</u>
Remarks:							

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1) True Aquatic Plants (B14) High Water Table (A2) Hydrogen Sulfide Odor (C1)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)			
Saturation (A3) Oxidized Rhizospheres on Living I Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Recent Iron Reduction in Tilled Sc Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks)	Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) ils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)			
 Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) 			
Field Observations: Surface Water Present? Yes No _ Depth (inches): Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No∕			
Remarks: No wetland hydrology indicators present				

Sampling Point: wrac115_u

,	Absoluto	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Deminent Crossies
1				That Are OBL EACW or EAC: 0 (A)
2				
2		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4		·		Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 0 (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 x 1 =0
Sapling/Shrub Stratum (Plot size: 15	2070 0.			FACW species 0 x 2 = 0
				FAC species 0 x 3 = 0
1		·		$\frac{95}{95} \times 4 = \frac{380}{380}$
2		·		$\begin{array}{c} \text{FACO species} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
3		. <u> </u>		UPL species 35 $x = 380$
4				Column Totals: (A) (B)
5		. <u> </u>		Prevalence Index - B/A - 4
6		. <u> </u>		Hudrophytic Vogetation Indicators:
7				A Devid Test for the basis of the first for
8	-			1 - Rapid Test for Hydrophytic Vegetation
0		·		2 - Dominance Test is >50%
- 5	0	Total Cover		3 - Prevalence Index is ≤3.0 ¹
EOV of total covery	200/ of		0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% 0	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	25	N	FAOL	Problematic Hydrophytic Vegetation ¹ (Explain)
	35	Yes	FACU	
2. Solidago canadensis	30	Yes	FACU	¹ Indiantors of hydric coil and watland hydrology must
_{3.} Hieracium triste	25	Yes		be present, unless disturbed or problematic.
_{4.} Achillea millefolium	15	No	FACU	Definitions of Four Vogetation Strate:
5. Trifolium pratense	15	No	FACU	Deminitions 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
1		·		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 berbaceous (non-woody) plants, regardless
	120	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 60	20% of	total cover:	24	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
1				neight.
l				
2				
3		·		
4		·		Hydrophytic
5				Vegetation
	0	= Total Cover	r	Present? Yes No 🗸
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe to	o the depth i	needed to docun	nent the i	ndicator	or confirm	the absence of indicators.)
Depth	Matrix		Redo	x Features	3		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-8	10 YR 3/4	100					SL
	·						· · · · · · _ · _ ·
	·						· · · · · · _ · _ ·
	·						
		tion PM_Pc	duced Metrix M	-Mookod	Sond Cr	ino	² Lagotion: DL-Doro Lining M-Matrix
	Indicators:			s=iviaskeu	Sanu Gra	aii 15.	Indicators for Problematic Hydric Soils ³
Listoool	(44)		Dorle Curfood	(07)			
	(AI) Singdon (A2)	-		(37) Iow Surfa	00 (CO) (N		149) Coost Proirie Rodey (A16)
Flistic L	$ratio (\Lambda 2)$	-	Folyvalue Be	rface (SQ)		1211A 147,	(MI DA 147 149)
Black Th	an Sulfide (ΔA)	-		d Matrix (I	(MILINA I E2)	47, 140)	Piedmont Floodplain Soils (F10)
Nyulogo	d Lavers (A5)	-	Depleted Mat	riv (F3)	2)		(MI RA 136, 147)
2 cm Mi	uck (A10) (I RR N)		Redox Dark S	Surface (F	6)		Very Shallow Dark Surface (TE12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)
Thick Da	ark Surface (A12)	()	Redox Depre	ssions (F8	3)		
Sandy N	/lucky Mineral (S1) (L	RR N.	Iron-Mangan	ese Masse	-, es (F12) (I	LRR N.	
MLR/	A 147. 148)		MLRA 13	6)	···/ (···// (·	,	
Sandy G	Bleved Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetland hydrology must be present.
Stripped	Matrix (S6)		Red Parent N	Aaterial (F:	21) (MLR	、 A 127, 147	() unless disturbed or problematic.
Restrictive	Laver (if observed):			,	, (,	
Type: Ro	ock						
Depth (in	ches): <u>8</u>		_				Hydric Soil Present? Yes No
Remarks:							1

No hydric soil present



Photo 1 Upland data point WRAC115_u facing south



Photo 2 Upland data point WRAC115_u facing east

Project/Site: Atlantic Coast Pipeline	City/County: Randolph County Sampling Date: 5/17	/2016
Applicant/Owner: Dominion	State: <u>WV</u> Sampling Point: <u>WI</u>	rae212e_w
Investigator(s): CG, KO	Section, Township, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): ditch	al relief (concave, convex, none): <u>concave</u> Slope (9	%): <u>2</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>38.50653895</u>	Long: <u>-80.10506994</u> Datum: W	'GS 1984
Soil Map Unit Name: Buchanan and Ernest stony soils, 3 to 15 percer	slopes NWI classification: None	
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? 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 pr	blematic? (If needed, explain any answers in Remarks.)	
Landrom (ministope, tenace, etc.).	Long: -80.10506994 Datum: W slopes NWI classification: None ar? Yes No (If no, explain in Remarks.) disturbed? Are "Normal Circumstances" present? Yes blematic? (If needed, explain any answers in Remarks.)	^₀). <u>-</u> GS 1984 No✔

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					

secondary indicators:	ed)			
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6)	Surface Soil Cracks (B6)			
✓ Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8	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 <u>/</u> No Depth (inches): 0				
Saturation Present? Yes <u>v</u> No Depth (inches): 0 Wetland Hydrology Present? Yes <u>v</u> No				
(includes capillary fringe)				
Describe Necorded Data (stream gauge, monitoring weil, aenai photos, previous inspections), il available.				
Remarks:				

Sampling Point: wrae212e_w

,	Abcoluto	Dominant l	adicator	Dominanca Tast workshoot:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Demisert Operator
1				That Are OBL EACIAL or EAC: 1 (A)
		·		
2		·	<u> </u>	Total Number of Dominant
3				Species Across All Strata: 2 (B)
4.				
5				Percent of Dominant Species
<u> </u>				That Are OBL, FACW, or FAC: (A/B)
6		·	<u> </u>	Prevalence Index worksheet:
7		·		
	0	= Total Cove	r	
50% of total cover: 0	20% of	f total cover:	0	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15)				FACW species 50 x 2 = 100
1				FAC species $0 \times 3 = 0$
! <u></u>		·	<u> </u>	EACII species 25 x 4 - 100
2		·	<u> </u>	
3		<u></u>		UPL species $x = 200$
4.				Column Totals: (A) (B)
5				
<u>.</u>		- <u> </u>		Prevalence Index = $B/A = 2.66$
0		·		Hydrophytic Vegetation Indicators:
7		- <u> </u>		1 - Rapid Test for Hydrophytic Vegetation
8				2. Deminence Test is 2 50%
9.				2 - Dominance Test is >50%
<u> </u>	0	Total Cava		Yerror 3 - Prevalence Index is ≤3.0'
			0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% 0	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Scirpus cyperinus	40	Yes	FACW	
_{2.} Tussilago farfara	25	Yes	FACU	
 Packera aurea 	10	No	FACW	¹ Indicators of hydric soil and wetland hydrology must
3		·		be present, unless disturbed or problematic.
4		·		Definitions of Four Vegetation Strata:
5		. <u> </u>		
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
		· · · · · · · · · · · · · · · · · · ·	·	noight.
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
10		. <u> </u>		m) tall.
11.				Harb All borbassaus (non woody) planta, regardlass
	75	- Total Cove	r	of size, and woody plants less than 3.28 ft tall
50% of total cover: 37.5	20%	= Total Cover	15	
	20%0	total cover.		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 50)				height.
1		<u></u>		
2.				
3				
4	-	- <u> </u>		
4			<u> </u>	Hydrophytic
5		·	<u> </u>	Vegetation
	0	= Total Cove	r	Present? Yes <u>No</u>
50% of total cover: 0	20% of	f total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet)			
	1001.)			

Profile Desc	cription: (Describe to	o the dept	h needed to docum	nent the i	ndicator o	or confirm	the absence	e of indicators.)
Depth	Matrix		Redox	K Features	6			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-16	10YR 3/1	95	10YR 4/6	5	C	M	SICL	soils contain fill
17 0.0							2	
Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	=Masked	Sand Gra	ains.	Location: P	2 Pore Lining, M=Matrix.
Histosol Histic E; Black Hi Hydroge Stratified 2 cm Mu Depleted Thick Da	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12)	(A11)	 Dark Surface Polyvalue Bel Thin Dark Surface Loamy Gleye Depleted Mat ✔ Redox Dark S Depleted Dar Redox Depre 	(S7) low Surfac rface (S9) d Matrix (I rix (F3) Surface (F k Surface ssions (F8	ce (S8) (M (MLRA 1 ⁻ 2) 6) (F7) 3)	ILRA 147, 47, 148)	148) C	2 cm Muck (A10) (MLRA 147) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19) (MLRA 136, 147) /ery Shallow Dark Surface (TF12) Other (Explain in Remarks)
Sandy M	/lucky Mineral (S1) (Ll A 147, 148)	RR N,	Iron-Mangane MLRA 136	ese Masse 5)	es (F12) (I	_RR N,		
Sandy G	Gleyed Matrix (S4) Redox (S5)		Umbric Surface	ce (F13) (odplain So	MLRA 13 bils (F19)	6, 122) (MLRA 14	³ Inc 8) we	licators of hydrophytic vegetation and etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	') un	less disturbed or problematic.
Restrictive	Layer (if observed):			-				
Type: roo	ck							
Depth (in	ches): 16						Hydric Soil	l Present? Yes 🖌 No
Remarks:								



Photo 1 Wetland data point wrae212e_w facing north



Photo 2 Wetland data point wrae212e_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Rand	olph County	_ Sampling Date: 5/17/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae212_u
Investigator(s): CG, KO	Section, Township	, Range: No PLSS in this are	a
Landform (hillslope, terrace, etc.): toeslope	Local relief (concave,	convex, none): <u>convex</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N	Lat: <u>38.50649483</u>	Long: <u>-80.10507277</u>	Datum: WGS 1984
Soil Map Unit Name: Buchanan and Ernest stony s	oils, 3 to 15 percent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typica	al for this time of year? Yes N	No (If no, explain in I	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 answ	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 I	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 Sc	ils (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):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches):	Wetland Hydrology Present? Yes No
(Includes capillary fringe) Describe Recorded Data (stream gauge monitoring well aerial photos, previous inspect	ions) if available:
Remarks:	

Sampling Point: wrae212_u

	Abaaluta	- Dominant li	diaatar	Deminence Test werksheet:
Tree Stretum (Plot eizer 30)	Absolute	Dominant II	Officator	Dominance Test worksneet:
	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1. Acer rubrum	- 50	res	TAC	That Are OBL, FACW, or FAC:5 (A)
- Betula alleghaniensis	30	Yes	FAC	
2				Total Number of Dominant
3				Species Across All Strata: (B)
A				
4				Percent of Dominant Species
5				That Are OBL_FACW_or FAC-71.42857142 (A/B)
6				
0				Prevalence Index worksheet:
7				Trevalence much worksheet.
	80	- Total Covo		Total % Cover of: Multiply by:
40			16	OBL species $0 \times 1 - 0$
50% of total cover: 40	20% of	total cover:	10	
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =
Betula allegbaniensis	20	Voc	EAC	FAC species 130 $x_3 = 390$
	20	165	TAC	7 AC species X 3 =
2. Acer rubrum	10	Yes	FAC	FACU species 25 x 4 = 100
				11PL species 0 x 5 - 0
3				155 <u>100</u>
4				Column Totals: (A) (B)
5				Prevalence Index - B/A - 3.16
6				
⁰				Hydrophytic Vegetation Indicators:
7				1 Papid Tast for Hydrophytic Magatation
8				
0				2 - Dominance Test is >50%
9				$\frac{1}{2}$ Browslopps Index is <2.0 ¹
	30	- Total Cove		
15			6	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:	<u> </u>	data in Romarks or on a congrate sheet)
Herb Stratum (Plot size: 5)				uala in Remarks of on a separate sheet)
/ vconodium clavatum	20	Vaa	EAC	Problematic Hydrophytic Vegetation ¹ (Explain)
1		165	TAC	
2. Podophyllum peltatum	15	Yes	FACU	
- Tussilago farfara	10	Voc	EACU	¹ Indicators of hydric soil and wetland hydrology must
3	10	165	FACU	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
0				more in diameter at breast height (DBH), regardless of
7				height.
8				
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.
10:				,
11				Herb – All herbaceous (non-woody) plants, regardless
	45	- Total Covo		of size, and woody plants less than 3.28 ft tall
025			0	
50% of total cover: 22.5	20% of	total cover:	9	Weedy vine All weedy vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30)				woody vine – All woody vines greater than 3.26 it in
				neight.
1				
1 2.				
1 2				
1 2 3				
1 2 3 4				
1 2 3 4				Hydrophytic
1 2 3				Hydrophytic Vegetation
1 2 3 4 5				Hydrophytic Vegetation Present? Yes ✔ No
1 2 3 4 5	0	 = Total Cove		Hydrophytic Vegetation Present? Yes <u>V</u> No
1 2 3 4 5 50% of total cover:0	 	= Total Cover	0	Hydrophytic Vegetation Present? Yes <u>V</u> No
1		= Total Cover total cover:	0	Hydrophytic Vegetation Present? Yes <u>V</u> No
1	 	= Total Cover total cover:_	0	Hydrophytic Vegetation Present? Yes _ ✓ No
1	0 20% of heet.)	= Total Cover total cover:	0	Hydrophytic Vegetation Present? Yes <u>V</u> No
1		= Total Cover total cover:	0	Hydrophytic Vegetation Present? Yes _ ✔ No
1		= Total Cover total cover:	0	Hydrophytic Vegetation Present? Yes <u>V</u> No
1		= Total Cove total cover:_	0	Hydrophytic Vegetation Present? Yes <u>V</u> No
1	 20% of heet.)	= Total Cover total cover:	0	Hydrophytic Vegetation Present? Yes <u>V</u> No
1	0	= Total Cover total cover:_	0	Hydrophytic Vegetation Present? Yes No
1	0	= Total Cover total cover:_	0	Hydrophytic Vegetation Present? Yes <u>✓</u> No
1	0	= Total Cover total cover:_	0	Hydrophytic Vegetation Present? Yes <u>✓</u> No
1	 20% of heet.)	= Total Cover total cover:_	0	Hydrophytic Vegetation Present? Yes <u>V</u> No
1		= Total Cover total cover:	0	Hydrophytic Vegetation Present? Yes <u>V</u> No

Profile Desc	ription: (Describe to	o the dept	h needed to docun	nent the in	ndicator	or confirm	the absence of in	ndicato	rs.)
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-12	10YR 4/3	100					SIL		
		<u> </u>				·			
·		<u> </u>				·			
						. <u> </u>			
		·				<u> </u>			
		tion DM	Dadward Matrix M	Maakad	Cond Cr		² Leastion: DL D		an M. Matrix
	Indicators:		Reduced Matrix, Ma	S=IVIASKEU	Sanu Gra	anis.			oblematic Hydric Soils ³ .
	(14)		Darla Curfa an	(07)					
Histosol	(A1)		Dark Surface	(S7) Iour Surfaa			2 cm		(IVILKA 147)
	offic (A2)		Polyvalue Be	iow Sunac	(30) (IV	1LKA 147,	146) <u> </u>		Redux (ATO)
	SIIC (A3)			Matrix (F		47, 140)	(IVII Diada		1, 140) Indelain Caile (F10)
Hyuluge			Loanty Gleye	eu ivialitix (F	-2)				6 117)
			Depieted Ma	llix (F3) Surface (E6	2)				0 , 147
2 CIT MC	N Below Dark Surface	(A11)		k Surface) (E7)		Very . Other	(Evolai	n in Remarks)
Depleted	ark Surface (A12)	(,,,,)	Depleted Dal	r Sunace	(17)			(шлріаі	n in Keniaks)
Thick Da	Ark Sunace (A12) Aucky Mineral (S1) (LI				י) ה (F12) (I				
	147 148)	XIX IN,	MIRA 13	630 Ma330	3 (1 12) (1	,			
Sandy G	leved Matrix (S4)		Umbric Surfa	ce (F13) (N	MIRA 13	6, 122)	³ Indicato	ors of hy	drophytic vegetation and
Sandy B	(S5)		Piedmont Flo	odolain So	nils (F19)	(MI RA 14	8) wetland	d hydrol	logy must be present
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) (MI R	A 127, 147) unless	disturbe	ed or problematic
Restrictive	aver (if observed):						/		
Type: roo	-4 j ei (ii ebeel teu). :k								
Type									
Depth (in	ches): 12						Hydric Soil Pre	sent?	Yes No
Remarks:									



Photo 1 Upland data point wrae212_u facing south



Photo 2 Upland data point wrae212_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Ra	andolph County	Sampling Date: 5/17/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae213f_w
Investigator(s): CG, KO	Section, Towns	hip, Range: <u>No PLSS in this area</u>	а
Landform (hillslope, terrace, etc.): toeslope	Local relief (conca	ve, convex, none): <u>concave</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N Lat: 38	.5066206	Long: <u>-80.10471951</u>	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25	percent slopes	NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typical for th	nis time of year? Yes	_ No (If no, explain in F	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 answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) 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 F	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 Sol	ils (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 Breacht? Vec V No. Dopth (inches): 1	
Surface Water Present? res No Deptir (incres)	
Water Table Present? Yes V Depth (inclus): 0 0	
Surface water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect)	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect)	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Ves No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) No Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (includes capillary fringe) Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) Ves V No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) Ves V No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Sunace water Present? res No Depth (inches): 0 Water Table Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Water Table Present? Yes V No Depth (inches): 0 Saturation Present? Yes V No Depth (inches): 0 (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks:	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:

Sampling Point: wrae213f_w

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u>)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Acer rubrum	35	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
_{2.} Betula alleghaniensis	35	Yes	FAC	
3				I otal Number of Dominant Species Across All Strata: 6 (B)
۰				
				Percent of Dominant Species
o				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
	70	= Total Cover	•	Iotal % Cover or: Iviuitipiy by:
50% of total cover: 35	20% of	total cover:	14	OBL species 10 $x = 0$
Sapling/Shrub Stratum (Plot size:15)				FACW species $x^2 = 20$
_{1.} Betula alleghaniensis	10	Yes	FAC	FAC species x 3 =360
2 Acer pensylvanicum	5	Yes	FACU	FACU species20 x 4 =80
2				UPL species $0 \times 5 = 0$
3				$\begin{array}{c c} \hline column Totals \\ \hline 150 \\ \hline (A) \\ \hline 460 \\ \hline (B) \\ \hline \end{array}$
4				
5				Prevalence Index = $B/A = 3.06$
6				Hydrophytic Vegetation Indicators:
7				1 - Panid Test for Hydronbytic Vegetation
8.				
9				2 - Dominance Test is >50%
···	15			3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 7.5	20% of		3	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover	20% 01	lotal cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	40	Vee		Problematic Hydrophytic Vegetation ¹ (Explain)
	40	res	FAC	
2. Tussilago farfara	15	Yes	FACU	¹ Indiactors of hydric soil and watland hydrology must
3. Viola cucullata	5	No	FACW	be present unless disturbed or problematic
4. Veratrum viride	5	No	FACW	Definitions of Four Vegetation Strate
5				Deminions of Four vegetation Strata.
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
o				more in diameter at breast height (DBH), regardless of
7				height.
8				Sanling/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.				
	65	- Total Cove		of size, and woody plants less than 3.28 ft tall
50% of total cover: 32.5	20% of	total cover:	13	
Weedy Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Ludroph tio
5.				Vegetation
	0			Present? Yes <u>V</u> No
50% of total cover: 0	20% of	total cover:	0	
	20 % 01			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the dep	oth needed to docum	nent the	indicator	or confirm	the absence	of indicators.)		
Depth	Matrix		Redo	x Feature	S					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-2	10YR 2/1	100					SIL			
2-8	10YR 4/1	90	10YR 4/6	10	С	М	SICL			
8-16	10YR 5/1	80	10YR 4/6	20	С	PL/M	SICL			
					·					
					·	·				
1							2			
Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	Location: PL	_=Pore Lining, M=Matrix.		
Histosol	(A1)		Dark Surface	(S7)	000 (SR) (N		149) Co	cm Muck (A10) (MLRA 147)		
Black Hi	$\Delta \Delta $		Thin Dark Su	rface (SQ) (MI DA 1	17 148)	140) 00	(MI PA 147 148)		
<u> </u>	n Sulfide (A4)		Loamy Gleve	d Matrix	(F2)	47, 140)	Pi	edmont Floodplain Soils (F19)		
Stratifie	d Lavers (A5)		✓ Depleted Ma	trix (F3)	(1 2)			(MI RA 136, 147)		
2 cm Mi	uck (A10) (I RR N)		Redox Dark S	Surface (F	-6)		Ve	ary Shallow Dark Surface (TE12)		
✓ Depleter	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Ot	ther (Explain in Remarks)		
Thick Da	ark Surface (A12)	(,)	Redox Depre	ssions (F	(1.1 <i>)</i> (8)					
Sandy M	/ucky Mineral (S1) (L	RR N.	Iron-Mangan	ese Mass	es (F12) (LRR N.				
MLR	A 147, 148)	,	MLRA 13	6)		,				
Sandy G	Bleved Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	³ India	cators of hydrophytic vegetation and		
Sandy F	Redox (S5)		Piedmont Flo	odplain S	、 Soils (F19)	(MLRA 14	8) wetland hydrology must be present.			
Stripped	Matrix (S6)		Red Parent N	Aaterial (F		A 127, 147	, () unle	ess disturbed or problematic.		
Restrictive	Layer (if observed):				, (
Type:	,									
Depth (in	ches):						Hydric Soil	Present? Yes 🖌 No		
Remarks:							1 -			



Photo 1 Wetland data point wrae213f_w facing south



Photo 2 Wetland data point wrae213f_w facing east
Project/Site: Atlantic Coast Pipeline	City/County: Randolph Coun	ty Sa	mpling Date: 5/17/2016
Applicant/Owner: Dominion		State: WV S	Sampling Point: <u>wrae213_u</u>
Investigator(s): CG, KO	Section, Township, Range: N	o PLSS in this area	
Landform (hillslope, terrace, etc.): spoil pile	ocal relief (concave, convex, no	one): <u>convex</u>	Slope (%): <u>10</u>
Subregion (LRR or MLRA): N Lat: 38.50669134	Long: <u>-80</u>	.10475132	Datum: WGS 1984
Soil Map Unit Name: Leetonia rubbly loamy sand, 3 to 25 percent slo	pes	NWI classificatio	n: None
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes 🖌 No	(If no, explain in Rema	arks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Norma	al Circumstances" prese	ent? Yes No 🔽
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed,	explain any answers in	Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No	v
Remarks:						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 (C	3) 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):	
Water Table Present? Yes No <u></u>	
Saturation Present? Yes <u>No</u> Depth (inches): Wetlan	d Hydrology Present? Yes No
(Includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	available:
Remarks:	

Sampling Point: wrae213_u

	Absolute	Dominant In	dicator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Descinent Operator
Betula alleghaniensis	60	Yes	FAC	Number of Dominant Species
Equip grandifalia	5	No	FACU	
2. <u>1 agus grandnona</u>				Total Number of Dominant
3				Species Across All Strata: <u>3</u> (B)
4.				
				Percent of Dominant Species
D				That Are OBL, FACW, or FAC: (A/B)
6				Developer to develop to the set
7				Prevalence index worksneet:
	65	- Total Cover		Total % Cover of: Multiply by:
50% of total covor: 32.5		total covor:	13	OBL species $0 x 1 = 0$
50% of total cover	20% 01	total cover.		$EACW$ spacing 0 $x^2 = 0$
Sapling/Shrub Stratum (Plot size: 10)				12000000000000000000000000000000000000
1				FAC species $32 \times 3 = 100$
2				FACU species 20 x 4 = 80
				UPL species $40 \times 5 = 200$
3				$\frac{120}{120}$ (A) $\frac{160}{120}$ (D)
4				Column lotais: (A) (B)
5.				Developer later D/A 383
6				Prevalence index = $B/A = $ 3.03
~				Hydrophytic Vegetation Indicators:
/				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Tost is >50%
9.	_		-	
0	0	Tatal Cause		3 - Prevalence Index is ≤3.0'
		= Total Cover	0	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:	•	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Erythronium rostratum	20	Yes	UPL	Problematic Hydrophytic Vegetation" (Explain)
2 Fagus grandifolia	15	Yes	FACU	
	10	<u></u>		¹ Indicators of hydric soil and wetland hydrology must
3. Eurypia macrophylia	10	NO	UPL	be present, unless disturbed or problematic.
4. Dryopteris campyloptera	10	No	UPL	Definitions of Four Vegetation Strata
5 Maianthemum dilatatum	5	No		Demitions of Four Vegetation Strata.
0				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		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
9 10		·		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9 10 11		·		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9 10 11	60	– Total Cover		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9 10 11 50% of total cover: 30		= Total Cover	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9	60 20% of	= Total Cover total cover:	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
9		= Total Cover total cover:	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9	60 20% of	= Total Cover total cover:	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9	60 20% of	= Total Cover total cover:	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9	60 20% of	= Total Cover total cover:	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9	60 20% of	= Total Cover total cover:	12	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9	60 20% of	= Total Cover total cover:	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9	60 20% of	= Total Cover total cover:	12	 than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation
9	 20% of 	= Total Cover:	12	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	60 20% of 	= Total Cover total cover:	12	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover:	12	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover total cover:	12	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover total cover:	12	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover total cover:	0	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover total cover:	0	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover total cover:	0	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover total cover:	0	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	 20% of 	= Total Cover total cover:	0	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>
9	 20% of 	= Total Cover total cover:	0	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>
9	 20% of 	= Total Cover:	0	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9.	 20% of 	= Total Cover:	0	<pre>than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No</pre>

Profile Desc	ription: (Describe to	o the depth	needed to docun	nent the ir	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix		Redo	x Features	5				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-16	10YR 5/6	100					SICL		
1 Type: C=C	oncentration D-Denle	tion RM-R	Reduced Matrix MS	S-Masked	Sand Gra	ains	² Location: PL	-Pore Lining M-Matrix	
Hydric Soil	Indicators:					anio.	Indica	tors for Problematic Hvdr	ic Soils ³ :
Histosol	(Δ1)		Dark Surface	(\$7)			2	cm Muck (A10) (MI RA 147)
Histic Er	(Λ)		Polyvalue Be	(07) Iow Surfac	(S8) (N	II RA 147	148) <u> </u>	oast Prairie Redox (A16))
Black Hi	stic (Δ 3)		Thin Dark Su	rface (SQ)	(MI RA 1	47 148)	140) <u> </u>	(MI RA 147 148)	
<u> </u>	en Sulfide (A4)		Loamy Gleve	d Matrix (F	=2)	<i>H</i> , HO	Pi	edmont Floodplain Soils (F	19)
Stratified	1 avers (A5)		Depleted Mat	trix (E3)	2)		· ·	(MI RA 136, 147)	13)
2 cm Mu	ick (A10) (I RR N)		Redox Dark S	Surface (Fi	6)		Ve	erv Shallow Dark Surface (T	F12)
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		O	ther (Explain in Remarks)	,
Thick Da	ark Surface (A12)	()	Redox Depre	ssions (F8	3)				
Sandv M	luckv Mineral (S1) (LI	RR N.	Iron-Mangan	ese Masse	, s (F12) (LRR N.			
MLRA	A 147, 148)		MLRA 13	6)		,			
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	, ce (F13) (I	MLRA 13	6, 122)	³ Indi	cators of hydrophytic vegeta	ation and
Sandy R	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wet	tland hydrology must be pre	sent,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR	A 127, 147) unl	ess disturbed or problemation	C.
Restrictive I	Layer (if observed):				, ,		-		
Type:	,								
Depth (in	chas).						Hydric Soil	Present? Ves	No 🖌
							Tryunc Soli		
Remarks:									



Photo 1 Upland data point wrae213_u facing south



Photo 2 Upland data point wrae213_u facing north

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	Sampling Date: 5/17/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae211e_w
Investigator(s): CG, KO	Section, Tow	vnship, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): ridge	Local relief (con	icave, convex, none): <u>concave</u>	Slope (%): <u>0</u>
Subregion (LRR or MLRA): N Lat: 38.5029546	61	Long: <u>-80.10211763</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone, high base		NWI classifica	ation: None
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significan	ntly disturbed?	Are "Normal Circumstances" p	resent? Yes No
Are Vegetation, Soil, or Hydrology naturally	problematic?	(If needed, explain any answer	rs in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>v</u> No Yes <u>v</u> No Yes <u>v</u> No	0 0	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

Wetland Hydrology Indicate	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is require	ed; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) 		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 So	pils (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 Aer	ial Imagery (B7))	Shallow Aquitard (D3)
Water-Stained Leaves (E	9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes 🖌 N	lo Depth (inches):3	
Water Table Present?	Yes 🖌 N	lo Depth (inches):0	
Saturation Present?	Yes 🖌 N	lo Depth (inches):0	Wetland Hydrology Present? Yes <u>✓</u> No
(Includes capillary fringe)	am dauge mor	nitoring well aerial photos, previous inspec	tions) if available:
	an gaage, no	intering weil, denai prietes, previous inspec	
Remarks:			

Sampling Point: wrae211e_w

•	, 	Absolute	Dominant li	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size:	_30)	% Cover	Species?	Status	Number of Dominant Species	
1					That Are OBL, FACW, or FAC: 2 (A))
2			<u></u>		Total Number of Dominant	
3					Species Across All Strata: 3 (B))
4.					()	,
5.					Percent of Dominant Species	/D)
6				·		/D)
7					Prevalence Index worksheet:	
<i>T</i>		0	Total Cava		Total % Cover of:Multiply by:	
	50% of total cover: 0	20% of	total cover:	0	OBL species $0 x 1 = 0$	
Sonling/Shrub Stratum (Diataiz	15	20 /0 01	total cover.		FACW species 50 x 2 = 100	
Sapirig/Siriub Straturn (Flot siz	e)				EAC species $0 \times 3 = 0$	
1			·		$\frac{1}{1} = \frac{1}{1} = \frac{1}$	
2			·			
3			·	·	0 PL species $x 5 = 100 //$	ο,
4					Column Totals: (A) (E	В)
5			. <u></u>		Prevalence Index $= B/A = 2$	
6			. <u> </u>		Hydrophytic Vogetation Indicators:	
7					1 Donid Toot for Lludronby tic Manatation	
8.					1 - Rapid Test for Hydrophytic Vegetation	
9					2 - Dominance Test is >50%	
0		0	- Total Cove	r	3 - Prevalence Index is ≤3.0	
	50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations ¹ (Provide support	ing
Herb Stratum (Plot size:	5)				data in Remarks or on a separate sheet)	
A Poa svlvestris)	30	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)	
		20	Ves	171011		
		20	 	EACW/	¹ Indicators of hydric soil and wetland hydrology must	t
3. Scripus cyperinus		20	165	TACW	be present, unless disturbed or problematic.	
4				. <u> </u>	Definitions of Four Vegetation Strata:	
5			·		Tree Mondy plants evaluating vince 2 in (7.6 cm)	~
6			. <u> </u>		more in diameter at breast height (DBH), regardless	of
7			. <u> </u>		height.	0.
8			<u></u>		Carling/Chrysh Weathurlanta avaluding visual la	
9.					than 3 in DBH and greater than or equal to 3 28 ft (1	յՏ 1
10.					m) tall.	
11						
		50	- Total Covo	r	Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3 28 ft tall	SS
	50% of total cover: 35	20% of	total cover:	14		
Woody Vino Stratum (Plot cizo:	30 \	2070 01	total 00ver		Woody vine - All woody vines greater than 3.28 ft in	n
woody vine Stratum (Fibt size.	,				height.	
1			·			
2			·			
3			·			
4			·		Hydrophytic	
5			. <u></u>		Vegetation	
		0	= Total Cove	r	Present? Yes Vo No	
	50% of total cover: 0	20% of	total cover:	0		
Remarks: (Include photo number	ers here or on a separate s	heet.)				

Deprint (inches) Color (moist) % (mothes) Color (moist) % (mothes) Type ¹ Loc ² Texture Remarks 0-16 10YR 4/1 90 10YR 4/6 10 Type ¹ Loc ² Texture Remarks	Dehin	Denth Matrix Reday Features							
O-16 10YR 4/1 90 10YR 4/6 10 C M SC Gravel at 20%	(inches)	Color (moist)	%	Color (moist)	<u>x realules</u> %	Tvpe ¹	Loc ²	Texture	Remarks
Image: Solution of the system of the syst	0-16	10YR 4/1	90	10YR 4/6	10	C	M	SC	Gravel at 20%
**Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils*: Histic Epipedon (A2) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Suffide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, wetland hydrology must be present, Stripped Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 142, 147) unless disturbed or problematic. Remarks: Type: Hydric Soil Present? Yes No No									
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. "Hydric Soil Indicators: Indicators for Problematic Hydric Soils": Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147, 148) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Histic K (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrigen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 147, 148) Depleted Dark Surface (F6) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Indicators of hydrophytic vegetation and 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. Remarks: Type:									
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) _2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: Hiror Soil Present? Yes No Type:						<u> </u>			
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (S1) Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F13) (MLRA 148) a ³ Indicators of hydrophytic vegetation and Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) unless disturbed or problematic. Restrictive Layer (if observed): Type: medicators (from Served): Type: Type:									
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Sandy Gleyed Matrix (S6) Piedmont Floodplain Soils (F19) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:						<u> </u>			
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. **Location: *Location: Pelvere Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :	1							2	
Hydric Soil indicators:	Type: C=Co	oncentration, D=Depl	etion, RM:	=Reduced Matrix, MS	S=Masked S	Sand Gra	uns.	Location: I	PL=Pore Lining, M=Matrix.
Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histosol (A1) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) ✓ Depleted Matrix (F3) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (S1) Redox Depressions (F8)		nuicators:			(- -)			inaid	cators for Problematic Hydric Solis :
	Histosol	(A1)		Dark Surface	(S7)	(a -) (a -			2 cm Muck (A10) (MLRA 147)
	Histic Ep	oipedon (A2)		Polyvalue Be	low Surface	e (S8) (M	LRA 147,	148)	Coast Prairie Redox (A16)
	Black Hi	stic (A3)		Thin Dark Su	rface (S9) (I	MLRA 1	47, 148)		(MLRA 147, 148)
Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Other (Explain in Remarks) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and 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. Type:	Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (F2	2)			Piedmont Floodplain Soils (F19)
2 cm Muck (A10) (LRR N)	Stratified	Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Depleted Dark Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Depleted Dark Surface (F13) (MLRA 136, 122) 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: Type: Depth (inches): Remarks:	2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F6))			Very Shallow Dark Surface (TF12)
	Depleted	Below Dark Surface	(A11)	Depleted Date	k Surface (F	F7)			Other (Explain in Remarks)
	Thick Da	ark Surface (A12)		Redox Depre	essions (F8)				
MLRA 147, 148) MLRA 136)	Sandy N	lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masses	(F12) (L	.RR N,		
	MLRA	A 147, 148)		MLRA 13	6)			3	
	Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (M	LRA 13	6, 122)	°In	dicators of hydrophytic vegetation and
	Sandy R	edox (S5)		Piedmont Flo	odplain Soil	ls (F19)	(MLRA 14	8) w	vetland hydrology must be present,
Restrictive Layer (if observed): Type: Depth (inches): Remarks:	<u> </u>	Matrix (S6)		Red Parent N	Aaterial (F21	1) (MLR/	A 127, 147	') u	inless disturbed or problematic.
Type:	Restrictive l	.ayer (if observed):							
Depth (inches): Hydric Soil Present? Yes V Remarks: No No	Туре:								
Remarks:	Depth (ind	ches):						Hydric So	il Present? Yes 🖌 No
	Remarks:								



Photo 1 Wetland data point wrae211e_w facing north



Photo 2 Wetland data point wrae211e_w facing south

Project/Site: Atlantic Coast Pipeline	City/County:	Randolph County	_ Sampling Date: 5/17/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae211_u
Investigator(s): CG, KO	Section, Tow	nship, Range: No PLSS in this are	а
Landform (hillslope, terrace, etc.): ridge	Local relief (con	cave, convex, none): <u>convex</u>	Slope (%): <u>7</u>
Subregion (LRR or MLRA): N Lat: 38.50	298542	Long: <u>-80.10197341</u>	Datum: WGS 1984
Soil Map Unit Name: Udorthents, mudstone, high base		NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for this t	ime of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology nat	turally problematic?	(If needed, explain any answe	ers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					

wetiand frydrology indicators.	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Primary indicators (minimum of one is required; check all that apply)	 Surface Soll Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Ver Depth (inches):	
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Depth (inches): Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: No hydrology No hydrology No hydrology	Wetland Hydrology Present? Yes No stions), if available:

Sampling Point: wrae211_u

	Absolute	-		Deminence Test worksheet
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant II	Status	Dominance Test Worksneet:
	70 COVEI		Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2		<u> </u>		Total Number of Dominant
3				Species Across All Strata:5 (B)
4.				<u> </u>
		•		Percent of Dominant Species
		·		That Are OBL, FACW, or FAC: (A/B)
6			<u> </u>	Provalence Index worksheet
7		<u> </u>		
	0	= Total Cove	r	
50% of total cover: 0	20% of	i total cover:	0	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =
 Robinia pseudoacacia 	10	Yes	FACU	FAC species 15 x 3 = 45
Acer ruhrum	5	Ves	FAC	FACU species $90 \times 4 = 360$
2			17.0	
3		<u> </u>		UPL species x b =
4		<u> </u>		Column Totals: (A) (B)
5.	_		_	
<u> </u>		·		Prevalence Index = $B/A = \frac{3.03}{2}$
0		·		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		<u> </u>		2 - Dominance Test is 50%
9.				
	15	- Total Cove	r	3 - Prevalence Index is ≤3.0
50% of total cover: 7.5	20% of	f total cover:	3	4 - Morphological Adaptations ¹ (Provide supporting
50 % OF LOVER.	20 /0 01	lotal cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)	00			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Poa pratensis	20	Yes	FACU	
2. Fragaria virginiana	20	Yes	FACU	
3 Solidago canadensis	20	Yes	FACU	¹ Indicators of hydric soil and wetland hydrology must
Cerastium brachvpodum	10	No	FACU	be present, unless disturbed or problematic.
4. Usenedium elevetum	10			Definitions of Four Vegetation Strata:
5. Lycopodium ciavalum	10	NO	FAC	The March state curlinding visco 2 in (7.6 cm) or
6. Dendrolycopodium obscurum	10	No	FACU	Iree – Woody plants, excluding vines, 5 in. (7.0 cm) or more in diameter at breast height (DBH) regardless of
7.				height.
Ω				
0		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 tt (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	90	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45	20% of	f total cover:	18	
Woody Vine Stratum (Blat aize: 30				Woody vine – All woody vines greater than 3.28 ft in
				height.
1		<u> </u>		
2				
3.				
4				
		·		Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes No
50% of total cover:0	20% of	total cover:_	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	ription: (Describe t	o the dept	h needed to docur	nent the i	ndicator	or confirm	the absence of	f indicators.)	
Depth	Matrix	<u> </u>	Redo	x Features	8				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-12	10YR 3/2	100					SCL		
		·							
¹ Type: C=Co	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL=	Pore Lining, M=M	atrix.
Hydric Soil	Indicators:						Indicato	ors for Problemat	ic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cr	m Muck (A10) (ML	RA 147)
Histic Ep	bipedon (A2)		Polyvalue Be	low Surfac	ce (S8) (N	ILRA 147,	148) Coa	ast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	· (I	MLRA 147, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (I	F2)		Piec	dmont Floodplain	Soils (F19)
Stratified	Layers (A5)		Depleted Ma	trix (F3)			(MLRA 136, 147)	
2 cm Mu	ick (A10) (LRR N)		Redox Dark	Surface (F	6)		Ver	y Shallow Dark Su	Irface (TF12)
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Oth	er (Explain in Rem	narks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)				
Sandy M	lucky Mineral (S1) (L l	RR N,	Iron-Mangan	ese Masse	es (F12) (LRR N,			
MLRA	A 147, 148)		MLRA 13	6)					
Sandy G	eleyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indica	ators of hydrophyti	c vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetla	and hydrology mus	t be present,
Stripped	Matrix (S6)		Red Parent M	Aaterial (F2	21) (MLR	A 127, 147	') unles	ss disturbed or pro	blematic.
Restrictive I	_ayer (if observed):								
Type: roc	k								
Depth (ind	ches): <u>12</u>						Hydric Soil P	resent? Yes	No
Remarks:									



Photo 1 Upland data point wrae211_u facing north



Photo 2 Upland data point wrae211_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: F	Randolph County	Sampling Date: 5/16/2016	
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae210e_w	
Investigator(s): CG, KO	Section, Town	ship, Range: No PLSS in this are	a	
Landform (hillslope, terrace, etc.): Ridge	Local relief (conca	ave, convex, none): <u>convex</u>	Slope (%): <u>1</u>	
Subregion (LRR or MLRA): N Lat: 38.5	50084446	Long: <u>-80.09513996</u>	Datum: WGS 1984	
Soil Map Unit Name: Dekalb channery loam, moist, 15 to 25	5 percent slopes	NWI classifi	cation: None	
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes	No (If no, explain in I	Remarks.)	
Are Vegetation, Soil, or Hydrology 🗾 s	ignificantly disturbed?	Are "Normal Circumstances"	present? Yes No _	
Are Vegetation, Soil, or Hydrology n	aturally problematic?	(If needed, explain any answ	ers in Remarks.)	
SUMMARY OF FINDINGS Attach site man	showing sampling	noint locations transact	s important foaturos ato	

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Compacted soil affects hydrology and pe	erches water tal	ble.			

Wetland Hydrology Indicate	ors:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; check all that apply)	Surface Soil Cracks (B6)
 Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aer Water-Stained Leaves (B Aquatic Fauna (B12) 	 True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled State Thin Muck Surface (C7) Other (Explain in Remarks) 	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) oils (C6) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)
Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No Vestic Depth (inches): 0 Yes Ves No Depth (inches): 0 Yes Ves No Depth (inches): 0 eam gauge, monitoring well, aerial photos, previous inspector	Wetland Hydrology Present? Yes <u>Y</u> No ctions), if available:
Remarks: Perched water table due to cla	ay compaction	

Sampling Point: wrae210e_w

. ,		Abaaluta	- Dominant li	diaatar	Dominance Test workshoot	
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance Test worksneet:	
)	/0 00101	000000.	otatao	Number of Dominant Species	• •
1						A)
2					Total Number of Dominant	
3					Species Across All Strata: 1 (E	B)
4						,
··					Percent of Dominant Species	
5					That Are OBL, FACW, or FAC: (A	A/B)
6					Decoder as he decover whether of	
7					Prevalence Index worksheet:	
		0	- Total Cove		Total % Cover of: Multiply by:	
50	0% of total covor: 0	20% of	total covor:	0	OBL species 70 x 1 = 70	
50	15	20% 01	total cover.		10 x 2 - 20	
Sapling/Shrub Stratum (Plot size:)				20 <u>60</u>	
1					FAC species 23 $x 3 = 30$	
2.					FACU species $5 x 4 = 20$	
2					UPL species $0 \times 5 = 0$	
J					Column Totolo: 105 (A) 170	(D)
4						(D)
5					Provolonoo Index - P/A - 1.61	
6						
7					Hydrophytic Vegetation Indicators:	
/					1 - Rapid Test for Hydrophytic Vegetation	
8					✓ 2 - Dominance Test is >50%	
9.						
		0	- Total Cava		Yerevalence Index is ≤3.0	
50	0			0	4 - Morphological Adaptations ¹ (Provide support	rting
50	0% of total cover:	20% of	total cover:	-	data in Remarks or on a separate sheet)	
Herb Stratum (Plot size:)				Broblemetic Hydrophytic Megeteticn ¹ (Evaluin)	
1. Glyceria striata		70	Yes	OBL		
2 Viola sagittata		10	No	FAC		
2. Thalictrum pubescens		10	No	FACW	¹ Indicators of hydric soil and wetland hydrology mus	st
		10			be present, unless disturbed or problematic.	
4. Eupatorium serotinum		10	NO	FAC	Definitions of Four Vegetation Strata:	
5. Urtica dioica		5	No	FACU		
6					Tree – Woody plants, excluding vines, 3 in. (7.6 cm	n) or
-					more in diameter at breast height (DBH), regardless	s of
/					neight.	
8					Sanling/Shrub Woody plants evoluting vines lo	000
9.					than 3 in DBH and greater than or equal to 3 28 ft	/1
10					m) tall.	(.
					,	
11		105			Herb - All herbaceous (non-woody) plants, regardle	ess
		105	= Total Cove		of size, and woody plants less than 3.28 ft tall.	
50	0% of total cover: 52.5	20% of	total cover:	21		
Woody Vine Stratum (Plot size:	30				Woody vine – All woody vines greater than 3.28 ft	in
	/				neight.	
1						
2						
3.						
1						
-					Hydrophytic	
5					Vegetation	
		0	= Total Cove	•	Present? Yes <u>No</u>	
50	0% of total cover: 0	20% of	total cover:	0		
Remarks: (Include photo numbers	here or on a senarate s	hoot)				
Remarks. (meldde photo numbers		noot.)				
1						

Profile Desc	cription: (Describe te	o the dep	oth needed to docur	nent the i	indicator	or confirm	n the absence of	indicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-4	10YR 3/1	95	10YR 3/4	5	С	М	L		
4-16	10YR 5/1	90	10YR 5/8	10	С	М	SIC		
	·		·				<u> </u>		
·									
	·								
·						·			
17 0.0							21 / 51 5		
Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	Location: PL=F	ore Lining, M=Matrix.	Soile ³
Histosol	(Δ1)		Dark Surface	(\$7)			2 cm	Muck (A10) (MI RA 147)	00113 .
Histic Er	oipedon (A2)		Polvvalue Be	low Surfa	ce (S8) (N	ILRA 147.	148) Coas	st Prairie Redox (A16)	
Black Hi	istic (A3)		Thin Dark Su	rface (S9) (MLRA 1	47, 148)	(M	ILRA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix ((F2)		Pied	mont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Ma	trix (F3)			(M	ILRA 136, 147)	
2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Very	Shallow Dark Surface (TF	12)
Depleted	d Below Dark Surface	(A11)	Depleted Dai	k Surface	e (F7)		Othe	r (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	SSIONS (F	8) aa (F12) (
	A 147 148)	KK N,	MIRA 13	ese mass	es (F12) (LKK N,			
Sandy G	Gleved Matrix (S4)		Umbric Surfa	ce (F13) ((MLRA 13	6, 122)	³ Indicat	ors of hydrophytic vegetati	on and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	l8) wetlar	nd hydrology must be prese	ent.
Stripped	Matrix (S6)		Red Parent M	/laterial (F	21) (MLR	A 127, 147	7) unless	disturbed or problematic.	,
Restrictive	Layer (if observed):								
Type:									
Depth (in	ches):						Hydric Soil Pre	esent? Yes 🖌 No	o
Remarks:									



Photo 1 Wetland data point wrae210e_w facing east



Photo 2 Wetland data point wrae210e_w facing north

Project/Site: Atlantic Coast Pipeline	City/County: Ran	dolph County	Sampling Date: 5/16/2016
Applicant/Owner: Dominion		State: WV	_ Sampling Point: wrae210_u
Investigator(s): CG, KO	Section, Townshi	p, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): ridge	Local relief (concave	e, convex, none): <u>convex</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): <u>N</u> Lat: <u>3</u>	8.50075907	Long: <u>-80.09517526</u>	Datum: WGS 1984
Soil Map Unit Name: Dekalb channery loam, moist, 15 to	25 percent slopes	NWI classifica	ation: None
Are climatic / hydrologic conditions on the site typical for t	this time of year? Yes	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology	_significantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	_ naturally problematic?	(If needed, explain any answer	s in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	<u> イ イ イ イ </u>	Is the Sampled Area within a Wetland?	Yes	No	v
Remarks:							

Wetland Hydrology Indicators:		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)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres on Living F	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 So	ils (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):	
Water Table Present? Yes No	Depth (inches):	
Saturation Present? Yes No	Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, moni	toring well, aerial photos, previous inspect	ions), if available:
Remarks:		

Sampling Point: wrae210_u

, , ,	A h = = h = t =	• Descioned in	Protein	Deminence Test worksheet
Trop Stratum (Blot aize: 30)		Dominant In	dicator	Dominance Test worksneet:
	25	<u>Species</u>	FACU	Number of Dominant Species
1. Acer saccharum		165		That Are OBL, FACW, or FAC: (A)
2. Acer pensylvanicum	25	Yes	FACU	Total Number of Deminent
3 Fagus grandifolia	20	Yes	FACU	Species Across All Strata: 7 (B)
A Picea rubens	10	No	FACU	
	10	No	FACIL	Percent of Dominant Species
5. Prunus serotina			1700	That Are OBL, FACW, or FAC: 14.28571428 (A/B)
6.				
7				Prevalence Index worksheet:
T	90			Total % Cover of: Multiply by:
45		= Total Cover	10	$\frac{1}{(1-1)^2} \frac{1}{(1-1)^2} \frac{1}{(1-1)^2}$
50% of total cover: 45	20% of	total cover:	10	
Sapling/Shrub Stratum (Plot size: 15)				FACW species $x 2 = 0$
1 Fagus grandifolia	40	Yes	FACU	FAC species 10 x 3 = 30
Acer nensylvanicum	20	Ves	FACU	FACU species 155 x 4 - 620
2. Acer pensylvanicum	20	165	TACU	15 - 75
3				UPL species $100 \times 5 = 70$
4				Column Totals: (A) (B)
o				Prevalence Index = $B/A = 4.02$
6				Hydronhytic Vegetation Indicators:
7.				
0				1 - Rapid Test for Hydrophytic Vegetation
o				2 - Dominance Test is >50%
9				3 - Prevalence Index is $\leq 3.0^{1}$
	60	= Total Cover		A March alagical Adaptational (Dravida averageting)
50% of total cover: 30	20% of	total cover:	12	4 - Morphological Adaptations" (Provide supporting
Herb Stratum (Distaize: 5)				data in Remarks or on a separate sheet)
Drientoria compulantora	15	Ma a		Problematic Hydrophytic Vegetation ¹ (Explain)
	10	Yes	UPL	
_{2.} Carex blanda	10	Yes	FAC	
Acer saccharum	5	No	FACU	'Indicators of hydric soil and wetland hydrology must
				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				neight.
8				Septing/Shrub Weedy planta evoluting vince loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall
10				
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	20% of	total cover:	6	
Weedy Vine Stratum (Blot 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 V
50% of total covor: 0	20% of	total covor:	0	
	20 % 01			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe te	o the depth	n needed to docur	nent the ir	ndicator of	or confirm	the absence	of indicato	rs.)		
Depth	Matrix		Redo	x Features	5						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks		
0-5	7.5YR 3/2	100					SIC				
5-12	7.5YR 5/6	100					SIC				
				·							
	·										
. <u></u>											
¹ Type: C=C	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: P	L=Pore Linir	ng, M=Matrix.		
Hydric Soil	Indicators:						Indic	ators for Pr	oblematic Hy	dric Soils [°] :	
Histosol	(A1)		Dark Surface	(S7)			2	cm Muck (A	(MLRA 1	47)	
Histic Ep	pipedon (A2)		Polyvalue Be	low Surfac	ce (S8) (M	ILRA 147,	148) (Coast Prairie	Redox (A16)		
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)		(MLRA 14	7, 148)		
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F	=2)		F	Piedmont Flo	odplain Soils	(F19)	
Stratified	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 13	6, 147)	·	
2 cm Mu	ick (A10) (LRR N)		Redox Dark	Surface (F	6)		Very Shallow Dark Surface (TF12)				
Deplete	d Below Dark Surface	(A11)	Depleted Dai	k Surface	(⊢7)		Other (Explain in Remarks)				
	ark Surface (A12)		Redox Depre	ssions (Fe	3) 						
	1ucky Mineral (51) (Li	KK N,	Iron-Iviangan		es (F12) (I	LKK N,					
	A 147, 140)		WILKA 13	0) 00 (E12) (I	MI DA 12	6 100)	³ lpc	liantara of h	drophyticyca	otation and	
Sandy E			Uniblic Suita			0, 122) /MI D A 14	9)	atland bydrol	arophytic veg		
Sanuy P	Matrix (S6)		Pleumont Pic	Astorial (E	21) (MI P	(IVIERA 14) A 127 1/7	3) we	less disturb	ad or problem	atic	
Supped	aver (if observed):					A 127, 147) ui			allo.	
Turnet 100	ck										
Type											
Depth (in	cnes): <u>'-</u>						Hydric Sol	Present?	res	NO	
Remarks:											



Photo 1 Upland data point wrae210_u facing east



Photo 2 Upland data point wrae210_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Randolph (County	Sampling Date: 6/8/2016
Applicant/Owner: Dominion		State: WV	_ Sampling Point: wrae242e_w
Investigator(s): CG, KO	Section, Township, Ran	ige: No PLSS in this area	
Landform (hillslope, terrace, etc.): slope	Local relief (concave, conv	ex, none): <u>none</u>	Slope (%): <u>10</u>
Subregion (LRR or MLRA): N Lat: 38.4977	76927 Long	j: <u>-80.09226145</u>	Datum: WGS 1984
Soil Map Unit Name: Calvin stony silt loam, high base substrate	um, 35 to 70 percent slopes	NWI classifica	ation: PEM
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes 🖌 No 🔄	(If no, explain in Re	emarks.)
Are Vegetation, Soil 🖌 or Hydrology 🖌 signi	ficantly disturbed? Are "N	Normal Circumstances" pr	resent? Yes No _
Are Vegetation, Soil, or Hydrology natu	rally problematic? (If nee	eded, explain any answer	s in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	<pre> </pre> </th <th>No No No</th> <th>Is the Sampled Area within a Wetland?</th> <th>Yes 🖌</th> <th>No</th>	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:						
Old road cut						

	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
 Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13) 	 Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Ves No 🖌 Depth (inches):	
Saturation Present? Yes <u>Ves</u> No <u>Depth (inches):</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u></u> No
Saturation Present? Yes No Depth (inches) (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: wrae242e_w

	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Deminent Species
1 none	0			That Are OBL EACW or EAC 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: (A/B)
6				
7.				Prevalence Index worksheet:
	0	- Total Cav		Total % Cover of: Multiply by:
	000/ -/		0	OBL species $35 \times 1 = 35$
50% of total cover:	20% of	total cover:		$\frac{35}{35} = \frac{70}{70}$
Sapling/Shrub Stratum (Plot size: 13)				FACW species $x = 125$
1. Salix interior	10	Yes	FACW	FAC species 45 x 3 = 135
2				FACU species 10 x 4 = 40
Z		· <u> </u>	<u> </u>	$\frac{1}{10} \frac{1}{10} \frac$
3				125 x 5 =
4.				Column Totals: (A) (B)
5		· · · · · · · · · · · · · · · · · · ·		
0		·		Prevalence Index = B/A = 2.24
6				Hydrophytic Vegetation Indicators:
7		. <u> </u>		1 Danid Toot for Hydronhytic Verstation
8				1 - Rapid Test for Hydrophytic Vegetation
0		·		2 - Dominance Test is >50%
9	- 10			✓ 3 - Prevalence Index is $\leq 3.0^1$
	10	= Total Cove	er	
50% of total cover: 5	20% of	total cover:	2	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
	30	Vee	EAC	Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>00//dg07/dg03d</u>		165	FAC	
2. Leersia oryzoides	20	Yes	OBL	
3. Dichanthelium clandestinum	15	Yes	FAC	Indicators of hydric soil and wetland hydrology must
Onoclea sensibilis	10	No	FACW	be present, unless disturbed or problematic.
4. Junous officius	10			Definitions of Four Vegetation Strata:
5. <u>5011cus enusus</u>	10	NO	FACW	\mathbf{T}_{resc} (M) and \mathbf{r}_{resc} (and \mathbf{r}_{resc}) and (7.0 mm) and
_{6.} Carex prasina	10	No	OBL	I ree – woody plants, excluding vines, 3 in. (7.6 cm) or
7 Dipsacus fullonum	10	No	FACU	height
	5	No	FACW	noight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9. Carex canescens	5	NO	OBL	than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11		·		
_ · · · ·	115	·		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 57.	20% of	total cover:	23	Woody vine All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				beight
1 none	0			Teight.
		·		
2				
3				
4.				
				Hydrophytic
D		·		Vegetation
	0	= Total Cove	er	Present? Tes No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
······	,			

Profile Des	cription: (Describe t	o the dep	oth needed to docur	nent the i	ndicator	or confirn	n the absence o	of indicators.)				
Depth	Matrix		Redo	x Feature	s							
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks				
0-16	7.5YR 4/2	90	5YR 4/6	10	С	M	SIC					
-												
							·					
		<u> </u>										
							21 // 51					
Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, Ma	S=Masked	I Sand Gra	ains.	Location: PL	=Pore Lining, M=Matrix.				
listeen			Dark Surface	(07)			indica					
Histoso	rinadan (A2)		Dark Surface	e (57) Now Surfa	00 (S9) /N		149) 20	CM MUCK (ATU) (MLRA 147)				
HISUC E	pipedon (AZ)			rface (SQ)		1LKA 147, 17 178)	, 146) CC					
<u> </u>	en Sulfide (A4)		Loamy Gleve	d Matrix (F2)	47, 140)	Pie	edmont Floodplain Soils (F19)				
Stratifie	d Lavers (A5)		Depleted Ma	trix (F3))			(MLRA 136, 147)				
2 cm M	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Very Shallow Dark Surface (TF12)					
Deplete	d Below Dark Surface	(A11)	Depleted Da	rk Surface	, (F7)		Ot	her (Explain in Remarks)				
Thick D	ark Surface (A12)		Redox Depre	essions (Fa	8)							
Sandy I	Mucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Mass	es (F12) (LRR N,						
MLR	A 147, 148)		MLRA 13	6)								
Sandy (Gleyed Matrix (S4)		Umbric Surfa	ice (F13) (MLRA 13	6, 122)	³ India	cators of hydrophytic vegetation and				
Sandy I	Redox (S5)		Piedmont Florence	odplain S	oils (F19)	(MLRA 14	48) wet	and hydrology must be present,				
Stripped	d Matrix (S6)		Red Parent N	Material (F	21) (MLR	A 127, 147	7) unle	ess disturbed or problematic.				
Restrictive	Layer (if observed):											
Туре:												
Depth (in	iches):						Hydric Soil F	Present? Yes 🖌 No				
Remarks:							-1					



Wetland data point wrae242e_w facing north

Project/Site: Atlantic Coast Pipeline	City/County: Randolph Cour	nty Sa	ampling Date: <u>6/8/2016</u>
Applicant/Owner: Dominion		State: WV	Sampling Point: wrae242_u
Investigator(s): CG, KO	Section, Township, Range:	No PLSS in this area	
Landform (hillslope, terrace, etc.): road	Local relief (concave, convex, n	one): <u>convex</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): N Lat: 38.4977066	62 Long: <u>-80</u>	0.09226197	Datum: WGS 1984
Soil Map Unit Name: Calvin stony silt loam, high base substratum,	35 to 70 percent slopes	NWI classification	on: UPL
Are climatic / hydrologic conditions on the site typical for this time o	f year? Yes 🖌 No	(If no, explain in Rem	arks.)
Are Vegetation, Soil, or Hydrology significan	ntly disturbed? Are "Norm	al Circumstances" pres	sent? Yes No 🔽
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed	, explain any answers i	n Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No	<u>۷</u>
Remarks:						

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) 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 S	oils (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):	
Water Table Present? Yes No <u></u>	
Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): (incluse conduct fringe) Yes No	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks:	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ Depth (inches): Saturation Present? Yes No _ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective Remarks: gravel road Gravel road	Wetland Hydrology Present? Yes <u>No</u> ctions), if available:
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: gravel road	Wetland Hydrology Present? Yes No
Water Table Present? Yes No _ ✓ Depth (inches): Saturation Present? Yes No _ ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect Remarks: gravel road	Wetland Hydrology Present? Yes No

Sampling Point: wrae242_u

· · ·	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	<u>% Cover</u>	Species?	Status	Number of Deminent Species
1 none	0			That Are OBL_EACW or EAC 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 0 (B)
4				
5.				Thet Are ORL EACIAL or EAC: 0 (A/R)
6				
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
	0	= Total Cove	er	
50% of total cover:0	20% of	total cover:	0	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 15)				FACW species x 2 =
1 none	0			FAC species x 3 =
				FACU species x 4 =
Z				LIPL species x 5 -
3				
4				Column Totals: (A) (B)
5.				
6				Prevalence Index = B/A =
7		·		Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				$\frac{1}{2} = \frac{1}{2} \operatorname{Browelence} \left[\operatorname{pdex} \operatorname{is} \leq 2 \right]^{1}$
	0	= Total Cove	er	
50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations' (Provide supporting
Horp Stratum (Plot size: 5)		·····		data in Remarks or on a separate sheet)
	٥			Problematic Hydrophytic Vegetation ¹ (Explain)
1	0			
2				Indiantee of hudrin on it and wothered hudrals as much
3.				he present unless disturbed or problematic
4				be present, unless disturbed of problematic.
				Definitions of Four Vegetation Strata:
o				Tree – Woody plants, excluding vines 3 in (7.6 cm) or
6				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				
11				Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover:0	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
none	0			neight.
1. <u></u>				
2				
3				
4.				
5				Hydrophytic
- J	0			Present? Yes No
0		= Total Cove	er	
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s Gravel road, no veg	heet.)			

Profile Desc	ription: (Describe to	o the depth	needed to docur	nent the i	ndicator	or confirm	the absence of	f indicato	rs.)	
Depth	Matrix		Redo	x Features	8					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
1										
	,									
·										
1										
							·			
	,									
	,						· ·			
1		<u> </u>					2			
Type: C=Cc	oncentration, D=Deple	etion, RM=F	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	Location: PL=	Pore Linir	ng, M=Matrix.	
Hydric Soil I	ndicators:						Indicato	ors for Pr	oblematic H	ydric Solls":
Histosol	(A1)		Dark Surface	(S7)			2 cr	n Muck (A	(MLRA 1	147)
Histic Ep	ipedon (A2)		Polyvalue Be	low Surfac	ce (S8) (N	ILRA 147,	148) <u>Coa</u>	ast Prairie	Redox (A16))
Black His	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(I	MLRA 14	7, 148)	
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix (I	F2)		Piec	dmont Flo	odplain Soils	(F19)
Stratified	l Layers (A5)		Depleted Mar	trix (F3)			(I	MLRA 13	6, 147)	
2 cm Mu	ck (A10) (LRR N)		Redox Dark	Surface (F	6)		Ver	y Shallow	Dark Surface	э (TF12)
Depleted	Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Oth	er (Explai	n in Remarks	3)
Thick Da	rk Surface (A12)		Redox Depression	essions (F8	3)					
Sandy M	lucky Mineral (S1) (Ll	RR N,	Iron-Mangan	ese Masse	es (F12) (LRR N,				
MLRA	. 147, 148)		MLRA 13	6)			2			
Sandy G	leyed Matrix (S4)		Umbric Surfa	ce (F13) (MLRA 13	6, 122)	³ Indica	ators of hy	drophytic veg	getation and
Sandy R	edox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetla	and hydrol	ogy must be	present,
<u> </u>	Matrix (S6)		Red Parent N	Aaterial (F2	21) (MLR	A 127, 147	') unles	ss disturbe	ed or problem	natic.
Restrictive L	.ayer (if observed):									
Туре:										
Depth (inc	ches):						Hydric Soil P	resent?	Yes	No
Remarks:							•			
gravel road										
-										
i i										



Upland data point wrae242_u facing south



Upland data point wrae242_u facing north