Project/Site: Atlantic Coast Pipeline	City/County: Highland (	County	_ Sampling Date: 11/18/2015
Applicant/Owner: Dominion		State: VA	Sampling Point: whie006e_w
Investigator(s): CG, AS	Section, Township, Rar	nge: <u>No PLSS</u> in this are	a
Landform (hillslope, terrace, etc.): toe of slope	Local relief (concave, conv		
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3</u>	33666695 Long	g: <u>-79.50429015</u>	Datum: WGS 1984
Soil Map Unit Name: Oriskany cobbly sandy loam, 8 to 15 p	percent slopes, extremely stony	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes 🔽 No	(If no, explain in	Remarks.)
Are Vegetation <u> </u> , Soil <u> </u> , or Hydrology <u> </u> s	ignificantly disturbed? Are "I	Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology n	aturally problematic? (If ne	eded, 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:						
Cattle grazing and rutting						

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 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):	
Surface Water Present? Yes No Depth (inches):	
Surface water Present?     Yes     No     Depth (inches)       Water Table Present?     Yes     No     Depth (inches)	
	Wetland Hydrology Present? Yes <u></u> No
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       Ves       ✓       No       Depth (inches):       0	, , ,
Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):	, , ,
Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         (includes capillary fringe)       No       Depth (inches):       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	, , ,
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       Ves       ✓       No       Depth (inches):       0	, , ,
Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         (includes capillary fringe)       No       Depth (inches):       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	; ;;
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect       0       0	; ;;
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect       0       0	; ;;
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect       0       0	; ;;
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect       0       0	; ;;
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect       0       0	; ;;
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       0         (includes capillary fringe)       No       Depth (inches):       0       0         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect       0       0	; ;;

Sampling Point: whie006e\_w

-	-	Absolute	Dominant I	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size:	)	% Cover	Species?	Status	Number of Dominant Species	
1					' 0	(A)
2						
3					Total Number of Dominant       Species Across All Strata:	(B)
						(D)
4					Percent of Dominant Species	
5					That Are OBL, FACW, or FAC:100	(A/B)
6				. <u> </u>	Prevalence Index worksheet:	
7				. <u> </u>		
		0	= Total Cove		Total % Cover of: Multiply by:	
	50% of total cover: 0	20% of	total cover:	0		
Sapling/Shrub Stratum (Plot siz	ze: 15 )				FACW species $x^2 = 20$	
1	,				FAC species x 3 = 120	
					FACU species x 4 =0	
2					UPL species $0   x 5 = 0$	
3					50 1/0	(B)
4					Column Totals: (A)	(D)
5					Prevalence Index = B/A =2.8	
6				<u> </u>	Hydrophytic Vegetation Indicators:	
7			·		1 - Rapid Test for Hydrophytic Vegetation	
8					✓ 2 - Dominance Test is >50%	
9					$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
		0	= Total Cove	r		
	50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations <sup>1</sup> (Provide suppl	orting
Herb Stratum (Plot size:	5)				data in Remarks or on a separate sheet)	
1 Dichanthelium clandestinum	,	40	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	)
2. Juncus effusus		10	Yes	FACW		
			·		<sup>1</sup> Indicators of hydric soil and wetland hydrology m	ust
3					be present, unless disturbed or problematic.	
4					Definitions of Four Vegetation Strata:	
5			·		Tree Missile de la cite and d'anni an Olia (7.0 a	
6					<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cr more in diameter at breast height (DBH), regardles	
7					height.	33 01
8						
9					<b>Sapling/Shrub</b> – Woody plants, excluding vines, I	
10.			·		than 3 in. DBH and greater than or equal to 3.28 f m) tall.	.(1
			·		,	
11		50		. <u> </u>	Herb – All herbaceous (non-woody) plants, regard	lless
	50% of total cover: 25		= Total Cove		of size, and woody plants less than 3.28 ft tall.	
		20% of	total cover:	10	Woody vine - All woody vines greater than 3.28 f	t in
Woody Vine Stratum (Plot size	:30)				height.	
1						
2						
3						
4					Hydrophytic	
5					Vegetation	
		-	= Total Cove	r	Present? Yes <u>V</u> No	
	50% of total cover: 0		total cover:	<u> </u>		
Remarks: (Include photo numb						
Remarks. (include photo numb		neet.)				

Profile Desc	cription: (Describe to	o the dept	h needed to docun	nent the in	dicator of	or confirm	the absence of inc	licators.)
Depth	Matrix		Redo	x Features				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 4/2	90	7.5YR 3/4	10	С	PL/M	CL	
		<u> </u>		······			<u> </u>	
<sup>1</sup> Type: C=C	oncentration, D=Deple	tion. RM=	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	<sup>2</sup> Location: PL=Por	e Lining, M=Matrix,
Hydric Soil				machea				for Problematic Hydric Soils <sup>3</sup> :
Histosol			Dark Surface	(S7)				uck (A10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Be	( )	e (S8) <b>(M</b>	LRA 147.		Prairie Redox (A16)
	istic (A3)		Thin Dark Su		. , .		·	RA 147, 148)
	en Sulfide (A4)		Loamy Gleye			, - <b>,</b>	•	nt Floodplain Soils (F19)
	d Layers (A5)		<ul> <li>Depleted Mat</li> </ul>		,			RA 136, 147)
	uck (A10) (LRR N)		Redox Dark S	. ,	5)		•	nallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar	k Surface	, (F7)			Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre					
Sandy M	Mucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Masse	s (F12) <b>(I</b>	_RR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(N</b>	ILRA 13	6, 122)	<sup>3</sup> Indicators	s of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain So	ils (F19)	(MLRA 14	8) wetland	hydrology must be present,
Stripped	d Matrix (S6)		Red Parent M	Aaterial (F2	21) <b>(MLR</b>	A 127, 147	') unless d	isturbed or problematic.
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Prese	ent? Yes 🖌 No
Remarks:							-	
Cobble at 12	inches							



Photo 1 Wetland data point whie006e\_w facing east



Photo 2 Wetland data point whie006e\_w facing north

Project/Site: Atlantic Coast Pipeline	City/County: Highland County		Sampling Date: 11/18/2015
Applicant/Owner: Dominion		State: VA	_ Sampling Point: whie006_u
Investigator(s): CG, AS	Section, Township, Range: No	PLSS in this area	
Landform (hillslope, terrace, etc.): flat	ocal relief (concave, convex, no		Slope (%):0
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.33659817</u>	Long: -79.	50432104	Datum: WGS 1984
Soil Map Unit Name: Oriskany cobbly sandy loam, 8 to 15 percent slo	pes, extremely stony	NWI classificat	tion: None
Are climatic / hydrologic conditions on the site typical for this time of y	ear?Yes 🖌 No	(If no, explain in Re	marks.)
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Are "Normal	l Circumstances" pre	esent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, e	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 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	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):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Ves Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp Remarks:	

Sampling Point: whie006\_u

	Abaaluta	- Daminant I		Deminence Test worksheet.
Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant I Species?		Dominance Test worksheet:
	70 COVEL	opecies:	Status	Number of Dominant Species That Are OBL EACW or EAC: $0$ (A)
1		·		That Are OBL, FACW, or FAC: (A)
2		·	. <u> </u>	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				Presidence Index werkeheet:
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 )				FACW species $\begin{array}{c} 0 \\ x 2 = \end{array}$
1 Rosa multiflora	15	Yes	FACU	FAC species 15 x 3 = 45
11 <u></u>			17100	115 160
2		·		FACU species $10$ $x 4 = 400$
3				UPL species $x_5 = $
4				Column Totals: (A) (B)
5			·	Prevalence Index = B/A = 3.96
6		·	·	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				
0				2 - Dominance Test is >50%
ð	15			3 - Prevalence Index is $\leq 3.0^1$
		= Total Cove	r 3	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
50% of total cover:7.5	20% of	total cover:	5	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. <i>Trifolium pratense</i>	35	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Poa pratensis	30	Yes	FACU	
3. Trifolium repens	30	Yes	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		·		be present, unless disturbed or problematic.
4. Daucus carota	10	No	UPL	Definitions of Four Vegetation Strata:
5. Juncus tenuis	10	No	FAC	
<sub>6.</sub> Setaria pumila	5	No	FAC	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Berberis thunbergii	5	No	FACU	more in diameter at breast height (DBH), regardless of
		·		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.				
···	125		·	Herb – All herbaceous (non-woody) plants, regardless
50% of total cover: 62.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
	20% of	total cover:	25	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 No V
50% of total cover: 0		total cover:	•	
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Des	cription: (Describe t	o the dept	h needed to docur	nent the in	dicator o	or confirm	the absence	e of indicato	rs.)		
Depth	Matrix			x Features							
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	<u></u>	Remarks		
0-8	10YR 3/2	100					L				
8-14	7.5YR 4/4	100					CL				
		·									
								· · · · · · · · · · · · · · · · · · ·			
		·						·			
		·						·			
		·						·			
								·			
								. <u>.</u>			
<sup>1</sup> Type: C=C	oncentration, D=Depl	etion, RM=I	Reduced Matrix, MS	S=Masked \$	Sand Gra	ains.	<sup>2</sup> Location: F	PL=Pore Linii	ng, M=Matrix.		
Hydric Soil									oblematic Hy	dric Soils <sup>3</sup> :	
Histoso	l (A1)		Dark Surface	e (S7)				2 cm Muck (A	A10) <b>(MLRA 1</b>	47)	
Histic E	pipedon (A2)		Polyvalue Be	low Surface	e (S8) <b>(M</b>	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	ed Matrix (F	2)		I	Piedmont Flo	odplain Soils	(F19)	
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 13	6, 147)		
2 cm M	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6	6)			Very Shallow	Dark Surface	e (TF12)	
Deplete	d Below Dark Surface	e (A11)	Depleted Date	rk Surface (	(F7)		(	Other (Explai	n in Remarks	)	
Thick D	ark Surface (A12)		Redox Depre	essions (F8)	)						
Sandy I	Mucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Masses	s (F12) <b>(I</b>	_RR N,					
MLR	A 147, 148)		MLRA 13	6)							
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(N</b>	ILRA 13	6, 122)	<sup>3</sup> In	dicators of hy	drophytic veg	etation and	
	Redox (S5)		Piedmont Flo	odplain So	ils (F19)	(MLRA 14	<b>8)</b> w	etland hydrol	logy must be p	oresent,	
Stripped	d Matrix (S6)		Red Parent M	Aaterial (F2	1) (MLR	A 127, 147	<b>')</b> ui	nless disturbe	ed or problem	atic.	
Restrictive	Layer (if observed):										
Type:											
Depth (in	iches):						Hydric Soi	I Present?	Yes	No 🖌	_
Remarks:							1				



**Photo 1** Upland data point whie006\_u facing north



Photo 2 Upland data point whie006\_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: Hig	hland County	Sampling Date: 11/17/2015
Applicant/Owner: Dominion		State: VA	Sampling Point: whie005e_w
Investigator(s): CG, AS	Section, Townsh	nip, Range: <u>No PLSS in this are</u>	
Landform (hillslope, terrace, etc.): slope		e, convex, none): <u>concave</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.</u>	33669689	Long:79.50356685	Datum: WGS 1984
Soil Map Unit Name: Cottonbend silt loam, 3 to 8 percent s	lopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for thi	s 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 Hydrologyr	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 🥢 No
Remarks:				
Cattle access and 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 Ro	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 Soils	s (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>				
Water Table Present? Yes No <u></u>				
	Wetland Hydrology Present? Yes No			
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspection	ons), if available:			
Remarks:				
Remarks.				

Sampling Point: whie005e\_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		
1				Number of Dominant Species           That Are OBL, FACW, or FAC:         2         (A)
I		·		
2		·		Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
				()
4				Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 100 (A/B)
6				
7.				Prevalence Index worksheet:
		= Total Cove		Total % Cover of: Multiply by:
			r 0	OBL species 0 x 1 = 0
50% of total cover: _	0 20% of	total cover:	0	20
Sapling/Shrub Stratum (Plot size: 15	)			FACTV species $x z = $
1				FAC species $30 \times 3 = 90$
				FACU species $15$ x 4 = $60$
2		·		
3				$\begin{array}{c c} UPL \text{ species} & 0 & x 5 = 0 \\ \hline 0 & 75 & (a) & 210 \\ \hline 0 & 210 & (b) \end{array}$
4				Column Totals: 75 (A) 210 (B)
5		·		Prevalence Index = B/A =2.8
6		. <u> </u>		Hydrophytic Vegetation Indicators:
7				
				1 - Rapid Test for Hydrophytic Vegetation
8		·		✓ 2 - Dominance Test is >50%
9		. <u> </u>		$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
	0	= Total Cove	r	
50% of total cover:	<u> </u>	total cover:	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% 0	total cover.		data in Remarks or on a separate sheet)
<sub>1.</sub> Dichanthelium clandestinum	30	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Juncus effusus	20	Yes	FACW	
	10	No		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3 <u>.</u> Poa palustris	10	No	FACW	be present, unless disturbed or problematic.
<sub>4.</sub> Poa pratensis	10	No	FACU	Definitions of Four Vegetation Strata:
5. Trifolium repens	5	No	FACU	Definitions of Four vegetation Strata:
				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8		· . <u></u>		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
11	75	·		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:	37.5 20% of	total cover:	15	Meedy vine All woods vince greater than 2.20 ft in
Woody Vine Stratum (Plot size: 30)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
· · · · · · · · · · · · · · · · · · ·				height.
1		·		
2		·		
3				
4		·		Hydrophytic
5		·		Vegetation
	0	= Total Cove	r	Present? Yes <u>V</u> No
50% of total cover:		total cover:		
Remarks: (Include photo numbers here or on a sepa	rate sheet.)			

Profile Desc	cription: (Describe to	o the dep	oth needed to docun	nent the i	indicator of	or confirm	the absence of indicators.)
Depth	Matrix			x Feature			
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks
0-3	10YR 4/1	98	5YR 4/6	2	С	M	CL
3-10	10YR 5/2	90	7.5YR 3/4	10	С	PL/M	CL
						<u> </u>	
<sup>1</sup> Type: C=C	oncentration, D=Deple	tion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ice (S8) <b>(N</b>	ILRA 147,	148) Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Su			47, 148)	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		(F2)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		✓ Depleted Mat	. ,			(MLRA 136, 147)
	uck (A10) <b>(LRR N)</b>	( )	Redox Dark S	· ·	,		Very Shallow Dark Surface (TF12)
	d Below Dark Surface ark Surface (A12)	(A11)	Depleted Dar Redox Depre				Other (Explain in Remarks)
	/lucky Mineral (S1) (LF		Iron-Mangane	•	,		
	A 147, 148)	\\\ <b>\</b> \	MLRA 13		(112)	,	
	Gleyed Matrix (S4)		Umbric Surfa		(MLRA 13	6, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo				
	Matrix (S6)		Red Parent M				
Restrictive	Layer (if observed):						
Type: <u>co</u>	bble						
Depth (in	ches): <u>10</u>						Hydric Soil Present? Yes 🖌 No
Remarks:							1

Cobble at 10 inches



Photo 1 Wetland data point whie005e\_w facing southeast



Photo 2 Wetland data point whie005e\_w facing northeast

Project/Site: Atlantic Coast Pipeline	_ City/County: <u>Highland County</u>	Sampling Date: 11/17/2015
Applicant/Owner: Dominion		e: VA Sampling Point: whie005_u
Investigator(s): CG, AS	_ Section, Township, Range: No PLSS	in this area
Landform (hillslope, terrace, etc.): slope	_ocal relief (concave, convex, none): <u>no</u>	
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.33674155</u>	5 Long: <u>-79.503668</u>	397 Datum: WGS 1984
Soil Map Unit Name: Cottonbend silt loam, 3 to 8 percent slopes	N	WI 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 significant	tly disturbed? Are "Normal Circuit	mstances" present? Yes 🗹 No
Are Vegetation, Soil, or Hydrology naturally p	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 <u>v</u> No <u>v</u> No <u>v</u>	Is the Sampled Area within a Wetland?	Yes	No	<u>~</u>
Remarks:						
cow pasture						

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 Se	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):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No/
Saturation Present? Yes No V Depth (inches):	
Saturation Present? Yes No V Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	
Saturation Present? Yes No Ver Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective No hydrologic conditions present.	

Sampling Point: whie005\_u

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )			Status	
1 Quercus rubra	10	Yes	FACU	Number of Dominant Species That Are OBL EACW or EAC: $0$ (A)
2. Juniperus virginiana	3	Yes	FACU	That Are OBL, FACW, or FAC: (A)
			17.00	Total Number of Dominant
3		·		Species Across All Strata: 5 (B)
4				
				Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC:0 (A/B)
6				Develop a la devena de la c
7				Prevalence Index worksheet:
	13	= Total Cover		Total % Cover of:Multiply by:
50% of total cover: 6.5		total cover:	2.6	OBL species 0 x 1 = 0
15	20 /0 01			FACW species $5   x 2 = 10$
Sapling/Shrub Stratum (Plot size:)	_			9 24
1. Juniperus virginiana	5	Yes	FACU	FAC species X 3 =
2				FACU species x 4 = 352
				UPL species $7$ x 5 = $35$
3		·		Column Totals: 108 (A) 421 (B)
4				
5				Prevalence Index $= B/A = 3.89$
6		-	-	
		·		Hydrophytic Vegetation Indicators:
7			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8		·		2 - Dominance Test is >50%
9.				
	5	= Total Cover		$3$ - Prevalence Index is $\leq 3.0^1$
50% of total cover: 2.5		total cover:	1	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
	20% 0	total cover.		data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. Andropogon virginicus	40	Yes	FACU	
<sub>2.</sub> Poa pratensis	20	Yes	FACU	
3. Rosa multiflora	10	No	FACU	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	7			be present, unless disturbed or problematic.
4. Daucus carota		No	UPL	Definitions of Four Vegetation Strata:
<sub>5.</sub> Poa palustris	5	No	FACW	
6. Juncus tenuis	5	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7 Setaria pumila	3	No	FAC	more in diameter at breast height (DBH), regardless of
			TAU	height.
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9.				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
		·		,
11		·		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 45	20% of	total cover:	18	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
· · · · · · · · · · · · · · · · · · ·				height.
1				
2		·		
3				
4				
				Hydrophytic
5	-	·		Vegetation Present? Yes No
		= 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	heet.)			
	,			

Depth (inches)       Matrix       Redox Features         0-10       10YR 3/2       98       7.5 YR 3/4       2       C       M       CL         0-10       10YR 3/2       98       7.5 YR 3/4       2       C       M       CL         0       10YR 3/2       98       7.5 YR 3/4       2       C       M       CL         0       0       0       0       0       0       0       0       0         0       0       0       0       0       0       0       0       0       0         0	Profile Desc	cription: (Describe to	o the dep	th needed to docun	nent the i	indicator	or confirm	n the absence of i	indicators.)		
0-10       10YR 3/2       98       7.5 YR 3/4       2       C       M       CL	Depth	Matrix		Redo	x Feature	s					
Image: construction in the second	(inches)						Loc <sup>2</sup>	Texture	Remar	ks	
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :	0-10	10YR 3/2	98	7.5 YR 3/4	2	С	М	CL			
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :	·			·				·			
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :	<u> </u>							·			
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :	·							·			
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :											
Hydric Soil Indicators:       Indicators for Problematic Hydric Soils <sup>3</sup> :		oncentration D-Denk	ation RM-	-Reduced Matrix MS	S-Maskor	1 Sand Gr	aine	<sup>2</sup> Location: PL-P	Pore Lining M-Mat	rix	
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)         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, MLRA 136)       Iron-Manganese Masses (F12) (LRR N, MLRA 136) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 127, 147) <sup>4</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if observed): Type:       10       Hydric Soil Present? Yes No       No											
	-			Dark Surface	(\$7)					-	
Black Histic (A3)		( )			. ,	CA (S8) (N	II RA 147		· / ·	•	
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,       Other (Explain in Remarks)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type: <u>Cobble</u> Depth (inches):       10       Hydric Soil Present? Yes       No										10)	
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,       Iron-Manganese Masses (F12) (LRR N,         MLRA 147, 148)       MLRA 136)       Iron-Manganese Masses (F12) (LRR N,       Indicators of hydrophytic vegetation and         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> Indicators of hydrophytic vegetation and         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Type: <u>cobble</u> Hydric Soil Present? Yes No       v		( )					41, 140)	•		nils (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 136)         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> 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: <u>cobble</u> Depth (inches):       10         Hydric Soil Present? Yes No						(12)					
Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Iron-Manganese Masses (F12) (LRR N,         MLRA 147, 148)       MLRA 136)       Iron-Manganese Masses (F12) (LRR N,         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) <sup>3</sup> 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:       cobble         Depth (inches):       10		•			( )	-6)					
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) MLRA 127, 147) Watch Surface (if observed): Type: Cobble Depth (inches): 10 Hydric Soil Present? Yes No Yes							, ,				
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:         Cobble       Hydric Soil Present? Yes No			()			· · ·			(	,	
MLRA 147, 148)       MLRA 136)		, ,	RR N.				LRR N.				
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 136, 122) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: cobble Depth (inches): 10 Hydric Soil Present? Yes No	-			-		· / ·	,				
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:       Cobble         Depth (inches):       10       No						(MLRA 13	6, 122)	<sup>3</sup> Indicat	ors of hydrophytic	vegetation and	
Stripped Matrix (S6)Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.          Restrictive Layer (if observed):					• •	•				-	
Restrictive Layer (if observed):         Type:       cobble         Depth (inches):       10         Hydric Soil Present?       Yes No		. ,			•	, ,	•				
Type:         cobble           Depth (inches):         10           Hydric Soil Present? Yes No	Restrictive	Layer (if observed):		_				-	•		
Depth (inches):         10         Yes         No         ✓	Type: CO	bble									
								Hydric Soil Pre	esent? Yes	No 🖌	
	Remarks:										

cobble at 10 inches



**Photo 1** Upland data point whie005\_u facing south



**Photo 2** Upland data point whie005\_u facing north

Project/Site: Atlantic Coast Pipeline	City/County:	Highland County		Sampling Date: <u>11/17/2015</u>
Applicant/Owner: Dominion			State: VA	Sampling Point: whie003e_w
	Section, Tov	vnship, Range: No	PLSS in this ar	ea
		ncave, convex, nor		Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.33752308</u>		Long: <u>-79.</u>	50251975	Datum: WGS 1984
Soil Map Unit Name: <u>Nicelytown silt Ioam, 3 to 8 percent slopes</u>			NWI classi	fication: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ear?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 ansv	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling	g point locatio	ons, transect	ts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	<i>v</i> <i>v</i>	_ No_ _ No_ _ No_	~	 Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:							
Cattle access, attempt to drain wetland in	۱ past.						

HYDROLO	DGY
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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)	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	s (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 Yes Depth (inches):	
Water Table Present? Yes No Yes Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes <u>✓</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspecti	ons), if available:
Remarks:	

Sampling Point: whie003e\_w

	Absoluto	Dominant I	odicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		Species?		
,				Number of Dominant Species         That Are OBL, FACW, or FAC:         1         (A)
		·		
2		·	<u> </u>	Total Number of Dominant
3		·		Species Across All Strata: <u>2</u> (B)
4				
5				Percent of Dominant Species That are OBL EACW or EAC: $50$ (A/B)
		·		That Are OBL, FACW, or FAC: (A/B)
6		·		Prevalence Index worksheet:
7		·		
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	total cover:	0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species7 x 2 =14
<u>daping/on do otratam</u> (not size)				FAC species $100 \times 3 = 300$
1		·		30 120
2				FACU species $30$ x 4 = $120$
3				UPL species x 5 =
4				Column Totals: 137 (A) 434 (B)
5				Prevalence Index = B/A =3.16
6		·		Hydrophytic Vegetation Indicators:
7		<u></u>		
8				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
9		·		3 - Prevalence Index is ≤3.0 <sup>1</sup>
		= Total Cove		4 - Morphological Adaptations <sup>1</sup> (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)
Dichanthelium clandestinum	70	Yes	FAC	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Trifolium repens	30	Yes	FACU	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Juncus tenuis	15	No	FAC	be present, unless disturbed or problematic.
4. Setaria pumila	15	No	FAC	Definitions of Four Vegetation Strata:
5. Poa palustris	5	No	FACW	Deminions of Four Vegetation Strata.
6. Juncus effusus	2	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
··		·		more in diameter at breast height (DBH), regardless of
7		·		height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9.				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
				,
11	407	·		Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:68.5	20% of	total cover:	27.4	Weedy vine All weedy vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.
				loight.
1				
2		·		
3		·		
4				Liver and state
5.				Hydrophytic Vegetation
	0	Tatal Caus		Present? Yes No
50% of total according 0		= Total Cove	<u>^</u>	
50% of total cover: 0	20% of	total cover:	<u> </u>	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix	Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-12	10YR 4/1	90	2.5YR 3/6	10	С	PL/M	SICL	
12-14	2.5Y 5/3	92	5YR 3/4	8	С	PL	CL	
				. <u> </u>				
			<u> </u>					
			<u> </u>					
<sup>1</sup> Type: C=C	oncentration, D=Deple	etion RM	I=Reduced Matrix MS	S=Masked	Sand Gra	ains	<sup>2</sup> Location: PL =	Pore Lining, M=Matrix.
Hydric Soil								ors for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Dark Surface	(S7)				m Muck (A10) <b>(MLRA 147)</b>
	pipedon (A2)		Polyvalue Be	· ,	ce (S8) <b>(M</b>	LRA 147,		ast Prairie Redox (A16)
	stic (A3)		Thin Dark Su		· · ·		·	MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	. ,		. ,	Pie	dmont Floodplain Soils (F19)
Stratified	d Layers (A5)		<ul> <li>Depleted Ma</li> </ul>	trix (F3)	. ,		(	MLRA 136, 147)
2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Ver	ry Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	rk Surface	e (F7)		Oth	ner (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F	8)			
Sandy N	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(I</b>	_RR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ice (F13) <b>(</b>	(MLRA 13	6, 122)	<sup>3</sup> Indic	ators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	ioils (F19)	(MLRA 14	8) wetla	and hydrology must be present,
	Matrix (S6)		Red Parent N	/laterial (F	21) <b>(MLR</b>	A 127, 147	') unle	ss disturbed or problematic.
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil P	resent? Yes 🖌 No
Remarks:							1	



Photo 1 Wetland data point whie003e\_w facing southeast



Photo 2 Wetland data point whie003e\_w facing northeast

Project/Site: Atlantic Coast Pipeline	City/County: Highland County	Sampling Date: 11/17/2015
Applicant/Owner: Dominion	State: VA	Sampling Point: whie003_u
Investigator(s): CG, AS	Section, Township, Range: No PLSS in this are	a
Landform (hillslope, terrace, etc.): flat	Local relief (concave, convex, none): <u>concave</u>	-
Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3375169</u>	5 Long: <u>-79.50259049</u>	Datum: WGS 1984
Soil Map Unit Name: <u>Nicelytown silt loam, 3 to 8 percent slopes</u>	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for this time of	f year? Yes 🖌 No (If no, explain in f	Remarks.)
Are Vegetation 🔽 , Soil 🔽 , or Hydrology 🗹 significan	ntly disturbed? Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answe	ers in Remarks.)
Landform (hillslope, terrace, etc.): <u>flat</u> Subregion (LRR or MLRA): <u>S</u> Lat: <u>38.3375169</u> Soil Map Unit Name: <u>Nicelytown silt loam, 3 to 8 percent slopes</u> Are climatic / hydrologic conditions on the site typical for this time of Are Vegetation <u>v</u> , Soil <u>v</u> , or Hydrology <u>v</u> significan	Local relief (concave, convex, none): <u>concave</u> 15 Long: <u>-79.50259049</u> NWI classifi i year? Yes <u>✓</u> No (If no, explain in F htly disturbed? Are "Normal Circumstances"	Slope (%): <u>2</u> Datum: WGS 1984 cation: None Remarks.) present? Yes 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:					

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 So	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 <u>&lt;</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No				
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:				
Remarks:					
No hydrology present. Lies in a transitional zone with weak vegetation and topography.					

Sampling Point: whie003\_u

,	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>30</u> )		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6		·		Prevalence Index worksheet:
7				
		= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 0	20% of	f total cover:	0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = 0$
1				FAC species $72 \times 3 = 216$
2				FACU species x 4 =220
3				UPL species x 5 =0
				Column Totals: <u>127</u> (A) <u>436</u> (B)
4			·	
5		·	·	Prevalence Index = B/A =3.43
6		·		Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8		<u> </u>		✓ 2 - Dominance Test is >50%
9				
	0	= Total Cove	r	$\checkmark$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
50% of total cover: 0		f total cover:	0	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Trifolium repens	40	Yes	FACU	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Dichanthelium clandestinum	40	Yes	FAC	
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3. Setaria pumila	30	Yes	FAC	be present, unless disturbed or problematic.
4. Trifolium pratense	15	No	FACU	Definitions of Four Vegetation Strata:
5. Juncus tenuis	2	No	FAC	
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
8		· · · · · · · · · · · · · · · · · · ·		
				Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10		. <u> </u>		
11	407	. <u> </u>		Herb – All herbaceous (non-woody) plants, regardless
00.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>63.5</u>	20% of	f total cover:	25.4	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1		·		
2				
3				
4			·	
5		·		Hydrophytic
J			·······	Vegetation Present? Yes Ves No
50% of total cover: 0		= Total Cove f total cover:	r O	
		total cover.		
Remarks: (Include photo numbers here or on a separate s	neet.)			

	cription: (Describe to	o the dep				or confirm	the absence	e of indicators.)		
Depth	Matrix	0/		x Feature		1 2	<b>T</b>	Descerte		
<u>(inches)</u> 0-14	Color (moist) 2.5Y 5/2	<u>%</u> 90	Color (moist) 2.5YR 3/6	<u>%</u> 10	<u>Type</u> <sup>1</sup> C	Loc <sup>2</sup> PL/M	<u>Texture</u> CL	Remarks		
0-14	2.51 5/2	90	2.51K 5/0	10						
	<u></u> .		. <u> </u>							
			·							
								· · ·		
			·							
1										
								· · ·		
	Concentration, D=Deple	etion, RM	Reduced Matrix, MS	S=Masked	d Sand Gra	ains.		PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils <sup>3</sup> :		
Histoso	ol (A1)		Dark Surface	. ,				2 cm Muck (A10) <b>(MLRA 147)</b>		
	pipedon (A2)		Polyvalue Be		· / ·		148) (	Coast Prairie Redox (A16)		
	listic (A3)		Thin Dark Su			47, 148)		(MLRA 147, 148)		
	en Sulfide (A4)		Loamy Gleye		(F2)		F	Piedmont Floodplain Soils (F19)		
	ed Layers (A5)		Depleted Ma	. ,			(MLRA 136, 147)			
	luck (A10) <b>(LRR N)</b>	Redox Dark Surface (F6)					Very Shallow Dark Surface (TF12)			
	ed Below Dark Surface	(A11)	Depleted Dar				(	Other (Explain in Remarks)		
	Dark Surface (A12)		Redox Depre	•						
	Mucky Mineral (S1) (LI	RR N,	Iron-Mangan		es (F12) <b>(</b>	LRR N,				
	A 147, 148)		MLRA 13				3.			
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and		
	Redox (S5)		Piedmont Flo	•	, ,	•	•	etland hydrology must be present,		
	d Matrix (S6)		Red Parent N	Material (F	21) (MLR	A 127, 147	<b>')</b> ur	nless disturbed or problematic.		
Restrictive	Layer (if observed):									
Type:										
Depth (ir	nches):						Hydric Soi	l Present? Yes 🥙 No		
Remarks:							1			
1										



**Photo 1** Upland data point whie003\_u facing south



**Photo 2** Upland data point whie003\_u facing north