Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Date: 12/8/2014		
Applicant/Owner: Dominion		State: VA Sampling Point: wsua006f_w		
	Section, Township, Range: N			
Landform (hillslope, terrace, etc.): floodplain				
Subregion (LRR or MLRA): T Lat Soil Map Unit Name: Nansemond loamy fine sand, 6 to 15 per	cont clance	Datum: WGG 1994		
Are climatic / hydrologic conditions on the site typical for this ti				
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "Norma	Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology nat	urally problematic? (If needed, or	explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map sh	owing sampling point location	ons, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes <u>✓</u> No _				
Hydric Soil Present? Yes V No	is the Sampled Area			
Wetland Hydrology Present? Yes No		Yes No		
Remarks:				
Semi-permanently flooded PFO wetland located on the easte above floodplain. There is no natural levee present on the east				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that		Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic Fa		Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl Depo Marl Depo	sits (B15) (LRR U) Sulfide Odor (C1)	Drainage Patterns (B10)		
	chizospheres along Living Roots (C3)	Moss Trim Lines (B16)		
	of Reduced Iron (C4)	 Dry-Season Water Table (C2)✓ Crayfish Burrows (C8)		
	n Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
<u> </u>	Surface (C7)	Geomorphic Position (D2)		
	lain 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 Depth				
Water Table Present? Yes No Depth	(inches): 0			
Saturation Present? Yes No Depth	(inches): 0 Wetland H	lydrology Present? Yes 🔽 No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aer	 ial photos, previous inspections), if ava	ilable:		
	, , , , , , , , , , , , , , , , , , , ,			
Remarks:				

20	Absolute	Dominant	Indicator	Dominance Test worksheet:	_
<u>Tree Stratum</u> (Plot size:)		Species?		Number of Dominant Species _	
1. Nyssa aquatica	50	Yes	OBL	That Are OBL, FACW, or FAC: 7 (A)	
2. Taxodium distichum	25	Yes	OBL	Total Number of Dominant	
3. Fraxinus pennsylvanica	5	No	FACW	Species Across All Strata: 7 (B)	
4					
5				Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B	
6				That the OBE, Thow, OT the	,
7.				Prevalence Index worksheet:	
8.				Total % Cover of: Multiply by:	
<u> </u>	80	= Total Cov	er	OBL species x 1 = 80	
50% of total cover: 40		total cover	16	FACW species16	
<u></u>	20 /6 01	total cover	·	FAC species 9 x 3 = 27	
Sapling/Shrub Stratum (Plot size: 15) 1 Fraxinus pennsylvanica	5	Yes	FACW	FACU species0 x 4 =0	
Nyssa aquatica		Yes	OBL	UPL species 0 x 5 = 0	
<u> </u>				Column Totals: 105 (A) 139 (B)	
3. Itea virginica	4	Yes	FACW	Goldmin Totals (A) (B)	
4. Carpinus caroliniana	3	No	FAC	Prevalence Index = B/A =1.32	
5. Acer rubrum	3	No	FAC	Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				✓ 3 - Prevalence Index is ≤3.0 ¹	
	20	= Total Cov	er		
50% of total cover: 10				Problematic Hydrophytic Vegetation ¹ (Explain)	
_	20 /6 01	total cover	·		
				¹ Indicators of hydric soil and wetland hydrology must	
1				be present, unless disturbed or problematic.	
2				Definitions of Four Vegetation Strata:	
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or	r
4				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 herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.	•
9				of size, and woody plants less than 3.20 it tall.	
10				Woody vine – All woody vines greater than 3.28 ft in	
11				height.	
12					
	0	= Total Cov	er		
50% of total cover:0	20% of	total cover	0		
Woody Vine Stratum (Plot size:)					
1. Smilax rotundifolia	3	Yes	FAC		
2 Decumaria barbara	2	Yes	FACW		
3					
4					
5				Hydrophytic	
0.5		= Total Cov		Vegetation Present? Yes No	
50% of total cover: 2.5	20% of	total cover	:	rieseitt! iesNo	
Remarks: (If observed, list morphological adaptations below	w).				

SOIL Sampling Point: wsua006f_w

Depth	cription: (Describe t Matrix	o are uepar		x Feature		o. commi	THE ADSCIDE OF	
(inches)	Color (moist)	%	Color (moist)	<u>x reature</u> %	s Type ¹	Loc²	Texture	Remarks
0-18	10YR 2/2	100	(,				SIL	
					· 			
					•			_
1- 0.6							2,	
	concentration, D=Depl					ains.		L=Pore Lining, M=Matrix.
-	Indicators: (Applica							or Problematic Hydric Soils ³ :
Histoso			Polyvalue Be					ck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)
	istic (A3)		Loamy Muck	-		R O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye		(F2)			t Floodplain Soils (F19) (LRR P, S, T)
· · · · · · · · · · · · · · · · · · ·	d Layers (A5)		Depleted Ma					us Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P,		Redox Dark	•	,			153B)
	ucky Mineral (A7) (LR		Depleted Da				_	ent Material (TF2)
	resence (A8) (LRR U)		Redox Depre		8)			allow Dark Surface (TF12)
	uck (A9) (LRR P, T)	(* 4 4)	Marl (F10) (L				Other (E	xplain in Remarks)
	d Below Dark Surface	e (A11)	Depleted Oc	. ,	•	•		
	ark Surface (A12)		✓ Iron-Mangan					ors of hydrophytic vegetation and
	Prairie Redox (A16) (N		Umbric Surfa			', U)		nd hydrology must be present,
	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric				unles	s disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve					
-	Redox (S5)		Piedmont Flo					
	d Matrix (S6)		Anomalous E	Bright Loai	my Soils (F20) (MLR	A 149A, 153C, 1	53D)
	ırface (S7) (LRR P, S	, T, U)					1	
	Layer (if observed):							
Type: no	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		_					
Depth (ir	iches):		<u> </u>				Hydric Soil P	resent? Yes No
Remarks:							1	
I								



Photo 1 Wetland data point wsua006f_w facing south



Photo 2
Wetland data point wsua006f_w facing west

Project/Site: Atlantic Coast Pipeline	City/	County: Suffolk		Sampling Date: 12/8/2014	
Applicant/Owner: Dominion				Sampling Point: wsua006_u	
	Sect			. •	
Landform (hillslope, terrace, etc.): slope					
Subregion (LRR or MLRA): T					
Soil Map Unit Name: Nansemond loamy fine	e sand 6 to 15 percent slopes	Long	NNA/! -!:6	Datum None	
Are climatic / hydrologic conditions on the si					
Are Vegetation, Soil, or Hydi			I Circumstances" p	resent? Yes No	
Are Vegetation, Soil, or Hydi	rology naturally problem	natic? (If needed, e	explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS - Attac	ch site map showing sai	mpling point location	ons, transects	, important features, etc.	
Hydrophytic Vegetation Present?	∕es No ✓				
Hydric Soil Present?	/es No <u>✓</u>	Is the Sampled Area	.,	🗸	
Wetland Hydrology Present?	/es No <u>✓</u>	within a Wetland?	Yes	No	
Upland data point taken above toe of slope	for a semi-permanently flooded	PFO wetland located on	the floodplain of th	e Blackwater River.	
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum of one is requ	uired; check all that apply)		Surface Soil	Cracks (B6)	
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16)		
High Water Table (A2)	Marl Deposits (B15) (LR				
Saturation (A3)	Hydrogen Sulfide Odor				
Water Marks (B1)	Oxidized Rhizospheres				
Sediment Deposits (B2)	Presence of Reduced IrRecent Iron Reduction in		Crayfish Burr	sible on Aerial Imagery (C9)	
Drift Deposits (B3) Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Geomorphic		
Iron Deposits (B5)	Other (Explain in Remai		Shallow Aqui		
Inundation Visible on Aerial Imagery (I		,	FAC-Neutral		
Water-Stained Leaves (B9)			Sphagnum m	noss (D8) (LRR T, U)	
Field Observations:					
	No Depth (inches):				
	No Depth (inches):			_	
Saturation Present? Yes (includes capillary fringe)	No Pepth (inches):	Wetland I	Hydrology Presen	t? Yes No	
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, pr	evious inspections), if ava	ailable:		
Remarks:					
no hydrology indicators present					

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species _
1. Carya cordiformis	20	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Fagus grandifolia	20	Yes	FACU	Total Number of Dominant
3. Quercus alba	20	Yes	FACU	Species Across All Strata: 10 (B)
4. Ilex opaca	10	No	FAC	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
6				(VD)
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
o	70	= Total Cov	er	OBL species x 1 =0
50% of total cover:35		total cover:	1/	FACW species3
	20 /6 01	total cover.	·	FAC species59
Sapling/Shrub Stratum (Plot size: 15) 1 Fagus grandifolia	10	Yes	FACU	FACU species 67 x 4 = 268
O man la a a a timata da	10	Yes		UPL species 0 x 5 = 0
2 :			FAC	Column Totals: 129 (A) 451 (B)
3. Ilex opaca	4	No	FAC	Column Totals (A) (B)
4. Carpinus caroliniana	3	No	FAC	Prevalence Index = B/A =3.49
5. Vaccinium elliottii	3	No	FACW	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:15	20% of	total cover	. 6	Floblematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size:5)		101011 00101	·	1
1 Carex blanda	2	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Panicum capillare	2	Yes	FAC	
3. Polystichum acrostichoides		Yes	FACU	Definitions of Four Vegetation Strata:
		168	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10.				We although a Allows during a parate of the or 0.00 ft in
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				noight.
12.	6	= Total Cov		
50% of total cover: 3				
50% of total cover.	20% of	total cover:		
Woody Vine Stratum (Plot size: 30)	15	Vaa	FACIL	
1. Lonicera japonica	15	Yes	FACU	
2. Smilax rotundifolia	8	Yes	FAC	
3				
4				
5				Hydrophytic
	23	= Total Cov	er	Vegetation
50% of total cover:11.5	20% of	total cover	4.6	Present? Yes No
Remarks: (If observed, list morphological adaptations below				
rtemarks. (II observed, list morphological adaptations belo	vv).			

SOIL Sampling Point: wsua006_u

	cription: (Describe t	o the depth				or confirm	the absence of in	dicators.)	
Depth (inches)	Matrix Color (moist)	<u></u> %	Redo Color (moist)	x Feature %	Type ¹	Loc ²	Texture	Remark	'S
0-7	10YR 2/2	100	Soloi (IIIOISI)		- i ihe		SL	Nemaik	
7-15	10YR 4/3	100					LS		
15-24	10YR 5/3	100					LS		
				-	-				
¹Tyne: C=C	oncentration, D=Depl	etion RM=R	educed Matrix M	S=Masker	d Sand Gr	ains	² l ocation: Pl =	Pore Lining, M=Ma	atrix
	Indicators: (Applica					uiiio.		Problematic Hydr	
Histosol	(A1)		Polyvalue Be	elow Surfa	ice (S8) (L	.RR S, T, U) 1 cm Muck	(A9) (LRR O)	
	pipedon (A2)		Thin Dark Su					(A10) (LRR S)	
	istic (A3)		Loamy Muck	-		(O)			le MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye		(F2)			loodplain Soils (F ² Bright Loamy Soil	
	Bodies (A6) (LRR P,	T. U)	Depleted Ma Redox Dark		- 6)		Anomalous (MLRA 1		IS (F20)
	ucky Mineral (A7) (LR		Depleted Da	•	,			Material (TF2)	
	resence (A8) (LRR U)		Redox Depre					w Dark Surface (T	F12)
	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Expl	ain in Remarks)	
	d Below Dark Surface	e (A11)	Depleted Oc	. ,	-	•	3		
	ark Surface (A12)	II DA 450A)	Iron-Mangan					of hydrophytic ve hydrology must be	-
	rairie Redox (A16) (N Jucky Mineral (S1) (L		Umbric Surfa Delta Ochric			, 0)		isturbed or proble	
	Gleyed Matrix (S4)	.t.t. 0, 0,	Reduced Ve			0A, 150B)	dilicoo d	istarbed or problem	mado.
	Redox (S5)		Piedmont Flo				9A)		
	d Matrix (S6)		Anomalous F	Bright Loa	my Soils (F20) (MLR	A 149A, 153C, 153	D)	
	ırface (S7) (LRR P, S	, T, U)							
	Layer (if observed):								
Type: no			_						🗸
	ches):		<u> </u>				Hydric Soil Pres	sent? Yes	No
Remarks:									



Photo 1 Upland data point wsua006_u facing east



Photo 2 Upland data point wsua006_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Date: 12/8/2014
Applicant/Owner: Dominion		State: VA Sampling Point: wsua007s_w
	Section, Township, Range: No.	
Landform (hillslope, terrace, etc.): flat - ditch/berm		
Subregion (LRR or MLRA): T Lat: 36	63305944	76.88251429 Datum: WGS 1984
Subregion (LRR or MLRA): Lat: Lat:	Long: _	Datum: PEO1C
Soil Map Unit Name: Tomotley loam		NWI classification: PFO1C
Are climatic / hydrologic conditions on the site typical for this time		
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Normal	Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology natural	ly problematic? (If needed, e	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ving sampling point location	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes <u>✓</u> No		
Hydric Soil Present? Yes V No	is the Sampled Area	
Wetland Hydrology Present? Yes ✓ No		Yes No
Remarks:		
Wetland data point for a saturated PSS wetland located in a ditch parallel ditches define the east and west (long axis) extent of feat years old.	ure. Pines in this strip are 5-7 years	old, while those in the adjacent upland are 15
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	pply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna	• •	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits		Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulf		Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhiz Sediment Deposits (B2) Presence of R	ospheres along Living Roots (C3)	Dry-Season Water Table (C2) ✓ Crayfish Burrows (C8)
	eduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Su	` '	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain	` '	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 Depth (in		
Water Table Present? Yes No Depth (in		
Saturation Present? Yes No Depth (in	ches): Wetland F	lydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial	l photos, previous inspections), if ava	ilable:
	, ,	
Remarks:		

20		Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant Species Across All Strata: 5 (B)
4				Opedies Across Air Strata.
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	0			OBL species 10 $x 1 = 10$
50% of total cover:		= Total Cov	Λ	FACW species55
0070 01 total 00VCI.	20% of	total cover:		FAC species 145 x 3 = 435
Sapling/Shrub Stratum (Plot size: 15) 1. Pinus taeda	50	Yes	FAC	FACU species 0 x 4 = 0
2. Quercus nigra	10	No	FAC	UPL species
3. Liquidambar styraciflua	10	No	FAC	Column Totals: (A) (B)
4. Morella cerifera	8	No	FAC	Prevalence Index = B/A = 2.64
5. Baccharis halimifolia	7	No	FAC	Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8.				✓ 2 - Dominance Test is >50% ✓ 3 - Prevalence Index is ≤3.0 ¹
	85	Total Cov	er	
50% of total cover: 42.5		total cover:	47	Problematic Hydrophytic Vegetation ¹ (Explain)
Herb Stratum (Plot size: 5)	20 /0 0.	10101 00101		1
1. Dichanthelium scoparium	30	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Chasmanthium sessiliflorum	20	Yes	FAC	Definitions of Four Vegetation Strata:
3. Rhynchospora filifolia	15	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Juncus effusus	10	No	OBL	more in diameter at breast height (DBH), regardless of
5. Andropogon virginicus	10	No	FAC	height.
6. Arundinaria gigantea	10	No	FACW	Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10.				Mandaying Allowards visco greater than 2.20 ft in
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				1.03
	95	= Total Cov	er	
50% of total cover: 47.5		total cover:	40	
Woody Vine Stratum (Plot size: 30)				
1 Gelsemium sempervirens	15	Yes	FAC	
2 Rubus argutus	10	Yes	FAC	
3. Smilax rotundifolia	5	No	FAC	
4.				
5	30	T-4-1 0		Hydrophytic Vegetation
50% of total cover: 15		= Total Cov	•	Present? Yes No No
30 % of total cover.		total cover:	<u> </u>	
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wsua007s_w

Profile Des	cription: (Describe	to the depth	needed to docum	nent the i	ndicator	or confirm	the absence of	f indicators.)
Depth Matrix Redox Features								
(inches) 0-4	Color (moist) 10YR 3/2	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture SL	Remarks
-								
4-9	10YR 4/2	95	10YR 4/6	5	C	M	SL	
9-20	10YR 5/2	88	10YR 4/6	12	С	PL/M	SL	
-		· -						
	-							
								•
				·				
	oncentration, D=Dep					ains.		L=Pore Lining, M=Matrix.
•	Indicators: (Applic	able to all L			•			or Problematic Hydric Soils ³ :
Histoso	• •		Polyvalue Be					ck (A9) (LRR O)
	pipedon (A2) istic (A3)		Thin Dark Su Loamy Mucky					ck (A10) (LRR S) I Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye			. 0,		at Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		✓ Depleted Mat		,			ous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P	, T, U)	Redox Dark S	Surface (F	6)			A 153B)
	ucky Mineral (A7) (LF		Depleted Dar		. ,			ent Material (TF2)
	resence (A8) (LRR U)	Redox Depre		3)			allow Dark Surface (TF12)
	uck (A9) (LRR P, T) d Below Dark Surfac	a (Δ11)	Marl (F10) (L Depleted Och		(MI DA 1	51)	Other (E	xplain in Remarks)
	ark Surface (A12)	J (ATT)	Iron-Mangane				T) ³ Indicat	ors of hydrophytic vegetation and
	rairie Redox (A16) (N	/ILRA 150A)	_				•	nd hydrology must be present,
Sandy I	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric	(F17) (ML	RA 151)		unles	s disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver					
-	Redox (S5)		Piedmont Flo					(500)
	d Matrix (S6) Irface (S7) (LRR P, S	T 11)	Anomalous B	rignt Loan	ny Solis (F20) (MLR)	A 149A, 153C, 1	53D)
	Layer (if observed):							
Type: no	ne							
	ches):		_				Hydric Soil P	resent? Yes No
Remarks:							,	



Photo 1 Wetland data point wsua007s_w facing north



Photo 2
Wetland data point wsua007s_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk		Sampling Date: <u>12/8/2014</u>
Applicant/Owner: Dominion			Sampling Point: wsua007_u
• •	Section, Township, Ra		
	Local relief (concave,		
	Lat: 36.63304892		
Soil Map Unit Name: Tomotley loam		NWI classific	
Are climatic / hydrologic conditions on the site typica			
Are Vegetation, Soil, or Hydrology	•		
Are Vegetation, Soil, or Hydrology SUMMARY OF FINDINGS - Attach site			
		iocations, transects	, important reatures, etc.
	No Is the Sample	d Area	
Hydric Soil Present? Yes	No v within a Wetla	ind? Yes	No <u> </u>
Wetland Hydrology Present? Yes	No Within a Wetta		
Upland data point taken in a pine plantation for a sa about 5-years-old.	aracea i oo wellana. i mee in apiana an	e to yours out, while those	om the adjacent wettand only are
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is required; che	eck all that apply)	Surface Soil	Cracks (B6)
Surface Water (A1) A	quatic Fauna (B13)	Sparsely Ve	getated Concave Surface (B8)
	Marl Deposits (B15) (LRR U)	Drainage Pa	
	lydrogen Sulfide Odor (C1)	Moss Trim L	
	Oxidized Rhizospheres along Living Root		Water Table (C2)
	Presence of Reduced Iron (C4)	Crayfish Bur	
	Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7)		isible on Aerial Imagery (C9)
<u> </u>	Other (Explain in Remarks)	Shallow Aqu	Position (D2)
Inundation Visible on Aerial Imagery (B7)	other (Explain in Remarks)	✓ FAC-Neutral	
Water-Stained Leaves (B9)			noss (D8) (LRR T, U)
Field Observations:		<u> </u>	, , , , ,
Surface Water Present? Yes No	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
Saturation Present? Yes No	Depth (inches): W	etland Hydrology Preser	nt? Yes No
(includes capillary fringe)		a) if available.	
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspection	s), if available:	
Remarks:			
insufficient hydrology indicators present			
,			

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1. Pinus taeda	% Cover 75	Species? Yes	Status FAC	Number of Dominant Species
1. Titus taeua 2. Liquidambar styraciflua	5	No	FAC	That Are OBL, FACW, or FAC:8 (A)
3				Total Number of Dominant Species Across All Strata: 9 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:
6 7				Prevalence Index worksheet:
	-			Total % Cover of: Multiply by:
8	80	= Total Cov		OBL species0 x 1 =0
50% of total cover: 40			16	FACW species 7
50% of total cover.	20% 01	total cover:		FAC species153 x 3 =459
Sapling/Shrub Stratum (Plot size:15) 1 Liriodendron tulipifera	10	Yes	FACU	FACU species10 x 4 =40
2. Acer rubrum	10	Yes	FAC	UPL species0 x 5 =0
3. Pinus taeda	10	Yes	FAC	Column Totals:170 (A)513 (B)
4. Liquidambar styraciflua	10	Yes	FAC	2.24
5. Quercus nigra	4	No	FAC	Prevalence Index = B/A = 3.01
Manalla aquifana	4	No	FAC	Hydrophytic Vegetation Indicators:
U	3	No	FAC	1 - Rapid Test for Hydrophytic Vegetation
7. Ilex opaca Vaccinium corymbosum		No	FACW	2 - Dominance Test is >50%
8. Vacciman corymbocan				3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 26.5		= Total Cov	40.0	Problematic Hydrophytic Vegetation ¹ (Explain)
50 % of total cover.	20% of	total cover:		
Herb Stratum (Plot size:5) 1. Arundinaria gigantea	5	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Chasmanthium sessiliflorum	2	Yes	FAC	Definitions of Four Vegetation Strata:
3				Trace Mandy plants evaluation viscos 2 in (7.0 and) an
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or 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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	7	= Total Cov	er	
50% of total cover: 3.5	20% of	total cover:	1.4	
Woody Vine Stratum (Plot size: 30				
1. Gelsemium sempervirens	20	Yes	FAC	
2. Smilax rotundifolia	10	Yes	FAC	
3				
4				
5				Hydrophytic
	30	= Total Cov	er	Vegetation
50% of total cover:15	20% of	total cover:	6	Present? Yes No No
Remarks: (If observed, list morphological adaptations belo	w).			<u> </u>
Tromana. (Il obositoa, list morphological adaptatione bole	••).			

SOIL Sampling Point: wsua007_u

Profile Desc	cription: (Describe t	o the depth	needed to docur	ment the	indicator	or confirm	the absence of in-	dicators.)	
Depth	Matrix			x Feature	1	12	Tande	5 .	_
(inches) 0-6	Color (moist) 10YR 2/2	100	Color (moist)	%	Type'	Loc ²	Texture SL	Remarks	<u> </u>
6-10	10YR 3/2	100		- ·			SL		
10-20	10YR 5/3	100		_			SL		
				_					_
¹Type: C=C	oncentration, D=Depl	etion, RM=Re	educed Matrix, M	S=Masked	d Sand Gr	ains.	² Location: PL=F	Pore Lining, M=Ma	atrix.
Hydric Soil	Indicators: (Applica	able to all LR	Rs, unless other	rwise not	ed.)		Indicators for P	roblematic Hydri	c Soils³:
Histosol			Polyvalue Be						
	pipedon (A2) istic (A3)		Thin Dark Su Loamy Muck					(A10) (LRR S) ertic (F18) (outsid e	- MI RΔ 150Δ R)
	en Sulfide (A4)		Loamy Gleye	-		. 0,		oodplain Soils (F1	
	d Layers (A5)		Depleted Ma		. ,		Anomalous	Bright Loamy Soils	
_	Bodies (A6) (LRR P,		Redox Dark	•	,		(MLRA 15		
	ucky Mineral (A7) (LR esence (A8) (LRR U)		Depleted Date Redox Depreted					Material (TF2) w Dark Surface (TI	F12)
	uck (A9) (LRR P, T)		Marl (F10) (L		0)			ain in Remarks)	,
·	d Below Dark Surface	e (A11)	Depleted Oc	. ,	-	•	3		
	ark Surface (A12) rairie Redox (A16) (N	II DA 150A\	<pre> Iron-Mangan Umbric Surfa</pre>					of hydrophytic veo nydrology must be	
	//ucky Mineral (S1) (L		Delta Ochric			, 0)		sturbed or problen	
	Sleyed Matrix (S4)	, ,	Reduced Ver	rtic (F18)	(MLRA 15			•	
-	Redox (S5)		Piedmont Flo						
	l Matrix (S6) rface (S7) (LRR P, S	T 11)	Anomalous E	Bright Loa	my Soils (F20) (MLRA	A 149A, 153C, 153I	D)	
Restrictive	Layer (if observed):	, 1, 0,							
Type: no	ne		<u></u>						
	ches):		_				Hydric Soil Pres	ent? Yes	No
Remarks:							l		



Photo 1 Upland data point wsua007_u facing east



Photo 2
Upland data point wsua007_u facing south

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pip	eline	City/County: City of Suffolk Sampling Date: 2/6/2						
Applicant/Owner: DOMINION		State: VA Sampling Poi						
Investigator(s): Team C Section, Township, Range: No PLSS in this area								
Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%):2								
Subregion (LRR or MLRA): T	,	Lat: 36.63347814	Long: -76.8	38301154	Datum: WGS 1984			
Soil Map Unit Name: Tetotum	fine sandy loam, (0 to 2 percent slopes		NWI classific	ation: None			
Are climatic / hydrologic conditi	ions on the site ty	pical for this time of year?	Yes No ((If no, explain in R	emarks.)			
Are Vegetation, Soil	, or Hydrolog	gy significantly distu	irbed? Are "Normal	Circumstances" p	resent? Yes No			
Are Vegetation, Soil								
					, important features, etc.			
Hydrophytic Vegetation Prese	ent? Yes	✓ No						
Hydric Soil Present?	Yes	✓ No	Is the Sampled Area	Vac V	No			
Wetland Hydrology Present?		✓ No	within a Wetland?	res	NO			
Remarks:		<u> </u>						
LIVERAL GOV								
HYDROLOGY				0	((
Wetland Hydrology Indicate		Labarda all destarable			tors (minimum of two required)			
Primary Indicators (minimum	of one is required			Surface Soil				
Surface Water (A1)		True Aquatic Plants			getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Oo		Drainage Pat				
Saturation (A3) Water Marks (B1)		Oxidized Knizosphe		Moss Trim Li	Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reducti		Crayfish Buri				
Drift Deposits (B3)		Thin Muck Surface (-	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Re			ressed Plants (D1)			
Iron Deposits (B5)			,	Geomorphic				
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aqui	` '			
Water-Stained Leaves (B	(9)			Microtopographic Relief (D4)				
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)			
Field Observations:	-							
Surface Water Present?		Depth (inches):	6					
Water Table Present?	Yes No	Depth (inches):	0					
Saturation Present?	Yes No	Depth (inches):	0 Wetland H	lydrology Presen	t? Yes <u>/</u> No			
(includes capillary fringe) Describe Recorded Data (stre	eam gauge, monit	toring well, aerial photos, pr	evious inspections), if ava	ilable:				
200020 1.000	ram gaage, mem	g, ac.i.a. p.i.e.e., p.	orredeep eeee,, a.va					
Remarks:								
Wetland hydrology indicators	present							

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

2	/EGETATION (Four Strata) – Use scientific n	ames of	plants.		Sampling Point: wsuc010s_w
1. That Are OBL, FACW, or FAC: 2 (A) 3.	20				Dominance Test worksheet:
2. Total Number of Dominant 2 (B) Species Across All Strata: 2 (B) Species Across					
3.					Total Number of Deminent
Percent of Dominant Species 100 (A)					2
That Are ORL, FACW, or FAC: 100 (A)	4				Persont of Deminant Coopies
Prevalence Index worksheet: Total % Cover of:	5				
Total Scover of Sow of total cover	6				, , ,
Saping/Shrub Stratum (Plot size: 15 15 20 Yes FAC FAC Species 0 x 1 = 0 FACW species 0 x 2 = 0 FACW species 0 x 4 = 0 FACW specie	7				
Septing/Shrub Stratum (Plot size: 15 15 20 Yes FAC FAC Species 0 x 2 = 0		0	= Total Cove	_	
Sapling/Shrub Stratum (Plot size: 10	0070 01 total 00 vol	20% of	total cover:		OBL species X I =
Liquidambar styratural	Sapling/Shrub Stratum (Plot size:)		.,		FACW species X Z = 420
UPL species 0 x 5 = 0 Column Totals: 40 (A) 120 (E Prevalence Index = B/A = 3 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is Solo: 3 - Prevalence Index is ≤3.0 2 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) 1 - 4 - Morphological Adaptations! (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Provide Support data in Remarks or on a separate sheet) Problemati					FAC species X3 =
Column Totals: 40 (A) 120 (E 120	2. Pinus taeda	20	Yes	FAC	0
Prevalence Index = B/A = 3 Prevalence Index = B/A = 3 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - 1 - Rapid Test for Hydrophytic Vegetation 3 - 1 - Rapid Test for Hydrophytic Vegetation 4 - Order Johnson Stratum (Plot size: 5) 1 - Rapid Test for Hydrophytic Vegetation 4 - Morphological Adaptations' (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation' (Explain) 1 - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree - Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub - Woody plants, excluding vines, lest than 3 in. DBH and greater than or equal to 3.28 ft (and the problematic of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 30) 1. Woody Vine Stratum (Plot size: 30) 3 - Total Cover 50% of total cover: 0 20% of total cover: 0 4 Hydrophytic Vegetation Present? Yes No Present? Yes No	3				40 120
Prevalence Index = B/A = 3 Prevalence Index = B/A = 3	4				Column Totals: (A) (B)
Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation	5				Prevalence Index = B/A = 3
7. 8. 9. 1 - Rapid Test for Hydrophytic Vegetation 9. 1 - Rapid Test for Hydrophytic Vegetation 9. 1 - Rapid Test for Hydrophytic Vegetation 9. 20	6				
8.	7				
9.	8				
### Total Cover 8 ## Total Cover 8 ### Total Cover 8 ### Total Cover 8 ## Total Cover 8 ## Total Cover 9 ## Total Cover 9 ## Total Cover 9 ## Total Cover 9 ### Total Cover 9	9				
Herb Stratum (Plot size: 5) data in Remarks or on a separate sheet) Herb Stratum (Plot size: 5) data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Ex				^	
Problematic Hydrophytic Vegetation (Explain) Problematic Hydrophytic Vegetation (Explain) Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree — Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub — Woody plants, excluding vines, les than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb — All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 30) Woody Vine Stratum (Plot size: 30) — Total Cover 50% of total cover: 0 20% of total cover: 0 4 4 5 5 6 6 6 6 6 7 6 7 6 7 6 7 6 7 6 7 6 7		20% of	total cover:		
1	Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
3			·		
be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, 1 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 30) Woody Vine Stratum (Plot size: 30) Legion of total cover: 0	2				¹ Indicators of hydric soil and wetland hydrology must
5	3		·		
Tree – Woody plants, excluding vines, 3 in. (7.6 cm) more in diameter at breast height (DBH), regardless height. Sapling/Shrub – Woody plants, excluding vines, les than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardles of size, and woody plants less than 3.28 ft tall. Woody Vine Stratum (Plot size: 30) 1					Definitions of Four Vegetation Strata:
7	5		·		Tree – Woody plants, excluding vines, 3 in (7.6 cm) or
8	6		·		more in diameter at breast height (DBH), regardless of
9	7				height.
9	8				Sapling/Shrub – Woody plants, excluding vines, less
11	9				than 3 in. DBH and greater than or equal to 3.28 ft (1
O = Total Cover O Solve Solv	10				m) tall.
Solid Cover	11				Herb – All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size:				_	of size, and woody plants less than 3.28 ft tall.
1	30 % of total cover	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in
2	. (1 lot 3/26.				height.
3					
4					
5					
	**				
50% of total cover: 0 20% of total cover: 0	5				
50% of total cover	FOW of total covers				1103CHT: 103 NO
Remarks: (include photo numbers here or on a separate sheet.)	30 70 OI total cover:		total cover.		
	Remarks: (include photo numbers here or on a separate s	ineet.)			

Sampling Point: wsuc010s_w

Profile Des	cription: (Describe t	o the de	pth needed to docun	nent the	indicator	or confirm	the ab	sence of indicators.)
Depth	Matrix			x Feature	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u> %</u>	Type'	Loc ²		ture Remarks
0-18	10 YR 5/2	55	10 YR 4/6	5	C	PL/M	SC	CL
	2.5 YR 4/2	40					SC	CL
		-		-	·		-	
	· ·			-	· 	· ——	-	
-		-						
¹ Type: C=C	Concentration, D=Depl	etion, RM	I=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	² Locat	tion: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:							Indicators for Problematic Hydric Soils
Histoso	l (A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	low Surfa	ice (S8) (N	ILRA 147,	148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su				•	(MLRA 147, 148)
Hydrog	en Sulfide (A4)		Loamy Gleye	d Matrix	(F2)			Piedmont Floodplain Soils (F19)
Stratifie	ed Layers (A5)		Depleted Mat	trix (F3)				(MLRA 136, 147)
2 cm M	uck (A10) (LRR N)		Redox Dark S	Surface (F	- 6)			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	(A11)	Depleted Dar		. ,			Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) (LRR N,		
	A 147, 148)		MLRA 13	•				
	Gleyed Matrix (S4)		Umbric Surfa					³ Indicators of hydrophytic vegetation and
-	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	d Matrix (S6)		Red Parent N	/laterial (F	² 21) (MLR	A 127, 147	')	unless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:			<u> </u>					
Depth (ir	nches):						Hydr	ric Soil Present? Yes No
Remarks:							ı	
Hydric soil p	resent							



Photo 1
Wetland data point WSUC010s_w facing north



Photo 2
Wetland data point WSUC010s_w facing northeast

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline	City/County: City of Suf	Sampling Date: 2/6/2016				
Applicant/Owner: DOMINION	State: VA Sampling Point:					
Landform (hillslope, terrace, etc.): Slight slope Local relief (concave, convex, none): none Slope (%						
Subregion (LRR or MLRA): T						
Soil Map Unit Name: Tomotley loam		NWI classific	cation: None			
Are climatic / hydrologic conditions on the site typ						
Are Vegetation, Soil, or Hydrology						
Are Vegetation, Soil, or Hydrology						
SUMMARY OF FINDINGS – Attach si						
			,portant routuros, etc.			
	No Is the Sampled					
	within a Wetland	d? Yes	No			
Wetland Hydrology Present? Yes _ Remarks:	No					
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one is required;	check all that apply)	Surface Soil	Cracks (B6)			
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Pa	atterns (B10)			
Saturation (A3)	Oxidized Rhizospheres on Living Roots	(C3) Moss Trim L	ines (B16)			
Water Marks (B1)	Presence of Reduced Iron (C4)	•	Water Table (C2)			
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C					
Drift Deposits (B3)	Thin Muck Surface (C7)		isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain in Remarks)		Stressed Plants (D1)			
Iron Deposits (B5)			Position (D2)			
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)				
Water-Stained Leaves (B9)Aquatic Fauna (B13)		<pre> Microtopographic Relief (D4) FAC-Neutral Test (D5)</pre>				
Field Observations:		TAC-Neutla	1 1 est (D3)			
	Depth (inches):					
	Depth (inches):					
		land Hydrology Prese	nt? Yes No ✔			
(includes capillary fringe)	· · · · ·		nt: 165 NO			
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspections)	, if available:				
Remarks:						
No hydrology indicators present						

Sampling	Point: wsuc010_	_u
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20	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	10	Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2				Total Number of Deminerat
3				Total Number of Dominant Species Across All Strata: 7 (B)
4				Openies / toress / tir etrata.
4	· 			Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 85.71428571 (A/B)
6	· 			Prevalence Index worksheet:
7				
	10	= Total Cove		
50% of total cover:5	20% of	total cover:	2	OBL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1. Pinus taeda	30	Yes	FAC	FAC species150
2. Liquidambar styraciflua	20	Yes	FAC	FACU species45
3. Quercus alba	20	Yes	FACU	UPL species 0 x 5 = 0
	10	No	FACU	Column Totals: 195 (A) 630 (B)
4. llex opaca			1700	Column rotals (A) (B)
5				Prevalence Index = B/A =3.23
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
				✓ 2 - Dominance Test is >50%
9	- 00			3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 40		= Total Cove	er 16	4 - Morphological Adaptations ¹ (Provide supporting
50 70 01 total 00 vol	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Dichanthelium clandestinum	50	Yes	FAC	1 Toblematic Trydrophytic Vegetation (Explain)
2. Smilax rotundifolia	20	Yes	FAC	1
3. Lonicera japonica	20	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4 Rubus argutus	15	No	FACU	
5				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				Sanling/Shrub Woody plants, evaluding vines loss
9				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
· · · · · · · · · · · · · · · · · · ·	105	T-1-1-0		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 52.5		= Total Cove		of size, and woody plants less than 3.26 it tall.
00/00/10/01/01/01	20% OF	total cover:		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2	·			
3				
4	· 			Hydrophytic
5				Vegetation Present? Yes No
		= Total Cove		Present? Yes No No
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			•
, , ,	,			

Profile Desc	cription: (Describe to	o the dep	oth needed to docum	ent the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redox	K Feature:				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u>	Type ¹	Loc ²	<u>Texture</u>	<u>Remarks</u>
0-16	10 YR 4/4	95	10 YR 4/6	5	С	M	S	
						· ——		
						· ——		
	·							
	-				-			
			<u> </u>					
	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	=Masked	Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
Histosol	• •		Dark Surface					cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Bel		. , .		148) 0	Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)		F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S	,	,			/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar					Other (Explain in Remarks)
	ark Surface (A12)	DD N	Redox Depre			LDDN		
	/lucky Mineral (S1) (L l \ 147, 148)	KK N,	Iron-Mangane MLRA 136		es (F12) (LKK N,		
	Gleyed Matrix (S4)		Umbric Surfa	•	(MI DA 12	e 122\	3Inc	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent M					less disturbed or problematic.
	Layer (if observed):		11001 0101111	iatoriai (i	Z I) (IIILIX	7. 121, 141	, u.,	ness distarsed of problematic.
	Layor (ii oboor roa).							
Type:	-l\·						Unadaia Cail	Dragont2 Vos No V
Depth (in	cnes):						Hydric Soil	Present? Yes No
Remarks:								
No wetland h	ydrology present							



Photo 1
Upland data point WSUC010_u facing northwest



Photo 2
Upland data point WSUC010_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Date: 12/8/2014
Applicant/Owner: Dominion	Sta	te: VA Sampling Point: wsua008f_w
• •	Section, Township, Range: No P	
Landform (hillslope, terrace, etc.): swale		
Subregion (LRR or MLRA): T Lat: 36.634	Long:	Datum: New Year
Soil Map Unit Name: Nansemond fine sandy loam, 0 to 2 percent slop		
Are climatic / hydrologic conditions on the site typical for this time of year		,
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Cir	rcumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed, expl	ain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	រ sampling point locations	s, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes V No	is the Sampled Area	
Wetland Hydrology Present? Yes _ ✓ No	within a Wetland?	Yes No
Remarks:		
Wetland data point for a saturated to temporarily flooded PFO wetlan		agricultural fields; perennial stream ssua004
flows through feature. Receives ample run-off and sediment load from	adjacent agricultural fields	
HYDROLOGY		
Wetland Hydrology Indicators:	<u>Se</u>	condary 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 (B1	3)	_ Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) — Marl Deposits (B19)	5) (LRR U)	_ Drainage Patterns (B10)
✓ Saturation (A3) Hydrogen Sulfide	Odor (C1)	_ Moss Trim Lines (B16)
	neres along Living Roots (C3)	_ Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Redu		Crayfish Burrows (C8)
<u> </u>	ction in Tilled Soils (C6)	_ Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface		Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in F		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)	<u>-</u>	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Field Observations:		_ Spriagrium moss (Do) (ERR 1, 0)
Surface Water Present? Yes No Depth (inches	.).	
Water Table Present? Yes V No Depth (inches		
Saturation Present? Yes V No Depth (inches	(a): Wetland Hyd	rology Present? Yes 🗸 No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial phot	os, previous inspections), if availab	ole:
Damada		
Remarks:		

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

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1	% Cover 20	Species? Yes	Status FAC	Number of Dominant Species
1. Prinus taeda 2. Quercus phellos	15	Yes	FACW	That Are OBL, FACW, or FAC:8 (A)
2. Platanus occidentalis	15	Yes	FACW	Total Number of Dominant Species Across All Strata: 9 (B)
4. Liquidambar styraciflua	10	No	FAC	Species Across All Strata:9 (B)
5. Quercus laurifolia	10	No	FACW	Percent of Dominant Species That Are ORL FACW or FAC: 88.88888888 (A/R)
6. Acer rubrum	5	No	FAC	That Are OBL, FACW, or FAC:
7. Quercus michauxii	5	No	FACW	Prevalence Index worksheet:
8.	-			Total % Cover of: Multiply by:
0	80	= Total Cov		OBL species0 x 1 =0
50% of total cover: 40		total cover:	16	FACW species67
	20% 01	lotal cover.	·	FAC species95
Sapling/Shrub Stratum (Plot size: 15) 1 Liquidambar styraciflua	15	Yes	FAC	FACU species40 x 4 =160
2 Pinus taeda	15	Yes	FAC	UPL species0 x 5 =0
3. Acer rubrum	10	Yes	FAC	Column Totals:(A)(B)
4. Quercus phellos	10	Yes	FACW	0.00
5. Itea virginica	8	No	FACW	Prevalence Index = B/A =2.86
Linia da nadua na Audinifa na		No	FACU	Hydrophytic Vegetation Indicators:
6. Linoaenaron tulipirera 7 Magnolia virginiana	4	No	FACW	1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
8	67		-	3 - Prevalence Index is ≤3.0 ¹
33.5		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3	-			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
2		= Total Cov	^	
50% of total cover: $\frac{0}{1}$	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30				
1. Lonicera japonica	35	Yes	FACU	
2. Smilax rotundifolia	15	Yes	FAC	
3. Bignonia capreolata	5	No	FAC	
4				
5				Hydrophytic
		= Total Cov	er	Vegetation
50% of total cover:27.5	20% of	total cover:	11	Present? Yes No
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wsua008f_w

Profile Desc	cription: (Describe t	o the depth	needed to docur	ment the	indicator	or confirm	the absence of in	ndicators.)	
Depth	Matrix	0′		x Feature	1	1 2	T = = 2	5 .	
(inches) 0-3	Color (moist) 10YR 2/1	100	Color (moist)	%	Type'	Loc ²	Texture SIL	Remarks	
3-10	10YR 3/1	100					SIL		
10-18	10YR 4/1	100					SIL		
				_					
									<u> </u>
				_					
	oncentration, D=Depl					ains.		Pore Lining, M=Matrix	
-	Indicators: (Applica	able to all LF						Problematic Hydric S	oils³:
Histosol			Polyvalue Be						
	pipedon (A2) istic (A3)		Thin Dark Su Loamy Muck					: (A10) (LRR S) /ertic (F18) (outside M i	LRA 150A.B)
	en Sulfide (A4)		Loamy Gleye	-		. •,		Floodplain Soils (F19) (
	d Layers (A5)		Depleted Ma	trix (F3)				s Bright Loamy Soils (F	20)
_	Bodies (A6) (LRR P,		Redox Dark	•	,		(MLRA 1		
	ucky Mineral (A7) (LR resence (A8) (LRR U)		Depleted Da Redox Depre					t Material (TF2) ow Dark Surface (TF12	\
	uck (A9) (LRR P, T)	,	Marl (F10) (L	•	0)			lain in Remarks)	,
	d Below Dark Surface	e (A11)	Depleted Oc		(MLRA 1	51)	` ` '	,	
	ark Surface (A12)		Iron-Mangan					s of hydrophytic vegeta	
	rairie Redox (A16) (N					, U)		hydrology must be pre	
	Mucky Mineral (S1) (L Gleyed Matrix (S4)	KK U, S)	Delta Ochric Reduced Ve			0Δ 150R)	uniess	disturbed or problemation	C.
	Redox (S5)		Piedmont Flo				9A)		
Stripped	Matrix (S6)						A 149A, 153C, 153	3D)	
	rface (S7) (LRR P, S	, T, U)					1		
	Layer (if observed):								
Type: no			<u>—</u>				Usadaia Cail Daa	sent? Yes	Ma
	ches):						Hydric Soil Pre	sent? res	No
Remarks:									



Photo 1 Wetland data point wsua008f_w facing east



Photo 2
Wetland data point wsua008f_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	(Sampling Date: 12/8/2014			
Applicant/Owner: Dominion		State: VA	Sampling Point: wsua008_u			
Investigator(s): GB, RL						
Landform (hillslope, terrace, etc.): slope	Local relief (concave	e, convex, none): none	Slope (%): 4			
			Datum: WGS 1984			
Soil Map Unit Name: Nansemond fine sandy loam, 0 to 2 percer	t slopes	NWI classi	fication: None			
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes V	o (If no. explain in	Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	-					
Are Vegetation, Soil, or Hydrology natura						
SUMMARY OF FINDINGS – Attach site map sho						
		it rodationo, transco	io, important routeroo, otor			
Hydrophytic Vegetation Present? Yes No		led Area				
Hydric Soil Present? Yes No	within a We	tland? Yes	No <u> </u>			
Wetland Hydrology Present? Yes No Remarks:	<u></u>					
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary Indi	cators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that a		Surface So				
Surface Water (A1) Aquatic Faun			Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Deposits		Drainage F				
Saturation (A3) Hydrogen Su			Lines (B16)			
	zospheres along Living Ro Reduced Iron (C4)		Dry-Season Water Table (C2) Crayfish Burrows (C8)			
	Reduction in Tilled Soils (C	· · · · · · · · · · · · · · · · · · ·	Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Muck St			ic Position (D2)			
Iron Deposits (B5) Other (Explain	` '		quitard (D3)			
Inundation Visible on Aerial Imagery (B7)	,		ral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No Depth (ii						
Water Table Present? Yes No Depth (ii	,					
Saturation Present? Yes No Depth (in	nches):	Wetland Hydrology Pres	ent? Yes No			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspection	ons), if available:				
		,				
Remarks:						
no hydrology indicators present						

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	
1 Pinus taeda	30	Yes	FAC	Number of Dominant Species That Are OBL FACW or FAC: 4 (A)
· ·	30			That Are OBL, FACW, or FAC: 4 (A)
2. Liriodendron tulipifera		Yes	FACU	Total Number of Dominant
3. Liquidambar styraciflua	15	Yes	FAC	Species Across All Strata: 7 (B)
4				
5.				Percent of Dominant Species That Are ORL FACW or FAC: 57.14285714 (A/R)
				That Are OBL, FACW, or FAC: <u>57.14285714</u> (A/B)
6				Prevalence Index worksheet:
7				
8				Total % Cover of: Multiply by:
	75	= Total Cov	er	OBL species x 1 =
50% of total cover: 37.5	20% of	total cover:	15	FACVV species
	20 /0 01	total cover.		FAC species85
Sapling/Shrub Stratum (Plot size:)	00		E4011	FACU species 100 x 4 = 400
1. Liriodendron tulipifera	20	Yes	FACU	
2. Pinus taeda	15	Yes	FAC	UPL species
3. Liquidambar styraciflua	15	Yes	FAC	Column Totals:(A)(B)
4 Fagus grandifolia	5	No	FACU	2.54
" <u> </u>		No	FAC	Prevalence Index = B/A =3.54
5. <u>Ilex opaca</u>			-FAC	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	60			3 - Prevalence Index is ≤3.0 ¹
00		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:30	20% of	total cover:	12	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
1				
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10.				
				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	0	= Total Cov	er	
50% of total cover:	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30)				
1 Lonicera japonica	45	Yes	FACU	
·-				
2. Gelsemium sempervirens	5	No	FAC	
3				
4.				
5				Hydrophytic
	50	= Total Cov	er	Vegetation
50% of total cover: 25	20% of	total cover:	10	Present? Yes No No
Remarks: (If observed, list morphological adaptations below	w)			
Tremarks. (Il observed, list morphological adaptations below	v).			

SOIL Sampling Point: wsua008_u

Profile Des	cription: (Describe	to the depth	needed to docui	ment the	indicator	or confirm	the absence of in-	dicators.)		
Depth	Matrix			x Feature	1	1.5.2	Tander	D !		
(inches) 0-4	Color (moist) 10YR 3/2	100	Color (moist)	%	Type'	_Loc ²	Texture SL	Remarks		
4-9	10YR 4/2	100					SL			
9-20	10YR 6/3	100					SL			
		· ·								
				_						
		· · <u></u>								
¹Type: C=C	Concentration, D=Dep	letion, RM=R	Reduced Matrix, M	S=Masked	d Sand Gra	ains.	² Location: PL=F	Pore Lining, M=Matrix		
Hydric Soil	Indicators: (Application	able to all Li	RRs, unless othe	rwise not	ed.)		Indicators for P	roblematic Hydric S	oils³:	
Histoso			Polyvalue Be							
	pipedon (A2)		Thin Dark Su					(A10) (LRR S)	I D A 450 A D\	
	listic (A3) en Sulfide (A4)		Loamy Muck Loamy Gleye	-		(O)		ertic (F18) (outside M oodplain Soils (F19) (
	d Layers (A5)		Depleted Ma		(1 2)			Bright Loamy Soils (F		
	Bodies (A6) (LRR P	, T, U)	Redox Dark		- 6)		(MLRA 15		_0,	
_	ucky Mineral (A7) (LF		Depleted Da	rk Surface	e (F7)		Red Parent Material (TF2)			
	resence (A8) (LRR U)	Redox Depre		8)		Very Shallow Dark Surface (TF12)			
	uck (A9) (LRR P, T)	(* 4 4)	Marl (F10) (L				Other (Expla	ain in Remarks)		
	ed Below Dark Surface ark Surface (A12)	e (A11)	Depleted Oc Iron-Mangan	. ,	•	•	F) ³ Indicators	of hydrophytic vegeta	ation and	
	Prairie Redox (A16) (N	/ILRA 150A)						nydrology must be pre		
	Mucky Mineral (S1) (L		Delta Ochric			, -,		sturbed or problemati		
	Gleyed Matrix (S4)		Reduced Ve			0A, 150B)				
-	Redox (S5)		Piedmont Flo							
	d Matrix (S6)		Anomalous E	Bright Loa	my Soils (=20) (MLR<i>A</i>	A 149A, 153C, 153I	D)		
	urface (S7) (LRR P, S Layer (if observed):									
Type: no										
	nches):		 ,				Hydric Soil Pres	ent? Yes	No 🗸	
Remarks:							nyunc 3011 Fres	ent: les	NO	
Nemarks.										



Photo 1 Upland data point wsua008_u facing north



Photo 2 Upland data point wsua008_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: S	uffolk	Sampling Date: 2/20/2015			
Applicant/Owner: Dominion			Sampling Point: wsua021f_w1			
Investigator(s): GB, CC	Section, Towns		· -			
Landform (hillslope, terrace, etc.): flat						
Subregion (LRR or MLRA): T						
Soil Map Unit Name: Weston fine sandy loam		Long NWI classi				
Are climatic / hydrologic conditions on the site typical						
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	vers in Remarks.)			
SUMMARY OF FINDINGS – Attach site	map showing sampling p	point locations, transec	ts, important features, etc.			
Hydrophytic Vegetation Present? Yes <u>✓</u>	No Is the S					
	, No	ampled Area	V 11-			
	No	a Wetland? Yes	No			
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:		Socondary Indi	cators (minimum of two required)			
Primary Indicators (minimum of one is required; che	ack all that annly)		<u> </u>			
•			Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)			
	Aquatic Fauna (B13) Marl Deposits (B15) (LRR U)		Sparsely vegetated Concave Surface (Bo) Drainage Patterns (B10)			
_	Hydrogen Sulfide Odor (C1)		Drainage Patterns (B10) Moss Trim Lines (B16)			
	Dxidized Rhizospheres along Livir					
	Presence of Reduced Iron (C4)		Crayfish Burrows (C8)			
	Recent Iron Reduction in Tilled So					
	hin Muck Surface (C7)		ic Position (D2)			
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Ad	Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutr	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum	n moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No		_				
Water Table Present? Yes No	Depth (inches):	_				
Saturation Present? Yes No (includes capillary fringe)	Depth (inches):	Wetland Hydrology Pres	ent? Yes V No No			
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous ins	pections), if available:				
Remarks:						

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

00	Absolute	Dominant	Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size:) 1	% Cover 25	Species? Yes	Status FAC	Number of Dominant Species		
Lieuviele vele en etcue eiflue	15	Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)		
2. Liquidambar styraciilua 3. Nyssa sylvatica	15	Yes	FAC	Total Number of Dominant		
4. Quercus phellos	10	No	FACW	Species Across All Strata: 8 (B)		
A	5	No	FAC	Percent of Dominant Species		
·			- FAC	That Are OBL, FACW, or FAC:75 (A/B)		
6				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
8	70			OBL species0 x 1 =0		
500/ - 64-4-1 35		= Total Cov	1/	FACW species16		
50% of total cover:	20% of	total cover:		FAC species 96 x 3 = 288		
Sapling/Shrub Stratum (Plot size: 15) 1 llex opaca	10	Yes	FAC	FACU species14 x 4 =56		
Facus available	10	Yes	FACU	UPL species 0 x 5 = 0		
2. Fagus grandifolia 3. Liquidambar styraciflua	5	No	FAC	Column Totals: 126 (A) 376 (B)		
4. Acer rubrum		No	FAC			
	3	No	FACW	Prevalence Index = B/A =2.98		
Ve estatuas estatuas	3	No	FACW	Hydrophytic Vegetation Indicators:		
0				1 - Rapid Test for Hydrophytic Vegetation		
7			-	2 - Dominance Test is >50%		
8	36	T-1-1 O-1		3 - Prevalence Index is ≤3.0 ¹		
50% of total cover 18		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)		
50 % of total cover.	20% of	total cover:				
Herb Stratum (Plot size:) 1 Microstegium vimineum	10	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must		
"				be present, unless disturbed or problematic.		
2				Definitions of Four Vegetation Strata:		
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or		
4			-	more in diameter at breast height (DBH), regardless of height.		
5						
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
7				than 3 m. bbrrand greater than 3.20 m (1 m) tail.		
8				Herb – All herbaceous (non-woody) plants, regardless		
9				of size, and woody plants less than 3.28 ft tall.		
10				Woody vine – All woody vines greater than 3.28 ft in		
11				height.		
12	10	= Total Cov				
50% of total cover: 5		total cover:	_			
	20 /6 01	total cover.				
Woody Vine Stratum (Plot size:) 1 Vitis rotundifolia	6	Yes	FAC			
2 Lonicera japonica	4	Yes	FACU			
3						
5	10	= Total Cov		Hydrophytic Vegetation		
50% of total cover: 5			2	Present? Yes No		
30 /0 01 total cover:		total cover:				
Remarks: (If observed, list morphological adaptations belo herb ID limited due to snow and dormancy	W).					
illilitied due to show and dominancy						

SOIL Sampling Point: wsua021f_w1

Depth	cription: (Describe t Matrix			x Feature				•
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 2/1	100					SL	
6-20	10YR 4/1	90	10YR 5/8	10	С	М	SCL	_
						-		
¹ Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all l	RRs, unless other	wise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue Be	low Surfa	ce (S8) (L	RR S, T, U) 1 cm Mucl	k (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					k (A10) (LRR S)
	istic (A3)		Loamy Muck	-		R O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye ✓ Depleted Ma		(F2)			Floodplain Soils (F19) (LRR P, S, T) s Bright Loamy Soils (F20)
	Bodies (A6) (LRR P ,	T U)	Redox Dark		-6)		Anomalou (MLRA	
_	ucky Mineral (A7) (LR		Depleted Dar	•	,			nt Material (TF2)
	resence (A8) (LRR U)		Redox Depre					low Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	RR U)			Other (Exp	olain in Remarks)
	d Below Dark Surface	(A11)	Depleted Oct				•	
	ark Surface (A12)		Iron-Mangan					rs of hydrophytic vegetation and
	Prairie Redox (A16) (N					, U)		d hydrology must be present,
	Mucky Mineral (S1) (L Gleyed Matrix (S4)	.KK U, S)	Delta Ochric Reduced Ver			.0Δ 150R)	unless	disturbed or problematic.
	Redox (S5)		Piedmont Flo				9A)	
-	d Matrix (S6)						A 149A, 153C, 15	(3D)
	urface (S7) (LRR P, S	, T, U)	_	Ü	, ,	, ,	, ,	,
	Layer (if observed):							
Type: no	one							
Depth (ir	iches):						Hydric Soil Pre	esent? Yes No
Remarks:							1	



Photo 1 Wetland data point wsua021f_w1 facing north



Photo 2
Wetland data point wsua021f_w1 facing south

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Suffolk		Sampling Date: 2/20/2015		
Applicant/Owner: Dominion		,			Sampling Point: wsua021_u1		
Investigator(s): GB, CC		Section	n, Township, Range: <u>N</u>				
Landform (hillslope, terrace, etc.): 9	entle slope	Local	relief (concave, convex	, none): none	Slope (%): 2		
					Datum: WGS 1984		
Soil Map Unit Name: Lynchburg fine	sandy loam						
Are climatic / hydrologic conditions of		this time of year? Yo					
Are Vegetation, Soil,							
Are Vegetation, Soil,				explain any answe			
SUMMARY OF FINDINGS –					ŕ		
			pung penni ieeun		,,portaint routuros, etc.		
Hydrophytic Vegetation Present?	Yes		Is the Sampled Area				
Hydric Soil Present?	Yes		within a Wetland?	Yes	No <u> </u>		
Wetland Hydrology Present? Remarks:	Yes	NO					
HYDROLOGY							
Wetland Hydrology Indicators:	a ta manutarah abarah	- II 4b - 4 b A		-	ators (minimum of two required)		
Primary Indicators (minimum of one	-			Surface Soil	, ,		
Surface Water (A1)		tic Fauna (B13)	N 11N		getated Concave Surface (B8)		
High Water Table (A2)		Deposits (B15) (LRF		Drainage Patterns (B10)			
Saturation (A3)		ogen Sulfide Odor (C	long Living Roots (C3)	Moss Trim Lines (B16)			
Water Marks (B1) Sediment Deposits (B2)		ence of Reduced Iron					
Sediment Deposits (B2) Drift Deposits (B3)		ent Iron Reduction in		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Muck Surface (C7)	Tilled collo (co)		Position (D2)		
Iron Deposits (B5)	·——	r (Explain in Remark	s)	Shallow Aqu			
Inundation Visible on Aerial Im		()	-,	FAC-Neutra			
Water-Stained Leaves (B9)				· · · · · · · · · · · · · · · · · · ·	moss (D8) (LRR T, U)		
Field Observations:							
Surface Water Present? Yes	s No 🖍 I	Depth (inches):					
Water Table Present? Yes	s No 🖍 I	Depth (inches):					
	s No	Depth (inches):	Wetland	Hydrology Prese	nt? Yes No		
(includes capillary fringe) Describe Recorded Data (stream g	jauge, monitoring we	ell, aerial photos, pre	vious inspections), if av	ailable:			
Remarks:							
no hydrology indicators present							
					ļ.		
					ļ.		

20	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1. Pinus taeda	40	Yes	FAC	That Are OBL, FACW, or FAC: 6	(A)
2. Liquidambar styraciflua	20	Yes	FAC	Total Number of Dominant	
3. Acer rubrum	10	No	FAC		(B)
4. Liriodendron tulipifera	8	No	FACU		` '
5.				Percent of Dominant Species That Are OBL FACW or FAC: 85.71428571	(A /D)
				That Are OBL, FACW, or FAC: 85.71428571	(A/B)
6				Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
8	78			OBL species0 x 1 =0	
E00/ of total covers 39		= Total Cov	156	FACW species0 x 2 =0	
50% of total cover.	20% of	total cover:	15.6	100 224	
Sapling/Shrub Stratum (Plot size: 15)				22 00	
1. Morella cerifera	12	Yes	FAC	FACU species x 4 =	
2. Pinus taeda	10	Yes	FAC	UPL species x 5 =	
Fagus grandifolia	6	No	FACU	Column Totals:(A)(A)	(B)
4. Ilex opaca	4	No	FAC	Prevalence Index = B/A = 3.16	
				Trevalence mack Birt	•
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8				3 - Prevalence Index is ≤3.0 ¹	
	32	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 16	20% of	total cover:	6.4		,
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology mu	ıot
1				be present, unless disturbed or problematic.	มธเ
				Definitions of Four Vegetation Strata:	
2				Definitions of Four Vegetation Strata.	
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cr	
4				more in diameter at breast height (DBH), regardles	ss of
5				height.	
6				Sapling/Shrub - Woody plants, excluding vines, I	ess
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
8				Herb – All herbaceous (non-woody) plants, regard	llocc
9.				of size, and woody plants less than 3.28 ft tall.	1000
10.					
				Woody vine – All woody vines greater than 3.28 fl	t in
11.				height.	
12					
		= Total Cov	^		
50% of total cover:0	20% of	total cover:			
Woody Vine Stratum (Plot size:)					
1. Lonicera japonica	8	Yes	FACU		
2. Smilax rotundifolia	6	Yes	FAC		
3. Vitis rotundifolia	6	Yes	FAC		
4					
5	20			Hydrophytic	
10		= Total Cov		Vegetation Present? Yes No	
50% of total cover:10	20% of	total cover:		100 100	
Remarks: (If observed, list morphological adaptations below	w).				
no herbs viaible above snow cover					

SOIL Sampling Point: wsua021_u1

Profile Desc	ription: (Describe	to the dep	th needed to docum	ent the i	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix			Features	3				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks	3
0-7	10YR 2/2	100					SL		
7-16	10YR 3/2	100					SL		
16-24	10YR 4/2	97	10YR 4/6	3	С	М	SL		
		·							
									_
			Reduced Matrix, MS			ins.		PL=Pore Lining, M=Ma	
-		able to all	LRRs, unless other					for Problematic Hydri	c Solis":
Histosol	(A1) pipedon (A2)		Polyvalue Bel Thin Dark Sur					luck (A9) (LRR O) luck (A10) (LRR S)	
Black Hi			Loamy Mucky					ed Vertic (F18) (outsid e	e MLRA 150A.B)
	n Sulfide (A4)		Loamy Gleyed			-,		ont Floodplain Soils (F1	
	Layers (A5)		Depleted Mati				Anoma	lous Bright Loamy Soils	s (F20)
	Bodies (A6) (LRR P		Redox Dark S	•	•			RA 153B)	
	icky Mineral (A7) (LF				, ,			arent Material (TF2)	E40)
	esence (A8) (LRR U ick (A9) (LRR P, T))	Redox Depres Marl (F10) (Li		3)			hallow Dark Surface (Ti Explain in Remarks)	F12)
	d Below Dark Surfac	e (A11)	Depleted Och		(MLRA 15	51)	Other (Explain in Nemarks)	
	ark Surface (A12)	` ,	Iron-Mangane				T) ³ Indica	ators of hydrophytic veg	getation and
Coast Pi	rairie Redox (A16) (N	/ILRA 150	A) Umbric Surfac	ce (F13) (LRR P, T,	U)		and hydrology must be	
-	fucky Mineral (S1) (L	RR O, S)	Delta Ochric (unle	ess disturbed or problem	natic.
-	Gleyed Matrix (S4)		Reduced Vert				241		
-	ledox (S5) Matrix (S6)		Piedmont Floo Anomalous Bi					153D)	
	rface (S7) (LRR P, S	s, T, U)	/ triomalodo Bi	ngni Loui	ily collo (i	20) (IIIZIV)	1 14074, 1000,	1000)	
Restrictive I	_ayer (if observed):								
Type: noi	ne								
Depth (inc	ches):						Hydric Soil	Present? Yes	No
Remarks:									



Photo 1 Upland data point wsua021_u1 facing east



Photo 2 Upland data point wsua021_u1 facing west

Project/Site: Atlantic Coast Pipeline	City	/County: Suffolk	Sampling Date: 2/20/2015			
Applicant/Owner: Dominion		-	State: VA Sampling Point: wsua021f_wa			
Investigator(s): GB, CC	Sec					
Landform (hillslope, terrace, etc.): flat						
			76.87470655 Datum: WGS 19			
Soil Map Unit Name: Weston fine sandy loam	Lut		NWI classification: None			
Are climatic / hydrologic conditions on the site						
			Circumstances" present? Yes No			
Are Vegetation, Soil, or Hydro			explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attack	n site map showing sa	mpling point location	ons, transects, important features, et			
Hydrophytic Vegetation Present? Ye	es No	Is the Sampled Area				
	es No	within a Wetland?	Yes No			
Wetland Hydrology Present? Ye	es No	Willillia Holland.	100			
Wetland data point taken on a disturbed flat f						
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required			
Primary Indicators (minimum of one is required)			Surface Soil Cracks (B6)			
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Marl Deposits (B15) (LI		Drainage Patterns (B10)			
Saturation (A3)	Hydrogen Sulfide Odor		Moss Trim Lines (B16)			
Water Marks (B1) Sediment Deposits (B2)	Oxidized RhizospheresPresence of Reduced In					
Sedifficit Deposits (B2) Drift Deposits (B3)	Recent Iron Reduction		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Thin Muck Surface (C7		Geomorphic Position (D2)			
Iron Deposits (B5)	Other (Explain in Rema		Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (Bi		,	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)	•		Sphagnum moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes	No Depth (inches):					
Water Table Present? Yes I	No Depth (inches): 18	<u> </u>				
	No Depth (inches): 0	Wetland H	lydrology Present? Yes 🔽 No			
(includes capillary fringe) Describe Recorded Data (stream gauge, mo	onitoring well, aerial photos, p	revious inspections), if ava	nilable:			
33.,	J 1,111 p 1111, p	γ,				
Remarks:						
surface saturated from 0 to 8 inches; saturati	on associated with water table	e at 17"				

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

00	Absolute	Dominant	Indicator	Dominance Test worksheet:			
Tree Stratum (Plot size:)		Species?		Number of Dominant Species _			
1. Liquidambar styraciflua	35	Yes	FAC	That Are OBL, FACW, or FAC:7 (A)			
2. Pinus taeda	35	Yes	FAC	Total Number of Dominant			
3. Platanus occidentalis	10	No	FACW	Species Across All Strata: 8 (B)			
4							
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5 (A/B)			
6							
7				Prevalence Index worksheet:			
8.				Total % Cover of: Multiply by:			
•	80	= Total Cov		OBL species8 x 1 =8			
50% of total cover: 40		total cover:	16	FACW species26			
	20 /6 01	total cover.		FAC species104 x 3 =312			
Sapling/Shrub Stratum (Plot size:15) 1 Liquidambar styraciflua	15	Yes	FAC	FACU species 8 x 4 = 32			
Distance assistantalia	12	Yes		UPL species 0 x 5 = 0			
Adamatta a sife in			FACW	Column Totals: 146 (A) 404 (B)			
3. Morella cerifera	7	No No	FAC	Goldmin rotals: (r) (b)			
4. Acer rubrum	5	No	FAC	Prevalence Index = B/A =2.76			
5. Pinus taeda	5	No	FAC	Hydrophytic Vegetation Indicators:			
6. Liriodendron tulipifera	4	No	FACU	1 - Rapid Test for Hydrophytic Vegetation			
7				✓ 2 - Dominance Test is >50%			
8.				✓ 3 - Prevalence Index is ≤3.0 ¹			
	48	= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)			
50% of total cover: 24	20% of	total cover:	9.6	Problematic Hydrophytic Vegetation (Explain)			
Herb Stratum (Plot size: 5)				1			
1 Woodwardia areolata	8	Yes	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.			
2. Osmundastrum cinnamomeum	4	Yes	FACW	Definitions of Four Vegetation Strata:			
			•	Deminitions of Four Vegetation Strata.			
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or			
4				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 herbaceous (non-woody) plants, regardless			
9				of size, and woody plants less than 3.28 ft tall.			
10.				Was devices Allowed by since proctor than 2.20 ft in			
11.				Woody vine – All woody vines greater than 3.28 ft in height.			
12.				g			
12.	12	= Total Cov	or				
50% of total cover: 6		total cover:	~ 4				
	20% 01	total cover.					
Woody Vine Stratum (Plot size:) 1 Lonicera japonica	4	Yes	FACU				
"		Yes	FAC				
2. Smilax rotundifolia			FAC				
3							
4							
5				Hydrophytic			
	6	= Total Cov	er	Vegetation			
50% of total cover: 3	20% of	total cover:	1.2	Present? Yes No			
Remarks: (If observed, list morphological adaptations below							
Herb ID limited due to snow cover and dormancy	••).						
· · · · · · · · · · · · · · · · · · ·							

Sampling Point: wsua021f_w2

SOIL

Profile Desc	ription: (Describe	to the depth n	eeded to docur	nent the i	ndicator	or confirm t	the absence	of indicate	ors.)	
Depth	Matrix			x Feature	s					
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	_
0-15	10YR 2/1	100					SL			_
15-20	10YR 4/2	100					SL			
20-26	10YR 4/6	100					LS			
		 		-						_
										_
¹ Type: C=C	oncentration, D=Dep	letion RM=Re	duced Matrix MS	S=Masker	Sand Gra	ine -	² l ocation:	PI =Pore I	ining, M=Matri	<u> </u>
	ndicators: (Applic								matic Hydric S	
Histosol			Polyvalue Be			RR S. T. U)			-	
	pipedon (A2)	_	Thin Dark Su					luck (A10)	•	
Black Hi		_	Loamy Muck						18) (outside N	/ILRA 150A,B)
Hydroge	n Sulfide (A4)	_	Loamy Gleye	d Matrix (F2)		Piedmo	ont Floodpl	ain Soils (F19)	(LRR P, S, T)
Stratified	I Layers (A5)	=	Depleted Ma				Anoma	lous Bright	Loamy Soils (I	=20)
-	Bodies (A6) (LRR P		Redox Dark	•	•			RA 153B)		
	cky Mineral (A7) (LF		Depleted Dai					arent Mater		- `
· 	esence (A8) (LRR U	_	Redox Depre Marl (F10) (L		8)				k Surface (TF1:	2)
	ck (A9) (LRR P, T) I Below Dark Surfac	- - (Δ11)	Mail (F10) (L Depleted Ocl		(MIRA 15	(1)	Other (Explain in	Remarks)	
	rk Surface (A12)		Iron-Mangan				T) ³ Indic	ators of hvo	drophytic veget	ation and
	rairie Redox (A16) (N							-	ogy must be pr	
	lucky Mineral (S1) (L		Delta Ochric					-	ed or problemat	
-	leyed Matrix (S4)	_	Reduced Ver							
-	edox (S5)	_	Piedmont Flo							
	Matrix (S6)		Anomalous E	Bright Loai	my Soils (F	² 20) (MLRA	149A, 153C,	153D)		
	face (S7) (LRR P, S					T				
Type: nor	_ayer (if observed): ne									
			=							
	ches):		=				Hydric Soil	Present?	Yes	No
Remarks:										



Photo 1 Wetland data point wsua021f_w2 facing north



Photo 2
Wetland data point wsua021f_w2 facing south

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk		Sampling Date: <u>2/20/2015</u>		
Applicant/Owner: Dominion			Sampling Point: wsua021_u2		
••	Section, Township, Rang				
Landform (hillslope, terrace, etc.): gentle slope					
Subregion (LRR of MLRA):	Lat: 36.63433919 Lo	ing:	None		
Soil Map Unit Name: Weston fine sandy loam		NWI classifica			
Are climatic / hydrologic conditions on the site typical for the					
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "N	ormal Circumstances" pr	resent? Yes No		
Are Vegetation, Soil, or Hydrology	naturally problematic? (If nee	ded, explain any answer	s in Remarks.)		
SUMMARY OF FINDINGS - Attach site map	showing sampling point lo	cations, transects,	important features, etc.		
Hydrophytic Vegetation Present? Yes	No				
Hydric Soil Present? Yes	No.		4		
Wetland Hydrology Present?		!? Yes	No		
Remarks:					
LIVERGLOGY					
HYDROLOGY					
Wetland Hydrology Indicators:	I dhada ay gha	-	ors (minimum of two required)		
Primary Indicators (minimum of one is required; check al		Surface Soil 0	·		
	c Fauna (B13)		etated Concave Surface (B8)		
1 .	eposits (B15) (LRR U) gen Sulfide Odor (C1)		Drainage Patterns (B10) Moss Trim Lines (B16)		
	ed Rhizospheres along Living Roots (Dry-Season Water Table (C2)		
	nce of Reduced Iron (C4)		Crayfish Burrows (C8)		
	t Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial Imagery (C9)		
	uck Surface (C7)	Geomorphic F			
Iron Deposits (B5) Other	(Explain in Remarks)	Shallow Aquit	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)		Sphagnum m	oss (D8) (LRR T, U)		
Field Observations:					
Surface Water Present? Yes No D	epth (inches):				
Water Table Present? Yes V No D	epth (inches): $\frac{2\pi}{0}$.,		
Saturation Present? Yes No D (includes capillary fringe)	epth (inches): Wetl	and Hydrology Present	? Yes / No		
Describe Recorded Data (stream gauge, monitoring well	, aerial photos, previous inspections),	if available:			
Remarks:					
Surface saturation present in to 5 inches; water table ass	ociated saturation is at 21 inches				

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

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)		Species?		Number of Dominant Species
1. Pinus taeda	<u>55</u> 8	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2. Liriodendron tulipifera	7	No	FACU	Total Number of Dominant
3. Liquidambar styraciflua		No No	FAC	Species Across All Strata: 7 (B)
4. Acer rubrum		<u>No</u>	FAC	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: <u>57.14285714</u> (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	74			OBL species x 1 = 2
EON/ of total covers 37		= Total Cov	1/10	FACW species3 x 2 =6
50% of total cover.	20% of	total cover:		FAC species 104
Sapling/Shrub Stratum (Plot size:)	00	V	540	FACU species 32 x 4 = 128
1. Liquidambar styraciflua	20	Yes	FAC	UPL species x 5 = 0
2. Morella cerifera	6	No No	FAC	Column Totals: 141 (A) 448 (B)
3. Liriodendron tulipifera	5	No No	FACU	Column Totals (A) (B)
4. Platanus occidentalis	3	No	FACW	Prevalence Index = B/A =3.17
5. Ilex opaca	3	No No	FAC	Hydrophytic Vegetation Indicators:
6. Acer rubrum	3	No	FAC	1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	40	= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 20	20% of	total cover:	8	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Woodwardia areolata	2	Yes	OBL	be present, unless disturbed or problematic.
2. Polystichum acrostichoides	2	Yes	FACU	Definitions of Four Vegetation Strata:
3. Asplenium platyneuron	2	Yes	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10.				We always Allowed by the section of
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				1.6.9.1.1
	6	= Total Cov	er	
50% of total cover: 3		total cover:		
Woody Vine Stratum (Plot size: 30)				
1. Lonicera japonica	15	Yes	FACU	
2 Smilax rotundifolia	6	Yes	FAC	
3.				
4 5.				
5	21	= Total Cov		Hydrophytic Vegetation
50% of total cover: 10.5		total cover:	4.0	Present? Yes No
00 70 01 total 00 vel:		total cover.		
Remarks: (If observed, list morphological adaptations belowed ID limited due to appear and demands)	N).			
herb ID limited due to snow cover and dormancy				

Sampling Point: wsua021_u2

SOIL

Profile Desc	ription: (Describe t	o the depth i	needed to docur	nent the	indicator o	or confirm	the absence of	of indicate	rs.)	
Depth	Matrix			x Feature	s					
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-2	10YR 2/1	100					SL			
2-6	10YR 2/2	100					SL			
6-13	10YR 3/2	100					SL			
13-24	10YR 5/6	100					SCL			
					· <u></u>					
										_
1							2			
	oncentration, D=Depl					ins.			ining, M=Matr matic Hydric	
-	ndicators: (Applica	ible to all LK				DD 0 T III				Solis :
Histosol	(A1) pipedon (A2)	-	Polyvalue Be Thin Dark Sເ					uck (A9) (L uck (A10) (•	
Black Hi		•	Loamy Muck							MLRA 150A,B)
	n Sulfide (A4)	-	Loamy Gleye			σ,				(LRR P, S, T)
	Layers (A5)	•	Depleted Ma		,			•	Loamy Soils	
	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F	- 6)			A 153B)	·	,
5 cm Mu	cky Mineral (A7) (LR	R P, T, U)	Depleted Da	k Surface	e (F7)		Red Pa	rent Mater	al (TF2)	
Muck Pr	esence (A8) (LRR U)		Redox Depre		8)				Surface (TF	12)
	ck (A9) (LRR P, T)		Marl (F10) (L	•			Other (I	Explain in F	Remarks)	
	d Below Dark Surface	(A11)	Depleted Oc				31 1:			tation and
	ark Surface (A12) rairie Redox (A16) (M	I DA 150A)	Iron-Mangan		. , .		•		lrophytic vege ogy must be p	
	lucky Mineral (S1) (L		Delta Ochric			0)		-	ed or problema	
-	sleyed Matrix (S4)	0, 0,	Reduced Ver			OA, 150B)	uno	oo alotal be	a or problem	
-	ledox (S5)	- -	Piedmont Flo				A)			
-	Matrix (S6)						149A, 153C,	153D)		
	rface (S7) (LRR P, S	, T, U)								
Restrictive I	ayer (if observed):									
Type: nor	<u></u>		_							
Depth (inc	ches):		_				Hydric Soil I	Present?	Yes	No
Remarks:										



Photo 1 Upland data point wsua021_u2 facing east



Photo 2
Upland data point wsua021_u2 facing west

Project/Site: Atlantic Coast Pipeline		City/County: Suffolk		Sampling Date: <u>2/19/2015</u>		
Applicant/Owner: Dominion				Sampling Point: wsua020f_w		
Investigator(s): GB, CC		_ Section, Township, Range:				
Landform (hillslope, terrace, etc.): swale						
Subregion (LRR or MLRA): T						
Soil Map Unit Name: Dragston fine sandy loan	Lai 1		NWI classific			
		_				
Are climatic / hydrologic conditions on the site						
Are Vegetation, Soil, or Hydrole	ogy significant	y disturbed? Are "Norr	nal Circumstances" p	present? Yes No		
Are Vegetation, Soil, or Hydrolo	ogy naturally p	roblematic? (If needed	d, explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS – Attach	site map showin	g sampling point loca	tions, transects	, important features, etc.		
Hydrophytic Vegetation Present? Yes	s_ ✓ No					
1	No	is the Sampled Are		N -		
Wetland Hydrology Present? Yes	. No	within a Wetland?	res	No		
Remarks: Wetland data point for a seasonally saturated	PFO wetland along str	ream ssua005.				
Wolland data point ion a court in the point ion and a court in the point ion a court in the point ion and a court in the point ion and a court in the point ion a court in the point ion and a court in the point in the point ion and a court in the point in the poi	110 11000010 2	our coudes.				
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is require	d; check all that apply)	Surface Soil	Cracks (B6)		
Surface Water (A1)	Aquatic Fauna (B	13)	Sparsely Veg	getated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits (B1		Drainage Pa			
Saturation (A3)	Hydrogen Sulfide	Odor (C1)	Moss Trim Li	nes (B16)		
Water Marks (B1)	Oxidized Rhizosp	heres along Living Roots (C3) Dry-Season '	Water Table (C2)		
Sediment Deposits (B2)	Presence of Redu	uced Iron (C4)	Crayfish Burrows (C8)			
Drift Deposits (B3)	Recent Iron Redu	ction in Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin Muck Surfac		✓ Geomorphic Position (D2)			
Iron Deposits (B5)	Other (Explain in	Remarks)	Shallow Aqui			
Inundation Visible on Aerial Imagery (B7			FAC-Neutral	, ,		
Water-Stained Leaves (B9)			Sphagnum m	noss (D8) (LRR T, U)		
Field Observations:	V 5 0 % 1	,				
	o Depth (inche	·				
	o Depth (inche	-		V N		
Saturation Present? Yes N (includes capillary fringe)	o Depth (inche	s): Wetland	d Hydrology Presen	t? Yes V No		
Describe Recorded Data (stream gauge, mor	itoring well, aerial pho	tos, previous inspections), if a	available:			
Remarks:						

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

			Indicator	Dominance Test worksheet:
1. Liquidambar styraciflua 2. Acer rubrum 3. Nyssa sylvatica		Species?		
2. Acer rubrum 3. Nyssa sylvatica	40	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
3. Nyssa sylvatica	23	Yes	FAC	That Ale OBE, I AOW, OI I AO.
	7	No	FAC	Total Number of Dominant
4			170	Species Across All Strata: 8 (B)
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 87.5 (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	70 .	= Total Cov	er	OBL species x 1 =
50% of total cover:		total cover:	4.4	FACW species1
	_ 2070 01	total cover.		FAC species96
Sapling/Shrub Stratum (Plot size: 15) 1. Ilex opaca	8	Yes	FAC	FACU species23 x 4 =92
	5			UPL species 0 x 5 = 0
2. Morella cerifera		Yes	FAC	134 396
3. Fagus grandifolia	3	No	FACU	Column Totals: (A) (B)
4. Clethra alnifolia	1	No	FACW	Prevalence Index = B/A = 2.95
5				
6.				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8	17 .			3 - Prevalence Index is ≤3.0¹
0.5		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 8.5	20% of	total cover:	3.4	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Woodwardia areolata	10	Yes	OBL	be present, unless disturbed or problematic.
2. Juncus effusus	4	Yes	OBL	Definitions of Four Vegetation Strata:
3. Elymus virginicus	3	No	FAC	
·				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
· ·				more in diameter at breast height (DBH), regardless of height.
5				g.m
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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10.				Weedy vine All woody vines greater than 2.20 ft in
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				noight.
12.	17 :			
50% of total cover: 8.5		= Total Cov		
30 /0 OI total cover.	_ 20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1. Lonicera japonica	20	Yes	FACU	
2. Smilax rotundifolia	10	Yes	FAC	
0				
3.				
3				
4				Hydrophytic Vegetation
	30	Total Cov	er	
4		total cover:	_	Present? Yes No No

SOIL Sampling Point: wsua020f_w

Profile Desc	cription: (Describe t	o the depth	needed to docur	ment the	indicator	or confirm	the absence of ir	ndicators.)	
Depth	Matrix			x Feature	-	12	Tandina	D	
(inches) 0-2	Color (moist) 10YR 2/2	100	Color (moist)	%	Type'	Loc ²	Texture SL	Remarks	
2-15	10YR 2/1	100					SL		
15-24	10YR 3/1	100					SL		
				_					
				-					
	oncentration, D=Depl					ains.		Pore Lining, M=Matr	
_	Indicators: (Applica	able to all LF						Problematic Hydric	Soils ³ :
Histosol	(A1) pipedon (A2)		Polyvalue Be Thin Dark Su					(A9) (LRR O) (A10) (LRR S)	
	istic (A3)		Loamy Muck					ertic (F18) (outside	MLRA 150A.B)
	en Sulfide (A4)		Loamy Gleye	-		. •,		Toodplain Soils (F19)	
	d Layers (A5)		Depleted Ma		,			Bright Loamy Soils	
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F	- 6)		(MLRA 1		
	ucky Mineral (A7) (LR		Depleted Da					Material (TF2)	
	resence (A8) (LRR U))	Redox Depre		(8)			w Dark Surface (TF	12)
	uck (A9) (LRR P, T)	(444)	Marl (F10) (L		/MI DA 4	F4\	Other (Expl	lain in Remarks)	
-	d Below Dark Surface ark Surface (A12)	(A11)	Depleted Oct	. ,	•	•	T) ³ Indicators	s of hydrophytic vege	atation and
l	rairie Redox (A16) (N	ILRA 150A)						hydrology must be p	
	/lucky Mineral (S1) (L		Delta Ochric			, -,		listurbed or problema	
	Gleyed Matrix (S4)		Reduced Ver			0A, 150B)		·	
	Redox (S5)		Piedmont Flo	oodplain S	Soils (F19)	(MLRA 149	9A)		
	l Matrix (S6)		Anomalous E	Bright Loa	my Soils (F20) (MLR	A 149A, 153C, 153	BD)	
	rface (S7) (LRR P, S	, T, U)							
	Layer (if observed):								
Type: no			_					V	
	ches):		_				Hydric Soil Pres	sent? Yes	
Remarks:									



Photo 1
Wetland data point wsua020f_w facing southwest



Photo 2
Wetland data point wsua020f_w facing northeast

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Suffolk		Sampling Date: 2/19/2015		
Applicant/Owner: Dominion					Sampling Point: wsua020_u		
Investigator(s): GB, CC	Section, Township, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): slope							
Subregion (LRR or MLRA): T							
Soil Map Unit Name: Dragston fine sand		Lat		NWI classific			
			_				
Are climatic / hydrologic conditions on the							
Are Vegetation, Soil, or I				Normal Circumstances"	present? Yes No		
Are Vegetation, Soil, or I	Hydrology	naturally problema	atic? (If nee	eded, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS - A	ttach site map	showing sam	pling point lo	cations, transects	s, important features, etc.		
Hydrophytic Vegetation Present?	Yes	No	1- 41 01-4	A			
Hydric Soil Present?	Yes	No _ 🗸 _	Is the Sampled		No		
Wetland Hydrology Present?	Yes	No	within a Wetland	u? fes	NO		
Remarks:			wotland along an i	ntormittent stream			
Upland data point taken above toe of sl	ope for a seasona	illy saturated PFO v	wetiand along an i	ntermittent stream			
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indic	ators (minimum of two required)		
Primary Indicators (minimum of one is	required: check at	ll that apply)		Surface Soil			
Surface Water (A1)	-	ic Fauna (B13)			getated Concave Surface (B8)		
High Water Table (A2)		Deposits (B15) (LRF	S 17)	Sparsely ve			
Saturation (A3)		gen Sulfide Odor (C		Moss Trim L			
Water Marks (B1)	-	ed Rhizospheres al			Water Table (C2)		
Sediment Deposits (B2)		nce of Reduced Iron		Crayfish Burrows (C8)			
Drift Deposits (B3)		nt Iron Reduction in			isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin M	luck Surface (C7)		Geomorphic Position (D2)			
Iron Deposits (B5)		(Explain in Remark	as)	Shallow Aqu			
Inundation Visible on Aerial Image	ry (B7)			FAC-Neutra	, ,		
Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U)		
Field Observations:							
		epth (inches):					
		epth (inches):					
Saturation Present? Yes (includes capillary fringe)	No <u> </u>	epth (inches):	Wet	land Hydrology Prese	nt? Yes No		
Describe Recorded Data (stream gaug	je, monitoring well	, aerial photos, pre	vious inspections)	, if available:			
Remarks:							
no hydrology indicators present							

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species _
1. Liquidambar styraciflua	45	Yes	FAC	That Are OBL, FACW, or FAC:7 (A)
2. Acer rubrum	20	Yes	FAC	Total Number of Dominant
3				Species Across All Strata: 8 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 87.5 (A/B)
6.				(/\bullet b)
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
· .	65	= Total Cov		OBL species0 x 1 =0
50% of total cover:32	5	total cover:	13	FACW species8 x 2 =16
· · · · · · · · · · · · · · · · · · ·	20 /6 01	total cover.		FAC species122 x 3 =366
Sapling/Shrub Stratum (Plot size:15) 1 llex opaca	12	Yes	FAC	FACU species 20 x 4 = 80
1. Acer rubrum	8	Yes	FAC	UPL species 0 x 5 = 0
Z				Column Totals: 150 (A) 462 (B)
3. Morella cerifera	8	Yes	FAC	Column Totals (A) (B)
4. Liquidambar styraciflua	_ 4	No	FAC	Prevalence Index = B/A =3.08
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	32	= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	6 20% of	total cover:	6.4	Froblematic Hydrophytic vegetation (Explain)
Herb Stratum (Plot size: 5)				1
1 Andropogon virginicus	5	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				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 herbaceous (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.
				neight.
12	5	T-4-1 O-1		
50% of total cover: 2.	_ —	= Total Cov		
30 % Of total cover.	20% of	total cover:		
Woody Vine Stratum (Plot size: 30)	20	Vaa	FACIL	
1. Lonicera japonica		Yes	FACU	
2. Smilax rotundifolia	20	Yes	FAC	
3. Gelsemium rankinii	8	No	FACW	
4				
5.				Hydrophytic
	48	= Total Cov	er	Vegetation
50% of total cover: 24		total cover:	0.0	Present? Yes No No
		total cover.		
Remarks: (If observed, list morphological adaptations be	IOW).			

SOIL Sampling Point: wsua020_u

Profile Desc	cription: (Describe t	o the depth	needed to docur	ment the	indicator	or confirm	the absence of in	dicators.)	
Depth	Matrix			x Feature	1	. 2			
(inches) 0-12	Color (moist) 10YR 2/2	100	Color (moist)	%	Type'	Loc ²	Texture SL	Remarks	<u> </u>
12-18	10YR 3/2	100					SL		
18-24	10YR 4/2	100		<u> </u>			LS		
-				_					_
¹Type: C=C	oncentration, D=Depl	etion RM=Re	educed Matrix M	S=Masked	d Sand Gr	ains	² I ocation: PI =	Pore Lining, M=Ma	trix
	Indicators: (Applica							Problematic Hydri	
Histosol			Polyvalue Be						
	pipedon (A2)		Thin Dark Su					(A10) (LRR S) ertic (F18) (outside	MI DA 450A D)
	istic (A3) en Sulfide (A4)		Loamy Muck Loamy Gleye	-		(0)		loodplain Soils (F1	
	d Layers (A5)		Depleted Ma		(- –)			Bright Loamy Soils	
_	Bodies (A6) (LRR P,		Redox Dark	•	,		(MLRA 1		
	ucky Mineral (A7) (LR resence (A8) (LRR U)		Depleted Da Redox Depre		, ,			Material (TF2) w Dark Surface (TF	=12\
	uck (A9) (LRR P, T)	'	Nedox Depre		0)			ain in Remarks)	12)
	d Below Dark Surface	(A11)	Depleted Oc		(MLRA 1	51)			
	ark Surface (A12)	U.D.A. 450A)	Iron-Mangan					of hydrophytic veg	
	rairie Redox (A16) (M ⁄lucky Mineral (S1) (L		Umbric Surfa Delta Ochric			, U)		hydrology must be isturbed or problen	
	Gleyed Matrix (S4)	0, 0,	Reduced Ve			0A, 150B)	4111000 4	iotal bod of problem	idio.
-	Redox (S5)		Piedmont Flo						
	l Matrix (S6) rface (S7) (LRR P, S	T 11\	Anomalous E	Bright Loa	my Soils (F20) (MLR	A 149A, 153C, 153	D)	
	Layer (if observed):	, 1, 0)							
Type: no									
	ches):		<u> </u>				Hydric Soil Pres	sent? Yes	No
Remarks:									



Photo 1 Upland data point wsua020_u facing northeast



Photo 2
Upland data point wsua020_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Date: 2/19/2015					
Applicant/Owner: Dominion		State: VA Sampling Point: wsua019s_w					
Investigator(s): GB, CC Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): shallow ditch	vex, none): concave Slope (%): 1						
		g: <u>-76.87182569</u> Datum: <u>WGS 1984</u>					
Soil Map Unit Name: Dragston fine sandy loam		NWI classification: None					
Are climatic / hydrologic conditions on the site typical for this ti							
Are Vegetation, Soil, or Hydrology sign							
Are Vegetation, Soil, or Hydrology natu							
SUMMARY OF FINDINGS – Attach site map sh							
		, , , , ,					
Hydrophytic Vegetation Present? Yes No No No		ea					
Hydric Soil Present? Yes ✓ No Wetland Hydrology Present? Yes ✓ No		Yes No					
Remarks:							
Wetland data point for a seasonally surface saturated PSS we mosaic of ditches, berms, and ruts from logging activity, only a shallow ditches.							
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) Aquatic Fa	una (B13)	Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2) Marl Depos	sits (B15) (LRR U)	Drainage Patterns (B10)					
	Sulfide Odor (C1)	Moss Trim Lines (B16)					
	hizospheres along Living Roots (C						
<u> </u>	of Reduced Iron (C4)	Crayfish Burrows (C8)					
<u> </u>	Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4) Thin Muck	` '	Geomorphic Position (D2)					
	lain in Remarks)	Shallow Aquitard (D3)FAC-Neutral Test (D5)					
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)					
Field Observations:		Spriagram moss (D0) (ERR 1, 0)					
Surface Water Present? Yes No Depth	(inches):						
Water Table Present? Yes No Depth							
Saturation Present? Yes V No Depth		nd Hydrology Present? Yes 🗸 No					
(includes capillary fringe)	(inches).	nu rryurology r resent: Tes No					
Describe Recorded Data (stream gauge, monitoring well, aer	ial photos, previous inspections), if	available:					
Demodes							
Remarks:	d from 0 to 4"						
water table associated saturation is at 18"; surface is saturate	d Hoffi O to 4						

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:7 (A)
2				
				Total Number of Dominant Species Across All Strata: 9 (B)
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 77.7777777 (A/B)
6				
				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species 15 x 1 = 15
	0	= Total Cov		0 40
50% of total cover:0	20% of	total cover:	0	FACW species x z =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1 Rhus copallinum	8	Yes	UPL	FACU species 24 x 4 = 96
Manalla aquifana	7	Yes		UPL species8 x 5 =40
L			FAC	1/12 / 1/27
3. Pinus taeda	5	Yes	FAC	Column Totals: (A) (B)
4. Acer rubrum	5	Yes	FAC	Prevalence Index = R/Δ = 3
5. Salix nigra	5	Yes	OBL	T TOVAICTICC ITICCX - BIA -
6. Baccharis halimifolia	4	No	FAC	Hydrophytic Vegetation Indicators:
6. Daccitatis Hallitillolla			TAC	1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.0 ¹
	34	= Total Cov	or	
50% of total cover 17				Problematic Hydrophytic Vegetation ¹ (Explain)
30 /0 OI total cover.	20% of	total cover:		
Herb Stratum (Plot size: 5				¹ Indicators of hydric soil and wetland hydrology must
1. Juncus effusus	10	Yes	OBL	be present, unless disturbed or problematic.
2. Arundinaria gigantea	6	Yes	FACW	Definitions of Four Vegetation Strata:
3. Solidago altissima	4	No	FACU	Definitions of Four Pogetation Strata.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Dichanthelium scoparium	3	No No	FACW	more in diameter at breast height (DBH), regardless of
5				height.
6.				Continu/Chruh Woody plants evaluding vines less
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than o in. BBT and greater than o.20 it (1 iii) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Was devided. All was devided a prostor their 0.00 ft in
				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Cov		
50% of total cover: 11.5	20% of	total cover:	4.6	
Woody Vine Stratum (Plot size: 30)				
1. Rubus argutus	55	Yes	FAC	
		Yes	FACU	
2. Lonicera japonica	20	168		
3. Smilax rotundifolia	10	No	FAC	
4				
5.				
5	85			Hydrophytic
40.5		= Total Cov	4-	Vegetation Present? Yes No
50% of total cover: 42.5	20% of	total cover:	17	Fleseiit: les NO
Remarks: (If observed, list morphological adaptations below	v).			
herb ID limited due to snow cover and dormancy outside of o	•	ason		
	,			

SOIL Sampling Point: wsua019s_w

Profile Desc	cription: (Describe t	o the depth	needed to docur	ment the	indicator	or confirm	the absence of ir	dicators.)	
Depth	Matrix			x Feature	-	12	Tandina	D- 1	
(inches) 0-4	Color (moist) 10YR 2/1	100	Color (moist)	%	Type'	Loc ²	Texture SL	Remarks	
4-16	10YR 3/1	100					SL		
16-24	10YR 4/1	100					SL		
				-					
				-					
				-					
	oncentration, D=Depl					ains.		Pore Lining, M=Matr	
_	Indicators: (Applica	ble to all LR						Problematic Hydric	Soils ³ :
Histosol	(A1) pipedon (A2)		Polyvalue Be Thin Dark Su					(A9) (LRR O) (A10) (LRR S)	
	istic (A3)		Loamy Muck					ertic (F18) (outside l	MLRA 150A.B)
	en Sulfide (A4)		Loamy Gleye	-		. •,		Toodplain Soils (F19)	
	d Layers (A5)		Depleted Ma		,			Bright Loamy Soils (
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F	- 6)		(MLRA 1	53B)	
	ucky Mineral (A7) (LR		Depleted Da					: Material (TF2)	
	resence (A8) (LRR U)		Redox Depre	•	(8)			w Dark Surface (TF1	2)
l ''	uck (A9) (LRR P, T)	. (Marl (F10) (L Depleted Oc		/MI DA 1	E4\	Other (Expl	ain in Remarks)	
	d Below Dark Surface ark Surface (A12)	(A11)	Iron-Mangan	. ,	•	•	T) ³ Indicators	s of hydrophytic vege	tation and
	rairie Redox (A16) (N	ILRA 150A)	✓ Umbric Surfa					hydrology must be p	
	/ucky Mineral (S1) (L		Delta Ochric			, ,		listurbed or problema	
Sandy C	Bleyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	0A, 150B)			
Sandy F	Redox (S5)		Piedmont Flo	oodplain S	Soils (F19)	(MLRA 149	9A)		
	l Matrix (S6)		Anomalous E	Bright Loa	my Soils (F20) (MLR	A 149A, 153C, 153	BD)	
	rface (S7) (LRR P, S	, T, U)					Г		
	Layer (if observed):								
Type: no			_				Ukadaia Cail Bas	sent? Yes	NI.
	ches):						Hydric Soil Pres	sent? Yes	No
Remarks:									



Photo 1 Wetland data point wsua019s_w facing northeast



Photo 2
Wetland data point wsua019s_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Suff	olk	_ Sampling Date: 2/19/2015		
Applicant/Owner: Dominion	, ,		Sampling Point: wsua019_u		
	Section, Townsh	· · · · · · · · · · · · · · · · · · ·			
Landform (hillslope, terrace, etc.): berm					
	Lat: 36.63414791				
Soil Map Unit Name: Dragston fine sandy loam					
•		NWI classifi			
Are climatic / hydrologic conditions on the site ty					
Are Vegetation, Soil, or Hydrolog	yy significantly disturbed?	Are "Normal Circumstances"	present? Yes No		
Are Vegetation, Soil, or Hydrolog	yynaturally problematic?	(If needed, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS - Attach s	site map showing sampling po	int locations, transects	s, important features, etc.		
Hydrophytic Vegetation Present? Yes	No V Is the Sar				
	No V	mpled Area	🗸		
Wetland Hydrology Present? Yes	No v within a V	vetiand? Yes	No		
Upland data point taken on a berm for a seasor	nally surface saturated PSS wetland mos	aic located in a highly disturbe	ed clear cut.		
HYDROLOGY					
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)		
Primary Indicators (minimum of one is required	; check all that apply)	Surface Soi	Cracks (B6)		
	Aquatic Fauna (B13)	Sparsely Ve	Sparsely Vegetated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits (B15) (LRR U)		atterns (B10)		
	Hydrogen Sulfide Odor (C1)	Moss Trim L			
	Oxidized Rhizospheres along Living		Dry-Season Water Table (C2)		
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced Iron (C4)Recent Iron Reduction in Tilled Soils		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Position (D2)		
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aqu			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra			
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)		
Field Observations:					
	Depth (inches):				
Water Table Present? Yes No	Depth (inches): 24				
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): 22	Wetland Hydrology Prese	nt? Yes No		
Describe Recorded Data (stream gauge, monit	oring well, aerial photos, previous inspe	_l ctions), if available:			
Remarks:					
no hydrology indicators present					

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
				That Are OBL, FACW, or FAC. (A/B)
6				Prevalence Index worksheet:
7		-		Total % Cover of: Multiply by:
8	0			OBL species $4 \times 1 = 4$
0		= Total Cov	^	FACW species10 x 2 =20
50% of total cover:0	20% of	total cover:		FAC species 79 x 3 = 237
Sapling/Shrub Stratum (Plot size:)		.,		FACU species 33 x 4 = 132
1. Rhus copallinum	35	Yes	UPL	41 205
2. Cercis canadensis	6	No	UPL	167 x 5 = 598
3. Acer rubrum	5	No	FAC	Column Totals: (A) (B)
4. Prunus serotina	5	No	FACU	Prevalence Index = B/A = 3.58
5. Salix nigra	4	No	OBL	T TOVAICTICO TITICO - DIA -
6 Platanus occidentalis	4	No	FACW	Hydrophytic Vegetation Indicators:
7 Pinus taeda	4	No	FAC	1 - Rapid Test for Hydrophytic Vegetation
1				2 - Dominance Test is >50%
8	63			3 - Prevalence Index is ≤3.0¹
31.5		= Total Cov	40.0	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 31.5	20% of	total cover	12.0	
Herb Stratum (Plot size:5				¹ Indicators of hydric soil and wetland hydrology must
1. Dichanthelium scoparium	4	Yes	FACW	be present, unless disturbed or problematic.
2. Solidago altissima	3	Yes	FACU	Definitions of Four Vegetation Strata:
3. Arundinaria gigantea	2	Yes	FACW	Tree Meady plants avaluation visco 2 in (7.0 am) or
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 5 m. DBH and greater than 5.20 ft (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	9	= Total Cov	er	
50% of total cover: 4.5	20% of	total cover	1.8	
Woody Vine Stratum (Plot size: 30)				
1. Rubus argutus	60	Yes	FAC	
2. Lonicera japonica	25	Yes	FACU	
3 Smilax rotundifolia	10	No	FAC	
4				
5				Hydrophytic
47.5		= Total Cov	40	Vegetation Present? Yes No
50% of total cover: 47.5	20% of	total cover	19	riesent: resNo
Remarks: (If observed, list morphological adaptations below	w).			
herb ID limited due to snow cover and dormancy outside of	growing sea	ason		

SOIL Sampling Point: wsua019_u

Profile Desc	cription: (Describe t	o the depth	needed to docur	ment the	indicator	or confirm	the absence of in-	dicators.)	
Depth	Matrix	0/		x Feature	1	1.002	Toyture	Damas	· 0
(inches) 0-6	Color (moist) 10YR 2/2	100	Color (moist)	%	Type'	Loc ²	Texture SL	Remark	<u>(S</u>
6-15	10YR 3/2	100					SL		
15-24	10YR 3/1	100					SL		
				_					
				_					
	oncentration, D=Depl					ains.		Pore Lining, M=M	
_	Indicators: (Applica	able to all LF						roblematic Hydr	ric Soils³:
Histosol			Polyvalue Be						
	pipedon (A2) istic (A3)		Thin Dark Su Loamy Muck					(A10) (LRR S) ertic (F18) (outsid	le MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	-		-,	Piedmont FI	oodplain Soils (F	19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		>			Bright Loamy Soil	ls (F20)
_	Bodies (A6) (LRR P, ucky Mineral (A7) (LR		Redox Dark Depleted Da	•	,		(MLRA 15	Material (TF2)	
	resence (A8) (LRR U		Redox Depre					w Dark Surface (T	ΓF12)
	uck (A9) (LRR P, T)	•	Marl (F10) (L		-,			ain in Remarks)	,
	d Below Dark Surface	e (A11)	Depleted Oc	. ,	-	•	2		
	ark Surface (A12)	U DA 450A)	Iron-Mangan					of hydrophytic ve	-
	rairie Redox (A16) (N ⁄lucky Mineral (S1) (L		Umbric Surfa Delta Ochric			, 0)		nydrology must be sturbed or proble	
	Gleyed Matrix (S4)	0, 0,	Reduced Ve			0A, 150B)	arnoco ar	otarboa or proble	mado.
	Redox (S5)		Piedmont Flo				9A)		
	Matrix (S6)		Anomalous F	Bright Loa	my Soils (F20) (MLR	A 149A, 153C, 153I	D)	
	rface (S7) (LRR P, S Layer (if observed):	, T, U)							
Type: no									
	ches):		_				Hydric Soil Pres	ent? Yes	No 🗸
Remarks:	,		<u> </u>						



Photo 1 Upland data point wsua019_u facing northeast



Photo 2
Upland data point wsua019_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Date: 2/19/2015		
Applicant/Owner: Dominion		State: VA Sampling Point: wsua018s_w		
• • • • • • • • • • • • • • • • • • • •	Section, Township, Range: N			
Landform (hillslope, terrace, etc.): swale				
Subregion (LRR or MLRA): T Lat: 30 Soil Map Unit Name: Nansemond fine sandy loam, 0 to 2 percent	t slones	Datum:Datum:		
Are climatic / hydrologic conditions on the site typical for this time				
Are Vegetation, Soil, or Hydrology signific	antly disturbed? Are "Norma	l Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology natura	lly problematic? (If needed,	explain any answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map show	wing sampling point location	ons, transects, important features, etc.		
Hydrophytic Vegetation Present? Yes _ ✔ _ No				
Hydric Soil Present? Yes ✓ No	is the campica Area	v v v		
Wetland Hydrology Present? Yes ✓ No		Yes No		
Remarks:				
HADBOI OCA				
HYDROLOGY		Occasional and in the section (resigning and the section of the se		
Wetland Hydrology Indicators:	nah ()	Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that a		Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic Faun ✓ High Water Table (A2) Marl Deposits		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)		
✓ Saturation (A3) — Hydrogen Sul		Moss Trim Lines (B16)		
	cospheres along Living Roots (C3)	Dry-Season Water Table (C2)		
Sediment Deposits (B2) Presence of F	Reduced Iron (C4)	Crayfish Burrows (C8)		
Drift Deposits (B3) Recent Iron F	Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Su		✓ Geomorphic Position (D2)		
Iron Deposits (B5) Other (Explain	n in Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		✓ FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)		
Water-Stained Leaves (B9) Field Observations:		Spriagrium moss (Do) (ERR 1, 0)		
Surface Water Present? Yes No Depth (ir	iches):			
Water Table Present? Yes Vo Depth (in				
Saturation Present? Yes V No Depth (in	nches): 9 Wetland	Hydrology Present? Yes _ ✓ No		
(includes capillary fringe)	·			
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if ava	allable:		
Remarks:				
Remarks.				

20		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:30) 1	% Cover	Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:8 (A)
2				Total Number of Dominant Species Across All Strata: 11 (B)
4				
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 72.72727272 (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	0	= Total Cov	or .	OBL species9 x 1 =9
50% of total cover:0		total cover:	^	FACW species12
Sapling/Shrub Stratum (Plot size: 15)	20 /0 01	total cover.	·	FAC species x 3 =
1 Rhus copallinum	10	Yes	UPL	FACU species35 x 4 =140
2 Acer rubrum	5	Yes	FAC	UPL species x 5 = 50
3. Sambucus nigra	5	Yes	FACW	Column Totals:140
4 Liriodendron tulipifera	5	Yes	FACU	
5. Liquidambar styraciflua	5	Yes	FAC	Prevalence Index = B/A =3.17
6. Populus deltoides	5	Yes	FAC	Hydrophytic Vegetation Indicators:
7 Salix nigra		Yes	OBL	1 - Rapid Test for Hydrophytic Vegetation
Baccharis halimifolia	4	No	FAC	2 - Dominance Test is >50%
0	44	= Total Cov		3 - Prevalence Index is ≤3.0¹
50% of total cover: 22			0.0	Problematic Hydrophytic Vegetation ¹ (Explain)
50 % of total cover:	20% 01	total cover:		
1. Arundinaria gigantea	7	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. Scirpus cyperinus	4	Yes	OBL	Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. 5.				more in diameter at breast height (DBH), regardless of height.
6 7				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
9				Herb – All herbaceous (non-woody) plants, regardless 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.				1.03
	11	= Total Cov	er	
50% of total cover: 5.5		total cover	2.2	
Woody Vine Stratum (Plot size: 30)	_			
1 Rubus argutus	40	Yes	FAC	
2. Lonicera japonica	30	Yes	FACU	
3 Vitis rotundifolia	15	No	FAC	
4.				
5.				Hudranbudia
··	85	= Total Cov		Hydrophytic Vegetation
50% of total cover:42.5		total cover	47	Present? Yes No
Remarks: (If observed, list morphological adaptations below		total cover		
Herb layer ID limited due to snow cover and outside of growi	•			
Herb layer ID liftlifed due to show cover and outside of growi	ng season			

SOIL Sampling Point: wsua018s_w

Profile Desc	cription: (Describe t	o the depth	needed to docum	nent the i	indicator	or confirm	the absence of in	dicators.)
Depth	Matrix	0/		x Feature		1.002	Toytura	Domarka
(inches) 0-6	Color (moist) 10YR 3/3	100	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture SL	Remarks
6-10	10YR 3/2	100					SL	
10-20	10YRV4/2	98 1	10YR 4/6	2	C	M	SL	
Hydric Soil Histosol Histic Ep Black Hi	pipedon (A2) istic (A3)			wise not low Surfa rface (S9	ed.) ce (S8) (L) (LRR S,	RR S, T, U) T, U)	Indicators for F 1 cm Muck 2 cm Muck	Pore Lining, M=Matrix. Problematic Hydric Soils ³ : (A9) (LRR O) (A10) (LRR S) ertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye		(F2)			loodplain Soils (F19) (LRR P, S, T)
Organic 5 cm Mu Muck Pr	d Layers (A5) Bodies (A6) (LRR P, ucky Mineral (A7) (LR resence (A8) (LRR U)	R P, T, U)	✓ Depleted Mat Redox Dark S Depleted Dar Redox Depre	Surface (F k Surface ssions (F	(F7)		(MLRA 19 Red Parent Very Shallo	Material (TF2) w Dark Surface (TF12)
	uck (A9) (LRR P, T) d Below Dark Surface	(A11)	Marl (F10) (L Depleted Och		(MLRA 1	51)	Other (Expl	ain in Remarks)
Thick Da Coast P Sandy N Sandy G Sandy F	ark Surface (A12) rairie Redox (A16) (M Mucky Mineral (S1) (L Gleyed Matrix (S4) Redox (S5)	LRA 150A)	Iron-Mangane Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	ese Mass ce (F13) ((F17) (ML tic (F18) (odplain S	es (F12) ((LRR P, T LRA 151) (MLRA 15 (oils (F19)	LRR O, P, 7 , U) 0A, 150B) (MLRA 149	wetland unless d	s of hydrophytic vegetation and hydrology must be present, isturbed or problematic.
	l Matrix (S6) rface (S7) (LRR P, S	T, U)	Anomalous B	right Loai	my Soils (-20) (MLR A	A 149A, 153C, 153	טפ
Restrictive	Layer (if observed):	·						
Type: no	ches):						Hydric Soil Pres	sent? Yes V No No
Remarks:	cries)						Tiyunc 30ii Fres	Sent: 165 NO



Photo 1 Wetland data point wsua018s_w facing south



Photo 2
Wetland data point wsua018s_w facing north

Project/Site: Atlantic Coast Pipeline		City/Co	unty: Suffolk		Sampling Date: 2/19/2015			
Applicant/Owner: Dominion					Sampling Point: wsua018_u			
Landform (hillslope, terrace, etc.): slop	e	l ocal re	elief (concave, convex	none)· none	Slone (%): 4			
	Lat				Datum: WGS 1984			
		cent slones	Long:		Datum: Wee lee!			
Soil Map Unit Name: Nansemond fine								
Are climatic / hydrologic conditions on t								
Are Vegetation, Soil, or	Hydrology sign	nificantly disturbe	ed? Are "Normal	I Circumstances"	present? Yes No			
Are Vegetation, Soil, or	Hydrologynat	urally problemati	c? (If needed, e	explain any answe	ers in Remarks.)			
SUMMARY OF FINDINGS - A	ttach site map sł	nowing samp	oling point location	ons, transects	s, important features, etc.			
Hydrophytic Vegetation Present?	Vos No	v						
Hydric Soil Present?	Yes No _ Yes No _	✓ ·	s the Sampled Area					
Wetland Hydrology Present?	Yes No _		within a Wetland?	Yes	No			
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:				-	ators (minimum of two required)			
Primary Indicators (minimum of one is	-			Surface Soil Cracks (B6)				
Surface Water (A1)	Aquatic Fa		Sparsely Vegetated Concave Surface (B8)					
High Water Table (A2)		sits (B15) (LRR		Drainage Patterns (B10)				
Saturation (A3)		Sulfide Odor (C1		Moss Trim Lines (B16)				
Water Marks (B1)		chizospheres alo of Reduced Iron	ng Living Roots (C3)					
Sediment Deposits (B2) Drift Deposits (B3)		illed Soils (C6)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)	Thin Muck	illed Solis (CO)	Geomorphic Position (D2)					
Iron Deposits (B5)	Other (Exp)	Shallow Aquitard (D3)					
Inundation Visible on Aerial Imag		,	FAC-Neutral Test (D5)					
Water-Stained Leaves (B9)	- , ()				moss (D8) (LRR T, U)			
Field Observations:								
Surface Water Present? Yes _	No 🖍 Depth	ı (inches):						
Water Table Present? Yes _	No 🖍 Depth							
	No 🖍 Depth	Wetland H	Wetland Hydrology Present? Yes No					
(includes capillary fringe) Describe Recorded Data (stream gau	ge monitoring well ae	rial nhotos, previ	ous inspections) if ava	ilahle:				
Describe Necorded Data (stream gad	ge, monitoring well, ael	riai priotos, previ	ous inspections), il ave	mable.				
Remarks:								
no hydrology indicators present								
, , , , , , , , , , , , , , , , , , , ,								

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:) 1		Species?	Status	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2				Total Number of Dominant Species Across All Strata: 6 (B)
4				Species Across Air Strata (b)
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
6			-	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	0		-	OBL species x 1 = 0
0		= Total Cov	Λ	FACW species5 x 2 =10
50% of total cover:0	20% of	total cover:		FAC species 75 x 3 = 225
Sapling/Shrub Stratum (Plot size: 15)	25	Voo	FACIL	FACU species55 x 4 =220
1. Liriodendron tulipifera	25	Yes	FACU	UPL species 20 x 5 = 100
2. Rhus copallinum		Yes	UPL	Column Totals: 155 (A) 555 (B)
3. Liquidambar styraciflua	<u>15</u>	Yes	FAC	Column Totals (A) (B)
4. Acer rubrum		No No	FAC	Prevalence Index = B/A = 3.58
5. Prunus serotina	5	No	FACU	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	= Total Cover			Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:35	20% of	total cover	14	<u> </u>
Herb Stratum (Plot size:5) 1 Arundinaria gigantea	5	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3.				Seminoris of Four Vegetation Strata.
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or 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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	5	= Total Cov	er	
50% of total cover: 2.5	20% of	total cover	. 1	
Woody Vine Stratum (Plot size: 30)				
1. Rubus argutus	50	Yes	FAC	
2 Lonicera japonica	25	Yes	FACU	
3. Smilax rotundifolia	5	No	FAC	
5.				
5	80	= Total Cov		Hydrophytic Vegetation
50% of total cover: 40			40	Present? Yes No
30 /0 01 total cover:		total cover		
Remarks: (If observed, list morphological adaptations belo	•			
herb layer ID limited due to snow cover and outside of growi	ng season			

SOIL Sampling Point: wsua018_u

	cription: (Describe t	o tne deptn				or confirm	the absence	or indicate	ors.)	
Depth (inches) 0-3	Matrix Color (moist) 10YR 2/2	100	Color (moist)	x Feature: %	Type ¹	Loc ²	Texture SL		Remarks	
-							SL SL			
3-10 10-24	10YR 4/3 10YR 4/4	100		·			SL SL			
10-24	101R 4/4						SL			
Hydric Soil Histoso Histic E Black H Hydrog Stratifie Organic 5 cm M Muck P 1 cm M Deplete Thick D Coast F Sandy I Sandy I Strippec Dark St Restrictive	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) Ebodies (A6) (LRR P, ucky Mineral (A7) (LR resence (A8) (LRR U) uck (A9) (LRR P, T) d Below Dark Surface ark Surface (A12) trairie Redox (A16) (M Mucky Mineral (S1) (L Eleyed Matrix (S4) Redox (S5) d Matrix (S6) urface (S7) (LRR P, S, Layer (if observed):	T, U) R P, T, U) (A11) LRA 150A) RR O, S)		rwise note flow Surface (S9) y Mineral ed Matrix (F3) Surface (F6 k Surface essions (F6 k R U) fric (F11) flese Masse floe (F13) (F17) (ML flic (F18) (F18) (F18) (F18) (F18) (ML flic (ML flic (F18) (ML flic (ML) (ML flic (ML) (ML flic (ML) (ML flic (ML) (ML) (ML flic (ML) (ML flic (ML) (ML) (ML flic (ML) (ML) (ML) (ML) (ML flic (ML) (ML) (ML) (ML) (ML) (ML) (ML) (ML)	ed.) ce (S8) (L) (LRR S, (F1) (LRR F2)	RR S, T, U) T, U) O) LRR O, P, 1 , U) 0A, 150B) (MLRA 148	Indicators (1 cm M 2 cm M Reduce Piedmo Anoma (MLR Red Pa Very Si Other (I T) 3 Indicators (I Weth unle	for Proble luck (A9) (luck (A10) ed Vertic (Font Floodpl lous Bright (A 153B) arent Maternallow Darrent Maternallow Darrent Explain in lators of hy and hydroiss disturbed	(LRR S) F18) (outside I lain Soils (F19) t Loamy Soils (Soils ³ : MLRA 150A,B) (LRR P, S, T) F20) 2) tation and resent, tic.



Photo 1 Upland data point wsua018_u facing south



Photo 2 Upland data point wsua018_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Date: 12/10/2014
Applicant/Owner: Dominion		State: VA Sampling Point: wsua009f_w
••	Section, Township, Range: N	
Landform (hillslope, terrace, etc.): draw		
Subregion (LRR of MLRA): Lat: Lat: Lat:		76.86760044 Datum: WGS 1984
Soil Map Unit Name: Rains fine sandy loam		NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of		
Are Vegetation, Soil, or Hydrology significan	ntly disturbed? Are "Norma	Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, e	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point location	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes _ ✔ No		
Hydric Soil Present? Yes ✓ No	is the Sampled Area	v v v
Wetland Hydrology Present? Yes V No		Yes No
Remarks:		
Wetland data point taken within a saturated PFO wetland located in shelf areas along stream course.		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	ly)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (Fig. 2)		✓ Drainage Patterns (B10)
✓ Saturation (A3) Hydrogen Sulfid		Moss Trim Lines (B16)
Water Marks (B1) Oxidized Rhizos Sediment Deposits (B2) Presence of Re-	spheres along Living Roots (C3)	Dry-Season Water Table (C2) Crayfish Burrows (C8)
	duction in Tilled Soils (C6)	Craylish Burlows (Co) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surfa		Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain i		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 Depth (inch		
Water Table Present? Yes No Depth (inch	ies): 6	
Saturation Present? Yes V No Depth (inch	ies): 4 Wetland H	lydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial ph	l notos, previous inspections), if ava	ilable:
	,, ,,	
Remarks:		

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

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	
1 Pinus taeda	25	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 7 (A)
2. Acer rubrum	20	Yes	FAC	That Ale OBE, I AOW, OF I AO.
3. Magnolia virginiana	10	No	FACW	Total Number of Dominant
4. Liriodendron tulipifera	10	No	FACU	Species Across All Strata: (B)
	10			Percent of Dominant Species
5. Liquidambar styraciflua		No	FAC	That Are OBL, FACW, or FAC:100 (A/B)
6				Providence Indexessable at
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
•	75	= Total Cov	er	OBL species x 1 =
50% of total cover: 37.5		total cover:	15	FACW species35
	20 /0 01	total cover.		FAC species 90 x 3 = 270
Sapling/Shrub Stratum (Plot size: 15)	15	Vaa	EAC	FACU species 10 x 4 = 40
1. Ilex opaca	15	Yes	FAC	UPL species 0 x 5 = 0
2. Magnolia virginiana	10	Yes	FACW	135 380
3. Symplocos tinctoria	8	Yes	FAC	Column Totals: (A) (B)
4. Acer rubrum	7	No	FAC	Prevalence Index = B/A = 2.81
5				Hydrophytic Vegetation Indicators:
6.				
				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
		= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 20	20% of	total cover:	8	
Herb Stratum (Plot size: 5				1 Indicators of hydric coil and wattened hydrology as at
1 Arundinaria gigantea	15	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
··				
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sanling/Shrub Woody plants, evaluding vines loss
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				and one between the second of
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	15	= Total Cov		
50% of total cover: 7.5			•	
30 % of total cover.	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1. Smilax rotundifolia	5	Yes	FAC	
2				
3.				
4				
5				Hydrophytic
	5	= Total Cov	er	Vegetation Present? Yes No
50% of total cover: 2.5	20% of	total cover:	1	Present? Yes No
Remarks: (If observed, list morphological adaptations below	w)			
Temano. (Il observed, list morphological adaptations belon	·•).			

SOIL Sampling Point: wsua009f_w

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	indicator	or confirm	the absence of i	ndicators.)
Depth	Matrix	0/		ox Feature		. 2	- .	5 .
(inches) 0-8	Color (moist) 10YR 2/1	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
-		·						
8-18	10YR 3/1	100					SL	
	-							
	-							
¹ Type: C=C	concentration, D=Dep	letion RM=R	educed Matrix M	S=Masker	Sand Gr	ains	² Location: PL:	=Pore Lining, M=Matrix.
	Indicators: (Applic							Problematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue B	elow Surfa	ce (S8) (L	.RR S. T. U) 1 cm Muck	(A9) (LRR O)
	pipedon (A2)		Thin Dark S					(A10) (LRR S)
	istic (A3)		Loamy Muck					/ertic (F18) (outside MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix ((F2)		Piedmont	Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					s Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P		Redox Dark				(MLRA 1	
	ucky Mineral (A7) (LF		Depleted Da					nt Material (TF2)
	resence (A8) (LRR U)	Redox Depr		8)			ow Dark Surface (TF12)
	uck (A9) (LRR P, T) d Below Dark Surfac	Δ (Δ11)	Marl (F10) (I		/MIRA1	51)	Other (Exp	plain in Remarks)
-	ark Surface (A12)	C (/ (/ / /	Iron-Mangar				T) ³ Indicator	rs of hydrophytic vegetation and
	Prairie Redox (A16) (I	MLRA 150A)					•	d hydrology must be present,
	Mucky Mineral (S1) (I		Delta Ochric					disturbed or problematic.
Sandy	Gleyed Matrix (S4)		Reduced Ve	rtic (F18) ((MLRA 15	0A, 150B)		
Sandy I	Redox (S5)		Piedmont FI					
	d Matrix (S6)		Anomalous	Bright Loar	my Soils (F20) (MLR	A 149A, 153C, 15	3D)
	urface (S7) (LRR P, S						1	
Restrictive	Layer (if observed):							
Type: no			_					~
Depth (ir	iches):		_				Hydric Soil Pre	esent? Yes No
Remarks:								



Photo 1 Wetland data point wsua009f_w facing south



Photo 2
Wetland data point wsua009f_w facing west

Project/Site: Atlantic Coast Pipeline	City/C	County: Suffolk	Samp	oling Date: 12/10/2014			
Applicant/Owner: Dominion	<i>,</i>		tate: VA Samp				
	Section			<u> </u>			
Landform (hillslope, terrace, etc.): slope	Local	relief (concave convex r	one)· none	Slone (%): 2			
	Lat: 36.63352951						
Soil Map Unit Name: Rains fine sandy loar		Long					
•							
Are climatic / hydrologic conditions on the s							
Are Vegetation, Soil, or Hyd							
Are Vegetation, Soil, or Hyd	drology naturally problems	atic? (If needed, ex	plain any answers in R	emarks.)			
SUMMARY OF FINDINGS – Atta	ch site map showing sam	npling point location	າຣ, transects, imp	ortant features, etc.			
Hydrophytic Vegetation Present?	Yes No						
	Yes No	Is the Sampled Area		.,			
	Yes No	within a Wetland?	Yes I	No			
Remarks:							
Upland data point taken above toe of slope	e for a saturated PFO wetland loca	ated in a wet draw.					
HYDROLOGY							
Wetland Hydrology Indicators:			Secondary Indicators (n	minimum of two required)			
Primary Indicators (minimum of one is rec	uired: check all that apply)		Surface Soil Cracks				
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	Marl Deposits (B15) (LRF		Oparsely vegetated Drainage Patterns (
Saturation (A3)	Hydrogen Sulfide Odor (0		Moss Trim Lines (B				
Water Marks (B1)	Oxidized Rhizospheres a		Dry-Season Water				
Sediment Deposits (B2)	Presence of Reduced Iro		Crayfish Burrows (0				
Drift Deposits (B3)	Recent Iron Reduction in		-	on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		Geomorphic Position	on (D2)			
Iron Deposits (B5)	Other (Explain in Remark	(s)	Shallow Aquitard (E	03)			
Inundation Visible on Aerial Imagery	(B7)		FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)			Sphagnum moss (E	08) (LRR T, U)			
Field Observations:							
	_ No Depth (inches):						
Water Table Present? Yes	_ No Depth (inches):						
	_ No Depth (inches):	Wetland H	/drology Present? Y	'es No			
(includes capillary fringe) Describe Recorded Data (stream gauge,	monitoring well, aerial photos, pre	l evious inspections), if avail	able:				
Remarks:							
no hydrology indicators present							

20		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	30	Yes	FAC	That Are OBL, FACW, or FAC:3 (A)
2. Liriodendron tulipifera	15	Yes	FACU	Total Number of Dominant
3. Quercus alba	12	No	FACU	Species Across All Strata: 7 (B)
4. Acer rubrum	10	No	FAC	
5. Liquidambar styraciflua	8	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 42.85714285 (A/B)
6. Fagus grandifolia	5	No	FACU	matric obe, thow, of the
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
0	80	= Total Cov		OBL species $0 \times 1 = 0$
50% of total cover: 40			16	FACW species 7
30 % Of total cover	20% of	total cover:		FAC species 66 x 3 = 198
Sapling/Shrub Stratum (Plot size: 15)	15	Vaa	FACIL	FACU species 57 x 4 = 228
1. Fagus grandifolia	15	Yes	FACU	UPL species 0 x 5 = 0
2. <u>Ilex opaca</u>	10	Yes	FAC	130 440
3. Oxydendrum arboreum	8	Yes	FACU	Column Totals: (A) (B)
4. Symplocos tinctoria	7	No	FAC	Prevalence Index = B/A = 3.38
5				Hydrophytic Vegetation Indicators:
6				
7.				1 - Rapid Test for Hydrophytic Vegetation
8.				2 - Dominance Test is >50%
0	40	= Total Cov		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 20			•	Problematic Hydrophytic Vegetation ¹ (Explain)
	20% of	total cover:		
Tierb Stratum (Flot size)	7		EA C)A/	¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	7	Yes	FACW	be present, unless disturbed or problematic.
2. Mitchella repens	2	Yes	FACU	Definitions of Four Vegetation Strata:
3. Hexastylis arifolia	1	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				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 herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				or olze, and woody planto less than 6.20 it tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
_		= Total Cov	•	
50% of total cover:5	20% of	total cover:	2	
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4.				
5.				Hadaaahada
o	_	= Total Cov		Hydrophytic Vegetation
50% of total cover:		total cover:	^	Present? Yes No
30 % of total cover.		total cover.	·	
Remarks: (If observed, list morphological adaptations below	W).			

SOIL Sampling Point: wsua009_u

Depth	cription: (Describe to Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remari	ks
0-4	10YR 2/2	100					SL		
4-18	10YR 3/2	100					SL		
				-	·				
					· ——				
				-	-				
1- 0.0							2, ,,		
	concentration, D=Depl Indicators: (Application)					ains.		Pore Lining, M=M Problematic Hyd	
-		able to all L				DD 0 T 11		•	iic solis .
Histoso			Polyvalue Be Thin Dark Su						
	pipedon (A2) listic (A3)		Loamy Muck					(A10) (LRR S) artic (E18) (outsi	de MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	-		(0)		. , .	19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		(/			Bright Loamy So	
	Bodies (A6) (LRR P,	T, U)	Redox Dark		F6)		(MLRA 15		,
-	ucky Mineral (A7) (LR		Depleted Da	rk Surface	e (F7)			Material (TF2)	
Muck P	resence (A8) (LRR U)	Redox Depre		8)			w Dark Surface (*	TF12)
	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Expl	ain in Remarks)	
	d Below Dark Surface	e (A11)	Depleted Oc	, ,	•	•	3		
	ark Surface (A12)	U DA 450A)	Iron-Mangan					of hydrophytic ve	-
	Prairie Redox (A16) (N Mucky Mineral (S1) (L					, U)		hydrology must b isturbed or proble	
	Gleyed Matrix (S4)	.KK (), (S)	Delta Ochric Reduced Ve			ΩΔ 150R)	uniess u	isturbed or proble	emauc.
	Redox (S5)		Piedmont Flo				9Δ)		
-	d Matrix (S6)						A 149A, 153C, 153	D)	
	urface (S7) (LRR P, S	, T, U)	_	J	,	- / (,,	,	
Restrictive	Layer (if observed):								
Type: no	one		<u></u>						
	iches):						Hydric Soil Pres	ent? Yes	No
Remarks:	,								



Photo 1 Upland data point wsua009_u facing east



Photo 2 Upland data point wsua009_u facing north



Photo 3
Upland data point wsua009_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: Suffolk	Sampling Date: 12/10/2014
Applicant/Owner: Dominion		State: VA Sampling Point: wsua010f_w
••	Section, Township, Range: No.	
Landform (hillslope, terrace, etc.): draw		
Subregion (LRR or MLRA): T		
Soil Map Unit Name: Rains fine sandy loam		
		NWI classification: PFO1E
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrologysi	gnificantly disturbed? Are "Normal	Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrologyn	aturally problematic? (If needed, e	explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling point location	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes <u>✓</u> No	2	
Hydric Soil Present? Yes ✓ No.	is the Sampled Area	v V v
Wetland Hydrology Present? Yes No		Yes No
Remarks:	<u> </u>	
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all the		Surface Soil Cracks (B6)
Surface Water (A1) Aquatic		Sparsely Vegetated Concave Surface (B8)
	posits (B15) (LRR U)	✓ Drainage Patterns (B10)
	en Sulfide Odor (C1)	Moss Trim Lines (B16) Dry-Season Water Table (C2)
	d Rhizospheres along Living Roots (C3) e of Reduced Iron (C4)	✓ Crayfish Burrows (C8)
	ron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
	ck Surface (C7)	Geomorphic Position (D2)
	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 Dep		
Water Table Present? Yes No Dep	oth (inches): $\frac{5}{3}$	
Saturation Present? Yes V No Dep	oth (inches): Wetland F	lydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, a	l aerial photos, previous inspections), if ava	ilable:
Remarks:		

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

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Nyssa sylvatica	20	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Liquidambar styraciflua	15	Yes	FAC	Total Number of Dominant
3. Pinus taeda	15	Yes	FAC	Species Across All Strata: 7 (B)
4. Liriodendron tulipifera	12	No	FACU	Barrant of Barrin ant Oracina
5. Magnolia virginiana	8	No	FACW	Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6. Acer rubrum	5	No	FAC	, , ,
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	75	= Total Cov	er	OBL species 6 x 1 = 6
50% of total cover: 37.5		total cover:	15	FACW species36
Sapling/Shrub Stratum (Plot size: 15)	20 /0 01	total cover.		FAC species75
1 Magnolia virginiana	16	Yes	FACW	FACU species16 x 4 =64
Hay anger	10	Yes	FAC	UPL species 0 x 5 = 0
2. Ilex opaca 3. Liquidambar styraciflua	5	No	FAC	Column Totals: 133 (A) 367 (B)
		No	FAC	(*)
4. Acer rubrum				Prevalence Index = B/A =2.75
5. Fagus grandifolia	4	No	FACU	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	40	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 20	20% of	total cover:	8	
Herb Stratum (Plot size:				¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	12	Yes	FACW	be present, unless disturbed or problematic.
2. Woodwardia areolata	6	Yes	OBL	Definitions of Four Vegetation Strata:
3.				_
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 m. DDH and greater than 3.20 ft (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	18	= Total Cov	er	
50% of total cover:9	20% of	total cover:	3.6	
Woody Vine Stratum (Plot size:)				
1				
2.				
3.				
4.				
5.				
5	0	= Total Cov		Hydrophytic Vegetation
50% of total cover: 0				Present? Yes No No
30 /0 OI total cover.		total cover:		
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wsua010f_w

Depth	cription: (Describe t Matrix			x Feature				,
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 2/1	100					SIL	
9-18	10YR 3/1	100					SIL	
					•			
1- 0 0							2, ,, 5,	
	Concentration, D=Depl Indicators: (Application)					ains.		Problematic Hydric Soils ³ :
-		able to all L				DD 0 T 11		•
Histoso			Polyvalue Be Thin Dark Su					
	pipedon (A2) listic (A3)		Loamy Muck					(A10) (LRR S) 'ertic (F18) (outside MLRA 150A,I
	en Sulfide (A4)		Loamy Gleye	-		. 0,		Floodplain Soils (F19) (LRR P, S, 1
	d Layers (A5)		Depleted Ma		(- –)			Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T, U)	Redox Dark		- 6)		(MLRA 1	
-	ucky Mineral (A7) (LR		Depleted Da	rk Surface	e (F7)			t Material (TF2)
Muck P	resence (A8) (LRR U))	Redox Depre	essions (F	(8)		Very Shallo	ow Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (L				Other (Exp	lain in Remarks)
	ed Below Dark Surface	e (A11)	Depleted Oc	, ,	•	•	3	
	ark Surface (A12)	U D A 450A)	Iron-Mangan					s of hydrophytic vegetation and
	Prairie Redox (A16) (N Mucky Mineral (S1) (L					, U)		hydrology must be present, disturbed or problematic.
	Gleyed Matrix (S4)	.KK U, 3)	Delta Ochric Reduced Ve			ΩΔ 150R)	uniess	disturbed of problematic.
	Redox (S5)		Piedmont Flo				9Δ)	
-	d Matrix (S6)						A 149A, 153C, 153	BD)
	urface (S7) (LRR P, S	, T, U)	_	J	, (- / (,,	,
Restrictive	Layer (if observed):							
Type: no	one		<u></u>					
	nches):		<u></u>				Hydric Soil Pres	sent? Yes 🖊 No
Remarks:	, -							_



Photo 1
Wetland data point wsua010f_w facing north



Photo 2
Wetland data point wsua010f_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Suff	·olk	Sampling Date: 12/10/2014			
Applicant/Owner: Dominion			Sampling Point: wsua010_u			
• •	Section, Townsh					
Landform (hillslope, terrace, etc.): slope						
	Lat: 36.63330875					
Soil Map Unit Name: Rains fine sandy loam		Long NWI classif				
·						
Are climatic / hydrologic conditions on the site typic						
Are Vegetation, Soil, or Hydrology _						
Are Vegetation, Soil, or Hydrology _	naturally problematic?	(If needed, explain any answ	vers in Remarks.)			
SUMMARY OF FINDINGS - Attach site	map showing sampling po	int locations, transect	s, important features, etc.			
Hydrophytic Vogetation Present?	√ No.					
	No 🗸	mpled Area				
	No <u>v</u> within a \	Vetland? Yes	No			
Remarks:						
Upland data point taken above toe of slope on an u	upland finger between two draws cor	taining intersecting saturated	to temporarily flooded PFO			
wetland branches along streams.						
HYDROLOGY						
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)			
Primary Indicators (minimum of one is required; cl	neck all that apply)	Surface So	il Cracks (B6)			
Surface Water (A1)	Aquatic Fauna (B13)	Sparsely V	Sparsely Vegetated Concave Surface (B8)			
<u> </u>	Marl Deposits (B15) (LRR U)		Patterns (B10)			
	Hydrogen Sulfide Odor (C1)		Lines (B16)			
	Oxidized Rhizospheres along Living		n Water Table (C2)			
Sediment Deposits (B2)	Presence of Reduced Iron (C4)	Crayfish Bu	urrows (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)	Geomorphi	ic Position (D2)			
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aq	uitard (D3)			
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	al Test (D5)			
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No	Depth (inches):					
Water Table Present? Yes No	Depth (inches):					
	Depth (inches):	Wetland Hydrology Prese	ent? Yes No <u> </u>			
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring)	na well aerial photos, previous inspe	ctions) if available:				
Bescribe Necorded Bata (stream gauge, morniorii	ig well, aeriai priotos, previous ilispe	ctions), ii available.				
Remarks:						
no hydrology indicators present						
, , , , , , , , , , , , , , , , , , ,						

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Liriodendron tulipifera	25	Yes	FACU	That Are OBL, FACW, or FAC:4 (A)
2. Quercus alba	20	Yes	FACU	Total Number of Dominant
3. Pinus taeda	20	Yes	FAC	Species Across All Strata: 7 (B)
4. Quercus falcata	10	No	FACU	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 57.14285714 (A/B)
6				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	75	= Total Cov	er	OBL species x 1 =
50% of total cover: 37.5		total cover:	15	FACW species x 2 = 8
Sapling/Shrub Stratum (Plot size: 15)	20 /0 0.	10101 00101	·	FAC species 37 x 3 = 111
1 Fagus grandifolia	10	Yes	FACU	FACU species 71 x 4 = 284
llev energy	10	Yes	FAC	UPL species0 x 5 =0
2. Ilex opaca 3. Acer rubrum	5	No	FAC	Column Totals:112 (A)403 (B)
-		No	FACU	
4. Oxydendrum arboreum			1700	Prevalence Index = B/A = 3.59
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 15	20% of	total cover:	6	<u> </u>
Herb Stratum (Plot size:				¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria gigantea	4	Yes	FACW	be present, unless disturbed or problematic.
2. Hexastylis arifolia	2	Yes	FAC	Definitions of Four Vegetation Strata:
3. Mitchella repens	1	No	FACU	
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
·· ·				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 m. DBH and greater than 3.26 it (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	7	= Total Cov	er	
50% of total cover: 3.5		total cover:		
Woody Vine Stratum (Plot size: 30)	_			
1				
2				
3				
4				
5				Hydrophytic
0		= Total Cov		Vegetation Present? Yes No
50% of total cover:0	20% of	total cover:		105 NO
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wsua010_u

Depth Matrix	to the deptl		x Feature					
(inches) Color (moist) 0-7 10YR 2/2	<u>%</u> 100	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture SL	Remarks	
7-15 10YR 4/3	100					SL		
15-20 10YR 4/4	100							
10 20 1011(4)4	·							
¹Type: C=Concentration, D=Dep Hydric Soil Indicators: (Applic Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P 5 cm Mucky Mineral (A7) (LF Muck Presence (A8) (LRR U 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface Thick Dark Surface (A12) Coast Prairie Redox (A16) (N Sandy Mucky Mineral (S1) (L Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S	able to all L , T, U) RR P, T, U)) e (A11) MLRA 150A) LRR O, S)	RRs, unless other Polyvalue Be Thin Dark Su Loamy Muck Loamy Gleye Depleted Ma Redox Dark Su Depleted Dar Redox Depre Marl (F10) (L Depleted Ocl Iron-Mangan Umbric Surfa Delta Ochric Reduced Ver Piedmont Flo	rwise note blow Surfa urface (S9) y Mineral ed Matrix (trix (F3) Surface (F rk Surface essions (FRR U) hric (F11) ese Masse ace (F13) ((F17) (ML rtic (F18) (podplain S	ed.) ce (S8) (L) (LRR S, (F1) (LRR F2)	RR S, T, U) T, U) O) LRR O, P, 1 , U) 0A, 150B) (MLRA 149	Indicators for F 1 cm Muck 2 cm Muck Reduced V Piedmont F Anomalous (MLRA 19 Red Parent Very Shallo Other (Expl	(A10) (LRR S) ertic (F18) (outside loodplain Soils (F19) Bright Loamy Soils (53B) Material (TF2) w Dark Surface (TF2) ain in Remarks) s of hydrophytic veget hydrology must be p isturbed or problema	Soils³: MLRA 150A,B) (LRR P, S, T) (F20) 12) etation and present,
Restrictive Layer (if observed): Type:								_
Depth (inches):						Hydric Soil Pres	ent? Yes	No



Photo 1 Upland data point wsua010_u facing east



Photo 2 Upland data point wsua010_u facing south

Project/Site: Atlantic Coast Pipeline	City/Co	ounty: City of Suffolk		Sampling Date: 9/16/2015
Applicant/Owner: Dominion			State: VA	Sampling Date: 9/16/2015 Sampling Point: wsua072f_w
	Section			
Landform (hillslope, terrace, etc.): swale				
Subregion (LRR or MLRA): T				
Soil Map Unit Name: Goldsboro fine sandy loam,	2 to 5 percent slopes, erode	ed	NIMI classific	None Pation: None
Are climatic / hydrologic conditions on the site typic				
Are Vegetation, Soil, or Hydrology				present? Yes No
Are Vegetation, Soil, or Hydrology			explain any answe	
SUMMARY OF FINDINGS – Attach sit	e map showing sam	pling point location	ons, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes	✓ No	Is the Sampled Area		
	✓ No	within a Wetland?	Yes 🗸	, No
Wetland Hydrology Present? Yes Remarks:	∨ No			
Wetland data point for a saturated to temporarily-				
HYDROLOGY				
Wetland Hydrology Indicators:			-	ators (minimum of two required)
Primary Indicators (minimum of one is required; o			Surface Soil	` ′
	Aquatic Fauna (B13)	* **		getated Concave Surface (B8)
	Marl Deposits (B15) (LRR Hydrogen Sulfide Odor (C		✓ Drainage Pa Moss Trim L	
	Oxidized Rhizospheres ald			Water Table (C2)
	Presence of Reduced Iron		Crayfish Bur	
	Recent Iron Reduction in		-	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		✓ Geomorphic	
	Other (Explain in Remarks	s)	Shallow Aqu	
Inundation Visible on Aerial Imagery (B7)			FAC-Neutral	
Water-Stained Leaves (B9)		T	Sphagnum n	noss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes No	Depth (inches):			
	Depth (inches):			
	Depth (inches):		Jydrology Preser	nt? Yes 🗸 No
(includes capillary fringe)				III: 165 NO
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, prev	ious inspections), if ava	ailable:	
Remarks:				

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

20		Dominant Species? Yes Yes Yes Yes Yes	Status FACW FAC FACU	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A) Total Number of Dominant Species Across All Strata: 11 (B)
1. Fraxinus pennsylvanica 2. Liquidambar styraciflua 3. Liriodendron tulipifera 4. Pinus taeda 5. Acer rubrum	15 10 10 10	Yes Yes Yes	FACW FAC FACU	That Are OBL, FACW, or FAC: 9 (A) Total Number of Dominant
2. Liquidambar styraciflua 3. Liriodendron tulipifera 4. Pinus taeda 5. Acer rubrum	10	Yes	FACU	Total Number of Dominant
3. Liriodendron tulipifera 4. Pinus taeda 5. Acer rubrum	10	Yes	FACU	44
4. Pinus taeda 5. Acer rubrum	10			Species Across All Strata: (B)
5. Acer rubrum		res		(=)
o			FAC	Percent of Dominant Species
6. Ulmus rubra		Yes	FAC	That Are OBL, FACW, or FAC: 81.81818181 (A/B)
	5	No	FAC	
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	60	= Total Cove	er	OBL species 7 x 1 = 7
50% of total cover:		total cover:	12	FACW species46
	20 /0 01	iolai covei.		FAC species 73 x 3 = 219
Sapling/Shrub Stratum (Plot size: 15)	13	Yes	FAC	FACU species 32 x 4 = 128
1. Ilex opaca				UPL species0 x 5 =0
2. Ligustrum sinense		Yes	FAC	158 446
3. Fraxinus pennsylvanica	6	Yes	FACW	Column Totals: (A) (B)
4. Ulmus rubra	4	No	FAC	Prevalence Index = B/A = 2.82
5				Trevalence mack Birt
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7	 -			2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0¹
-	30 =	Total Cove	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:15:	20% of	total cover:	6	
Herb Stratum (Plot size: ⁵)				¹ Indicators of hydric soil and wetland hydrology must
1 Arundinaria gigantea	25	Yes	FACW	be present, unless disturbed or problematic.
2. Athyrium asplenioides	7	No	FAC	Definitions of Four Vegetation Strata:
3. Circaea canadensis	. 7	No	FACU	Definitions of Four Vegetation Strata.
		No		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Woodwardia areolata		INO	OBL	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 herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				of size, and woody plants less than 3.20 it tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
<u> </u>	46 =	Total Cove	er	
50% of total cover: 23	20% of	total cover:	9.2	
Woody Vine Stratum (Plot size: 30)				
1 Lonicera japonica	15	Yes	FACU	
2. Toxicodendron radicans	7	Yes	FAC	
2. Toxicodendron radicans	'			
3				
4				
5.				Hydrophytic
	22 =	Total Cove	er	Vegetation
50% of total cover:		total cover:		Present? Yes No
Remarks: (If observed, list morphological adaptations below).	20 /0 01	iolai covei.		

SOIL Sampling Point: wsua072f_w

Depth	cription: (Describe t Matrix			x Feature				•
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-7	10YR 4/3	100					SL	
7-18	10YR 4/2	96	7.5YR 4/6	4	С	PL/M	SL	
					·			
					· ——			
					-			
1					-			
	concentration, D=Depl					ains.		=Pore Lining, M=Matrix.
-	Indicators: (Applica	ible to all I						Problematic Hydric Soils ³ :
Histoso			Polyvalue Be					k (A9) (LRR O)
	pipedon (A2) listic (A3)		Thin Dark Su					k (A10) (LRR S) Vertic (F18) (outside MLRA 150A,B
	en Sulfide (A4)		Loamy Muck Loamy Gleye	-		(0)		Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		<u>✓</u> Depleted Ma		(1 2)			is Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T. U)	Redox Dark		F6)		(MLRA	
-	ucky Mineral (A7) (LR		Depleted Da	,	,			nt Material (TF2)
	resence (A8) (LRR U)		Redox Depre				Very Shal	low Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other (Ex	plain in Remarks)
	d Below Dark Surface	(A11)	Depleted Oc					
	ark Surface (A12)		Iron-Mangan					rs of hydrophytic vegetation and
	Prairie Redox (A16) (N					', U)		d hydrology must be present,
	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric			OA 450D)	unless	disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver				0.4)	
-	Redox (S5) d Matrix (S6)		Piedmont Flo				9A) A 149A, 153C, 15	(3D)
	urface (S7) (LRR P, S	T. U)	Anomalous L	origini Loa	illy Solis (1 20) (WILK	A 149A, 133C, 13	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	Layer (if observed):	, ., .,						
Type: no								
	iches):						Hydric Soil Pre	esent? Yes V No No
							Hydric 30ii Fie	esent: TesNO
Remarks:								



Photo 1
Wetland data point wsua072f_w facing southwest



Photo 2Wetland data point wsua072f_w facing southeast

Project/Site: Atlantic Coast Pipeline		City/County: City of	of Suffolk	Sampling Date: 9/16/2015		
Applicant/Owner: Dominion		, ,	State: VA	Sampling Date: 9/16/2015 Sampling Point: wsua072_u		
Landform (hillslope, terrace, etc.): slo						
				Datum: WGS 1984		
Soil Map Unit Name: Goldsboro fine s	sandy loam. 2 to 5 percent:	slopes, eroded	LONG	None None		
Are climatic / hydrologic conditions on						
• •	•			•		
Are Vegetation, Soil, c				s" present? Yes No		
Are Vegetation, Soil, c	or Hydrologynatura	ally problematic?	(If needed, explain any ans	swers in Remarks.)		
SUMMARY OF FINDINGS -	Attach site map sho	wing sampling poi	nt locations, transec	cts, important features, etc.		
Hydrophytic Vegetation Present?	Yes No	/				
Hydric Soil Present?	Yes No	/				
Wetland Hydrology Present?	Yes No _		etland? Yes	No		
Remarks:						
Upland data point taken above toe of	slope for a saturated to ter	mporarily-flooded PFO w	etland located in a shallow	swale.		
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Inc	dicators (minimum of two required)		
Primary Indicators (minimum of one	is required: check all that a	nolv)	· · · · · · · · · · · · · · · · · · ·	Soil Cracks (B6)		
Surface Water (A1)	Aquatic Faun			Vegetated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits			Drainage Patterns (B10)		
Saturation (A3)	Hydrogen Su			Moss Trim Lines (B16)		
Water Marks (B1)		zospheres along Living F		on Water Table (C2)		
Sediment Deposits (B2)		Reduced Iron (C4)		Burrows (C8)		
Drift Deposits (B3)		Reduction in Tilled Soils (n Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin Muck Su	urface (C7)	Geomorp	hic Position (D2)		
Iron Deposits (B5)	Other (Explai	n in Remarks)	Shallow A	Aquitard (D3)		
Inundation Visible on Aerial Ima	gery (B7)		FAC-Neut	tral Test (D5)		
Water-Stained Leaves (B9)			Sphagnur	m moss (D8) (LRR T, U)		
Field Observations:						
	No 🔽 Depth (ir					
1	No 🖍 Depth (ir	,				
	No 🖍 Depth (ir	nches):	Wetland Hydrology Pres	sent? Yes No		
(includes capillary fringe) Describe Recorded Data (stream ga	uge, monitoring well, aerial	photos, previous inspec	tions), if available:			
Remarks:						
no hydrology indicators present						

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Pinus taeda	35	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Liriodendron tulipifera	20	Yes	FACU	Total Number of Dominant
3. Acer rubrum	8	No	FAC	Species Across All Strata: 8 (B)
4. Liquidambar styraciflua	7	No	FAC	December of December of Occasion
5. Ulmus rubra	5	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
6				That / 10 0 B2, 1 / 10 W, 01 1 / 10 (/ 13)
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	75	= Total Cov	er	OBL species x 1 =0
50% of total cover: 37.5		total cover:	15	FACW species x 2 = 0
Sapling/Shrub Stratum (Plot size: 15)	2070 01	total cover.	· 	FAC species87
1 llex opaca	15	Yes	FAC	FACU species43 x 4 =172
Cumple see tineterie	10	Yes	FAC	UPL species0 x 5 =0
2. Symplocos unciona 3. Acer rubrum	5	No	FAC	Column Totals: 130 (A) 433 (B)
,		No	FACU	.,,,,,
4. Liriodendron tulipifera				Prevalence Index = B/A = 3.33
5. Quercus alba		No	FACU	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 18.5	20% of	total cover:	7.4	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Dryopteris marginalis	2	Yes	FACU	be present, unless disturbed or problematic.
2. Carex blanda	2	Yes	FAC	Definitions of Four Vegetation Strata:
3 Mitchella repens	2	Yes	FACU	
		-		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
· · · · · · · · · · · · · · · · · · ·				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 6 m. BBrrana greater than 6.20 m (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	6	= Total Cov		
50% of total cover:3	20% of	total cover:	1.2	
Woody Vine Stratum (Plot size:)				
1. Lonicera japonica	12	Yes	FACU	
2				
3				
4				
5.				Livelyambystic
	12	= Total Cov	er	Hydrophytic Vegetation
50% of total cover:6		total cover:		Present? Yes No
Remarks: (If observed, list morphological adaptations below		total cover.	· ——	
Remarks. (II observed, list morphological adaptations belo	w).			

SOIL Sampling Point: wsua072_u

	cription: (Describe t	o the depth				or confirm	the absence of in-	dicators.)	
Depth	Matrix	0/		x Feature	1	1.002	Toyture	Damas	
(inches) 0-4	Color (moist) 10YR 3/2	100	Color (moist)	%	Type'	Loc ²	Texture SL	Remark	<u>.s</u>
4-9	10YR 4/3	100					SL		
9-20	10YR 5/4	100					SL		
				_					
	oncentration, D=Depl					ains.		Pore Lining, M=Ma	
-	Indicators: (Applica	able to all LF						roblematic Hydr	ic Soils³:
Histoso			Polyvalue Be						
	pipedon (A2) istic (A3)		Thin Dark Su					(A10) (LRR S) ertic (F18) (outsid	le MLRA 150A,B)
	en Sulfide (A4)		Loamy Gleye	-		-,	Piedmont FI	oodplain Soils (F	19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		>			Bright Loamy Soil	ls (F20)
_	Bodies (A6) (LRR P, ucky Mineral (A7) (LR		Redox Dark Depleted Da	•	,		(MLRA 15	Material (TF2)	
	resence (A8) (LRR U)		Redox Depre					w Dark Surface (T	F12)
	uck (A9) (LRR P, T)	,	Marl (F10) (L		-,			ain in Remarks)	,
	d Below Dark Surface	e (A11)	Depleted Oc	, ,	-	•	2		
	ark Surface (A12)	II DA 150A\	Iron-Mangan					of hydrophytic ve nydrology must be	-
	rairie Redox (A16) (N Jucky Mineral (S1) (L		Umbric Surfa Delta Ochric			, 0)		sturbed or proble	
	Gleyed Matrix (S4)	0, 0,	Reduced Ve			0A, 150B)	u	5.u.50u 5. p. 65.e.	
Sandy F	Redox (S5)		Piedmont Flo						
	d Matrix (S6)	T	Anomalous I	Bright Loa	my Soils (F20) (MLR	A 149A, 153C, 153I	D)	
	rface (S7) (LRR P, S Layer (if observed):	, I, U)					Γ		
Type: no									
	ches):		_ _				Hydric Soil Pres	ent? Yes	No
Remarks:	, <u>-</u>								



Photo 1 Upland data point wsua072_u facing northwest



Photo 2
Upland data point wsua072_u facing northeast

Project/Site: Atlantic Coast Pipeline		City/C	ounty: City of Suffolk		Sampling Date: 9/16/2015
Applicant/Owner: Dominion				State: VA	Sampling Date: 9/16/2015 Sampling Point: wsua070f_w
			on, Township, Range:		
Landform (hillslope, terrace, etc.): draw					
Subregion (LRR or MLRA): T					
Soil Map Unit Name: Goldsboro fine sand	ly loam 2 to 5	_ Lat nercent slones_erod	Long. ed	NIVA/I -I:E	Datum. None
			_		
Are climatic / hydrologic conditions on the					
Are Vegetation, Soil, or H	ydrology	_ significantly disturt	ped? Are "Norm	nal Circumstances"	present? Yes No
Are Vegetation, Soil, or H	ydrology	_ naturally problema	itic? (If needed	l, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Att	ach site ma	p showing sam	pling point locat	tions, transects	s, important features, etc.
Hydrophytic Vegetation Present?	Yes	No			
Hydric Soil Present?	Yes 🗸		Is the Sampled Area		. No.
Wetland Hydrology Present?	Yes 🔽	No	within a Wetland?	res	No
Remarks: Wetland data point for a saturated PFO v	wetland located	in intersecting draws	S.		
HYDROLOGY					
Wetland Hydrology Indicators:				<u> </u>	ators (minimum of two required)
Primary Indicators (minimum of one is re	-			· · · · · · · · · · · · · · · · · · ·	l Cracks (B6)
Surface Water (A1)		tic Fauna (B13)			egetated Concave Surface (B8)
High Water Table (A2)		Deposits (B15) (LRF		<u>✓</u> Drainage Pa	
Saturation (A3)		ogen Sulfide Odor (C		Moss Trim L	
Water Marks (B1)			long Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)		ence of Reduced Iron		<u>✓</u> Crayfish Bu	
Drift Deposits (B3)		ent Iron Reduction in	Tilled Solls (Co)		/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)	۵)	✓ Geomorphic	
Iron Deposits (B5) Inundation Visible on Aerial Imagery		r (Explain in Remark	8)	Shallow Aqu	, ,
— Water-Stained Leaves (B9)	y (D7)			FAC-Neutra	moss (D8) (LRR T, U)
Field Observations:				Spriagrium i	11033 (D0) (ERR 1, 0)
	No.	Depth (inches):			
		Depth (inches):			
		Depth (inches):		l Hydrology Prese	nt? Yes 🗸 No
(includes capillary fringe)					iit: Tes NO
Describe Recorded Data (stream gauge	, monitoring we	ell, aerial photos, pre	vious inspections), if a	vailable:	
Remarks:					

Troe Stratum (Plot aize: 30	Absolute	Dominant		Dominance Test worksheet:
Tiee Stratum (Flot Size)		Species?		Number of Dominant Species _
1. Acer rubrum	12	Yes	FAC	That Are OBL, FACW, or FAC:7 (A)
2. Fagus grandifolia	10	Yes	FACU	
3. Liriodendron tulipifera	10	Yes	FACU	Total Number of Dominant Species Across All Strata: 9 (B)
4. Liquidambar styraciflua	10	Yes	FAC	Species Across All Strata:9 (B)
				Percent of Dominant Species
5. Quercus michauxii	10	Yes	FACW	That Are OBL, FACW, or FAC:
6. Nyssa sylvatica	8	No	FAC	
7				Prevalence Index worksheet:
0				Total % Cover of: Multiply by:
0	60			OBL species6 x 1 =6
20		= Total Cove		FACW species 25 x 2 = 50
50% of total cover:30	20% of	total cover:	12	62 196
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Ilex opaca	15	Yes	FAC	FACU species x 4 =
2 Acer rubrum		Yes	FAC	UPL species0 x 5 =0
				Column Totals:117
3. Fagus grandifolia	4	No	FACU	Goldmir Totals (A) (B)
4				Prevalence Index = B/A = 2.88
5				
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	24	= Total Cove	er	
50% of total cover: 12		total cover:	4.0	Problematic Hydrophytic Vegetation¹ (Explain)
	20 /0 01	total cover.		
TICID OTIATUTE (1 TOT SIZE.			= 4 0147	¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria tecta	15	Yes	FACW	be present, unless disturbed or problematic.
2. Woodwardia areolata	6	Yes	OBL	Definitions of Four Vegetation Strata:
3. Microstegium vimineum	5	No	FAC	
4. Athyrium asplenioides	4	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
	3			more in diameter at breast height (DBH), regardless of
5. Carex blanda		No	FAC	height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8			<u>.</u>	
•				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
12.	33	Tatal Caus		
16.5		= Total Cove		
50% of total cover: 16.5	20% of	total cover:	0.0	
Woody Vine Stratum (Plot size:)				
1				
2.			_	
3				
4				
5.				Hydrophytic
	0	= Total Cove		Vegetation
500/ -51-1-1				Present? Yes No No
50% of total cover:		total cover:		<u> </u>
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wsua070f_w

Depth	cription: (Describe t Matrix			x Feature				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-9	10YR 3/1	100					SL	
9-18	10YR 4/1	97	10YR 3/6	3	С	PL/M	SL	
								_
				· ——				
1							2	
	oncentration, D=Depl					ains.		=Pore Lining, M=Matrix.
_	Indicators: (Applica	ible to all I						Problematic Hydric Soils ³ :
Histoso			Polyvalue Be					k (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					k (A10) (LRR S) Vertic (F18) (outside MLRA 150A,B)
	istic (A3) en Sulfide (A4)		Loamy Mucky	-		(0)		Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		<u>✓</u> Depleted Ma		(1 2)			s Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T. U)	Redox Dark		- 6)		(MLRA	
_	ucky Mineral (A7) (LR		Depleted Dar	•	,			nt Material (TF2)
	resence (A8) (LRR U)		Redox Depre				Very Shal	low Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other (Ex	plain in Remarks)
	d Below Dark Surface	(A11)	Depleted Och					
	ark Surface (A12)		Iron-Mangan					rs of hydrophytic vegetation and
	rairie Redox (A16) (N					', U)		d hydrology must be present,
	Mucky Mineral (S1) (L	RR O, S)	Delta Ochric			OA 450D)	unless	disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ver Piedmont Flo				0.4)	
-	Redox (S5) I Matrix (S6)						9A) A 149A, 153C, 15	3D)
	rface (S7) (LRR P, S	T. U)	Anomalous L	night Loa	illy Solis (1 20) (WILK)	A 149A, 133C, 13	(SD)
	Layer (if observed):	, ., .,						
Type: no								
	ches):						Hydric Soil Pre	esent? Yes V No No
	Ciles).						Hydric 30ii Fie	esent: lesNo
Remarks:								
i								
i								



Photo 1
Wetland data point wsua070f_w facing southwest



Photo 2
Wetland data point wsua070f_w facing east

Project/Site: Atlantic Coast Pipeline	City/County: City o	Suffolk	Sampling Date: 9/16/2015
Applicant/Owner: Dominion	City/County: City o	State: VA	Sampling Point: wsua070_u
	Section, Township,		
Landform (hillslope, terrace, etc.): slope			
			Datum: WGS 1984
Soil Map Unit Name: Goldsboro fine sandy loam, 2 to 5	percent slopes, eroded	LongNWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for			
Are Vegetation, Soil, or Hydrology			present? Yes No
Are Vegetation, Soil, or Hydrology	naturally problematic? (f needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing sampling poir	nt locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the Samr	Ind Asses	
	No V		No
Wetland Hydrology Present? Yes		tiano? res	No
Remarks: Upland data point taken on slope above a saturated P	FO wetland located in a draw.		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; check	call that apply)	Surface Soi	l Cracks (B6)
Surface Water (A1) Aqu	uatic Fauna (B13)	Sparsely Ve	egetated Concave Surface (B8)
High Water Table (A2)	rl Deposits (B15) (LRR U)	Drainage Pa	atterns (B10)
Saturation (A3) Hyd	drogen Sulfide Odor (C1)	Moss Trim I	_ines (B16)
Water Marks (B1) Oxi	dized Rhizospheres along Living R	oots (C3) Dry-Season	Water Table (C2)
Sediment Deposits (B2) Pre	sence of Reduced Iron (C4)	Crayfish Bu	rrows (C8)
Drift Deposits (B3) Rec	cent Iron Reduction in Tilled Soils (0	C6) Saturation \	/isible on Aerial Imagery (C9)
1 	n Muck Surface (C7)	Geomorphic	Position (D2)
	er (Explain in Remarks)	Shallow Aqu	uitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	
Water-Stained Leaves (B9)		Sphagnum	moss (D8) (LRR T, U)
Field Observations:			
	Depth (inches):		
Water Table Present? Yes No	Depth (inches):		
	Depth (inches):	Wetland Hydrology Prese	nt? Yes No <u> </u>
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring w	/ell, aerial photos, previous inspecti	ons), if available:	
		,,	
Remarks:			
no hydrology indicators present			

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	Status	Number of Dominant Species
1. Pinus taeda	30	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2. Liriodendron tulipifera	20	Yes	FACU	Total Number of Dominant
3. Quercus alba	10	No	FACU	Species Across All Strata: 6 (B)
4. Acer rubrum	10	No	FAC	
5. Liquidambar styraciflua	5	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6666666 (A/B)
6.				(118)
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
o	75	= Total Cov		OBL species0 x 1 =0
50% of total cover: 37.5		total cover:	15	FACW species4 x 2 =8
	20 /6 01	total cover.		FAC species 69 x 3 = 207
Sapling/Shrub Stratum (Plot size:15) 1 Fagus grandifolia	15	Yes	FACU	FACU species46 x 4 =184
#	10	Yes	FAC	UPL species 0 x 5 = 0
L				Column Totals: 119 (A) 399 (B)
3. Acer rubrum	10	Yes	FAC	(2)
4. Liquidambar styraciflua		No	FAC	Prevalence Index = B/A =3.35
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	38	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:19	20% of	total cover:	7.6	Troblemate Tryanspriyae vegetation (Explain)
Herb Stratum (Plot size: 5)				¹ Indicators of hydric soil and wetland hydrology must
1 Arundinaria tecta	4	Yes	FACW	be present, unless disturbed or problematic.
2. Carex blanda	1	No	FAC	Definitions of Four Vegetation Strata:
Mitchalla ranana	1	No	FACU	Berning of Four Vegetation of ata.
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				noight.
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 herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	6	= Total Cov	er	
50% of total cover: 3		total cover:		
Woody Vine Stratum (Plot size: 30)	20 /0 01	total oover.		
/ / / / / / / / / / / / / / / / / / /				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover:0	20% of	total cover:	0	Present? Yes No No
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wsua070_u

Depth	cription: (Describe to Matrix	o depti		x Feature		J. JOHN!!!	42001106 01 111		
(inches)	Color (moist)	%	Color (moist)	<u> </u>	Type ¹	Loc ²	Texture	Remark	S
0-8	10YR 3/2	100					SL		
8-18	10YR 6/3	100		_			SL SL		
	·				· ———				
	·			<u> </u>	·				
				- ·					
-	·				•				
1	· -								
	Concentration, D=Depl					ains.		Pore Lining, M=M	
-	Indicators: (Applica	able to all L						Problematic Hydr	ic Solls":
Histoso			Polyvalue Be						
	pipedon (A2)		Thin Dark Su					(A10) (LRR S)	le MLRA 150A,B)
· · · · · · · · · · · · · · · · · · ·	listic (A3) en Sulfide (A4)		Loamy Muck Loamy Gleye	-		(0)		. , .	19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma		(1 2)			Bright Loamy Soil	
	Bodies (A6) (LRR P,	T. U)	Redox Dark		=6)		(MLRA 15		10 (1 20)
-	ucky Mineral (A7) (LR		Depleted Da	•	,			Material (TF2)	
	resence (A8) (LRR U)		Redox Depre	essions (F	(8)		Very Shallo	w Dark Surface (T	F12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	_RR U)			Other (Expla	ain in Remarks)	
	ed Below Dark Surface	e (A11)	Depleted Oc	, ,	-	•			
	ark Surface (A12)		Iron-Mangan					of hydrophytic ve	-
	Prairie Redox (A16) (N					', U)		hydrology must be	
	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric			OA 450D)	uniess d	isturbed or proble	matic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont Flo				24/		
-	d Matrix (S6)						A 149A, 153C, 153	וח	
	urface (S7) (LRR P, S	. T. U)	7 thomalous L	ongni Loa	ing cons (1 20) (111211)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	υ,	
	Layer (if observed):	, -, -,							
Type: no									
	nches):						Hydric Soil Pres	ent? Yes	No 🗸
Remarks:							,		
remand.									



Photo 1 Upland data point wsua070_u facing southeast



Photo 2
Upland data point wsua070_u facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: City of Suffolk		Sampling Date: 9/16/2015	
Applicant/Owner: Dominion		State: VA	Sampling Point: wsua071f_w	
	Section, Township, Range: No.			
Landform (hillslope, terrace, etc.): broad draw				
Subregion (LRR or MLRA): T Lat: 36.64 Soil Map Unit Name: Goldsboro fine sandy loam, 2 to 5 percent slope	Long:		PEO1E	
Are climatic / hydrologic conditions on the site typical for this time of y				
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal	Circumstances" pr	resent? Yes No	
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, e	explain any answers	s in Remarks.)	
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locatio	ons, transects,	important features, etc.	
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes V No	is the Sampled Area			
Wetland Hydrology Present? Yes ✓ No		Yes	No	
Remarks:	<u>'</u>			
Wetland data point for a saturated to seasonally-flooded PFO wetlan feature were not collected because they are in a no access tract.	d in a broad, low gradient draw	along stream; strea	m and downline extent of this	
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicat	ors (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)	1	Surface Soil C		
Surface Water (A1) Aquatic Fauna (B		· 	` '	
High Water Table (A2) Marl Deposits (B1)		Sparsely Vegetated Concave Surface (B8)✓ Drainage Patterns (B10)		
Saturation (A3) Hydrogen Sulfide		✓ Moss Trim Lin		
	heres along Living Roots (C3)	· 	Vater Table (C2)	
Sediment Deposits (B2) Presence of Redu	iced Iron (C4)	✓ Crayfish Burro	ows (C8)	
Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C6)	Saturation Vis	sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Thin Muck Surfac	e (C7)	✓ Geomorphic F	Position (D2)	
Iron Deposits (B5) Other (Explain in	Remarks)	Shallow Aquit		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral	, ,	
✓ Water-Stained Leaves (B9)		Sphagnum mo	oss (D8) (LRR T, U)	
Field Observations:	. 13			
Surface Water Present? Yes No Depth (inche				
Water Table Present? Yes No Depth (inche				
Saturation Present? Yes No Depth (inche (includes capillary fringe)	s): Wetland F	lydrology Present	? Yes No No	
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if ava	ilable:		
Remarks:				

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

	^ h = = lt=	Daminant	la di a a ta u	Densinance Test weather set
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Species?		Dominance Test worksheet:
1 Nyssa biflora	15	Yes	OBL	Number of Dominant Species
				That Are OBL, FACW, or FAC:9 (A)
2. Fraxinus pennsylvanica	15	Yes	FACW	Total Number of Dominant
3. Acer rubrum	10	No	FAC	Species Across All Strata: 9 (B)
Taxodium distichum	10	No	OBL	(2)
5 Liquidambar styraciflua	5	No	FAC	Percent of Dominant Species
<u> </u>				That Are OBL, FACW, or FAC: 100 (A/B)
6. Quercus lyrata		No	OBL	Dravelance Index weeks act.
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	60	= Total Cov	or	OBL species61 x 1 =61
500% -54-4-1 30			40	FACW species19
50% of total cover:	20% of	total cover:		FAC species 36 x 3 = 108
Sapling/Shrub Stratum (Plot size:)				0
1. Taxodium distichum	6	Yes	OBL	FACU species X 4 =
2. Fraxinus pennsylvanica	4	Yes	FACW	UPL species x 5 =
3. Acer rubrum	4	Yes	FAC	Column Totals:116 (A)(B)
v	3	No	FAC	
4. Carpinus caroliniana				Prevalence Index = B/A =1.78
5. Liquidambar styraciflua	3	No	FAC	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				
				2 - Dominance Test is >50%
8	20			3 - Prevalence Index is ≤3.0 ¹
40		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 10	20% of	total cover:	4	
Herb Stratum (Plot size:				¹ Indicators of hydric soil and wetland hydrology must
1 Saururus cernuus	10	Yes	OBL	be present, unless disturbed or problematic.
2. Leersia oryzoides	6	Yes	OBL	
	6	Yes	OBL	Definitions of Four Vegetation Strata:
3. Persicaria hydropiperoides				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4. Murdannia spirata	5	No	FAC	more in diameter at breast height (DBH), regardless of
5. Bacopa caroliniana	3	No	OBL	height.
6				Sapling/Shrub – Woody plants, excluding vines, less
				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				g
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine All woody vines greater than 3.28 ft in
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				noight.
12.	30			
45		= Total Cov	•	
50% of total cover: 15	20% of	total cover:	6	
Woody Vine Stratum (Plot size:)				
1 Campsis radicans	6	Yes	FAC	
· · ·				
2.				
3				
4				
5.				Hydrophytic
	6	= Total Cov	er	Vegetation
50% of total cover: 3		total cover:		Present? Yes No
30 % of total cover.		total cover.		
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wsua071f_w

Depth	cription: (Describe t Matrix	•		x Feature				•
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10YR 3/1	100					L	
6-20	10YR 4/1	97	10YR 5/5	3	С	PL	CL	_
				-	-	-		
								_
¹ Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all	LRRs, unless other	rwise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histoso	I (A1)		Polyvalue Be	low Surfa	ice (S8) (L	RR S, T, U) 1 cm Mucl	k (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					k (A10) (LRR S)
	istic (A3)		Loamy Muck	-		R O)		Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4) d Layers (A5)		Loamy Gleye ✓ Depleted Ma		(F2)			Floodplain Soils (F19) (LRR P, S, T) s Bright Loamy Soils (F20)
	Bodies (A6) (LRR P ,	T. U)	Redox Dark		- 6)		(MLRA	
_	ucky Mineral (A7) (LR		Depleted Dark	•	,			nt Material (TF2)
	resence (A8) (LRR U)		Redox Depre					low Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			Other (Exp	plain in Remarks)
	d Below Dark Surface	e (A11)	Depleted Ocl				2	
	ark Surface (A12)		Iron-Mangan					rs of hydrophytic vegetation and
	Prairie Redox (A16) (N Mucky Mineral (S1) (L					, U)		d hydrology must be present, disturbed or problematic.
	Gleyed Matrix (S4)	.KK U, 3)	Delta Ochric Reduced Ver			ΩΔ 150R)	uniess	disturbed of problematic.
	Redox (S5)		Piedmont Flo				9A)	
-	d Matrix (S6)						, A 149A, 153C, 15	3D)
	ırface (S7) (LRR P, S	, T, U)						
	Layer (if observed):							
Type: no	one							
Depth (ir	iches):						Hydric Soil Pre	esent? Yes No
Remarks:								



Photo 1 Wetland data point wsua071f_w facing east



Photo 2
Wetland data point wsua071f_w facing north

Project/Site: ACP City/County Applicant/Owner: Dominion Investigator(s): 5. Bryan L. Roper Section, To Landform (hillslope, terrace, etc.): drainage Local relief Subregion (LRR or MLRA): LRRT Lat: 36.64731 Soil Map Unit Name: Goldsboro fine Sandy 10 Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation, Soil, or Hydrology significantly disturbed? Are Vegetation, Soil, or Hydrology naturally problematic?	(concave, convex, none): <u>CDDCAVE</u> Slope (%): <u>2-3</u> Long: <u>-76.85929</u> Datum: W6589
SUMMARY OF FINDINGS – Attach site map showing samplin	
Hydria Cail Brospet2	e Sampled Area in a Wetland? Yes No
Remarks: Beaver activity NCWAM: Riverine Swamp Forest	
HYDROLOGY	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) 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) Field Observations: Surface Water Present? Paquatic Fauna (B13) Marl Deposits (B15) (LRR U) Doxidized Rhizospheres along Lagrangery (C1) Oxidized Rhizospheres along Lagrangery (C2) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled C1 Thin Muck Surface (C7) Other (Explain in Remarks)	Crayfish Burrows (C8)
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous	
Remarks:	

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

	wsua(71fw2
Sampling	Point:	

0.0.0	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30ft x 30ft)		Species?		
1. Taxodium distichum	20	Y	OBL	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
7	10	<u>'</u>		That Ale OBE, FACTY, OF FAC.
2. Her rubrum	10		FAL	Total Number of Dominant
3				Species Across All Strata: (B)
4				
				Percent of Dominant Species That Are OBL FACW or FAC: IDD (A/B)
5				That Are OBL, FACW, or FAC: (A/B)
6				Davidson Indonesia habita
7				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
8	70			OBL species x 1 =
		= Total Cov		
50% of total cover:\5	20% of	total cover	<u> 6</u>	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30f4 x30f4)				FAC species x 3 =
Day Composition (1 lot size.	6	V	EA1	FACU species x 4 =
1. Aur rubrum		-	7110	UPL species x 5 =
2. Taxodium distilhum	5	7	OBL	
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
1				
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
	10	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 5	20% of	total cover	2	
Herb Stratum (Plot size: 30f+x30f+)		total cover		
Herb Stratum (Plot size: 3017 £ 3011)				¹ Indicators of hydric soil and wetland hydrology must
1. none				be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
				S
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 in. DBH and greater than 3.26 it (1 in) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Cov		
	STATUTE OF THE STATE OF			
50% of total cover:	20% of	total cover		
Woody Vine Stratum (Plot size: 30ff x 30ff)				
1. none				
2				
3				
4				
		-		
5	70			Hydrophytic
		= Total Cov	/er	Vegetation Present? Yes V
50% of total cover:	20% o	f total cover	:	Present? Yes V No No
Remarks: (If observed, list morphological adaptations belo				
Remarks. (II observed, list morphological adaptations belo	,vv).			
			971 1 8 TO 6831 N 1979 A 17	

	MSNO	~	*	•	1000
Sampling	Point:				

Profile Description: (Describe to the dept	needed to document the indicator or confirm	the absence of indicators.)
Depth Matrix	Redox Features	Tartura
(inches) Color (moist) %	Color (moist) % Type ¹ Loc ²	Texture Remarks
0-6 10 YR3/1 100		SL
6-16 1048 2/1 100		L5
16-20 10 YR 6/2 100		5
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix, MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all I		Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B) Red Parent Material (TF2)
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U)	Depleted Dark Surface (F7) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)	Marl (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P,	
Coast Prairie Redox (A16) (MLRA 150A	Umbric Surface (F13) (LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 14 Anomalous Bright Loamy Soils (F20) (MLR	
Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U)	Anomalous Bright Loamy Soils (F20) (MLR	A 149A, 133C, 133D)
Restrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes No
		nyana con resent.
Remarks:		
1		
\(\sigma\)		
1		

Environmental Field Surveys Wetland Photo Page



Wetland data point wsua071f_w2 facing north.



Wetland data point wsua071f_w2 facing west.

Project/Site: Atlantic Coast Pipeline	:	City/C	county: City of Suffolk		Sampling Date: 9/16/2015		
Applicant/Owner: Dominion			,	State: VA	Sampling Point: wsua071_u		
Investigator(s): GB, SA		Section	on, Township, Range: N				
Landform (hillslope, terrace, etc.): S							
					Datum: WGS 1984		
Soil Map Unit Name: Goldsboro fine	e sandy loam 2 to 5	Lat nercent slopes_erod	Long led	NNA/I -1:E-	Datum. None		
Are climatic / hydrologic conditions of							
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Norma	l Circumstances" p	oresent? Yes No		
Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed,	explain any answe	rs in Remarks.)		
SUMMARY OF FINDINGS -	Attach site m	ap showing san	npling point location	ons, transects	, important features, etc.		
Hydrophytic Vegetation Present?	Yes	No 🗸					
Hydric Soil Present?		No <u>′</u>	Is the Sampled Area	.,			
Wetland Hydrology Present?		No 🔽	within a Wetland?	Yes	No		
Remarks:			adad DEO watland laast	ad in a broad law a	uradiant draw		
Upland data point taken above toe	of slope for a satura	ated to seasonally-floo	oded PFO wetland locate	ed in a broad low g	gradient draw.		
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of on	ie is required: check	(all that apply)		Surface Soil	· · · · · · · · · · · · · · · · · · ·		
Surface Water (A1)		uatic Fauna (B13)		· 	` '		
High Water Table (A2)		1 Deposits (B15) (LRI	R U)	Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)			
Saturation (A3)		Irogen Sulfide Odor (Moss Trim L			
Water Marks (B1)					Dry-Season Water Table (C2)		
Sediment Deposits (B2)		sence of Reduced Iro		Crayfish Bur			
Drift Deposits (B3)		ent Iron Reduction in		Saturation V	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thir	n Muck Surface (C7)		Geomorphic	Position (D2)		
Iron Deposits (B5)	Oth	er (Explain in Remark	(s)	Shallow Aqu	itard (D3)		
Inundation Visible on Aerial In	nagery (B7)			FAC-Neutral	` '		
Water-Stained Leaves (B9)			<u> </u>	Sphagnum n	noss (D8) (LRR T, U)		
Field Observations:							
		Depth (inches):					
		Depth (inches):					
Saturation Present? Ye (includes capillary fringe)	s No	Depth (inches):	Wetland I	Hydrology Preser	nt? Yes No		
Describe Recorded Data (stream of	gauge, monitoring w	vell, aerial photos, pre	vious inspections), if ava	ailable:			
Remarks:							
no hydrology indicators present							