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

Sampling Point: WD/MO15-U

	Abaaluta	Dominant	Indiantor	Deminance Testwarksheat
Trac Stratum (Plot size: 30)	Absolute % Cover	Species?	10162101	Dominance Test worksneet:
<u>AUCOC AURA</u>	700000			Number of Dominant Species
1. UUFRC ITCOM		/	PACU	That Are OBL, FACW, or FAC: (A)
2. LIRIODEN TULIP	25		<u>PACU</u>	Total Number of Dominant
3. ASIMINA TRILOBA	30	Y	FAC	Species Across All Strata: (B)
4	•			Percent of Dominant Species
5			• •	That Are OBL, FACW, or FAC:8 (A/B)
6				
	130	= Total Cov	ver	Prevalence Index worksheet:
1.0	-		26	Total % Cover of: Multiply by:
50% of total cover:	20% o	f total cover	:	OBL species x1=
Sapling Stratum (Plot size: 15)				
1 ASIMINA TRILARA	25	Ý	PAC	FACW species x 2 =
$h_{\mathcal{L}}(\mathcal{L},\mathcal{L}) = \mathcal{L}(\mathcal{L},\mathcal{L})$	-5-	/	r Ar	FAC species x 3 =
2. ACTR KUBR	1.5		In	FACU species x 4 =
3. LIQUID STRY	15		PAC	
4 CARPINUS CARDI	120	Y	FAC	
FACUS CRAND	In	· · · · · ·	CACI	Column Totals: (A) (B)
5. 111003 GRAVI	10		FING	
6			· ····································	Prevalence Index = B/A =
	80	= Total Cov	/er	Hydrophytic Vegetation Indicators:
Ur		C1-1-1	. 16	1 - Rapid Test for Hydrophytic Vegetation
50% of total cover:	20% o	r total cover	:	
Shrub Stratum (Plot size:/ S)	, c-	~ //		2 - Dominance Lest is >50%
1. UQUID STRY	13	Ŷ	FAC	3 - Prevalence Index is ≤3.0
ACCO PIER	15	Y	FAC	4 - Morphological Adaptations ¹ (Provide supporting
2. ACTR ROMA			FAIR	data in Remarks or on a separate sheet)
3. CARPINUS CITROL	<u></u>	·	VII	Problematic Hydrophytic Vegetation ¹ (Explain)
4. AUERCUS ALBA	_5		PACY	
5				
		-		Indicators of hydric soil and wetland hydrology must
6	00		<u> </u>	be present, unless disturbed or problematic.
	30	= Total Cov	/er	Definitions of Five Vegetation Strata:
50% of total cover	20% 0	Ftatal cover	. 7,6	
	2070 0		•	Tree – Woody plants, excluding woody vines,
Herb Stratum (Plot size:)	.	~	CACIL	approximately 20 ft (6 m) or more in height and 3 in.
1. QUERCUS ALBIF	<u> </u>	<u> </u>	FACU	(7.6 cm) of larger in diameter at breast height (DBH).
2 LIQUID STRY	1	Ý	FAC	Sanling – Woody plants, excluding woody vines
· CARPINUS CAROL	Ť	V	FAC	approximately 20 ft (6 m) or more in height and less
3. <u>Cirici in Contrad Contrad Con</u>				than 3 in. (7.6 cm) DBH
4			- <u></u>	
4 5		,	·	Shrub – Woody plants, excluding woody vines,
4 5 6.		· · · · · · · · · · · · · · · · · · ·	- <u> </u>	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
4. 5. 6. 7			· · · · · ·	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
4. 5. 6. 7.		7		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including berbaceous vines, regardless of size, and woody
4. 5. 6. 7. 8.		7		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, excent woody vines, less than approximately 3
4. 5. 6. 7. 8. 9.		7		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
4. 5. 6. 7. 8. 9. 10		· · · · · · · · · · · · · · · · · · ·		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
4. 5. 6. 7. 8. 9. 10.		· · · · · · · · · · · · · · · · · · ·		 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11.		· · · · · · · · · · · · · · · · · · ·	- <u>· · · · · · · · · · · · · · · · · · ·</u>	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11.	3		: 	 Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11.	3	= Total Cover		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
45 55 67 8 9 10 11 50% of total cover:	<u>3</u> 20% o	= Total Cover		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4	<u>3</u> 20% o	= Total Cover		Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4	<u>3</u> 20% o	= Total Cov	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4	<u> </u>	= Total Cov	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 30. 11. 2. 2.	<u> </u>	= Total Cov	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 3. 9. 11. 2. 3.	<u>3</u> 20% o	= Total Cov	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: 30. 1. 2. 3. 4.	3 20% o	= Total Cov	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
45 55 67 89 9 10 11 Woody Vine Stratum (Plot size: 3) 1 45	3	= Total Cov	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size: 3. 4. 5.	3 20% o	= Total Cov	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size: 3. 4. 5.	3 20% o	= Total Cov f total cover = Total Cover	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height.
4. 5. 6. 7. 8. 9. 10. 11. 50% of total cover: Woody Vine Stratum (Plot size: 3. 4. 5. 50% of total cover:	3 20% o	= Total Cov f total cover = Total Cov f total cover	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Woody vine – All woody vines, regardless of height. Hydrophytic Vegetation Present? Yes No
4. 5. 5.	<u>3</u> 20% o 20% o 20% o	= Total Cov f total cover = Total Cov f total cover	/er	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine – All woody vines, regardless of height. Woody vine – All woody vines, regardless of height. Hydrophytic Yegetation Present? Yes No

US Army Corps of Engineers

me Desc	ription (Describe to	the depth	needed to do	cument the ir	iuicator or co	nfirm the absence o	of indicators.)		
- metho	Matrix		R	edox Features	<u> </u>	2 Texturo	Rem	harks	
ches)	Color (moist)	%	Color (moist)	%	Type' Lo	c^{-} <u>rexture</u>			and a
-6	7.5 YR 3/	3 98				SAILA	C 010CC	EA AID	
-16	7.5 YR 5/6	100				SAILM	COMESE	377100	
pe: C=C	Concentration, D=Depl	etion, RM=	Reduced Matri	x, MS=Maskee	d Sand Grains.	² Location: Pl Indica	_=Pore Lining, M= tors for Problem	Matrix. atic Hydric Soils	3:
Iric Soil Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick E Sandy	Indicators: Indic	∋ (A11) .RR N ,	Dark Su Polyvalu Thin Da Loamy (Deplete Redox I Deplete Redox I Deplete Iron-Ma	rface (S7) le Below Surfa rk Surface (S9 Gleyed Matrix d Matrix (F3) Dark Surface (I d Dark Surface (I d Dark Surface (I d Dark Surface (I nganese Mass A 136)	ace (S8) (MLRA) (MLRA 147, 1 (F2) F6) a (F7) F8) ses (F12) (LRR	A 147, 148) 2 148) C 148) P V 0 N,	cm Muck (A10) (N oast Prairie Redox (MLRA 147, 148) iedmont Floodplair (MLRA 136, 147) ery Shallow Dark ther (Explain in Re	ILRA 147) (A16) (A16) (A16) (A17)	
Sandy Sandy Strippe	Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed):		Umbric Piedmo Red Pa	Surface (F13) nt Floodplain S rent Material (F	(MLRA 136, 1; Soils (F19) (ML F21) (MLRA 12	22) ³ ind RA 148) we 7, 147) un	icators of hydroph tland hydrology m less disturbed or p	ytic vegetation an lust be present, problematic.	d
Type:	nchos):					Hydric Soil	Present? Yes	No λ	~
Deptn (II	ncnes):			- 		Tryune Son			
manor				FOR S	ICETCH				
	SEE	- *	FORM	,					
	SEE	- ¥	FORM	,					
	SEE	- ¥	FORM						
	SEE	- ¥	FORM	/					



Upland data point wdim015_u facing north



Upland data point wdim015_u facing east



Upland data point wdim015_u soil sample

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

*		•	
Project/Site: ACP	City/County:	∪A / <mark>Dinwiddie</mark> 、	ampling Date. 9/9/2014
pplicant/Owner:	Al	State: VA	Sampling Point INDI MALE
ivestigator(s): <u>S. GROVE</u> , <u>E. BUB</u>	B Section, Townsl	nip, Range:	
andform (hillslope, terrace, etc.): TERRAC	E FLOODPLA/Adcal relief (concav	re, convex; none): CONCAUS	Slope (%); U
ubregion (LRR or MLRA): LRR P	Lat: 37,094261	Lona: -77.852230	
bil Map Unit Name: <u>APPLING SANDY</u>	LOAM 2-790 SLOPE	S NWI classificati	
e climatic / hydrologic conditions on the site typic	al for this time of year? Yes	No (If no, explain in Rem	arks)
e Vegetation Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" pres	
e Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answers i	n Remarks)
			in romano.y
UMIMARY OF FINDINGS – Attach site	e map showing sampling pe	oint locations, transects, i	nportant features, etc.
lydrophytic Vegetation Present? Yes			
ydric Soil Present? Yes	No Is the Sa	mpled Area	
/etland Hydrology Present? Yes			
lemarks:			
HEADINA VER JURNE	NE ST CO TOE	OF OPPOSING S	10625
N(157) S(20).	STREAM SDIMOI	9	
APICINATCO FROM	JI È FLOWS	TO NIF	×
URIGINATES TROM		PHATTERS	3021-3025
DROLOGY		CALL A	1 F 5 1.1
etland Hydrology Indicators:	·		1 4 3, 0
imary Indicators (minimum of one is required; cl	heck all that apply)		<u>S (minimum of two required)</u>
] Surface Water (A1)	True Aquatic Plants (B14)		icks (Bb)
] High Water Table (A2)	Hydrogen Sulfide Odor (C1)		nied Concave Surface (B8)
Saturation (A3)	X Oxidized Rhizospheres on Livin	g Roots (C3) Moss Trim Line	(B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry-Season Wa	ter Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled S	Soils (C6) 🗌 Crayfish Burrow	s (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visib	e on Aerial Imagery (C9)
I rigal Mat of Clust (B4)	Other (Explain in Remarks)	Stunted or Stres	sed Plants (D1)
Inundation Visible on Aerial Imagery (B7)		Geomorphic Pos	sition (D2)
Water-Stained Leaves (B9)		Shallow Aquitar	1 (D3)
Aquatic Fauna (B13)			
eld Observations:			
Irface Water Present? Yes 🗔 No 🖸	Depth (inches):		
ater Table Present? Yes 🛄 No 🖸	Depth (inches):		
aturation Present? Yes 🔽 No 🗌	Depth (inches);	Wetland Hydrology Present?	
icludes capillary fringe)	SVRFACE		
School Recorded Data (Silearn gauge, mornton)	ng wen, aenai priotos, previous inspe	ections), if available:	
emarks			
PAIN SUENT ON	1 9/8 INTO ,	MORNING OF 91	19
			1
	•		
·			

US Army Corps of Engineers

	Absolute	Dominant	Indicator	Dominance Test worksheet:
ALER DURRUM	<u>- % Cover</u>		<u>FA</u>	Number of Dominant Species q (a)
AVERCIUS PAELLOS	20	·	FAC	
LIQUID STRY	30	Ń	FAC	Total Number of Dominant
ί.		1	. <u></u> .	
5		-		Percent of Dominant Species ////
5		·		
· ·	<u>, <u></u> <u></u></u>	= Total Cov	^{er}	Prevalence Index worksheet:
γ 50% of total cover: <u>γ</u>	20% of	f total cover	12	OBL sportes v 1 -
Sapling Stratum (Plot size:		N /	EN C'	FACW species x 2 =
LIQUIDAMBAR STRY	<u> </u>	. <u> </u>	FAC	FAC species x 3 =
2			·	FACU species x 4 =
3		-		UPL species x 5 =
f			·	Column Totals: (A) (B)
D	· · · · · · · · · · · · · · · · · · ·			
	5	- Total Co		Prevalence index = B/A =
				1 - Rapid Test for Hydrophytic Vegetation
50% of total cover:	20% of	r total cover		2 - Dominance Test is >50%
SITUD STAUTO (PIOUSIZE:)	5	Ý	FAC	3 - Prevalence Index is $\leq 3.0^1$
VIBURNUM DENTATAT	3	Ý.	FAC	4 - Morphological Adaptations ¹ (Provide supportin
		1	. <u></u>	data in Remarks or on a separate sheet)
4				Problematic Hydrophytic Vegetation ¹ (Explain)
5				1
5				be present, unless disturbed or problematic.
	<u> </u>	= Total Cov	ver	Definitions of Five Vegetation Strata:
50% of total cover:	20% of	f total cover	24	
Herb Stratum (Plot size:)				approximately 20 ft (6 m) or more in height and 3 in.
QUERC PHELLOS	<u>[</u>		FAC	(7.6 cm) or larger in diameter at breast height (DBH).
2 VACCINIUM CORVMB			PACU	Sapling – Woody plants, excluding woody vines,
CAREX CRINTA	15	- <u> </u>	OBL	approximately 20 ft (6 m) or more in height and less
A. CHASMANTHINM SEJSI	<u></u>	<u> </u>	T-AL	
SUNCUS EPPUSUS	<u> </u>	·	FALL	Shrub – Woody plants, excluding woody vines,
		· · · · · · · · · · · · · · · · · · ·		
/	• •			Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
o				plants, except woody vines, less than approximately 3
10.	et			
11 .	· · · · · · · · · · · · · · · · · · ·		•	Woody vine – All woody vines, regardless of height.
· · · · · · · · · · · · · · · · · · ·	46	= Total Cov	/er	
50% of total cover: 27	20% 0	f total cover	9.2	
Noody Vine Stratum (Plot size: 15)			~ ^	
SMILAX ROTUNO	5_	<u> </u>	FAC.	
2,				
3		•		
4	a			· · ·
5	-		·	Hydrophytic
· 1	<u> </u>	= Total Cov	/er	Vegetation Present?
50% of total cover:	20% o	f total cover		
Remarks: (Include photo numbers here or on a separate s	sheet.)		-	APEN -C C. PSC
REDUCED PLOT SIZE	To	AVOL	D	V TREAT OF SLOPLS

SOIL

Profile Desc	cription: (Describe	to the dep	oth needed to docur	nent the i	indicator	or confirm	the absence	of indicators.)
(inches)	Color (moist)	%	Color (moist)		<u>Type¹</u>	Loc ²	Texture	Remarks
0-4	104R 4/2	95	104R 576	3	0	PIM	LM	
<u>4-12</u>	104R 5/1	70	104R5/6	30	0	PUM	LM	
12 - 17	IOYR 612	50	10 YR 6/8	40	C	M	SA/LM	10XR 7/1 1070
							· · · · · · · · · · · · · · · · · · ·	
								· · · ·
	· · · · · · · · · · · · · · · · · · ·	·						
• • • • • • •		-			·			
	·	·	· · · · · · · · · · · · · · · · · · ·		<u></u>			
		·	· · · · · · · · · · · · · · · · · · ·					
		·			· · · ·		· · · · · · · · · · · · · · · · · · ·	
	oncentration D-Don	lotion DM	-Doducod Matrix MS				² l agetiant D	
Hydric Soil	Indicators:	ieuon, Rivi	=Reduced Matrix, Ma	S=Maskec	Sand G	ains.	Location: P	L=Pore Lining, M=Matrix. ators for Problematic Hydric Soils ³ .
Histosol	(A1)		Dark Surface	: (S7)			2	cm Muck (A10) (MLRA 147)
Histic Ep	oipedon (A2)		Polyvalue Be	low Surfa	ce (S8) (I	MLRA 147,	148) 🔲 C	Coast Prairie Redox (A16)
Black Hi	istic (A3)		Thin Dark Su	irface (S9)) (MLRA	147, 148)		(MLRA 147, 148)
Stratified	d Lavers (A5)	۰.	Depleted Ma	trix (F3)	FZ)			(MI RA 136 147)
2 cm ML	uck (A10) (LRR N)		Redox Dark	Surface (F	-6)		Ωv	'ery Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	k Surface	(F7)		П с	other (Explain in Remarks)
Sandy M	ark Surface (A12) Aucky Mineral (S1) (I	RRN	Iron-Mangan	ese Mass	8) es (F12)			
MLRA	A 147, 148)	-1010 147	MLRA 13	6)	63 (I 1 <i>Z)</i>			
Sandy C	Gleyed Matrix (S4)		🔲 Umbric Surfa	.ce (F13) ((MLRA 1	36, 122)	³ Ind	icators of hydrophytic vegetation and
Sandy R	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) we	tland hydrology must be present,
Suipped Restrictive I	Laver (if observed):			naterial (F	21) (MLF	RA 127, 147	') un	less disturbed or problematic.
Type:		1						
Depth (in	ches):						Hydric Soil	Present? Yes No No
Remarks:	E-150	/	$G \leftarrow 150$	y	\geq			
(1)	A1 \		$\boldsymbol{\mathcal{V}}$				•	
			1 CT	e		N 1997		
		-	. 0871			\backslash		
•	ΛK	P	DICA			\mathbf{i}		DE act
	·V\	1	1				7	CORES
	$\langle \rangle$		\ `		$ \leq $	X		-0.
		\	$\lambda + \lambda$		/	$\langle \rangle$	\	
		\backslash		\		/	\backslash	
		\backslash	· · · · · · · · · · · · · · · · · · ·	\mathbf{N}	Ļ		\mathbf{A}	
			-	$\mathbf{\lambda}$	1			
					7	•		
×.		```		- · · /.		<i>X</i>		
			V VL CO					
			X	/	\mathbf{N}			
1.	\mathcal{L}			Øø		۱.		\mathbf{N}
	<u>.</u>	•	$\langle \rangle$	4	$\sim N$			\mathbf{N}
-			\mathbf{X}			\mathbf{N}		- \
			$\langle \rangle$	1	A -	すれら	OREST	
					1	<u>v\ '</u>	J.J.J.J.	
			π			•		λ
S Army Corp	s of Engineers		/\ `		v .		Eastern	Mountains and Piedmont – Version 2.0
			. /				:	



Wetland data point wdim016f_w facing North



Wetland data point wdim016f_w facing East



Wetland data point wdim016f_w soil sample

3 - 1 - 5 1 M	WETLAND DETERM	INATION DATA	A FORM – Eas	tern Mountains and I	Piedmont Regio	n
Project/Site:	ACP		City/County:	NA DINWIDDI	E Sampling D	ata: 9/9/201
Applicant/Owne	DOMINION I	ET. AL		State	UE Sampling D	Point: WD MOH
Investigator(s);	S.GROVE, E.B	UBB	Section, Tow	State	<u>vic</u> samping	
Landform (hills)	ope, terrace, etc.): HILL	SLOPE	Local relief (con	cave, convex, none): 0	NCAVE	Slope (%): 20
Subregion (LRF	ror MLRA): [RRP	Lat: 37	,099215	Long: -77.85	3081	Datum: WES 8
Soil Map Unit N	ame: APPLING SA	NOY LOAN	1 2-790	SUPES NWI	classification: N	4
Are climatic / h	/drologic conditions on the site	typical for this time	of year? Yes	No (If no, exp	ain in Remarks.)	
Are Vegetation	Soil , or Hydrol	ogy signific	antly disturbed?	Are "Normal Circumsta	ances" present? Ye	s K No
Are Vegetation	, Soil , or Hydrol	ogy natural	ly problematic?	(If needed, explain any	answers in Remark	s.)
SUMMARY	OF FINDINGS - Attach	site man show	ving sampling	noint locations tran	isects importa	nt faaturas ato
Hydrophytic V	egetation Present? Yes		Is the	Sampled Area		$\overline{\mathbf{A}}$
Motland Hydr	elegy Drocopt2 Ver			a wetland? Yes		<u>,x </u>
Remarks						
Romanos	HILLSLOPS	DECIL	PORES	ST ADJACE	NT TO	
· · ·	,		En una al C	7	-	
	WD/MO	16 <i>4 2</i>	SPIM OIT	1	~	
	• .		PANTAS:	3027+30	30 (5016	N.E.SU
Wetland Hyd	rology Indicators:			Saaandar	n Indiantara (minimu	
Primary Indica	tors (minimum of one is require	ad, chack all that ar	unhu)		y muicators (minimu	m or two required)
	Vator (A1)		tic Plants (P14)			
High Wat	er Table (A2)		Sulfide Odor (C1)		sely vegetated Conc	ave Surface (B8)
Saturation	1 (A3)		Rhizospheres on Li	ving Roots (C3) Moss	Trim Lines (B16)	
Water Ma	rks (B1)	Presence	of Reduced Iron (C	C4) . Dry-S	Season Water Table	(C2)
Sediment	Deposits (B2)	Recent Irc	n Reduction in Till	ed Soils (C6)	fish Burrows (C8)	. ,
Drift Depc	osits (B3)	Thin Muck	Surface (C7)	Satur	ation Visible on Aeri	al Imagery (C9)
Algal Mat	or Crust (B4)	Other (Exp	olain in Remarks)	Stunt	ed or Stressed Plant	s (D1)
Iron Depo	sits (B5)			` Geon	norphic Position (D2)	
	1 Visible on Aerial Imagery (B7)			Shall	ow Aquitard (D3)	
	auna (B13)				topographic Relief (L	04)
Field Observ	ations:			FAC-	Neutral Test (D5)	
Surface Water	Present? Voc N	a TT Dopth (in	aboa).			
Water Table F		o Depth (in	ches).			١.
Saturation Pre	sent? Yes N	o Depth (in	ches):	Wetland Hydrology	Procont? Voc	\neg No X
(includes capi	lary fringe)					
Describe Reco	orded Data (stream gauge, mor	nitoring well, aerial	photos, previous in	spections), if available:		
Remarks:						
1						
				, ,		
				\$		
						•

•

EGETATION (Five Strata) – Use scientific r	names of plants.	Sampling Point:
30	Absolute Dominant Indicator	Dominance Test worksheet:
ee Stratum (Plot size:)	<u>% Cover</u> <u>Species</u> <u>Status</u>	Number of Dominant Species \mathcal{L} (A)
QUERCUS KUBIC	$-\frac{\sigma_0}{GO}$ \rightarrow $PA(1)$	
AUFIRIUS AUBA	$-\frac{100}{20}$	Total Number of Dominant
LIQUIDSTRY	$-\frac{35}{10}$ $-\frac{7}{10}$ $\frac{F110}{E0011}$. Species Across All Strata:(B)
LIRIODEN TULIP	<u> </u>	Percent of Dominant Species
· · ·	· · ·	. That Are OBL, FACW, or FAC:(A/B)
		-
	130 = Total Cover	Prevalence Index worksheet:
·	20% of total cover: 26	Total % Cover of: Multiply by:
		OBL species x 1 =
$\frac{\log \operatorname{Stratum}}{\sqrt{2}} (\operatorname{Plot} \operatorname{Size} - 1.5)$	30 V FAC	FACW species x 2 =
ACER RUSRUM		FAC species x 3 =
LORIOUS FLORID	- as y pricu	FACU species x 4 =
		UPL species x 5 =
		Column Totals: (A) (B)
		-
		Prevalence Index = B/A =
	55 = Total Cover	Hydrophytic Vegetation Indicators:
\mathcal{D}	5 2004 altertation 11	1 - Rapid Test for Hydrophytic Vegetation
50% of total cover:	20% or total cover:	2 - Dominance Test is >50%
b Stratum (Plot size:)	E Y FALL	
CORINUS ELORIDA		
ASIMINA TRILOB	<u> </u>	4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
CLOUID STRY	<u> </u>	
		Problematic Hydrophytic Vegetation' (Explain)
		¹ Indicators of hydric soil and wetland hydrology must
<i>`</i>	- Total Cover	be present, unless disturbed or problematic.
11		Definitions of Five Vegetation Strata:
50% of total cover: _/ C	20% of total cover:	Tree – Woody plants, excluding woody vines,
<u>Stratum</u> (Plot size: <u>5</u>)		approximately 20 ft (6 m) or more in height and 3 in.
QUERCUS AUBA	A Y FACI	(7.6 cm) or larger in diameter at breast height (DBH).
VACCINIUM ANGUST	Y FACU	Sapling – Woody plants, excluding woody vines.
ILEY OPACA	a Y FACU	approximately 20 ft (6 m) or more in height and less
		than 3 in. (7.6 cm) DBH.
		- Shruh Woody plants oveluding woody vince
· · · · · · · · · · · · · · · · · · ·	······	approximately 3 to 20 ft (1 to 6 m) in height.
· · · · · · · · · · · · · · · · · · ·		-
· · · · · · · · · · · · · · · · · · ·		Herb – All herbaceous (non-woody) plants, including
	· · · · · · · · · · · · · · · · · · ·	plants, except woody vines, less than approximately 3
		- ft (1 m) in height.
		Moody vino All woody vinos recordings of height
		- All woody vine - All woody vines, regardless of height.
	= Total Cover	
50% of total cover A	5 20% of total cover:	
dy Vine Stratum (Plot size:		-
/		-
		-
/		-
	······································	_
	· · · · · · · · · · · · · · · · · · ·	
	= Total Cover	
		Present? Yes No
50% OF total cover:		
narks: (Include photo numbers here or on a separate	sheet.)	
Remarks: (Include photo numbers here or on a separate	b DD 29b	· · · · ·

C	\cap	ĩ	ĩ.
3	υ	L	L

Sampling Point: IMDI MOIG-(

Profile Des	cription: (Describe	to the dept	h needed to doc	ument the i	indicator o	or confirm	the absence	of indicators.)	
Depth	Matrix		Rec	dox Feature	S			·	
	Color (moist)		Color (moist)	%	<u>Type'</u>	Loc ²	Texture	Rer	narks
05	10YK-013	- 19			<u> </u>				
5-15	10YKJ/Y		· · · · · · · · · · · · · · · · · · ·		. <u> </u>	·	LNI		
						_		2	
:						······	<u></u>	·	
	· · · · · · · · · · · · · · · · · · ·				<u> </u>	·		· · · · · · · · · · · · · · · · · · ·	
1	· · ·				.	<u></u>			
						······			
			· · · · · · · · · · · · · · · · · · ·					PR	
		- <u> </u>							
: 					<u> </u>				
¹ Type: C=C	oncentration, D=Dep	pletion, RM=I	Reduced Matrix, N	MS=Masked	Sand Grai	ins.	² Location: P	L=Pore Lining, M=I	Matrix.
Hydric Soil	Indicators:		_				Indica	ators for Problema	atic Hydric Soils ³ :
	(A1)		Dark Surfac	ce (S7)	(c -) ;		2	cm Muck (A10) (M	LRA 147)
	pipeaon (A2) istic (A3)			Below Surfa	ce (S8) (MI	LRA 147,	148) 🛄 C	oast Prairie Redox	(A16)
	en Sulfide (A4)			ved Matrix (F2)	+7, 148)		(IVILRA 147, 148) iedmont Floodplair	Soils (F10)
Stratifie	d Layers (A5)		Depleted M	latrix (F3)	• ~-)			(MLRA 136, 147)	
🔲 2 cm Μι	uck (A10) (LRR N)		Redox Darl	k Surface (F	6)		<u> </u>	ery Shallow Dark S	Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted D	ark Surface	(F7)		0 🗌	ther (Explain in Re	marks)
	ark Surface (ATZ) Aucky Mineral (S1) (ressions (F8	5) 20 (E12) (I				·
MLR/	A 147, 148)		MLRA 1	36)	es (F12) (L	KK Nr		•	
🔲 Sandy G	Gleyed Matrix (S4)		Umbric Sur	face (F13) (MLRA 136	i, 122)	3Indi	icators of hydrophy	tic vegetation and
Sandy F	Redox (S5)		Piedmont F	loodplain S	oils (F19) (I	MLRA 14	8) we	tland hydrology mu	st be present,
Stripped	Matrix (S6)		Red Parent	Material (F	21) (MLRA	127, 147) unl	less disturbed or pr	oblematic.
Typo	Layer (If observed)	1							
Depth (in	ches):						Hudric Soil	Dracopt? Vac	
Remarks:							Tryune Son		
		SEE		CARA			CHER	rik	
	·	200	J I		P	ne	51 51 (
•									
5 									
							,		
									· ·
	-						L		



Upland data point wdim016_u facing North



Upland data point wdim016_u facing East



Upland data point wdim016_u soil sample

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: ACP Applicant/Owner: DOMINION Investigator(s): S. GROVE	City/C ETAL E.BUBB Secti	County: <u>NADIN</u>	/WIDDIE 	Sampling Date: <u>9/9/2014</u> Sampling Point: <u>WD/M017F.</u> V
Landform (hillslope, terrace, etc.): HIUS Subregion (LRR or MLRA): RR P Soil Map Unit Name: APPLING S Are climatic / hydrologic conditions on the s Are Vegetation Soil, or Hydrologic Are Vegetation, Soil, or Hydrologic	LOPE TERRACE Local rel Lat: 37.0986 ANDY LOAM 17 ite typical for this time of year? V irology significantly distur irology naturally problem	lief (concave, convex, no YO Long: IS YO Yes No rbed? Are "Norma atic?	one): <u>SLIGHT (0</u> 27. 85 222 S NWI classifica (If no, explain in Re al Circumstances" pro explain any answers	VCA VE Slope (%): S B Datum: WGS 84 tion: PFO marks.) esent? Yes in Remarks.) No
SUMMARY OF FINDINGS – Atta	ch site map showing san	npling point locati	ons, transects,	important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No No Yes No No Yes No	Is the Sampled Area within a Wetland?	Yes X	No
SLIGHT CONCAVE	RALL TERRACE	N(10)	S(10)	
	PHOTOS	: 3036	3040 (s	OIL N.E.S.W)
HYDROLOGY		· · ·		·
Wetland Hydrology Indicators:			Secondary Indicato	ors (minimum of two required)
 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 (Water-Stained Leaves (B9) Aquatic Fauna (B13) 	Integration of the second structure of the seco	(B14) lor (C1) res on Living Roots (C3) d Iron (C4) on in Tilled Soils (C6) C7) marks)	Surface Soli C Sparsely Vege Moss Trim Line Dry-Season W Crayfish Burro Saturation Visi Stunted or Stre Geomorphic P Shallow Aquita Microtopograp FAC-Neutral T	racks (B6) tated Concave Surface (B8) erns (B10) es (B16) ater Table (C2) ws (C8) ble on Aerial Imagery (C9) essed Plants (D1) osition (D2) rrd (D3) hic Relief (D4) est (D5)
Surface Water Present? Yes Water Table Present? Yes Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge, r	No Depth (inches): No Depth (inches): No Depth (inches): No Depth (inches): nonitoring well, aerial photos, pre	Wetland I evious inspections), if ava	Hydrology Present? ailable:	Yes No
Remarks: SATURATED	TO SURFACE	BUT RAIN	ON 9/	8,919 ANNELIZER
SMITCL DRUIN				
ENOUGH TO	MAP AS ST	REAMS		•

US Army Corps of Engineers

Eastern Mountains and Piedmont – Version 2.0

.

. 49

GETATION (Five Strata) – Use scientific	names of plants.	Sampling Point:
70	Absolute Dominant Indicator	Dominance Test worksheet:
e Stratum (Plot size: <u>30</u>)	<u>% Cover</u> <u>Species?</u> <u>Status</u>	Number of Dominant Species
PINUS TAED	ao y pac	That Are OBL, FACW, or FAC:
ACER RUBR	40 Y. PAC	PP
QUERCUS PHELLOS	TO N PAC	Species Across All Strata:
		Percent of Dominant Species
×	·······	- That Are OBL, FACW, or FAC: 10^{-1} (A/B
	70 Table	Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
50% of total cover:	20% of total cover:	- OBL species x1 =
ling Stratum (Plot size: 75)	CANIL	FACW/ species x 2 =
QUERCUS ACISH	TO Y FACH	
ACER RUBR	35 Y FAC	
· · ·		
		- Column Totals: (A) (B)
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2227-9 #11119428864-142188894-999 &	Provalence Index - R/A -
	HC Total Caine	
^^		rigurophytic vegetation indicators:
50% of total cover:	*2 20% of total cover:	- I - Rapid Test for Hydrophytic Vegetation
ub Stratum (Plot size: 15		2 - Dominance Test is >50%
VIBURNUM DENTATUM	$\underline{0}$ $\underline{1}$ FAC	$3 - Prevalence Index is \le 3.0^{1}$
ASIMINA TRILOBA	10 Y FAC	4 - Morphological Adaptations ¹ (Provide supportin
AVERCUS PHELL	ST N FAC	data in Remarks or on a separate sheet)
QUERCUS ALBA	FACI	Problematic Hydrophytic Vegetation ¹ (Explain)
OVERCIAS RUBRIN	3 N FACL	<u>A</u> 1
		¹ Indicators of hydric soil and wetland hydrology must
	21	- be present, unless disturbed or problematic.
14		Definitions of Five Vegetation Strata:
50% of total cover: 1	2.) 20% of total cover: 6.0	Tree - Woody plants, evoluting woody vines
b Stratum (Plot size: 0)		approximately 20 ft (6 m) or more in height and 3 in.
OHASMANTH SESSI	<u>AU X FAC</u>	(7.6 cm) or larger in diameter at breast height (DBH).
AGRIMONY PARVIEL	2N PACE	Sanling – Woody plants, excluding woody vines
QUERCUS PHELLOS	3 V PAC	approximately 20 ft (6 m) or more in height and less
CAREX CRINITA	15 X. OBC	than 3 in. (7.6 cm) DBH.
STREPTOPUS LANCEDI	5 N FAr	Shrub Woody plants avaluating woody vinor
		approximately 3 to 20 ft (1 to 6 m) in height.
	· · · · · · · · · · · · · · · · · · ·	Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
		plants, except woody vines, less than approximately 3
•		ft (1 m) in height.
		Mandu vina All woody vinas reportions of the total
SALTHONNA		- All woody viries, regardless of neight.
	<u> </u>	
50% of total cover $\hat{\mathcal{D}}$	2.5 20% of total cover: 9	
ndv Vine Stratum (Plot size: 30		
CMILAY RATUNDIRAUA	5 V PAC	•
LUNICSOA LOONI	$-\frac{1}{2}$	
PARTANCI SURVIV		
·····		
· · · · · · · · · · · · · · · · · · ·		Hydrophytic
	= Total Cover	Vegetation x7
50% of total cover 7.4	20% of total cover 1, 4	Present? Yes No
arker (Includo photo numbers here of an a second	2070 01 10101 00V01, 1 1	
and a separate include photo numbers here or on a separate	ะ วแสสม)	· · ·

US Army Corps of Engineers

``

. .

SOIL

Profile Desc	ription: (Describe t	o the dept	h needed to docu	ment the i	ndicator	or confirm	n the absence of indicators.)
Depth	Matrix		Red	ox Features	5 Trans 1	1 2	Taskus
	$\frac{1}{10} \sqrt{\alpha l_{\rm c}}$			%	ype		
$\frac{\partial \varphi}{\partial z}$	10 4×0/1	<u> </u>	10 YK 618	15		<u> </u>	~ 11
7-12	10YR 6/1	-08	10410018	10		<u>M</u>	STILIT CALLAR CONTRACT
12-18	10 YR 7/1	<u>55</u>	10 yr 6/8	<u> 45</u>		<u>m</u>	SHIUM SOMESILI
							· .
				. <u> </u>		<u>.</u>	
						<u> </u>	
				· · · · · · · · · · · · · · · · · · ·			
			-			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
¹ Type: C=C	oncentration. D=Depl	etion. RM=	Reduced Matrix, M	S=Masked	Sand Gra	ins.	² l ocation: PI =Pore Lining M=Matrix
Hydric Soil	Indicators:		riouadoa maang n				Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)		🔲 Dark Surfac	e (S7)			🛄 2 cm Muck (A10) (MLRA 147)
Histic Ep	bipedon (A2)		Polyvalue B	elow Surfac	ce (S8) (N	LRA 147,	, 148) 🔲 Coast Prairie Redox (A16)
Black Hi	stic (A3) on Suilfide (A4)		Thin Dark S	urface (S9) ed Matrix (I	(MLRA 1	47, 148)	(MLRA 147, 148)
Stratified	d Layers (A5)		Depleted Ma	atrix (F3)	Z)		(MLRA 136, 147)
2 cm ML	ick (A10) (LRR N)		🔲 Redox Dark	Surface (F	6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surface	: (A11)	Depleted Da	irk Surface	(F7)		Other (Explain in Remarks)
I hick Da	ark Surface (A12) Aucky Mineral (S1) (L		Redox Depr	essions (F8	3) as (F12) (I		
MLRA	A 147, 148)		MLRA 1	36)	,5 (1 1 Z) (1		
Sandy G	leyed Matrix (S4)		Umbric Surf	ace (F13) (I	MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Fl	oodplain So	oils (F19)	(MLRA 14	48) wetland hydrology must be present,
Restrictive I	aver (if observed):			Material (F)		4 127, 147	7) unless disturbed or problematic.
Type:		n					
Depth (ind	ches):/	/1					Hydric Soil Present? Yes . No .
Remarks:	······································			· · · · ·			
	X Core	.17		÷		1	
I IN		-/-		È€7	~ 7.7		
						V	
		~	()			•	\setminus \vee
		()	/ `	١	Ø		
	\backslash	\mathcal{V}	1	1	4	\frown	
	$\sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i=1}^{n} \sum_{j=1}^{n} \sum_{i$	~ · 0	$\tilde{s}^{S^{1}}$			/	Ta a
	\backslash	FOR	0			/	
	\backslash	۱.				Ф	¥ \ \ E
÷	\	`		\	· /	4	
		\backslash		\sum	\mathcal{L}		
1		\backslash		~	\mathbf{X}		
			· · ·		\backslash	Λ	
		\setminus					A FOREST
		N	X e - 1		•	١	
4 4			\backslash				
			$\sum_{i=1}^{n}$			<u>λ</u>	· · · · · · · · · · · · · · · · · · ·
						\mathbf{N}	\backslash
			` /	ICAL			1 Ital
L			5	120'-			



Wetland data point wdim017f_w facing North



Wetland data point wdim017f_w facing East



Wetland data point wdim017f_w soil sample

WETLAND DETERMINATION DATA FO	RM – Eastern Mountains and Piedmont Region
Project/Site: <u>ACP</u> Applicant/Owner: <u>DOM(NION ET AL</u> Investigator(s): <u>S, GROVE / E, BUBB</u> Landform (hillslope, terrace, etc.): <u>HILLSLOPE</u> Lon Subregion (LRR or MLRA): <u>LRAP</u> Lat: <u>37, 09</u> Soil Map Unit Name: <u>APPUING SANDY I, OAM</u> Are climatic / hydrologic conditions on the site typical for this time of yee Are Vegetation Soil , or Hydrology significantly Are Vegetation , Soil , or Hydrology naturally pro SUMMARY OF FINDINGS – Attach site map showing	City/County: NA / D/NWIDDIE Sampling Date: 9/9/2014 State: VIA Sampling Date: 9/9/2014 Section, Township, Range: Sampling Point: WDIM017-U Section, Township, Range: Superstandard Slope (%): 155 Cal relief (concave, convex, none): SUGHT CONCAVE Slope (%): 155 8735 Long: 77. 852495 Datum: WSSEU 8735 Long: 77. 852495 Datum: WSSEU 9-1590 SLOP55 NWI classification: NA NA ar? Yes No (If no, explain in Remarks.) No No No disturbed? Are "Normal Circumstances" present? Yes No No Sampling point locations, transects, important features, etc. sampling point locations, transects, important features, etc. No No No No
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Remarks: ON SUIGHT HILLSCOPE	Is the Sampled Area within a Wetland? Yes No No AVENT NO AVENT TO WDIMOIT ADJACENT TO WDIMOIT PHOTOS: 3042-3046 (SOIL N.E. S.W)
HYDROLOGY	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) True Aquatic Pl High Water Table (A2) Hydrogen Sulface Saturation (A3) Oxidized Rhizo: Water Marks (B1) Presence of Re Sediment Deposits (B2) Recent Iron Red Drift Deposits (B3) Thin Muck Surface Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) ants (B14) Drainage Patterns (B10) be Odor (C1) Drainage Patterns (B10) spheres on Living Roots (C3) Moss Trim Lines (B16) duced Iron (C4) Dry-Season Water Table (C2) duction in Tilled Soils (C6) ace (C7) n Remarks) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Surface Water Present? Yes No Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? Yes No Depth (inches) Cincludes capillary fringe) Ves No Depth (inches) Describe Recorded Data (stream gauge, monitoring well, aerial photo No No	s, previous inspections), if available:
Remarks:	
-	

SETATION (Five Strata) – Use scienti	ne names or pr	ants.	Deminerere Teetworkshock
30	Absolute [Dominant Indica	or Dominance lest worksheet:
e Stratum (Plot size:)	<u>~~~~~</u>		Number of Dominant Species
QUERCUS ALBA			That are UBL, FACW, of FAC:
PINUS THEN	<u> </u>	N FA	Total Number of Dominant
LIRINDSAL TULIP	15.	N FF	C Species Across All Strata: (B)
			Durant - (Deminent Capalica
			That Are OBL FACW or FAC: (A/B)
	<u> </u>		Prevalence Index worksheet:
	<u>////</u> =	Total Cover	Total % Cover of: Multiply by:
50% of total cover:	<u> </u>	otal cover:	
ling Stratum (Plot size: 15)			
AVERCIIS ALBA	60 -	Y FAC	U FACW species X2=
	<u> </u>	V FA	FAC species X 3 =
FLER RUDR	(.)	_ / <u>/ </u>	FACU species x 4 =
			— UPL species x 5 =
•			Colump Totals: (A) (B)
· · · · · · · · · · · · · · · · · · ·			Prevalence Index = B/A =
		Total Cover	Hydronbytic Vegetation Indicators:
	- <u>/.)</u> =	FOLAL COVER	
50% of total cover:	<u>51.5</u> 20% of t	otal cover: <u>1</u>	
ub Stratum (Plot size: 15)	-		2 - Dominance Test ls >50%
CORNUS FLORID	15	y pa	CM L 3 - Prevalence Index is ≤3.0 ¹
LIQUID STRY	5	N FA	4 - Morphological Adaptations ¹ (Provide supportin
ACER RUBR	5	N FA	
		<u></u>	Problematic Hydrophytic Vegetation' (Explain)
			—
			¹ Indicators of hydric soil and wetland hydrology must
		<u> </u>	 be present, unless disturbed or problematic.
	<u></u> =	Total Cover	Definitions of Five Vegetation Strata:
CO2/ of total cover	13 20% of	otal cover: 7	κ · · · ·
	2078 011		Tree Woody plants, excluding woody vines,
<u>b Stratum</u> (Plot size:)	. 2	N CA	approximately 20 it (6 m) or more in height and 3 m.
QUERCUS ACAA	<u> </u>	<u></u>	
VACCINIUM CORYMB	{	N_{11}	Sapling - Woody plants, excluding woody vines,
WNIPER VIRG	ł	NFA	approximately 20 ft (6 m) or more in height and less
DICHANTHEL: CLANDE	ist i	N FA	than 3 in. (7.6 cm) DBH.
Dictimiting			Shruh Weedy plants evoluting weedy vines
······································		······································	approximately 3 to 20 ft (1 to 6 m) in height
-			
		<u> </u>	Herb – All herbaceous (non-woody) plants, including
		<u> </u>	herbaceous vines, regardless of size, and woody
75 (-)		,	piants, except woody vines, less than approximately 3 If (1 m) in height
MINSS 110701		hannan da anna an	
1.0000		<u> </u>	Woody vine All woody vines, regardless of height.
	<i>n</i>		
	6=	Total Cover	
50% of total cover	: <u>3</u> 20% of	total cover: 1, 0	<u>*</u>
ody Vine Stratum (Plot size) 30			
	÷		1
	·	······································	—
/			
	•		
		Tatal Cause	Hydrophytic
	÷	= Total Cover	Vegetation
50% of total cover	: 20% of	total cover:	

Eastern Mountains and Piedmont - Version 2.0

SOIL

Sampling Point: WDIM017-V

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the ind	icator or	r confirm	the absence of	of indicators.)	
Depth	Matrix		Red	ox Features	1				
(inches)	<u>Color (moist)</u>		olor (moist)	%	Type'	Loc	Texture	Remarks	-
0-6	101K 312		<u> </u>				LIV)		_
6-18	10YR 6/4	9.5					LM		_
	/ /	v							
		· ·							-
	·			·	•				-
									_
							·		
	· · · · · · · · · · · · · · · · · · ·			· <u> </u>			<u> </u>	•	-
		·	· · · · · · · · · · · · · · · · · · ·				·		-
			·····			<u> </u>			-
·				. <u> </u>					_
¹ Type: C=C	oncentration, D=Dep	letion, RM=Redu	iced Matrix, N	IS=Masked S	and Grai	ns.	² Location: PL	=Pore Lining, M=Matrix.	
Hydric Soil	Indicators:						Indical	tors for Problematic Hydric Soils ³ :	
L Histoso	I (A1)		Dark Surfac	e (S7)			<u> </u>	cm Muck (A10) (MLRA 147)	
Histic E	pipedon (A2)		Polyvalue B	elow Surface	(S8) (ML	.RA 147, ⁻	148) 🔲 Co	ast Prairie Redox (A16)	
🔲 Black H	istic (A3)		Thin Dark S	urface (S9) (N	/ILRA 14	7, 148)		(MLRA 147, 148)	
🔲 Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix (F2)		🔟 Pie	edmont Floodplain Soils (F19)	
Stratifie	d Layers (A5)		Depleted Ma	atrix (F3)			—	(MLRA 136, 147)	
	uck (A10) (LRR N)	- (A11)	Redox Dark	Surface (F6)				ry Shallow Dark Surface (TF12)	
	ark Surface (A12)] Depieteu Da] Dedox Depr	ark Surface (F	7)			ner (Explain in Remarks)	
	Mucky Mineral (S1) (I		I Iron-Mangai	iese Masses	(F12) (L	RRN			
MIR	A 147, 148)		MIRA 1	36)					
Sandy (Gleved Matrix (S4)		Umbric Surf	ace (F13) (MI	LRA 136.	, 122)	³ India	cators of hydrophytic vegetation and	
Sandy I	Redox (S5)		Piedmont Fl	oodplain Soils	s (F19) (1	VILŖA 148	3) wet	and hydrology must be present,	
Stripped	d Matrix (S6)		Red Parent	Material (F21)) (MLRA	127, 147)	unle	ess disturbed or problematic.	
Restrictive	Layer (if observed):	/							
Туре:									
Depth (in	nches):						Hydric Soil I	Present? Yes No	
Remarks:							·	······································	_
		~~~	1						
		SEE	∦ F	ORM F	OK	SKETC	<i>cu</i>		
4									
•	4								
. :									
						`			
								•	
F									



Upland data point wdim017_u facing North



Upland data point wdim017_u facing East



Upland data point wdim017_u soil sample

$\Delta C O$
Project/Site: <u>ITCP</u> Applicant/Owner: DOMINION FT AL City/County: <u>NA D/NWIDD/F</u> Sampling Date: <u>91912019</u> State: <u>VA</u> Sampling Date: <u>91912019</u>
Investigator(s): <u>S. GROVE / E. BUBB</u> Section, Township, Range:
Landform (hillslope, terrace, etc.): <u>TERRACE FLOODPLA/M</u> Local relief (concave, convex, none): <u>CONCAVE</u> Slope (%): <u>A</u>
Subregion (LRR or MLRA): <u>CRAP</u> Lat: <u>STCOP3569</u> Long: <u>TTS 944,1999</u> Datum: <u>WGS 84</u> Soil Map Unit Name: APPLING SANDY I DAM 7~1590 SLOPS NWU classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)
Are Vegetation Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
(in needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Is the Sampled Area
Hydric Soil Present?     Yes     No     within a Wetland?     Yes     No       Wetland Hydrology Present?     Yes     Yes     No     Image: Solid Present?     No
Remarks: LOTIC WETLAND IN FLOODPLAIN TERRACE & TOF OF
APPOSING SUPPES (NI-20%) (S-60%) ASSOC, W/SDIMO20
UTUSING SCUTES (NO GOTO) (2 COTO) HEAD
MAPPED NWI PHOTOS: 3048-3052 (SOIL, N, E, S
HYDROLOGY
Wetland Hydrology Indicators:       Secondary Indicators (minimum of two required)         Primary Indicators (minimum of one is required; check all that apply)       Surface Seil Create (no)
Surface Water (A1)
High Water Table (A2)       Hydrogen Sulfide Odor (C1)
Saturation (A3)
Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2)
Drift Deposits (B3)
Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)
Iron Deposits (B5)
Inundation Visible on Aerial Imagery (B7) INUndation Visible on Aerial Imagery (B7) INUndation Visible on Aerial Imagery (B7) INUNDATION INTERVIEW (D3) INUNDATION INTERVIEW
Aguatic Fauna (B13)
Field Observations:
Surface Water Present? Yes No Yes Depth (inches):
Water Table Present? Yes X No Depth (inches): 9
Saturation Present? Yes No Depth (inches): O Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Domotio
Remains:
SOME TICEAS OF COMPOSA (OVER CERVIERO)
HAVE STANDING WATER & AQUATIC PLANTS
IN 20 X 30 AREA, IN AIRCH OF OFEN FOREST
CENDEN W/ 20% COVER RFD
1 DOALNARE DASSER THOMPLEN ANDLEN RIT NAT

EGETATION (Five Strata) – Use scientific n	ames of plants.	Sampling Point: WDIM018
Free Stratum (Plot size: 25)	Absolute Dominant Indicator % Cover Species? Status	Dominance Test worksheet:
ACER RUBR	50 Y PAC	That Are OBL, FACW, or FAC: (A)
SHUTY NUCKH	<u>70 y 000</u>	Total Number of Dominant Species Across All Strata: 7 (B)
·		Percent of Dominant Species
· · · · · · · · · · · · · · · · · · ·	· · · ·	- That Are OBL, FACW, or FAC: $(A/B)$
: ·	<u>90</u> = Total Cover	Prevalence Index worksheet:
50% of total cover: $\underline{YS}$	20% of total cover:	OBL species x1 =
Appling Stratum (Plot size: 15)	30 Y OBL	FACW species x 2 ≔
ALNUS SERRULATA	75 Y OBL	FAC species X3 =
· · · · · · · · · · · · · · · · · · ·		UPL species x 5 =
	ar	Column Totals: (A) (B)
		Prevalence Index = B/A =
<b>C</b> 15	$\int ( \int ($	Hydrophytic Vegetation Indicators:
50% of total cover: <u>20</u>	20% of total cover:	$\sim$ 2 - Dominance Test is >50%
ALNUS SERRULATA	10 Y OBL	3 - Prevalence Index is ≤3.0 ¹
		- 4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
		Problematic Hydrophytic Vegetation ¹ (Explain)
·		- - Indicators of hydric soil and wetland hydrology must
1	10	<ul> <li>be present, unless disturbed or problematic.</li> </ul>
50% of tatal covier	10% = 10tal Cover	Definitions of Five Vegetation Strata:
lerb Stratum (Plot size:)		<ul> <li>Tree Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.</li> </ul>
BOHEMERIA CYLIND	DO N FACH	<ul> <li>(7.6 cm) or larger in diameter at breast height (DBH).</li> </ul>
MATIENS CAPSNSIS	- S PACU	<ul> <li>Sapling – Woody plants, excluding woody vines,</li> <li>approximately 20 ft (6 m) or more in height and less</li> <li>than 3 in. (7.6 cm) DBH.</li> </ul>
CAREX CRINITA ATHYRIUM ASPLENOID	a N OBL	Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
SCIRPUS GEORGIAN	TO NOBL	<ul> <li>Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> <li>plants, except woody vines, less than approximately 3</li> <li>ft (1 m) in helpht.</li> </ul>
		Woody vine All woody vines, regardless of height.
l	Total Cover	
50% of total cover: <u>63</u> .	5 20% of total cover: 68, 1	_
1000dy Vine Stratum (Plot size: <u>30</u> ) <u>AMPHICARP</u> BRACTEA	<u>3 Y FAC</u>	
· · · · · · · · · · · · · · · · · · ·		<b>"</b>
		-
•	······································	-   -   Hydrophytic
	= Total Cover	Vegetation
50% of total cover: 1.5	20% of total cover:	- Present Yes Yes NO
REDUCED TREE PLOT TO A	VOID V SLOPE	S Constitution of

.

~

W

US Army Corps of Engineers

Profile Description: (Describe to the	depth needed to docu	ment the indicator of	or confirm the	absence o	f indicators	s.)	
$\begin{array}{c c} \text{Depth} & \underline{\text{Matrix}} \\ \hline (inches) & \underline{\text{Color (moist)}} & \underline{\%} \\ \hline 0 - 7 & 10 \ \text{VR} & \underline{31} \underline{3} & \underline{\%} \\ \hline 7 - 9 & 10 \ \text{VR} & \underline{511} & \underline{60} \\ \hline 9 - 1 \ \text{V} & 10 \ \text{VR} & \underline{41} \underline{3} & \underline{95} \\ \end{array}$	Color (moist)	x Features 	$\frac{Loc^2}{PL/M} \frac{Tc}{L}$	M A ILM	SOME 30% FINE	Remarks WHAT M IOY R Y SAND	vc≮V 12
·							
·							
·							
¹ Type: C=Concentration, D=Depletion,	RM=Reduced Matrix, M	S=Masked Sand Gr	ains. ² Lo	cation: PL:	=Pore Lining	g, M=Matrix. blematic Hydr	ic Soils ³ :
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) 2 cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6)	Dark Surfac Polyvalue B Thin Dark S Loamy Gley Depleted Ma Redox Dark Redox Dark Redox Depr Iron-Mangar MLRA 13 Umbric Surf Redomnt Fl Red Parent	e (S7) elow Surface (S8) (N urface (S9) (MLRA 1 ed Matrix (F2) atrix (F3) Surface (F6) urk Surface (F7) essions (F8) nese Masses (F12) ( 36) ace (F13) (MLRA 13 oodplain Soils (F19) Material (F21) (MLR	ILRA 147, 148) 47, 148) LRR N, 6, 122) (MLRA 148) A 127, 147)	☐ 2 c ☐ Co ☐ Pie ☐ Ve ☐ Oth ³ Indic wetl unle	m Muck (A1 ast Prairie F (MLRA 147, edmont Floo (MLRA 136, ry Shallow I ner (Explain ators of hyd and hydrolo ss disturbed	Io) (MLRA 147 Redox (A16) , 148) dplain Soils (F ⁻ , 147) Dark Surface (T in Remarks) Irophytic vegeta gy must be pre d or problematio	19) F12) ation and isent, c.
Restrictive Layer (if observed): Type:			Н	rdric Soil F	Present?	Yes Y	No
Remarks:	TATURATE A	to Qui				11	( A )
IN V	4 CL			6 7	k 19	Dom	
		V	¥	$\backslash$	7		
JSD/MOZE	× [			$\left\{ \right\}$			•
¥ TUNT		3~	. /				V
CHANNEL CHANNEL NOT		N	Ø	\ \	, T		
			\	>	( 15	7	$\rightarrow$

•

15



Wetland data point wdim018f_w facing North



Wetland data point wdim018f_w facing West



Wetland data point wdim018f_w soil sample

Project/Site: <u>POMINION ET AL</u> City/County: <u>NA/DINWIODIE</u> Sampling Date: <u>919/201</u> State: <u>VA</u>
Applicant/Owner: DOMINION ET AL
State VA Communication of The
Investigator(s): SiGEOVE / F BIJER
andform (hillslope, terrace, etc.) H/USLOPE
Subregion (LRR or MLRA): $LRRP$ Let $37.093696$ Slope (%): <u>6000000000000000000000000000000000000</u>
Soil Map Unit Name: APPLING SAMON I APPLING DUCE Long: 17.848948 Datum: WGS 8
Are climatic / hydrologic conditions on the site typical for this time of year? Yea
Are Vegetation Soil Soil Or Hydrology Significantly disturbed?
Are Vegetation, Soil, or Hydrology naturally problematic? Are "Normal Circumstances" present? Yes No
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, at
Hydrophydic Vegetation Present? Yes No Is the Sampled Area
Wetland Hydrology Present?
Remarks:
ON HIUSLOPE ADJACENT TO WOIMOLS AND STREAM
PHOTOS! 30 60 -3064 SOLL NECHI
$\frac{1}{1} \frac{1}{1} \frac{1}$
Wetland Hydrology Indigeters
Primary Indicators (minimum of two required)
Surface Meters (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)     Geomorphic Position (D2)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Field Observations:
Surface Water Present? Yes No K Depth (inches)
Water Table Present? Yes No Yes Depth (inches)
Saturation Present? Yes No X Depth (inches):
(includes capillary fringe) No No No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:

Sampling Point: WDIM018-U VEGETATION (Five Strata) - Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator 30 Tree Stratum (Plot size: <u>% Cover</u> Species? Status Number of Dominant Species PINUS TAEDA 40 FAC That Are OBL, FACW, or FAC: (A) 2 Total Number of Dominant Species Across All Strata: (B) 3 Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: V(1) = Total CoverTotal % Cover of: Multiply by: 20% of total cover 50% of total cover: OBL species ____x1 ≕ lS Sapling Stratum (Plot size: FACW species FACU LIPIODEND 1. FAC species x3 ≕___ IQUID STR FACU species x 4 = FACI ILEX OPACA UPL species ___x5 ⊨_ DIDSOYROS FA( Column Totals: (A) (B) Prevalence Index = B/A =___ Hydrophytic Vegetation Indicators: - Total Cover 1 - Rapid Test for Hydrophytic Vegetation 50% of total cover: ____ろ 20% of total cover 2 - Dominance Test is >50% 15 Shrub Stratum (Plot size: . QUERCUS ALBA 3 - Prevalence Index is ≤3.01 FACU 1. 2: VACCINIUM CORYMB FACW 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) FAC LIQUID STRY Problematic Hydrophytic Vegetation¹ (Explain) FACU GRAI PAGUS FAC. DIOSPYROS VIRG ¹indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. = Total Cover Definitions of Five Vegetation Strata: 50% of total cover: _16.5 20% of total cover: Tree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Herb Stratum (Plot size: ILEY OPACA QUERCUS AUBA Sapling -- Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb -- All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. = Total Cover 20% of total cover: 50% of total cover: 30 Woody Vine Stratum (Plot size: JAPON LONICERA SMILAY BONA BRAC AMPHICARP Hydrophytic λj = Total Cover Vegetation Present? 20% of total cover: 50% of total cover: Remarks: (Include photo numbers here or on a separate sheet.)

Dopth	ription: (Describe t	o the dept	h needed to document the indicat	or or confirm th	e absence of indicators.)
Jepui	Matrix		Redox Features	$\frac{1}{2}$	Touturo
n-2	INVR 3/2	and a			
	10 IR SIS				$r_1 + n_{\Lambda}$
5-10	104K4/6	43			
				· · · · · · · · · · · · · · · · · · ·	
			· · ·	·	
				•	
			· · ·		· · · · · · · · · · · · · · · · · · ·
		e,	· · · · · · · · · · · · · · · · · · ·		
				· · · · · · · · · · · · · · · · · · ·	······································
		<u> </u>	· · ·		
	··	<u> </u>		······ · · · · · · · · · · · · · · · ·	
Type: C=Cc	oncentration, D=Depl	etion, RM=	Reduced Matrix, MS=Masked Sand	Grains. ² L	ocation: PL=Pore Lining, M=Matrix.
	nuicators:		Dork Surface (C7)		Indicators for Problematic Hydric Soils":
Histic Fr	(AU) bipedon (A2)		Polyvalue Relow Surface (SP	MIRA 147 14	A CM WUCK (A IU) (MLRA 147)     Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Surface (S9) (MLR	A 147, 148)	(MLRA 147, 148)
] Hydroge	n Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
Stratified	l Layers (A5)	1	Depleted Matrix (F3)		(MLRA 136, 147)
2 cm Mu	ick (A10) (LRR N)	( )	Redox Dark Surface (F6)	•	Very Shallow Dark Surface (TF12)
_ Depleted	Below Dark Surface	(A11)	Depleted Dark Surface (F7)	. * 	Other (Explain in Remarks)
Sandy M	lucky Mineral (S1) (L	RRN	Iron-Manganese Masses (F1		
MLRA	A 147, 148)		MLRA 136)		
📃 [:] Sandy G	ileyed Matrix (S4)		Umbric Surface (F13) (MLRA	136, 122)	³ Indicators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Floodplain Soils (F	19) <b>(MLRA 148)</b>	wetland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21) (N	LRA 127, 147)	unless disturbed or problematic.
	_ayer (if observed):				
Type:		/			
	ches):			F	Hydric Soll Present? Yes <u>No No N</u>
emarks:				•	
	SEF W	ETLA	ND FORM FOR	2 SKETC	r H
			• • •	0	
	000				
		,			•
				•	
•					
•					
	, ,				

•



Upland data point wdim018_u facing North



Upland data point wdim018_u facing East



Upland data point wdim018_u soil sample

### WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline	City/County: Dinwiddie Sampling Date: 3/18/2015
Applicant/Owner: Dominion	State: <u>VA</u> Sampling Point: <u>wdia007f_w</u>
Investigator(s): GB, AS	Section, Township, Range: <u>No PLSS in this area</u>
Landform (hillslope, terrace, etc.): draw Lo	cal relief (concave, convex, none): <u>concave</u> Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>P</u> Lat: <u>37.09216611</u>	Long: -77.84838388 Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent slopes	NWI classification: None
Are climatic / hydrologic conditions on the site typical for this time of ye	ar? Yes 🔽 No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Normal Circumstances" present? Yes <u>/</u> No
Are Vegetation, Soil, or Hydrology naturally pr	blematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ ✔ Yes _ ✔ Yes _ ✔	_ No _ No _ No	Is the Sampled Area within a Wetland?	Yes 🥢 No			
Remarks:							
vvetiand data point for a seasonally satu	rated PFO we	tiand located in a dra	w within a 20 to 25-year-old p	ine plantation.			

### 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)       True Aquatic Plants (B14)         High Water Table (A2)       Hydrogen Sulfide Odor (C1)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> </ul>
✓ Saturation (A3) Oxidized Rhizospheres on Living Ro	ots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils	(C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Aquatic Fauna (B13)	EAC-Neutral Test (D5)
Surface Water Present? Ves No V Denth (inches):	
Water Table Present? Ves V No Depth (inches): 6	
Saturation Dresont? You Y No Dopth (inches): 4	
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspectior	ns), if available:
Remarks:	

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

Sampling Point: wdia007f_w

	Absolute	- Dominant lu	ndicator	Dominance Test worksheet:				
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminent Species				
Acer rubrum	20	Yes	FAC	That Are OBL EACW or EAC 8 (A)				
1	12	Yes	FAC					
2. Lisiadandran tulinifara	10	No	EACU	Total Number of Dominant				
3. Linodendron tulipifera	10	110	TACU	Species Across All Strata: 8 (B)				
4. Pinus taeda	10	No	FAC					
5.				Percent of Dominant Species				
°								
0				Prevalence Index worksheet:				
7				Total % Cover of: Multiply by:				
	52	= Total Cove	r					
50% of total cover: 26	20% of	total cover:	10.4	OBL species $x_1 = 0$				
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 = 0$				
1 Carpinus caroliniana	15	Yes	FAC	FAC species x 3 =261				
o Acer rubrum	8	Yes	FAC	FACU species $15 \times 4 = 60$				
2. Liquidambar styraciflua	8	Vos	EAC	$\frac{1}{1} P_{\text{L}} \text{ species } \frac{0}{1} \text{ x 5} = \frac{0}{1}$				
3. Liquidambal styracilida		165		$\frac{102}{102} \times 5 = \frac{321}{102}$				
4. Ilex opaca	5	No	FACU	Column Totals: (A) (B)				
5.				5 1 1 50 314				
6				Prevalence Index = B/A =				
^{0.}				Hydrophytic Vegetation Indicators:				
/				1 - Rapid Test for Hydrophytic Vegetation				
8				✓ 2 - Dominance Test is >50%				
9				3 - Prevalence Index is < 3.01				
	36	= Total Cove	r	$\sim$ 3 - Flevalence index is $\leq 3.0$				
50% of total cover: 18	20% of	total cover:	7.2	4 - Morphological Adaptations' (Provide supporting				
Horb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)				
Carey blanda	5	Vaa	EAC	Problematic Hydrophytic Vegetation ¹ (Explain)				
1		Tes	FAC					
2				¹ Indiantors of hydria soil and watland hydrology must				
3				he present unless disturbed or problematic				
4.				Definitions of Four Venetation Official				
5				Definitions of Four vegetation Strata:				
				Tree – Woody plants, excluding vines, 3 in, (7.6 cm) or				
6				more in diameter at breast height (DBH), regardless of				
7				height.				
8.								
9				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less				
10				m) tall				
10								
11				Herb - All herbaceous (non-woody) plants, regardless				
	5	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.				
50% of total cover: 2.5	20% of	total cover:	1	We advise Allowed wines restanting 2.20 ft is				
Woody Vine Stratum (Plot size: 30)				woody vine – All woody vines greater than 3.28 ft in				
1 Smilax rotundifolia	5	Yes	FAC	neight.				
	4	Yes	FAC					
2			1710					
3								
4				Hydrophytic				
5.				Vegetation				
	9	Total Covo		Present? Yes V No				
50% of total any are 4.5			1.8					
	20% 01	total cover:						
Remarks: (Include photo numbers here or on a separate s	sheet.)							
Profile Desc	cription: (Describe t	o the de	pth needed to docur	nent the	indicator	or confirm	the absence	of indicators.)
------------------------	-------------------------------	-----------	----------------------	-------------	----------------------	------------------	---------------------------	--------------------------------------------------
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-2	10YR 3/2	100			<u> </u>		SL	
2-6	10YR 3/1	100		_			SCL	
6-18	10YR 4/1	94	10YR 4/6	6	С	PL/M	SCL	
					<u></u>	·		
					·			
	. <u> </u>				. <u> </u>			
					. <u> </u>			
¹ Type: C=C	oncentration, D=Deple	etion, RN	I=Reduced Matrix, MS	S=Maske	d Sand Gra	ains.	² Location: PL	_=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indica	tors for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	e (S7)			2	cm Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ace (S8) <b>(N</b>	ILRA 147,	148) Co	oast Prairie Redox (A16)
Black Hi	istic (A3)		Thin Dark Su	Irface (SS	) <b>(MLRA 1</b>	47, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Pi	edmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 136, 147)
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (	F6)		Ve	ery Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Date	rk Surface	e (F7)		Ot	ther (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F	-8)			
Sandy N	/lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangan	ese Mass	ses (F12) <b>(</b> I	LRR N,		
MLR	A 147, 148)		MLRA 13	6)			0	
Sandy G	Eleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	³Indi	cators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	<b>8)</b> wet	tland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	Aaterial (F	-21) <b>(MLR</b>	A 127, 147	7) unle	ess disturbed or problematic.
Restrictive	Layer (if observed):							
Type: 10								
Depth (in	ches):						Hydric Soil	Present? Yes <u>No</u> No
Remarks:								



**Photo 1** Wetland data point wdia007f_w facing east



Photo 2 Wetland data point wdia007f_w facing south

#### WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline	City/County: Dir	nwiddie	Sampling Date: 3/18/2015
Applicant/Owner: Dominion		State: VA	Sampling Point: wdia007_u
Investigator(s): GB, AS	Section, Townsl	nip, Range: <u>No PLSS in this are</u>	а
Landform (hillslope, terrace, etc.): slope	Local relief (concav	re, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P Lat:	37.09228325	Long:77.84843001	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 perce	ent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical fo	r this time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)
		aint la actional transact	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <b>_ ✔</b> Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:	long for a gagag		watland located in a draw		
Opland data point taken above toe of s	lope for a seaso	nally saturated PFO	wetland located in a draw.		

#### HYDROLOGY

I

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that app	y) Surface Soil Cracks (B6)
Surface Water (A1) True Aquation	Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen S	ulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rh	izospheres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of	Reduced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron	Reduction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck S	urface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Expla	in in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No _ Depth (inch	es):
Water Table Present? Yes No 🖌 Depth (inch	es):
Saturation Present? Yes <u>No</u> Depth (inch	es): Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections), if available:
Remarks:	
no hydrology indicators present	

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

Sampling Point: wdia007_u

, , , , , , , , , , , , , , , , ,	Abaaluta	- Dominant li	adioator	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet:
Pinus taeda	65	Yes	FAC	Number of Dominant Species
Liriodondron tuliniforo	7	No	FACIL	I hat Are OBL, FACW, or FAC: (A)
			- FAO	Total Number of Dominant
3. Liquidambar styraciflua	4	NO	FAC	Species Across All Strata: 6 (B)
4. Quercus alba	4	No	FACU	
5				Percent of Dominant Species
				That Are OBL, FACW, or FAC:(A/B)
b		. <u> </u>		Prevalence Index worksheet
7				
	80	= Total Cove	r	
50% of total cover: 40	20% of	total cover:	16	OBL species $0 x 1 = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species x 2 =
1 llex opaca	15	Yes	FACU	FAC species x 3 =291
<ul> <li>Carpinus caroliniana</li> </ul>	12	Yes	FAC	FACU species $39 \times 4 = 156$
2. Liquidambar styraciflua	6	No	EAC	$\frac{1}{1} P_{\text{I}} c c c c c c c c c c c c c c c c c c $
3. Liquidambal styracilida	0		FAC	$136 \times 5 = -447$
4. Prunus serotina	3	No	FACU	Column Totals: (A) (B)
5.				2.28
6				Prevalence Index = $B/A = 3.20$
7				Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				$3 - $ Bravalance index is $< 2.0^{1}$
	36	= Total Cove	r	$\sim$ 3 - Flevalence index is $\leq$ 3.0
50% of total cover: 18	20% of	total cover:	7.2	4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Plot size: $5$ )				data in Remarks or on a separate sheet)
Polystichum acrostichoides	10	Vaa	EACU	Problematic Hydrophytic Vegetation ¹ (Explain)
1	10	Tes	FACU	
2				
3.				he present unless disturbed or problematic
4				be present, unless disturbed of problematic.
		·		Definitions of Four Vegetation Strata:
5		·		<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
8				
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tail.
11				Herb – All herbaceous (non-woody) plants, regardless
	10	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 5	20% of	total cover:	2	
Woody Vine Stratum (Plot size: 30)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
	5	Ves	FAC	height.
		<u> </u>	TAC	
2. Smilax rotunalitolia	5	res	FAC	
3				
4				
				Hydrophytic
ə	40			Present? Voc V
	10	= Total Cove	r	
50% of total cover: 5	20% of	total cover:	2	
Remarks: (Include photo numbers here or on a separate s	sheet.)			
	,			

Profile Des	cription: (Describe	to the dept	th needed to docu	ment the i	ndicator	or confirm	the absence o	of indicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	rks
0-3	10YR 3/2	100					SL		
3-13	2.5Y 5/3	100					SL		
13-24	2.5Y 6/4	100					SCL		
									<u> </u>
		·							
		·							
							·		
¹ Type: C=C	concentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location: PL=	=Pore Lining, M=Ma	trix.
Hydric Soil	Indicators:						Indicat	ors for Problemation	c Hydric Soils ³ :
Histoso	l (A1)		Dark Surface	e (S7)			2 c	m Muck (A10) <b>(MLF</b>	RA 147)
Histic E	pipedon (A2)		Polyvalue Be	elow Surfa	ce (S8) <b>(N</b>	ILRA 147,	<b>148)</b> Co	ast Prairie Redox (A	.16)
Black H	listic (A3)		Thin Dark Su	urface (S9)	) (MLRA 1	47, 148)	(	(MLRA 147, 148)	
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		Pie	edmont Floodplain S	oils (F19)
Stratifie	d Layers (A5)		Depleted Ma	itrix (F3)				(MLRA 136, 147)	(7540)
2 cm M	uck (A10) <b>(LRR N)</b>	( ( ) ( )	Redox Dark	Surface (F	·6) (F7)			ry Shallow Dark Sur	face (TF12)
Depiete	o below Dark Surface	e (ATT)	Depieted Da	rk Sunace	( <i>Г1)</i> 0)		Ou	ier (Explain in Rema	arks)
Thick D	Muchy Mineral (S1) (I			ASSIUNS (FO	0) os (F12) <b>(</b>				
<u> </u>	A 147, 148)		MI RA 13	(6)	CS (I 12) (	LIXIX IN,			
Sandy (	Gleved Matrix (S4)		Umbric Surfa	ace (F13) <b>(</b>	MLRA 13	6, 122)	³ Indic	ators of hydrophytic	vegetation and
Sandy I	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	(8) wetla	and hydrology must	be present.
Stripped	d Matrix (S6)		Red Parent I	Material (F	21) (MLR	A 127, 147	7) unle	ss disturbed or prob	lematic.
Restrictive	Layer (if observed):				/ (			•	
Type: no	one								
Depth (in	nches):						Hydric Soil P	Present? Yes	No 🖌
Remarks:							1		



**Photo 1** Upland data point wdia007_u facing east



Photo 2 Upland data point wdia007_u facing north

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

•

ACP	•		. walnin	WINDIE .		loni
Applicant/Owner DOM IN	ION ET AL	City/Cou	nty: <u> Vr   D//V</u>	State: VA	Sampling Date: <u>917</u>	MORF 1
Investigator(s): $S - GRC$	VE IE. BUI	SB Section.	Township, Range:		Sampling Point.	100/1/-0
Landform (hillslope, terrace, etc.)	: FLOODPLAIN:	TERRACE Local relief	(concave, convex, no	one): CONCAV	E Slope (%):	
Subregion (LRR or MLRA):	RRP Lat	37,090992	Lona: -7	17,848339	Datum: WG	584
Soil Map Unit Name: APP	LING SAND	YLOAM 7-1	590 SLOPS	NWI classificati	on: PFO	
Are climatic / hydrologic conditio	ns on the site typical for	or this time of year? Yes	X No	(If no, explain in Ren	narks.)	
Are Vegetation Soil	, or Hydrology		d? Are "Norma	al Circumstances" pre	sent? Yes X .No	
Are Vegetation, Soil	, or Hydrology	naturally problematic	? (If needed,	explain any answers	in Remarks.)	
SUMMARY OF FINDING	S – Attach site m	nap showing samp	ling point locati	ons, transects, i	mportant features	s, etc.
Hydrophylic Vegetation Present			the Sampled Area	Ves X	No	
Wetland Hydrology Present?	Yes V		·			
Remarks: 10+1/ 111	FTT AND AL	AND STOR	AM CDIM	A77 ///	TERRACSS	
OF FLOODPL	AIN + AT	TOE OF OP	PDSING S	SLOPES N	(25) S(25)	7)
	-			2071	2070 100	
HYDROLOGY		PF	0105:	3071 -	NIE.	$(\overline{S,W})$
Wetland Hydrology Indicator	<u></u>			Secondary Indicato	rs (minimum of two requ	
Primary Indicators (minimum of	, one is required: chec	k all that apply)	· .	Surface Soil Cr	acks (B6)	
Surface Water (A1)		True Aquatic Plants (B1	4)	Sparsely Veget	ated Concave Surface	(B8)
High Water Table (A2)		Hydrogen Sulfide Odor	(C1)	Drainage Patte	rns (B10)	
Saturation (A3)		Oxidized Rhizospheres	on Living Roots (C3)	Moss Trim Line	s (B16)	
Water Marks (B1)		Presence of Reduced in	on (C4)	Dry-Season Wa	ater Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction in	n Tilled Soils (C6)	Crayfish Burrov	vs (C8)	
Drift Deposits (B3)		Thin Muck Surface (C7)	• .	Saturation Visit	le on Aerial Imagery (C	C9)
Algal Mat or Crust (B4)	• []	Other (Explain in Remar	rks)	Stunted or Stre	ssed Plants (D1)	
	l Imagery (B7)	· .	•	Shallow Aquita	sition (D2)	
Water-Stained Leaves (B9					$\mu$ (D3)	
Aquatic Fauna (B13)	•			FAC-Neutral Te	est $(D5)$	
Field Observations:	· 、					
Surface Water Present?	Yes No	Depth (inches):				
Water Table Present?	Yes No	Depth (inches): 4				
Saturation Present?	Yes 🚺 No	Depth (inches):		Hydrology Present?	Yes X No	
(includes capillary fringe)	/ *					
Describe Recorded Data (Strea	m gauge, monitoring v	veli, aerial photos, previo	us inspections), if av	allable:		
Remarks: PAII	V EVENTS	9/8 9/9				
· ·				<i></i>		
		•				
			•		· · ·	
			•			
			•			
•		• •				
			<b>.</b>	•		
			· · · · · · · · · · · · · · · · · · ·			
	·					1,1

US Army Corps of Engineers

•

٩

3.0

· · · · · · · · · · · · · · · · · · ·	Absolute	Dominant Indicator	Dominance Test worksheet:
e Stratum (Plot size: <u>30</u> )	<u>% Cover</u>	Species? Status	Number of Dominant Species
ACER RUBR	40	X RAC.	That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant
	· ·	· · · · · · · · · · · · · · · · · · ·	Species Across All Strata: $\mathcal{O}$ (b)
1		·	Percent of Dominant Species
		·	That Are OBL, FACW, or FAC: (A/B)
· · · · · · · · · · · · · · · · · · ·	·	·	
	<u> </u>	= Total Cover	Prevalence Index worksneet:
FO% of total cover	10 20% of	total cover:	
	<u>2078 </u> 01		OBL species x 1 =
ing Stratum (Plot size: 19	<del>Д</del> ь	V rAC	FACW species x 2 =
CARPINUS CAROLIN	<u></u>	$-\frac{\gamma}{\Gamma}$	FAC species x 3 =
ACER RUBK	10	<u>× +++C</u>	FACIL species X 4 =
ALNUS SERRULATA	15	X DBC	
· ·			
	· · · · · · · · · · · · · · · · · · ·		(A)(B)
5 ¹			Drovelence Index P/A
· · · · · · · · · · · · · · · · · · ·			
•	~	= I otal Cover	Hydrophytic vegetation Indicators:
50% of total cover:	det. 5 20% of	total cover:	1 - Rapid Test for Hydrophytic Vegetation
b Stratum (Plot size: 15)	•	,	2 - Dominance Test is >50%
ALNUS SERRULATA	5	V OBI:	$3$ - Prevalence index is $\leq 3.0^1$
<u></u>			4 - Morphological Adaptations ¹ (Provide supporting
· · ·			data in Remarks or on a separate sheet)
· · · · · · · · · · · · · · · · · · ·		·	Problematic Hydrophytic Vegetation ¹ (Explain)
		· ·	, , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , , ,
			¹ Indicators of hydric soil and wetland hydrology must
		-	be present, unless disturbed or problematic.
•		= Total Cover	Definitions of Five Vegetation Strate:
700/ 51 1.1	$\gamma < \frac{1}{2}$		Demandris of The Vegetation Statua.
	20% 01 <u>د ۲۰</u>	total cover:	Tree – Woody plants, excluding woody vines,
<u>b Stratum</u> (Plot size:)	1	h Francis	approximately 20 ft (6 m) or more in height and 3 in.
136HEMERIA OILIND	<u> </u>	P FACW	(7.6 cm) or larger in diameter at breast height (DBH).
LEERSIA VIRGIN	<u>/0`</u>	N. FACH	Sapling - Woody plants, excluding woody vines,
SCIRPUS GEORGIAN	10	N. OBL	approximately 20 ft (6 m) or more in height and less
ATHVRIUM ASPLENDID		N FAC	than 3 in. (7.6 cm) DBH.
PAREV CRINITA	15	1 036	· Shrub Woody plants excluding woody vines
INCODIC NIPC	- 10	The ARI	approximately 3 to 20 ft (1 to 6 m) in height.
LYLOPUS VING		- pr DDC	
	·	· <u>· · · · · · · · · · · · · · · · · · </u>	Herb – All herbaceous (non-woody) plants, including
	·		nerbaceous vines, regardless of size, and woody
		· · · · · · · · · · · · · · · · · · ·	- i ft (1 m) in helaht.
and the function of the second s			Woody vine - All woody vines, regardless of height.
	$\overline{c}$	- Total Covor	-
	$\sim$ $\rightarrow$ $\rightarrow$		•
50% of total cover:	<u>//·&gt;_</u> 20% of	f total cover:	
ody Vine Stratum (Plot size: 20)			
SMILAX ROTUND	10	Y PAC	
LONICERA JAPON	20	V FAC	
		$-1 + \frac{100}{100}$	•
۰ 		· ·	•
· · · · · · · · · · · · · · · · · · ·	•	•	
		• •	Hydrophytic
· · · ·	<u>_</u> 21)	= Total Cover	
	15 000	f total october	Present? Yes No
50% of total cover: _	1.7 20% 0	i total cover:	· <u> </u>
notice (Include photo numbers here of on a const	coto choot)		

Eastern Mountains and Piedmont - Version 2.0

SOIL	•							Samplin	g Point: <u>WD/M0/</u> 4
Profile Dese	cription: (Describe	to the dep	th needed to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)	
Depth	Matrix		Redo	x Features	5	1.002	Toyturo	Dom	arke
$n$ $\frac{(inches)}{2}$	LAVE 3/11	<u>~~%</u>		%	ype		<u> </u>	Rema	
$\frac{0-5}{2}$	TOYK JIG	100	11.0.21	~					
<u>3-X</u>	10 YK 412	<u>45</u>	10 YK 345	<u> </u>	<u> </u>	///	LIV		
8-16	VOYR5/1	60	10YR Y/6	35	C	_M_	SAILM	COARSE	TOWARD
	•••						, ,	BOTTON	M .
					·	<u></u>			
	<u></u>								
;	·	·		<u> </u>	<u></u>	·	· · · · · · ·		
			<u></u>						
		-							x
	·.								A
		· · · · · · · · · · · · · · · · · · ·	,		·				
17			Deduced Metrix M				21 a a a ti a m. Dl	Dava Lining M. M.	a hely c
Type: C=C	oncentration, D=Dep	letion, RIVI	=Reduced Matrix, M	S=Masked	Sand Gr	ains.	Location: PL=	Pore Lining, M=M	atrix.
			Dark Surface	(57)					DA 147)
	ninedon (A2)			elow Surfa	ce (S8) (N	1 RA 147	148) 🗌 Coa	st Prairie Redox (	A16)
	istic (A3)		Thin Dark St	urface (S9)	(MLRA 1	47, 148)		/LRA 147, 148)	
Hydroge	en Sulfide (A4)	•	Loamy Gley	ed Matrix (	F2)		🔲 Piec	Imont Floodplain S	Soils (F19)
Stratifie	d Layers (A5)		Depleted Ma	ıtrix (F3)			()	/LRA 136, 147)	
2 cm Mi	uck (A10) (LRR N)		Redox Dark	Surface (F	6)		Very	/ Shallow Dark Su	rface (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)		D Othe	er (Explain in Rem	narks)
	ark Surface (A12)	55 V	Redox Depr	essions (F	B)				
Sandy N	Mucky Mineral (S1) (L	_RR N,	Iron-Mangar	iese Masse	es (F12) (	LRR N,			
	A 147, 148) Sloved Matrix (SA)			0) 200 (F13) (	MI DA 13	6 122)	³ Indica	tors of hydrophyti	c vegetation and
	Redox (S5)		Piedmont Fl	odplain S	oils $(F19)$	(MLRA 14	18) wetla	nd hydrology mus	t be present.
Stripped	d Matrix (S6)		Red Parent	Material (F	21) (MLR	A 127, 147	7) unles	s disturbed or pro	blematic.
Restrictive	Layer (if observed):	1	· · ·				· ·	·····	
Type:			<u> </u>		;				
Depth (in	iches):	/ .		•			Hydric Soil Pr	esent? Yes	
Remarks:				~			1 - <u>-</u>	<u> </u>	
/	$\Gamma N \land$		(	, t					
• •	$\langle \cdot \rangle$	`	× .			$\langle \langle$			
			$\backslash$			77	· \.		
		1	$\overline{\mathcal{N}}$ :			$\sim$	1		
				$\mathcal{N}^{*}$		DIMO	191		j .
•	\			1		VD.		$\rightarrow$	<u>K</u> .
/					/		\		
1	· · · ·	$\backslash$	¥.		*				
	а. А. А.	$\backslash$	· · · · ·		. /				
•		~ }		Ð '	/ .	-	. \	•	
			·	· /	í l		١	1	7
SDIMOJ	81 ¥				$\backslash$	$\Lambda$			
						/			
		A			· _ \		•		
			1			I	•		
		/	1	Ð			· .	$\sim 10^{-1}$	
	/	/ \		Ŭ					
	/			. · ·	\				
			$\lambda^{1}$ .		\			\	
	1						-	\	
			\			\		\	· .
			6 150			í C	- 150 -	-> \	
	· · · · · · · · · · · · · · · · · · ·		. I. V.	<u>,</u>		<u> </u>	100		

.

.

.



Wetland data point wdim019f_w facing South



Wetland data point wdim019f_w facing East



Wetland data point wdim019f_w soil sample

		83-67			
WETLANI	DETERMINATIO	ON DATA FORM	– Eastern Mountai	ins and Piedmont R	Region
Project/Site:	$\frac{10N ET AL}{E   E   BUB}$ $\frac{E   E   BUB}{E   BUB}$ $\frac{RR P}{LiLS   C}$ $\frac{RR P}{LiNG SHND}$ ins on the site typical f , or Hydrology , or Hydrology , or Hydrology $\frac{1}{S} - Attach site n$ $\frac{1}{Yes}$ $\frac{Ves}{Yes}$	City/C City/C City/C City/C Corthis time of year? N Significantly distured naturally problem nap showing sam No No No No	County: <u>NA /DIN</u> on, Township, Range: _ ief (concave, convex, no <u>S</u> Long: /es <u>Y</u> No <u>Long:</u> /es <u>X</u> No <u>Long:</u> /bed? Are "Norma atic? (If needed, npling point locati Is the Sampled Area within a Wetland?	JWIDDIE       Samp         State:       VA       Samp         State:       VA       Samp         Sone):       CONCAVE       Samp         77, 85 3081       Samp       Samp         S       NWI classification:       (If no, explain in Remark al Circumstances" present         al Circumstances" present       explain any answers in R         ons, transects, imp       Yes       N	pling Date: $9/9/2019$ mpling Point: $1000000000000000000000000000000000000$
UN HIL PHOTOS	1560PE A . 3091-E	03 ACENI	099	OJ9 AND S	SDIMO OC
Wetland Hydrology Indicator         Primary Indicators (minimum o         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 Aeria         Water-Stained Leaves (B5)         Aquatic Fauna (B13)	s: <u>f one is required: chec</u> al Imagery (B7)	k all that apply) True Aquatic Plants Hydrogen Sulfide Oc Oxidized Rhizospher Presence of Reduce Recent Iron Reductio Thin Muck Surface ( Other (Explain in Ref	(B14) lor (C1) es on Living Roots (C3) d Iron (C4) on in Tilled Soils (C6) C7) marks)	Secondary Indicators (n Surface Soil Cracks Sparsely Vegetated Drainage Patterns ( Moss Trim Lines (B Dry-Season Water Crayfish Burrows (0 Saturation Visible o Stunted or Stressed Geomorphic Positio Shallow Aquitard (1 Microtopographic R FAC-Neutral Test (	ninimum of two required) (B6) Concave Surface (B8) (B10) 16) Table (C2) C8) In Aerial Imagery (C9) Plants (D1) In (D2) O3) Relief (D4) D5)
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strea	Yes No Xamma gauge, monitoring	Depth (inches): Depth (inches): Depth (inches): well, aerial photos, pre	Wetland	Hydrology Present? Y ailable:	es No X
Remarks:	· · · ·	· · · · · · · · · · · · · · · · · · ·			4

.

12

roo Statum (Blat at-	Absolute	Dominant	Indicator	Dominance Test worksheet:
PINUS TAEDA	<u>% Cover</u> <u>40</u>	<u>Species?</u>	PHC	Number of Dominant Species 5 (A)
		:		Total Number of Dominant
		·	,.	Species Across All Strata: (B)
	- <u></u>			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
	40	= Total Cov	 /er	Prevalence Index worksheet:
50% of total cover: $\mathcal{A}$	) 20% of	total cover	. 8	Total % Cover of:Multiply by:
pling Stratum (Plot size: 15 )		0000	, <u> </u>	OBL species x 1 ≕
LIQUID STRY	5.0	X	FAC	FACW species x 2 =
LIRIODEN TULIP	30	$\mathbf{X}$	FACU	FAC species x 3 =
· · · · · · · · · · · · · · · · · · ·		1:		FACU species X 4 =
				UPL species X 5 =
	<u> </u>			Column Totals: (A) (B)-
- 	-			Prevalence Index = B/A =
· ·	_80_	= Total Cov	rer ·	Hydrophytic Vegetation Indicators:
50% of total cover: 4	0 20% of	total cover:	1.6	1 - Rapid Test for Hydrophytic Vegetation
rrub Stratum (Plot size: <u>/5</u> )			· <u> </u>	X 2 - Dominance Test is >50%
JUNIPERUS VIRGINICA	5	N	FACH	$3$ - Prevalence index is $\leq 3.0^1$
CARPINUS CAROL	15	N	PAC	4 - Morphological Adaptations ¹ (Provide supporting
VIBURNUM PENTATUM	- The		PACW	data in Remarks or on a separate sheet)
VACCINIUM CORYMB	20	-V	PACW	Problematic Hydrophytic Vegetation ¹ (Explain)
CARNA GLABRA	115	N	PACIA	
t		<b>-</b>	1.1001	¹ Indicators of hydric soil and wetland hydrology must
· ·	55	= Total Cov	er .	be present, unless disturbed or problematic,
50% of total cover: $23$	5 20% of	total cover	} }י∦	Definitions of Five Vegetation Strata:
erb Stratum (Plot size: 5 )	<u></u> 0,000,		<u> </u>	Tree - Woody plants, excluding woody vines,
ACER RUBR	3	N	FAC.	(7.6 cm) or larger in diameter at breast height (DBH).
LIQUID STRY	10	Y	FAC	
POLYSTICHUM ACROSTICH	2	Ň	FACIL	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in helpht and less
ILEX OPACA	2	-N	PACI	than 3 in. (7.6 cm) DBH.
AVERCUS RUBR	ੋ ਹੋ	5	t-AC.U	Shrub – Woody plants, evoluding woody vines
DRNOPTERIS SPINULOS	3	-N	PACH	approximately 3 to 20 ft (1 to 6 m) in height.
5	_			Herb – All herbaceous (non-woody) plants including
-		•		herbaceous vines, regardless of size, and woody
· · · ·				plants, except woody vines, less than approximately 3
		· · · ·		
· · · · · · · · · · · · · · · · · · ·	<u>.</u>			Woody vine – All woody vines, regardless of height.
· · · · · · · · · · · · · · · · · · ·	· <u>_</u>	- Total Cov	er	
50% of total cover:	20% of	total cover:	yy.	· · ·
oody Vine Stratum (Plot size: 30)				
PARTHENOCISS QUINQUE	5	У	FACU	
	• •			
		•	· ,	
•	·	·		•
	5-	Total Cov		Hydrophytic
· · · · · · · · · · · · · · · · · · ·	$\langle \cdot \cdot \cdot \cdot \cdot \rangle$		ਯ 	Present? Yes No
	2 20% of	total covore		

US Army Corps of Engineers

Eastern Mountains and Piedmont – Version 2.0

SOIL

Depth	Matriv			Dod	N Fostures				,	
(inches)	Color (moist)	%	Colo	r (moist)	<u> </u>	pe ¹ Loc ²			Remarks	
0-5	<u> 257 41</u> 8	<u> </u>	!				LM			
2-16	254 5/6	<u> </u>					LM			· · · · · · · · · · · · · · · · · · ·
								<u> </u>		
					·					<u>.</u>
· · · · · · · · · · · · · · · · · · ·					<u> </u>					
		<u> </u>		•	······					
				<u> </u>				<u> </u>		
······					<u> </u>					
·					·					
<u> </u>					. <u> </u>					•
			<u> </u>							
¹ Type: C=Co	ncentration, D=De	epletion, R	M=Reduce	d Matrix, M	S=Masked San	d Grains.	² Location: P	L=Pore Linir	na. M≓Matrix.	
Hydric Soil I	ndicators:						Indica	ators for Pro	oblematic Hy	dric Soils ³ :
Histosol (	(A1)			ark Surface	e_(S7)		2	cm Muck (A	10) (MLRA 14	47)
	ipedon (A2)			olyvalue Be	elow Surface (S	8) (MLRA 147,	148) 🔲 C	oasť Prairie	Redox (A16)	
	n Sulfide (A4)			nin Dark Si oamy Glevi	JITACE (S9) (ML ad Matrix (F2)	RA 147, 148)		(MLRA 147	1, 148) administration (	
Stratified	Layers (A5)			epleted Ma	trix (F3)				5 147)	F 19)
2 cm Mu	ck (A10) (LRR N)		R 🛄	Redox Dark	Surface (F6)		<u> </u>	ery Shallow	Dark Surface	(TF12)
	Below Dark Surfa	ce (A11)		epleted Da	rk Surface (F7)		<u>П</u> о	ther (Explain	n in Remarks)	
Sandy M	rk Surface (A12) ucky Mineral (S1)			ledox Depre	essions (F8)	10) (LDD N				··· •
MLRA	147, 148)			MLRA 13	6)	(LRR N,				
🔲 Sandy Gl	eyed Matrix (S4)		🔲 U	Imbric Surfa	ace (F13) (MLR	A 136, 122)	³ Ind	cators of hy	drophytic year	etation and
Sandy Re	edox (S5)		<b>—</b> Р	iedmont Flo	odplain Soils (I	F19) <b>(MLRA</b> 14	8) 'we	tland hydrold	ogy must be p	resent,
Stripped I	Matrix (S6)	、		ed Parent I	Material (F21) (I	MLRA 127, 147	/) unl	ess disturbe	d or problema	tic.
Type	ayer (il observed	):	-							
Denth (incl	hes);	/				,				
Remarks:		/					Hydric Soli	Present?	Yes	
		14		<b>N</b> O						
	SEE	Y I	FORM	Fore	SKETCH	1				
				•						· · · ·
				•			· · · · ·			•
			• •	•			· · · ·			· · · · · · · · · · · · · · · · · · ·
			•••	•				. •		
• • • • •				•					•	
· · · · · · · · · · · · · · · · · · ·				•			· · · · · · · · · · · · · · · · · · ·	. •		· · · · · · · · · · · · · · · · · · ·
				•					• • • •	•
				•						•
				•		· · · · · · · · · · · · · · · · · · ·				•
										•
				•						•
		•				· · · · · · · · · · · · · · · · · · ·				•
										•
	· · · · · · · · · · · · · · · · · · ·									•



Upland data point wdim019_u facing North



Upland data point wdim019_u facing East



Upland data point wdim019_u soil sample

inct/Sito.	ACP		Citv/0	County: NG	JOINN	IDDIE Sa	mpling Date: 9/9/2	01
plicant/Owner	DOMINION	ET AL		J		State: VH	Sampling Point: WD/M	103
vestigator(s):	S.GROVE	. E. BU	'BR Secti	on, Township, I	Range:	-		
ndform (hillslope,	terrace, etc.); TER	é Ace	Local re	lief (concave, c	onvex, none)	CONCAVE	Slope (%):	5
bregion (LRR or N	ALRA): LRRP	, Lat:	37.088694	L L	.ong: <u>-7</u> °	1,846454	Datum: USG	84
il Man Unit Name	APPLING SA	NOY LOA	M 7-15	10 SLOPS	5	NWI classificatio	on:PFO	
e climatic / hydrolu	aic conditions on the	site typical for 1	this time of year? `	Yes 🎽 No	) (If	no, explain in Rem	arks.)	
o Vegetation	Soil or Hy	drology	significantly distu	rbed? Ai	e "Normal C	ircumstances" pres	sent? Yes 🗶 No _	
e Vegetation	Soil or Hy	drology	naturally problem	natic? (If	needed, exp	olain any answers i	n Remarks.)	
e vogetaten <u></u>		55			_			
UMMARY OF	FINDINGS – Atta	ach site ma	p showing sar	npling poin	t location	is, transects, i	mportant features,	etc
- lydrophytic Veget	ation Present?	Yes X	No	Is the Samp	led Area	λ.		
Jydric Soil Presen	it?	Yes X	No	within a We	tland?	Yes X	No	
Wetland Hydrolog	y Present?	Yes _ X	No					
Remarks: TFI	RACED ARS	A AT	TOE OF	OPPOSI	NG SC	OPES FR	om 3	· 1
DIRECT	IONS ADJ	. TO R	SCENT	CLEAR	CU7.5.	AREA	OF COMPER	Je .
D. IEA	TSPILLE	IS A	WATS12 -	FILLED	(TE di	ADERAPIC.	V) pspæsss	SPO.
la car		10 -0	TERS 1	Caipe	- ^A	•	-	
REST	OF WETCH	//0 /0	WEST P	40   F2	///,			
YDROLOGY						Secondary Indicato	rs (minimum of two requi	ired)
Wetland Hydrolo	gy Indicators:		u di tana kà		2	Surface Soil C	racks (B6)	<u></u>
Primary Indicators	s (minimum of one is re	aquired; check	all that apply)	(D14)			tated Concave Surface (	B8)
X Surface Wate	er (A1)		True Aquatic Plants	S(B14)		Sparsery vege ✓Drainage Patter	arns (B10)	50)
High Water T	able (A2)	ł	Hydrogen Suinde C		Poots (C3)	Moss Trim Lin	es (B16)	
Saturation (A	.3)	(	Oxidized Rhizosph	eres on Living r	(0013 (03)	Drv-Season W	ater Table (C2)	
Water Marks	(B1)		Recent Iron Reduc	tion in Tilled So	ils (C6)	Crayfish Burro	ws (C8)	
Drift Deposit	e (B3)		Thin Muck Surface	(C7)		Saturation Vis	ible on Aerial Imagery (C	9)
Algal Mat or	Crust (B4)		Other (Explain in R	Remarks)		Stunted or Str	essed Plants (D1)	
Iron Deposits	s (B5)					🗶 Geomorphic F	osition (D2)	
Inundation V	isible on Aerial Imager	ry (B7)			,	Shallow Aquita	ard (D3)	
✓ Water-Stain€	ed Leaves (B9)	-				Microtopograp	bhic Relief (D4)	
Aquatic Fau	na (B13)					FAC-Neutral	est (D5)	
Field Observation	ons:			a				
Surface Water P	resent? Yes	🖌 No	_ Depth (inches): _	C ACAC			,	
Water Table Pres	sent? Yes	🗶 No	Depth (inches):	WRFACE				
Saturation Prese	nt? Yes_	K No	Depth (inches): ≤	SURFACE	Wetland F	lydrology Present	? Yes NO	
(includes capillar	y fringe) led Data (stream gaug	e. monitoring v	vell, aerial photos,	previous inspec	tions), if ava	ilable:		
Describe record	lou Duid (ou ouni gaag	5	•					
							à -	
Remarks:	· · · · · · · · · · · · · · · · · · ·	- 12. T	NET C	HANNE	1125.	2 Educie	Cont Der	
p D	CPS IN ACS	14 - 14 Barry	. 01	SUVRO	.8			
	1201	45 120	ERE KE					
	£ • · · · · ·							
	•							
			· .					
			· .					

Stratum (Plot size) - $20$	Absolute % Cover	Species?	Status	Dominance rest worksneet.
ACCO PUBRIUM	<u></u> (1)	X	C-A(	Number of Dominant Species
HER RUDEUN		<u> </u>	CAL	$\prod_{i=1}^{n} a_i a_i e_{OBL}, FACW, of FAC: \underline{\qquad} (A)$
LIQVID STRY				Total Number of Dominant 7
				Species Across All Strata: (B)
			. <u></u>	Percent of Dominant Species
				That Are OBL, FACW, or FAC: $100$ (A/B)
	100	= Total Cov	/er	Prevalence Index worksheet:
	7 2001 -1		20	Total % Cover of:Multiply by:
50% of total cover:	20% 01	total cover		OBL species x 1 =
ling Stratum (Plot size: <u>13</u> )	15	$\checkmark$	GAC	FACW species x 2 =
ACER RUBICUM		·	PAC	FAC species x 3 =
CARPINUS CAROLIN	<u></u>	<u>}</u>	PA	FACU species x 4 =
				LIPI species x 5 =
				Column Totals: (A) (B)
· · ·				Prevalence Index = B/A =
	30	= Total Co	ver	Hydrophytic Vegetation Indicators
	<u>ر المراجع</u>	, star co		1 - Rapid Test for Hydrophytic Vegetation
/ <- 50% of total cover:	<b>1</b> 20% 0	r total cover	·	$\frac{1}{2}$ Dominance Test is $50\%$
ub Stratum (Plot size:)				$\int \frac{1}{2} - D u = 1 \text{ minimalize results > 50\%}$
/				$3 - \text{Prevalence index is } \leq 3.0^{\circ}$
				4 - Morphological Adaptations' (Provide supporting
				Dublementic Understatic Mercetatics ¹ (Evaluation)
				Problematic Hydrophytic Vegetation (Explain)
			-	¹ Indicators of hydric soil and wetland hydrology must
		Tatal Ca		be present, unless disturbed of problematic.
	<u> </u>	j = 10tai Co	vei	Definitions of Five Vegetation Strata:
50% of total cover:	20% c	f total cove	r:	Tree – Woody plants, excluding woody vines,
b Stratum (Plot size: 5)	~		- 10 11	approximately 20 ft (6 m) or more in height and 3 in.
BOHEMERTA CYLIND	3	<u> </u>	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
LYCOPUS AMERICAN	2	X	_PACW	Sapling – Woody plants, excluding woody vines,
LUNCIS EFFUSUS	2	Х	PACU	approximately 20 ft (6 m) or more in height and less
				than 3 in. (7.6 cm) DBH.
				Shruh – Woody plants, excluding woody vines,
				approximately 3 to 20 ft (1 to 6 m) in height.
				Herb – All herbaceous (non-woody) plants, including
				herbaceous vines, regardless of size, and woody
				plants, except woody vines, less than approximately 3 $f(1,m)$ in height
				Woody vine All woody vines, regardless of height.
	<u> </u>			-
· -	~	$_{-}$ = 1 otal Co	over	
50% of total cover:	20% م	of total cove	r: <u> </u>	
ody Vine Stratum (Plot size:, 20)				
/				
/				
				· ·
				Hydrophytic
		_ = 1 otal Co	ver	Vegetation
50% of total cover:	20% c	of total cove	r:	
marks: (Include photo numbers here or on a separa	ate sheet.)			
REDUCED RIDT CIDE TO	AVOID	U.	SLOPS	·S
NEUVERU FLUI SIE IU	1	- 1		-

٦

SOIL

.

_____

Sampling Point: WOMODOF W

par	Matrix		Redox	<u>k Features</u>	5	1 2	Touture	Domarks
hes)	Color (moist)	_%	Color (moist)	%	lype'	LOC		
2	IOYR YII	98						
-8	10 1R 5/1	70	JORR 5/6	25	<u> </u>	11	_ LM	
14	IDVR 5/1	55	10 VR5/8	80		m	CU/LA	<u> </u>
<u>.                                    </u>	_ <u></u>		GLEYISIN	- 60				
			······································		<u></u>			
e: C=C	oncentration, D=Der	letion, RM	I=Reduced Matrix, M	S=Maske	d Sand G	rains.	² Location:	PL=Pore Lining, M=Matrix.
ric Soil	Indicators:						Inc	dicators for Problematic Hydric Soils':
Histosol	I (A1)		Dark Surface	e (S7)				2 cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	elow Surfa	ice (S8) (	MLRA 147	, 148)	Coast Prairie Redox (A16)
Black H	listic (A3)		Thin Dark Su	urtace (SS	り (MLRA	147, 148)		Piedmont Floodplain Soils (F19)
Hydroge	en Sullide (A4)		Loarny Grey	atrix (F3)	(ı-∠J			(MLRA 136, 147)
2 cm M	u Layers (A3) uck (A10) (LRR N)		Redox Dark	Surface (	F6)			_ Very Shallow Dark Surface (TF12)
Deplete	ed Below Dark Surface	ce (A11)	Depleted Da	ark Surfac	e (F7)			_ Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depr	essions (F	-8)			
Sandy I	Mucky Mineral (S1)	LRR N,	Iron-Mangar	nese Mas:	ses (F12)	(LRR N,		
MLR	(A 147, 148)		IVILKA IS Umbric Surf	30) Face (F13)	(MI RA 1	36, 122)	:	³ Indicators of hydrophytic vegetation and
Sandy	Redax (S5)		Piedmont Fl	loodplain :	Soils (F19	) (MLRA 1	48)	wetland hydrology must be present,
Sunuy			Ded Derent				47)	uplace disturbed or problematic
Strippe	a Matrix (So)		Reu Parent	Material (		RA 127, 12	+/)	uniess disturbed of problematic.
strictive	Layer (if observed	):		Material (	F21) (IVIL	RA 127, 14	+/)	unless disturbed of problematic.
strictive	Layer (if observed	):		Material (	F21) (IVIL	KA 127, 14	+/)	
Strippe strictive Type: Depth (ir	a Matrix (56) Layer (if observed nches):	):		Material (	F21) (ML	<u>RA 127, 14</u>	Hydric	Soil Present? Yes X No
strictive Type: Depth (ir	nches):	SUR	FACE /N	Son	P17	F 127, 14	Hydric RAN	Soil Present? Yes $X$ No $\mathcal{EUENT} ON 9/8 9/4$
_ Strippe strictive Type: Depth (ir emarks:	nches):	SUR	FACE IN	Sorc	P17		Hydric RA/N	Soil Present? Yes $X$ No EUENT ON 9/8, 9/6
Strippe astrictive Type: Depth (in emarks:	nches):	sue	FACE IN	SOIL	P17	150 ¹	Hydric RA/N	Soil Present? Yes $X$ No EUENT ON 9/8 9/6
Strippe strictive Type: Depth (ir marks:	$\frac{1}{2} \text{ Layer (if observed})}$	sue 150'	FACE IN	Sonce Cy L	P17	150' _	Hydric RA/N	Soil Present? Yes $X$ No EUENT ON 9/8, 9/2
Strippe strictive Type: Depth (ir marks:	nches):	sue 150'	FACE IN	Sonc Cy L	P17	150'	Hydric RA/N	Soil Present? Yes $X$ No $\overline{\xi U \xi N T} O N 9 / 8 9 / 4$
Strippe strictive Type: Depth (in marks:	nches):	): SUR 150'	FACE IN	Sorc Cy Z	P17	150'	Hydric RA/N	Soil Present? Yes $X$ No $2000 \text{ Present?}$ Yes $X$ No $2000 \text{ Present?}$ No $2000 \text{ Present?}$
	nches):	sue 150'	FACE IN		P17	150' _	Hydric RA/N	Soil Present? Yes X No No Yes No Yes X No Yes Visur ON 9/8, 9/4
Stripte strictive Type: Depth (in marks:	Inches):	sue 150'	FACE IN FORES	Sonc Cy L	P17	150'	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/2 CLEARCUT
	Inches):	): SUR 150'	FACE IN	Sorc C. Z T	P17	150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/4 CLEARCUT
	Inches):	sur ISO'	FACE IN		P17	150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT
	Inches):	150'	FACE IN		P17	150' -	Hydric RA/N	Soil Present? Yes X No
	nches):	sue 150'	FACE IN		P17	150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/4 CLEARCUT
Strippe strictive Type: Depth (ii marks:	Inches):	): SUR 150'	FACE IN		P17	150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT
Strippe strictive Type: Depth (ir marks:	Inches):	sur ISO'	FACE IN		PIT	150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT
	WATER TO	sue 150'	FACE IN			150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT
Strippe strictive Type: Depth (in marks:	WATER TO WATER TO	sue 150'	FACE IN	Sore C. C.	PIT	150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/4 CLEARCUT
Strippe strictive Type: Depth (in marks:	WATER TO	sue 150'	FACE IN			150'	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT STANDING LIDTSP IN X
Stripte strictive Type: Depth (ir marks:	WATER TO	sue ISO'	FACE IN			150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT STANDING WATER IN
stripte strictive Type: Depth (in marks:	WATER TO	sue 150'	FACE IN			150' -	Hydric A/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT STANDING WATER IN DEPRESSION
	WATER TO WATER TO	sue 150'	FACE IN		PIT	150' -	Hydric. RAIN	Soil Present? Yes X No EUENT ON 9/8, 9/4 CLEARCUT STANDING WATER IN DEPRESSION NO VEG
Strippe strictive Type: Depth (in marks:	To Matrix (S6) Layer (if observed Inches): WATER TO KATER TO KATER TO	sue 150'	FACE IN			150'		Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT STANDING WATER IN DEPRESSION NO VEG
Strippe strictive Type: Depth (ir marks:	To Matrix (S6) a Layer (if observed inches): WATER TO K V FOREST	sur ISO'	FACE IN	Material (		150' -	Hydric RA/N	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT STANDING WATER IN DEPRESSION NO VEG
Strippe strictive Type: Depth (in marks:	WATER TO	sue 150'	FACE IN			150' -	Hydric RAIN	Soil Present? Yes X No EUENT ON 9/8, 9/0 CLEARCUT STANDING WATER IN DEPRESSION NO VEG



Wetland data point wdim020f_w facing North



Wetland data point wdim020f_w facing East



Wetland data point wdim020f_w soil sample

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

ject/Site: ACP	City/	County: NA/DINN	DDIE	Sampling Date: 9/9/2014
plicant/Owner: DOM / NIDW	ET, AL		State: VH	Sampling Point: WDIM 00
estigator(s): S. GROVE r	E, BUBB Sec	tion, Township, Range:	_	
ndform (hillslope, terrace, etc.): <u>   </u> oregion (LRR or MLRA): <u>  レスア</u> il Map Unit Name: <b>  介PPLING-</b>	LLSLOPE Local ru 2 Lat: <u>37.0887</u> SANDY LOAM 7-	elief (concave, convex, none 67 1590 St. OPES	): <u>CONC</u> 7, 846 	Slope (%): <u>15</u> 259 Datum: <u>W65 84</u> cation:
climatic / hydrologic conditions on the	e site typical for this time of year?	Yes <u> </u>	no, explain in R Circumstances" i	present? Yes X No
2 Vegetation, Soll, or F	hydrology significantly use	matic? (If needed ex	plain any answe	ers in Remarks.)
> Vegetation, Soll, or F				
ummary of findings – At	tach site map showing sa	ampling point location	ns, transects	s, important features, etc.
lydrophytic Vegetation Present? lydric Soil Present? Vetland Hydrology Present?	Yes No Yes No Yes No	Is the Sampled Area within a Wetland?	Yes	<u>&gt;</u>
YDRULUGY			Secondary Indic	cators (minimum of two required)
Deimon (Indicators (minimum of one is	required: check all that apply)		Surface So	il Cracks (B6)
Surface Water (A1)	True Aquatic Plan	ts (B14)	Sparsely Ve	egetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide	Udor (UI)	Drainaye F	Lines (B16)
Saturation (A3)	Oxidized Rhizospi	rend iron (C4)	Noss min	n Water Table (C2)
Water Marks (B1)	Presence of Redu	ction in Tilled Soils (C6)	Cravfish Bu	urrows (C8)
Sediment Deposits (B2)	Thin Muck Surfac	e (C7)	Saturation	Visible on Aerial Imagery (C9)
Dhit Deposits (D3)	Other (Explain in	Remarks)	Stunted or	Stressed Plants (D1)
Iron Deposits (B5)	· · ·		Geomorph	ic Position (D2)
Inundation Visible on Aerial Imag	ery (B7)		Shallow Ac	quitard (D3)
Water-Stained Leaves (B9)			Microtopog	graphic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutr	al Test (D5)
Field Observations:				
Surface Water Present? Yes _	No Depth (inches):			
Water Table Present? Yes _	No Depth (inches):		hudrele su Droc	
Saturation Present? Yes	No Depth (inches):	Wetland I	ayarology Ples	
Describe Recorded Data (stream gau	ige, monitoring well, aerial photos,	, previous inspections), if ava	ailable:	
Demarks.				
Kendika.				

## Sampling Point: WDIMODO_U

VEGETATION (Five Strata) - Use scientific names of plants. Dominance Test worksheet: Absolute Dominant Indicator 20 % Cover Species? Status Number of Dominant Species Tree Stratum (Plot size: TULIP (A) That Are OBL, FACW, or FAC: FACU <u>50</u> LIPIDDEN PACU ALBA 10 AVERCUS Total Number of Dominant FAC (B) Species Across All Strata: TAED 30 PINUS 3. F AC STRV 12 LIQUIP Percent of Dominant Species 4 (A/B) That Are OBL, FACW, or FAC: 5 Prevalence Index worksheet: 10 = Total Cover Multiply by: Total % Cover of: 20% of total cover: 22 50% of total cover: 55 x1≕_ OBL species Sapling Stratum (Plot size: ___x2 ≍___ FACW species 6K 36 57 R LIQVID _x3=__ FAC species FACL 20 TULIP LIRIOPEN FACU species χ4 =____ FALL ALBA 20 QUERC x 5 = UPL species 3 F AC l FLORID (UR NUS (B) (A) Column Totals: 5 Prevalence Index = B/A =... Hydrophytic Vegetation Indicators: 82 _ = Total Cover 1 - Rapid Test for Hydrophytic Vegetation 50% of total cover: 42 20% of total cover: _ 2 - Dominance Test is >50% Shrub Stratum (Plot size: ___ 3 - Prevalence Index is ≤3.0¹ FACI ILEX OPACA 4 - Morphological Adaptations¹ (Provide supporting FAC 10 CORNUS FLORID data in Remarks or on a separate sheet) ALBA QUIRCUS Problematic Hydrophytic Vegetation¹ (Explain) 4 ¹Indicators of hydric soil and wetland hydrology must 5 be present, unless disturbed or problematic. 6 ?D Definitions of Five Vegetation Strata: = Total Cover 50% of total cover: 🤳 Tree – Woody plants, excluding woody vines, 20% of total cover: approximately 20 ft (6 m) or more in height and 3 in. Herb Stratum (Plot size: _ (7.6 cm) or larger in diameter at breast height (DBH). CORNUS FLOPID Sapling – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less POLYSTICHIUM ACROSTICH FIXIA ð €ACIA RUBUS PLLEGHEN than 3 in. (7.6 cm) DBH. Ś HEX OPACA Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 5 Herb -- All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody 7 plants, except woody vines, less than approximately 3 8. ft (1 m) in height. 9 Woody vine - All woody vines, regardless of height. 10. 11 13 = Total Cover 50% of total cover: U. 20% of total cover: 20 Woody Vine Stratum (Plot size: _ JAPONIC LONICERA 1. ROTUND CM ICAY 3 4 Hydrophytic = Total Cover Vegetation Present? Yes 50% of total cover: 12. 20% of total cover: Remarks: (Include photo numbers here or on a separate sheet.) LLEARCUT REDUCED PLOT SIZE TO AVOID ADJACENT

US Army Corps of Engineers

Eastern Mountains and Piedmont - Version 2.0

SOIL

## Sampling Point: WDIM020_1

Profile Description:	: (Describe to	the depth	needed to docur	nent the indicat	or or confirm	the absence of	indicators.)	
Depth	Matrix		Redo	x Features	$\frac{1}{1}$ $\ln^2$	Texture	Remarks	
(inches) Col	or (moist)	<u>~~</u>	Color (moist)	<u>701.ype</u>	<u> LUL _</u>			1
0-9 10	TIC 4/4	MD -		<u> </u>			<u> </u>	
9-18 16	YK SIE	<u>48</u> _		<u> </u>	<u> </u>		······	
	·	<u> </u>						
•		<u> </u>		······			. <u> </u>	
· · · · · · · · · · · · · · · · · · ·			-					
· · · · · · · · · · · · · · · · · · ·				_				
·······								
	<u></u> .			······································				
······			· · · · · · · · · · · ·	···				
				· ·		<u> </u>	<u></u>	
<u></u>				C. Maskad Cons		² l ocation: Pl =	Pore Lining, M=Matri	x.
¹ Type: C=Concentr	ration, D=Deple	etion, RM⇒R	educed Matrix, N	S=Masked Sand		Indicate	ors for Problematic	Hydric Soils ³ :
Hydric Soll Indicat	tors:		Dark Surfac	e (S7)		2 ci	m Muck (A10) (MLRA	. 147)
HIStOSOL (A I)	n (A2)		Polyvalue B	elow Surface (S	8) (MLRA 147	(, 148) Coa	ast Prairie Redox (A1	6)
Black Histic (A	3)		Thin Dark S	urface (S9) (ML	RA 147, 148)		MLRA 147, 148)	la (E10)
Hydrogen Sulfi	ide (A4)		Loamy Gley	red Matrix (F2)		Pie	amont Fiooapiain Su MI RA 136-147)	15 (* 19)
Stratified Layer	rs (A5)		Depleted M	atrix (F3) Surface (F6)		Ve	y Shallow Dark Surfa	ce (TF12)
2 cm Muck (A1	iu) (LRR N) w Dark Surface	· (A11)	Depleted D	ark Surface (F7)		Oth	ner (Explain in Remar	ks)
Thick Dark Su	rface (A12)		Redox Dep	ressions (F8)				
Sandy Mucky	Mineral (S1) (L	.RR N,	Iron-Manga	nese Masses (F	12) (LRR N,		•	
MLRA 147,	148)		MLRA 1	36) faca (F13) (ML R	A 136, 122)	³ indic	ators of hydrophytic v	regetation and
Sandy Gleyed	Matrix (S4)		Piedmont F	loodplain Soils (	F19) (MLRA 1	148) wetl	and hydrology must b	e present,
Stripped Matri	(33) (x (S6)		Red Parent	Material (F21) (	MLRA 127, 1	47) unle	ess disturbed or proble	ematic.
Restrictive Layer	(if observed):							
Type:								
Depth (inches):		- Contraction -				Hydric Soil I	Present? Yes	
Remarks:								
					<u> </u>			
	SBE	·	Form	n hur	51681	тсH		
	<i>ч</i> с с.		• -					
		ţ						
	·	i						
1								
								1

.



Upland data point wdim020_u facing North



Upland data point wdim020_u facing East



Upland data point wdim020_u soil sample

#### WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

...

pileant/Owner:       DOMINION ET.AL	DIE :	Sampling Date: 9/10,	12016
estigator(s):       S.GRONE_I_E_BUBB       Section, Township, Range:	A	_ Sampling Point: <u>WD/N</u>	nay
diom (hillslope, terrace, etc.):			
region (I.RR or MLRA):       LeR P       Lat:       37.087364       Long:       -77.9       Map Unit Name:	CONCA	VE Slope (%):	7
Map Unit Name:	54422	27 Datum: <u>W</u>	<u>s 84</u>
climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, ex       No (If no, ex         VegetationSoil or Hydrologynaturally problematic?       Are "Normal Circume"         VegetationSoil or Hydrologynaturally problematic?       (If needed, explain a         JMMARY OF FINDINGS - Attach site map showing sampling point locations, tra-       (If needed, explain a         ydrophytic Vegetation Present?       Yes No       Is the Sampled Area         ydrophytic Vegetation Present?       Yes No       Is the Sampled Area         ydrophytic Vegetation Present?       Yes No       Is the Sampled Area         ydrophytic Vegetation Present?       Yes No       Is the Sampled Area         ydrophytic Vegetation Present?       Yes No       Is the Sampled Area         ydrophytic Vegetation Present?       Yes       No	/I classifica	tion: _PFO	
Are "Normal Circums"         Vegetation       Soil       or Hydrology       significantly disturbed?       Are "Normal Circums"         Vegetation       Soil       or Hydrology       naturally problematic?       (If needed, explain a         JMMARY OF FINDINGS – Attach site map showing sampling point locations, tra- drophytic Vegetation Present?       Yes       No       is the Sampled Area within a Wetland?       y         etland Hydrology Present?       Yes       No       is the Sampled Area within a Wetland?       y         etland Hydrology Present?       Yes       No       within a Wetland?       y         etland Hydrology Present?       Yes       No       p       PACOLS , AND EXT         FROM       FO       FEM FREAL       FOOL AREAS       BENEATH FoRES , AND EXT         FROM       FO       FEM FREAL       FOOL AREAS       BENEATH FoRES , AND EXT         FROM       FO       FEM FREAL       FOOL AREAS       BENEATH FoRES , AND EXT         FROM       FO       FEM FREAL       FOOL AREAS       BENEATH FoRES , AND EXT         Surface Water (A1)       True Aquatic Plants (B14)       Sp         High Water Table (A2)       Hydrogen Sulfde Odor (C1)       Mat         Statration (A3)       Oxidifzed Rhizospheres on Living Roots (C3)       Mat	olain in Re	marks.)	
Vegetation       Soil       or Hydrology	stances" pr	esent? Yes 🗙 No	
JMMARY OF FINDINGS - Attach site map showing sampling point locations, train dependence of the sampled Area within a Wetland?       Is the Sampled Area within a Wetland?         ydrophytic Vegetation Present?       Yes       No       Is the Sampled Area within a Wetland?       Yes         etland Hydrology Present?       Yes       No       Is the Sampled Area within a Wetland?       Yes         emarks:       EPH EPH EPH EPH POOL AREAS BENEATH FORES?       SMALL DRAINAGES CONVECT POOLS , AND EXT FOOM PEO (PEM HEADUATER )       Photos 3119-3         DROLOGY       +       Photos 3119-3         Surface Water (A1)       True Aquatic Plants (B14)       Sp         Surface Water (A1)       - True Aquatic Plants (B14)       Sp         Surface Water (A1)       - Presence of Reduced Iron (C4)       Dr         Surface Water (A1)       - Presence of Reduced Iron (C4)       Dr         Surface Water (A3)       Coldidzed Rhizospheres on Living Roots (C3)       MM         Water Marks (B1)       - Presence of Reduced Iron (C4)       Dr         Section       - Present Iron Reduction in Titled Soils (C6)       C7         Surface Water Present?       Yes       No       Depth (Inches):         Inft Deposits (B3)       - Thin Muck Surface (C7)       Saturation Present?       Saturation Present?         Water-Stained Leaves (B9)       M <td>inv answers</td> <td>s in Remarks.)</td> <td></td>	inv answers	s in Remarks.)	
ydrophytic Vegetation Present?       Yes       No       Is the Sampled Area within a Wetland?       Y         ydric Soil Present?       Yes       No       Is the Sampled Area within a Wetland?       Y         emarks:       EPH EMERAL POOL AREAS BENEATH FORES?       SMALL DRAINAGES       CONNECT POOLS, AND EX7         FROM       PFO { PEM       HEADEWATER >>       PHO YOS       3119-3         // PROLOGY       +       PHO YOS       3119-3         // Present?       Yes       >>       Pho YOS       3119-3         // PROLOGY       +       +       Pho YOS       3119-3         // Present       // Present       >>       >>       Pho YOS       3119-3         // Propositic file       // Presente       >>       >>       >>       >>         // Storation (A3)       // Oxidized Rhizospheres on Living Roots (C3)       MM       >       >>       >>         // Saturation (A3)       // Oxidized Rhizospheres on Living Roots (C6)       C       C       >       C       >       >>         // Bale Mator Crust (B4)       // Presence of Reduced Iron (C4)       // Presence of Reduced Iron (C4)       Dr       >       S         // Iro Deposits (B3)       // Thin Muck Surface (C7)       .       S <t< td=""><td>ansects,</td><td>important features</td><td>s, etc.</td></t<>	ansects,	important features	s, etc.
Solid Present?       Yes       No       within a Wetland?       Y         Vetland Hydrology Present?       Yes       No       within a Wetland?       Y         Vetland Hydrology Present?       Yes       No       POOLS       AND EXT         SMALL DRAINAGES       COMMECT POOLS       AND EXT         FROM       FC/PEM       HEADUATER       PHOIDS       3119-3         YDROLOGY       +         Vetland Hydrology Indicators:       Second         Sturface Water (A1)       True Aquatic Plants (B14)       Sp         Sturface Water (A1)       True Aquatic Plants (B14)       Sp         Sturface Water (A1)       Presence of Reduced Iron (C4)       Dr         Saturation (A3)       Oxidized Rhizospheres on Living Roots (C3)       MM         Water Marks (B1)       Presence of Reduced Iron (C4)       Dr         Saturation (A3)       Child Ded Rizospheres on Living Roots (C3)       MM         Water Atake (B3)       Thin Muck Surface (C7)       SS         Iron Deposits (B3)       Thin Muck Surface (C7)       SS         Mater Staled Leaves (B9)       Mater Stale Leaves (B9)       MF         Aquatic Fauna (B13)       Fr       Field Observations:       Wetland Hydrolog         Saturation Present?			
Vestand Hydrology Present?       Yes       No         temarks:       EPHEMERAL POOL AREAS BENEATH FAREST         SMALL DRAINAGES       CONNECT POOLS, AND EXT         FROM       FO(PEM HEADUATER )         PHOTOS       3119-3         YDROLOGY       +         Vettand Hydrology Indicators:       Second         Sufface Water (A1)       True Aquatic Plants (B14)       Sp         High Water Table (A2)       Hydrogen Sulfide Odor (C1)       Soft         Saturation (A3)       Coxid2ed Rhizospheres on Living Roots (C3)       Mathematicates (B14)       Sp         Seturation (A3)       Coxid2ed Rhizospheres on Living Roots (C3)       Mathematicates (B14)       Sp         Saturation (A3)       Coxid2ed Rhizospheres on Living Roots (C3)       Mathematicates (B14)       Sp         Saturation Reduced Iron (C4)       Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Reduced Iron (C4)         Saturation Paposits (B3)       Thin Muck Surface (C7)       Saturation Reduced (B13)       St         Iron Deposits (B6)       Mathematicate (A2)       Mathematicate (A2)       St         Iron Deposits (B13)       No       Depth (Inches):       St         Iron Deposits (B3)       No       Depth (Inches):       St         Mater Table Present? </td <td>'es <u>X</u></td> <td>No</td> <td></td>	'es <u>X</u>	No	
emarks:       EPHEMERAL POOL AREAS BENEATH FOREST         SMALL DRAINAGES CONNECT POOLS, AND EXT         FROM OFO (PEM HEADUAR)ER S         PHOLOS 3119-3         //DROLOGY         **         Vetand Hydrology Indicators:         **         Surface Water (A1)         Surface Water (A1)         High Water Table (A2)         Water Marks (B1)         Water Marks (B1)         Presence of Reduced Iron (C4)         Sediment Deposits (B2)         Recent Iron Reduction in Tilled Solits (C6)         Other (Explain in Remarks)         Striface Users (B5)         Innudation Visible on Aerial Imagery (B7)         Water Stained Leaves (B9)         Aquatic Fauna (B13)         Tield Observations:         Sufface Water Present?         Yes_No       Depth (Inches):         Water Table Present?       Yes_No         Depth (Inches):       Ø         Water Table Present?       Yes_No         Saturation Present?       Yes_No         Startace Atter Present?       Yes_No         Depth (Inches):       Ø         Water Table Present?       Yes_No         Saturation Present?       Yes_No       Depth (Inches):			
YDROLOGY       +         Vetland Hydrology Indicators:       Second         Primary Indicators (innimum of one is required; check all that apply)	CANO ENDS	EAST (SOLL N.F.	S. 11/
Wetland Hydrology Indicators:       Second         Primary Indicators (minimum of one is required; check all that apply)	312	3 (5)	
Frimary Indicators (minimum of one is required; check all that apply)	dary Indicat	tors (minimum of two req	uired)
Surface Water (A1)	urface Soil (	Cracks (B6)	
High Water Table (A2)       Hydrogen Sulfide Odor (C1)       ✓ Dr         ✓ Saturation (A3)       ✓ Oxidized Rhizosphere's on Living Roots (C3)       Mater Marks (B1)       Presence of Reduced Iron (C4)       Dr         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Cr         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation (X3)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       St         Iron Deposits (B5)       ✓ Gr       St         Inundation Visible on Aerial Imagery (B7)       Mater-Stained Leaves (B9)       Mater-Stained Leaves (B9)         Aquatic Fauna (B13)       F/         Tield Observations:       No × Depth (inches):       Wetland Hydroloc         Saturation Present?       Yes No × Depth (inches):       Wetland Hydroloc         Includes capillary fringe)       Depth (inches):          Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Saturation Present?       SaturAter Supervisor S	barsely Veg	etated Concave Surface	(B8)
X       Saturation (A3)       X       Oxidized Rhizosphere's on Living Roots (C3)       Mathematical Mathem	ainage Pat	terns (B10)	/
Water Marks (B1)       Presence of Reduced Iron (C4)       Dr         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Cr         Drift Deposits (B3)       Thin Muck Surface (C7)       Sa         Algal Mat or Crust (B4)       Other (Explain in Remarks)       St         Iron Deposits (B5)       X Ga         Inundation Visible on Aerial Imagery (B7)       St         Water-Stained Leaves (B9)       Mit         Aquatic Fauna (B13)       F/         Tield Observations:       Mater Table Present?         Surface Water Present?       Yes         No       Depth (inches):         Saturation Present?       Yes         Yes       No         Saturation Present?       Yes         No       Depth (inches):         Observations:       Wetland Hydrolog         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:         Remarks:       SATURATED       SURFACE       RA INV EVENTS       O	oss Trim Liı	nes (B16)	
	y-Season \	Water Table (C2)	
Drift Deposits (B3) Thin Muck Surface (C7) Sa Algal Mat or Crust (B4) Other (Explain in Remarks) St Iron Deposits (B5) X Ga Inundation Visible on Aerial Imagery (B7) Sf Water-Stained Leaves (B9) Mo Aquatic Fauna (B13) Mo Aquatic Fauna (B13) Fr Field Observations: Surface Water Present? Yes No _X Depth (inches): Water Table Present? Yes No _X Depth (inches): Saturation Present? Yes No Depth (inches): Remarks: SATURATED TO SURFACE RAINN EVENTS O	ayfish Burr	ows (C8)	
	aturation Vi	sible on Aerial Imagery (	C9)
Iron Deposits (B5)      X Git         Inundation Visible on Aerial Imagery (B7)      Sit         Water-Stained Leaves (B9)      M         Aquatic Fauna (B13)	unted or St	ressed Plants (D1)	
	eomorphic	Position (D2)	
★ Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Wetland Hydroloc (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: SATURATED TO SURFACE RAIN EVENTS O	nallow Aqui	tard (D3)	
Aquatic Fauna (B13)F/ Field Observations: Surface Water Present? Yes No _X_ Depth (inches): Water Table Present? Yes No Depth (inches): Saturation Present? Yes _X No Depth (inches): Saturation Present? Yes _X No Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: SATURATED TO SURFACS RAIN EVENTS O	Icrotopogra	Ipnic Relier (D4)-	
Field Observations:       Surface Water Present?       Yes No _Y Depth (inches):         Mater Table Present?       Yes No _X Depth (inches):       Wetland Hydrold         Saturation Present?       Yes No Depth (inches):       Wetland Hydrold         Saturation Present?       Yes No Depth (inches):       Wetland Hydrold         Saturation Present?       Yes _X No Depth (inches):       Wetland Hydrold         Saturation Present?       Yes _X No Depth (inches):       Wetland Hydrold         Saturation Present?       Yes _X No Depth (inches):       Wetland Hydrold         Saturation Present?       Yes _X No Depth (inches):       Wetland Hydrold         Score capillary fringe)       Depth (inches):       Wetland Hydrold         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:         Remarks:       SATURATED TO SURFACE RAIN EVENTS O		Test (D5)	
Surface Water Present? Yes <u>No</u> <u>Y</u> Depth (inches): <u></u> Mater Table Present? Yes <u>No</u> <u>Depth (inches)</u> : <u></u> Saturation Present? Yes <u>X</u> No <u>Depth (inches)</u> : <u>O</u> Wetland Hydrolo (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: <u>SATURATED TO</u> SURFACE RAIN EVENTS O			
Water Table Present?       Yes No _X_ Depth (inches):       Wetland Hydrold         Saturation Present?       Yes X_ No Depth (inches): _O       Wetland Hydrold         (includes capillary fringe)       Depth (inches): _O       Wetland Hydrold         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:       Remarks:       SATURATED TO SURFACE RAIN EVENTS O			
Saturation Present? Yes X No Depth (inches): 0 Wetland Hydroid (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: SATURATED TO SURFACE RAIN EVENTS O	_	x X N	
Includes capillary ininge) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks: SATURATED TO SURFACE RAIN EVENTS O	ogy Preser	nt? Yes <u>/*</u> No_	
Remarks: SATURATED TO SURFACE RAIN EVENTS O			
Remarks: SATURATED TO SURFACE RAIN EVENTS O			
Remarks: SATURATED TO SURFACE RAINV EVENTS O	A.F. Q.	le ala	
	N = 1	10, 9/9	

a Sharburg (Distains) 16	Absolute	Dominant	Indicator	Dominance Test worksheet:
e <u>Stratum</u> (Plot size:)	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
PINUS THEDA	82	<u> </u>	<u>PPK</u>	That Are OBL, FACW, or FAC: (A)
ACER KUBRUM	<u>d</u> )	<u> </u>	- HA	Total Number of Dominant
LIQUIDAMBAR STYRACIFLUA	20	<u> </u>	FAC	Species Across All Strata:(B)
·				
				That Are OBL EACIAL or EAC: ,00
	70	= Total Cov	/er	Prevalence Index worksheet:
EO% of total asyon 35	200/ 04	total agrica	14	Total % Cover of:Multiply by:
Sling Stratum (Diot size: $10$	20% 0	lotal cover		OBL species x 1 =
CAPPINUS CAPOLIA/IANA	LIN	V	FAC	FACW species x 2 =
LIQUIDA ON PAR CANDAMELUA	20	$-\frac{k}{\sqrt{2}}$	EAC	FAC species x 3 =
CIQUIDINADIN STAKULTON	<u>ి)</u>	¥	+HC	FACU species x 4 =
				UPL species x 5 =
		. <u>.</u>		Column Totals: (A) (B)
		·		
			NY	Prevalence Index = B/A =
	65	= Total Cov	ver	Hydrophytic Vegetation Indicators:
50% of total cover: 325	- 20% of	total cover	19.5	1 - Rapid Test for Hydrophytic Vegetation
The stratum (Plot size $10^{-100}$			·`	2 - Dominance Test is >50%
LIQUIDAMBAR STNRACIFIUL	4	Ý	FAC	$3$ - Prevalence Index is $\leq 3.0^{1}$
ACSR RURPIM	2	·	FAr	4 - Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
		·		Problematic Hydrophytic Vegetation ¹ (Explain)
		·		¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
0 ~		= Total Co	ver	Definitions of Five Vegetation Strata:
50% of total cover: 5.5	20% o	f total cover	. 1.9.	
rb Stratum (Plot size: 5)				I ree – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in beight and 3 in
LEERSIA VIRGINIANA	3	Y	FACW	(7.6 cm) or larger in diameter at breast height (DBH).
RUERCUS PHELLOS	3	Y	FACW	Sapling Waadu planta avaluding waadu vinas
		ŀ		approximately 20 ft (6 m) or more in height and less
		• ••••••		than 3 in. (7.6 cm) DBH.
· · · · · · · · · · · · · · · · · · ·				Church Mandarahan analadian manduu inan
				Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
	•			
				Herb – All herbaceous (non-woody) plants, including
			· · · · · · · · · · · · · · · · · · ·	plants, except woody vines, less than approximately 3
			<u> </u>	ft (1 m) in height.
•				Woody vine All woody vines regardless of height
•				
	6	= Total Co	ver	SERIES OF ASPRECEMENT
50% of total cover 3	20%	f total covo	r.).8	
(Dot size)			·· <u> </u>	BENEATH PFO
COLLAN DATUNIAIENDA	3	X	FAC	CANOPY VERU
I DARTE A A LA ADA	-5-	- <u>/ / / / / / / / / / / / / / / / / / /</u>	CAC	INTER NET AL
LUMICICA JA PONUCA	ت	<u>`</u>	<u>rnc</u>	
	•••••••••••••••••••••			DEPRESSIONS
				Hydrophytic
	6	= Total Co	over d	Vegetation
50% of total cover:	20% (	of total cove	er: 1.0	Present? Yes No
				- 1

Eastern Mountains and Piedmont - Version 2.0





Wetland data point wdim021f_w facing North



Wetland data point wdim021f_w facing East



Wetland data point wdim021f_w soil sample

## WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

ACP		City/C	ounty NA 10	NWIDDIE	Samplin	g Date: 9/10/2014
	NION ET AL	City/Ci	ounty	State:	IA Samp	ling Point: WD/MOal.
pplicant/Owner:	P   E. RUR	R Section	n Townshin Rang	• • • • • • • • • • • • • • • • •	~ `	5
andform (hillslope, terrace, etc.	HILLSLOPE		ef (concave, conve)	(, none): <u>(ON</u>	CAVE	Slope (%): <u>&amp;O</u>
ubregion (LRR or MLRA):	LIKIC P Lat:	5710071*	Long:			NA
oil Map Unit Name:	·		×			
re climatic / hydrologic conditic	ons on the site typical for	r this time of year? Y	es <u>No</u> No	(If no, expla	In in Remarks.)	
re Vegetation, Soil	, or Hydrology		bed? Are "No	ormal Circumstal	ices present?	
re Vegetation, Soil	, or Hydrology	naturally problema	atic? (If need	led, explain any	answers in Rem	harks.)
SUMMARY OF FINDING	S – Attach site m	ap showing san	npling point loo	cations, tran	sects, impo	rtant features, etc.
Hydrophytic Vegetation Prese Hydric Soil Present? Wetland Hydrology Present?	nt? Yes X Yes Yes	No NoX NoX	Is the Sampled A within a Wetland	vrea ? Yes	No	<u>×</u>
Remarks:	OF APANE	1.nn/m 02	I Y AN	D DEPR	ESSIONS	
HILLSLO	PE ADOVE		ALAN			·
OPEN CA	NOPY PINI	E PLANT.	ri I (o			
IYDROLOGY						- f hus required)
Wetland Hydrology Indicato	ors:			Secondar	y Indicators (mil	nimum of two required)
Primary Indicators (minimum	of one is required; chec	k all that apply)		Surfa	ice Soil Cracks	(B6)
Surface Water (A1)		True Aquatic Plants	(B14)	Spar	sely Vegetated	Concave Surface (B8)
High Water Table (A2)	<u> </u>	Hydrogen Sulfide O	dor (C1)	Drair	age Patterns (E	310)
Saturation (A3)		Oxidized Rhizosphe	res on Living Roots	(C3) Moss	3 Trim Lines (B1	b)
Water Marks (B1)		Presence of Reduce	ed Iron (C4)	Dry-9	Season Water 1	
Sediment Deposits (B2)		Recent Iron Reduct	ion in Tilled Soils (C	:6) Cray	tish Burrows (C	o) Apriol Imagony (CQ)
Drift Deposits (B3)		_ Thin Muck Surface	(C7)	Satu	ration visible of	Dianta (D1)
Algal Mat or Crust (B4)		Other (Explain in Re	emarks)	Stun	ted or Stressed	Plants(D1)
Iron Deposits (B5)				Geol	morphic Positio	
Inundation Visible on Ae	rial Imagery (B7)			Shai	Iow Aquitaru (D	oliof (D4)
Water-Stained Leaves (	B9)				otopographic Re	
Aquatic Fauna (B13)				FAC		
Field Observations:	 V					
Surface Water Present?	Yes No	Depth (inches):				
Water Table Present?	Yes No	Depth (inches):				
Saturation Present?	Yes No 🟒	Depth (inches):	We	tland Hydrolog	y Present? Yo	es No <u>/ \</u>
(includes capillary fringe)		woll aerial photos	revious inspections	), if available:		
Describe Recorded Data (St	ream gauge, monitoring	wen, dena priotoor p				
1			1			
Remarks:						
						,
1						

1

•

Stratum (Plot size: 90)	Absolute % Cover	Dominant	Indicator Status	Dominance Test worksheet:
PINUS TREDUS	<u>40</u>		<b>F</b> AC	Number of Dominant Species       4         That Are OBL, FACW, or FAC:       4
			• 	Total Number of Dominant Species Across All Strata:6 (B)
				Percent of Dominant Species 67 (A/B)
	1/5			Prevalence Index worksheet:
	<u> </u>	= I otal Cov	er	Total % Cover of:Multiply by:
$\frac{50\%}{100}$ of total cover:	20% 01	total cover:		OBL species x 1 =
LIQUIDAMBAR STIRACIFUA	25	-7	FAC	FACW species X 2 =
				FAC species X 3 =
				UPL species x 5 =
			. <u> </u>	Column Totals: (A) (B)
•				Prevalence Index = B/A =
	25	= Total Cov	 ver	Hydrophytic Vegetation Indicators:
50% of total cover	20% 0	f total cover		1 - Rapid Test for Hydrophytic Vegetation
ub Stratum (Plot size: 15)				$\lambda$ 2 - Dominance Test is >50%
LIQUID STYRACIFLYA	25	<u> </u>	FAC	$\frac{1}{2}$ 3 - Prevalence Index is $\leq 3.0^{1}$
PRAXINUS PENNSYLVANICA	5		FACW	4 - Morphological Adaptations ¹ (Provide supportin data in Remarks or on a separate sheet)
CORNUS FLORIDA	_10_	_	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
		_		¹ Indicators of hydric soil and wetland hydrology must
	40	= Total Co	ver	Definitions of Five Vegetation Strata:
50% of total cover a	20%	- of total cove	r: 8	
rh Stratum (Plot size: $\mathcal{K}$ )	10,00			approximately 20 ft (6 m) or more in height and 3 in.
RUBUS ALLEGHENIENSIS		<u> </u>	FACU	(7.6 cm) or larger in diameter at breast height (DBH).
LIQUID STYRACIFLUA	<u> </u>	<u> </u>	FAC	Sapling – Woody plants, excluding woody vines,
QUEPCUS PHELLOS	2	<u> </u>	FACU	than 3 in. (7.6 cm) DBH.
	· · · · · · · · · · · · · · · · · · ·			Shrub – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
				<ul> <li>Herb – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody</li> <li>plants, except woody vines, less than approximately in the second second</li></ul>
)				Woody vine – All woody vines, regardless of height.
•		= Total C	over	-
EDD/ of total cover	); ) 20%	of total cove	er: , 8	
$r_{\rm sody}$ Vine Stratum (Plot size: $15$ )		e, tetai 600		-
NONE				_
				_
/				-
				-
/		= Total C		Hydrophytic
ENOV of total cover	20%		er:	Present? Yes X No
	2078	5, 10101 001	~	

.

$\sim$	×.	
"		
	O	OI

# Sampling Point: WD/MOQI-U

URL I	Matrix		Redr	x Feature	5						
ches) Co	Matrix		Color (moist)	%	Type ¹	Loc ²	Texture			Remarks	
$-17 -10^{\circ}$	VRSL	98 -					CILL	M			
11 10											
· · · · · · · · · · · · · · · · · · ·											
·											
	-										
· 		. <u></u> _									
					·						
		· · · · · · ·		-							
					d Cand Cr			· DI -Por	nini l a	M=Matrix	(
pe: C=Concent	tration, D=Dep	oletion, RM=	Reduced Matrix, N	15=Maske	u Sanu Gi	dii 15	In	dicators	for Prob	lematic F	lydric Soils ³ :
aric Soil Indica	ators:		Dark Surfac	(57)				2 cm M	luck (A1	0) (MLRA	- 147)
Histosol (A1)	n (A 7)			elow Surf:	ace (S8) (N	MLRA 147	148) —	Coast F	Prairie R	edox (A16	5)
Histic Epipeac	DN (AZ)		Thin Dark S	Surface (SS	) (MLRA ⁻	147, 148)		(MLI	RA 147,	148)	
Hydrogen Sul	fide (A4)		Loamy Glev	yed Matrix	(F2)			Piedmo	ont Flood	dplain Soil	s (F19)
Stratified Lave	ers (A5)		Depleted M	atrix (F3)				(MLI	RA 136,	147)	
2 cm Muck (A	10) (LRR N)		Redox Darl	c Surface	F6)		_	Very S	hallow D	Dark Surfac	ce (TF12)
Depleted Belo	ow Dark Surfac	ce (A11)	Depleted D	ark Surfac	e (F7)		-	Other (	Explain	In Remark	(5)
Thick Dark Su	urface (A12)		Redox Dep	ressions (	F8)						
Sandy Mucky	Mineral (S1) (	LRR N,			Ses (F12)						
MLRA 147	, 148) - Natrix (SA)			face (F13)	MIRA 1	36, 122)		³ Indicator	rs of hyd	Irophytic v	egetation and
Sandy Gleyed	(SE)		Piedmont F	Floodolain	Soils (F19	) (MLRA 14	18)	wetland	hydrolo	gy must be	e present,
_ Sanuy Redux	rix (S6)		Red Paren	t Material	(F21) (MLF	, . RA 127, 147	7)	unless o	disturbed	d or proble	matic.
strictive Lave	r (if observed	):									
											$\checkmark$
Type:		/					Hydric	Soil Pres	sent?	Yes	No
Type:	):										
Type: Depth (inches)	):										
Type: Depth (inches) emarks:	):										
Type: Depth (inches) emarks:		F F OS	em for	SKET	CH						
Type: Depth (inches) marks:	see ¥	E For	em for	SKET	СН	$\sim$	0			1	
Type: Depth (inches) marks:	see y	C For	EM FOR	SKET	CH	Q	.9	70	10'	1	
Type: Depth (inches) marks:	SEE	C FOR	EM FOR 5YR 5/	SKET 8 (	ch color	Q	.9	70	10'	1	
Type: Depth (inches) marks:	SEE	OF 5	rm for 5 YR 5/	SKET 8 (	ch color	Q	.9	70	10'	1	
Type: Depth (inches) marks:	SEE ¥	C FOR OF 5 109	= FM FOR 5 γR 5/ 0	SKET 8 (	ch color	Q	.9	70	10'	1 	·
Type: Depth (inches) marks:	SEE ¥	0F 5 107	= FM FOR 5 γR 5/ D	SKET 8 (	ch color	۵	.9	70	10'	1	
Type: Depth (inches) marks:	SEE ¥	0F 5 109	= FM FOR 5 YR 5/ 0	SKET 8 (	CH	æ	.9	70	10'	- <b>1</b>	
Type: Depth (inches) marks:	SEE ¥	- For of 5 102	= FOR 5 γR 5/ D	SKET 8 (	CH COLOR		.9	70	10'	· <b>/</b>	
Type: Depth (inches) marks:	SEE ¥	0F 5 107	rm for 5 γ <i>R 5/</i> 0	SKET 8 (	CH COLOR	Q	.9	70	10'	1 <b>1</b>	
Type: Depth (inches) marks:	SEE ¥	0F 5 109	rm for 5 γ <i>R 5</i> / 0	SKET 8 (	CH COLOR	Q	.9	70	10'		
Type: Depth (inches) marks:	SEE ¥	0F 5 109	= F γ R F 5/ D	SKET 8 (	CH COLOR	Q	.9	70	10'	· · · · · · · · · · · · · · · · · · ·	
Type: Depth (inches) marks:	SEE ¥	0F 5 109	= F γ R F F F / D	SKET 8 (	CH COLOR	Q	.9	70	10'	· <b>/</b>	
Type: Depth (inches) emarks:	SEE ¥	- For of 5 107	= FM FOR 5 YR 5/	SKET 8 (	CH COLOR		.9	70	10'	· <b>/</b>	
Type: Depth (inches) emarks: P	SEE ¥	0F 5 107	= FM FOR 5 YR 5/	SKET 8 (	CH		.9	70	10'	· <b>/</b>	
Type: Depth (inches) emarks:	SEE ¥	0F 5 107	EM FOR 5 YR 5/ D	SKET 8 (	CH		.9	70	10'		
Type: Depth (inches) marks:	SEE ¥	0F 5 109	rm for 5 γ <i>R 5</i> / D	SKET 8 (	CH COLOR		.9	70	10'		· · ·
Type: Depth (inches) marks: P	SEE ¥	0F 5 107	RM FOR 5 γR 5/ 0	SKET 8 (	CH COLOR		.9	70	10'		
Type: Depth (inches) marks:	SEE 2	C FOR OF 5 109	EM FOR 5 γ <i>R 5</i> / 0	SKET 8 (	CH COLOR		.9	70	10'	· /	
Type: Depth (inches) marks:	SEE 2	C FOR OF 5 109	= FM FOR 5 γ <i>R 5</i> /	SKET 8 (	CH COLOR		.9	70	10'	· <b>/</b>	
Type: Depth (inches) marks: \$	SEE ¥	C FOR OF 5 107	= FM FOR 5 YR 5/	SKET 8 (	CH COLOR		.9	70	10'	· <b>/</b>	· ·

_____



Upland data point wdim021_u facing North



Upland data point wdim021_u facing West



Upland data point wdim021_u soil sample
3f_w1
984
b

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

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

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>iils (C6) Crayfish Burrows (C8)</li> <li> Saturation Visible on Aerial Imagery (C9)</li> <li> Stunted or Stressed Plants (D1)</li> <li> Geomorphic Position (D2)</li> <li> Shallow Aquitard (D3)</li> <li> Microtopographic Relief (D4)</li> <li> FAC-Neutral Test (D5)</li> </ul>
Field Observations:         Surface Water Present?       Yes No Depth (inches):         Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Remarks: Wetland hydrology indicators present	

Sampling Point: wdic013f_w1

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30</u> )	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Pinus taeda	50	Yes	FAC	That Are OBL, FACW, or FAC: 5 (A)
2				
3		·	······································	Total Number of Dominant
3		·		Species Across All Strata: (B)
4		·	<u> </u>	Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 83.33333333 (A/B)
6				
7.				Prevalence Index worksheet:
	50	- Total Cova	-	Total % Cover of: Multiply by:
50% of total covery 25			10	OBL species $0   x   1 = 0$
50% of total cover: <u></u>	20% 0	total cover.		$E_{ACW}$ spacing $\frac{20}{x^2} = \frac{40}{x^2}$
Sapling/Shrub Stratum (Plot size: 10)				110   330
1. Liquidambar styraciflua	30	Yes	FAC	FAC species $x^3 = 60$
2. Ilex opaca	15	Yes	FACU	FACU species $x 4 = 00$
3				UPL species x 5 =0
		·	<u> </u>	Column Totals: $145$ (A) $430$ (B)
4		·		
5		·	·	Prevalence Index = B/A =2.96
		·		Hydrophytic Vegetation Indicators:
1		·		1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9		·		$\checkmark$ 2 Browelence Index is <2.0 ¹
	45	= Total Cove	r	
50% of total cover: 22.5	5 20% of	total cover:	9	4 - Morphological Adaptations' (Provide supporting
Horb Strotum (Plot cize: $5$ )		<u>-</u>		data in Remarks or on a separate sheet)
	20	Voo		Problematic Hydrophytic Vegetation ¹ (Explain)
		<u>res</u>		
2. Smilax rotundifolia	15	Yes	FAC	¹ Indiactors of hydric coil and watland hydrology must
_{3.} Panicum virgatum	15	Yes	FAC	be present unless disturbed or problematic
4				
		·		Definitions of Four Vegetation Strata:
		·		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		·	<u> </u>	more in diameter at breast height (DBH), regardless of
7		·		height.
8.				
9				Sapling/Shrub – Woody plants, excluding vines, less
3		·		than 3 ln. DBH and greater than or equal to 3.28 ft (1
10		·		ni) tan.
11		·		Herb – All herbaceous (non-woody) plants, regardless
	50	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 25	20% of	total cover:	10	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
,				neight.
··		·		
2		·		
3		·		
4.				the described in
5				Hydropnytic
···	0			Present? Yes V No
		= Total Cove	r O	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	cription: (Describe t	o the dep	oth needed to docur	nent the	indicator (	or confirm	the absence of	f indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-6	10 YR 4/2	95	10 YR 4/4	5	С	PL/M	SL	
6-18	5 Y 6/1	95	7.5 YR 5/8	5	С	PL/M	SL	
					·			
					·			
1				- <u></u>			2	
Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	Location: PL=	Pore Lining, M=Matrix.
Hydric Soli	Indicators:			(07)			Indicate	
Histosol	(A1)		Dark Surface	e (S7)			2 ci	m Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	elow Surfa	ace (S8) <b>(N</b>	ILRA 147,	148) <u> </u>	ast Prairie Redox (A16)
Black H	ISTIC (A3)			Intace (59	) <b>(MLRA</b> 1 (E2)	47, 148)	( Dia	MLRA 147, 148) dmont Electricita Soile (E10)
Hydroge Stratifio	d Lovers (A5)		Loany Gleye	triv (E2)	(FZ)		Pie	MI DA 136 147)
Stratilie			Podox Dark	uix (F3) Surfaco (E	56)			MERA 130, 147)
2 cm wit	d Bolow Dark Surface	(11)		Sunace (r	-0) (E7)			y Shallow Dark Surface (TFT2)
Depiete	ark Surface (A12)	(ATT)		n Sunace	= (F7) :0)		Ou	
Thick D	Air Suilace (A12) Aucky Minoral (S1) (L				$(E_{12})$			
Sandy is	Mucky Milleral (31) (∟ ∧ 1/7 1/8)	<b>ΛΛ Ν</b> ,	MI PA 13	6)	es (F12) <b>(</b> 1			
Sandy (	Gleved Matrix (S4)		Umbric Surfa	o, ace (F13)	(MLRA 13	6, 122)	³ Indic	ators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	8) wetla	and hydrology must be present,
Stripped	d Matrix (S6)		Red Parent M	Material (F		A 127, 147	) unles	ss disturbed or problematic.
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil P	resent? Yes 🥓 No
Remarks:							1	
Hydric soil ind	dicators present							



Photo 1 Wetland data point WDIC013f_w1 facing northwest



Photo 2 Wetland data point WDIC013f_w1 facing southeast

## WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: Atlantic Coast Pipeline	City/County: City/County:	Dinwiddie County	Sampling Date: ²	/5/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: W	/dic013f_w2
Investigator(s): Team C	Section, Town	ship, Range: <u>No PLSS in this</u>	area	
Landform (hillslope, terrace, etc.): Floodplain	Local relief (co	oncave, convex, none): <u>concav</u>	e Slope	e (%): <u>1</u>
Subregion (LRR or MLRA): P	Lat: <u>37.08180718</u>	Long: <u>-77.83900547</u>	Datu	um: WGS 1984
Soil Map Unit Name: Roanoke loam, 0 to 2 percent slopes	s, occasionally flooded	NWI class	sification: PFO1A, PS	S1/FO1Eb
Are climatic / hydrologic conditions on the site typical for th	nis time of year? Yes	No (If no, explain i	n Remarks.)	
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstance	s" present? Yes	No 🔽
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any ans	wers in Remarks.)	

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

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

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓       Surface Water (A1)	
Field Observations:	
Surface Water Present?       Yes       No       Depth (inches):       4         Water Table Present?       Yes       No       Depth (inches):       6         Saturation Present?       Yes       No       Depth (inches):       6         (includes capillary fringe)       No       Depth (inches):       6         Describe Recorded Data (stream gauge, monitoring well, aerial photos,       8         Remarks:       No       No       10	4

Sampling Point: <u>wdic013f_w2</u>

30	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. <u>Acer rubrum</u>	80	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2				Total Number of Dominant
3				Species Across All Strata:5 (B)
4.				
5				Percent of Dominant Species
6				That Are OBL, FACW, of FAC: (A/B)
0				Prevalence Index worksheet:
<i>1</i>				Total % Cover of: Multiply by:
8			·	$\frac{1}{15}$
	80	= Total Cov	er	$\frac{10}{10} \times 0 = \frac{20}{10}$
50% of total cover: 40	20% of	total cover:	16	FACW species $x 2 = \frac{-3}{360}$
Sapling/Shrub Stratum (Plot size: 15 )				FAC species $x^3 = 0$
1 llex opaca	10	Yes	FAC	FACU species $0 x 4 = 0$
2 Vaccinium corymbosum	10	Yes	FACW	UPL species $0 \times 5 = 0$
2				Column Totals: ¹⁴⁵ (A) ³⁹⁵ (B)
3				
4			·	Prevalence Index = B/A = 2.72
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				$\checkmark$ 2 - Dominance Test is >50%
8				
···	20	- Total Cav		3 - Prevalence Index is ≤3.0
<b>5</b> 00/ 51 + 10			4	Problematic Hydrophytic Vegetation' (Explain)
50% of total cover:	20% of	total cover:		
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Smilax rotundifolia	25	Yes	FAC	be present, unless disturbed or problematic.
2. Carex lupulina	15	Yes	OBL	Definitions of Four Vegetation Strata:
3 Acer rubrum	5	No	FAC	
4			·	<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
	······			height.
5	·			
6			<u> </u>	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
10				neight.
12	45			
00.5	40	= Total Cov	er	
50% of total cover:22.5	20% of	total cover:	9	
Woody Vine Stratum (Plot size: 30 )				
1.				
2				
2				
	. <u> </u>			
4				
5				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover: 0	20% of	total cover:	0	Present? Yes Yes No
Remarks: (If observed, list morphological adaptations belo	w)			1
	vv).			

SOIL

Profile Des	cription: (Describe t	o the dep	oth needed to docur	nent the ir	ndicator	or confirm	the absence	e of indicators.)
Depth	Matrix	0/	Redo	x Features	<b>-</b> 1	1 2	<b>-</b> ·	<b>D</b>
(inches)	Color (moist)		Color (moist)	%	lype [*]	Loc	lexture	Remarks
0-2	10YR 3/3	100					5L	
2-18	5Y 4/2	97	10YR 4/6	3	C	PL	С	
1								
						·		
	oncentration D=Denk	etion RM	=Reduced Matrix M	S=Masked	Sand Gr	aine	² Location	PI = Pore Lining M=Matrix
Hydric Soil	Indicators: (Applica	ble to all	I RRs. unless other	rwise note		airi5.	Indicators	s for Problematic Hydric Soils ³
			Daharaha Da		u.)	<b>DD 0 T 1</b> 1	Indicators	
Histoso	I (A1)		Polyvalue Be	elow Surfac	e (S8) (L	.RR S, I, U) 	) 1 cm	
Histic E	pipedon (A2)		Thin Dark Su	urface (S9)	(LRR S,	T, U)	2 cm	Muck (A10) (LRR S)
Black H	istic (A3)		Loamy Muck	y Mineral (	F1) <b>(LRR</b>	l O)	Reduc	ced Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F	-2)		Piedm	nont Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			Anom	alous Bright Loamy Soils (F20)
Organic	Bodies (A6) (LRR P,	T, U)	Redox Dark	Surface (F	6)		(ML	RA 153B)
5 cm M	ucky Mineral (A7) <b>(LR</b>	R P, T, U	) Depleted Da	rk Surface	(F7)		Red F	Parent Material (TF2)
Muck P	resence (A8) (LRR U)		Redox Depre	essions (F8	3)		Very S	Shallow Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) <b>(L</b>	.RR U)			Other	(Explain in Remarks)
Deplete	d Below Dark Surface	e (A11)	Depleted Oc	, hric (F11) <b>(</b>	MLRA 1	51)		· · · · · ·
Thick D	ark Surface (A12)	( )	Iron-Mangan	ese Masse	s (F12) <b>(</b>	. , LRR O. P. 1	<b>F)</b> ³ Indi	cators of hydrophytic vegetation and
Coast P	Prairie Redox (A16) <b>(M</b>	II RA 150	Δ) Umbric Surfa	се (F13) <b>/I</b>			., indi	tland hydrology must be present
Coast I	Mucky Minoral (S1)		n Onibric Ourie	/E17) <b>/MI</b> I	DA 151	, 0)	WC	loss disturbed or problematic
Sanuy n	VIUCKY WIITETAL (ST) (L	KK 0, 3j	Delta Ochilo	(F17) (IVILI 		04 4500)	un	less disturbed of problematic.
Sandy C				по (г то) <b>(г</b>		UA, 150B)		
Sandy H	Redox (S5)			podpiain Sc	DIIS (F19)	(MLRA 149	9A)	
Stripped	d Matrix (S6)		Anomalous E	Bright Loam	ny Solls (	F20) <b>(MLRA</b>	A 149A, 1530	C, 153D)
Dark Su	urface (S7) <b>(LRR P, S</b> ,	, T, U)					-	
Restrictive	Layer (if observed):							
Туре:								
Depth (in	iches):						Hydric Soi	I Present? Yes V No
Remarks:								



Photo 1 Wetland data point WDIC013f_w2 facing east



Photo 2 Wetland data point WDIC013f_w2 facing south

Project/Site: Atlantic Coast Pipeline	City/County: _	Dinwiddie County	_ Sampling Date: 2/5/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic013_u
Investigator(s): Team C	Section, Towr	nship, Range: <u>No PLSS in this are</u>	а
Landform (hillslope, terrace, etc.): Slight slope	Local relief (conc	ave, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P Lat: 2	37.07762598	Long: <u>-77.83623555</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percer	nt slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for	this time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

Wetland Hydrology Indicators	6:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one is required; chec	Surface Soil Cracks (B6)	
Surface Water (A1)	_	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	_	Drainage Patterns (B10)	
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3		Roots (C3) Moss Trim Lines (B16)	
Water Marks (B1)	_	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled So	bils (C6) Crayfish Burrows (C8)
Drift Deposits (B3)	_ Drift Deposits (B3) Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial	l Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No _	Depth (inches):	
Water Table Present?	Yes No 🔽	_ Depth (inches):	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Yes No	_ Depth (inches): _ Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream	Yes No _ V Yes No _ V m gauge, monitoring v	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream	Yes No Yes No m gauge, monitoring v	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks:	Yes No Yes No m gauge, monitoring v	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: No wetland hydrology indicators	Yes <u>No</u> <u>V</u> Yes <u>No</u> <u>V</u> m gauge, monitoring v present	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ✓
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: No wetland hydrology indicators	Yes No Yes No m gauge, monitoring v present	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No_ ✓
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: No wetland hydrology indicators	Yes No Yes No m gauge, monitoring v present	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No_ ✓
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: No wetland hydrology indicators	Yes No _	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No_ ✓
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: No wetland hydrology indicators	Yes No _	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ✔ tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: No wetland hydrology indicators	Yes No _	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ✔
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: No wetland hydrology indicators	Yes No _	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ✔ tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stream Remarks: No wetland hydrology indicators	Yes No _	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ✓ tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: No wetland hydrology indicators	Yes No _	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ✔ tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (strear Remarks: No wetland hydrology indicators	Yes No Yes No m gauge, monitoring v present	_ Depth (inches): _ Depth (inches): well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No✔ tions), if available:

Sampling Point: wdic013_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
_{1.} Pinus taeda	80	Yes	FAC	That Are OBL, FACW, or FAC: $3$ (A)
2				
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 60 (A/B)
6.				
7				Prevalence Index worksheet:
·	80			Total % Cover of: Multiply by:
500/ () / 10		= Total Cove	r 16	OBL species $0 \times 1 = 0$
50% of total cover:	20% of	total cover:	10	
Sapling/Shrub Stratum (Plot size:)				FACW species $115$ $x = 345$
1. Quercus rubra	15	Yes	FACU	FAC species $x_3 = \frac{343}{100}$
2. Liquidambar styraciflua	15	Yes	FAC	FACU species $25$ x 4 = $100$
2				UPL species $0 \times 5 = 0$
3				Column Totale: $140$ (A) $445$ (B)
4				
5				Prevalence Index - B/A - 3.17
6.				
7				Hydrophytic Vegetation Indicators:
·				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				$3 - \text{Prevalence Index is } \leq 30^{1}$
	30	= Total Cove	r	
50% of total cover: 15	20% of	total cover:	6	4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Plot size: $5$ )				data in Remarks or on a separate sheet)
	20	Voc	EAC	Problematic Hydrophytic Vegetation ¹ (Explain)
		<u>res</u>	FAC	
2. Ilex opaca	10	Yes	FACU	¹ Indiantors of hydric coll and watland hydrology must
3				be present unless disturbed or problematic
4				
				Definitions of Four vegetation Strata:
o				<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8.				
<u> </u>				<b>Sapling/Shrub</b> – Woody plants, excluding vines, less
				than 3 In. DBH and greater than or equal to 3.28 ft (1
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	30	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 15	20% of	total cover:	6	
Woody Vine Stratum (Plot size: 30)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
				neight.
1				
2				
3				
4				
				Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? res <u>No</u>
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Des	cription: (Describe t	the depth	needed to docur	nent the in	dicator o	or confirm	n the absence of indicators.)
Depth	Matrix		Redo	x Features			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks
0-12	10 YR 6/6	100					SL
12-18	10 YR 6/3	100					SL
	·						
	·						
¹ Type: C=C	Concentration, D=Depl	etion, RM=Re	educed Matrix, M	S=Masked	Sand Gra	iins.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soli Histoso Histic E Black H Hydrogu Stratifie 2 cm M Deplete Thick D Sandy I MLR	I (A1) pipedon (A2) listic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) (LRR N) ed Below Dark Surface Park Surface (A12) Mucky Mineral (S1) (L A 147, 148)	(A11) RR N,	Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre Iron-Mangan MLRA 13	e (S7) How Surface Inface (S9) Hed Matrix (F trix (F3) Surface (F6 rk Surface ( Passions (F8 ese Masse <b>6)</b>	e (S8) <b>(M</b> (MLRA 1 2) 5) (F7) ) s (F12) <b>(L</b>	LRA 147, 47, 148) -RR N,	<ul> <li>2 cm Muck (A10) (MLRA 147)</li> <li>2 coast Prairie Redox (A16) (MLRA 147, 148)</li> <li>Piedmont Floodplain Soils (F19) (MLRA 136, 147)</li> <li>Very Shallow Dark Surface (TF12)</li> <li>Other (Explain in Remarks)</li> </ul>
Sandy ( Sandy I Stripped	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Umbric Surfa Piedmont Flo	oce (F13) <b>(N</b> oodplain So Material (F2	<b>/ILRA 13</b> ils (F19) 1) <b>(MLR</b> /	6, 122) (MLRA 14) A 127, 147	<ul> <li>³Indicators of hydrophytic vegetation and wetland hydrology must be present,</li> <li>unless disturbed or problematic.</li> </ul>
Tunor							
Depth (in	nches):		_				Hydric Soil Present? Yes No
Remarks	,						
No hydric soi	il present						

No hydric soil present



Photo 1 Upland data point WDIC013_u facing west



Photo 2 Upland data point WDIC013_u facing southeast

Project/Site: Atlantic Coast Pipeline	City/County:	Dinwiddie County	_ Sampling Date: 2/4/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic011f_w
Investigator(s): Team C	Section, Tow	nship, Range: <u>No PLSS in this area</u>	a
Landform (hillslope, terrace, etc.): Depression	Local relief (cond	cave, convex, none): <u>concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): P Lat: 37.074	60976	Long:77.83360932	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slopes	s	NWI classifie	cation: None
Are climatic / hydrologic conditions on the site typical for this tin	ne of year? Yes 🖉	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology signi	ificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

_____

Wettand Hydrology malcate	irs:		Secondary Indicators (minimu	m of two required)
Primary Indicators (minimum	of one is required; che	eck all that apply)	Surface Soil Cracks (B6)	
<ul> <li>Surface Water (A1)</li> </ul>	_	Sparsely Vegetated Conc	ave Surface (B8)	
<ul> <li>High Water Table (A2)</li> </ul>	_	✓ Drainage Patterns (B10)		
<ul> <li>Saturation (A3)</li> </ul>	_	oots (C3) Moss Trim Lines (B16)		
Water Marks (B1)	_	Presence of Reduced Iron (C4)	Dry-Season Water Table	(C2)
Sediment Deposits (B2)	_	_ Recent Iron Reduction in Tilled So	s (C6) Crayfish Burrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (C7)	Saturation Visible on Aeria	al Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Remarks)	Stunted or Stressed Plant	s (D1)
Iron Deposits (B5)			Geomorphic Position (D2)	1
Inundation Visible on Aer	ial Imagery (B7)	Shallow Aquitard (D3)		
Water-Stained Leaves (B	9)	Microtopographic Relief (I	04)	
Aquatic Fauna (B13)			FAC-Neutral Test (D5)	
Field Observations:				
Surface Water Present?	Yes 🖌 No _	Depth (inches):1		
Water Table Present?	Yes 🖌 No _	Depth (inches):0		
Saturation Present? (includes capillary fringe)	Yes 🖌 No _	Depth (inches):0	Wetland Hydrology Present? Yes	<u>No</u>
Describe Recorded Data (stre	am gauge, monitoring	y well, aerial photos, previous inspec	ons), if available:	
Remarks:				
	present			

Sampling Point: wdic011f_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1. Liquidambar styraciflua	20	Yes	FAC	That Are OBL FACW or FAC: 7 (A)
<ul> <li>Platanus occidentalis</li> </ul>	10	Yes	FACW	
Z - Pinus taeda	10	Yes	FAC	Total Number of Dominant
3. 1 11/03 12/04				Species Across All Strata: (B)
4		. <u></u>		Dereent of Deminent Species
5.				That Are OBL EACW/ or EAC· $100$ (A/B)
6		· · · · · · · · · · · · · · · · · · ·		
-		·		Prevalence Index worksheet:
7	40	·		Total % Cover of Multiply by:
	40	= Total Cove	ſ	
50% of total cover: 20	20% of	total cover:	8	OBL species $15$ $x = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 =30$
Liquidambar styraciflua	50	Yes	FAC	FAC species $95 \times 3 = 285$
		·		EACU species 0 x 4 = 0
2		·		
3				UPL species $x 5 = \frac{315}{215}$
4				Column Totals: (A) (B)
E		·		
J		·		Prevalence Index = B/A = 2.86
6		·	<u> </u>	Hydrophytic Vegetation Indicators:
7		·		1 Papid Tast for Hydrophytic Vagetation
8.				
o		·		2 - Dominance Test is >50%
9	<u>_</u>	·		$\checkmark$ 3 - Prevalence Index is ≤3.0 ¹
	- 30	= Total Cove	10	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 25	20% of	total cover:	10	dete in Demerke er en e concrete chect)
Herb Stratum (Plot size: 5 )				
1 Smilax rotundifolia	10	Yes	FAC	Problematic Hydrophytic Vegetation' (Explain)
	5	Ves	FAC	
	·	<u> </u>		¹ Indicators of hydric soil and wetland hydrology must
3. Galium trifidum	5	Yes	FACW	be present, unless disturbed or problematic.
4.				Definitions of Four Vagatation Strata
5				Demittoris of Four Vegetation Strata.
<u>.                                    </u>	·	· · · · · · · · · · · · · · · · · · ·		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
6. <u> </u>	·	·	<u> </u>	more in diameter at breast height (DBH), regardless of
7		·		height.
8				
9				Sapling/Shrub – Woody plants, excluding vines, less
	·	· · · · · · · · · · · · · · · · · · ·		man 3 m. DBH and greater than or equal to 3.26 m (1
10	·	·	<u> </u>	
11				Herb – All herbaceous (non-woody) plants, regardless
	20	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 10	20% of	total cover:	4	
Woody Vine Stratum (Plot size: 30)				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
				neight.
1		·		
2				
3				
4				
		·		Hydrophytic
5		·		Vegetation
	0	= Total Cove	ſ	Present? Yes <u>No</u>
50% of total cover: <u>0</u>	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	cription: (Describe to	the dep	th needed to docum	nent the i	indicator	or confirm	the absence of indicators.)	
Depth	Matrix		Redox	k Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Re	marks
0-8	2.5Y 5/2	99	2.5Y 6/8	1	С	PL	CL	
8-18	5Y 6/1	93	2.5Y 6/8	7	С	PL/M	CL	
	· ·					·	·	
	·						·	
	·							
		tion DM		Maakaa			² Leastion: DL Dara Lining M	Motrix
Hydric Soil	Indicators		=Reduced Matrix, Mo	s=iviasked	a Sand Gra	ains.	Indicators for Problem	natic Hydric Soils ³
Histosol	(Δ1)		Dark Surface	(97)			2 cm Muck (A10) (	MI RA 147)
Histic E	ninedon (A2)			(07) Iow Surfa	co (S8) (N		1/8) Coast Prairie Redo	$\mathbf{x}$ (A16)
Black H	p(peddin(A2))		Thin Dark Su	rface (SQ	) (MI PA 1	1211, 147, 17 1/8)	(MI PA 147 148	
Black II	an Sulfide ( $\Delta A$ )			d Matrix (	( <b>INIEIXA I</b> (F2)	47, 140)	Piedmont Floodpla	1 in Soils (F19)
Tryutoge	d Lavers (A5)		✓ Depleted Mat	rix (F3)	(12)		(MI RA 136 147	
2 cm Mi	uck (A10) (I RR N)		Redox Dark S	Surface (F	-6)		Very Shallow Dark	/ Surface (TE12)
2 cm m	d Below Dark Surface	(A11)	Depleted Dark	k Surface	e (F7)		Other (Explain in R	emarks)
Thick D	ark Surface (A12)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Redox Depres	ssions (F	8)			omanoj
Sandy M	Mucky Mineral (S1) (I F		Iron-Mangane	ese Mass	es (F12) <b>(</b>	RR N		
<u> </u>	A 147, 148)	,	MLRA 136	500 Maco 5)	00 (1 12) (1	,		
Sandy (	Gleved Matrix (S4)		Umbric Surfac	ce (F13) (	(MLRA 13	6. 122)	³ Indicators of hydroph	vtic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	3) wetland hydrology m	just be present.
Stripped	d Matrix (S6)		Red Parent M	1aterial (F	21) <b>(MLR</b>	、 A 127, 147	) unless disturbed or p	problematic.
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Present? Yes	✓ No
Remarks:								
Hydric soil pr	esent							



Photo 1 Wetland data point WDIC011f_w facing northeast



Photo 2 Wetland data point WDIC011f_w facing southeast

Project/Site: Atlantic Coast Pipeline	City/County: Dinw	viddie County	Sampling Date: 2/4/2016
Applicant/Owner: DOMINION		State: VA	_ Sampling Point: <u>wdic011_u</u>
Investigator(s): Team C	Section, Township	o, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): Slight slope	Local relief (concave,	, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat	37.07442038	Long: <u>-77.83334486</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 perce	ent slopes	NWI classifica	ation: None
Are climatic / hydrologic conditions on the site typical for	or this time of year? Yes I	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answer	s in Remarks.)

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

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

Wetland Hydrology Indicato	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	of one is required; ch	Surface Soil Cracks (B6)	
Surface Water (A1) True Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)	
High Water Table (A2)	_	_ Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres on Living Roots (		Roots (C3) Moss Trim Lines (B16)	
Water Marks (B1)	_	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)		oils (C6) Crayfish Burrows (C8)	
Drift Deposits (B3)	_	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aeri	ial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B	9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No 🖌	Depth (inches):	
Sunace Water Flesent:			
Water Table Present?	Yes No _	Depth (inches):	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Yes No	Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No Yes No Yes No Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present?       Yes       No         ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>No</u> <u>Yes</u> <u>No</u> <u>Yes</u> <u>No</u> <u>Yes</u> <u>Yes</u> <u>No</u> <u>Yes</u>	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No</u> No <u>Yes</u> No <u>Yes</u> No <u>Yes</u> No <u>Yes</u>	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes <u>No</u> No Yes <u>No</u> No eam gauge, monitorin	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes No Yes No Yes No Yes Yes Yes No Yes Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes No Yes No Yes No Yes Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No

Sampling Point: wdic011_u

	Abaaluta	- Dominant li	adiaatar	Deminance Test worksheet
Trop Stratum (Plot size: 30)		Dominant II	Status	Dominance Test worksneet:
Liquidambar styraciflua	<u>30</u>	<u>Species:</u> Ves	FAC	Number of Dominant Species
		<u> </u>		That Are OBL, FACW, or FAC:4 (A)
2. Platanus occidentalis	20	Yes	FACW	Total Number of Dominant
_{3.} Pinus taeda	10	No	FAC	Species Across All Strata: 4 (B)
4				
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6.				· · · · · · · · · · · · · · · · · · ·
7				Prevalence Index worksheet:
1	60			Total % Cover of Multiply by:
		= Total Cove	r 10	
50% of total cover: 30	20% of	total cover:	12	OBL species $20$ $x_1 = 40$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $20$ x 2 = $40$
1				FAC species $90$ x 3 = $270$
l				EACH appendix 0   x 4 = 0
2				ACO species X 4 =
3.				UPL species $0 x 5 = 0$
1				Column Totals: 110 (A) 310 (B)
4				
5				Prevalence Index = $B/A = 2.81$
6.				
7				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				
	0	Tatal Cause		Yerror 3 - Prevalence Index is ≤3.0'
		= Total Cove	r O	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:	0	data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5)				
1 Panicum virgatum	30	Yes	FAC	Problematic Hydrophytic Vegetation' (Explain)
	20	Voc	EAC	
	20	163	170	¹ Indicators of hydric soil and wetland hydrology must
3				be present unless disturbed or problematic
4				
				Definitions of Four Vegetation Strata:
5				<b>Tree</b> Woody plants, evoluting vince, 2 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7				height
				noight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	50	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 25	20% of	total cover:	10	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
				height.
1				
2.				
2				
5				
4		·		Hydrophytic
5.				Vegetation
	0		r	Present? Yes No
			0	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	o the depth	needed to docun	nent the i	ndicator	or confirm	the absence of ind	cators.)	
Depth	Matrix		Redox	x Features	6				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remark	(S
0-8	2.5 Y 5/4	100					S		
8-18	2.5 Y 7/4	100					LS		
1							2		
Type: C=C	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	Location: PL=Pore	Lining, M=Matr	'İX.
Hydric Soli	indicators:			( <b>a</b> -1)			indicators f		
Histoso	I (A1)		Dark Surface	(S7)			2 cm Mi	ck (A10) <b>(MLR</b>	A 147)
	pipedon (A2)		Polyvalue Be	IOW Surrad	CE (58) (IV	LRA 147,	148) Coast P		6)
	istic (A3)			d Motrix (		47, 140)		A 147, 140)	ile (E10)
Hyuluye Stratifia	d Lavers (A5)		Loany Gleye	triv (E3)	FZ)			1 FIOOUPIAIN SO	lis (F19)
3tratilie			Depleted Mat	Surface (F	6)		Verv Sh	allow Dark Surf	ace (TE12)
Deplete	d Below Dark Surface	(A11)	Neoleted Dark	k Surface	(F7)		Other (F	xolain in Remai	rks)
Depicto Thick D	ark Surface (A12)	(,,,,)	Redox Depre	ssions (F8	3)				
Sandy N	Mucky Mineral (S1) (L	RR N.	Iron-Mangane	ese Masse	-, es (F12) <b>(I</b>	RR N.			
MLR	A 147, 148)	,		6)		,			
Sandy (	Gleyed Matrix (S4)		Umbric Surfa	, ce (F13) <b>(</b>	MLRA 13	6, 122)	³ Indicators	of hydrophytic v	vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) wetland h	ydrology must b	be present,
Stripped	d Matrix (S6)		Red Parent M	Aaterial (F	21) <b>(MLR</b>	A 127, 147	) unless di	turbed or proble	ematic.
Restrictive	Layer (if observed):								
Type:									
Depth (in	iches):		_				Hydric Soil Prese	nt? Yes	No 🖌
Remarks:							1		
No hydric soi	Inrecent								



Photo 1 Upland data point WDIC011_u facing south



Photo 2 Upland data point WDIC011_u facing east

Project/Site: Atlantic Coast Pipeline	_ City/County:	Dinwiddie County	Sampling Date: 2/4/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: <u>wdic012f_w</u>
Investigator(s):	_ Section, Tow	nship, Range: <u>No PLSS in this</u>	area
Landform (hillslope, terrace, etc.): Drainage	ocal relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>P</u> Lat: <u>37.07535532</u>		Long: <u>-77.83517477</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent slopes		NWI clas	ssification: None
Are climatic / hydrologic conditions on the site typical for this time of y	/ear?Yes 💇	No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	ly disturbed?	Are "Normal Circumstanc	es" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pl	roblematic?	(If needed, explain any ar	nswers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point locations, transe	ects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:			-		
Headwater of an intermittent stream (SDI	C015).				

Wetland Hydrology Indicato	rs:				Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	of one is require	d; check a	all that apply)		Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aeri</li> <li>Water-Stained Leaves (B</li> <li>Aquatic Fauna (B13)</li> </ul>	ial Imagery (B7) 9)	T H O P R T O	rue Aquatic Plants (B14) lydrogen Sulfide Odor (C1) Dxidized Rhizospheres on Living I resence of Reduced Iron (C4) lecent Iron Reduction in Tilled Sc hin Muck Surface (C7) Dther (Explain in Remarks)	Roots (C3) bils (C6)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:					
Surface Water Present?	Yes N	o 🖌 [	Depth (inches):		
Water Table Present?	Yes 🖌 N	o [	Depth (inches):		
Saturation Present? (includes capillary fringe)	Yes 🖌 N	o [	Depth (inches):0	Wetland H	lydrology Present? Yes 🖌 No
Describe Recorded Data (stre	am gauge, mon	itoring we	II, aerial photos, previous inspect	tions), if ava	ilable:
Remarks: Wetland hydrology indicators p	vresent				

Sampling Point: wdic012f_w

Troc Stratum (Plot size: 30)	Absolute	Dominant I	ndicator	Dominance Test worksheet:
1. Platanus occidentalis	40	Yes	FACW	Number of Dominant Species         That Are OBL, FACW, or FAC:         6         (A)
2. Acer rubrum	10	Yes	FAC	
3				Total Number of Dominant Species Across All Strata: 6 (B)
4				
5				Percent of Dominant Species
S				That Are OBL, FACW, or FAC: (A/B)
o				Prevalence Index worksheet:
/	50			Total % Cover of: Multiply by:
50% of total acuary 25	:	= Total Cove	r 10	OBL species $0$ $x = 0$
So% of total cover	20% 01	total cover.		FACW species $\frac{85}{x^2} = \frac{170}{x^2}$
Sapling/Shrub Stratum (Plot size:)	30	Ves	FACW	EAC species $50 \times 3 = 150$
1. Olinius americania	10	 		$\frac{1}{1} = \frac{1}{1} = \frac{1}$
2. Platanus occidentalis	10	res	FACW	$\begin{array}{c} \text{FACO species} \\ 0 \\ \text{HDL ensation} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
3				135 (1) $320$ (2)
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =2.37
6			<u> </u>	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is $\leq 3.0^{1}$
	40	= Total Cove	r	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 20	20% of	total cover:	8	data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5 )				Drahlamatia Understatia Vasatatian ¹ (Eurlain)
1. Smilax rotundifolia	20	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
2. Lonicera japonica	20	Yes	FAC	1
3. Onoclea sensibilis	5	No	FACW	Indicators of hydric soil and wetland hydrology must
4				De present, unless disturbed of problematic.
5				Definitions of Four vegetation Strata:
6	·			Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7:				neight.
o				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				ni) tan.
11	45			Herb - All herbaceous (non-woody) plants, regardless
22.5	40	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>22.3</u>	20% of	total cover:	9	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0 .	= Total Cove	r	Present? Yes 🖌 No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			I
	,			

Profile Desc	cription: (Describe to	the dep	oth needed to docun	nent the i	ndicator of	or confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-10	2.5 Y 5/2	97	10 YR 4/6	3	С	PL	SL	
10-18	2.5 Y 5/2	93	7.5 YR 4/6	7	С	PL/M	SL	
·								
		tion DM	Deduced Metrix MC	Maakaa			² Lagation: DL Data Lining M Matrix	
	Indicators:		=Reduced Matrix, Ma	s=iviasked	a Sand Gra	ains.	Indicators for Problematic Hydric Soils ³	3.
Histosol	(A1)		Dark Surface	(97)			2 cm Muck (A10) (MI BA 147)	•
Histic Fr	ninedon (A2)		Polyvalue Be	(07) Iow Surfa	ce (S8) <b>(M</b>	II RA 147	148) Coast Prairie Redox (A16)	
Black Hi	istic (A3)		Thin Dark Su	rface (S9)	) (MLRA 1	47. 148)	(MLRA 147, 148)	
Hvdroge	en Sulfide (A4)		Loamv Gleve	d Matrix (	(	,,	Piedmont Floodplain Soils (F19)	
Stratified	d Layers (A5)		<ul> <li>Depleted Mat</li> </ul>	rix (F3)	, ,		(MLRA 136, 147)	
2 cm Mu	uck (A10) (LRR N)		Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF12)	
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)			
Sandy N	/lucky Mineral (S1) <b>(Lf</b>	RR N,	Iron-Mangane	ese Mass	es (F12) <b>(I</b>	LRR N,		
MLRA	A 147, 148)		MLRA 13	6)				
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (	(MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and	Ł
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<b>18)</b> wetland hydrology must be present,	
Stripped	I Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLR</b>	A 127, 147	7) unless disturbed or problematic.	
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Present? Yes No	
Remarks:							•	
Hydric soil pre	esent							



Photo 1 Wetland data point WDIC012f_w facing south



Photo 2 Wetland data point WDIC012f_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Di	nwiddie County	Sampling Date: 2/4/2016	
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic012s_w	
Investigator(s): Team C	Section, Towns	hip, Range: No PLSS in this are	a	
Landform (hillslope, terrace, etc.): Drainage	Local relief (conca	ve, convex, none): <u>concave</u>	Slope (%): <u>2</u>	
Subregion (LRR or MLRA): P Lat: 37.	07567037	Long: <u>-77.83527117</u>	Datum: WGS 1984	
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent s	slopes	NWI classif	ication: None	
Are climatic / hydrologic conditions on the site typical for thi	s time of year? Yes	_ No (If no, explain in I	Remarks.)	
Are Vegetation, Soil, or Hydrologys	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No	
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)	
SUMMARY OF EINDINGS Attach site man	showing sampling n	oint locations transact	s important foatures atc	

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	V V V	No No No	Is the Sampled Area within a Wetland?	Yes	/	No
Remarks: Headwater of an intermittent stream (SD	IC015).						

Wetland Hydrology Indicate	ors:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; cheo		Surface Soil Cracks (B6)	
✓ Surface Water (A1)			Sparsely Vegetated Concave Surface (B8)	
✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)				Drainage Patterns (B10)
Saturation (A3)		Oxidized Rhizospheres on Living	Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Sc	oils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)		_ Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)				Geomorphic Position (D2)
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B	9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🖌 No	_ Depth (inches):2		
Water Table Present?	Yes 🖌 No	_ Depth (inches):0		
Saturation Present? (includes capillary fringe)	Yes 🖌 No	_ Depth (inches):0	Wetland H	lydrology Present? Yes 🖌 No
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, previous inspec	tions), if ava	ilable:
Remarks:				
Wetland hydrology indicators	present			

Sampling Point: wdic012s_w

, , , , , , , , , , , , , , , , , , ,	Abaaluta	• Deminent la	diantan	Deminence Test worksheet
Trop Stratum (Plot size: 30)	Absolute	Dominant Ir	Stotus	Dominance Test worksneet:
		Species:	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 7 (B)
4			<u> </u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 57.14285714 (A/B)
6.				
7				Prevalence Index worksheet:
	0			Total % Cover of: Multiply by:
		= Total Cover		$\frac{1}{0}$ OPL approximate $\frac{1}{0}$ $\frac{1}{1}$ $\frac{1}{0}$
50% of total cover: 0	20% of	total cover:	0	OBL species         X =           35         70
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 = 70$
1 Rubus argutus	25	Yes	FACU	FAC species $\frac{75}{x 3} = \frac{225}{x 3}$
- Liquidambar styraciflua	15	Ves	FAC	FACU species 55 x 4 - 220
	- 10	103	TA0	
3. Lonicera morrowii	10	Yes	FACU	UPL species $x_{5} = -$
4				Column Totals: (A) (B)
5				
J				Prevalence Index = B/A =3.12
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9				3 - Prevalence Index is $\leq 3.0^{1}$
	50	= Total Cover		A Marphalagical Adaptations ¹ (Dravida supporting
50% of total cover: 25	20% of	total cover:	10	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Papieum vireatum	40	Vee		Problematic Hydrophytic Vegetation ¹ (Explain)
	40	res	FAC	
2. Lonicera japonica	20	Yes	FAC	1
Juncus effusus	20	Yes	FACW	Indicators of hydric soil and wetland hydrology must
Andropogon virginicus	20	Ves	FACU	be present, unless disturbed or problematic.
	20	163	1700	Definitions of Four Vegetation Strata:
5. Onoclea sensibilis	15	No	FACW	
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7				neight.
8				Sanling/Shrub Woody plants evoluting vines loss
9.				than 3 in DBH and greater than or equal to 3 28 ft (1
10				m) tall
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	115	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 57.5	20% of	total cover:	23	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
<u>.                                    </u>				
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes V No
50% of total cover: 0	20% of	total cover:	0	
	20 /0 01			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	o the dep	oth needed to docu	nent the i	indicator of	or confirm	the absence	of indicators.)
Depth	Matrix Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	2.5 Y 5/2	97	10 YR 4/6	3	С	PL	SL	
10-18	2.5 Y 5/2	93	7.5 YR 4/6	7	С	PL/M	SL	
'Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	S=Masked	d Sand Gra	ains.	Location: P	L=Pore Lining, M=Matrix.
Hydric Soli	Indicators:			( <b>-</b> -)			Indic	ators for Problematic Hydric Solis :
Histoso	(A1)		Dark Surface	e (S7)	(0.0) (1)		2	cm Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	elow Surfa	.ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
Black H	ISTIC (A3)			Intace (59)	) (IVILKA 1	47, 148)	-	(MLRA 147, 148)
	d Lovera (AE)		Loarny Greye	eu Mainx (	(FZ)		P	
			Depleted Ma     Redox Dark	Surface (F	6)		V	(MILKA 130, 147)
2 cm wi	d Below Dark Surface	(A11)	Depleted Da	rk Surface (i	0) (F7)		v	ther (Explain in Remarks)
Thick D	ark Surface (A12)	(/(11)	Redox Depre	essions (F	8)			
Sandy M	Aucky Mineral (S1) (L	RR N.	Iron-Mangan	ese Mass	es (F12) <b>(</b>	RR N.		
MLR	A 147. 148)	,	MLRA 13	6)	/ (	,		
Sandy (	Gleved Matrix (S4)		Umbric Surfa	ace (F13) (	(MLRA 13	6, 122)	³ Ind	licators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	, ioils (F19)	(MLRA 14	<b>8)</b> we	etland hydrology must be present,
Stripped	d Matrix (S6)		Red Parent I	Material (F	21) <b>(MLR</b>	A 127, 147	′) un	less disturbed or problematic.
Restrictive	Layer (if observed):						-	
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes 🖌 No
Remarks:	/ -						.,	
Hydric soil or	esent							
n iyuno son pr	coont							



Photo 1 Wetland data point WDIC012s_w facing northwest



Photo 2 Wetland data point WDIC012s_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: [	Dinwiddie County	_ Sampling Date: 2/4/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic012_u
Investigator(s):	Section, Towr	nship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): Slight slope	Local relief (conc	ave, convex, none): none	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P	Lat: <u>37.0755969</u>	Long: <u>-77.83500394</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 p	ercent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes	, No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

Wetland Hydrology Indicato	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	_	_ True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	_	_ Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	_	Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	_	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	_	oils (C6) Crayfish Burrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aeri	ial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B	9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No 🖌	Depth (inches):	
Sunace Water Flesent:			
Water Table Present?	Yes No _	Depth (inches):	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Yes No	Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No Yes No Yes No Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>No</u> <u>Yes</u> <u>No</u> <u>Yes</u> <u>No</u> <u>Yes</u> <u>Yes</u> <u>No</u> <u>Yes</u>	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No</u> No <u>Yes</u> No <u>Yes</u> No <u>Yes</u> No <u>Yes</u>	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes <u>No</u> No Yes <u>No</u> No eam gauge, monitorin	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes No Yes No Yes No Yes Yes Yes No Yes Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes No Yes No Yes No Yes Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No tions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No

Sampling Point: wdic012_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminent Species
Pinus taeda	40	Yes	FAC	That Are OBL EACW/ or EAC: $4$ (A)
I Platanus occidentalis	40	Yes	FACW	
2. <u>Flatanus occidentalis</u>		103	TAON	Total Number of Dominant
3.				Species Across All Strata: 5 (B)
4		· <u> </u>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 80 (A/B)
6				(***)
_				Prevalence Index worksheet:
7				Total % Cover of Multiply by
	80	= Total Cove	r	
50% of total cover:	40 20% of	total cover:	16	OBL species x 1 =
Carling (Christ Christian (Dist since 15 )				FACW species $45$ x 2 = $90$
Sapling/Snrub Stratum (Plot size:)	4 -		540	<u>55</u> <u>165</u>
1. Liquidambar styraciflua	15	Yes	FAC	FAC species $x^3 = \frac{100}{20}$
2 Platanus occidentalis	5	Yes	FACW	FACU species $5 \times 4 = 20$
Luniperus virginiana	5	Ves	FACU	IIPI species 0 x 5 - 0
3		163	1700	105 x 5 =
4.				Column Totals: (A) (B)
5				
0				Prevalence Index = B/A = 2.61
6				Hydronhytic Vegetation Indicators:
7.				
				1 - Rapid Test for Hydrophytic Vegetation
8				<ul> <li>2 - Dominance Test is &gt;50%</li> </ul>
9				$\mathbf{I}$ 2. Prevelence la devie <2.0 ¹
	25	- Total Cove	r	
	12 5 000 0		5	4 - Morphological Adaptations ¹ (Provide supporting
	12.0 20% of	total cover:		data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5)				
1				Problematic Hydrophytic Vegetation' (Explain)
2				¹ Indiantara of hydria pail and watland hydrology must
3.				he present unless disturbed or problematic
4				be present, unless disturbed of problematic.
4				Definitions of Four Vegetation Strata:
5				
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
0			·	more in diameter at breast height (DBH), regardless of
7				height.
8.				
0				Sapling/Shrub – Woody plants, excluding vines, less
9		·	<u> </u>	than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	0		·	<b>Herb</b> – All herbaceous (non-woody) plants, regardless
	· · · · · · · · ·	= Total Cove	r	or size, and woody plants less than 3.28 ft tall.
50% of total cover:	0 20% of	total cover:	0	Woody vine All woody vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30)				boight
,				
1		<u> </u>		
2				
3				
4		·		Hydrophytic
5.				Vegetation
	0	Tatal Cava		Present? Yes V No
		= Total Cove	0	
50% of total cover:	<u> </u>	total cover:	0	
Remarks: (Include photo numbers here or on a separa	te sheet.)			
	,			
1				

Profile Des	cription: (Describe t	o the depth	needed to docur	nent the ind	licator o	or confirm	the absence of indic	ators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remark	S
0-12	2.5 Y 5/6	100					SL		
12-18	2.5 Y 6/8	100					SL		
17 0.0									
Type: C=C	oncentration, D=Depi	etion, RM=R	Reduced Matrix, Ma	S=IMasked S	and Gra	ins.	Location: PL=Pore L	Ining, M=Matr	IX. Hydria Saila ³ :
Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D Sandy I MLR	andreators. pi (A1) pipedon (A2) listic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) <b>(LRR N)</b> ed Below Dark Surface park Surface (A12) Mucky Mineral (S1) <b>(L</b> <b>A 147, 148)</b>	(A11) R <b>R N,</b>	<ul> <li>Dark Surface</li> <li>Polyvalue Be</li> <li>Thin Dark Su</li> <li>Loamy Gleye</li> <li>Depleted Ma</li> <li>Redox Dark 3</li> <li>Depleted Dark</li> <li>Redox Depres</li> <li>Iron-Mangan</li> <li>MLRA 13</li> </ul>	(S7) low Surface rface (S9) <b>(I</b> ed Matrix (F2 trix (F3) Surface (F6) ck Surface (F6) essions (F8) ese Masses <b>6)</b>	(S8) <b>(M</b> MLRA 14 ) 77) (F12) <b>(L</b>	LRA 147, 47, 148) .RR N,	2 cm Muc     2 cm Muc     Coast Pra     (MLRA     Piedmont     (MLRA     Very Shal     Other (Exp	(A10) <b>(MLRA</b> rie Redox (A1 <b>147, 148)</b> Floodplain So <b>136, 147)</b> ow Dark Surfa olain in Remar	A <b>147)</b> 6) ils (F19) ace (TF12) ks)
Sandy Sandy Strippe	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Umbric Surfa Piedmont Flo Red Parent M	ce (F13) <b>(M</b> odplain Soil /aterial (F21	L <b>RA 136</b> s (F19) ( ) <b>(MLR</b> A	6, 122) (MLRA 14 A 127, 147	³ Indicators o <b>B)</b> wetland hyd ) unless distu	ⁱ hydrophytic v Irology must b Irbed or proble	vegetation and be present, ematic.
Restrictive	Layer (if observed):								
Type:									
Depth (ir	nches):						Hydric Soil Present	? Yes	No
Remarks:									
No hydric so	il present								

No hydric soil present



Photo 1 Upland data point WDIC012_u facing west



Photo 2 Upland data point WDIC012_u facing northeast

Project/Site: Atlantic Coast Pipeline	_ City/County:	Dinwiddie County	Sampling Date: 2/4/2016	
Applicant/Owner: DOMINION		State: VA	Sampling Point: <u>wdic012f_w</u>	
Investigator(s):	_ Section, Tow	nship, Range: <u>No PLSS in this</u>	area	
Landform (hillslope, terrace, etc.): Drainage	ocal relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>2</u>	
Subregion (LRR or MLRA): <u>P</u> Lat: <u>37.07535532</u>		Long: <u>-77.83517477</u>	Datum: WGS 1984	
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent slopes		NWI clas	ssification: None	
Are climatic / hydrologic conditions on the site typical for this time of y	/ear?Yes 💇	No (If no, explain	in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	ly disturbed?	Are "Normal Circumstanc	es" present? Yes 🖌 No	
Are Vegetation, Soil, or Hydrology naturally pl	roblematic?	(If needed, explain any ar	nswers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point locations, transe	ects, important features, etc.	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks:					
Headwater of an intermittent stream (SDI	C015).				

Wetland Hydrology Indicato	rs:				Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	of one is require	ed; chec	k all that apply)		Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aeri</li> <li>Water-Stained Leaves (B</li> <li>Aquatic Fauna (B13)</li> </ul>	ial Imagery (B7 9)	)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Other (Explain in Remarks)	Roots (C3) bils (C6)	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:					
Surface Water Present?	YesN	lo 🖌	Depth (inches):		
Water Table Present?	Yes 🖌 N	lo	Depth (inches):0		
Saturation Present? (includes capillary fringe)	Yes 🖌 N	lo	Depth (inches):0	Wetland H	lydrology Present? Yes 🖌 No
Describe Recorded Data (stre	am gauge, mor	nitoring	well, aerial photos, previous inspec	tions), if ava	ilable:
Remarks: Wetland hydrology indicators p	resent				

Sampling Point: wdic012f_w

Troc Stratum (Plot size: 30)	Absolute	Dominant I	ndicator	Dominance Test worksheet:
1. Platanus occidentalis	40	Yes	FACW	Number of Dominant Species         That Are OBL, FACW, or FAC:         6         (A)
2. Acer rubrum	10	Yes	FAC	
3				Total Number of Dominant Species Across All Strata: 6 (B)
4				
5				Percent of Dominant Species
S				That Are OBL, FACW, or FAC: (A/B)
o				Prevalence Index worksheet:
/	50			Total % Cover of: Multiply by:
50% of total acuary 25	:	= Total Cove	r 10	OBL species $0$ $x = 0$
So% of total cover	20% 01	total cover.		FACW species $\frac{85}{x^2} = \frac{170}{x^2}$
Sapling/Shrub Stratum (Plot size:)	30	Ves	FACW	EAC species $50 \times 3 = 150$
1. Olinius americana	10	 		$\frac{1}{1} = \frac{1}{1} = \frac{1}$
2. Platanus occidentalis	10	res	FACW	$\begin{array}{c} \text{FACO species} \\ 0 \\ \text{HDL ensation} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
3				135 (1) $320$ (2)
4				Column Totals: (A) (B)
5				Prevalence Index = B/A =2.37
6			<u> </u>	Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is $\leq 3.0^{1}$
	40	= Total Cove	r	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 20	20% of	total cover:	8	data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5 )				Drahlamatia Understatia Vasatatian ¹ (Eurlain)
1. Smilax rotundifolia	20	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
2. Lonicera japonica	20	Yes	FAC	1
3. Onoclea sensibilis	5	No	FACW	Indicators of hydric soil and wetland hydrology must
4				De present, unless disturbed of problematic.
5				Definitions of Four vegetation Strata:
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7:				neight.
o				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				ni) tan.
11	45			Herb - All herbaceous (non-woody) plants, regardless
22.5	40	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>22.3</u>	20% of	total cover:	9	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0 .	= Total Cove	r	Present? Yes 🖌 No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

Profile Desc	cription: (Describe to	the dep	oth needed to docun	nent the i	indicator of	or confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-10	2.5 Y 5/2	97	10 YR 4/6	3	С	PL	SL	
10-18	2.5 Y 5/2	93	7.5 YR 4/6	7	С	PL/M	SL	
·								
						<u> </u>		
		tion DM	Deduced Metrix MC	Maakaa			² Lagation: DL Data Lining M Matrix	
	Indicators:		=Reduced Matrix, Ma	s=iviasked	a Sand Gra	ains.	Indicators for Problematic Hydric Soils ³	3.
Histosol	(A1)		Dark Surface	(97)			2 cm Muck (A10) (MI BA 147)	•
Histic Fr	ninedon (A2)		Polyvalue Be	(07) Iow Surfa	ce (S8) <b>(M</b>	II RA 147	148) Coast Prairie Redox (A16)	
Black Hi	istic (A3)		Thin Dark Su	rface (S9)	) (MLRA 1	47. 148)	(MLRA 147, 148)	
Hvdroge	en Sulfide (A4)		Loamv Gleve	d Matrix (	(F2)	,,	Piedmont Floodplain Soils (F19)	
Stratified	d Layers (A5)		<ul> <li>Depleted Mat</li> </ul>	rix (F3)			(MLRA 136, 147)	
2 cm Mu	uck (A10) (LRR N)		Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF12)	
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)			
Sandy N	/lucky Mineral (S1) <b>(Lf</b>	RR N,	Iron-Mangane	ese Mass	es (F12) <b>(I</b>	LRR N,		
MLRA	A 147, 148)		MLRA 13	6)				
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (	(MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and	Ł
Sandy F	Redox (S5)		Piedmont Flo	odplain S	ioils (F19)	(MLRA 14	<b>18)</b> wetland hydrology must be present,	
Stripped	I Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLR</b>	A 127, 147	7) unless disturbed or problematic.	
Restrictive	Layer (if observed):							
Туре:								
Depth (in	ches):						Hydric Soil Present? Yes No	
Remarks:							•	
Hydric soil pre	esent							



Photo 1 Wetland data point WDIC012f_w facing south



Photo 2 Wetland data point WDIC012f_w facing west
Project/Site: Atlantic Coast Pipeline	City/County: Di	nwiddie County	Sampling Date: 2/4/2016		
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic012s_w		
Investigator(s): Team C	Section, Towns	hip, Range: No PLSS in this are	a		
Landform (hillslope, terrace, etc.): Drainage	Local relief (conca	ve, convex, none): <u>concave</u>	Slope (%): <u>2</u>		
Subregion (LRR or MLRA): P Lat: 37.	07567037	Long: <u>-77.83527117</u>	Datum: WGS 1984		
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent s	slopes	NWI classif	ication: None		
Are climatic / hydrologic conditions on the site typical for thi	s time of year? Yes	_ No (If no, explain in I	Remarks.)		
Are Vegetation, Soil, or Hydrologys	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No		
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)		
SUMMARY OF EINDINGS Attach site man	showing sampling n	oint locations transact	s important foatures atc		

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ Yes _ Yes _	V V V	No No No	Is the Sampled Area within a Wetland?	Yes	/	No
Remarks: Headwater of an intermittent stream (SD	IC015).						

Wetland Hydrology Indicate	ors:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one is required; cheo	ck all that apply)		Surface Soil Cracks (B6)
✓ Surface Water (A1)			Sparsely Vegetated Concave Surface (B8)	
High Water Table (A2) Hydrogen Sulfide Odor (C1)				Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizospheres on Living Roots			Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Sc	oils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)		_ Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)				Geomorphic Position (D2)
Inundation Visible on Aer	ial Imagery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B	9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present?	Yes 🖌 No	_ Depth (inches):2		
Water Table Present?	Yes 🖌 No	_ Depth (inches):0		
Saturation Present? (includes capillary fringe)	Yes 🖌 No	_ Depth (inches):0	Wetland H	lydrology Present? Yes 🖌 No
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, previous inspec	tions), if ava	ilable:
Remarks:				
Wetland hydrology indicators	present			

Sampling Point: wdic012s_w

, , , , , , , , , , , , , , , , , , ,	Abaaluta	• Deminent la	diantan	Deminence Test worksheet
Trop Stratum (Plot size: 30)	Absolute	Dominant Ir	Stotus	Dominance Test worksneet:
		Species:	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 7 (B)
4			<u> </u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 57.14285714 (A/B)
6.				
7				Prevalence Index worksheet:
	0			Total % Cover of: Multiply by:
		= Total Cover		$\frac{1}{0}$ OPL approximation $\frac{1}{0}$ $\frac{1}{1}$ $\frac{1}{0}$
50% of total cover: 0	20% of	total cover:	0	OBL species         X =           35         70
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 = 70$
1 Rubus argutus	25	Yes	FACU	FAC species $\frac{75}{x 3} = \frac{225}{x 3}$
- Liquidambar styraciflua	15	Ves	FAC	FACU species 55 x 4 - 220
	- 10	103	TA0	
3. Lonicera morrowii	10	Yes	FACU	UPL species $x_{5} = -$
4				Column Totals: (A) (B)
5				
J				Prevalence Index = B/A =3.12
6				Hydrophytic Vegetation Indicators:
7				
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9				3 - Prevalence Index is $\leq 3.0^{1}$
	50	= Total Cover		A Marphalagical Adaptations ¹ (Dravida supporting
50% of total cover: 25	20% of	total cover:	10	4 - Morphological Adaptations (Provide supporting
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Papieum vireatum	40	Vee		Problematic Hydrophytic Vegetation ¹ (Explain)
	40	res	FAC	
2. Lonicera japonica	20	Yes	FAC	1
Juncus effusus	20	Yes	FACW	Indicators of hydric soil and wetland hydrology must
Andropogon virginicus	20	Ves	FACU	be present, unless disturbed or problematic.
	20	163	1700	Definitions of Four Vegetation Strata:
5. Onoclea sensibilis	15	No	FACW	
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7				neight.
8				Sanling/Shrub Woody plants evoluting vines loss
9.				than 3 in DBH and greater than or equal to 3 28 ft (1
10				m) tall
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	115	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 57.5	20% of	total cover:	23	
Woody Vine Stratum (Plot size: 30 )				<b>Woody vine</b> – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
<u>.                                    </u>				
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes V No
50% of total cover: 0	20% of	total cover:	0	
	20 /0 01			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	o the dep	oth needed to docu	nent the i	indicator of	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	2.5 Y 5/2	97	10 YR 4/6	3	С	PL	SL	
10-18	2.5 Y 5/2	93	7.5 YR 4/6	7	С	PL/M	SL	
'Type: C=C	oncentration, D=Depl	etion, RM	=Reduced Matrix, M	S=Masked	d Sand Gra	ains.	Location: P	L=Pore Lining, M=Matrix.
Hydric Soli	Indicators:			( <b>-</b> -)			Indic	ators for Problematic Hydric Solis :
Histoso	(A1)		Dark Surface	e (S7)	(0.0) (1)		2	cm Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	elow Surfa	.ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie Redox (A16)
Black H	ISTIC (A3)			Intace (59)	) (IVILKA 1	47, 148)	-	(MLRA 147, 148)
	d Lovera (AE)		Loarny Greye	eu Mainx (	(FZ)		P	
			Depleted Ma     Redox Dark	Surface (F	6)		V	(MILKA 130, 147)
2 cm wi	d Below Dark Surface	(A11)	Depleted Da	rk Surface (i	0) (F7)		v	ther (Explain in Remarks)
Thick D	ark Surface (A12)	(/(11)	Redox Depre	essions (F	8)			
Sandy M	Aucky Mineral (S1) (L	RR N.	Iron-Mangan	ese Mass	es (F12) <b>(I</b>	RR N.		
MLR	A 147. 148)	,	MLRA 13	6)	/ (	,		
Sandy (	Gleved Matrix (S4)		Umbric Surfa	ace (F13) (	(MLRA 13	6, 122)	³ Ind	licators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	, ioils (F19)	(MLRA 14	<b>8)</b> we	etland hydrology must be present,
Stripped	d Matrix (S6)		Red Parent I	Material (F	21) <b>(MLR</b>	A 127, 147	′) un	less disturbed or problematic.
Restrictive	Layer (if observed):						-	
Type:								
Depth (in	ches):						Hydric Soil	Present? Yes 🖌 No
Remarks:	/ -						.,	
Hydric soil or	esent							
n iyuno son pr	coont							



Photo 1 Wetland data point WDIC012s_w facing northwest



Photo 2 Wetland data point WDIC012s_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: [	Dinwiddie County	_ Sampling Date: 2/4/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic012_u
Investigator(s):	Section, Towr	nship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): Slight slope	Local relief (conc	ave, convex, none): none	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P	Lat: <u>37.0755969</u>	Long: <u>-77.83500394</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 p	ercent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes	, No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

Wetland Hydrology Indicato	ors:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	of one is required; ch	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	_	_ True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	_	_ Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	_	Roots (C3) Moss Trim Lines (B16)	
Water Marks (B1)	_	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	_	_ Recent Iron Reduction in Tilled Se	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3)	_	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aeri	ial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B	9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes No 🖌	Depth (inches):	
Sunace Water Flesent:			
Water Table Present?	Yes No _	Depth (inches):	
Water Table Present? Saturation Present? (includes capillary fringe)	Yes No Yes No	Depth (inches):	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes No Yes No Yes No Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>No</u> <u>Yes</u> <u>No</u> <u>Yes</u> <u>No</u> <u>Yes</u> <u>Yes</u> <u>No</u> <u>Yes</u>	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks:	Yes <u>No</u> No <u>Yes</u> No <u>Yes</u> No <u>Yes</u> No <u>Yes</u>	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes <u>No</u> No Yes <u>No</u> No eam gauge, monitorin	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes No Yes No Yes No Yes Yes Yes No Yes Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes No Yes No Yes No Yes Yes Yes No Yes	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No ctions), if available:
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: No wetland hydrology indicator	Yes No Yes present	Depth (inches): Depth (inches): g well, aerial photos, previous inspec	Wetland Hydrology Present? Yes No

Sampling Point: wdic012_u

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminent Species
Pinus taeda	40	Yes	FAC	That Are OBL EACW/ or EAC: $4$ (A)
I Platanus occidentalis	40	Yes	FACW	
2. <u>Flatanus occidentalis</u>		103	TAOW	Total Number of Dominant
3.				Species Across All Strata: 5 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 80 (A/B)
6				(***)
_				Prevalence Index worksheet:
7				Total 0/ Cover of Multiply by
	80	= Total Cove	r	
50% of total cover:	40 20% of	total cover:	16	OBL species x 1 =
Carling (Christ Christian (Dist since 15 )		<u>-</u>		FACW species $45$ x 2 = $90$
Sapling/Snrub Stratum (Plot size:)	4-		540	55 165
1. Liquidambar styraciflua	15	Yes	FAC	FAC species $x^3 = \frac{100}{20}$
2 Platanus occidentalis	5	Yes	FACW	FACU species $5 \times 4 = 20$
Luniperus virginiana	5	Ves	FACU	11PL species $0$ $x = 0$
3		163	1700	105 x 5 275
4.				Column Totals: (A) (B)
5				
0				Prevalence Index = B/A = 2.61
6				Hydrophytic Vegetation Indicators:
7.				
				1 - Rapid Test for Hydrophytic Vegetation
٥				2 - Dominance Test is >50%
9				$\mathbf{V}$ 2. Drevelence ladevic <2.0 ¹
	25	- Total Cove	r	
	12.5		5	4 - Morphological Adaptations ¹ (Provide supporting
	20% of	total cover:		data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5)				
1				Problematic Hydrophytic Vegetation' (Explain)
2				¹ Indiantara of hydria pail and watland hydrology must
3.				he present upless disturbed or problematic
4				be present, unless disturbed of problematic.
4				Definitions of Four Vegetation Strata:
5				
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
0				more in diameter at breast height (DBH), regardless of
7				height.
8.				
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	0			<b>Herb</b> – All herbaceous (non-woody) plants, regardless
	· · · · · · · · ·	= Total Cove	r	or size, and woody plants less than 3.28 ft tall.
50% of total cover:	0 20% of	total cover:	0	Woody vine All woody vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30)				boight
,				
1				
2				
3				
4		·		Hydrophytic
5.				Vegetation
	0	Tatal Cau		Present? Yes V No
	0	= Total Cove	0	
50% of total cover:	<u> </u>	total cover:	0	
Remarks: (Include photo numbers here or on a separa	ite sheet.)			
	,			
1				

Profile Des	cription: (Describe t	o the depth	needed to docur	nent the ind	licator o	or confirm	the absence of indic	ators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remark	S
0-12	2.5 Y 5/6	100					SL		
12-18	2.5 Y 6/8	100					SL		
17 0.0									
Type: C=C	oncentration, D=Depi	etion, RM=R	Reduced Matrix, Ma	S=IMasked S	and Gra	ins.	Location: PL=Pore L	Ining, M=Matr	IX. Hydria Saila ³ :
Histoso Histic E Black H Hydrog Stratifie 2 cm M Deplete Thick D MLR	and (A1) Epipedon (A2) listic (A3) en Sulfide (A4) ed Layers (A5) uck (A10) <b>(LRR N)</b> ed Below Dark Surface Dark Surface (A12) Mucky Mineral (S1) <b>(L</b> <b>A 147, 148)</b>	(A11) R <b>R N,</b>	<ul> <li>Dark Surface</li> <li>Polyvalue Be</li> <li>Thin Dark Su</li> <li>Loamy Gleye</li> <li>Depleted Ma</li> <li>Redox Dark 3</li> <li>Depleted Dark</li> <li>Redox Depres</li> <li>Iron-Mangan</li> <li>MLRA 13</li> </ul>	(S7) low Surface rface (S9) <b>(I</b> d Matrix (F2 trix (F3) Surface (F6) k Surface (F6) ssions (F8) ese Masses <b>6)</b>	(S8) <b>(M</b> MLRA 1 [,] ) 7) (F12) <b>(</b> L	LRA 147, 47, 148) .RR N,	2 cm Muc     2 cm Muc     Coast Pra     (MLRA     Piedmont     (MLRA     Very Shal     Other (Exp	(A10) <b>(MLRA</b> rie Redox (A1 <b>147, 148)</b> Floodplain So <b>136, 147)</b> ow Dark Surfa olain in Remar	A <b>147)</b> 6) ils (F19) ace (TF12) ks)
Sandy Sandy Strippe	Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		Umbric Surfa     Piedmont Flo     Red Parent M	ce (F13) <b>(M</b> odplain Soil /aterial (F21	L <b>RA 136</b> s (F19) ( ) <b>(MLR</b> A	6, 122) (MLRA 14 A 127, 147	³ Indicators o <b>B)</b> wetland hyd ) unless distu	^f hydrophytic v Irology must b Irbed or proble	vegetation and be present, ematic.
Restrictive	Layer (if observed):								
Type:									
Depth (ir	nches):						Hydric Soil Present	? Yes	No
Remarks:									
No hydric so	il present								

No hydric soil present



Photo 1 Upland data point WDIC012_u facing west



Photo 2 Upland data point WDIC012_u facing northeast

Project/Site: Atlantic Coast Pipeline	City/County:	Dinwiddie County	Sampling Date: 2/4/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: <u>wdic010f_</u> w
Investigator(s): Team C	Section, Tov	vnship, Range: <u>No PLSS in this</u>	area
Landform (hillslope, terrace, etc.): Seep Lo	ocal relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): <u>P</u> Lat: <u>37.07317947</u>		Long: <u>-77.83122376</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent slopes		NWI clas	ssification: PUBHh
Are climatic / hydrologic conditions on the site typical for this time of ye	ear?Yes	No (If no, explain	in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal Circumstance	es" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic?	(If needed, explain any an	nswers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point locations, transe	ects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	~	No		
Remarks:								
Seepage wetland receives water inputs from two ponds located upslope. Wetland is associated with an intermittent stream and a seep point located below the earth dam of the pond.								

Primary Indicators (minimum of one is required; check all that apply)
✓ Surface Water (A1)           — True Aquatic Plants (B14)           — Sparsely Vegetated Concave Surface (B8)             ✓ High Water Table (A2)           ✓ Hydrogen Sulfide Odor (C1)           ✓ Drainage Patterns (B10)             ✓ Saturation (A3)           Oxidized Rhizospheres on Living Roots (C3)           Moss Trim Lines (B16)             Water Marks (B1)           Presence of Reduced Iron (C4)           Dry-Season Water Table (C2)             Sediment Deposits (B2)           Recent Iron Reduction in Tilled Soils (C6)           Crayfish Burrows (C8)             Drift Deposits (B3)           Thin Muck Surface (C7)           Saturation Visible on Aerial Imagery (C9)             Algal Mat or Crust (B4)           Other (Explain in Remarks)           Stunted or Stressed Plants (D1)
✓       High Water Table (A2)       ✓       Hydrogen Sulfide Odor (C1)       ✓       Drainage Patterns (B10)         ✓       Saturation (A3)       Oxidized Rhizospheres on Living Roots (C3)       Moss Trim Lines (B16)         Water Marks (B1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)
✓       Saturation (A3)      Oxidized Rhizospheres on Living Roots (C3)      Moss Trim Lines (B16)        Water Marks (B1)      Presence of Reduced Iron (C4)      Dry-Season Water Table (C2)        Sediment Deposits (B2)      Recent Iron Reduction in Tilled Soils (C6)      Crayfish Burrows (C8)        Drift Deposits (B3)      Thin Muck Surface (C7)      Saturation Visible on Aerial Imagery (C9)        Algal Mat or Crust (B4)      Other (Explain in Remarks)      Stunted or Stressed Plants (D1)
Water Marks (B1)       Presence of Reduced Iron (C4)       Dry-Season Water Table (C2)         Sediment Deposits (B2)       Recent Iron Reduction in Tilled Soils (C6)       Crayfish Burrows (C8)         Drift Deposits (B3)       Thin Muck Surface (C7)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Other (Explain in Remarks)       Stunted or Stressed Plants (D1)
Sediment Deposits (B2)      Recent Iron Reduction in Tilled Soils (C6)      Crayfish Burrows (C8)        Drift Deposits (B3)      Thin Muck Surface (C7)      Saturation Visible on Aerial Imagery (C9)        Algal Mat or Crust (B4)      Other (Explain in Remarks)      Stunted or Stressed Plants (D1)
Drift Deposits (B3)      Thin Muck Surface (C7)      Saturation Visible on Aerial Imagery (C9)        Algal Mat or Crust (B4)      Other (Explain in Remarks)      Stunted or Stressed Plants (D1)         K       Lean Deposition (P5)      Commention (P5)      Commention (P5)
Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1)
Kan Denasita (BE)
Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3)
Water-Stained Leaves (B9) Microtopographic Relief (D4)
Aquatic Fauna (B13) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Yes 🖌 No Depth (inches): 3
Water Table Present? Yes Vo Depth (inches):
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetland Hydrology Present? Yes <u>V</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Remarks:
Wetland hydrology indicators present

Sampling Point: wdic010f_w

	Absoluto	- Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksheet.
Platanus occidentalis	70	Yes	FACW	Number of Dominant Species
	10	No	EACW/	That Are OBL, FACW, or FAC: (A)
2. Ulmus americana	10	INO	FACW	Total Number of Dominant
_{З.} Ilex ораса	10	No	FACU	Species Across All Strata: 4 (B)
1				
4		. <u> </u>		Percent of Dominant Species
5		<u> </u>		That Are OBL, FACW, or FAC: 100 (A/B)
6.				、 /
7				Prevalence Index worksheet:
/	90	. <u></u>	<u> </u>	Total % Cover of: Multiply by:
		= Total Cove	r 10	
50% of total cover: 45	20% of	total cover:	18	OBL species $x_1 = \frac{1}{2}$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 = 160$
A Acer rubrum	10	Yes	FAC	FAC species $80$ x 3 = $240$
[]. <u></u>				$10 \times 140$
2		<u> </u>		FACU species $x 4 = $
3.				UPL species x 5 =
4				Column Totals: $170$ (A) $440$ (B)
4		. <u> </u>		
5		<u> </u>		Prevalence Index = $B/A = 2.58$
6.				
7				Hydrophytic Vegetation Indicators:
/		. <u> </u>		1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	10	Total Cava	-	Yerevalence Index is ≤3.0°
500/ // / 5			2	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:	-	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Smilax rotundifolia	50	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
o Lonicera janonica	20	Yes	FAC	
2		100	17.0	¹ Indicators of hydric soil and wetland hydrology must
3		. <u> </u>		be present, unless disturbed or problematic.
4.				Definitions of Four Venetation Oferts
				Definitions of Four vegetation Strata:
D				<b>Tree</b> – Woody plants, excluding vines $3$ in $(7.6 \text{ cm})$ or
6				more in diameter at breast height (DBH) regardless of
7.				height.
°				
0		. <u> </u>		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
'''	70		<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
	70	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 35	20% of	total cover:	14	We advertise All used winds proster there 2,00 ft in
Woody Vine Stratum (Plot size: 30)				boight
,				
^{1.}		. <u> </u>		
2				
3				
4				
- <del> </del>		·		Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe to	o the dept	th needed to document the indicator or co	onfirm the a	bsence of indicators.)
Depth	Matrix		Redox Features		
(inches)	Color (moist)	<u>%</u>	<u>Color (moist)</u> % Type ¹ Loc	<u>c² Te</u>	kture Remarks
0-6	10 YR 3/3	100			SL
6-18	2.5 Y 6/2	100			S
·					
	·				
¹ Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS=Masked Sand Grains.	² Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:				Indicators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface (S7)		2 cm Muck (A10) (MLRA 147)
Histic Ep	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)	Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Surface (S9) (MLRA 147, 1	48)	(MLRA 147, 148)
🖌 Hydroge	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dark Surface (F7)		Other (Explain in Remarks)
Thick Da	ark Surface (A12)		<u> </u>		
Sandy N	lucky Mineral (S1) (Ll	RR N,	Iron-Manganese Masses (F12) (LRR I	N,	
MLRA	A 147, 148)		MLRA 136)	-	3
Sandy G	Bleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12)	2)	Indicators of hydrophytic vegetation and
Sandy R	(edox (S5)		Pleamont Floodplain Solis (F19) (MLR	(A 148)	wetland hydrology must be present,
Stripped	i Matrix (S6)			(, 147)	uniess disturbed or problematic.
Restrictive	Layer (if observed):				
Type:					
Depth (in	ches):			Hyd	ric Soil Present? Yes <u></u> No <u></u>
Remarks:					
Hydric soil pre	esent. Hydrogen Sulfie	de Odor pr	resent		



Photo 1 Wetland data point WDIC010f_w facing west



Photo 2 Wetland data point WDIC010f_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: _	Dinwiddie County	Sampling Date: 2/4/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic010_u
Investigator(s): Team C	Section, Town	ship, Range: No PLSS in this are	a
Landform (hillslope, terrace, etc.): Slight Slope	Local relief (conc	ave, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P Lat: 3	7.07319384	Long: <u>-77.83138296</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent	t slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for t	his time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	_significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	_naturally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

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

Sampling Point: wdic010_u

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )		% Cover	Species?	Status	Number of Dominant Species
1Liquidambar styraciflua		20	Yes	FAC	That Are OBL, FACW, or FAC:4 (A)
2					
2					Total Number of Dominant
3					Species Across All Strata: (B)
4					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 100 (A/B)
6.					
7					Prevalence Index worksheet:
1		20			Total % Cover of: Multiply by:
	10		= Iotal Cove	er ⊿	$\frac{1}{0}$ OBL species $\frac{1}{0}$ $\frac{1}{1}$ $\frac{1}{0}$
50% of total cover:	: 10	20% of	total cover:		
Sapling/Shrub Stratum (Plot size:	)				FACW species $x 2 = \frac{3}{215}$
_{1.} Liquidambar styraciflua		40	Yes	FAC	FAC species $x_3 = x_{3-}$
2					FACU species $0   x 4 = 0$
2					$1$ IPI species $0$ $x_5 = 0$
3					$\frac{105}{105}$ (A) $\frac{315}{105}$ (D)
4					Column Totals: (A) (B)
5.					Drevelance balance D/A 3
6					Prevalence index = $B/A = 3$
					Hydrophytic Vegetation Indicators:
/					1 - Rapid Test for Hydrophytic Vegetation
8					$\checkmark$ 2 - Dominance Test is >50%
9.					
		40	- Total Cov		Yerevalence Index is ≤3.0°
E0% of total approx	. 20			8	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.		20% 0	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)					Problematic Hydrophytic Vegetation ¹ (Evolain)
1. Lonicera japonica		30	Yes	FAC	
2. Smilax rotundifolia		15	Yes	FAC	
2					¹ Indicators of hydric soil and wetland hydrology must
					be present, unless disturbed or problematic.
4					Definitions of Four Vegetation Strata:
5					
6.					<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7					more in diameter at breast height (DBH), regardless of
· ·					neight.
8					Sapling/Shrub – Woody plants, excluding vines, less
9					than 3 in. DBH and greater than or equal to 3.28 ft (1
10.					m) tall.
11					
· · · · <u>· · · · · · · · · · · · · · · </u>		45			Herb – All herbaceous (non-woody) plants, regardless
	22.5		= Total Cove	er	of size, and woody plants less than 3.26 it tall.
50% of total cover:	22.5	20% of	total cover:	9	<b>Woody vine</b> – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30	)				height.
1.					
2					
3					
4					Hydrophytic
5.					Vegetation
		0	- Total Cove		Present? Yes <u>V</u> No
50% of total cover:	. 0	20% of	total cover:	0	
	·	_ 20 % 01			
Remarks: (Include photo numbers here or on a sep	parate sh	neet.)			

Profile Des	cription: (Describe to	the dep	oth needed to docur	nent the i	indicator	or confirm	the absend	ce of indicate	ors.)	
Depth	Matrix		Redo	x Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture		Remarks	;
0-6	2.5 Y 4/4	100					LS			
6-18	2.5 Y 7/4	98	7.5 YR 5/8	2	С	М	S			
<u> </u>										
<u></u>										
¹ Type: C=C	oncentration, D=Deple	tion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	² Location:	PL=Pore Lin	ing, M=Matrix	<u>(.</u>
Hydric Soil	Indicators:						Ind	icators for P	roblematic F	lydric Soils":
Histoso	l (A1)		Dark Surface	(S7)				2 cm Muck (	A10) <b>(MLRA</b>	147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(N</b>	ILRA 147,	148)	Coast Prairie	e Redox (A16	6)
Black H	istic (A3)		Thin Dark Su	rface (S9	) (MLRA 1	47, 148)		(MLRA 14	17, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (	(F2)		_	Piedmont Fl	oodplain Soil	s (F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)				(MLRA 13	86, 147)	
2 cm Mi	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	-6)		_	Very Shallow	v Dark Surfac	ce (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dai	k Surface	e (F7)			Other (Expla	iin in Remark	S)
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)					
Sandy N	Mucky Mineral (S1) (LF	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,				
MLR	A 147, 148)		MLRA 13	6)			3.			
Sandy C	Sleyed Matrix (S4)		Umbric Surfa	ce (F13) (		6, 122)	-) -)	ndicators of h	ydrophytic ve	egetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	iolis (F19)	(MLRA 14	8) \	wetland hydro	logy must be	e present,
Stripped	d Matrix (S6)		Red Parent N	laterial (F	·21) (MLR.	A 127, 147	') (	unless disturb	ed or probler	matic.
Restrictive	Layer (if observed):									
Туре:										
Depth (in	ches):						Hydric So	oil Present?	Yes	No
Remarks:							·			
تحج مأسام برط حا	l manage and									

No hydric soil present



Photo 1 Upland data point WDIC010_u facing north



Photo 2 Upland data point WDIC010_u facing south

Project/Site: Atlantic Coast Pipeline	City/County:	Dinwiddie County	Sampling Date: 2/3/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic009f_w
Investigator(s): Team C	Section, Tow	nship, Range: No PLSS in this area	a
Landform (hillslope, terrace, etc.): Depression	Local relief (con	cave, convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 37.071	17611	Long: <u>-77.82941203</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slope	es	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for this tir	me of year? Yes	No (If no, explain in R	Remarks.)
Are Vegetation, Soil, or Hydrology sign	nificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology natu	urally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizospheres on Living Roots (C3	) Moss Trim Lines (B16)
✓ Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
✓ Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes 🖌 No Depth (inches): 3	
Water Table Present? Yes <u></u> No <u>Depth</u> (inches): 0	
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetland (includes capillary fringe)	l Hydrology Present? Yes 🖌 No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	vailable:
Remarks:	
vvetiand hydrology indicators present	

Sampling Point: wdic009f_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1. Platanus occidentalis	50	Yes	FACW	That Are OBL, FACW, or FAC: 5 (A)
2 Ulmus americana	40	Yes	FACW	
2		·		Total Number of Dominant
3		·		Species Across All Strata: (B)
4		. <u></u>		Percent of Dominant Species
5.				That Are OBL EACW/ or EAC $100$ (A/B)
6				
		· · · · · · · · · · · · · · · · · · ·		Prevalence Index worksheet:
/		·	·	Total % Cover of: Multiply by:
		= Total Cove	r 10	
50% of total cover:	45 20% of	total cover:	18	OBL species $100$ $x_1 = 10$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = 200$
1 Acer rubrum	20	Yes	FAC	FAC species $20$ x 3 = $60$
o Ulmus americana	10	Yes	FACW	FACU species $0 \times 4 = 0$
2				$\frac{1}{10000000000000000000000000000000000$
3		. <u> </u>		$\frac{135}{135} = \frac{275}{135}$
4				Column Totals: (A) (B)
5.				$\mathbf{D}_{\mathrm{rescharge}}$ by the $\mathbf{D}$ (A = 2.03)
6.				Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:
1		·	<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8		·	. <u> </u>	2 - Dominance Test is >50%
9		<u></u>		$\checkmark$ 3 - Prevalence Index is <3 0 ¹
	30	= Total Cove	r	
50% of total cover:	15 20% of	total cover:	6	4 - Morphological Adaptations' (Provide supporting
Horb Stratum (Plot aize: 5 )				data in Remarks or on a separate sheet)
Galium tinctorium	15	Vaa		Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Gallari lincionari</u>	15	res	OBL	
2		<u></u>		1 - Parton of hadding a thread we then the structure to second
3.				ha procent, uplace disturbed or problematic
4				be present, unless disturbed of problematic.
		· · · · · · · · · · · · · · · · · · ·		Definitions of Four Vegetation Strata:
5		·	. <u> </u>	<b>Trop</b> Woody plants excluding vince 2 in (7.6 cm) or
6		. <u></u>		more in diameter at breast beight (DBH) regardless of
7.				height.
8				5
0		· · · · · · · · · · · · · · · · · · ·		Sapling/Shrub – Woody plants, excluding vines, less
9		·		than 3 in. DBH and greater than or equal to 3.28 ft (1
10		·	. <u> </u>	m) tall.
11		<u></u>		Herb – All herbaceous (non-woody) plants, regardless
	15	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover:	7.5 20% of	total cover:	3	
Woody Vino Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
				height.
1		·		
2			<u> </u>	
3				
4				
		·		Hydrophytic
٥				Vegetation Present? Ves V No
		= Total Cove	r	
50% of total cover:	0 20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separat	te sheet.)			

Profile Desc	cription: (Describe t	o the dep	oth needed to docun	nent the i	indicator of	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	k Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-8	10 YR 2/1	100					LS	Mucky Mineral texture
8-18	10 YR 6/1	98	10 YR 4/6	2	С	М	SL	
¹ Type: C=C	oncentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b>	ILRA 147,	148)(	Coast Prairie Redox (A16)
Black H	istic (A3)		Thin Dark Su	rface (S9	) (MLRA 1	47, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (	(F2)		I	Piedmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		<ul> <li>Depleted Mat</li> </ul>	rix (F3)				(MLRA 136, 147)
2 cm Mi	uck (A10) (LRR N)		Redox Dark S	Surface (F	-6)		Ň	Very Shallow Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)			Other (Explain in Remarks)
Thick D	ark Surface (A12)	()	Redox Depre	ssions (F	8)			
Sandy M	Aucky Mineral (S1) (I		Iron-Mangane	ese Mass	es (F12) <b>(I</b>	RR N		
	Δ 147 148)	,	MI RA 13	500 Maoo	00 (1 12) (1	,		
Sandy (	Gleved Matrix (S4)		Umbric Surfa	-, ce (F13) (	(MI RA 13	6, 122)	³ In	dicators of hydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	ioils (F19)	(MLRA 14	.8) w	etland hydrology must be present.
Stripped	d Matrix (S6)		Red Parent M	laterial (F	21) (MLR	A 127, 147	<b>')</b> ur	nless disturbed or problematic.
Restrictive	Layer (if observed):			,	, τ			·
Туре:								
Depth (in	ches):						Hydric Soi	il Present? Yes 🖌 No
Remarks:							•	
Hydric soil pr	esent							



Photo 1 Wetland data point WDIC009f_w facing northwest



Photo 2 Wetland data point WDIC009f_w facing northeast

Project/Site: Atlantic Coast Pipeline	City/County:	Dinwiddie County	Sampling Date: 2/3/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic009_u
Investigator(s): Team C	_ Section, Tow	vnship, Range: <u>No PLSS in this ar</u>	ea
Landform (hillslope, terrace, etc.): Slight slope	ocal relief (con	cave, convex, none): none	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P Lat: 37.0712396		Long: -77.82936361	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slopes		NWI classi	fication: None
Are climatic / hydrologic conditions on the site typical for this time of ye	vear? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal Circumstances"	" present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic?	(If needed, explain any ansv	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point locations, transect	ts, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>v</u> No <u>v</u> No <u>v</u>	/ /	Is the Sampled Area within a Wetland?	Yes	No
Remarks:				·		
The upland area around updio000 was d	listurbod and the	a aail had	hoon stain	od by docomposing cow due	t pilog, og goll de	termination was difficult to

The upland area around wdic009 was disturbed and the soil had been stained by decomposing saw dust piles, so soil determination was difficult to identify closer to the wetland. The upland point was taken approximately 77 feet from the actual wetland.

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

Sampling Point: wdic009_u

-	-	Absoluto	- Dominant li	odicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30)	% Cover	Species?	Status	
1	/				That Aro OBL EACW or EAC: 2 (A)
1			·	·	
2			·		Total Number of Dominant
3					Species Across All Strata: 4 (B)
4.					
					Percent of Dominant Species
5			·		That Are OBL, FACW, or FAC: (A/B)
6					
7.					Prevalence Index worksheet:
		0		r	Total % Cover of: Multiply by:
	EQ8/ of total cover: 0	200/ of		0	OBL species $0   x 1 = 0$
	15	20% 0	total cover.		$E_{ACW}$ spacing $\frac{0}{10}$ x 2 = $\frac{0}{10}$
Sapling/Shrub Stratum (Plot sized)	ze:)				$\begin{array}{c} \text{FACW species} \\ \hline 60 \\ \hline 180 \\ \hline \end{array}$
1. Pinus taeda		30	Yes	FAC	FAC species $x^3 = 100$
2					FACU species $50$ x 4 = $200$
2		-		·	LIPL species $0 \times 5 = 0$
3			·		110 (1) $380$ (2)
4			<u></u> .		Column Totals: (A) (B)
5.					2.45
· · · · · · · · · · · · · · · · · · ·					Prevalence Index = $B/A = 3.45$
0			·		Hydrophytic Vegetation Indicators:
7			·		1 - Rapid Test for Hydrophytic Vegetation
8.					
9					2 - Dominance Test is >50%
9		30			3 - Prevalence Index is ≤3.0 ¹
	15		= Total Cove	r e	4 - Morphological Adaptations ¹ (Provide supporting
	50% of total cover: 15	20% of	total cover:	0	data in Romarks or on a sonarate shoet)
Herb Stratum (Plot size:	5)				
1 Dichanthelium clandestinum	· · ·	30	Yes	FAC	Problematic Hydrophytic Vegetation' (Explain)
- Andropogon virginicus		30	Ves	FACU	
2. Andropogon virginicus			165	TACU	¹ Indicators of hydric soil and wetland hydrology must
_{3.} Solidago canadensis		20	Yes	FACU	be present, unless disturbed or problematic.
4					
F					Definitions of Four vegetation Strata:
5			·		<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or
6			. <u> </u>		more in diameter at breast height (DBH) regardless of
7.					height.
0					
8:			·		Sapling/Shrub – Woody plants, excluding vines, less
9				<u> </u>	than 3 in. DBH and greater than or equal to 3.28 ft (1
10					m) tall.
11					
•••		80			Herb – All herbaceous (non-woody) plants, regardless
			= I otal Cove	r 10	of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 40	20% of	total cover:	10	Woody vine - All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size	:)				height.
1					
		-		·	
2			·		
3			<u></u> .		
4.					
··					Hydrophytic
ວ			·	<u> </u>	Vegetation
		0	= Total Cove	r	Present? res <u>No</u>
	50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numb	ers here or on a senarate s	heet )			
Remarks. (include proto nume	service of on a separate s	neet.)			

Profile Desc	cription: (Describe to	o the depth	needed to docum	nent the i	ndicator o	or confirm	the absence of indicators.)		
Depth	Matrix		Redox Features						
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-18	2.5 Y 6/6	98 2	2.5 Y 6/8	2	С	Μ	SL		
			<u> </u>				··		
1 <b>T</b>				Maaliad			² Leasting DL Dave Lining M Metric		
	Indicators:	etion, RIVI=F	educed Matrix, Ma	s=iviasked	Sand Gra	uns.	Location: PL=Pore Lining, M=Matrix.	3.	
				(07)				•	
Histosol	(A1)		Dark Surface	(57)	(00) (1)		2 cm Muck (A10) (MLRA 147)		
HISTIC E	pipedon (A2)		Polyvalue Be	IOW Surfac	ce (58) (IV	LRA 147,	148) Coast Prairie Redox (A16)		
	ISTIC (A3)			nace (59)		47, 148)	(MLRA 147, 148) Diadmant Flaadalain Caila (F10)		
Hydroge	en Sulfide (A4)		Loamy Gleye	a Matrix (I	-2)				
Stratifie	d Layers (A5)		Depleted Ma	(FIX (F3) Dumfenne (F	<b>c</b> )		(MLRA 136, 147)		
	uck (A10) <b>(LRR N)</b> d Delew Derk Surfeee	(111)	Redox Dark :	Surrace (F	り) (「フ)		Very Shallow Dark Surface (TF12)		
Depiete	u Below Dark Sullace	(ATT)	Depleted Dat		( <i>Г1)</i>				
Thick D	AIK Sullace (ATZ)				) )) (E12) <b>(I</b>				
Sanuy i	<b>A 147 149</b>	<b>ΛΓΛ ΙΝ</b> ,		230 Masse	5 (F12) <b>(</b> 1	-NN N,			
Sandy	R 147, 140) Cloved Matrix (S4)			0) 00 (E12) (	MI DA 12	6 122)	³ Indicators of hydrophytic vogetation and	4	
Sandy C	Podox (S5)		Dinblic Sulla			0, 122) (MI DA 14)	wetland bydrology must be present		
Sanuy r	Motrix (S6)		Fleditionit Fit		0115 (F19) 011 (MI D	(WILNA 140	7) weitand hydrology must be present,		
Surpped	l mainx (30)			naterial (F.		4 127, 147	) unless disturbed of problematic.		
Tana	Layer (II Observed):								
i ype:			_						
Depth (in	ches):		_				Hydric Soil Present? Yes No		
Remarks:									
No hydrio ooi	Inrosont								

No hydric soil present



Photo 1 Upland data point WDIC009_u facing east



Photo 2 Upland data point WDIC009_u facing west

Project/Site: Atlantic Coast Pipeline	City/County:	Dinwiddie County	_ Sampling Date: 2/3/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic008e_w
Investigator(s): Team C	Section, Tow	nship, Range: No PLSS in this are	a
Landform (hillslope, terrace, etc.): Riparian	Local relief (conc	cave, convex, none): none	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 37.07	7067167	Long:77.83052494	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent slo	opes	NWI classifi	ication: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in I	Remarks.)
Are Vegetation 🖌 , Soil, or Hydrology sig	gnificantly disturbed?	Are "Normal Circumstances"	present? Yes No _
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answ	ers in Remarks.)
			• • • • • •

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

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

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	rs:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of	of one is required; cheo	ck all that apply)	Surface Soil Cracks (B6)		
Primary Indicators (minimum of a structure)         ✓       Surface Water (A1)         ✓       High Water Table (A2)         ✓       Saturation (A3)	of one is required; chea 				
Iron Deposits (B5)     Inundation Visible on Aeri     Water-Stained Leaves (Bs     Aquatic Fauna (B13)	al Imagery (B7) 9)		<ul> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>		
Field Observations:	,	0			
Surface Water Present?	Yes <u>V</u> No	_ Depth (inches): 2			
Water Table Present? Saturation Present?	Yes <u> </u>	_ Depth (inches):0 _ Depth (inches):0	Wetland Hydrology Present? Yes No		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre	Yes <u>V</u> No <u>No</u> Yes <u>V</u> No <u></u> am gauge, monitoring	_ Depth (inches):0 _ Depth (inches):0 well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		
Water Table Present? Saturation Present? (includes capillary fringe) Describe Recorded Data (stre Remarks: Wetland hydrology indicators p	Yes <u>V</u> No <u>No</u> Yes <u>V</u> No <u>No</u> am gauge, monitoring	_ Depth (inches):0 _ Depth (inches):0 well, aerial photos, previous inspec	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:		

Sampling Point: wdic008e_w

		Absolute	Dominant Ir	ndicator	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: 3	(B)
4					Porcent of Dominant Species	
5					That Are OBL, FACW, or FAC:100	(A/B)
6						( ,
7					Prevalence Index worksheet:	
		0	= Total Cover	r	Total % Cover of: Multiply by:	
	50% of total cover: 0	20% of	total cover:	0	OBL species $\begin{array}{c} 0 \\ 12 \\ \end{array}$ x 1 = $\begin{array}{c} 0 \\ 12 \\ \end{array}$	
Sapling/Shrub Stratum (Plot siz	ze:)				FACW species $40$ x 2 = $80$	-
1.					FAC species $30$ x 3 = $90$	-
2					FACU species x 4 =0	_
2					UPL species x 5 = 0	_
з					Column Totals: 70 (A) 170	(B)
4						- ` `
o					Prevalence Index = B/A =2.42	
6					Hydrophytic Vegetation Indicators:	
7			·	·	1 - Rapid Test for Hydrophytic Vegetation	
8					✓ 2 - Dominance Test is >50%	
9				<u> </u>	$\checkmark$ 3 - Prevalence Index is $\leq 3.0^1$	
	0	0	= Total Cover		4 - Morphological Adaptations ¹ (Provide supp	orting
	50% of total cover: U	20% of	total cover:	0	data in Remarks or on a senarate sheet)	Jon ang
Herb Stratum (Plot size:	)				Broblomatic Hydrophytic Vegetation ¹ (Explain	~)
1. Setaria parviflora		30	Yes	FAC		1)
2. Cyperus esculentus		20	Yes	FACW	1	4
<u>з.</u> Juncus effusus		20	Yes	FACW	Indicators of hydric soil and wetland hydrology m	ust
4.					Definitions of Four Vegetation Strata:	
5.					Definitions of Four vegetation offata.	
6					Tree – Woody plants, excluding vines, 3 in. (7.6 c	m) or
7					more in diameter at breast height (DBH), regardle	ess of
0					neight.	
o					Sapling/Shrub – Woody plants, excluding vines,	less
9					than 3 in. DBH and greater than or equal to 3.28 t	ít (1
10					III) tan.	
11		70			Herb – All herbaceous (non-woody) plants, regard	dless
	50% - ( ) - ( ) - 35		= Total Cover	14	of size, and woody plants less than 3.28 ft tall.	
	50% of total cover:	20% of	total cover:		Woody vine - All woody vines greater than 3.28 f	ft in
Woody Vine Stratum (Plot size	:)				height.	
1			·			
2			·			
3						
4					Hydrophytic	
5					Vegetation	
		0	= Total Cover	r	Present? Yes <u>V</u> No	
	50% of total cover: 0	20% of	total cover:	0		
Remarks: (Include photo numb	ers here or on a separate s	heet.)				
		,				

Profile Des	cription: (Describe to	o the dep	oth needed to docun	nent the	indicator of	or confirm	the absence of indicators.)		
Depth	Matrix		Redo	x Feature	S				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-10	2.5 Y 5/2	95	5 YR 5/8	5	С	PL	SL		
10-18	2.5 Y 6/6	95	10 YR 4/6	5	С	PL/M	LS		
					·				
	· <u>·</u> ··································								
·					·				
	oncontration D_Donk	tion DM	- Roducod Motrix MS	-Mookov	d Sond Cr		² Lagotion: DL_Dara Lining M_Matrix		
Hydric Soil	Indicators:			S=IVIASKE		ans.	Indicators for Problematic Hydric	Soils ³ :	
Histosol	I (A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)		
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ice (S8) <b>(N</b>	ILRA 147,	148) Coast Prairie Redox (A16)		
Black H	istic (A3)		Thin Dark Su	rface (S9	) (MLRA 1	47, 148)	(MLRA 147, 148)		
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix	(F2)		Piedmont Floodplain Soils (F19)	)	
Stratifie	d Layers (A5)		<ul> <li>Depleted Mat</li> </ul>	trix (F3)			(MLRA 136, 147)		
2 cm M	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF1	12)	
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)		
Thick D	ark Surface (A12)		Redox Depre	ssions (F	8)				
Sandy M	Mucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,			
MLR	A 147, 148)		MLRA 13	6)					
Sandy C	Gleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation	on and	
Sandy F	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	8) wetland hydrology must be prese	nt,	
Stripped	d Matrix (S6)		Red Parent M	Aaterial (F	21) <b>(MLR</b>	A 127, 147	") unless disturbed or problematic.		
Restrictive	Layer (if observed):								
Туре:									
Depth (in	ches):						Hydric Soil Present? Yes 🖌 No	<u></u> د	
Remarks:							•		
Hydric soil in	dicator present								



Photo 1 Wetland data point WDIC008e_w facing northwest



Photo 2 Wetland data point WDIC008e_w facing southwest

Project/Site: Atlantic Coast Pipeline	_ City/County:	Dinwiddie County	Sampling Date: <u>2/3/2016</u>
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic008_u
Investigator(s): Team C	Section, Tow	nship, Range: <u>No PLSS in this ar</u>	ea
Landform (hillslope, terrace, etc.): Slight slope	Local relief (con	cave, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 37.07069869	9	Long: <u>-77.83045612</u>	Datum: WGS 1984
Soil Map Unit Name: <u>Appling sandy loam, 7 to 15 percent slopes</u>		NWI classi	fication: None
Are climatic / hydrologic conditions on the site typical for this time of	year?Yes 👱	No (If no, explain in	Remarks.)
Are Vegetation, Soil 🖌 or Hydrology significant	tly disturbed?	Are "Normal Circumstances	" present? Yes No _
Are Vegetation, Soil, or Hydrology naturally p	problematic?	(If needed, explain any answ	vers in Remarks.)

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

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

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

Sampling Point: wdic008_u

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Number of Deminent Creation
1				That Are OBL_EACW/ or EAC· 2 (A)
! <u></u>		·		
2				Total Number of Dominant
3		<u> </u>		Species Across All Strata:3 (B)
4.				
5				Percent of Dominant Species
		·		That Are OBL, FACW, or FAC: 00.0000000 (A/B)
6		<u> </u>		Brovalanca Index workshoot:
7				Frevalence muex worksheet.
	0	= Total Cover		Total % Cover of:Multiply by:
50% of total cover: 0	20% of	total cover:	0	OBL species x 1 =0
Carling/Chruch Ctratum (Dist sing) 15	2070 01	lotal 00ver		FACW species $0 \times 2 = 0$
Sapling/Shrub Stratum (Plot size:)	40	N	<b>F</b> 40	$\frac{30}{30}$ $\frac{90}{30}$
1	10	res	FAC	FAC species $x_3 = $
2				FACU species $4 = 200$
3				UPL species $0   x 5 = 0$
				Column Totals: 95 (A) 350 (B)
4		<u> </u>		
5		. <u> </u>		Prevalence Index - B/A - 3.68
6.				
7				Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				$ \underline{ 2}  \text{Derivations of local of $20070} $
	10	- Total Cover		
50% of total cover: 5	20% of	total covor:	2	4 - Morphological Adaptations ¹ (Provide supporting
	20% 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. Andropogon virginicus	50	Yes	FACU	
₂ Dichanthelium clandestinum	20	Yes	FAC	
<ul> <li>Erigeron canadensis</li> </ul>	10	No	FACU	¹ Indicators of hydric soil and wetland hydrology must
3. <u>Verbassum theneus</u>		No		be present, unless disturbed or problematic.
4. verbascum thapsus	5	NO	FACU	Definitions of Four Vegetation Strata:
5				, , , , , , , , , , , , , , , , , , ,
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				height.
8				Sanling/Shruh Weady planta evaluding vines loss
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall
10		·		
11		. <u> </u>		Herb – All herbaceous (non-woody) plants, regardless
	85	= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 42.5	20% of	total cover:	17	
Woody Vine Stratum (Plot size: 30 )				Woody vine – All woody vines greater than 3.28 ft in
				height.
1		<u> </u>		
2				
3.				
4		·		
4				Hydrophytic
5				Vegetation
	0	= Total Cover		Present? Yes Ves No
50% of total cover: 0	20% of	total cover:	0	
Bomarka: (Include photo numbero horo er en e concrete a	hoot )			
Remarks: (include photo numbers here of on a separate s	neet.)			

(inches)	Matrix		Redox Features			
	Color (moist)	%	Color (moist) % Type ¹	Loc ² Te	exture	Remarks
0-4	10 YR 3/4	100			SL	
4-18	10 YR 6/1	20			SL	
	2.5 Y 6/8	80			SL	
¹ Type: C=C	oncentration, D=Deple	etion, RM=	Reduced Matrix, MS=Masked Sand Grain:	s. ² Loc	ation: PL=Pore Lin	ing, M=Matrix.
Hydric Soil	Indicators:				Indicators for P	roblematic Hydric Soils ³ :
Histoso	l (A1)		Dark Surface (S7)		2 cm Muck (	A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Below Surface (S8) (MLF	RA 147, 148)	Coast Prairie	e Redox (A16)
Black H	istic (A3)		Thin Dark Surface (S9) (MLRA 147	, 148)	(MLRA 14	17, 148)
Hydrog	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Fl	oodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Matrix (F3)		(MLRA 13	36, 147)
2 cm M	uck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallov	v Dark Surface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dark Surface (F7)		Other (Expla	in in Remarks)
Thick D	ark Surface (A12)	. ,	Redox Depressions (F8)			,
	Mucky Mineral (S1) (L	RR N.	Iron-Manganese Masses (F12) (LR	RN,		
Sandy I	• • • • •		MLRA 136)	·		
Sandy I	A 147, 148)		,	400)	³ Indicators of h	vdrophytic vogotation and
Sandy I MLR Sandy (	<b>A 147, 148)</b> Gleved Matrix (S4)		Umbric Surface (F13) (MLRA 136.	122)	inulcators of h	
Sandy I MLR Sandy ( Sandy I	<b>A 147, 148)</b> Gleyed Matrix (S4) Redox (S5)		Umbric Surface (F13) (MLRA 136, Piedmont Floodplain Soils (F19) (M	LRA 148)	wetland hydro	blogy must be present,
Sandy I MLR Sandy ( Sandy I Stripped	<b>A 147, 148)</b> Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		<ul> <li>Umbric Surface (F13) (MLRA 136,</li> <li>Piedmont Floodplain Soils (F19) (M</li> <li>Red Parent Material (F21) (MLRA 1</li> </ul>	LRA 148) 127, 147)	wetland hydro unless disturb	blogy must be present, bed or problematic.
Sandy I MLR Sandy ( Sandy I Stripped Restrictive	A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed):		<ul> <li>Umbric Surface (F13) (MLRA 136,</li> <li>Piedmont Floodplain Soils (F19) (M</li> <li>Red Parent Material (F21) (MLRA 1</li> </ul>	122) LRA 148) 127, 147)	wetland hydro unless disturb	blogy must be present, bed or problematic.
Sandy I MLR Sandy G Sandy F Stripped Restrictive Type:	A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6) Layer (if observed):		Umbric Surface (F13) (MLRA 136, Piedmont Floodplain Soils (F19) (M Red Parent Material (F21) (MLRA 1 	122) LRA 148) 127, 147)	wetland hydro unless disturb	blogy must be present, bed or problematic.

No hydric soil indicators present



Photo 1 Upland data point WDIC008_u facing southeast



Photo 2 Upland data point WDIC008_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Dir	nwiddie County	_ Sampling Date: 2/3/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic007e_w
Investigator(s): Team C	Section, Townsl	nip, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): Seepage	Local relief (concav	re, convex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 37.07	7004308	Long: <u>-77.8307691</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slop	es	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology na	turally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS Attach site man a	howing compling p	aint logations transact	important factures ato

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

Yes 🖌 Yes 🖌 Yes 🖌	No No No	Is the Sampled Area within a Wetland?	Yes	No
d but the trees	s are rooted in the up	pland.		
(	Yes <u>v</u> Yes <u>v</u> Yes <u>v</u>	Yes <u>v</u> No Yes <u>v</u> No Yes <u>v</u> No d but the trees are rooted in the u	Yes       V       No       Is the Sampled Area within a Wetland?         Yes       V       No       within a Wetland?         d but the trees are rooted in the upland.       No       No	Yes       V       No       Is the Sampled Area within a Wetland?       Yes       V         Yes       V       No       V       Ves       V       Ves       V         d but the trees are rooted in the upland.       Yes       Ves       Ves       Ves       Ves       Ves

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)			
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)			
✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)			
✓ Saturation (A3) Oxidized Rhizospheres on Living Roots (C	3) Moss Trim Lines (B16)			
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)			
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)			
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	Geomorphic Position (D2)			
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)			
✓ Water-Stained Leaves (B9)	Microtopographic Relief (D4)			
Aquatic Fauna (B13)	FAC-Neutral Test (D5)			
Field Observations:				
Surface Water Present? Yes No 🔽 Depth (inches):				
Water Table Present? Yes <u>/</u> No Depth (inches): 6				
Saturation Present? Yes <u>V</u> No Depth (inches): 0 Wetlan	nd Hydrology Present? Yes 🖌 No			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if	available:			
Remarks:				
Wetland hydrology indicators present				

Sampling Point: wdic007e_w

		Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:	)	% Cover	Species?	Status	Number of Dominant Species
1					That Are OBL, FACW, or FAC: (A)
2					Total Number of Dominant
3					Species Across All Strata: 1 (B)
4					Demont of Demonstrate Operation
5					That Are OBL FACW or FAC 100 (A/B)
6.					
7.					Prevalence Index worksheet:
		0	= Total Cove	<u>er</u>	Total % Cover of: Multiply by:
	50% of total cover: 0	20% of	total cover:	0	OBL species <u>30</u> x 1 = <u>30</u>
Sapling/Shrub Stratum (Plot si	ze [.] 15		·····		FACW species $5 \times 2 = 10$
1	/				FAC species $0   x 3 = 0$
1					FACU species $0 \times 4 = 0$
2				<u> </u>	$\frac{1}{1} = 0 \qquad x_5 = 0$
3				<u> </u>	$\frac{35}{40}$
4					
5					Prevalence Index = $B/A = 1.14$
6				. <u> </u>	Hydrophytic Vegetation Indicators:
7					1 - Rapid Test for Hydrophytic Vegetation
8					
9.					
		0	= Total Cove	er	3 - Prevalence Index is ≤3.0°
	50% of total cover: 0	20% of	total cover:	0	4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size:	5 )				data in Remarks or on a separate sheet)
1 Carex Iupulina	/	30	Yes	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
o Magnolia virginiana		5	No	FACW	
2. <u></u>					¹ Indicators of hydric soil and wetland hydrology must
3					be present, unless disturbed or problematic.
4				<u> </u>	Definitions of Four Vegetation Strata:
5				·	Tree Woody plants, evoluting visco, 2 in (7.6 cm) or
6					more in diameter at breast height (DBH), regardless of
7					height.
8					Conting/Chrysh Weadanta and diagonal lago
9					than 3 in. DBH and greater than or equal to 3.28 ft (1
10.					m) tall.
11.					
		35	- Total Cove		of size, and woody plants less than 3.28 ft tall.
	50% of total cover: 17.5	20% of	total cover:	7	
Woody Vine Stratum (Plot size	. 30 )		·····		<b>Woody vine</b> – All woody vines greater than 3.28 ft in
	/				
1					
2				<u> </u>	
3					
4					Hydrophytic
5				·	Vegetation
	<u>,</u>	0	= Total Cove	er	Present? Yes No
	50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numb	ers here or on a separate s	heet.)			

Profile Desc	cription: (Describe t	o the dep	th needed to docur	ment the i	ndicator	or confirm	the absence of indicat	ors.)
Depth	Matrix		Redo	x Features	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-10	2.5 YR 4/1	97	10 YR 3/6	3	С	PL	SL	
10-18	2.5 YR 4/1	100					S	
						<u> </u>		
							·	
	·						·	
1							2	
Type: C=C	oncentration, D=Depl	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.	Location: PL=Pore Lin	ing, M=Matrix.
Hydric Soli	Indicators:						Indicators for P	roblematic Hydric Solis":
Histosol	(A1)		Dark Surface	e (S7)			2 cm Muck (	(A10) <b>(MLRA 147)</b>
Histic E	pipedon (A2)		Polyvalue Be	elow Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) Coast Prairi	e Redox (A16)
Black Hi	istic (A3)		Thin Dark Su	urface (S9)	) <b>(MLRA 1</b>	47, 148)	(MLRA 1	47, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (	F2)		Piedmont Fl	oodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			(MLRA 1	36, 147)
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	6)		Very Shallov	w Dark Surface (TF12)
Deplete	d Below Dark Surface	e (A11)	Depleted Da	rk Surface	(F7)		Other (Expla	ain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	essions (F	8)			
Sandy M	/lucky Mineral (S1) (L	RR N,	Iron-Mangan	ese Masse	es (F12) <b>(I</b>	_RR N,		
MLR	A 147, 148)		MLRA 13	6)				
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(</b>	MLRA 13	6, 122)	³ Indicators of h	ydrophytic vegetation and
Sandy F	Redox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	<ol> <li>wetland hydro</li> </ol>	plogy must be present,
Stripped	Matrix (S6)		Red Parent	Material (F	21) <b>(MLR</b>	A 127, 147	) unless disturb	ped or problematic.
Restrictive	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil Present?	Yes 🖌 No
Remarks:							I	
Hydric soil ind	dicators present							



Photo 1 Wetland data point WDIC007e_w facing southwest



Photo 2 Wetland data point WDIC007e_w facing north
Project/Site: Atlantic Coast Pipeline	City/County: Dinw	iddie County	Sampling Date: 2/3/2016
Applicant/Owner: DOMINION		State: VA	Sampling Point: wdic007_u
Investigator(s): Team C	Section, Township	o, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): Slight slope	Local relief (concave,	convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P Lat: 37.02	7003197	Long: <u>-77.83084172</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slop	pes	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology sig	gnificantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answe	rs in Remarks.)

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

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

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizospheres on Living F	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled So	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Ves No V Depth (inches):	
Water Table Present? Yes <u>V</u> No Depth (inches): <u>12</u>	
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         8	Wetland Hydrology Present? Yes 🖌 No
Water Table Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         Saturation Present?       Yes No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge monitoring well aerial photos previous inspect	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes          ✓	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes       No       Depth (inches):         Saturation Present?       Yes       No       Depth (inches):         (includes capillary fringe)       Ves       No       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present?       Yes       No       Depth (inches):       12         Saturation Present?       Yes       No       Depth (inches):       8         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes        V       No       Depth (inches):       12         Saturation Present?       Yes        V       No       Depth (inches):       8         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes No Depth (inches): 12         Saturation Present?       Yes No Depth (inches): 8         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes          ✓ No       Depth (inches): 12          Saturation Present?       Yes          ✓ No       Depth (inches): 8          (includes capillary fringe)         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes          ✓ No       Depth (inches): 12          Saturation Present?       Yes          ✓ No       Depth (inches): 8          (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present?       Yes          ✓ No Depth (inches):12          Saturation Present?       Yes          ✓ No Depth (inches):8          (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No
Water Table Present?       Yes // No Depth (inches):12         Saturation Present?       Yes // No Depth (inches):8         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:       Remarks:	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:
Water Table Present?       Yes No Depth (inches):12         Saturation Present?       Yes No Depth (inches):8         (includes capillary fringe)       Depth (inches):8         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect         Remarks:	Wetland Hydrology Present? Yes <u>V</u> No

Sampling Point: wdic007_u

	Absolute	Dominant lu	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksheet.
Liquidambar styraciflua	50	Yes	FAC	Number of Dominant Species
Rinus toodo	10	No	FAC	That Are OBL, FACW, of FAC: (A)
2. <u>Pinus taeda</u>	10	110		Total Number of Dominant
3. Quercus falcata	10	NO	FACU	Species Across All Strata: 4 (B)
₄ Quercus phellos	5	No	FAC	· · · · · · · · · · · · · · · · · · ·
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				
7.				Prevalence Index worksheet:
	75			Total % Cover of: Multiply by:
50% of total accuracy 37 5	000/ -6		15	OBL species $0   x 1 = 0$
50% of total cover:	20% of	total cover:		
Sapling/Shrub Stratum (Plot size: )				FACW species $x = 225$
1. Ilex opaca	10	Yes	FACU	FAC species $75 \times 3 = 223$
2 Liquidambar styraciflua	10	Yes	FAC	FACU species $43$ x 4 = $172$
	3	No	FACU	$11PL species \qquad 0 \qquad x = 0$
3		110	1 400	118 + 397 = 118
4				Column Totals: (A) (B)
5.				2.26
				Prevalence Index = $B/A = $
0				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8.				
0				2 - Dominance Test is >50%
9	- 23			3 - Prevalence Index is ≤3.0 ¹
	25	= Total Cove	4.6	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:1.5	20% of	total cover:	4.0	dete in Demorke er en e concrete cheet)
Herb Stratum (Plot size: ⁵ )				udia ili Remarks of on a separate sheet)
1 Quercus alba	20	Yes	FACU	Problematic Hydrophytic Vegetation' (Explain)
· ·				
2				¹ Indicators of bydric soil and wetland bydrology must
3				be present, unless disturbed or problematic.
4.				Definitions of Four Venetation Strates
5				Demnitions of Four vegetation Strata:
0				<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7.				height.
8				Ŭ
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Hark All barbassay (non woody) planta regardlass
	20	Total Cava		of size, and woody plants less than 3.28 ft tall
500/ // / 10			1	of size, and woody plants less than 5.20 it tall.
50% of total cover:	20% of	total cover:		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1.				
2				
2				
3				
4				Hydrophytic
5				Vegetation
<u>.</u>	0	Tatal Oscilla		Present? Yes No
		= Total Cove	0	
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	cription: (Describe to	o the depth	needed to docur	nent the in	dicator o	or confirm	the absence of inc	dicators.)	
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-8	10 YR 4/2	100					LS		
8-18	5 Y 6/3	100					LS		
·	,								
·									
¹ Type: C=C	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL=Por	e Lining, M=Matrix	(
Hydric Soil	Indicators:						Indicators	for Problematic H	lydric Soils':
Histosol	(A1)		Dark Surface	(S7)			2 cm M	uck (A10) (MLRA	147)
Histic E	pipedon (A2)		Polyvalue Be	low Surface	e (S8) <b>(M</b>	ILRA 147,	148) Coast F	Prairie Redox (A16	i)
Black H	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLF	RA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	ed Matrix (F	2)		Piedmo	ont Floodplain Soil	s (F19)
Stratifie	d Layers (A5)		Depleted Mar	trix (F3)			(MLF	RA 136, 147)	
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F6	5)		Very SI	hallow Dark Surfac	e (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface (	F7)		Other (	Explain in Remark	s)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8)	)				
Sandy N	/lucky Mineral (S1) (LI	RR N,	Iron-Mangan	ese Masse	s (F12) <b>(l</b>	_RR N,			
MLRA	A 147, 148)		MLRA 13	6) 		0 400	31	Charles a bardier	and a Common of
Sandy C	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(N</b>	ILRA 13	6, 122)		s of hydrophytic ve	egetation and
Sandy F	(edox (S5)		Pleamont Fic	oopiain So	IIS (F19)	(MLRA 14)	8) wetland	nyarology must be	present,
Stripped	i Matrix (S6)			laterial (F2		A 127, 147	) uniess a	isturbed or probler	natic.
Restrictive	Layer (IT observed):								
Туре:			_						
Depth (in	ches):		_				Hydric Soil Pres	ent? Yes	No
Remarks:									

No hydric soil present



Photo 1 Upland data point WDIC007_u facing southwest



Photo 2 Upland data point WDIC007_u facing north

Project/Site: Atlantic Coast Pipeline	_ City/County: D	inwiddie	Sampling Date: 11/12/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB006f_w
Investigator(s): TP, LE	_ Section, Towns	ship, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.): drainageway	ocal relief (conca	ave, convex, none): <u>concave</u>	Slope (%): <u>1</u>
Subregion (LRR or MLRA): P Lat: <u>37.06878203</u>		Long: <u>-77.83004283</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slopes		NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this time of ye	/ear?Yes 🔽	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology naturally pr	roblematic?	(If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling p	point locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: PFO wetland located in a drainage swale	e between pastu	res.			

Wedana Hyarology maloators.				Secondary Indicators (minimum of two required)
Primary Indicators (minimum of on	e is required; chec	k all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)		Drainage Patterns (B10)		
Saturation (A3)	<u>~</u>	Oxidized Rhizospheres on Living I	Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)		Dry-Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Sc	oils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)		Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)				Geomorphic Position (D2)
Inundation Visible on Aerial In	nagery (B7)			Shallow Aquitard (D3)
Water-Stained Leaves (B9)				<ul> <li>Microtopographic Relief (D4)</li> </ul>
Aquatic Fauna (B13)				FAC-Neutral Test (D5)
Field Observations:				
Surface Water Present? Ye	s No 🚩	Depth (inches):		
Water Table Present? Ye	s No 🖌	Depth (inches):		
Saturation Present? Ye (includes capillary fringe)	s No 🔽	_ Depth (inches):	Wetland I	lydrology Present? Yes 🖌 No
				4
Describe Recorded Data (stream g	gauge, monitoring v	well, aerial photos, previous inspect	tions), if ava	allable:
Describe Recorded Data (stream g	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	allable:
Describe Recorded Data (stream g Remarks:	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	allable:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	allable:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring v	well, aerial photos, previous inspect	tions), if ava	aliable:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	aliable:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	aliable:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring v	well, aerial photos, previous inspect	tions), if ava	aliable:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	aliable:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	anabie:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	anabie:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	anabie:
Describe Recorded Data (stream of Remarks: Noted the presence of hummocks.	gauge, monitoring \	well, aerial photos, previous inspect	tions), if ava	anabie:

Sampling Point: WDIB006f_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>50</u> )	<u>% Cover</u> 20	<u>Species?</u> Yes	Status FAC	Number of Dominant Species
1. jouidambar styraciflua	10	Yes	FAC	That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6			·	Prevalence Index worksheet:
7	30			Total % Cover of: Multiply by:
15		= Total Cove	r 6	$\frac{1}{0} \frac{1}{0} \frac{1}{1} \frac{1}$
50% of total cover: <u>15</u>	20% of	total cover:		$\frac{20}{20} \times 2 = \frac{40}{40}$
Sapling/Shrub Stratum (Plot size:)	10	Voo		$\frac{1}{100} = \frac{1}{100} = \frac{1}$
	10			$\frac{1}{1} = \frac{1}{1} = \frac{1}$
	10	Yes		$\begin{array}{c} \text{FACO species} \\ 0 \\ \text{HDL enserving} \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ $
3. vibumum nudum	10	Yes		$\begin{array}{c} \text{OPL species} \\ \text{OPL species} \\ 90 \\ \text{(a)} \\ 230 \\ \text{(b)} \end{array}$
4. Acer rubrum	10	Yes	FAC	Column Totals: (A) (B)
5				Prevalence Index = $B/A = 2.55$
6				Hydrophytic Vegetation Indicators:
7				1 - Panid Tast for Hydrophytic Vegetation
8.				
9.				$\sim$ 2 - Dominance Test is >50%
	40	= Total Cove	r	· 3 - Prevalence Index is ≤3.0
50% of total cover: 20	20% of	total cover:	8	4 - Morphological Adaptations' (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1. Woodwardia areolata	10	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2				
2			·	¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
b				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				Herb – All herbaceous (non-woody) plants, regardless
	10	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>5</u>	20% of	total cover:	2	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1. Smilax rotundifolia	10	Yes	FAC	
2				
3				
4				Undeenhedia
5.				Vegetation
	10	= Total Cove	r	Present? Yes <u>V</u> No
50% of total cover: 5	20% of	total cover:	2	
Remarks: (Include photo numbers here or on a separate s	heet.)			
······································	,			

nches)					1			
	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-8	10YR 4/2	95	10YR 4/6	5	С	PL	SL	
8-12	10YR 5/1	100					SICL	
			·					
			·	 				
ype: C=C	oncentration, D=Depl	etion, RN	I=Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location: PL=Po	ore Lining, M=Matrix.
Juric Soli	indicators:			(07)			Indicators	
_ HIStosol	(A1)		Dark Surface	e (S7) starr Curfa			2 cm i	Muck (A10) <b>(MLRA 147)</b>
_ HISTIC EP	pipedon (A2)		Polyvalue Be	elow Surfac	ce (58) (IV	LRA 147,	148) <u>Coast</u>	Prairie Redox (A16)
Black HI	ISTIC (A3)			urrace (59)		47, 148)	(IVIL Dia dar	-RA 147, 148)
			Loany Gley		-2)			
_ Stratified	D Layers (A5)		Depleted Ma	atrix (F3)	0)		(IVIL	-RA 136, 147)
_ 2 cm IVIL	JCK (A10) <b>(LRR N)</b>	( )	Redox Dark	Surface (F	6) (F7)		very s	Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Da	irk Surface	(F7)		Other	(Explain in Remarks)
_ Thick Da	ark Surface (A12)		Redox Depr		3)			
_ Sandy N	/lucky Mineral (S1) (L	RR N,	Iron-Mangar	nese Masse	es (F12) <b>(I</b>	_RR N,		
MLR	A 147, 148)		MLRA 13	36)			3	
_ Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ace (F13) <b>(</b>	MLRA 13	6, 122)	Indicato	ors of hydrophytic vegetation and
_ Sandy F	Redox (S5)		Piedmont Fl	oodplain S	oils (F19)	(MLRA 14	8) wetland	d hydrology must be present,
_ Stripped	Matrix (S6)		Red Parent I	Material (F	21) <b>(MLR</b>	A 127, 147	) unless	disturbed or problematic.
estrictive	Layer (If observed):							
Type:								
Depth (in	ches):						Hydric Soil Pres	sent? Yes 🥙 No 🔜
emarks:								



Photo 1 Wetland data point WDIB006f_w facing east



Photo 2 Wetland data point WDIB006f_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Dir	nwiddie	Sampling Date: 11/12/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB006_u
Investigator(s): TP, LE	Section, Towns	hip, Range: No PLSS in this area	3
Landform (hillslope, terrace, etc.): hill slope	Local relief (concav	ve, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat: 37.0	16879862	Long: <u>-77.83017898</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slo	pes	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes	_ No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrologysi	ignificantly disturbed?	Are "Normal Circumstances"	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrologyn	aturally problematic?	(If needed, explain any answe	rs in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	<ul> <li>マークション</li> <li>マークション</li> <li>マークション</li> </ul>	Is the Sampled Area within a Wetland?	Yes	No	<u>v</u>
Remarks:							
Upland point taken at edge of pasture a	nd wetland.						

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

Sampling Point: WDIB006_u

	Absoluto	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet.
	/0 00101	000000	Olalao	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3.				Species Across All Strata: 4 (B)
4				(=)
- -		<u> </u>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 50 (A/B)
6				
7				Prevalence Index worksheet:
	0	Tatal O		Total % Cover of: Multiply by:
0		= I otal Cove	r O	$\frac{1}{0}$ OBL species $0$ $x_1 = 0$
50% of total cover: 0	20% of	total cover:	0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = 0$
1. Acer rubrum	10	Yes	FAC	FAC species $20$ x 3 = $60$
<ul> <li>Carpinus caroliniana</li> </ul>	10	Yes	FAC	FACU species $20 \times 4 = 80$
	10	Vaa		
3. Prunus serouna	10	res	FACU	$\frac{1}{40}$
4.				Column Totals: (A) (B)
5				
			<u> </u>	Prevalence Index = B/A = 3.5
6		<u> </u>		Hydrophytic Vegetation Indicators:
7				1. Donid Toot for Lludrath tic Variation
8				1 - Rapid Test for Hydrophytic Vegetation
	-			2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	30	= Total Cove	r	
50% of total cover: 15	20% of	total cover:	6	
Herb Stratum (Plot size: 5 )				data in Remarks or on a separate sheet)
Eupatorium capillifolium	10	Voc	EACU	Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u></u>	10	165	FACU	
2				
3				Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5		<u> </u>		
6.				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
7			·	more in diameter at breast height (DBH), regardless of
1				neight.
8				Sanling/Shrub - Woody plants, excluding vines, less
9.				than 3 in DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	10	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 5	20% of	total cover:	2	
Woody Vine Stratum (Plot size: 30 )		_		Woody vine – All woody vines greater than 3.28 ft in
				neight.
1		<u> </u>		
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes No V
50% of total cover: 0	20% of	total cover:	0	
	2070.01			
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator o	or confirm	the absence of	indicators.)	
Depth	Matrix		Redo	x Features	8	0			
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remar	ks
0-12	10YR 4/4	100					SL		
			<u> </u>						
·									
·									
			<u> </u>						
¹ Type: C=Co	oncentration. D=Depl	etion. RM=R	Reduced Matrix. MS	S=Masked	Sand Gra	ains.	² Location: PL=	Pore Lining, M=Mat	rix.
Hydric Soil	Indicators:						Indicato	ors for Problematic	Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cr	n Muck (A10) (MLR	A 147)
Histic Er	pipedon (A2)		Polvvalue Be	low Surfac	ce (S8) <b>(M</b>	LRA 147.	148) Coa	st Prairie Redox (A	16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47. 148)	() <u> </u>	MLRA 147, 148)	- /
Hydroge	en Sulfide (A4)		Loamy Gleve	d Matrix (I	<b>F</b> 2)	, ,	Piec	dmont Floodplain Sc	oils (F19)
Stratified	d Layers (A5)		Depleted Mat	rix (F3)	,			MLRA 136, 147)	( )
2 cm Mu	ick (A10) (LRR N)		Redox Dark S	Surface (F	6)		Ver	y Shallow Dark Surf	ace (TF12)
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Oth	er (Explain in Rema	rks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)				
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(I</b>	_RR N,			
MLRA	A 147, 148)		MLRA 13	6)					
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	³ Indica	ators of hydrophytic	vegetation and
Sandy R	ledox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetla	nd hydrology must h	be present,
Stripped	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	) unles	s disturbed or probl	ematic.
Restrictive I	Layer (if observed):								
Type:									
Depth (ind	ches):						Hydric Soil P	resent? Yes	No 🖌
Remarks:							1		



**Photo 1** Upland data point WDIB006_u facing north



Photo 2 Upland data point WDIB006_u facing west

Project/Site: Atlantic Coast Pipeline	City/County: [	Dinwiddie	_ Sampling Date: 3/17/2015
Applicant/Owner: Dominion		State: VA	Sampling Point: wdia006f_w
Investigator(s): GB, AS	Section, Towr	nship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): slope	Local relief (conc	ave, convex, none): <u>concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat	37.06717725	Long: <u>-77.82758715</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent	cent slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical f	or this time of year? Yes	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site n	nap showing sampling	point locations, transects	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u> </u>	No No No	Is the Sampled Area within a Wetland?	Yes _	~	No
Remarks:			-			
Wetland data point for a seasonally sat	urated PEO wet	and in a ten year old	I nine plantation water is per	hed abo	veasa	ndy clay B horizon located in

Wetland data point for a seasonally saturated PFO wetland in a ten year old pine plantation, water is perched above a sandy clay B horizon, located in a logging disturbed concave slope and the swale that exits from that concavity

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
✓ Saturation (A3) Oxidized Rhizospheres on Living	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in Tilled So	ils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🔽 Depth (inches):	
Water Table Present? Yes No 🔽 Depth (inches):	
Saturation Present? Yes <u>&lt;</u> No <u>Depth</u> (inches): 0 (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	
Soil is saturated from 0-10 inches above a sandy clay B horizon.	

Sampling Point: wdia006f_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Dominant Species
1 Pinus taeda	75	Yes	FAC	That Are OBL EACW or EAC: $5$ (A)
		·		
2			<u> </u>	Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				
-		·		Percent of Dominant Species
5		·		That Are OBL, FACW, or FAC: 83.333333333 (A/B)
6				
7				Prevalence Index worksheet:
··	75		·······	Total % Cover of: Multiply by:
07		= Total Cove	er 15	OBL species = 0   x 1 = 0
50% of total cover:	. <u>5</u> 20% of	total cover:	15	OBL species $12$ $x = 24$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = 24$
1 Magnolia virginiana	12	Yes	FACW	FAC species $113$ x 3 = $339$
Liquidambar aturaciflua		Vaa	EAC	EACU species 10 x 4 = 40
2. <u>Liquidambar styracilida</u>	0	165	FAC	$\begin{array}{c} x \neq = \\ 0 \\ \end{array}$
3. Acer rubrum	5	No	FAC	UPL species $\underbrace{0}_{x5} = \underbrace{0}_{x5}$
A Pinus taeda	5	No	FAC	Column Totals: ¹³⁵ (A) ⁴⁰³ (B)
4	- <u> </u>	No	EACU	
5. Ilex opaca	Z	INU	FACU	Prevalence Index = $B/A = 2.98$
6.				
7				Hydrophytic Vegetation Indicators:
1	<u> </u>			1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	30	- Total Cave		3 - Prevalence Index is ≤3.0°
500/ // 15			6	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Chasmanthium laxum	15	Yes	FAC	Problematic Hydrophytic Vegetation (Explain)
		·		
2		·		¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Manual tion Official
		·		Definitions of Four vegetation Strata:
o		·		<b>Tree</b> – Woody plants, excluding vines $3$ in (7.6 cm) or
6		·		more in diameter at breast height (DBH) regardless of
7.				height
0		· · · · · · · · · · · · · · · · · · ·		
o		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
	15	·	<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
	15	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover:	20% of	total cover:	3	We advertise All we advertise a prostor there 2,00 ft in
Woody Vine Stratum (Plot size: 30 )				woody vine – All woody vines greater than 3.28 ft in
Rubus argutus	8	Yes	FACU	neight.
1. <u>Nabao arganao</u>				
2. Smilax rotundifolia	/	Yes	FAC	
3.				
		·		
4		·	<u> </u>	Hydrophytic
5				Vegetation
	15	= Total Cove	er	Present? Yes Ves No
50% of total cover: 7.5	20% of	total cover	3	
	2070 01			
Remarks: (Include photo numbers here or on a separate	sheet.)			

	Matrix							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-2	10YR 2/2	100					SL	
2-5	10YR 4/2	100					SL	
5-10	10YR 4/1	98	10YR 5/8	2	С	PL/M	SCL	
10-24	10YR 5/1	80	10YR 5/8	20	С	М	SC	
							·	
			·					
Type: C=C	oncentration, D=Depl	letion, RM	I=Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.	
lydric Soil	Indicators:						Indicators for Problematic Hye	dric Soils ³ :
<ul> <li>Histosol</li> <li>Histic E</li> <li>Black H</li> <li>Hydroge</li> <li>Stratifier</li> <li>2 cm Mi</li> <li>Deplete</li> <li>Thick Di</li> </ul>	r (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) <b>(LRR N)</b> d Below Dark Surface ark Surface (A12) ucky Mineral (S1) <b>(</b> J	e (A11)	<ul> <li>Dark Surrace</li> <li>Polyvalue Be</li> <li>Thin Dark Su</li> <li>Loamy Gleye</li> <li>Depleted Mat</li> <li>Redox Dark Surace</li> <li>Depleted Dark</li> <li>Redox Depression</li> </ul>	low Surfa Inface (S9 d Matrix ( trix (F3) Surface (F Surface (F ssions (F Sas Mass	ice (S8) <b>(N</b> ) <b>(MLRA 1</b> (F2) 56) ≥ (F7) 8) es (F12) <b>(</b> (	ILRA 147, 47, 148)	2 cm Muck (A10) (MLRA 14 148) Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils ( (MLRA 136, 147) Very Shallow Dark Surface Other (Explain in Remarks)	F19) (TF12)
Sandy in MLR/	A 147, 148)		MLRA 13	6)			3	
Sandy C	Beyed Matrix (S4)		Umbric Surfa	ce (F13) odploip S	(MLRA 13	6,122) /MIDA 14	Indicators of hydrophytic vege e)	etation and
Stripper	Matrix (S6)		Red Parent N	Aaterial (F	50115 (1119) 521) <b>(MI R</b>	(INIERA 14 A 127, 147	() unless disturbed or problema	tic
Restrictive	Laver (if observed):							
Type. sa	indy clay							
Depth (in	ches): 10						Hydric Soil Present? Yes	No
	,							



**Photo 1** Wetland data point wdia006f_w facing east



Photo 2 Wetland data point wdia006f_w facing north

Project/Site: Atlantic Coast Pipeline	City/County: Di	inwiddie	_ Sampling Date: 3/17/2015
Applicant/Owner: Dominion		State: VA	Sampling Point: wdia006_u
Investigator(s): GB, AS	Section, Towns	ship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): slope	Local relief (conca	ve, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P Lat: 37	.06754457	Long: <u>-77.82765513</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent	slopes	NWI classifi	cation: None
Are climatic / hydrologic conditions on the site typical for th	his time of year? Yes	_ No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS Attach site man	showing compling p	aint logations transact	important factures ato

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks: Upland data point taken outside and up plantation.	slope of a conca	ave area of slope for	a seasonally saturated PFO	wetland located	in a 10-year-old pine

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

Sampling Point:<u>wdia006_u</u>

	Absolute	Dominant	Indicator	Dominance Test worksheet
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Developed Operator
Pinus taeda	85	Yes	FAC	That Are OBL_EACW or EAC: 4 (A)
2				Total Number of Dominant
3				Species Across All Strata: (B)
4				
5.				Thet Are OBL EACING or EAC: 57,14285714 (A/P)
6				That Ale OBL, FACW, OF FAC. (A/B)
0				Prevalence Index worksheet:
7	05			Total % Cover of: Multiply by:
	00	= Total Cove	er	
50% of total cover: 42.5	20% of	total cover:	17	OBL species $x_1 = 0$
Sapling/Shrub Stratum (Plot size: 15)				FACW species $2 \times 2 = 4$
1 Pinus taeda	8	Yes	FAC	FAC species $x 3 = 306$
o Liquidambar styraciflua	4	Yes	FAC	FACU species $16 \times 4 = 64$
		No	EAC	$\frac{1}{1} \frac{1}{1} \frac{1}$
3. Acer rubrum			FAC	0PL species X 5 =
_{4.} Magnolia virginiana	2	No	FACW	Column Totals: (A) (B)
5. Aralia spinosa	1	No	FAC	2 1 2 2 2 1 2 1 1
6 Juniperus virginiana	1	No	FACU	Prevalence Index = $B/A = $
-				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				$\frac{1}{2} = 2 = 2 = 2 = 1 = 1 = 2 = 2 = 1 = 2 = 2$
	18	= Total Cove	ə <b>r</b>	3 - Prevalence index is \$3.0
50% of total cover: 9	20% of	total cover	3.6	4 - Morphological Adaptations' (Provide supporting
$\frac{1}{2}$		10101 00101.		data in Remarks or on a separate sheet)
Chasmanthium laxum	2	Vee		Problematic Hydrophytic Vegetation ¹ (Explain)
1. Chasmannium laxum		Yes	FAC	
2. Galium aparine	2	Yes	FACU	The Program of the data and the state of the
3. Polystichum acrostichoides	1	Yes	FACU	Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed of problematic.
				Definitions of Four Vegetation Strata:
5				<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8.				
0				Sapling/Shrub – Woody plants, excluding vines, less
				than 3 In. DBH and greater than or equal to 3.28 ft (1
10				111 <i>)</i> tali.
11				Herb – All herbaceous (non-woody) plants, regardless
	5	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5	20% of	total cover:	1	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
Rubus argutus	12	Yes	FACU	neight.
1. <u></u>				
2				
3				
4.				
5				Hydrophytic
	12			Present? Yes V
6	12	= Iotal Cove	er 24	
50% of total cover:	20% of	total cover:	2.7	
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe	to the dept	h needed to docur	nent the i	ndicator	or confirm	n the absence o	of indicators.)	
Depth	Matrix		Redo	x Features	6				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-5	10YR 4/3	100					SL		
5-12	2.5 Y 5/4	100					SL		
12-24	2.5Y 6/4	100					SL		
							·		
¹ Type: C=C	oncentration, D=Dep	etion, RM=	Reduced Matrix, M	S=Masked	Sand Gra	ains.	² Location: PL=	=Pore Lining, M=Ma	atrix.
Hydric Soil	Indicators:						Indicat	ors for Problemati	ic Hydric Soils ³ :
Histosol Histic E Black H Hydroge Stratifie 2 cm M Deplete Thick D Sandy M	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) <b>(LRR N)</b> d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) <b>(L</b>	∋ (A11) <b>.RR N,</b>	Dark Surface     Polyvalue Be     Thin Dark Su     Loamy Gleye     Depleted Ma     Redox Dark     Depleted Dar     Redox Depre     Iron-Mangan	e (S7) Ilow Surface Inface (S9) Ed Matrix (I trix (F3) Surface (F rk Surface Essions (F esse Masse	ce (S8) <b>(N</b> (MLRA 1 F2) 6) (F7) 3) es (F12) <b>(</b> 1	ILRA 147, 47, 148) LRR N,	2 c 148) Co. Pie ( Ver Oth	m Muck (A10) <b>(ML</b> ) ast Prairie Redox (/ ( <b>MLRA 147, 148)</b> domont Floodplain S ( <b>MLRA 136, 147)</b> ry Shallow Dark Su her (Explain in Rem	<b>RA 147)</b> A16) Soils (F19) rface (TF12) arks)
MLR Sandy C Sandy F Stripped	A 147, 148) Gleyed Matrix (S4) Redox (S5) d Matrix (S6)		MLRA 13 Umbric Surfa Piedmont Flo Red Parent M	<b>6)</b> ace (F13) <b>(</b> bodplain So Material (F.	<b>MLRA 13</b> oils (F19) 21) <b>(MLR</b>	6, 122) (MLRA 14 A 127, 147	³ Indic 18) weth 7) unle	ators of hydrophytio and hydrology mus ss disturbed or prol	c vegetation and t be present, blematic.
	Layer (IT observed):								
Type: <u>10</u>	iches):						Hydric Soil P	Prosont? Vos	No 🖌
								1000mt: 105_	
Remarks:									



**Photo 1** Upland data point wdia006_u facing east



Photo 2 Upland data point wdia006_u facing north

Project/Site: Atlantic Coast Pipelin	16	_ City/County: Dinwi	ddie	Sampling Date: 11/11/2014
Applicant/Owner: Dominion			State: VA	Sampling Point: WDIB004f_w
Investigator(s): TP, SP		_ Section, Township	, Range: <u>No PLSS in this area</u>	
Landform (hillslope, terrace, etc.):	drainage way	ocal relief (concave,	convex, none): <u>concave</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P	Lat: 37.06142955	5	Long: <u>-77.81898894</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sand	ly loam, 7 to 15 percent slopes		NWI classific	ation: None
Are climatic / hydrologic conditions	s on the site typical for this time of	year?Yes 🔽 N	lo (If no, explain in R	emarks.)
Are Vegetation, Soil	_, or Hydrology significant	ly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No
Are Vegetation, Soil	_, or Hydrology naturally p	problematic? (	If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS	– Attach site map showin	ig sampling poir	nt locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes _ ✔ Yes _ ✔ Yes _ ✔	No No No	Is the Sampled Area within a Wetland?	Yes _	<b>v</b>	No	
Remarks:							
PFO in drainage way (depicted as perennial stream on NHD map). No stream present. Surrounding area timbered approximately 10 years ago.							

PFO in drainage way (depicted as perennial stream on NHD map). No stream present. Surrounding area timbered approximately 10 years ago. Enough hardwoods in drainage way to constitute PFO wetland. Also noted sphagnum.

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Water Marks (B1)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	Sparsely Vegetated Concave Surface (B8)     ✓     Drainage Patterns (B10) Roots (C3) Moss Trim Lines (B16)     Dry-Season Water Table (C2)     Crayfish Burrows (C8)     Saturation Visible on Aerial Imagery (C9)     Stunted or Stressed Plants (D1)     Geomorphic Position (D2)     Shallow Aquitard (D3)     Microtopographic Relief (D4)     ✓ EAC-Neutral Tast (D5)
Aqualic Faulta (B13)	
Surface Water Present? Yes No _ Depth (inches):	
Water Table Present?       Yes       No       ✓       Depth (inches):         Saturation Present?       Yes       ✓       No       Depth (inches):       11         (includes capillary fringe)       Includes capillary fringe       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No tions), if available:

Sampling Point: WDIB004f_w

	Absolute	Dominant Ir	dicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	
A Acer rubrum	5	Yes	FAC	Number of Dominant Species
1. Pinus teada		Ves	FAC	That Are OBL, FACW, or FAC: (A)
2. Pinus taeda		Tes	FAC	Total Number of Dominant
_{3.} Quercus phellos	5	Yes	FAC	Species Across All Strata: 8 (B)
∧ Liquidambar stvraciflua	5	Yes	FAC	
4		<u> </u>		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6.				
7				Prevalence Index worksheet:
	20			Total % Cover of: Multiply by:
	:	= Total Cover	4	$\frac{20}{x_1 - 20}$
50% of total cover: <u>10</u>	20% of	total cover:	4	OBL species $15$ $x = 20$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 = 30$
Viburnum nudum	10	Yes	OBL	FAC species $40$ x 3 = $120$
- Ouerous phellos	10	Voc	EAC	EACLI species 0 x 4 = 0
2. Quercus priellos	10	res	FAC	$\begin{array}{c} FACO species \\ 0 \\ \end{array} \\ \begin{array}{c} X \ 4 = \\ 0 \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \begin{array}{c} X \ 4 = \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ \end{array} \\ \begin{array}{c} X \ 1 = \\ \end{array} \\ \begin{array}{c} 0 \\ 0 \\ 0 \\ \end{array} \\ \begin{array}{c} X \ 1 = \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0 \\ 0$
_{3.} Liquidambar styraciflua	5	No	FAC	UPL species $\underbrace{0}_{x5} \times 5 = \underbrace{0}_{x5}$
A Acer rubrum	5	No	FAC	Column Totals: ⁷⁵ (A) ¹⁷⁰ (B)
4		<u> </u>		( ) ( )
5				Prevalence index = $B/A = 2.26$
6				
7				Hydrophytic Vegetation Indicators:
/ ·				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	30	- Total Cover		3 - Prevalence index is ≤3.0
E0% of total appears 15			6	4 - Morphological Adaptations ¹ (Provide supporting
	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)				Ducklemetic Underschutic V(contation ¹ (Eucleic)
_{1.} Juncus effusus	15	Yes	FACW	Problematic Hydrophytic Vegetation (Explain)
o Carex prasina	10	Yes	OBI	
2. <u></u>				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4.				Definitions of Four Verstation Strate:
5				Demilions of Four vegetation Strata.
^{3.}				<b>Tree</b> – Woody plants, excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7.				height.
8				ő
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
	25			Herb – All herbaceous (non-woody) plants, regardless
40.5	. <u></u> :	= Total Cover	_	of size, and woody plants less than 3.28 ft tall.
50% of total cover: <u>12.5</u>	20% of	total cover:	5	Woody vine All woody vines greater than 2.28 ft in
Woody Vine Stratum (Plot size: 30)				height
1				noight.
		<u> </u>		
2		<u> </u>		
3				
Α				
				Hydrophytic
5				Vegetation
	0.	= Total Cover		Present? Yes <u>Ves</u> No
50% of total cover: 0	20% of	total cover:	0	
Pomarka: (Include photo numbers here or on a congrate s	hoot)			
Remarks. (include proto numbers here of on a separate s	neet.)			

Color (moist)         %         Color (moist)         %         Type1         Loc2         Texture         Remarks           0-5         10YR 4/2         95         10YR 4/6         5         C         PL         SL	Depth	Matrix		Redo	x Feature	S			
0-5         10YR 4/2         95         10YR 4/6         5         C         PL         SL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/1         95         10YR 4/6         5         C         PL         SCL           5-12         10 YR 4/6         5         0         10	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
5-12       10 YR 4/1       95       10YR 4/6       5       C       PL       SCL         Science       Science       Science       Science       Science       Science       Science         Science       Science       Science       Science       Science       Science       Science         Type:       Science       Science       Science       Science       Science       Science         Type:       Science       Science       Science       Science       Science       Science         Histosol (A1)       Dark Surface (S7)       Science       Sc	0-5	10YR 4/2	95	10YR 4/6	5	С	PL	SL	
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         Indicators:       Indicators for Problematic Hydric Soils         Histosol (A1)	5-12	10 YR 4/1	95	10YR 4/6	5	С	PL	SCL	
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         lydric Soil Indicators:       Indicators for Problematic Hydric Soils								; ;	
	Type: C=C	concentration, D=Dep	etion, RM	=Reduced Matrix, M	S=Masked	d Sand Gra	  ains.	² Location: PL=	=Pore Lining, M=Matrix.
		1(A1)		Dark Surface	(97)			20	
	HISLOSO	ninodon (A2)		Dark Surface	e (37) Now Surfa	000 (S9) (N		148) <u> </u>	ni Muck (ATO) (MLRA 147)
	_ Hour L	pipedon (A2)		Thin Dark Su	rface (SQ	) (MI PA 1	12NA 147,	(146)	
	Diack II	an Sulfide $(AA)$			d Matrix (		47, 140)	( Dio	dmont Floodplain Soils (F19)
Stratified Layers (AS)     C Depleted Matrix (FS)     C Depleted Dark Surface (FF)     C Depleted Dark Surface (FT)      _ Tryulogi Stratifia	d Lavora (A5)		Loanly Gleye	triv (E2)	(ГZ)				
2 chi Midek (A10) (LRK N) Redox Dark Surface (P6) Very Shallow Dark Surface (P12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Redox Depressions (F8) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) MLRA 136) NMLRA 147, 148) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, Diedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic.          Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.         Type:	_ Stratille				uix (F3) Surface (E	<b>T</b> ( <b>C</b> )			wERA 130, 147)
Depleted below Dark Surface (A11)     Depleted Dark Surface (F7)     Conter (Explain in Remarks)     Depleted Dark Surface (F7)     Conter (Explain in Remarks)     Depleted Dark Surface (F7)     Conter (Explain in Remarks)     Conter (Explain in Remarks)     Depleted Dark Surface (F7)     Conter (Explain in Remarks)     Conter (Explain in Rema	_ Z CITI IVI	uck (ATU) (LKK N) d Dalaw Dark Surface	( ( 1 1 )			-0)			y Shallow Dark Surface (TFT2)
Inick Dark Surface (A12)   Sandy Mucky Mineral (S1) (LRR N,   MLRA 147, 148)   Sandy Gleyed Matrix (S4)   Sandy Redox (S5)   Piedmont Floodplain Soils (F19) (MLRA 136, 122)   Stripped Matrix (S6)   Red Parent Material (F21) (MLRA 127, 147)   Umbers Surface (F13) (MLRA 127, 147)   Umbers Surface (F13) (MLRA 127, 147)		orle Surface (A12)	= (ATT)			; ( <i>Г1)</i>		0	ier (Explain in Remarks)
Sandy Mucky Mineral (ST) (LRK N,		ark Surface (ATZ)			M	0) 			
MLRA 147, 148)       MLRA 136)	_ Sandy r	VIUCKY IVIINERAI (51) (L	.KK N,	Iron-Mangan	ese mass	es (F12) (	LRR N,		
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Indicators of hydrophytic Vegetation and Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, unless disturbed or problematic.          Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.         Itestrictive Layer (if observed):         Type:         Depth (inches):         Multicators of hydrophytic Vegetation and	MLR	A 147, 148)		WILRA 13	<b>b)</b>		0 400)	31	- to a set the standard by the second state of a second
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	_ Sandy (	Sleyed Matrix (S4)			ice (F13)		6, 122)		ators of hydrophytic vegetation and
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. testrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes	_ Sandy I	Redox (S5)		Piedmont Flo	odplain S	50IIS (F19)	(MLRA 14	18) wetla	and hydrology must be present,
estrictive Layer (if observed): Type: Depth (inches): No	_ Stripped	d Matrix (S6)		Red Parent N	Material (F	-21) (MLR	A 127, 147	7) unle	ss disturbed or problematic.
Type:	estrictive	Layer (if observed):							
Depth (inches): No	Type:								
lomarke:	Depth (in	iches):						Hydric Soil P	resent? Yes 🖌 No 🔜
	emarks:								



Photo 1 Wetland data point WDIB004f_w facing north



Photo 2 Wetland data point WDIB004f_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Dinv	viddie	Sampling Date: 11/11/2014					
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB004_u					
Investigator(s): TP, SP	Section, Townshi	p, Range: No PLSS in this area						
Landform (hillslope, terrace, etc.): hill slope	Local relief (concave	e, convex, none): <u>none</u>	Slope (%): <u>4</u>					
Subregion (LRR or MLRA): P Lat: 37.06	144164	Long: -77.81902225	Datum: WGS 1984					
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent slopes NWI classification: None								
Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)								
Are Vegetation, Soil, or Hydrology sign	nificantly disturbed?	Are "Normal Circumstances" p	resent? Yes 🖌 No					
Are Vegetation, Soil, or Hydrology nat	urally problematic?	(If needed, explain any answe	rs in Remarks.)					
		• • • • • •	• • • • • •					

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	ン ン ン	Is the Sampled Area within a Wetland?	Yes	No	<u> </u>
Remarks:	nding area timbo	ared an	provimately 1	O years ago. No evidence of l	avdrology		
		ereu ap	proximatery	o years ago. No evidence on	rydrology.		

Sampling Point:<u>WDIB004_u</u>

	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	
A Quercus alba	5	Yes	FACU	Number of Dominant Species
Rinus taeda	5	Yes	FAC	That Are OBL, FACW, of FAC: (A)
2. <u>Fillus laeua</u>		<u> </u>		Total Number of Dominant
3. Acer rubrum	5	Yes	FAC	Species Across All Strata: 6 (B)
4.				· · · · · · · · · · · · · · · · · · ·
5			·	Percent of Dominant Species
- 5			<u> </u>	That Are OBL, FACW, or FAC: (A/B)
6		<u> </u>	<u> </u>	Brovolonoo Indox workohooti
7				Prevalence index worksheet:
	15	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 7.5	20% of	total cover:	3	OBL species x 1 =0
	2070 01			FACW species $0$ x 2 = $0$
Sapling/Shrub Stratum (Plot size:)	10		FAOL	$\frac{25}{75}$
1. Ilex opaca	10	Yes	FACU	FAC species $x_3 = 100$
_{2.} Liquidambar styraciflua	10	Yes	FAC	FACU species $23$ x 4 = $100$
2 Quercus alba	10	Yes	FACU	UPL species $0 \times 5 = 0$
S	5	No	FAC	Column Totals: $50$ (A) $175$ (B)
4. Pinus laeda			170	
5				$Provolonco  Index = P/A = -\frac{3.5}{2}$
6.				
7				Hydrophytic Vegetation Indicators:
ſ			·	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				
	35		r	3 - Prevalence Index is ≤3.0°
50% of total appears 17.5	200/ of		7	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover.	20% 01	total cover.		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				Problematic Hydrophytic Vegetation ¹ (Evaluation)
1				
2				
<u>-</u>				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
-				more in diameter at breast height (DBH), regardless of
7			<u> </u>	height.
8				Sapling/Shrub Woody plants excluding vines loss
9.				than 3 in DBH and greater than or equal to 3 28 ft (1
10				m) tall.
10				
11		<u> </u>	<u> </u>	Herb – All herbaceous (non-woody) plants, regardless
	0	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0	20% of	total cover:	0	
Woody Vine Stratum (Plot size: 30)		_		Woody vine – All woody vines greater than 3.28 ft in
				neight.
1				
2				
3.				
4			·	
4				Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes No V
50% of total cover: 0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	sheet.)			

Profile Desc	cription: (Describe to	the dep	th needed to docum	ent the i	ndicator o	or confirm	the absence of indicators.)				
Depth	Matrix		Redox	Feature	s						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc ²	Texture Rema	rks			
0-4	10YR 3/2	100					SL				
4-12	10 YR 5/3	95	10YR 6/6	5	С	М	SCL				
							<u> </u>				
	an approximation D Dank	tion DM	Deduced Metrix MC	Maakaa			² Leastion: DL Date Lining M Ma				
	Indicators:		-Reduced Matrix, Mo	eiviaskeu	a Sanu Gra		Indicators for Problemati	c Hydric Soils ³			
Histosol	(A1)		Dark Surface	(97)			2 cm Muck (A10) (ML				
Histic Fr	(AI) ninedon (A2)		Dark Surface	(37) ow Surfa	co (S8) (M	I PA 147	1/8) Coast Prairie Redox (/	<b>XA 147)</b>			
Black Hi	istic (A3)		Thin Dark Sur	ow Suna rface (S9)	(MIRA 1	47 148)	(MI RA 147 148)	(10)			
<u> </u>	en Sulfide (A4)		l oamy Glever	d Matrix (	(iiieitia ii F2)		Piedmont Floodplain S	oils (F19)			
Stratified	d Lavers (A5)		Depleted Mat	rix (F3)	/		(MLRA 136, 147)				
2 cm Mu	uck (A10) (LRR N)		Redox Dark S	Surface (F	-6)		Very Shallow Dark Surface (TF12)				
Deplete	d Below Dark Surface	(A11)	Depleted Darl	k Surface	(F7)		Other (Explain in Rem	arks)			
Thick Da	ark Surface (A12)		Redox Depres	Redox Depressions (F8)							
Sandy N	/lucky Mineral (S1) <b>(Li</b>	RR N,	Iron-Mangane	ese Mass	es (F12) <b>(L</b>	.RR N,					
MLR	A 147, 148)		MLRA 136	5)							
Sandy G	Gleyed Matrix (S4)		Umbric Surfac	ce (F13) (	(MLRA 130	6, 122)	³ Indicators of hydrophytic	vegetation and			
Sandy F	Redox (S5)		Piedmont Floor	odplain S	oils (F19)	(MLRA 14	<li>wetland hydrology must</li>	be present,			
Stripped	d Matrix (S6)		Red Parent M	laterial (F	21) <b>(MLR</b>	A 127, 147	) unless disturbed or prob	plematic.			
Restrictive	Layer (if observed):										
Туре:								,			
Depth (in	ches):						Hydric Soil Present? Yes	No			
Remarks:											



Photo 1 Upland data point WDIB004_u facing southwest



Photo 2 Upland data point WDIB004_u facing northwest

Project/Site: Atlantic Coast Pipeline	City/County: Dinwiddie	9	_ Sampling Date: 11/11/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB005e_w
Investigator(s): TP, SP	Section, Township, Ra	ange: No PLSS in this are	ea
Landform (hillslope, terrace, etc.): flat area along toe of s	ope Local relief (concave, cor	vex, none): <u>none</u>	Slope (%): <u>2</u>
Subregion (LRR or MLRA): P Lat: 3	7.06112701 Lor	ng: <u>-77.81889801</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percen	slopes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical for t	his time of year? Yes 🔽 No _	(If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are	"Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic? (If n	eeded, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS Attach site may	showing compling point	acations transact	s important foaturos ato

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>v</u> No Yes <u>v</u> No Yes <u>v</u> No	Is the Sampled Area within a Wetland? Yes <u> ✓</u> No
Remarks: PEM wetland in flat area long toe of slop approximately 10 years ago.	be, then drops abruptly to creek.	Possible staging area for timber harvest Surrounding area timbered

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

Sampling Point: WDIB005e_w

· · · · · · · · · · · · · · · · · · ·	Al l. (-	Devices	. Pastan	Deminence Test werkeliget
Tree Stratum (Plot size: 30)	Absolute % Cover	Species?	Status	Dominance Test worksneet:
	70 00001		Olalus	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				()
	-	- <u> </u>		Percent of Dominant Species
o		·		That Are OBL, FACW, or FAC: (A/B)
6		·		Dravalan oo la dax waxkab aat
7				Prevalence index worksheet:
	0	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 0	20% of	total cover:	0	OBL species20 x 1 =20
Sopling/Shrub Stratum (Blot aiza: 15				FACW species $65$ x 2 = $130$
<u>Saping/Sinub Stratum</u> (Flot Size)	5	Ves	FAC	$FAC$ species $5$ $x_3 = 15$
1. Fillus laeua		165	TAC	$10 \times 3 = 40$
2				FACU species $x 4 = 0$
3.				UPL species $0 x 5 = 0$
4				Column Totals: (A) (B)
		·		
o		·		Prevalence Index = $B/A = 2.05$
6				Hydrophytic Vegetation Indicators
7		<u> </u>		1. Donid Tost for Hydrophytic Vegetation
8				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
9	5			Y 3 - Prevalence Index is ≤3.0 ¹
0.5		= Total Cove	er 1	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 2.5	20% of	f total cover:		data in Romarks or on a sonarate shoet)
Herb Stratum (Plot size: 5 )				
_{1.} Scirpus cyperinus	50	Yes	FACW	Problematic Hydrophytic Vegetation' (Explain)
o Galium tinctorium	20	Yes	OBI	
	15	No	EACM	¹ Indicators of hydric soil and wetland hydrology must
3. Juncus enusus	15		FACW	be present, unless disturbed or problematic.
4. Rubus argutus	10	No	FACU	Definitions of Four Vegetation Strata:
5.				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7		·		more in diameter at breast height (DBH), regardless of
7		·		neight.
8				Sanling/Shrub – Woody plants, excluding vines, less
9		<u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
11	95			<b>Herb</b> – All herbaceous (non-woody) plants, regardless
47 5		= Total Cove	er 10	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 47.5	20% of	f total cover:	19	<b>Woody vine</b> – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1.				
2				
		·		
٥		·		
4				Hydrophytic
5				Vegetation
	0	- Total Cove		Present? Yes <u>V</u> No
50% of total cover: 0	20% of	= 10tal Cove	0	
	20 % 0	total cover.		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Dooth	Motrix		Dada		•				
(inches)	Color (moist)	%	Color (moist)	<u>x reature</u> %	Tvpe ¹	$\log^2$	Texture	Remarks	\$
0-3	10YR 2/1	100					SL		-
3-12	10 YR 6/2	95	10YR 5/6	5	С	М	SCL		
Type: C=C Iydric Soil	Concentration, D=Depl	etion, RM	1=Reduced Matrix, M	S=Masked		  ains.	² Location: PL=F Indicator 2 cm	Pore Lining, M=Matri s for Problematic I	x. Hydric Soils ³ :
Histoso	pipedon (A2)		Polyvalue Be	elow Surfa	ice (S8) <b>(M</b>	ILRA 147,	148) Coas	st Prairie Redox (A16	5)
Black H	listic (A3)		Thin Dark Su	urface (S9	) <b>(MLRA 1</b>	47, 148)	(M	LRA 147, 148)	
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		Pied	mont Floodplain Soil	s (F19)
Stratifie	d Layers (A5)		✓ Depleted Ma	trix (F3)			(M	LRA 136, 147)	
2 cm M	uck (A10) <b>(LRR N)</b> Id Balaw Dark Surface	(111)	Redox Dark	Surface (F	-6) \ (EZ)		Very	Shallow Dark Surface	ce (TF12)
Deplete	a Below Dark Surface	e (ATT)	Depleted Da	rk Surrace	e (F7)		Othe	r (Explain in Remark	(S)
Thick D	ark Surface (ATZ)				0) 00 (E12) <b>(I</b>				
Sanuy i 	MUCKY MILLERAL (ST) (L	KK N,		6)	es (F12) <b>(1</b>	_KK N,			
Sandy	Gleved Matrix (S4)		Umbric Surfa	<b>9</b> Ce (F13)	(MI RA 13	6 122)	³ Indicat	ors of hydrophytic v	edetation and
Sandy Sandy	Redox (S5)		Piedmont Flo	odolain S	oils (F19)	(MLRA 14	8) wetlar	nd hydrology must be	e present.
Strippe	d Matrix (S6)		Red Parent N	Material (F	21) <b>(MLR</b>	A 127, 147	) unless	disturbed or proble	matic.
Restrictive	Layer (if observed):			,	, ,			· ·	
Type:									
Depth (ir	ches):						Hvdric Soil Pre	esent? Yes 🖌	No
Pomarke:	,								_
Ciliaino.									



Photo 1 Wetland data point WDIB005e_w facing southwest



Photo 2 Wetland data point WDIB005e_w facing east

Project/Site: Atlantic Coast Pipeline	City/County: Dinw	viddie	Sampling Date: 11/11/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB005_u
Investigator(s): TP, SP	Section, Township	o, Range: No PLSS in this area	
Landform (hillslope, terrace, etc.): hill slope	Local relief (concave	, convex, none): <u>none</u>	Slope (%): <u>4</u>
Subregion (LRR or MLRA): P Lat: 37.0	609867	Long: -77.81873475	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 percent sl	opes	NWI classific	ation: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrologysi	gnificantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology na	aturally problematic?	(If needed, explain any answe	rs in Remarks.)
			•••••••••••••••••••••••••••••••••••

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No	
Remarks: Upland point taken in clear cut. Surror	unding area tir	nbered approximate	ly 10 years ago. No evidence c	of 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)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Oxidized Rhizospheres on Living</li> <li>Water Marks (B1)</li> <li>Presence of Reduced Iron (C4)</li> <li>Sediment Deposits (B2)</li> <li>Recent Iron Reduction in Tilled So</li> <li>Drift Deposits (B3)</li> <li>Thin Muck Surface (C7)</li> <li>Algal Mat or Crust (B4)</li> <li>Other (Explain in Remarks)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water-Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> <li>FAC-Neutral Test (D5)</li> </ul>
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No 🔽 Depth (inches):	
Saturation Present? Yes <u>No</u> Depth (inches): <u>(includes capillary fringe</u> )	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks: No hydrology indicators.	

Sampling Point: WDIB005_u

, ,	A h. a. a. h. et a	• Denvirent 1	· · P · · · · ·	Deminence Test worksheet
Trop Stratum (Plot size: 30)	Absolute % Cover	Dominant II	Status	Dominance Test worksneet:
	<u>_/8 COVEL</u>	opecies:	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2		- <u> </u>		Total Number of Dominant
3.				Species Across All Strata: 2 (B)
4		·		
4			<u> </u>	Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 50 (A/B)
6.				
7				Prevalence Index worksheet:
1	0		<u> </u>	Total % Cover of: Multiply by:
		= Total Cove	r	$\frac{1}{0}$ OPL appealed $\frac{1}{0}$ $\frac{1}{1}$ $\frac{1}{0}$
50% of total cover:	<u> </u>	f total cover:	0	
Sapling/Shrub Stratum (Plot size: 15	_)			FACW species $x_2 = 0$
1 Pinus taeda	65	Yes	FAC	FAC species $\frac{65}{x 3} = \frac{195}{x 3}$
_ !		·		EACU species 20   x4 = 80
2				
3				UPL species $x_5 = 0$
4				Column Totals: (A) (B)
		·		
<u>ی۔</u>				Prevalence Index = B/A = 3.23
6	·	·		Hydrophytic Vegetation Indicators:
7				A David Test (all buller bulle 1)
8				- Rapid Test for Hydrophytic Vegetation
8		·	·	2 - Dominance Test is >50%
9		·		3 - Prevalence Index is $≤3.0^{1}$
	65	= Total Cove	r	
50% of total cover:	32.5 20% of	f total cover:	13	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
Rubus argutus	20	Voo	EACU	Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u></u>		Tes	FACU	
2		<u></u>		
3.				Indicators of hydric soil and wetland hydrology must
4		·		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5		·		
6				I ree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				height
··			·	noight.
8		·	<u> </u>	Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11		·		
'''	20	·	·	Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover:	<u>10</u> 20% of	f total cover:	4	Woody vine All woody vines greater than 2.28 ft in
Woody Vine Stratum (Plot size: 30	)			height
1				Togra
	·	·		
2	·			
3		. <u> </u>		
4.				
		·		Hydrophytic
o		·	<u> </u>	Vegetation
	0	= Total Cove	r	Present? Yes No
50% of total cover:	0 20% of	f total cover:	0	
Remarks: (Include photo numbers here or on a ser	parate sheet )			

Profile Desc	ription: (Describe t	o the depth	needed to docun	nent the i	ndicator o	or confirm	the absence of	f indicators.)	
Depth	Matrix		Redo	x Features	8	0			
(inches)	Color (moist)	<u>%</u> _	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remark	s
0-12	10YR 6/3	100					SL		
			<u> </u>						
				·		·			
				<u> </u>					
·									
¹ Type: C=Co	oncentration, D=Deple	etion, RM=R	Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: PL=	Pore Lining, M=Matri	x.
Hydric Soil	Indicators:		, , ,				Indicato	ors for Problematic	Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)			2 cr	n Muck (A10) <b>(MLRA</b>	147)
Histic Er	pipedon (A2)		Polvvalue Be	low Surfac	ce (S8) <b>(M</b>	LRA 147.	148) Coa	ast Prairie Redox (A1	6)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	, <u> </u>	MLRA 147, 148)	,
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (I	、 F2)		Piec	dmont Floodplain Soi	ls (F19)
Stratified	d Layers (A5)		Depleted Mat	rix (F3)	,			MLRA 136, 147)	
2 cm Mu	ick (A10) (LRR N)		Redox Dark S	Surface (F	6)		Ver	y Shallow Dark Surfa	ce (TF12)
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Oth	er (Explain in Remar	ks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)				
Sandy M	lucky Mineral (S1) <b>(L</b>	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(I</b>	_RR N,			
MLRA	A 147, 148)		MLRA 13	6)					
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(</b>	MLRA 13	6, 122)	³ Indica	ators of hydrophytic v	egetation and
Sandy R	ledox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetla	and hydrology must b	e present,
Stripped	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	) unles	ss disturbed or proble	matic.
Restrictive I	Layer (if observed):								
Туре:									
Depth (ind	ches):						Hydric Soil P	resent? Yes	No 🖌
Remarks:							1		



Photo 1 Upland data point WDIB005_u facing southwest



Photo 2 Upland data point WDIB005_u facing southeast
Project/Site: Atlantic Coast Pipeline	City/County: Di	inwiddie	_ Sampling Date: 11/10/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB003s_w
Investigator(s): TP, SP	Section, Towns	ship, Range: <u>No PLSS in this are</u>	a
Landform (hillslope, terrace, etc.): drainage way	Local relief (conca	ve, convex, none): <u>concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat: 37.055	988515	Long: <u>-77.81794197</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slope	es	NWI classifi	ication: None
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes	_ No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology nat	urally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sh	owing sampling p	ooint locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	ン ン ン	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks: PSS wetland located in drainage way, d	epicted	as an i	intermittent stream N	HD line. No stream present	Timbered appro	oximately 15-20 years ago.

#### 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)
Field Observations:	
Surface Water Present?       Yes No // Depth (inches):         Water Table Present?       Yes No // Depth (inches):         Saturation Present?       Yes // No Depth (inches):         (includes capillary fringe)       Depth (inches):         Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No
Remarks:	

Sampling Point: WDIB003s_w

	Absolute	Dominant I	ndicator	Dominance Test worksheet
Tree Stratum (Plot size: 30 )	% Cover	Species?	Status	Number of Deminerat Crossies
A Acer rubrum	5	Yes	FAC	Number of Dominant Species
	- 5	Vee	EAC	That Are OBL, FACW, of FAC: (A)
2. Quercus phellos		fes	FAC	Total Number of Dominant
3				Species Across All Strata: 6 (B)
4		·		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				
0		· <u> </u>		Prevalence Index worksheet:
7				Tatal % Original for Multiply have
	10	= Total Cove	r	
50% of total cover: 5	20% of	total cover	2	OBL species x 1 =
		total 00101.		EACW species $25 \times 2 = 50$
Sapling/Shrub Stratum (Plot size:)				$\frac{35}{105}$
1. Ulmus rubra	10	Yes	FAC	FAC species $x^3 = 100$
2 Quercus phellos	10	Yes	FAC	FACU species $0$ x 4 = $0$
Acer rubrum		Voc	EAC	1 IPI species $0$ $x = 0$
3. <u></u>	5	165	TAC	$\begin{array}{c} \text{OFL species} \\ \hline 60 \\ \hline 155 \\ \hline \end{array}$
4.				Column Totals: (A) (B)
		· · · · · · · · · · · · · · · · · · ·		
ວ		·	·······	Prevalence Index = $B/A = 2.58$
6		. <u> </u>		Hydronhytic Vegetation Indicators
7.				nyurophyuc vegetation indicators:
		·		1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	25	- Total Cava	-	Yerevalence Index is ≤3.0°
124			5	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:	<u> </u>	data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5 )				data in remarks of on a separate sheet)
1 Juncus effusus	25	Yes	FACW	Problematic Hydrophytic Vegetation' (Explain)
1				
2				¹ Indiactors of hydric coil and watland hydrology must
3.				he present upless disturbed or problematic
4				be present, unless disturbed of problematic.
4		·		Definitions of Four Vegetation Strata:
5		·		
6				<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
0				more in diameter at breast height (DBH), regardless of
7		·		height.
8				
0				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				
	25	Tatal Oran		ef aize, and woody plants loss than 2.28 ft tall
101		= Total Cove	r –	or size, and woody plants less than 3.20 it tall.
50% of total cover: 12.	20% of	total cover:	5	Woody vine All woody vince greater than 2.29 ft in
Woody Vine Stratum (Plot size: 30 )				beight
1		· <u> </u>	<u> </u>	
2		·		
3				
0		·		
4		·		Hydrophytic
5.				Vegetation
	0	Tatal Cause		Present? Yes V No
0		= Total Cove	0	
50% of total cover:	20% of	total cover:	<u> </u>	
Remarks: (Include photo numbers here or on a separate s	sheet.)			1

Cinches)       Color (moist)       %       Color (moist)       %       Type       Loc ² Texture       Remarks         0-12       10YR 4/1       95       10YR 4/6       5       C       PL       SCL         95       10YR 4/6       5       C       PL       SCL       SCL         95       10YR 4/6       5       C       PL       SCL       SCL         96       10YR 4/6       5       C       PL       SCL       SCL         96       95       10YR 4/6       5       C       PL       SCL         97       95       10YR 4/6       5       C       PL       SCL       SCL         97       95       95       10YR 4/6       SCL       SCL <th>Depth</th> <th>Matrix</th> <th></th> <th>Redo</th> <th colspan="4">h Matrix Redox Features</th> <th></th> <th></th>	Depth	Matrix		Redo	h Matrix Redox Features					
0-12         10YR 4/1         95         10YR 4/6         5         C         PL         SCL	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location:       PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric S       Indicators for Problematic Hydric S         Histic Epipedon (A2)       Polyvalue Below Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓       Depleted Matrix (F3)       (MLRA 147, 148)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N, MLRA 136)       Inor-Manganese Masses (F12) (LRR N, MLRA 147, 148) ³ Indicators of hydrophytic vegetation         Sandy Gleyed Matrix (S4)       Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation         Sandy Mucky Mineral (S1)       Red Parent Material (F21) (MLRA 148)       wetland hydrology must be presen         Sandy Mucky Mineral (S6)       Red Parent Material (F21) (MLRA 148)       wetland hydrology must be presen         Sandy Mucky Mineral (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless dist	0-12	10YR 4/1	95	10YR 4/6	5	C	PL	SCL		
Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location:       PL=Pore Lining, M=Matrix.         tydric Soil Indicators       Indicators for Problematic Hydric S         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147, 148)         Histosol (A2)       Polyvalue Below Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       (MLRA 147, 148)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓ Depleted Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Bleow Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Sandy Mucky Mineral (S1) (LRR N,       Inron-Manganese Masses (F12) (LRR N,         MLRA 147, 148)       MLRA 136)       Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetation wetland hydrology must be present         Sandy Gleyed Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Type:										
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         lydric Soil Indicators:       Indicators for Problematic Hydric S										
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ² Location: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histosol (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       V       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF1:         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Thick Dark Surface (A12)       Redox Depressions (F8)       Very Shallow Dark Surface (TF1:         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N, ³ Indicators of hydrophytic vegetation         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 146, 122) ³ Indicators of hydrophytic vegetation         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 147, 147)       unless disturbed or problematic.         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)										
Hydric Soil Indicators:       Indicators for Problematic Hydric S         Histosol (A1)       Dark Surface (S7)       2 cm Muck (A10) (MLRA 147)         Histic Epipedon (A2)       Polyvalue Below Surface (S8) (MLRA 147, 148)       Coast Prairie Redox (A16)         Black Histic (A3)       Thin Dark Surface (S9) (MLRA 147, 148)       Coast Prairie Redox (A16)         Hydrogen Sulfide (A4)       Loamy Gleyed Matrix (F2)       Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓       Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)       Redox Dark Surface (F6)       Very Shallow Dark Surface (TF12)         Depleted Below Dark Surface (A11)       Depleted Dark Surface (F7)       Other (Explain in Remarks)         Sandy Mucky Mineral (S1) (LRR N,       Iron-Manganese Masses (F12) (LRR N,       Other (Explain in Remarks)         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 146)       wetland hydrology must be presen         Sandy Redox (S5)       Piedmont Floodplain Soils (F19) (MLRA 147, 148)       wetland hydrology must be presen         Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Type:       Depth (inches):       Hydric Soil Present? Yes Yes No       No         Zemarks:       Hught Soil Present? Yes Yes No       No	Type: C=C	oncentration, D=Dep	letion, RM	I=Reduced Matrix, M	S=Masked	d Sand Gra	ains.	² Location: PL=Pore	Lining, M=Matrix	
	lydric Soil	Indicators:						Indicators fo	r Problematic H	ydric Soils ³
	Histosol	(A1)		Dark Surface	e (S7)			2 cm Mu	ck (A10) <b>(MLRA</b>	147)
	Histic E	pipedon (A2)		Polyvalue Be	elow Surfa	ce (S8) <b>(N</b>	ILRA 147,	148) Coast Pr	airie Redox (A16)	)
Hydrogen Sulfide (A4)      Loamy Gleyed Matrix (F2)      Piedmont Floodplain Soils (F19)         Stratified Layers (A5)       ✓Depleted Matrix (F3)       (MLRA 136, 147)         2 cm Muck (A10) (LRR N)      Redox Dark Surface (F6)      Very Shallow Dark Surface (TF1:        Depleted Below Dark Surface (A11)      Depleted Dark Surface (F7)      Other (Explain in Remarks)        Thick Dark Surface (A12)      Redox Depressions (F8)      Other (Explain in Remarks)        Sandy Mucky Mineral (S1) (LRR N,      Iron-Manganese Masses (F12) (LRR N,      Other (Explain in Remarks)        Sandy Gleyed Matrix (S4)      Umbric Surface (F13) (MLRA 136, 122)       3Indicators of hydrophytic vegetation        Sandy Redox (S5)      Piedmont Floodplain Soils (F19) (MLRA 148)       wetland hydrology must be present        Type:	Black H	istic (A3)		Thin Dark Su	urface (S9)	) (MLRA 1	47, 148)	(MLRA	<b>\ 147, 148)</b>	
	Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix (	F2)		Piedmon	t Floodplain Soils	s (F19)
2 cm Muck (A10) (LRR N)	Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			(MLRA	<b>\ 136, 147)</b>	
Depleted Below Dark Surface (A11)     Depleted Dark Surface (F7)     Other (Explain in Remarks)     Redox Depressions (F8)     Sandy Mucky Mineral (S1) (LRR N,     MLRA 147, 148)     MLRA 136)     Sandy Gleyed Matrix (S4)     Dubric Surface (F13) (MLRA 136, 122)     Sandy Redox (S5)     Piedmont Floodplain Soils (F19) (MLRA 148)     wetland hydrology must be presended by the presended by t	2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	-6)		Very Sha	llow Dark Surfac	e (TF12)
Thick Dark Surface (A12)   Thick Dark Surface (A12) Redox Depressions (F8)   Sandy Mucky Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,   MLRA 147, 148) MLRA 136)   Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)   Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148)   Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)   Restrictive Layer (if observed): Type:   Type: Hydric Soil Present? Yes	Deplete	d Below Dark Surfac	e (A11)	Depleted Da	rk Surface	e (F7)		Other (E:	plain in Remarks	S)
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Wetland hydrology must be present Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) Unless disturbed or problematic. Restrictive Layer (if observed): Type: Depth (inches): Yes Yes Yes Yes Yes	Thick D	ark Surface (A12)		Redox Depr	essions (F	8)				
MLRA 147, 148)       MLRA 136)	Sandy M	/ucky Mineral (S1) (L	.RR N,	Iron-Mangar	ese Mass	es (F12) <b>(</b> I	LRR N,			
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) ³ Indicators of hydrophytic vegetatio Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be presen Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.          Restrictive Layer (if observed):         Type:         Depth (inches):         Performance         Present	MLR	A 147, 148)		MLRA 13	6)	· / ·				
	Sandv C	Gleved Matrix (S4)		Umbric Surfa	, ace (F13) (	MLRA 13	6. 122)	³ Indicators	of hvdrophytic ve	detation and
Stripped Matrix (S6)       Red Parent Material (F21) (MLRA 127, 147)       unless disturbed or problematic.         Restrictive Layer (if observed):       Type:       Hydric Soil Present? Yes          Depth (inches):       Hydric Soil Present? Yes        No	 Sandv F	Redox (S5)		Piedmont Fl	odplain S	oils (F19)	(MLRA 14	8) wetland hy	/drology must be	present.
Restrictive Layer (if observed):         Type:         Depth (inches):         Hydric Soil Present?         Yes	Stripped	Matrix (S6)		Red Parent l	Material (F	21) <b>(MLR</b>	A 127, 147	') unless dis	turbed or problen	natic.
Type:	Restrictive	Layer (if observed):				, ,			· · · ·	
Depth (inches): No	Туре:									
Remarks.	Depth (in	ches):						Hydric Soil Preser	it? Yes 🖌	No
vonano.	Remarks:							1		



Photo 1 Wetland data point WDIB003s_w facing north



Photo 2 Wetland data point WDIB003s_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: D	Dinwiddie	_ Sampling Date: 11/10/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB003_u
Investigator(s): TP, SP	Section, Town	ship, Range: No PLSS in this area	а
Landform (hillslope, terrace, etc.): hill slope	Local relief (conca	ave, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat: 37	.05989353	Long: <u>-77.81804565</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent s	lopes	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for th	is time of year? Yes	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

#### HYDROLOGY

I

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

Sampling Point: WDIB003_u

(				
Trac Ctratum (Plat size) 30	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>66</u> )	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				
				Total Number of Dominant
3		- <u></u>		Species Across All Strata: (B)
4				
5				Percent of Dominant Species
0	-			That Are OBL, FACVV, or FAC:(A/B)
6				Drevelance in dev werkelsest:
7.				Prevalence Index worksheet:
	0	- Total Cove		Total % Cover of: Multiply by:
			0	OBL species $0 \times 1 = 0$
50% of total cover:	20% of	r total cover:	0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x^2 = 0$
1 Pinus taeda	65	Yes	FAC	FAC species $75$ x 3 = $225$
1	10	No	EACU	$\frac{35}{140}$
2. <u>""ex opaca</u>	10	INU	FACU	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $
_{3.} Quercus alba	10	No	FACU	UPL species $0 \times 5 = 0$
4				Column Totals: 110 (A) 365 (B)
· +				
5				Prevalence Index - R/A - 3.31
6.				
				Hydrophytic Vegetation Indicators:
/				1 - Rapid Test for Hydrophytic Vegetation
8.				
0				2 - Dominance Test is >50%
9	05			3 - Prevalence Index is ≤3.0 ¹
	60	= Total Cove	er	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 42.5	20% of	f total cover:	1/	
Horb Stratum (Plot size: 5)		-		data in Remarks or on a separate sheet)
Public crautuc	15	N/s s	FAOLI	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Rubus arguius	- 15	Yes	FACU	
_{2.} Lonicera japonica	10	Yes	FAC	
				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Deminions of Four Vegetation offata.
-		·		<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
0				
8		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
		- <u></u>		,
11				Herb – All herbaceous (non-woody) plants, regardless
	25	= Total Cove	er	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 12.5	20% of	f total cover:	5	
$\frac{30}{30}$				Woody vine – All woody vines greater than 3.28 ft in
woody vine Stratum (Plot size: 00 )				height.
1				
2				
3				
				the decord of the
4.				Hydrophytic
4				
4 5				
4 5	0	= Total Cove	er	Present? Yes <u>V</u> No
4 5 50% of total cover: 0	0 20% of	= Total Cove f total cover:	er 0	Present? Yes <u>V</u> No
4550% of total cover:0	0 20% of	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>V</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of heet.)	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>/</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of heet.)	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>/</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of heet.)	= Total Cover:_	er O	Vegetation Present? Yes <u>/</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of heet.)	= Total Cover:	9r 0	Vegetation Present? Yes <u>/</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of heet.)	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>V</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of heet.)	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>V</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	20% of heet.)	= Total Cove f total cover:_	er 0	Vegetation Present? Yes <u>/</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	20% of heet.)	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>/</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	20% of heet.)	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>V</u> No
4550% of total cover:0 Remarks: (Include photo numbers here or on a separate s	0 20% of heet.)	= Total Cove f total cover:_	er O	Vegetation Present? Yes <u>/</u> No

Profile Desc	cription: (Describe to	o the depth	needed to docun	nent the ir	ndicator o	or confirm	the absence of	of indicators.)	
Depth	Matrix		Redo	x Features		0			
(inches)	Color (moist)	<u>    %     </u> _	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Rem	narks
0-4	10YR 4/4	100					SL		
4-12	10YR 5/4	100					SCL		
							·		
		<u> </u>				<u> </u>			
	·					·	·		
						·			
						·			
1- 0.0				. <u> </u>			2		
Type: C=Co	oncentration, D=Deple	etion, RM=R	educed Matrix, MS	S=Masked	Sand Gra	uns.	Location: PL	=Pore Lining, M=N	/latrix.
	indicators:			(07)			Indicat		
Histosol	(A1)		Dark Surface	(S7)			2 0	m Muck (A10) <b>(M</b>	LRA 147)
Histic Ep	Dipedon (A2)		Polyvalue Be	IOW Surfac	(58) (M	LRA 147,	148) <u> </u>	ast Prairie Redox	(A16)
Black Hi	STIC (A3)			nace (59) d Motrix (E		47, 148)	Die	(IVILRA 147, 148)	Soile (E10)
Tryuruge			Loany Gleye	u Matrix (F3)	2)			(MI PA 136 1/7)	30lis (F19)
0.ratiliet	uck (A10) (I RR N)		Bedox Dark S	Surface (Fi	6)		Ve	rv Shallow Dark S	urface (TF12)
Deplete	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		V0	her (Explain in Re	marks)
Thick Da	ark Surface (A12)	( )	Redox Depre	ssions (F8	3)				
Sandy M	/ucky Mineral (S1) (LI	RR N,	Iron-Mangane	ese Masse	s (F12) <b>(L</b>	.RR N,			
MLRA	A 147, 148)		MLRA 13	6)					
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(I</b>	MLRA 13	6, 122)	³ Indic	ators of hydrophy	tic vegetation and
Sandy R	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	8) wetl	and hydrology mu	st be present,
Stripped	l Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	) unle	ess disturbed or pr	oblematic.
Restrictive I	Layer (if observed):								
Type:									
Depth (in	ches):		_				Hydric Soil F	Present? Yes	No 🔽
Remarks:							1		



Photo 1 Upland data point WDIB003_u facing west



Photo 2 Upland data point WDIB003_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: Dinv	viddie	Sampling Date: 11/10/2014
Applicant/Owner:		State: VA	Sampling Point: WDIB002s_w
Investigator(s): TP, SP	Section, Townshi	p, Range: <u>No PLSS in this area</u>	a
Landform (hillslope, terrace, etc.): drainage way	Local relief (concave	, convex, none): <u>concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P	Lat: <u>37.05781788</u>	Long: <u>-77.81640718</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7	percent slopes	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typ	ical for this time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology	<pre>/ significantly disturbed?</pre>	Are "Normal Circumstances"	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	<pre>/ naturally problematic?</pre>	(If needed, explain any answe	ers in Remarks.)
		• • • • • •	• • • • • •

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>/</u> No Yes <u>/</u> No Yes <u>/</u> No	Is the Sampled Area within a Wetland?	Yes 🖌 No
Remarks: PSS wetland located in a drainage way. pine, blackberry, and Panicum.	Timbered approximate	y 15-20 years ago. Lots of skidder ru	ts and sphagnum. Dominant species include

#### 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)
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Y Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Imagery (B7)</li> <li>Water Stained Leaves (B9)</li> <li>Aquatic Fauna (B13)</li> </ul>	
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No <u>V</u> Depth (inches):	
Saturation Present? Yes <u>&lt;</u> No <u>Depth</u> (inches): <u>10</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>V</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ions), if available:
Remarks:	

Sampling Point: WDIB002s_w

1		Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:	30 )	% Cover	Species?	Status	Dominance rest worksheet.
1	,				Number of Dominant Species
l			·		That Are OBL, FACW, OF FAC: (A)
2			·		Total Number of Dominant
3					Species Across All Strata: 4 (B)
4					( )
-					Percent of Dominant Species
5					That Are OBL, FACW, or FAC: 75 (A/B)
6			<u> </u>		
7.					Prevalence Index worksheet:
		0	Total Cava	-	Total % Cover of: Multiply by:
				0	OBL species $0 \times 1 = 0$
	50% of total cover:	20% 01	total cover:	<u> </u>	$\frac{30}{30} = \frac{60}{60}$
Sapling/Shrub Stratum (Plot siz	ze:)				FACW species $x^2 = \frac{100}{100}$
_{1.} Pinus taeda		20	Yes	FAC	FAC species $40$ x 3 = $120$
o Magnolia virginiana		10	Yes	FACW	FACU species $15$ x 4 = $60$
2. <u></u>					$\frac{1}{100} \frac{1}{100} \frac{1}$
3			<u></u>		$\frac{\text{OPL species}}{85} \times 5 = \underline{240}$
4.					Column Totals: (A) (B)
5					
			<u> </u>		Prevalence Index = B/A =2.82
б			·		Hydrophytic Vegetation Indicators:
7					1 Donid Toot for Lludronbutic Venetation
8					I - Kapid Test for Hydrophytic Vegetation
0			·		2 - Dominance Test is >50%
9			·		✓ 3 - Prevalence Index is $\leq 3.0^1$
		30	= Total Cove	r	A Marphalagical Adaptationa ¹ (Dravide supporting
	50% of total cover: 15	20% of	f total cover:	6	4 - Morphological Adaptations (Provide supporting
Horb Stratum (Plot size:	5 )		_		data in Remarks or on a separate sheet)
	)	20	Vaa	EVC	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Famculli virgatulli			res	FAC	
2. Rubus argutus		15	Yes	FACU	1
3 Juncus effusus		10	No	FACW	Indicators of hydric soil and wetland hydrology must
			110	17.000	he was set to be a distant of an analytic set of a
A Scirpus cyperinus		10	No	FACW	be present, unless disturbed or problematic.
4. Scirpus cyperinus		10	No	FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
4. Scirpus cyperinus 5		10	No	FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata:
<ul> <li><u>4.</u> Scirpus cyperinus</li> <li>5.</li> <li>6.</li> </ul>		10	No	FACW	be present, unless disturbed or problematic. <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or
<ul> <li><u>Scirpus cyperinus</u></li> <li><u>5.</u></li> <li><u>6.</u></li> <li><u>7.</u></li> </ul>		10	<u>No</u>	FACW	be present, unless disturbed or problematic. <b>Definitions of Four Vegetation Strata:</b> <b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of basists
4.         Scirpus cyperinus           5.		10	<u>No</u>	FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
4.       Scirpus cyperinus         5.		10	<u>No</u> No	FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less
4.       Scirpus cyperinus         5.       .         6.       .         7.       .         8.       .         9.       .			<u>No</u> No	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in DBH and greater than or equal to 3.28 ft (1)</li> </ul>
4.       Scirpus cyperinus         5.			<u>No</u>	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> </ul>
4.       Scirpus cyperinus         5.			No No	FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
4.       Scirpus cyperinus         5.			No No	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless</li> </ul>
4.       Scirpus cyperinus         5.		 		FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 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, regardless of size, and woody plants less than 3.28 ft tall.
4.       Scirpus cyperinus         5.	50% of total cover: 27.5	10 10 55 20% of	= Total Cover:	FACW 	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 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, regardless of size, and woody plants less than 3.28 ft tall.
4.     Scirpus cyperinus       5.     .       6.     .       7.     .       8.     .       9.     .       10.     .       11.     .	50% of total cover: 27.5	10 10 55 55 20% of	= Total Cover:_	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in</li> </ul>
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum (Plot size)	50% of total cover: 27.5 : 30 )	10 10 55 55 20% of	Total Cover:_	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in height.</li> </ul>
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum (Plot size         1.	50% of total cover: 27.5 : 30 )			FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in height.</li> </ul>
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum (Plot size         1.         2.	50% of total cover:27.5			FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in height.</li> </ul>
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum (Plot size         1.         2.         3	50% of total cover: 27.5 : 30 )			FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in height.</li> </ul>
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum (Plot size         1.         2.         3.	50% of total cover: 27.5 : 30 )		= Total Cover:_	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in height.</li> </ul>
4.       Scirpus cyperinus         5.       6.         6.	50% of total cover: 27.5 : 30 )		= Total Cover:_	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in height.</li> </ul>
4.       Scirpus cyperinus         5.       6.         6.	50% of total cover: 27.5 : 30 )		= Total Cover	FACW	be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 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, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum (Plot size         1.         2.         3.         4.         5.	50% of total cover: 27.5 : 30 )		= Total Cover	FACW	<ul> <li>be present, unless disturbed or problematic.</li> <li>Definitions of Four Vegetation Strata:</li> <li>Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> <li>Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.</li> <li>Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.</li> <li>Woody vine – All woody vines greater than 3.28 ft in height.</li> <li>Hydrophytic Vegetation Present? Yes No</li> </ul>
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum (Plot size         1.         2.         3.         4.         5.	50% of total cover: 27.5		= Total Cover = Total Cover = Total Cover	FACW FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Yes</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.	50% of total cover:27.5 :30) 50% of total cover:0	10 10 55 20% of 0 20% of	= Total Cover = Total Cover f total cover:	r 11	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.         Remarks:         (Include photo numb	50% of total cover:27.5 :30) 50% of total cover:0 ers here or on a separate s	 	= Total Cover total cover:	r 11	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4.       Scirpus cyperinus         5.	50% of total cover: 27.5 : 30 ) 50% of total cover: 0 ers here or on a separate s	 	= Total Cover = Total Cover total cover:	r 0	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.         Remarks:         (Include photo numb	50% of total cover: 27.5 : 30 ) 50% of total cover: 0 ers here or on a separate s	 	= Total Cover f total cover:	FACW FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.         Remarks:         (Include photo numb)	50% of total cover: 27.5 : 30 ) 50% of total cover: 0 ers here or on a separate s	 	Total Cover:	FACW FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.         Remarks:         (Include photo numb)	50% of total cover:27.5 :30) 50% of total cover:0 ers here or on a separate s	 	Total Cover:	FACW FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.         Remarks:         (Include photo numb)	50% of total cover:27.5 :30) 50% of total cover:0 ers here or on a separate s	 	= Total Cover:	FACW FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.         Remarks:         (Include photo numb)	50% of total cover:27.5 :30) 50% of total cover:0 ers here or on a separate s	 	Total Cover:	FACW FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.	50% of total cover:27.5 :30) 50% of total cover:0 ers here or on a separate s	 	Total Cover:	FACW FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.	50% of total cover:27.5 :30) 50% of total cover:0 ers here or on a separate s	 	Total Cover:	FACW	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  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, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>v</u> No
4. Scirpus cyperinus         5.         6.         7.         8.         9.         10.         11.         Woody Vine Stratum         (Plot size         1.         2.         3.         4.         5.	50% of total cover:27.5 :30) 50% of total cover:0 ers here or on a separate s	 	= Total Cover:	r 11	be present, unless disturbed or problematic.  Definitions of Four Vegetation Strata:  Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vine – All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes <u>Ves</u> No

Profile Desc	ription: (Describe to	o the dep	th needed to docun	nent the i	indicator o	or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Features	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10YR 4/2	100					SL	
4-12	10YR 4/1	95	10YR 4/6	5	С	PL	SCL	
						·		
				<u> </u>		·		·
						·		
¹ Type: C=Co	oncentration, D=Deple	etion, RM	Reduced Matrix, MS	S=Masked	d Sand Gra	ains.	² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators:						Indic	ators for Problematic Hydric Soils":
Histosol	(A1)		Dark Surface	(S7)			2	2 cm Muck (A10) <b>(MLRA 147)</b>
Histic Ep	oipedon (A2)		Polyvalue Be	low Surfa	ce (S8) <b>(M</b>	ILRA 147,	148) (	Coast Prairie Redox (A16)
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	) <b>(MLRA 1</b>	47, 148)		(MLRA 147, 148)
Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix (	(F2)		F	Piedmont Floodplain Soils (F19)
Stratified	d Layers (A5)		Depleted Mar	trix (F3)				(MLRA 136, 147)
2 cm Mu	ıck (A10) <b>(LRR N)</b>		Redox Dark	Surface (F	-6)		\	Very Shallow Dark Surface (TF12)
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	e (F7)		(	Other (Explain in Remarks)
Thick Da	ark Surface (A12)		Redox Depre	ssions (F	8)			
Sandy M	lucky Mineral (S1) <b>(Lf</b>	RR N,	Iron-Mangan	ese Mass	es (F12) <b>(l</b>	_RR N,		
MLRA	A 147, 148)		MLRA 13	6) (= ( a ) (			3.	
Sandy G	Bleyed Matrix (S4)		Umbric Surfa	ce (F13) (	(MLRA 13)	6, 122)	°Inc	dicators of hydrophytic vegetation and
Sandy R	edox (S5)		Piedmont Flo	odplain S	oils (F19)	(MLRA 14	8) we	etland hydrology must be present,
Stripped	Matrix (S6)		Red Parent N	laterial (F	·21) (MLR/	A 127, 147	r) ur	hiess disturbed or problematic.
Tures	Layer (il observed).							
Type:	-1 )							
Depth (Ind	cnes):						Hydric Sol	Present? Yes No
Remarks:								



Photo 1 Wetland data point WDIB002s_w facing northwest



Photo 2 Wetland data point WDIB002s_w facing southwest

Project/Site: Atlantic Coast Pipeline	City/County: Dinv	viddie	Sampling Date: 11/10/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB002_u
Investigator(s): TP, SP	Section, Townshi	o, Range: No PLSS in this area	3
Landform (hillslope, terrace, etc.): <u>hill slope</u>	Local relief (concave	, convex, none): <u>none</u>	Slope (%): <u>5</u>
Subregion (LRR or MLRA): P Lat: 37.057	79462	Long: <u>-77.8162223</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slope	es	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for this ti	me of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology sigr	nificantly disturbed?	Are "Normal Circumstances" p	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology nate	urally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

HYDROL	.OGY
--------	------

Wetland Hydrology Indicators:	Wetland Hydrology Indicators:				
Primary Indicators (minimum of one	is required; check all that apply)	Surface Soil Cracks (B6)			
<ul> <li>Surface Water (A1)</li> <li>High Water Table (A2)</li> <li>Saturation (A3)</li> <li>Water Marks (B1)</li> <li>Sediment Deposits (B2)</li> <li>Drift Deposits (B3)</li> <li>Algal Mat or Crust (B4)</li> <li>Iron Deposits (B5)</li> <li>Inundation Visible on Aerial Ima</li> <li>Water-Stained Leaves (B9)</li> </ul>	<ul> <li>True Aquatic Plants (B14)</li> <li>Hydrogen Sulfide Odor (C1)</li> <li>Oxidized Rhizospheres on L</li> <li>Presence of Reduced Iron (</li> <li>Recent Iron Reduction in Til</li> <li>Thin Muck Surface (C7)</li> <li>Other (Explain in Remarks)</li> </ul>	<ul> <li>Sparsely Vegetated Concave Surface (B8)</li> <li>Drainage Patterns (B10)</li> <li>iving Roots (C3)</li> <li>Moss Trim Lines (B16)</li> <li>Dry-Season Water Table (C2)</li> <li>ed Soils (C6)</li> <li>Crayfish Burrows (C8)</li> <li>Saturation Visible on Aerial Imagery (C9)</li> <li>Stunted or Stressed Plants (D1)</li> <li>Geomorphic Position (D2)</li> <li>Shallow Aquitard (D3)</li> <li>Microtopographic Relief (D4)</li> </ul>			
Aquatic Fauna (B13)					
Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       Describe Recorded Data (stream ga         Remarks:       No hydrology indicators present.	No V Depth (inches): No V Depth (inches): No V Depth (inches): auge, monitoring well, aerial photos, previous in	Wetland Hydrology Present? Yes No			

Sampling Point: WDIB002_u

, ,	Abaaluta	• Deminent I		Deminence Test worksheet
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant I	Status	Dominance Test Worksneet:
	<u>_/8 COVEI</u>	opecies:	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3.				Species Across All Strata: 2 (B)
4		·		
4		·		Percent of Dominant Species
5				That Are OBL, FACW, or FAC: ⁵⁰ (A/B)
6.				
7		·		Prevalence Index worksheet:
/		·		Total % Cover of: Multiply by:
	0	= Total Cove	r	
50% of total cover:	0 20% of	total cover:	0	OBL species $x_1 = 0$
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x = 0$
Pinus taeda	70	Yes	FAC	FAC species $70 \times 3 = 210$
1. <u></u>				$\frac{15}{15} = 10^{-10}$
2				FACU species $x 4 = 0$
3.				UPL species x 5 =
1		·		Column Totals: $85$ (A) $270$ (B)
4		·		
5				Prevalence Index = $B/A = 3.17$
6.				
7		·		Hydrophytic Vegetation Indicators:
′· <u> </u>		·		1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9.				
	70	Total Cave	-	3 - Prevalence Index is ≤3.0'
	35 000/		14	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% 01	total cover:	<u> </u>	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5)				
1. Rubus argutus	15	Yes	FACU	Problematic Hydrophytic Vegetation (Explain)
Z		·		¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4.				Definitions of Four Vanatation Charter
		·		Definitions of Four vegetation Strata:
D				<b>Tree</b> – Woody plants, excluding vines, 3 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7.				height.
~		·		
0		·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
		·		Herb – All herbaceous (non-woody) plants, regardless
_		= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover:	<u>.5</u> 20% of	total cover:	3	Woody vine All woody vince greater than 2.28 ft in
Woody Vine Stratum (Plot size: 30)				beight
1				
l		·		
2		·		
3				
4				
-				Hydrophytic
5				Vegetation
	0	= Total Cove	r	Present? Yes No V
50% of total cover:	0 20% of	total cover:	0	
Bomarka: (Include photo numbers here or on a concrete	a aba at )	-		
Remarks: (include photo numbers here of on a separate	e sheet.)			
I de la constante de				

Profile Desc	cription: (Describe to	o the depth	needed to docum	ent the ir	ndicator o	or confirm	the absence of indicators.)	
Depth	Matrix		Redox	Features				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-4	10YR 4/3	100					SL	
4-12	10YR 4/4	100					SCL	
							· · · · · · · _ · _ · · · · · · · · · · · · · · · · · · · ·	
<u> </u>								
¹ Type: C=C	oncentration, D=Deple	etion, RM=R	Reduced Matrix, MS	=Masked	Sand Gra	ains.	² Location: PL=Pore Lining, M=Matrix.	3
Hydric Soil	Indicators:						Indicators for Problematic Hydric Soils	1
Histosol	(A1)		Dark Surface	(S7)			2 cm Muck (A10) (MLRA 147)	
Histic Ep	pipedon (A2)		Polyvalue Bel	ow Surfac	e (S8) <b>(M</b>	LRA 147,	148) Coast Prairie Redox (A16)	
Black Hi	stic (A3)		Thin Dark Su	rface (S9)	(MLRA 1	47, 148)	(MLRA 147, 148)	
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix (F	-2)		Piedmont Floodplain Soils (F19)	
Stratified	d Layers (A5)		Depleted Mat	rix (F3)			(MLRA 136, 147)	
2 cm Mu	uck (A10) <b>(LRR N)</b>		Redox Dark S	Surface (F	6)		Very Shallow Dark Surface (TF12)	
Depleted	d Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)		Other (Explain in Remarks)	
Thick Da	ark Surface (A12)		Redox Depre	ssions (F8	3)			
Sandy M	/lucky Mineral (S1) <b>(Li</b>	RR N,	Iron-Mangane	ese Masse	es (F12) <b>(I</b>	_RR N,		
MLRA	A 147, 148)		MLRA 136	5)				
Sandy G	Gleyed Matrix (S4)		Umbric Surfa	ce (F13) <b>(I</b>	MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and	Ł
Sandy R	Redox (S5)		Piedmont Flo	odplain So	oils (F19)	(MLRA 14	<b>8)</b> wetland hydrology must be present,	
Stripped	Matrix (S6)		Red Parent M	laterial (F2	21) <b>(MLR</b>	A 127, 147	7) unless disturbed or problematic.	
Restrictive I	Layer (if observed):							
Туре:			_					
Depth (in	ches):		_				Hydric Soil Present? Yes No	_
Remarks:								



Photo 1 Upland data point WDIB002_u facing southeast



**Photo 2** Upland data point WDIB002_u facing north

Project/Site: Atlantic Coast Pipeline	City/County: [	Dinwiddie	_ Sampling Date: <u>11/10/2014</u>
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB001f_w
Investigator(s): TP, SP	Section, Towr	nship, Range: <u>No PLSS in this are</u>	ea
Landform (hillslope, terrace, etc.): drainage way	Local relief (conc	ave, convex, none): <u>concave</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat:	37.05479771	Long: <u>-77.81797525</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 7 to 15 perce	ent slopes	NWI classif	ication: None
Are climatic / hydrologic conditions on the site typical fo	r this time of year? Yes	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site m	ap showing sampling	point locations, transect	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>✓</u> Yes <u>✓</u> Yes <u>✓</u>	No No No	Is the Sampled Area within a Wetland?	Yes 🖌	No
Remarks: Forested wetland abutting SDIB001.	Fract clear cut ap	proximately 15-20 ye	ears ago, but a 35-foot buffer	was maintaineo	d along stream bank.

## 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)
Field Observations:	
Surface Water Present?       Yes No // Depth (inches):         Water Table Present?       Yes No // Depth (inches):         Saturation Present?       Yes // No Depth (inches):         (includes capillary fringe)       Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes <u>V</u> No ions), if available:
Remarks:	

Sampling Point: WDIB001f_w

	Abaaluta	Dominant I	ndiantar	Dominance Test worksheet
Trop Stratum (Plot size: 30)	Absolute % Covor	Species?	Status	Dominance rest worksheet.
	<u>15</u>	<u>Species:</u>	FAC	Number of Dominant Species
1. <u>Acer rubrum</u>	15	Tes	TAO	That Are OBL, FACW, or FAC: (A)
2. Liquidambar styraciflua	15	Yes	FAC	
<ul> <li>Nvssa svlvatica</li> </ul>	10	Yes	FAC	Total Number of Dominant
3				Species Across All Strata: (B)
4				
5				Percent of Dominant Species
0				That Are OBL, FACW, or FAC: (A/B)
6		<u> </u>		
7.				Prevalence Index worksheet:
	40			Total % Cover of: Multiply by:
	:	= Total Cove	r o	$\frac{1}{0}$ OPL appaging $\frac{1}{0}$ $\frac{1}{1}$ $\frac{1}{0}$
50% of total cover: 20	20% of	total cover:	0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $20$ x 2 = $40$
Liquidambar styraciflua	20	Vec	FAC	$FAC$ species 70 $x_3 = 210$
1. <u>Liquidambar styracında</u>	20	163	170	
_{2.} Magnolia virginiana	10	Yes	FACW	FACU species x 4 =
				UPL species $0 \times 5 = 0$
3				90 (1) $250$ (2)
4				Column Totals: (A) (B)
5				
⁰		<u> </u>		Prevalence Index = B/A = 2.77
6				Hydrophytic Vegetation Indicators:
7.				Tydrophytic vegetation indicators.
<u></u>		·		1 - Rapid Test for Hydrophytic Vegetation
8		<u> </u>		✓ 2 - Dominance Test is >50%
9.				
	30	Tatal Cause		Year and the second
15		= Total Cove	r 6	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 15	20% of	total cover:	0	
Herb Stratum (Plot size: 5)				data in Remarks of on a separate sheet)
Woodwardia areolata	10	Vec		Problematic Hydrophytic Vegetation ¹ (Explain)
1	10	165	TACW	
2. Dichanthelium clandestinum	10	Yes	FAC	
2				¹ Indicators of hydric soil and wetland hydrology must
3		·	<u> </u>	be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata
5				Demitions of Four Vegetation Ottata.
^{3.}				<b>Tree</b> – Woody plants excluding vines 3 in (7.6 cm) or
6				more in diameter at breast height (DBH) regardless of
7				height
	·			noight
8				Sanling/Shrub – Woody plants, excluding vines, less
9.				than 3 in DBH and greater than or equal to 3 28 ft (1
10				m) tall
10				
11				Herb – All herbaceous (non-woody) plants, regardless
	20	- Total Cove	r	of size and woody plants less than 3 28 ft tall
500/ af tatal any m 10			۰ ۵	
50% of total cover:	20% of	total cover:	-	Woody vine – All woody vines greater than 3 28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1				
'' <u></u>		. <u> </u>	<u> </u>	
2				
3.				
4		. <u> </u>	<u> </u>	Hydrophytic
5.				Vegetation
	0	Tatal Caus		Present? Yes V No
		= Total Cove	r N	
50% of total cover:0	20% of	total cover:	0	
Remarks: (Include photo numbers here or on a separate s	heet.)			
······································	,			
1				

Denth	Matrix		Rede	ox Feature	s			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 3/2	100	10YR 4/6	5	C	PL	SL	
5-12	10YR 4/1	95	10YR 4/6	5	С	PL	SCL	
17								
Type: C=C Hydric Soil	oncentration, D=Dep Indicators:	letion, RN	I=Reduced Matrix, M	S=Maske	d Sand Gra	ains.	Location: PL=Po	re Lining, M=Matrix. for Problematic Hydric Soils ³
Histosol Histic E Black H Hydroge Stratifier 2 cm Mu Deplete Thick D Sandy M	I (A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) <b>(LRR N)</b> d Below Dark Surfac ark Surface (A12) ducky Mineral (S1) (	e (A11) BR N	Dark Surface Polyvalue Be Thin Dark Su Loamy Gleye ✓ Depleted Ma Redox Dark Depleted Da Redox Depre	e (S7) elow Surfa urface (S9 ed Matrix (F3) surface (I rk Surface essions (F	ace (S8) <b>(N</b> )) <b>(MLRA 1</b> (F2) F6) e (F7) [8] (F12) <b>(</b> 1	ILRA 147, 47, 148)	2 cm M 148) Coast (ML Piedm (ML Very S Other of	Muck (A10) <b>(MLRA 147)</b> Prairie Redox (A16) <b>RA 147, 148)</b> ont Floodplain Soils (F19) <b>RA 136, 147)</b> Hallow Dark Surface (TF12) (Explain in Remarks)
MLRA Sandy C Sandy F Stripped	A 147, 148) Gleyed Matrix (S4) Redox (S5) Matrix (S6)	,	MLRA 13 Umbric Surfa Piedmont Flu Red Parent I	ace (F13) bodplain S Material (F	(MLRA 13 Goils (F19) F21) (MLR	6, 122) (MLRA 14 A 127, 147	³ Indicator (8) wetland (7) unless o	rs of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Type:								
Depth (in	ches):						Hydric Soil Pres	ent? Yes 🖌 No
Remarks:							1 -	



Photo 1 Wetland data point WDIB001f_w facing east



Photo 2 Wetland data point WDIB001f_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: D	Dinwiddie	Sampling Date: 11/10/2014
Applicant/Owner: Dominion		State: VA	Sampling Point: WDIB001_u
Investigator(s): TP, SP	Section, Town	ship, Range: No PLSS in this area	3
Landform (hillslope, terrace, etc.): hill slope	Local relief (conca	ave, convex, none): <u>none</u>	Slope (%): <u>3</u>
Subregion (LRR or MLRA): P Lat: 37.05	5489094	Long: <u>-77.81796474</u>	Datum: WGS 1984
Soil Map Unit Name: Appling sandy loam, 2 to 7 percent slop	Des	NWI classific	cation: None
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology sig	gnificantly disturbed?	Are "Normal Circumstances"	oresent? Yes 🖌 No
Are Vegetation, Soil, or Hydrology na	turally problematic?	(If needed, explain any answe	ers in Remarks.)

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

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

HYDROL	.OGY
--------	------

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

Sampling Point: WDIB001_u

	Abaaluta	Dominant I	ndiantar	Dominance Test worksheet
Tree Stratum (Plot size: 30)	% Cover	Species?	Status	Dominance rest worksneet.
Liquidamber aturaciflue	15	<u>Voc</u>	FAC	Number of Dominant Species
1. Liquidambar styracifiua	10	Tes	TAO	That Are OBL, FACW, or FAC:5 (A)
2. Acer rubrum	15	Yes	FAC	
<ul> <li>Liriodendron tulinifera</li> </ul>	10	Yes	FACU	Total Number of Dominant
3				Species Across All Strata: (B)
4				
5				Percent of Dominant Species
0				That Are OBL, FACW, or FAC: (A/B)
6				
7.				Prevalence Index worksheet:
	40			Total % Cover of: Multiply by:
	;	= Total Cove	r o	$\frac{1}{0}$ OPL appaging $\frac{1}{0}$ $\frac{1}{1}$ $\frac{1}{0}$
50% of total cover: 20	20% of	total cover:	0	
Sapling/Shrub Stratum (Plot size: 15 )				FACW species $x 2 = 10$
Liquidambar styraciflua	20	Vec	FAC	$EAC$ species 60 $x_{3}$ 180
1. <u>Liquidambar styracında</u>	20	163	170	10   40
_{2.} Magnolia virginiana	5	Yes	FACW	FACU species $x 4 = $
				UPL species $0 \times 5 = 0$
3		<u> </u>		$\frac{75}{230}$
4				Column Totals: (A) (B)
5				
			<u> </u>	Prevalence Index = $B/A = 3.06$
6				Hydronhytic Vegetation Indicators:
7.				
			·	1 - Rapid Test for Hydrophytic Vegetation
ا ۵		. <u> </u>	<u> </u>	✓ 2 - Dominance Test is >50%
9				
	25	Total Cava	-	3 - Prevalence Index Is ≤3.0
125			5	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 12.3	20% of	total cover:	<u> </u>	data in Remarks or on a senarate sheet)
Herb Stratum (Plot size: 5)				data in Remarks of on a separate sheet
Smilax rotundifolia	10	Yes	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
[ ]. <u></u>		100	17.0	
2				1
3				Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5.				
··				<b>Tree</b> – Woody plants, excluding vines, 3 in, (7.6 cm) or
б				more in diameter at breast height (DBH), regardless of
7.				height.
				5
o				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
10:				,
11				Herb – All herbaceous (non-woody) plants, regardless
	10	= Total Cove	r	of size, and woody plants less than 3.28 ft tall.
50% of total cover: 5	20% of	total covor:	2	,
	20 /8 01			Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30 )				height.
1.				
2				
3				
1				
۳۰ <u>ــــــــــــــــــــــــــــــــــــ</u>				Hydrophytic
5				Vegetation
	0.	- Total Cove	r	Present? Yes V No
			0	
50% of total cover:	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	scription: (Describe	to the dep	oth needed to docum	nent the	indicator of	or confirm	the absence of indicators.)	
Depth	Matrix		Redo	K Feature	s			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-4	10YR 4/2	100					SL	
4-12	10YR 5/1	95	10YR 4/6	5	С	М	SCL	
							· · · · · · · · · · · · · · · · · · ·	
						·		—
						·		—
	<u> </u>					·	· · · · · · · · · · · · · · · · · · ·	—
						. <u> </u>		
1 Turnet C-(	Concentration D_Den	otion BM		Mooko	d Sond Cr	ino	² Lanotion: DL-Doro Lining M-Matrix	
Hydric Soi	Indicators:			eiviaskei		anns.	Indicators for Problematic Hydric Soils ³	
Histos			Dark Surface	(97)			2 cm Muck (A10) (MI RA 147)	
Histic F	= - ninedon (A2)		Polyvalue Be	(07) low Surfa	ce (S8) <b>(N</b>	II RA 147.	148) Coast Prairie Redox (A16)	
Black I	Histic (A3)		Thin Dark Su	rface (S9	) (MLRA 1	47. 148)	(MLRA 147, 148)	
Hydroc	en Sulfide (A4)		Loamy Gleve	d Matrix	(F2)	,,	Piedmont Floodplain Soils (F19)	
Stratifi	ed Layers (A5)		<ul> <li>Depleted Mat</li> </ul>	rix (F3)	<b>`</b> ,		(MLRA 136, 147)	
2 cm N	luck (A10) (LRR N)		Redox Dark S	Surface (I	-6)		Very Shallow Dark Surface (TF12)	
Deplet	ed Below Dark Surface	e (A11)	Depleted Dar	k Surface	e (F7)		Other (Explain in Remarks)	
Thick [	Dark Surface (A12)		Redox Depre	ssions (F	8)			
Sandy	Mucky Mineral (S1) (L	.RR N,	Iron-Mangan	ese Mass	es (F12) <b>(</b> I	LRR N,		
MLF	RA 147, 148)		MLRA 13	5)			<u>^</u>	
Sandy	Gleyed Matrix (S4)		Umbric Surfa	ce (F13)	(MLRA 13	6, 122)	³ Indicators of hydrophytic vegetation and	
Sandy	Redox (S5)		Piedmont Flo	odplain S	Soils (F19)	(MLRA 14	<b>8)</b> wetland hydrology must be present,	
Strippe	ed Matrix (S6)		Red Parent N	laterial (F	21) <b>(MLR</b>	A 127, 147	7) unless disturbed or problematic.	
Restrictive	E Layer (if observed):							
Type:								
Depth (i	nches):						Hydric Soil Present? Yes <u>Y</u> No	•
Remarks:							•	



**Photo 1** Upland data point WDIB001_u facing northeast



Photo 2 Upland data point WDIB001_u facing northwest

Project/Site: PCP Ci	ty/County: Dinwiddie Sampling Date: 8/22/16
Applicant/Owner: Pominion	State: VH Sampling Point:
Investigator(s): ESI-L. Koper Si	ection, Township, Range: None
Landform (hillslope, terrace, etc.): depression Loca	relief (concave, convex, none): Loncave Slope (%): 2-5%
Subregion (LRR or MLRA): LRR P Lat: 37.0558	36 Long: -77.82374 Datum: W6584
Soil Map Unit Name: Appling Sandy loam, 7	2-71. Slopes NWI classification: PFD
Are climatic / hydrologic conditions on the site typical for this time of year	2 Yes No (If no explain in Remarks )
Are Vegetation Soil or Hydrology significantly di	sturbed?
Are vegetation, Son, or Hydrology significantly of	subed? Are Normal Circumstances present? Tes <u>v</u> No
SUMMARY OF FINDINGS – Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes <u>No</u>	Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Remarks:	
Remarks.	
NOWAM. Headwater Dres	
HYDROLOGY	
Watland Hudralagu Indicators	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (R6)
Surface Water (A1)	
High Water Table (A2)	Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizosp	heres on Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Redu	uced Iron (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Redu	ction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surfac	e (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in	Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Irlundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
<u>V</u> Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	NA
Surface Water Present? Yes No Deptn (inches):	
Water Table Present? Yes No Deptn (inches):	
(includes capillary fringe)	wettand Hydrology Present? Fes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos,	previous inspections), if available:
Pemarks:	
could not auger past 12 inches	
construct angle. I	

# Sampling Point: wdio031f-w

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: <u>SOFT K TOPT</u> )	% Cover	Species?	Status	Number of Dominant Species
1. Liquidambar styracitica	10	- 4	FAC	That Are OBL, FACW, or FAC: (A)
2. Hur Norm	15	_ <u>Y</u>	FAC	Total Number of Dominant
3. Pinus taeda	10	_Y	FAC	Species Across All Strata: (B)
4				Percent of Percipant Species
5				That Are OBL, FACW, or FAC: (A/B)
6				
7.	A AMERICAN		STATES AND A	Prevalence Index worksheet:
	40	= Total Cov	/er	Total % Cover of: Multiply by:
50% of total cover: 2.0	20% of	total cover	8	OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 30ft × 10ft)				FACW species x 2 =
1 Liquidambur styraciflua	10	У	FAL	FAC species x 3 =
2	-10-	_		FACU species x 4 =
2		-	-	UPL species x 5 =
S			•	Column Totals: (A) (B)
4			-	
5				Prevalence Index = B/A =
b		Contraction of		Hydrophytic Vegetation Indicators:
7				1 Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
C		= Total Cov	er J	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:	20% of	total cover:	6	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: SOFF x 10+1)			OBL1.	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Knexia sp.	10	1	FACW	
2. Dichanthelium acomination	15	<u> </u>	FAL	It distant as the data will and undered budgetons much
3. Rubus argutus	15	<u> </u>	FALU	be present, unless disturbed or problematic.
4		-		Definitions of Four Vegetation Strata:
5				Deminions of Four Vegetation Status.
6.	O GUNNES			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
7.				beight
8				hoight.
	The second strend stars	CONTRACTOR DORACTIN	Contractor of	Sapling/Shrub – Woody plants, excluding vines, less
9				I then 7 in DDU and receive then as actual to 7 70 A /1
9				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9 10 11				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9 10 11				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
9 10 11 50% of total cover. 20	<u>40</u> =	Total Cover	er 8	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9	<u>4D</u> = 20% of t	Total Cover	er 8	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in
9 10 11 <u>50% of total cover: 2D</u> <u>Woody Vine Stratum</u> (Plot size: <u>30ft &lt; 10ft</u> ) 1. <u>See taken</u> option d Falling	<u>4D</u> = 20% of f	Total Cover:	er 8	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9 10 11 <u>50% of total cover:</u> <u>20</u> <u>Woody Vine Stratum</u> (Plot size: <u>30ft × 10ft</u> ) <u>1. Smilak rotundifolia</u> <u>2. Vittik</u> <u>pottandifolia</u>	<u>40</u> = 20% of 1	Total Cover:	er 8	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9 10 11 <u>50% of total cover: 20</u> <u>Woody Vine Stratum</u> (Plot size: <u>30ft × 10ft</u> ) <u>1. Smilax rotundifolia</u> <u>2. V; tis rotundifolia</u>	<u>40</u> = _ 20% of 1 _ 1 D	Total Cov total cover:	FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9 10 11 <u>50% of total cover: 20</u> <u>Woody Vine Stratum</u> (Plot size: <u>30ft × 10ft</u> ) <u>1. Smilax rotundifolia</u> <u>2. Vitis rotundifolia</u> <u>3</u>	<u>40</u> = _ 20% of 1 _ 1 D	Total Covi total cover; <u>Y</u>	FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9 10 11 <u>50% of total cover: 20</u> <u>Woody Vine Stratum</u> (Plot size: <u>30ft × 10ft</u> ) 1. <u>5milax rotundifolia</u> 2. <u>Vitis rotundifolia</u> 3 4	<u>40</u> = _ 20% of 1 _ 1 D	Total Cover.	FAC FAC	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
9	<u>40</u> = 20% of 1 15 10	Total Cover:	FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation
9 10 11 <u>50% of total cover:</u> <u>20</u> <u>Woody Vine Stratum</u> (Plot size: <u>30ft × 10ft</u> ) <u>1. Smilax rotundifolia</u> <u>2. Vitis rotundifolia</u> <u>3</u> <u>4</u> <u>5</u> <u>17.5</u>	<u>40</u> = 20% of 1 15 10 25 =	Total Cover.	FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.         Woody vine – All woody vines greater than 3.28 ft in height.         Hydrophytic Vegetation Present?         Yes No
9	<u>40</u> = 20% of 1 15 10 25 = 20% of t	Total Cover.	FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.         Woody vine – All woody vines greater than 3.28 ft in height.         Hydrophytic Vegetation Present?         Yes No
9	<u>4D</u> = _ 20% of ( _ 15 _ 1D _ 20% of t _ 20% of t	Total Cover:	FAL FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.         Woody vine – All woody vines greater than 3.28 ft in height.         Hydrophytic         Vegetation         Present?       Yes No
9	<u>40</u> = 20% of 1 15 10 <u>25</u> = 20% of t eeet.)	Total Cover;	FAL FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.         Woody vine – All woody vines greater than 3.28 ft in height.         Hydrophytic Vegetation Present?       Yes No
9	<u>40</u> = 20% of t 15 10 <u>25</u> = 20% of t reet.)	Total Cover:	FAC FAC FAC	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.         Woody vine – All woody vines greater than 3.28 ft in height.         Hydrophytic Vegetation Present?         Yes No
9	<u>4D</u> = 20% of 1 15 10 25 = 20% of t ieet.)	Total Cover.	FAL FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.         Woody vine – All woody vines greater than 3.28 ft in height.         Hydrophytic Vegetation Present?       Yes No
9	<u>40</u> = 20% of 1 15 10 25 = 20% of t eet.)	Total Cover.	# 8 FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.         Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.         Woody vine – All woody vines greater than 3.28 ft in height.         Hydrophytic         Vegetation         Present?       Yes         No
9	<u>4D</u> = 20% of 1 15 10 25 = 20% of t eet.)	Total Cover.	FAL FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	<u>4D</u> = _ 20% of ( _ 15 _ 1D _ 20% of t _ 20% of t	Total Cover:	FAL FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	<u>40</u> = 20% of t 15 10 <u>25</u> = 20% of t eeet.)	Total Cover;	FAC FAC FAC	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No
9	<u>40</u> = 20% of 1 15 10 25 = 20% of t eet.)	Total Cover.	FAL FAL FAL	than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height. Hydrophytic Vegetation Present? Yes No