WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: ACP	City/County: Tokin Ston Sampling Date: 7/14/14
Applicant/Owner: Powner CV	State: NC Sampling Point: W100 003f -W
Investigator(s): EST (L Roper)	Section, Township, Range:
Landform (hillslope, terrace, etc.):	
	Local feller (concave, convex, none):
Soil Map Unit Name: Pains sandy loam, [NVI diassification.
Are climatic / hydrologic conditions on the site typical for this time of you	
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 answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? YesNo	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
·	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B	13) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	
☐ Saturation (A3) ☐ Hydrogen Sulfide	
	heres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Drift Deposits (B3) Presence of Redu Recent Iron Redu	uced Iron (C4)
Algal Mat or Crust (B4) Thin Muck Surface	
Iron Deposits (B5) Other (Explain in	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	110-
Surface Water Present? Yes No Depth (inche	ss): NA
Water Table Present? Yes No Depth (inche	(S): 150
Saturation Present? Yes No Depth (inche (includes capillary fringe)	es): Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Remarks:	

Sampling Point: Wjoo OO3f_W

20.	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30x30)		Species?		Number of Dominant Species
1. PINUS LARLAR	<u> </u>	<u> </u>	PAC	That Are OBL, FACW, or FAC:(A)
2. Acer rubrum	20	Ĭ	PAC	
3. symplocos theterra	20	Ŧ	THE	Total Number of Dominant Species Across All Strata: (B)
3. 3777.		/		Species Across Air Strata. (b)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:(A/B)
6.				
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	70	= Total Cov	er er	OBL species x 1 =
50% of total <u>co</u> ver: <u>35</u>		total cover		FACW species x 2 =
50% of total cover:	20% 01	total cover	· — —	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30x30)	40	w. i	13464	FACU species x 4 =
1. Pinis taeda	. <u>10 </u>	N	PHC	
2. Lianidamber atgracitula	16	<u>, , </u>	FAC	UPL species x 5 =
3. Vactualism corymbosum	ľŇ	N	PACW	Column Totals: (A) (B)
4. Symplocos tinctoria	75	7	PAC	Bernelone Index D/A
	-			Prevalence Index = B/A =
5			·	Hydrophytic Vegetation Indicators:
6				Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0¹
	55	= Total Co	/ег	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 27	5 20% of	f total cover	. 11	Ti Problematic Hydrophytic Vegetation (Explain)
	20700	I lulai cuvei		
Herb Stratum (Plot size: 30x30)	· Serve	1.2	Eme L.	¹ Indicators of hydric soil and wetland hydrology must
1. Valcinium corymbosum	. <u>15</u>	<u> </u>	<u> Macw</u>	be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Too. Mandy plants evaluating since 2 in (7.6 cm) or
4.				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
				height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less
7	- ——			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
				Woody vine – All woody vines greater than 3.28 ft in height.
11.				neigrii.
12	·			
	<u>_15</u> _	= Total Co	-48	
50% of total cover:	20% o <u>گ</u>	f total cove	:: <u>_5</u>	
Woody Vine Stratum (Plot size: 30 × 30)				
1. none				
2.				
				ļ
3		·	·	
4	-			
5	<u> </u>			Hydrophytic
		= Total Co	ver	Vegetation
50% of total cover:	20% 0	If total cove	r:	Present? Yes No
			·· <u> </u>	<u> </u>
Remarks: (If observed, list morphological adaptations bel	ow).			
				•
				•
				•

Profile Desc	ription: (Describe	to the dept	h needed to docum	ent the	indicator	or confirm	n the absence of	indicators.)
Depth (inches)	Matrix			Feature 0/		12	T	Samuela
(inches)	2.5 Y 3	% -	Color (moist)	<u>%</u>	_Type	Loc²	Texture	Remarks
12-1	1 - 1 - 1 - 1		- earl 27/A				SL -	
10-7-1	2.5162		7.5412518	5	_ <u> </u>	<u>~~</u>	<u> </u>	
14-20	1.5744	95	10 1253	<u> 5 </u>	<u> </u>	<u>M</u>	<u> 502</u>	
			-					
		· —— ·						
<u> </u>		· -						
			Reduced Matrix, MS			ains.		L=Pore Lining, M=Matrix.
l <u> </u>		abie to all t	RRs, unless others.			DD 0 T 1		or Problematic Hydric Soils ³ :
Histosol	oipedon (A2)	-	Polyvalue Bek					ck (A9) (LRR O) ck (A10) (LRR S)
	istic (A3)		Loamy Mucky					Vertic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		amy Gleyed			-,		t Floodplain Soils (F19) (LRR P, S, T)
1 3 4 4	d Layers (A5)		Depleted Matr	ix (F3)				us Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P	•	Redox Dark S	_			1 1 '	(153B)
	ucky Mineral (A7) (LF		Depleted Dark					ent Material (TF2)
	esence (A8) (LRR U uck (A9) (LRR P, T)	')	Redox Depres Marl (F10) (LF	•	-8)			allow Dark Surface (TF12) xplain in Remarks)
. —	d Below Dark Surfac	e (A11)	Depleted Och		(MLRA 1	51)	Other (L	xpiairi ii remarks)
_	ark Surface (A12)	• (,	☐ Iron-Mangane	•	•	•	, T) ³ Indicat	ors of hydrophytic vegetation and
Coast P	rairie Redox (A16) (M	MLRA 150A				, U)		nd hydrology must be present,
	lucky Mineral (S1) (L	RR O, S)	Delta Ochric (s disturbed or problematic.
. =	Eleyed Matrix (S4)		Reduced Vert		•		•	
	Redox (S5) I Matrix (S6)		Piedmont Floo	-		-	49A) RA 149A, 153C, 1	(ESD)
1 =	rface (S7) (LRR P, S	S. T. U)	Alomaious Bi	igni Loa	iniy odilə ((WE	XA 148A, 133G, 1	1330)
	Layer (if observed):							
Type:								
Depth (in	ches):						Hydric Soil P	resent? Yes No
Remarks:								
I								



Wetland data point wjoo003f_w facing southwest.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: ACP	City/County:	nnston	Sampling Date:
Applicant/Owner: _\mathbb{OminiON}		State: NL	Sampling Point: Wjoo003f_0
Investigator(s): ESI U Roper)	Section, Township, Ra		
Landform (hillslope, terrace, etc.):			(a) Slope (%): 0-41.
Subregion (LRR or MLRA): LRR P U Lat: 35	(64179	Long: -78.14	30 7- Datum: WGSBY
	, 10-2-11 stop		
Are climatic / hydrologic conditions on the site typical for this time of y		(If no, explain ir	· · · · · · · · · · · · · · · · · · ·
Are Vegetation, Soil, or Hydrology significantly	-	"Normal Circumstances	s" present? Yes No
Are Vegetation, Soil, or Hydrology naturally processed in the control of the c	roblematic? (If n	eeded, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point	locations, transec	cts, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No Yes No	Is the Sample within a Wetla		No
•			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Inc	dicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	•	_	Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B			Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1			Patterns (B10)
Saturation (A3) Hydrogen Sulfide	Odor (C1)	Moss Trin	m Lines (B16)
☐ Water Marks (B1) ☐ Oxidized Rhizosp	heres along Living Root	ts (C3) 🔲 Dry-Seas	on Water Table (C2)
Sediment Deposits (B2)	` '		Burrows (C8)
1 -	ction in Tilled Soils (C6)		n Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surfac			hic Position (D2) Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	(Cinarks)		itral Test (D5)
Water-Stained Leaves (B9)	-	=	m moss (D8) (LRR T, U)
Field Observations:	· · · · · · · · · · · · · · · · · · ·	<u> </u>	
Surface Water Present? Yes No Depth (inche	s): <u>NA</u>		
Water Table Present? Yes No Depth (inche			A Contractor
Saturation Present? Yes No Depth (inche (includes capillary fringe)	s): >20 N	etland Hydrology Pre	sent? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspection	ns), if available:	
Remarks:			
Remarks.			
			·
•			
			1

, , ,	A1	D		
Tree Stratum (Plot size: 30メ30)			t Indicator	Dominance Test worksheet:
iree Stratum (Plot size:	% Cover	Species		Number of Dominant Species
1. Pinus taeda	30	<u> </u>	PHC_	That Are OBL, FACW, or FAC: (A)
2. Acer rubrum	15	ν	PIC	
		N		Total Number of Dominant
3. Quercus falcata	10		<u> FACU</u>	Species Across All Strata: (B)
4. Liquidambar styraciflua	10	N	pac	``
		$\overline{}$		Percent of Dominant Species
5. Symplocos tinctoria	. 15		PAC	That Are OBL, FACW, or FAC: 85.71. (A/B)
6				
			- 	Prevalence Index worksheet:
7				<u> </u>
8				Total % Cover of: Multiply by:
	80			OBL species x 1 =
	00	= Total Co	over	· ·
50% of total cover: ــــــــــــــــــــــــــــــــــــ	20% of	total cove	r: الا	FACW species x 2 =
				FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30 +30)				· ·
1. Ilex opaca	10	*	PAL	FACU species x4 =
2. Symplocus tinctoria	15	*	MAZ	UPL species x 5 =
	- 10			
3. Acer rubrum		<u>~~</u>	PMC	Column Totals: (A) (B)
4. Liquidambar styraciflua	10	У	PAC	
4. Proportion styres it has	- + U		<u> </u>	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8.				i
0	Lin			3 - Prevalence Index is ≤3.0¹
	<u> </u>	= Total Co	over	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: _ ZL) 20% of	f total cove	n 63	,
Herb Stratum (Plot size: <u>名の ×30</u>)				¹ Indicators of hydric soil and wetland hydrology must
1. Vaccinium corymbosum	40	7	FACW	be present, unless disturbed or problematic.
2. Pteridium aquilinum		4	FACU	•
2. Therianam againnam	_ <u>:2</u>		FACU	Definitions of Four Vegetation Strata:
3		•		
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
b				
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12.				
12	1 400			·
	15	= Total Co	over_	
50% of total cover: 7:	5 20% n	f total cove	_{ar} . 3	
		, total cove		
Woody Vine Stratum (Plot size: 30730)	marity.		,	,
1. Vitis rotundifolia	<	4	Plat	
· · · · · · · · · · · · · · · · · · ·	5			
2		. <u></u>		
,				
J				
4				
E				
J	- 			Hydrophytic
•		= Total C	over	Vegetation
50% of total cover: 2	5 20% o	f total cove	or 1	Present? Yes No
		i total covi	<u> </u>	
Remarks: (If observed, list morphological adaptations be	low).			
			•	
i i				

Profile Description: (Describ	e to the dep	th needed to docu	ment the i	ndicator	or confirm	the absence of in	dicators.)
Depth <u>Matrix</u>		Redo	x Feature	s			
(inches) Color (moist)		Color (moist)	_ %	Type	Loc²	<u>Texture</u>	Remarks
0-4 2.5 9 3/1	100					S(
4-16 2,5 15/4	<u>\b0</u>					<u> </u>	
16-20+ 2.5 Y514	90	1016/10	10	E.	M	SCL	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
							
	<u> </u>					 	
İ			_				
¹ Type: C=Concentration, D=D	— ——— enletion RM=	Reduced Matrix M	S=Masked	Sand Gr	ains.	²l ocation: Pl =	Pore Lining, M=Matrix.
Hydric Soil Indicators: (App							Problematic Hydric Soils ³ :
Histosol (A1)		☐ Polyvalue B		•	RR S. T. I		(A9) (LRR O)
Histic Epipedon (A2)		☐ Thin Dark S				• 🗖	(A10) (LRR S)
Black Histic (A3)		Loamy Muci					ertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)		Loamy Gley			-,		loodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)		Depleted Ma		` '			Bright Loamy Soils (F20)
Organic Bodies (A6) (LRF	P, T, U)	Redox Dark		⁻ 6)		(MLRA 1	
5 cm Mucky Mineral (A7)	(LRR P, T, U)	Depleted Da	ark Surface	(F7)		☐ Red Parent	Material (TF2)
Muck Presence (A8) (LRF	l U)	Redox Depr		8)			w Dark Surface (TF12)
1 cm Muck (A9) (LRR P, 1		☐ Marl (F10) (U Other (Expl	ain in Remarks)
Depleted Below Dark Surf	ace (A11)	Depleted Or		-	-	•	
Thick Dark Surface (A12)		Iron-Mangai					of hydrophytic vegetation and
Coast Prairie Redox (A16					, U)		hydrology must be present,
Sandy Mucky Mineral (S1		Delta Ochrid			O. A. AEDDI		isturbed or problematic.
Sandy Gleyed Matrix (S4)		Reduced Ve					
Sandy Redox (S5) Stripped Matrix (S6)		Piedmont Fi				+9A) RA 149A, 153C, 153	.n.
Dark Surface (S7) (LRR F	S T 11)	Anomaious	Dilgiil Lua	illy Suils (rzu) (NIER	(A 149A, 100C, 100	راه.
Restrictive Layer (if observe							
Type:	~ <i>,</i> ·						ار
						Hadria Call Bus	sent? Yes No
Depth (inches):						Hydric Soil Pres	sent? Yes No
Remarks:							
	•						
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1							
							c .



Upland data point wjoo003_u facing northeast.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: ACP	City/County: Johnston Sampling Date: 7114114
Applicant/Owner: Pominion	State: Sampling Point: W\00002F-w
Investigator(s): EST (L Roper)	Section, Township, Range: N'A
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): 1001/10 Slope (%): 0 - 27/
Subregion (LRR or MLRA): LAC Q Lat: 3	5.6342 Long: -78.14990 Datum: W6584
Soil Map Unit Name: Pains Sendy Joann,	
Are climatic / hydrologic conditions on the site typical for this time of	• • • • • • • • • • • • • • • • • • •
Are Vegetation, Soil, or Hydrology significan	
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes V No	Is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
	•
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that app	
Surface Water (A1)	
High Water Table (A2)	· ·
☐ Saturation (A3) ☐ Hydrogen Sulfid	
	pheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Record Iron Iron Record Iron Iron Iron Iron Iron Iron Iron Iron	duced Iron (C4) Crayfish Burrows (C8) duction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
☐ Drift Deposits (B3) ☐ Recent Iron Rec	
Iron Deposits (B5) Other (Explain in	· · ·
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inch	nes): <u>N (*† </u>
L is	nes): >10
Saturation Present? Yes No Depth (incl	nes): Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial pl	notos, previous inspections), if available:
Remarks:	
Buttressed trees	
Vo. (1, 25)	
·	
•	·
	·
	·

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

2 - 2.	Absolute	Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30x36)		Species?		Number of Dominant Species
1. Pinus treda	<u>30</u>		PAC_	That Are OBL, FACW, or FAC:(A)
2. And Works	70	<u> </u>	PK	Total Number of Dominant
3. Liquidambar styriliture	<u> 20</u>	<u>y</u>	FAC	Species Across All Strata:(B)
4			·	Demand of Demineral Consider
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6				(45)
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
o	70	= Total Cov		OBL species x 1 =
50% of total cover: 35				FACW species x 2 =
	20% of	total cover	: _1 =/	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30 x 30)	1 4	V	Facili	FACU species x 4 =
1. Massolra Virginiana	10	-	FACW	UPL species x5 =
2. Ilex opula	5	<u>~~</u>	PAC	
3. Liquidambor stynillo	15		RAC	Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				
				2 - Dominance Test is >50%
8	30	= Total Co		3 - Prevalence Index is ≤3.01
				Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: 15	20% of	total cover	:	
Herb Stratum (Plot size: 50 x 30)	12	.,	-4-011	¹ Indicators of hydric soil and wetland hydrology must
1. Arundinaria aigantea	01	``Y	PACW	be present, unless disturbed or problematic.
2 Symplocos tinctoria	<u> 10</u>		PAC	Definitions of Four Vegetation Strata:
3. Woodwardia areolata	_5_	<u>~</u>	OBL	Tree - Woody plants, evaluding vines, 2 in (7.6 cm) or
4. Osmundastrum cinnamomeun	1 5	<u> </u>	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5	•			height.
6.				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11	. ——			height.
12				
		= Total Co		
50% of total cover: <u>15</u>	20% of	total cove	r: <u> </u>	
Woody Vine Stratum (Plot size: 30 x 30)				
1. none				
2.				
3				
4	· ——			
5				Hydrophytic
		= Total Co		Vegetation Present? Yes No
50% of total cover:	20% o	f total cove	r:	
Remarks: (If observed, list morphological adaptations below	ow).			1.3
				ļ

Profile Desc	ription: (Describe t	o the dept	th needed to docum	ent the ir	ndicator o	or confirm	the absence	of indicators	s.)	
Depth	Matrix Color (maist)			Features		1002	Tautura		Damada	
(inches)	Color (moist)	<u>~%</u>	7.5 1(25/8	<u> </u>	Type'	Loc ²	Texture SI	gome	Remarks	linings
10-18	7.544/2	$\frac{3}{q_0}$	1016 118	10		<u>, , , , , , , , , , , , , , , , , , , </u>		- OANCE	Forc	()
	15/15/2		75 12 78			<u> 191</u>	<u>5L</u>			
16.50	D.J Japo	100	117 1- 115	<u>40</u>		_i~/	- there were			
										
										
				·						
			Reduced Matrix, MS			ins.			ing, M=Matrix	
I		able to all	LRRs, unless other		-	BB 6 T 4			atic Hydric S	oils":
Histosol	pipedon (A2)		Polyvalue Bel Thin Dark Sur					/luck (A9) (LF /luck (A10) (L		
Black Hi			Loamy Mucky		-	-				LRA 150A,B)
	n Sulfide (A4)		Loamy Gleye	-	F2)		<u></u> ⊢ Piedm	ont Floodplai	n Soils (F19) ((LRR P, S, T)
 	Layers (A5)		Depleted Mat		-			_	oamy Soils (F	720)
	Bodies (A6) (LRR P, icky Mineral (A7) (LR		Redox Dark S Depleted Darl	•	•			RA 153B) arent Materia	L(TE2)	
	esence (A8) (LRR U		Redox Depres						Surface (TF12	2)
	ick (A9) (LRR P, T)	•	Marl (F10) (LI		•			(Explain in R		´
· = ·	Below Dark Surface	(A11)	Depleted Och		•	•	3			
	ark Surface (A12) rairie Redox (A16) (N	II DA 1607	☐ Iron-Mangane A) ☐ Umbric Surfac				•		ophytic vegeta gy must be pre	
	lucky Mineral (S1) (L		Delta Ochric			, 0,			l or problemat	
	Gleyed Matrix (S4)		Reduced Veri			0A, 150B)			, p	
	Redox (S5)		Piedmont Flo							
1 7	l Matrix (S6) rface (S7) (LRR P, S	7 11		right Loan	ny Soils (I	F20) (MLF	RA 149A, 1530	;, 153D)		
	Layer (if observed):									
Type:									P	
Depth (in	ches):						Hydric Soi	I Present?	Yes V	No
Remarks:										
;	,	*								·
•										•
										!
	-									



Wetland data point wjoo002f_w facing southwest.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: ACP City/C	County: 30 hnston Sampling Date: 7/14/14
Applicant/Owner: Sown in South	State: NC Sampling Point: W100002 -
	on, Township, Range: WHT Sampling Point.
	relief (concave, convex, none): (make Slope (%): 0 - 1
Subregion (LRR or MLRA): LRR (2) U Lat: 35. U	3503 Long: -78.1496 Datum: W658
Soil Map Unit Name: Crolds beres sendy lower, U-	NWI classification: NA
Are climatic / hydrologic conditions on the site typical for this time of year? Y	'es No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distur	rbed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problems	
SUMMARY OF FINDINGS - Attach site map showing san	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area
Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Remarks:	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LR	
☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16)
☐ Water Marks (B1) ☐ Oxidized Rhizospheres a	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	on (C4) Crayfish Burrows (C8)
☐ Drift Deposits (B3) ☐ Recent Iron Reduction in	n Tilled Soils (C6)
Algal Mat or Crust (B4)	Geomorphic Position (D2)
I Iron Deposits (B5)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	N. C. W.
Surface Water Present? Yes No Depth (inches):	72 0
Water Table Present? Yes No Depth (inches):	~~? · · · · · · · · · · · · · · · · · ·
Saturation Present? Yes No / Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	

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

Sampling Point: wjoo002 - u

20.00		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 x 30)		Species?		Number of Dominant Species That Are OBL FACW or FAC: (A)
1. Pinus taeda	30_	<u> </u>	FAC	That Are OBL, FACW, or FAC: (A)
2. Quercus alba	15	<u></u>	PACU	Total Number of Dominant
3. Quercus nigra		Ŋ	FAC	Species Across All Strata:
4. Acer rubrum	<u>O</u>	N	PAC	Descent of Deminent Cresics
5. Liquidambar styraciflua	15	7	PAC	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6				
7				Prevalence Index worksheet:
8.		•		Total % Cover of: Multiply by:
	75	= Total Cov	er	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: <u>30 x 30</u>)	207001	total cover	· <u>, , , , , , , , , , , , , , , , , , ,</u>	FAC species x 3 =
1. Vaccinium corymbosum	10	4	PHOW	FACU species x 4 =
2. Ilex opaca	10	/	PIAC	UPL species x 5 =
3. Symplocos tinctoria	15	<u>'</u>	PAC	Column Totals: (A) (B)
4				Prevalence Index = B/A =
5	· — ·			Hydrophytic Vegetation Indicators:
6				☐ 1_Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
	<u>35 </u>	= Total Cov	/er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 17.3	20% of	f total cover	:_7	
Herb Stratum (Plot size: 30 x 30)				¹ Indicators of hydric soil and wetland hydrology must
1. Vaccinium corymbosum	5	Y	FACW	be present, unless disturbed or problematic.
2. Arundinaria gigantea	-	\overline{Y}	FALW	Definitions of Four Vegetation Strata:
3				
				Tree Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 iii. DDH and greater than 3.20 it (1 iii) tali.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10	-			Woody vine – All woody vines greater than 3.28 ft in
11	- 			height.
12				
	<u> 15</u>	= Total Co	ver _	
50% of total <u>c</u> over: <u>7ι</u>	<u>5</u> 20% o	f total cover	:_3_	
Woody Vine Stratum (Plot size: 30 x 30)				
1. Smilax votunditalia	10	4	FAC	
2				
3	-			
4				
5	- LO			Hydrophytic
		= Total Co	-	Vegetation Present? Yes No
50% of total cover:		f total cover	:_ <i></i> _	
Remarks: (If observed, list morphological adaptations beli	ow).			•
				·

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the i	ndicator or confirm	the absence of	indicators.)
Depth	Matrix		Redo	x Features	<u> </u>		
(inches)	Color (moist)	- %	Color (moist)	%	Type ¹ Loc ²	<u>Texture</u>	Remarks
17-6	10412313	100					
10-20	2.545/6	100					
<u> </u>	F (2) 1 10	160					
							1
¹Tuno: C=Co	ncentration, D=Dep	olotion DM-E	Reduced Matrix M	 S-Maskad	Sand Crains	² l continu	_=Pore Lining, M=Matrix.
	ndicators: (Applic						r Problematic Hydric Soils ³ :
		abie (0 an L			= -	_	-
Histosol	• •				ce (S8) (LRR S, T, U		ck (A9) (LRR O)
	ipedon (A2)				(LRR S, T, U)		ck (A10) (LRR \$)
Black His					(F1) (LRR O)		Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye		F2)		Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Ma		· (C)		us Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark		•	(MLRA	
	cky Mineral (A7) (L		Depleted Da				Int Material (TF2)
I ==	esence (A8) (LRR l	,	Redox Depre	•	0)		llow Dark Surface (TF12) (plain in Remarks)
	ck (A9) (LRR P, T)	(444)	Marl (F10) (I		(MI DA 454)	Other (Ex	rpiain in Remarks)
	l Below Dark Surfac irk Surface (A12)	æ (ATT)			(MLRA 151)	T) 3Indicate	ors of hydrophytic vegetation and
ı =	• •	MI DA 150A)			es (F12) (LRR O, P,		nd hydrology must be present,
	airie Redox (A16) (_		(LRR P, T, U)		s disturbed or problematic.
	lucky Mineral (S1) (sleyed Matrix (S4)	LKK U, S)	Delta Ochric				s disturbed or problematic.
					MLRA 150A, 150B)		
	edox (S5)				oils (F19) (MLRA 14		F3D)
	Matrix (S6) face (S7) (LRR P,	C T 111	Anomaious	bright Loar	my Soils (F20) (MLR	A 149A, 103C, 1	330)
	ayer (if observed)		•		•	ī	
l .	-ayer (ii observed)) .					
			<u> </u>				, process
Depth (in:	ches):		.			Hydric Soil Pr	resent? Yes No
Remarks:							
[
1							
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1							
Į.							
					•		



Upland data point wjoo002_u facing northeast.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: ACP _____ City/County: Toky 5-700 Sampling Date: 7/14/14 State: NIL Sampling Point: WJ00 001e_w Applicant/Owner: _ Down in TW1 Investigator(s): EST (L Fesser) Section, Township, Range: VR Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): Local value Slope (%): 0 - L[0]. Subregion (LRR or MLRA): L ____ Lat: 36.63 \ 97 Long: -78.15339 Joan 10-21. Slopes Soil Map Unit Name: TO SENOT ____ NWI classification: ___ Are climatic / hydrologic conditions on the site typical for this time of year? Yes ____ No ____ (If no, explain in Remarks.) Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: **HYDROLOGY** Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) Aquatic Fauna (B13) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Oxidized Rhizospheres along Living Roots (C3) Water Marks (B1) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Recent Iron Reduction in Tilled Soils (C6) L Drift Deposits (B3) Saturation Visible on Aerial Imagery (C9) Thin Muck Surface (C7) Geomorphic Position (D2) Iron Deposits (B5) Other (Explain in Remarks) Shallow Aquitard (D3) Inundation Visible on Aerial Imagery (B7) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Water-Stained Leaves (B9) Field Observations: No 1 Depth (inches): Surface Water Present? __ No ____ Depth (inches): ___ Water Table Present? No _____ Depth (inches): Surface Saturation Present?

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Parties of wetlend inviduted

US	Army	Corps	of	Engineer	ξ

(includes capillary fringe)

Remarks:

Tree Stratum (Plot size: 30 × 30)	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover Species? Status	Number of Dominant Species
1. NONE		That Are OBL, FACW, or FAC: 5 (A)
2		Total Number of Dominant
3		Total Number of Dominant Species Across All Strata: (B)
		(,
4		Percent of Dominant Species
5		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)

6		Prevalence Index worksheet:
7		
		Total % Cover of: Multiply by:
8		OBL species x 1 =
	= Total Cover	
50% of total cover:	20% of total cover:	FACW species x 2 =
	20 % of total cover.	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: <u>&6 x20</u>)	ic	, , , , , , , , , , , , , , , , , , , ,
1. Marella Cerifera	S V FAC	FACU species x 4 =
Red Land Charles		UPL species x 5 =
2. Baccharis halimifolia	5 Y For	
2		Column Totals: (A) (B)
3		
4		Prevalence Index = B/A =
5		
_		Hydrophytic Vegetation Indicators:
6	·	Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.01
	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
	20% of total cover: 2	Throdematic hydrophytic vegetation (Explain)
	20% of total cover:	į
Herb Stratum (Plot size: 32×30)	<i>y</i>	¹ Indicators of hydric soil and wetland hydrology must
1. Typha latifolia	1.5 4 OBL	
		be present, unless disturbed or problematic.
2. Juncus effusus	HO Y OBL	Definitions of Four Vegetation Strata:
	20 Y OBL	· ·
3. Ludwigia sp.	. <u>~~~</u> ~~~	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4.	•	more in diameter at breast height (DBH), regardless of
		height.
5		110.91.0
6		Sapling/Shrub - Woody plants, excluding vines, less
l .		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7		than 3 in. DDH and greater than 3.20 it (1 in) tall.
8		Herb – All herbaceous (non-woody) plants, regardless
1		
9	- <u> </u>	of size, and woody plants less than 3.28 ft tall.
10		194 I tu All
		Woody vine – All woody vines greater than 3.28 ft in
11		height.
12		
	0.6	
	= Total Cover	
50% of total cover: 42	√ 20% of total cover: 17	
1		
Woody Vine Stratum (Plot size: 30 x 30)		
1. none		
•	· —— ——	'
2		.
3		
<u> </u>		
4		.
5.		1 hadro-badio
<u> </u>		Hydrophytic
\	= Total Cover	Vegetation No.
50% of total cover:	20% of total cover:	Present? Yes V No No
		·
Remarks: (If observed, list morphological adaptations be	ow).	
•		
1		

Profile Desc	ription: (Describe	to the depth	needed to docum	ent the i	ndicator	or confirm	the absence of	indicators.)
Depth	Matrix		Redox	Features	3			
(inches)	Color (moist)		Color (moist)		Type ¹	_Loc ²	<u>Texture</u>	Remarks
00/10	2.545/1	90_	101R 5/B	10	<u> </u>	<u>M</u> .	<u> </u>	
16-20	2.575/1	95	107R 5/8	5	ک	M	5 C	
								
			.					
								
1Tyrne: C=C	oncentration, D=Dep	 letion RM=R	educed Matrix MS		Sand Gr	aine	21 ocation: Pl	
	Indicators: (Applic					41114.		r Problematic Hydric Soils ³ :
☐ Histosol	•		Polyvalue Be			RR S. T. 11	_	ck (A9) (LRR O)
	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)
	istic (A3)		Loamy Mucky				i i	Vertic (F18) (outside MLRA 150A,B)
=	en Sulfide (A4)		Loamy Gleye			•	1 1	Floodplain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Mat				Anomalou	us Bright Loamy Soils (F20)
_	Bodies (A6) (LRR P		Redox Dark S	Surface (F	6)		(MLRA	
	ucky Mineral (A7) (LF		Depleted Dar					ent Material (TF2)
=	resence (A8) (LRR U)	Redox Depre	-	8)			llow Dark Surface (TF12)
1 7	ick (A9) (LRR P, T)		Marl (F10) (L				U Other (Ex	xplain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Och				F) 31	and the other about a compatation and
_	ark Surface (A12) rairie Redox (A16) (i	# DA 450A\	Iron-Mangan				•	ors of hydrophytic vegetation and nd hydrology must be present,
	/Jucky Mineral (S1) (I		Delta Ochric		-	-		s disturbed or problematic.
	Gleyed Matrix (S4)	-1414 0, 0,	Reduced Ver				unico	s distarbed of problematic.
. =	Redox (S5)		Piedmont Flo				9A)	
	Matrix (S6)						A 149A, 153C, 1	53D)
	ırface (S7) (LRR P, S	S, T, U)	_	Ū	,	, , ,	, ,	,
Restrictive	Layer (if observed):	1						
Туре:								
Depth (in	ches):						Hydric Soil Pr	resent? Yes No
Remarks:	· · ·							
, , , , , , , , , , , , , , , , , , ,								
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Wetland data point wjoo001e_w facing west.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: ACP City/	County: Traknston Sampling Date: 7/11/14
Applicant/Owner: _\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	State: NC Sampling Point: W 00 001
	ion, Township, Range: VA
	al relief (concave, convex, none): CONCAVE Slope (%): D-4
Catalonin (Imislope, terrace, etc.).	3198 Long: 75.15.531 Datum: W6584
Soil Map Unit Name: Torsnot lown 10-21. 610	
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly distu	urbed? Are "Normal Circumstances" present? Yes 🛩 No
Are Vegetation, Soil, or Hydrology naturally problem	natic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sat	mpling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No	Is the Sampled Area within a Wetland? Yes No
Remarks:	
mowed lawn edge	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Harl Deposits (B15) (LF	
☐ Saturation (A3) ☐ Hydrogen Sulfide Odor	
	along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced In Presence In Presence of Reduced In Presence In	
☐ Drift Deposits (B3) ☐ Recent Iron Reduction ☐ Algal Mat or Crust (B4) ☐ Thin Muck Surface (C7)	
Iron Deposits (B5) Other (Explain in Rema	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	NA A
Water Table Present? Yes No Depth (inches):	720
Saturation Present? Yes No Depth (inches):	>20 Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	roulous inercetions) if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, p	revious inspections), ii available.
Remarks:	
remains.	
	:
	·
	j

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

Sampling Point: wjoo 001-u

Tree Stratum (Plot size: 30 x 30	Absolute Dominant Indicator	Dominance test worksneet:
	% Cover Species? Status	Number of Dominant Species
1. hone		That Are OBL, FACW, or FAC: (A)
2		Total Number of Demisers
3		Total Number of Dominant Species Across All Strata: (B)
		Species Across Air Strata.
4		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: (A/B)
6		
		Prevalence Index worksheet:
7		Total % Cover of:Multiply by:
8		
	= Total Cover	OBL species <u>30</u> x 1 = <u>30</u>
EOO/ of total cover:	20% of total cover:	FACW species x 2 =
	20 % Of total cover	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30 x 30)	•	FACU species 30 x 4 = 120
1. NONE		FACU species X4 =
2.		UPL species x 5 =
		Column Totals: <u>60</u> (A) <u>150</u> (B)
3		
4.		Prevalence Index = B/A = 2.5
5		Hydrophytic Vegetation Indicators:
6		1 - Rapid Test for Hydrophytic Vegetation
7		2 -Dominance Test is >50%
. 8		
	= Total Cover	3 - Prevalence Index is ≤3.0
	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
	20% of total cover:	\
Herb Stratum (Plot size: 30 x 30)		11-diseases of boundary of the state of the
	30 Y FACU	Indicators of hydric soil and wetland hydrology must
1. Eupatorium capillifolium		be present, unless disturbed or problematic.
2. Juncus effusus	30 Y UBL	Definitions of Four Vegetation Strata:
3		
		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of
5	-,	height.
6		Senting/Shrub Woody plants avaluating vines less
		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7		than 3 in. DBH and greater than 3.20 it (1 in) tall.
8		Herb – All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
		· · · · · · · · · · · · · · · · · · ·
10		Woody vine - All woody vines greater than 3.28 ft in
		height.
12		
	Total Cover	
	<u> </u>	
Woody Vine Stratum (Plot size: 30 x 30)		
1. None		
I. Norte		
2		. [
3		
4		•
5		Hydrophytic
	= Total Cover	Vegetation
man fills		Present? Yes No
FINA At total Advat		· · · · · · · · · · · · · · · · · · ·
	20% of total cover:	
S0% of total cover:	20% of total cover:	
Remarks: (If observed, list morphological adaptations be	20% of total cover:	
Remarks: (If observed, list morphological adaptations be	20% of total cover:	
	20% of total cover:	
Remarks: (If observed, list morphological adaptations be	20% of total cover:	
Remarks: (If observed, list morphological adaptations be	20% of total cover:	
Remarks: (If observed, list morphological adaptations be	20% of total cover:	
Remarks: (If observed, list morphological adaptations be	20% of total cover:	
Remarks: (If observed, list morphological adaptations be	20% of total cover:	

	1.11	van OOL t
Sampling Point:	w	100001-0
Camping round		

SOIL

Depth (inches) Color (moist) % Color (moist) % Type: Loc Color (moist)	l	•	to the depti	n needed to docum			or confirm	the absence of	of indicators.)
Type: C=Concentration, D=Depletion, RM=Reduced Maritx, MS=Masked Sand Grains.	l . •		0/_				Loc ²	Toytura	Domarks
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Thyric Soll indicators: (Applicable to all LRRs, unless otherwise noted.) Histocopied (Ar) Histocopied (Ar) Histocopied (Ar) Histocopied (Ar) Hydrogen Sulfate (Ar) Stratified Layers (AS) Organic Bodies (AB) (LRR P, T, U) Sor mlucky Mineral (Ar) (LRR P, T, U) Depleted Bodies (AB) (LRR P, T, U) Depleted Bodies (AB) (LRR P, T, U) Depleted Devis (Ar) Thick Dark Surface (AR) Thick Dark Surface (AR) Sandy Mucky Mineral (AR) Sandy Mucky Mineral (SI) (LRR O, S) Sandy Mineral (SI) (LRR O, S) Sandy Mineral (SI) (LRR O, S) Sandy Mineral (SI) (LRR O, S) Piedmont Floodplain Soils (F12) (MLRA 159) Dark Surface (AS) Sandy Rodox (SS) Sandy Rodox (SS) Sandy Rodox (SS) Sandy Rodox (SS) Type: Depth (mortes): Depth (mortes): Depth (mortes): Depth (mortes): Remarks:	ļ —					<u> </u>	100		Remains
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. "Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histicosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrigen Sulfide (A4) Usarry Muxky Mineral (F1) (LRR O) Sorganic Bodies (A6) (LRR P, T, U) Sorganic Bodies (A6) (LRR P, T, U) House Presence (A8) (LRR P, T, U) Sorganic Bodies (A6) (LRR P, T, U) Anomalous Bright Loamy Soils (F20) Sorganic Bodies (A6) (LRR P, T, U) Anomalous Bright Loamy Soils (F20) Sorganic Bo						· — <u>–</u>	11	<u></u>	
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histocol (A1) Histocol (A2) Black Histic (A3) Hydrogen Sulfde (A4) Stratified Layers (A5) Organic Bodies (A9) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Solles (A9) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A7) How Key How Key (A6) How Care (A7) How Key Mineral (A7) How Key How Key (A5) How Care (A7) How Key How Key (A6) How Care (A7) How Key How Key (A7) How Key How Key (A7) How Care (A7) How Key (A6) How Care (A7) How Key (A7) How Key (A7) How Key (A6) How Care (A7) How Key (A6) How Care (A7) How Key (A6) How Care (A7) How Key (A7) How Key (A7) How Key (A6) How Care (A7) How Key (A7)	12-10	2.5 7 7/1	95	5716716	_5_	<u> </u>	M		
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Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histocol (A1) Histocol (A2) Black Histic (A3) Hydrogen Sulfde (A4) Stratified Layers (A5) Organic Bodies (A9) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Solles (A9) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A7) How Key How Key (A6) How Care (A7) How Key Mineral (A7) How Key How Key (A5) How Care (A7) How Key How Key (A6) How Care (A7) How Key How Key (A7) How Key How Key (A7) How Care (A7) How Key (A6) How Care (A7) How Key (A7) How Key (A7) How Key (A6) How Care (A7) How Key (A6) How Care (A7) How Key (A6) How Care (A7) How Key (A7) How Key (A7) How Key (A6) How Care (A7) How Key (A7)									
Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histocol (A1) Histocol (A2) Black Histic (A3) Hydrogen Sulfde (A4) Stratified Layers (A5) Organic Bodies (A9) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Solles (A9) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A6) How Key Mineral (A7) (LRR P, T, U) How Key Presence (A7) How Key How Key (A6) How Care (A7) How Key Mineral (A7) How Key How Key (A5) How Care (A7) How Key How Key (A6) How Care (A7) How Key How Key (A7) How Key How Key (A7) How Care (A7) How Key (A6) How Care (A7) How Key (A7) How Key (A7) How Key (A6) How Care (A7) How Key (A6) How Care (A7) How Key (A6) How Care (A7) How Key (A7) How Key (A7) How Key (A6) How Care (A7) How Key (A7)									
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Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histocol (A1) Histocol (A2) Black Histic (A3) Hydrogen Sulfde (A4) Loamy Mucky Mineral (F1) (LRR 0, Loamy Cleyed Matrix (F3) Organic Bodies (A9) (LRR P, T, U) Howk Presence (A6) To minus Surface (A12) Loamy Cleyed Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Loamy Cleyed Matrix (F3) Howk Presence (A6) To coast Prairie Redox (A15) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mucky Mineral (S1) (LRR 0, Sandy Mineral (S1) (LR 0, Sandy Mineral (S1) (<u> </u>					. ——			
Histosol (A1) Histic Epipedon (A2) Black Histo (A3) Hydrogen Sulfide (A4) Depleted Markir (F2) Depleted Warkir (F3) Depleted Dark Surface (F5) Depleted Below Dark Surface (A12) Trinin Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (A12) Umbric Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 151) Trink Dark Surface (F13) (LRR P, T, U) Depleted Orbin (F11) (MLRA 150A, 150B) Piedmont Floodplain Solie (F20) (MLRA 159A) Anomalous Bright Loamy Solis (F20) (MLRA 149A), 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Type: Depth (inches): Hydric Soil Present? Yes No							ains.		
Histic Epipedon (A2) Dark Surface (S9) (LRR S, T, U) Dark Surface (S9) (LRR S, T, U) Dark Surface (S9) (LRR S, T, U) Dark Surface (SP) (LRR S, T, U) Dark Surface (S	Hydric Soil I	ndicators: (Applic	cable to all L	.RRs, unless other	wise not	ed.)		Indicators f	for Problematic Hydric Soils ³ :
Black Histic (A3)	☐ Histosol	(A1)		Polyvalue Bel	ow Surfa	ce (S8) (L	RR S, T, U	l) 📙 1 cm M	uck (A9) (LRR O)
Hydrogen Sulfide (A4)	Histic Ep	ipedon (A2)		Thin Dark Sur	face (S9) (LRR S,	T, U)	2 cm M	uck (A10) (LRR S)
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A6) (LRR V) 1 cm Muck (A9) (LRR P, T) Depleted Dark Surface (F1) Redox Depressions (F8) Undick Presence (A6) (LRR V) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Umbric Surface (F12) (LRR O, P, T) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRP, S, T, U) Redox Depressions (F8) Red Parent Material (TF2) Very Shallow Dark Surface (F12) Very Shallow Dark Surfac	Black His	stic (A3)		Loamy Mucky	/ Mineral	(F1) (LRF	(O)	Reduce	ed Vertic (F18) (outside MLRA 150A,B)
Griganic Bodies (A6) (LRR P, T, U) S om Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) Lepited Below Dark Surface (F1) Depited Dork Surface (F2) Muck Presence (A8) (LRR V) Depited Below Dark Surface (A11) Depited Below Dark Surface (A11) Depited Below Dark Surface (A11) Depited Dork Surface (A12) Unbrie Surface (F3) (LRR V) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Gleyed Matrix (S4) Sandy Redox (A16) (LRR 0, S) Surface (F3) (LRR P, T, U) Debta Cohric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depith (inches): Remarks: Remarks:	Hydroge	n Sulfide (A4)		Loamy Gleye	d Matrix ((F2)		Piedmo	nt Floodplain Soils (F19) (LRR P, S, T)
Som Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Wery Shallow Dark Surface (TF12) Wery Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dehric (F11) (MLRA 151) Depleted Dehric (F13) (LRR O, P, T) Unrow-Manganese Masses (F12) (LRR O, P, T) Unrow-Surface (F3) (LRR O, P, T) Unrow-Surface (F7) (MLRA 151) Unrow-Manganese Masses (F12) (LRR O, P, T) Unrow-Manganese (Masses (F12				Depleted Mat	rix (F3)			<u></u> ∐ Anoma	lous Bright Loamy Soils (F20)
Muck Presence (A8) (LRR U) Redox Depressions (F8) Very Shallow Dark Surface (F12)				Redox Dark S	Surface (f	⁼ 6)		(MLR	A 153B)
1 cm Muck (A9) (LRR P, T)									
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Ton-Manganese Messes (F12) (LRR Q, P, T) Iron-Manganese	Muck Pr	esence (A8) (LRR l	J)	Redox Depre	ssions (F	8)			
Thick Dark Surface (A12)	<u> </u>	ck (A9) (LRR P, T)						U Other (I	Explain in Remarks)
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, unless disturbed or problematic. Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Redox (S5) Randy Redox (S5) Reduced Vertic (F18) (MLRA 150A, 150B) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No Remarks:	Depleted	Below Dark Surfac	ce (A11)	Depleted Och	ıric (F11)	(MLRA 1	51)		
Sandy Mucky Mineral (S1) (LRR 0, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Delta Ochric (F17) (MLRA 151) Unless disturbed or problematic. Reduced Vertic (F18) (MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Remarks:	│ 🄲 Thick Da	rk Surface (A12)		Iron-Mangane	ese Mass	es (F12) (LRR O, P,	T) ³ Indica	ators of hydrophytic vegetation and
Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No Remarks:	Coast Pi	rairie Redox (A16) (MLRA 150A) 🔲 Umbric Surfa	ce (F13)	(LRR P, T	, U)		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149			LRR O, S)	Delta Ochric	(F17) (M I	LRA 151)		unle	ess disturbed or problematic.
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No Remarks:	🔲 Sandy G	leyed Matrix (S4)		Reduced Veri	tic (F18)	(MLRA 15	0A, 150B)		
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydric Soil Present? Yes No	Sandy R	ledox (S5)							
Restrictive Layer (if observed): Type: Depth (inches): Remarks: Hydric Soil Present? Yes No					right Loa	my Soils (F20) (MLR	A 149A, 153C,	153D)
Type: Hydric Soil Present? Yes No Remarks:									
Depth (inches): No	Restrictive I	_ayer (if observed)):						
Remarks:	Type:			<u></u>					•
Remarks:	Depth (inc	ches):						Hydric Soil	Present? Yes No
								1	
	remarks.								
	1								
		•							
	1								



Upland data point wjoo001_u facing east.

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipe	line	City/C	ounty: Johnston		Sampling Date: 2/10/2015
Applicant/Owner: Dominion				State: NC	_ Sampling Point: wjob109f_w
Investigator(s): TP, RH		Section	n, Township, Range: No	PLSS in this area	
Landform (hillslope, terrace, etc.		Local reli	ef (concave, convex, nor	ne): concave	Slope (%):2
Subregion (LRR or MLRA): P	Lat:	35.62730564	Long: -78.	15695273	Datum: WGS 1984
Soil Map Unit Name: Bibb sandy	y loam, 0 to 2 percent s	slopes, frequently floor	led	NWI classifica	tion: None
Are climatic / hydrologic conditio					
Are Vegetation, Soil					
Are Vegetation, Soil					
-	-				important features, etc.
				<u>, , , , , , , , , , , , , , , , , , , </u>	
Hydrophytic Vegetation Presen Hydric Soil Present?		No No	Is the Sampled Area	.,	
Wetland Hydrology Present?			within a Wetland?	Yes	_ No
Remarks:	100				
is a floodplain matrix and is con					
HYDROLOGY				0	('-'
Wetland Hydrology Indicator		Lall that are by		<u> </u>	ors (minimum of two required)
Primary Indicators (minimum of	•		244)	Surface Soil C	
Surface Water (A1) High Water Table (A2)		True Aquatic Plants (I Hydrogen Sulfide Odd		Sparsely vege ✓ Drainage Patt	etated Concave Surface (B8)
Saturation (A3)			es on Living Roots (C3)	Moss Trim Lin	
Water Marks (B1)		Presence of Reduced	-		Vater Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction		Crayfish Burro	
✓ Drift Deposits (B3)		Thin Muck Surface (C		· ·	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Ren			ressed Plants (D1)
Iron Deposits (B5)				Geomorphic F	Position (D2)
Inundation Visible on Aeria	al Imagery (B7)			Shallow Aquit	ard (D3)
Water-Stained Leaves (B9	·)			Microtopograp	ohic Relief (D4)
Aquatic Fauna (B13)				✓ FAC-Neutral 7	Test (D5)
Field Observations:					
Surface Water Present?	Yes No				
Water Table Present?	Yes No		1		
Saturation Present?	Yes _ V No	Depth (inches):	0 Wetland F	Hydrology Present	? Yes / No
(includes capillary fringe) Describe Recorded Data (streat	am gauge, monitoring v	vell, aerial photos, pre	vious inspections), if ava	nilable:	
,			. ,		
Remarks:					

Sampling Point, Montonia	Sampling	Point: wjob109f_	w
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	A book ito	Dominant I	disator	Deminance Test worksheet:
Tree Stratum (Plot size: 30)	Absolute % Cover	Dominant Ir Species?	Status	Dominance Test worksheet:
1 Quercus pagoda	15	Yes	FACW	Number of Dominant Species That Are OBL_FACW_or FAC: 8 (A)
2. Quercus nigra	15	Yes	FAC	That Are OBL, FACW, or FAC:8 (A)
	10	Yes	FAC	Total Number of Dominant
3. Acer rubrum				Species Across All Strata: 8 (B)
4. Quercus michauxii	5	No	FACW	Descent of Deminent Charles
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				That Alc OBE, I AOW, OI I AO.
				Prevalence Index worksheet:
<i>1</i>	45			Total % Cover of: Multiply by:
22.5		= Total Cove	9	OBL species0 x 1 =0
50% of total cover: 22.5	20% of	total cover:		60 420
Sapling/Shrub Stratum (Plot size: 15				racivi species x z =
1. Acer rubrum	10	Yes	FAC	FAC species x 3 =
2. Cyrilla racemiflora	5	Yes	FACW	FACU species0 x 4 =0
				UPL species $0 \times 5 = 0$
3				Column Totals: 95 (A) 225 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 2.36
6				
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9	45			✓ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 7.5	20% of	total cover:	3	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1 Leucothoe axillaris	15	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2. Woodwardia areolata	10	Yes	FACW	
	10	Yes	FACW	¹ Indicators of hydric soil and wetland hydrology must
3. Arundinaria gigantea		165	TACVV	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 height.
7				neignt.
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.				Harb All barbassaus (non woody) plants, regardless
	35	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 17.5		total cover:		or ores, and mossly prame ross than ores it tam
0070 01 (0141 00701:	20 /0 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				
				Hydrophytic
5				Vegetation
		= Total Cover	. 0	1103CH1: 103 100
50% of total cover:0	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix			x Features				
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-10	10YR 4/2	95	10YR 4/6	5	C	M	SIL	
10-14	10YR 5/1	90	10YR 4/6	10	С	M	SICL	
							-	•
							-	•
		. ——					-	· .
	-						-	
¹ Type: C=C	oncentration, D=Depl	letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ins.	² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil								ators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface	(S7)				2 cm Muck (A10) (MLRA 147)
	oipedon (A2)		Polyvalue Be		e (S8) (M	LRA 147.		Coast Prairie Redox (A16)
	stic (A3)		Thin Dark Su					(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye	, ,	•	,,	F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Mat		-,		_ '	(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S		6)		١	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dar	`	,			Other (Explain in Remarks)
	ark Surface (A12)	- (* * * * *)	Redox Depre				_ `	C (Explain in Normalia)
	Mucky Mineral (S1) (L	RR N	Iron-Mangan			RR N		
	A 147, 148)		MLRA 13		~ (1 14) (1			
	Gleyed Matrix (S4)		Umbric Surfa	•	MIRA 13	6 122)	3Inc	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	Matrix (S6)		Red Parent N					nless disturbed or problematic.
	Layer (if observed):		Red r arent is	naterial (i z	ZI) (IVILIX	7 121, 141	<u>, ui</u>	liess disturbed of problematic.
	Layer (ii observeu).							
Type:			<u></u>					
Depth (in	ches):						Hydric Soi	l Present? Yes No
Remarks:								



Photo 1 Wetland data point wjob109f_w facing east



Photo 2
Wetland data point wjob109f_w facing west

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston		Sampling Date: 2/10/2015			
Applicant/Owner: Dominion				Sampling Point: wjob109_u				
Investigator(s): TP, RH			n, Township, Range: No					
Landform (hillslope, terrace, etc.): hill s								
Subregion (LRR or MLRA): P					Datum: WGS 1984			
Soil Map Unit Name: Bibb sandy loam,	0 to 2 percent slop	es, frequently flood	ded	NWI classific	ation: None			
Are climatic / hydrologic conditions on t	he site typical for th	nis time of year? Ye	es No	(If no, explain in R	emarks.)			
Are Vegetation, Soil, or	Hydrology	significantly disturb	ped? Are "Normal	Circumstances" p	resent? Yes No			
Are Vegetation, Soil, or								
SUMMARY OF FINDINGS – A								
Hydrophytic Vegetation Present?	Yes _ ✓ I	No						
Hydric Soil Present?	Yes I		Is the Sampled Area within a Wetland?	Vos	No			
Wetland Hydrology Present?	Yes I		within a wetland:	1es	NO			
HYDROLOGY								
Wetland Hydrology Indicators:					tors (minimum of two required)			
Primary Indicators (minimum of one is				Surface Soil				
Surface Water (A1)		ue Aquatic Plants (I		Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)	· · · · · · · · · · · · · · · · · · ·	drogen Sulfide Odd	es on Living Roots (C3)	Drainage Pat				
Saturation (A3) Water Marks (B1)		esence of Reduced	-	Moss Trim Li	Water Table (C2)			
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Buri				
Drift Deposits (B3)		in Muck Surface (C		· ·	sible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		ner (Explain in Rem			tressed Plants (D1)			
Iron Deposits (B5)				Geomorphic	Position (D2)			
Inundation Visible on Aerial Imag	ery (B7)			Shallow Aquitard (D3)				
Water-Stained Leaves (B9)				Microtopographic Relief (D4)				
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)			
Field Observations:								
	No De							
	No De							
Saturation Present? Yes _ (includes capillary fringe)	No De	epth (inches):	Wetland F	lydrology Presen	t? Yes No			
Describe Recorded Data (stream gau	ge, monitoring well.	, aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								
Komarks.								

Sampling Point Wood 109_	Sampling	Point: wjob109_	ι
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00	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Quercus alba	15	Yes	FACU	That Are OBL, FACW, or FAC:3 (A)
2. Quercus nigra	10	Yes	FAC	Total Number of Demisses
3. Pinus taeda	5	No	FAC	Total Number of Dominant Species Across All Strata: 5 (B)
4				Operics / toross / till othata.
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 60 (A/B)
6				Prevalence Index worksheet:
7				
	30	= Total Cover		Total % Cover of: Multiply by: OBL species 0 x 1 = 0
50% of total cover: 15	20% of	total cover:	6	OBL species
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1 Quercus nigra	10	Yes	FAC	FAC species35
2. Quercus alba	10	Yes	FACU	FACU species30 x 4 =120
3. Vaccinium stamineum	5	No	FACU	UPL species0
				65 225
4. Symplocos tinctoria		No	FAC	Column Totals: (A) (B)
5				Prevalence Index = B/A =3.46
6				
7				Hydrophytic Vegetation Indicators:
		·		1 - Rapid Test for Hydrophytic Vegetation
8		-		✓ 2 - Dominance Test is >50%
9	30	-		3 - Prevalence Index is ≤3.0 ¹
45		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:15	20% of	total cover:	6	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				•
1				Problematic Hydrophytic Vegetation ¹ (Explain)
2.				
				¹ Indicators of hydric soil and wetland hydrology must
3		-		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
				noight.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				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: 5		total cover:_	2	
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
1 Vitis rotundifolia	5	Yes	FAC	height.
• •				
2				
3				
4				This described in
5.				Hydrophytic Vegetation
<u> </u>	5	= Total Cove		Present? Yes No
50% of total cover: 2.5		total cover:	1	
Remarks: (Include photo numbers here or on a separate s		total cover		
Tromano. (modeo prote namboro note el en a coparate e				

Profile Desc	cription: (Describe t	o the depth	needed to document the in	ndicator or confirm	the absen	ce of indicators.)
Depth	Matrix		Redox Features			
(inches) 0-3	Color (moist) 10YR 3/3	100	Color (moist) %	Type ¹ Loc ²	Texture SL	Remarks
3-12	10YR 5/4	100			SCL	
						_
						
						<u> </u>
						-
						_
		etion, RM=R	educed Matrix, MS=Masked	Sand Grains.		PL=Pore Lining, M=Matrix.
Hydric Soil						icators for Problematic Hydric Soils ³ :
Histosol			Dark Surface (S7)			2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Below Surface		148)	Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Surface (S9)			(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleyed Matrix (I	-2)		Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Matrix (F3)	->		(MLRA 136, 147)
	uck (A10) (LRR N)	(0.4.4)	Redox Dark Surface (F		_	Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface			Other (Explain in Remarks)
	ark Surface (A12) Mucky Mineral (S1) (L	DD N	Redox Depressions (F8Iron-Manganese Masse			
	Mucky Milleral (31) (L A 147, 148)	KK N,	MLRA 136)	55 (F12) (LKK N,		
	Gleyed Matrix (S4)		Umbric Surface (F13) (MI DA 136 122\	31	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain So			wetland hydrology must be present,
-	d Matrix (S6)		Red Parent Material (F			unless disturbed or problematic.
	Layer (if observed):		Ned i aleni Material (i a	21) (WILKA 127, 147	,	unless disturbed of problematic.
Type:						
	ches):		_		Hydric So	oil Present? Yes No
Remarks:						



Photo 1 Upland data point wjob109_u facing east



Photo 2 Upland data point wjob109_u facing west

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: ALP City/	County Johnston Sampling Date: 8/23/16
Applicant/Owner: Dom'inion	State: NC Sampling Point: wipo039f.
Investigator(s): ESI-L. KDORV Sect	ion, Township, Range: None
Landform (hillslope, terrace, etc.): Or or nage Loca	I relief (concave, convex, none): Lontave Slope (%): 0-3/
Subregion (I PP or MIPA) LEFE P 1 1at 35,66	697 Long: 18, 13 074 Datum: W6327
Soil Map Unit Name: Bibb Sandy loam, 0-21	5 lo Pes NW classification: PFO
Are climatic / hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks)
Are Vegetation, Soil, or Hydrology significantly distu	rhed? Are "Normal Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally problem	patic? (If needed, explain any answers in Remarks.)
	npling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes No Yes Yes No Yes No Yes Yes No Yes	Is the Sampled Area within a Wetland? Yes No
Hydric Soil Present? YesNo Wetland Hydrology Present? Yes No	within a Wetland? Yes No
Pamaske:	
NCWAM: Headwater Forest	
Ground Bed #16	
HYDROLOGÝ	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LR	
Saturation (A3) Hydrogen Sulfide Odor (Water Marks (B1) Oxidized Rhizospheres	
Water Marks (B1) Sediment Deposits (B2) Oxidized Rhizospheres	
Drift Deposits (B3) Recent Iron Reduction in	
Algal Mat or Crust (B4) Thin Muck Surface (C7)	Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in Remark	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U)
Water-Stained Leaves (B9)	Spnagnum moss (Do) (ERR 1, 0)
Field Observations: Surface Water Present? Yes No Depth (inches):	NA
Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches):	>20
Saturation Present? Yes No Depth (inches):	>ZO Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pr	evious inspections), if available:
Abnormally dry conditions.	
Abnormally Dily	

Tree Stratum (Plot size: 3Dft x 10 ft) 1. ALEV CUBCUM 2. 3 4. 5 6. 7	2.5 = Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Secies Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: OBL, FACW, or FAC: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size: 30ff x 10ff) 1. None 2.		FACW species x 2 = FAC species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A)
50% of total cover:		Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Explain)
Herb Stratum (Plot size: 30ft x 10ft) 1. Boehmeria cylindrica 2. Microstegium viminium 3. Athyrium asplenioides 4. Woodwardia areolata 5. 6. 7. 8.	10 N FAC 10 N OBL	¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall. Woody vine – All woody vines greater than 3.28 ft in height.
50% of total cover: 27. Woody Vine Stratum (Plot size: 30ft x 10ft) 1. Smilax rotundifolia 2. Vitis rotundifolia 3	5 20% of total cover:	Hydrophytic Vegetation Present? Yes No
50% of total cover: 15 Remarks: (If observed, list morphological adaptations below		Present? TesNo

nches)	Matrix (moist)	%	Red Cofor (moist)	ox Features %	Type	Loc²	Texture	Remarks
7-10	Color (moist)	95	10 YR 4/4	5	()	M		
0-20	1040 41	90	10 40 4/4	10	-	M	L	
1-20	10/4-11	10	10/K 17		-	-		
pe: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, M	S=Masked	Sand Gr	ains.	² Location: Pl	=Pore Lining, M=Matrix.
dric Soil	Indicators: (Applic	cable to all						r Problematic Hydric Soils ³ :
Histosol			Polyvalue E					ck (A9) (LRR O) ck (A10) (LRR S)
Histic Ep Black Hi	nipedon (A2)		Thin Dark S				Reduced	Vertic (F18) (outside MLRA 150A,B
	stic (A3) in Sulfide (A4)		Loamy Gley			,	Piedmon	t Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted M					us Bright Loamy Soils (F20)
	Bodies (A6) (LRR F		Redox Dark					. 153B) ent Material (TF2)
	icky Mineral (A7) (L		Depleted D Redox Dep					illow Dark Surface (TF12)
	esence (A8) (LRR l ick (A9) (LRR P, T)		Mari (F10)		-)			xplain in Remarks)
	Below Dark Surface		Depleted O		(MLRA 1	51)		
Thick Da	ark Surface (A12)			nese Masse	The second second		T) Indicat	ors of hydrophytic vegetation and nd hydrology must be present,
	rairie Redox (A16) (wetta	s disturbed or problematic.
	lucky Mineral (S1) (Bleyed Matrix (S4)	LRR U, S)	Delta Ochri	ertic (F18) (211100	5 5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5.5
	Redox (S5)		Piedmont F	loodplain So	oils (F19)	(MLRA 14	9A)	
	Matrix (S6)		Anomalous	Bright Loan	ny Soils	F20) (MLR	A 149A, 153C, 1	153D)
	rface (S7) (LRR P,							
	Layer (if observed):						
Type:		7					Hudrig Soil B	resent? Yes No
A composition	ches):	3 300					Hydric 30ii I	resent res
emarks:								
marks:								
emarks:								
marks:								
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Wetland data point wjoo039f_w facing west.



Wetland data point wjoo039f_w facing north.

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: ALP	City/County: Johnston Sampling Date: 8/23/16
Project/Site: Down in the	State: NC Sampling Point: WJD0039_U
Applicant/Owner: Dominion Investigator(s): ESI-L. Ruper	State: 11 Sampling Form
Investigator(s): L. L. L. P. C.	Section, Township, Range
Landform (hillslope, terrace, etc.):	Local relief (concave, convex, none): LON LAVE Slope (%): D-31/1
Subregion (LRR or MLRA): LR P Lat: 35.	12645 Long: -78,15892 Datum: W1589
Soil Map Unit Name: Bibb sandy loam, D-	21. Slopes NW classification: NA
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	- 1
Are Vegetation, Soil, or Hydrology naturally p	
SUMMARY OF FINDINGS - Attach site map showing	g 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 No	William a victorial
Remarks:	
Ground Bed #16	
HYDROLOGÝ	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
☐ Surface Water (A1) ☐ Aquatic Fauna (B	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1	5) (LRR U) Drainage Patterns (B10)
Saturation (A3) Hydrogen Sulfide	
	neres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2)	
Algal Mat or Crust (B4) Iron Deposits (B5) Thin Muck Surface Other (Explain in I	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (inches	s): <u>NA</u>
Water Table Present? Yes No Depth (inches	5):
Saturation Present? Yes No Depth (inches	s): > 17_ Wetland Hydrology Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photostream)	os, previous inspections), if available:
3-3-5	
Remarks: Abnormally dry conditions. Could not auger past 12 inche	
Abnormally dry conditions.	e due to gravel layer.
Could not auger past 12 inche	3 0000
v v	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30ft x 10ft 1. Lividandron tolipifera		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:
2 Acer rubrum	10	<u> </u>	FAL	Total Number of Dominant Species Across All Strata: (B)
4				Percent of Dominant Species That Are OBL, FACW, or FAC: 831/ (A/B)
5				Tractite of the control of the contr
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	25	= Total Co	JOI.	OBL species x 1 =
50% of total cover: 12.5	20% 6	total covo	5	FACW species x 2 =
	20% 01	total cover	-	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30ff × 10ff)				FACU species x 4 =
1. hone				UPL species x 5 =
3.				Column Totals: (A) (B)
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Repid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.01
	0	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of	total cover		
Herb Stratum (Plot size: 30ft x 10 ft)				¹ Indicators of hydric soil and wetland hydrology must
1. Boehmeria cylindrica	10	Y	FACW	be present, unless disturbed or problematic.
2. Microstegium viminium	15	Y	FAL	Definitions of Four Vegetation Strata:
3. Phytolatia americana	5	N	FALU	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4.				more in diameter at breast height (DBH), regardless of
5.				height.
				Sapting/Shrub - Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
B				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10.		100		Woody vine - All woody vines greater than 3.28 ft in
11.				height.
12				
		= Total Co		
50% of total cover: 15	_ 20% of	total cove		
Woody Vine Stratum (Plot size: 30ft x10ft)	un	×1		
1. Smilax rotundifolia	10		FAL	
2. Vitis rotunditolia	10	1	FAL	2
3				
4.				
5.				Hydrophytic
	20	= Total Co	ver	Vegetation
50% of total cover: 10			11	Present? Yes No No
Remarks: (If observed, list morphological adaptations below	M).			
Tremarks. (II observed, list merpheregistal dasplations below	.,,			

CLOTHE DESC			needed to docur	nent the inc	licator or confir	m the absence of	maicators.)
	ription: (Describe t	o the depth		x Features			
Depth (inches)	Matrix Color (moist)	%	Color (moist)		Type Loc	<u>Texture</u>	Remarks
0-12	101 R 3/3		048415	5	CM	L	
0-16	10/15	10	011 13				
¹ Type: C=C	oncentration, D=Depl	etion, RM=R	educed Matrix, MS	S=Masked S	and Grains.	*Location: F	L=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applica	able to all Li	RRs, unless other	rwise noted	.)	general	or Problematic Hydric Soils ³ :
T Histosol	(A1)		Polyvalue Be	elow Surface	(S8) (LRR S, T		ick (A9) (LRR O)
	nipedon (A2)		Thin Dark St	urface (S9) (LRR S, T, U)	2 cm Mu	ick (A10) (LRR S)
Black Hi			Loamy Muck	y Mineral (F	1) (LRR O)	Reduced	Vertic (F18) (outside MLRA 150A,B)
1	n Sulfide (A4)		Loamy Gleye				nt Floodplain Soils (F19) (LRR P, S, T)
	Layers (A5)		Depleted Ma			Anomalo	ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR P,	T, U)	Redox Dark	7			A 153B)
	icky Mineral (A7) (LR		Depleted Da	rk Surface (=7)		rent Material (TF2)
	esence (A8) (LRR U		Redox Depre				allow Dark Surface (TF12)
	ick (A9) (LRR P, T)		☐ Marl (F10) (I			Other (E	xplain in Remarks)
	Below Dark Surface	e (A11)	☐ Depleted Oc				
	ark Surface (A12)		☐ Iron-Mangar	iese Masses	(F12) (LRR O,		tors of hydrophytic vegetation and
Coast P	rairie Redox (A16) (N	ILRA 150A)	☐ Umbric Surfa	ace (F13) (L	RR P, T, U)		and hydrology must be present,
	lucky Mineral (S1) (L		Delta Ochric	(F17) (MLR	A 151)	unle	ss disturbed or problematic.
1 1 1 1 1 1	Sleyed Matrix (S4)		Reduced Ve	rtic (F18) (N	LRA 150A, 150	B)	
100000000000000000000000000000000000000	Redox (S5)				ls (F19) (MLRA		n 0.2 %.00
	Matrix (S6)		Anomalous I	Bright Loam	Soils (F20) (M	LRA 149A, 153C,	153D)
8 27 Charles v. 27 Ch	rface (S7) (LRR P, S	, T, U)					
And the second second				7 1 4 1 1			
Restrictive	Layer (if observed):						
Type:					_	Hydric Soil I	Present? YesNo
Type: Depth (in						Hydric Soil I	Present? Yes No
Type:						Hydric Soil I	Present? Yes No
Type: Depth (in Remarks:	ches):				- 1)		
Type: Depth (in Remarks:	ches):		due to	o gra	wel 10		
Type: Depth (in Remarks:			due to	o gra	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gro	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	ivel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gro	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gro	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gro	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gro	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gro	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gro	wel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		
Type: Depth (in Remarks:	ches):		due to	o gra	vel 10		

Environmental Field Surveys Wetland Photo Page



Upland data point wjoo039_u facing south.



Upland data point wjoo039_u facing east.

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston		Sampling Date: 2/11/2015
Applicant/Owner: Dominion				State: NC	Sampling Point: wjob110f_w
			on, Township, Range: No		
Landform (hillslope, terrace, etc.): draina					
Subregion (LRR or MLRA): P	Lat:	35.62552446	Long: -78.	15926872	Datum: WGS 1984
Soil Map Unit Name: Wehadkee loam, 0	to 2 percent sl	opes, frequently flood	led	NWI classific	cation: None
Are climatic / hydrologic conditions on the	site typical for	r this time of year? Y	es No	(If no, explain in F	Remarks.)
Are Vegetation, Soil, or H	ydrology	significantly disturl	bed? Are "Norma	l Circumstances"	oresent? Yes No
Are Vegetation, Soil, or H					
SUMMARY OF FINDINGS – Att					
Hydrophytic Vegetation Present?	Yes 🗸	No			
Hydric Soil Present?		No	Is the Sampled Area	V V	No
Wetland Hydrology Present?	Yes 🗸		within a Wetland?	res	NO
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one is r	equired; check	all that apply)	<u> </u>	Surface Soil	Cracks (B6)
Surface Water (A1)		True Aquatic Plants (I	B14)	Sparsely Ve	getated Concave Surface (B8)
✓ High Water Table (A2)		Hydrogen Sulfide Odo		✓ Drainage Pa	
Saturation (A3)	<u> </u>	Oxidized Rhizosphere	es on Living Roots (C3)		
Water Marks (B1)		Presence of Reduced	` '		Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reductio		Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (C			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	_ (Other (Explain in Ren	narks)		tressed Plants (D1)
Iron Deposits (B5)	v (D7)				Position (D2)
 Inundation Visible on Aerial Imager Water-Stained Leaves (B9)	y (D <i>1</i>)			Shallow Aqu	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	. , ,
Field Observations:					1 1001 (20)
	No 🗸	Depth (inches):			
		Depth (inches):	7		
		Depth (inches):	3 Wetland I	Hydrology Presei	nt? Yes ✔ No
(includes capillary fringe)					
Describe Recorded Data (stream gauge	e, monitoring w	ell, aerial photos, pre	vious inspections), if ava	ilable:	
Remarks:					

Sampling Point: wjob110f_w

	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	
1 Acer rubrum	15	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 9 (A)
2 Quercus nigra	15	Yes	FAC	That Are OBL, FACW, or FAC (A)
	10	Yes	FACW	Total Number of Dominant
3. Betula nigra				Species Across All Strata: 9 (B)
4. Liquidambar styraciflua	10	Yes	FAC	
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
				That Ale OBL, FACW, OF FAC (A/B)
				Prevalence Index worksheet:
7	50			Total % Cover of: Multiply by:
		= Total Cover		
50% of total cover: 25	20% of	total cover:	10	OBL species X I = X
Sapling/Shrub Stratum (Plot size: 15				FACW species x 2 =
1 Liquidambar styraciflua	10	Yes	FAC	FAC species65
2 Magnolia virginiana	10	Yes	FACW	FACU species0 x 4 =0
3. Acer rubrum	5	Yes	FAC	UPL species 0 x 5 = 0
3. Acer rubrum		163	170	95 255
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.68
•				Trevalence mack = B/TC =
···				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	25	= Total Cover	•	
50% of total cover:12.5		total cover:	5	4 - Morphological Adaptations ¹ (Provide supporting
_	20 /0 01	total cover		data in Remarks or on a separate sheet)
Tierb Stratum (Flot Size)	10		E 4 014/	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Woodwardia areolata	10	Yes	FACW	
2				4
3				¹ Indicators of hydric soil and wetland hydrology must
·		-		be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				The Medical and a surfaction of the Co.
6		-		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8.				g.m.
· ·		-		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 Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 5		total cover:	2	or olzo, and woody planto loop than olzo it tall.
0070 01 10101 00 001.	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
(1 lot size:	40	.,	540	height.
1. Smilax rotundifolia	10	Yes	FAC	
2				
3				
4				Hydrophytic
5				Vegetation
	10	= Total Cover	r	Present? Yes No
50% of total cover: 5	20% of	total cover:	2	
Remarks: (Include photo numbers here or on a separate sl				
Remarks. (include prioto numbers here of on a separate si	neet.)			
				.

(Inchae)	Matrix	0/		ox Features	- 1	1 2	- .	5 .
(inches) 0-10	Color (moist) 10YR 4/1	<u>%</u> 95	Color (moist) 10YR 4/6	_ <u>%</u> 5	Type ¹ C	Loc ²	Texture SL	Remarks
								_
10-14	10YR 5/1	90	10YR 5/6	10	С	M	SCL	
	-	-						
		-						_
		-						
	-	-						
			. ,					
vpe: C=C	oncentration, D=Dep	letion, RM	1=Reduced Matrix, M	S=Masked	Sand Gra	ins.	² Location: I	PL=Pore Lining, M=Matrix.
	Indicators:	•	•				Indio	cators for Problematic Hydric Soils ³ :
_ Histosol	(A1)		Dark Surface	e (S7)				2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue B		e (S8) (N	LRA 147,		Coast Prairie Redox (A16)
	istic (A3)		Thin Dark S		. , .		<i>'</i> —	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gley					Piedmont Floodplain Soils (F19)
_ Stratifie	d Layers (A5)		✓ Depleted Ma	atrix (F3)				(MLRA 136, 147)
_ 2 cm Mu	uck (A10) (LRR N)		Redox Dark	Surface (F6	3)			Very Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Da		. ,			Other (Explain in Remarks)
	ark Surface (A12)		Redox Depr					
	Mucky Mineral (S1) (I	_RR N,	Iron-Mangar		s (F12) (I	_RR N,		
	A 147, 148)		MLRA 13	•			•	
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont FI					retland hydrology must be present,
	Matrix (S6)		Red Parent	Material (F2	21) (MLR .	A 127, 147) u	nless disturbed or problematic.
estrictive	Layer (if observed):	:						
Type:								
Depth (in	ches):						Hydric So	il Present? Yes No
							1	
emarks:								
emarks:								
demarks:								
emarks:								
emarks:								
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Photo 1
Wetland data point wjob110f_w facing south



Photo 2
Wetland data point wjob110f_w facing north

Project/Site: Atlantic Coast Pipeline		City/C	county: Johnston		Sampling Date: 2/11/2015	
Applicant/Owner: Dominion					Sampling Point: wjob110_u	
			on, Township, Range: No			
Landform (hillslope, terrace, etc.): hill s						
Subregion (LRR or MLRA): P	Lat: 35.6	32538454	Long: -78.	15921797	Datum: WGS 1984	
Soil Map Unit Name: Wehadkee loam,	0 to 2 percent slopes	s, frequently flood	led	NWI classific	ation: None	
Are climatic / hydrologic conditions on t	he site typical for this	s time of year? Y	es No	(If no, explain in R	emarks.)	
Are Vegetation, Soil, or	Hydrologys	ignificantly distur	bed? Are "Normal	Circumstances" p	resent? Yes No	
Are Vegetation, Soil, or						
SUMMARY OF FINDINGS – A						
Hydrophytic Vegetation Present?	Yes <u>✓</u> N	0				
Hydric Soil Present?	Yes N		Is the Sampled Area within a Wetland?	Vos	No	
Wetland Hydrology Present?	Yes N		within a wettand?	165	NO	
LIVER OF CONT.						
HYDROLOGY				O da mada di a	1 (- · · · · · · · · · · · · · · ·	
Wetland Hydrology Indicators:		hat annly			tors (minimum of two required)	
Primary Indicators (minimum of one is	•		D14)	Surface Soil		
Surface Water (A1) High Water Table (A2)		Aquatic Plants (rogen Sulfide Od		Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)		
Saturation (A3)	· · · · · · · · · · · · · · · · · · ·	-		Moss Trim Li		
Water Marks (B1)		sence of Reduced	-		Water Table (C2)	
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Burr		
Drift Deposits (B3)		Muck Surface (C		· ·	sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	Othe	er (Explain in Ren	narks)	Stunted or St	tressed Plants (D1)	
Iron Deposits (B5)				Geomorphic	Position (D2)	
Inundation Visible on Aerial Image	ery (B7)			Shallow Aqui		
Water-Stained Leaves (B9)					phic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)	
Field Observations: Surface Water Present? Yes	No 🖍 Der	oth (inches).				
	No <u>✓</u> Dep					
	No V Der			lydrology Presen	t? Yes No	
(includes capillary fringe)					it: 165 NO	
Describe Recorded Data (stream gauge	ge, monitoring well, a	aerial photos, pre	vious inspections), if ava	ilable:		
Remarks:						

Sampling	Point: wjob110_	ι
Carribilitie	1 01111. 7	-

00	Absolute	Dominant In		Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Quercus nigra	15	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Quercus rubra	10	Yes	FACU	
3. Liquidambar styraciflua	10	Yes	FAC	Total Number of Dominant Species Across All Strata: 6 (B)
		 -		Species Across All Strata: (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 83.33333333 (A/B)
6		·		
7.				Prevalence Index worksheet:
	35	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:17.5		total cover:	7	OBL species0 x 1 =0
15	20 /0 01	total cover		FACW species 0 x 2 = 0
Sapiing/Shrub Stratum (Plot size:)	40	V	E40	
1. Acer rubrum	10	Yes	FAC	FAC species $\frac{50}{10}$ $\times 3 = \frac{150}{40}$
2		·		FACU species
3				UPL species0 x 5 =0
				Column Totals:60 (A)190 (B)
4				
5				Prevalence Index = B/A =3.16
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				1 - · · · · · · · · · · · · · · · · · ·
		· ·		✓ 2 - Dominance Test is >50%
9	40			3 - Prevalence Index is ≤3.0 ¹
		= Total Cover	2	4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:5	20% of	total cover:		data in Remarks or on a separate sheet)
Herb Stratum (Plot size:5				· · ·
1				Problematic Hydrophytic Vegetation ¹ (Explain)
2				
				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5		·		
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				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.				Horte All book cooks (non supply) plants recording
	0	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5		total cover:	1	of size, and woody plants less than 3.20 it tall.
00/001 total 00/01.	20% 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
violay vine Stratum (1 lot size.	40		540	height.
1. Smilax rotundifolia	10	Yes	FAC	
2. Vitis rotundifolia	5	Yes	FAC	
3.				
4		· ·		
4				Hydrophytic
5				Vegetation
	15;	= Total Cover		Present? Yes No
50% of total cover: 7.5	20% of	total cover:	3	
Remarks: (Include photo numbers here or on a separate s	heet.)			
Tromanior (morado prioto namboro noro er en a coparato e				

Depth	Matrix		Redox Features	- 3	
(inches)	Color (moist)	<u>%</u>	Color (moist) % Type ¹ Lo		re Remarks
0-8	10YR 3/3	100		SL	
8-12	10YR 5/4	100		SCL	
	-	· ——— —			
		·			
		<u></u>			
	•	· — — —			
		· — — —			
		letion, RM=Re	educed Matrix, MS=Masked Sand Grains.		n: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators:			Ir	ndicators for Problematic Hydric Soils ³ :
Histosol	(A1)		Dark Surface (S7)	_	2 cm Muck (A10) (MLRA 147)
Histic E _l	oipedon (A2)		Polyvalue Below Surface (S8) (MLRA	147, 148)	Coast Prairie Redox (A16)
Black H	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)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)
	ıck (A10) (LRR N)		Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)
	d Below Dark Surface	e (A11)	Depleted Dark Surface (F7)	_	Other (Explain in Remarks)
Thick Da	ark Surface (A12)	, ,	Redox Depressions (F8)		
	Mucky Mineral (S1) (L	RR N,	Iron-Manganese Masses (F12) (LRR	N,	
	A 147, 148)	•	MLRA 136)	•	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12	2)	³ Indicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Floodplain Soils (F19) (MLF		wetland hydrology must be present,
	Matrix (S6)		Red Parent Material (F21) (MLRA 127		unless disturbed or problematic.
	Layer (if observed):			, ,	arrices distarbed or problematic.
	Layer (ii observeu).				
Type:			_		./
Depth (in	ches):		<u> </u>	Hydric	Soil Present? Yes No
Remarks:				•	



Photo 1 Upland data point wjob110_u facing north



Photo 2 Upland data point wjob110_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: Johnston	Sampling Date: 2/11/2015
Applicant/Owner: Dominion		State: NC Sampling Point: wjob111f_w
Investigator(s): TP, RH	Section, Township, Range: No	
Landform (hillslope, terrace, etc.): drainage way		
Subregion (LRR or MLRA): P	Lat: 35.62387153 Long: -78.	16208147 Datum: WGS 1984
Soil Map Unit Name: Wehadkee loam, 0 to 2 perc	ent slopes, frequently flooded	NWI classification: None
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norma	ll Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		
		ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	✓ Nolo the Sempled Area	
Hydric Soil Present? Yes	Is the Sampled Area within a Wetland?	Yes 🗸 No
	No	res NO
Remarks:	<u> </u>	
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)	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) Iron Deposits (B5)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial Imagery (B7)		Geomorphic Position (D2)Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		.
Surface Water Present? Yes No _	Depth (inches):	
Water Table Present? Yes No _	Depth (inches):5	
Saturation Present? Yes No _	2	Hydrology Present? Yes <u>✓</u> No
(includes capillary fringe)	ing well, aerial photos, previous inspections), if av	ailabla:
Describe Recorded Data (stream gauge, monitor	ing well, aeriai priotos, previous inspections), il ave	allable.
Remarks:		

Sampling Point: wjob111f_w

,	Absolute	Dominant I	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		
1 Acer rubrum	15	Yes	FAC	Number of Dominant Species That Are OBL FACW or FAC: 6 (A)
• • • • • • • • • • • • • • • • • • • •	15	Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2. Liquidambar styraciflua				Total Number of Dominant
3. Quercus michauxii	10	Yes	FACW	Species Across All Strata: 6 (B)
4				(,
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Barrelon as la decression de la constante de l
7				Prevalence Index worksheet:
	40	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 20		total cover:	8	OBL species0 x 1 =0
15	20 /6 01	total cover		FACW species15
Sapling/Shrub Stratum (Plot size:)				FF 40F
1. Acer rubrum	15	Yes	FAC	FAC species X3 = X3 =
2. Quercus nigra	10	Yes	FAC	FACU species x 4 =
3.				UPL species $0 \times 5 = 0$
				Column Totals: 70 (A) 195 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 2.78
6				1 Tevalence index = B/TC =
7				Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	25	= Total Cove	er.	
50% of total cover:12.5		total cover:_	5	4 - Morphological Adaptations ¹ (Provide supporting
_	2070 01	10101 00 001		data in Remarks or on a separate sheet)
Tierb Stratum (1 lot size)	_		= 1 O 1 1 1	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Woodwardia areolata	5	Yes	FACW	
2				
3				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
				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.				
	5			Herb – All herbaceous (non-woody) plants, regardless
25		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5	20% of	total cover:_	<u>'</u>	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 No
50% of total cover: 5		total cover:_	_	
0070 01 total 00V01.		total cover		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

processor Calor Imoses % Color Chooses % Col	Depth	Matrix			K Features	3	. 2	_	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix. ype: C=Concentration, D=Depleted indicators ype: C=Concentration, D=Depleted indicators ype: C=Concentration, D=Depleted Hydric Soils ype: C=Concentration, D=Depleted Hydric Soils ype: C=Concentration, D=Depleted Hydric Soils ype: C=Concentration, D=Depleted Hydrix (F3) yer Mulk RA 147, 148) ype: C=Concentration, D=Depleted Hydrix (F3) ype: C=Concentration, D=Depleted Hydrix (F3) yer Mulk RA 147, 148) ype: C=Concentration, D=Depleted Hydrix (F3) ype: C=Concentration, D=Depleted Hydrix (F3) yer Mulk RA 147, 148) ype: C=Concentration, D=Depleted Hydrix (F3) ype: Depleted Matrix (F1) ype: Depleted Matrix (F1) ype: Depleted Matrix (F1) ype: Depleted Matrix (F2) ype: Depleted Matrix	inches)	Color (moist)	<u>%</u> 95	Color (moist)	<u>%</u> 5	Type ¹	Loc ²	Texture SCI	Remarks
Histosol (A1)	0-12	10113 4/1		101K 4/0					
Histosol (A1)									
Histosol (A1)									
Histosol (A1)						-			
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									-
Histosol (A1)		-				-			
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									
Histosol (A1)								2	
Histosol (A1)			letion, RM	I=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		
Histic Epipedon (A2)									
Black Histic (A3)						(00) (1			, , ,
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) MLRA 136, 147) Peledmont Floodplain Soils (F19) MLRA 136, 147) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Extrictive Layer (if observed): Type: Depth (inches): Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Netra 136, Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (F13) Very Shallow Dark Surface (F						. , .		148) (
Stratified Layers (A5)							47, 148)	_	
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136) 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. Setrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No				· · ·		F2)		P	
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) Stripped Matrix (S6) Stripped Matrix (S6) Depth (inches): Depth (inches): Depleted Dark Surface (F7) Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12)						·c)			
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Estrictive Layer (if observed): Type: Depth (inches): Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) SIndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No			a (Δ11)						
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)			- (A11)						other (Explain in Nemarks)
MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) Strictive Layer (if observed): Type: Depth (inches): _ MLRA 136) _ Umbric Surface (F13) (MLRA 136, 122) _ MLRA 148) _ Wetland hydrology must be present, wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No			RR N				I RR N		
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)			-1111 14,			33 (1 12) (LIXIX IV,		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No					•	MIRA 13	6. 122)	³ Ind	dicators of hydrophytic vegetation and
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No									
Depth (inches): No									
Type:						/ (, <u></u>	nooc distanced of proceedings
Depth (inches): No									
		ohoo):		<u></u>				Uvdria Sail	I Brosont? Vos V No
emarks:		cries)						nyunc son	rriesent? res No
	emarks:								



Photo 1
Wetland data point wjob111f_w facing north



Photo 2
Wetland data point wjob111f_w facing south

Project/Site: Atlantic Coast Pipeline	City/C	County: Johnston		Sampling Date: 2/11/2015
Applicant/Owner: Dominion			State: NC	_ Sampling Point: wjob111s_w
Investigator(s): TP, RH	Section			
Landform (hillslope, terrace, etc.): drainage				
Subregion (LRR or MLRA): P	Lat: 35.62498629	Lona: -78.1	6097479	Datum: WGS 1984
Soil Map Unit Name: Wehadkee loam, 0 to	2 percent slopes, frequently floor	ded	NWI classifica	ntion: None
Are climatic / hydrologic conditions on the si	ite typical for this time of year? Y	′es <u> </u>	If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hyd	Irology significantly distur	bed? Are "Normal	Circumstances" pr	resent? Yes 🔽 No
Are Vegetation, Soil, or Hyd				
SUMMARY OF FINDINGS – Attac				
Hydrophytic Vegetation Present?	Yes ✔ No			
Hydric Soil Present?	Yes No	Is the Sampled Area	V V	No
	Yes No	within a Wetland?	res	NO
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is requ	uired; check all that apply)		Surface Soil 0	
Surface Water (A1)	True Aquatic Plants (etated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		✓ Drainage Patt	
Saturation (A3)	✓ Oxidized Rhizosphere		Moss Trim Lir	
Water Marks (B1)	Presence of Reduced	d Iron (C4)	Dry-Season V	Vater Table (C2)
Sediment Deposits (B2)	Recent Iron Reductio	n in Tilled Soils (C6)	Crayfish Burro	ows (C8)
Drift Deposits (B3)	Thin Muck Surface (C	C7)	Saturation Vis	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rer	marks)	Stunted or Str	ressed Plants (D1)
Iron Deposits (B5)			Geomorphic F	
Inundation Visible on Aerial Imagery (B7)		Shallow Aquit	
Water-Stained Leaves (B9)				ohic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral	Test (D5)
Field Observations: Surface Water Present? Yes	No Depth (inches):			
		6		
	No Depth (inches):	3 Watland H	ydrology Present	10 Van V Na
(includes capillary fringe)	_ No Depth (inches):	wetiand n	yarology Presem	? Yes <u> </u>
Describe Recorded Data (stream gauge, n	monitoring well, aerial photos, pre	vious inspections), if avai	lable:	
December				
Remarks:				

Sampling Point, Mooring ""	Sampling	Point: wjob111s_	W
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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:5 (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				
7				Prevalence Index worksheet:
	0	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:		total cover:	0	OBL species 50 x 1 = 50
15		total cover.		FACW species30
Sapling/Shrub Stratum (Plot size:) 1. Alnus serrulata	15	Yes	OBL	FAC species 15 x 3 = 45
· · ·				0
2. Acer rubrum	15	Yes	FAC	FACU species
3. Cyrilla racemiflora	10	Yes	FACW	UPL species x 5 =
4				Column Totals:95 (A)155 (B)
5				
Ď.				Prevalence Index = B/A =1.63
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	40	= Total Cove		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 20		total cover:	8	4 - Morphological Adaptations ¹ (Provide supporting
50 70 OI total cover	20 /6 01	iolai covei.		data in Remarks or on a separate sheet)
(Flot Size)	20	.,	ODI	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Leersia oryzoides	20	Yes	OBL	
2. Persicaria sagittata	15	Yes	OBL	1
3. Scirpus cyperinus	10	No	FACW	¹Indicators of hydric soil and wetland hydrology must
Juncus effusus	10	No	FACW	be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
10				
11				Herb – All herbaceous (non-woody) plants, regardless
07.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5	20% of	total cover:	11	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				_
2				
3.				
s				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	er	Present? Yes No
50% of total cover:5	20% of	total cover:	2	
Remarks: (Include photo numbers here or on a separate si	heet.)			1
(,			

	cription: (Describe t	o the de				or confirm	the absence	of indicators.)
Depth	Matrix	0/	Redox	x Feature	s <u> </u>	1 - 2	T	Devente
(inches) 0-12	Color (moist) 10YR 3/1	<u>%</u> 95	Color (moist) 10YR 4/6	<u>%</u> 5	Type ¹ C	Loc ²	Texture SCL	Remarks
0-12			1011(4/0					
•								-
1								
-				-	· 			-
1	-						-	
					· 			
¹ Type: C=C	concentration, D=Deple	etion, RM	1=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.	² Location: P	L=Pore Lining, M=Matrix.
Hydric Soil		,	,			-		ators for Problematic Hydric Soils ³ :
Histoso			Dark Surface	(S7)				cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be	. ,	ice (S8) (N	ILRA 147		Coast Prairie Redox (A16)
	istic (A3)		Tolyvalde Be				, 0	(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		, .	,0,	P	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat		(· -)		<u> </u>	(MLRA 136, 147)
	uck (A10) (LRR N)		✓ Redox Dark S	. ,	- 6)		V	/ery Shallow Dark Surface (TF12)
	d Below Dark Surface	(A11)	Depleted Dar	•	,			Other (Explain in Remarks)
	ark Surface (A12)	(/ (/ / / /	Redox Depre				~	outer (Explain in Remarke)
	Mucky Mineral (S1) (L	RR N.	Iron-Mangane			LRR N.		
	A 147, 148)	,	MLRA 130		, (,		
	Gleyed Matrix (S4)		Umbric Surfa	•	(MI RA 13	6. 122)	³ Ind	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent M					less disturbed or problematic.
	Layer (if observed):		Red i dientil	iatoriai (i	Zij (iii Zi	7. 127, 147	, un	need distarbed of problematic.
Type:								
	-1 \							Present? Yes No
	iches):						Hydric Soil	Present? Yes No
Remarks:								



Photo 1
Wetland data point wjob111s_w facing south



Photo 2
Wetland data point wjob111s_w facing north

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston		Sampling Date: 2/11/2015		
Applicant/Owner: Dominion					Sampling Point: wjob111_u		
			on, Township, Range: No				
Landform (hillslope, terrace, etc.): hill slo							
Subregion (LRR or MLRA): P		62417639	Long: -78.	16237352	Datum: WGS 1984		
Soil Map Unit Name: Wehadkee loam, C) to 2 percent slope	s, frequently flood	ded	NWI classific	ation: None		
Are climatic / hydrologic conditions on th	e site typical for thi	s time of year? Y	es No	(If no, explain in R	emarks.)		
Are Vegetation, Soil, or I	-lydrologys	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes No		
Are Vegetation, Soil, or H							
SUMMARY OF FINDINGS – At	-						
Hydrophytic Vegetation Present?	Yes N	lo					
Hydric Soil Present?	Yes N		Is the Sampled Area within a Wetland?	Yes	No		
Wetland Hydrology Present?	Yes N		within a Wetland:	165	_ 110		
HADBOI OCA							
HYDROLOGY				Canadam da madian	to (ini of to on in d)		
Wetland Hydrology Indicators:	roquirod: abook all	that apply)		<u> </u>	tors (minimum of two required)		
Primary Indicators (minimum of one is Surface Water (A1)	•	e Aquatic Plants (P14)	Surface Soil			
High Water Table (A2)		rogen Sulfide Od		Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)			
Saturation (A3)	-	-	es on Living Roots (C3)	Moss Trim Li			
Water Marks (B1)		sence of Reduced	-		Water Table (C2)		
Sediment Deposits (B2)			n in Tilled Soils (C6)	Crayfish Buri			
Drift Deposits (B3)	Thir	n Muck Surface (C	27)	Saturation Vi	sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Oth	er (Explain in Rer	narks)	Stunted or S	tressed Plants (D1)		
Iron Deposits (B5)				Geomorphic			
Inundation Visible on Aerial Image	ry (B7)			Shallow Aqui			
Water-Stained Leaves (B9)					phic Relief (D4)		
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)		
Field Observations: Surface Water Present? Yes	No 🖍 De	nth (inches).					
	No De						
	No De			lydrology Presen	it? Yes No		
(includes capillary fringe)					it: 165 NO		
Describe Recorded Data (stream gaug	e, monitoring well,	aerial photos, pre	vious inspections), if ava	iilable:			
Remarks:							

Sampling	Point: wjob111_u	L
Sambillia	1 OIIII. , —	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	Status	Number of Dominant Species
1 Quercus alba	35	Yes	FACU	That Are OBL, FACW, or FAC: 5 (A)
2 Quercus nigra	10	Yes	FAC	(//
				Total Number of Dominant
3				Species Across All Strata: 8 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 62.5 (A/B)
6				That the OBE, 1 Nov, of 1 No (778)
7				Prevalence Index worksheet:
r	45			Total % Cover of: Multiply by:
22.5	.——	= Total Cove	er 9	OBL species0 x 1 =0
50% of total cover: 22.5	20% of	total cover:		0
Sapling/Shrub Stratum (Plot size: 15				FACW species x z =
1. Prunus serotina	15	Yes	FACU	FAC species x 3 =
2. Ilex opaca	15	Yes	FACU	FACU species65
3. Symplocos tinctoria	10	Yes	FAC	UPL species0 x 5 =0
	10	Yes	FAC	Column Totals: 105 (A) 380 (B)
4. Acer rubrum			170	Column Totals (A) (B)
5				Prevalence Index = B/A = 3.61
6				1 Tevalence mack = B/Tt =
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	50	= Total Cove		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover: 25	20% of	total cover:	10	
Herb Stratum (Plot size:5				data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
1				
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Definitions of Four Vegetation of ata.
^				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
14				
11	0			Herb – All herbaceous (non-woody) plants, regardless
2.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5	20% of	total cover:	1	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30				height.
1. Vitis rotundifolia	5	Yes	FAC	The same of the sa
2 Smilax rotundifolia	5	Yes	FAC	
2				
3				
4				Hydrophytic
5				Vegetation
	10	= Total Cove	er	Present? Yes No
50% of total cover: 5		total cover:	2	
0070 01 total 00701.		total cover.	-	
Remarks: (Include photo numbers here or on a separate sl	neet.)			

Profile Des	cription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	the absen	ce of indicators.)
Depth	Matrix		Redo	x Feature	S1	. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> SL	Remarks
0-7	10YR 3/3	100						
7-12	10YR 5/6	100					SCL	
	· -	· ——					-	
	- <u> </u>							
		· ——						
								_
	-	· 						
	Concentration, D=Dep	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
•	Indicators:		_				Ind	licators for Problematic Hydric Soils ³ :
Histoso			Dark Surface					2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)			Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark S				_	Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	e (A11)	Depleted Dar				_	Other (Explain in Remarks)
	Park Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) (LRR N,		
	A 147, 148)		MLRA 13	•	(8.81 - 5.8.4.6		3,	
	Gleyed Matrix (S4)		Umbric Surfa					ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	d Matrix (S6)		Red Parent N	faterial (F	21) (MLR	A 127, 147	()	unless disturbed or problematic.
	Layer (if observed):							
Type:								,
Depth (ir	nches):						Hydric S	oil Present? Yes No
Remarks:							•	



Photo 1 Upland data point wjob111_u facing north



Photo 2 Upland data point wjob111_u facing south

Project/Site: Atlantic Coast Pipeline	City/County: Johnston	Sampling Date: 2/11/2015
Applicant/Owner: Dominion		State: NC Sampling Point: wjob111f_w
Investigator(s): TP, RH	Section, Township, Range: No	
Landform (hillslope, terrace, etc.): drainage way		
Subregion (LRR or MLRA): P	Lat: 35.62387153 Long: -78.	16208147 Datum: WGS 1984
Soil Map Unit Name: Wehadkee loam, 0 to 2 perc	ent slopes, frequently flooded	NWI classification: None
Are climatic / hydrologic conditions on the site typi	cal for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are "Norma	ll Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology		
		ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	✓ Nolo the Sempled Area	
Hydric Soil Present? Yes	Is the Sampled Area within a Wetland?	Yes 🗸 No
	No	res NO
Remarks:	<u> </u>	
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)	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) Iron Deposits (B5)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Inundation Visible on Aerial Imagery (B7)		Geomorphic Position (D2)Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		.
Surface Water Present? Yes No _	Depth (inches):	
Water Table Present? Yes No _	Depth (inches):5	
Saturation Present? Yes No _	2	Hydrology Present? Yes <u>✓</u> No
(includes capillary fringe)	ing well, aerial photos, previous inspections), if av	ailabla:
Describe Recorded Data (stream gauge, monitor	ing well, aeriai priotos, previous inspections), il ave	allable.
Remarks:		

Sampling Point: wjob111f_w

,	Absolute	Dominant I	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?		
1 Acer rubrum	15	Yes	FAC	Number of Dominant Species That Are OBL FACW or FAC: 6 (A)
• • • • • • • • • • • • • • • • • • • •	15	Yes	FAC	That Are OBL, FACW, or FAC: 6 (A)
2. Liquidambar styraciflua				Total Number of Dominant
3. Quercus michauxii	10	Yes	FACW	Species Across All Strata: 6 (B)
4				(,
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Barrelon of the decrease dealers of
7				Prevalence Index worksheet:
	40	= Total Cove		Total % Cover of: Multiply by:
50% of total cover: 20		total cover:	8	OBL species0 x 1 =0
15	20 /6 01	total cover		FACW species15
Sapling/Shrub Stratum (Plot size:)				FF 40F
1. Acer rubrum	15	Yes	FAC	FAC species X3 = X3 =
2. Quercus nigra	10	Yes	FAC	FACU species x 4 =
3.				UPL species $0 \times 5 = 0$
				Column Totals: 70 (A) 195 (B)
4				Column Totals (A) (B)
5				Prevalence Index = B/A = 2.78
6				1 Tevalence index = B/TC =
7				Hydrophytic Vegetation Indicators:
1				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	25	= Total Cove	er.	
50% of total cover:12.5		total cover:_	5	4 - Morphological Adaptations ¹ (Provide supporting
_	2070 01	10101 00 001		data in Remarks or on a separate sheet)
Tierb Stratum (1 lot size)	_		O	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Woodwardia areolata	5	Yes	FACW	
2				
3				¹ Indicators of hydric soil and wetland hydrology must
4				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of height.
				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.				
	5			Herb – All herbaceous (non-woody) plants, regardless
25		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5	20% of	total cover:_	<u>'</u>	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 No
50% of total cover: 5		total cover:_	_	
0070 01 total 00V01.		total cover		
Remarks: (Include photo numbers here or on a separate sl	neet.)			

processor Calor Imoses % Color Chooses % Col	Depth	Matrix			K Features	3	. 2	_	
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ype: C=Concentration, D=Depletion, RM=Reduced Matrix. ype: C=Concentration, D=Depleted indicators ype: C=Concentration, D=Depleted indicators ype: C=Concentration, D=Depleted Hydric Soils ype: C=Concentration, D=Depleted Hydric Soils ype: C=Concentration, D=Depleted Hydric Soils ype: C=Concentration, D=Depleted Hydrix (F3) yer Mulk RA 147, 148) ype: C=Concentration, D=Depleted Hydrix (F3) ype: C=Concentration, D=Depleted Hydrix (F3) yer Mulk RA 147, 148) ype: C=Concentration, D=Depleted Hydrix (F3) ype: C=Concentration, D=Depleted Hydrix (F3) yer Mulk RA 147, 148) ype: C=Concentration, D=Depleted Hydrix (F3) ype: Depleted Matrix (F1) ype: Depleted Matrix (F1) ype: Depleted Matrix (F1) ype: Depleted Matrix (F2) ype: Depleted Matrix	inches)	Color (moist)	<u>%</u> 95	Color (moist)	<u>%</u> 5	Type ¹	Loc ²	Texture SCI	Remarks
Histosol (A1)	0-12	10113 4/1		101K 4/0					
Histosol (A1)									
Histosol (A1)									
Histosol (A1)						-			
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									-
Histosol (A1)		-				-			
Histosol (A1)									
Histosol (A1)									
Histosol (A1)									
Histosol (A1)								2	
Histosol (A1)			letion, RM	I=Reduced Matrix, MS	S=Masked	Sand Gr	ains.		
Histic Epipedon (A2)									
Black Histic (A3)						(00) (1			, , ,
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) MLRA 136, 147) Peledmont Floodplain Soils (F19) MLRA 136, 147) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Extrictive Layer (if observed): Type: Depth (inches): Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Netra 136, Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (F13) Very Shallow Dark Surface (F						. , .		148) (
Stratified Layers (A5)							47, 148)	_	
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136) 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. Setrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No				· · ·		F2)		P	
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) Stripped Matrix (S6) Stripped Matrix (S6) Depth (inches): Depth (inches): Depleted Dark Surface (F7) Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12) (LRR N, Depleted Dark Surface (F12)						·c)			
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Stripped Matrix (S6) Estrictive Layer (if observed): Type: Depth (inches): Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 136) Umbric Surface (F13) (MLRA 136, 122) SIndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No			a (Δ11)						
Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)			- (A11)						other (Explain in Nemarks)
MLRA 147, 148) _ Sandy Gleyed Matrix (S4) _ Sandy Redox (S5) _ Stripped Matrix (S6) Strictive Layer (if observed): Type: Depth (inches): _ MLRA 136) _ Umbric Surface (F13) (MLRA 136, 122) _ MLRA 148) _ Wetland hydrology must be present, wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No			RR N				I RR N		
Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)			-1111 14,			33 (1 12) (LIXIX IV,		
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) wetland hydrology must be present, Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No					•	MIRA 13	6. 122)	³ Ind	dicators of hydrophytic vegetation and
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic. estrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No									
Depth (inches): No									
Type:						/ (, <u></u>	nooc distanced of proceedings
Depth (inches): No									
		ohoo):		<u></u>				Uvdria Sail	I Brosont? Vos V No
emarks:		cries)						nyunc son	rriesent? res No
	emarks:								



Photo 1
Wetland data point wjob111f_w facing north



Photo 2
Wetland data point wjob111f_w facing south

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston		Sampling Date: 2/11/2015			
Applicant/Owner: Dominion				State: NC	Sampling Point: wjob111s_w			
Investigator(s): TP, RH			on, Township, Range: No					
Landform (hillslope, terrace, etc.): drain								
Subregion (LRR or MLRA): P		35.62498629	Lona: -78.	16097479	Datum: WGS 1984			
Soil Map Unit Name: Wehadkee loam,) to 2 percent sl	lopes, frequently flood	led	NWI classific	cation: None			
Are climatic / hydrologic conditions on the	ne site typical fo	r this time of year? Y	es No	(If no, explain in R	Remarks.)			
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Normal	l Circumstances" ¡	oresent? Yes No			
Are Vegetation, Soil, or								
SUMMARY OF FINDINGS – A								
Hydrophytic Vegetation Present?	Yes 🗸	No						
Hydric Soil Present?		No	Is the Sampled Area	V V	No			
Wetland Hydrology Present?	Yes 🗸		within a Wetland?	res	NO			
Remarks:								
HYDROLOGY								
Wetland Hydrology Indicators:	-			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum of one is	required; check	all that apply)		Surface Soil				
Surface Water (A1)		True Aquatic Plants (B14)		getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Ode		✓ Drainage Pa				
Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16)								
Water Marks (B1)	Dry-Season	Water Table (C2)						
Sediment Deposits (B2)	n in Tilled Soils (C6)	Crayfish Burrows (C8)						
Drift Deposits (B3)		Thin Muck Surface (C	27)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)		Other (Explain in Ren	narks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)				Geomorphic Position (D2)				
Inundation Visible on Aerial Image		Shallow Aquitard (D3)						
Water-Stained Leaves (B9)					aphic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral	Trest (D5)			
Field Observations: Surface Water Present? Yes	No. V	Donath (inch oo)						
		Depth (inches):	6					
		Depth (inches):	2					
Saturation Present? Yes (includes capillary fringe)	No	Depth (inches):	wetland F	Hydrology Preser	nt? Yes V No			
Describe Recorded Data (stream gaug	je, monitoring w	vell, aerial photos, pre	vious inspections), if ava	ilable:				
Demodes								
Remarks:								

Sampling Point, Mooring ""	Sampling	Point: wjob111s_	W
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	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC:5 (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				
7				Prevalence Index worksheet:
	0	= Total Cove	er	Total % Cover of: Multiply by:
50% of total cover:		total cover:	0	OBL species 50 x 1 = 50
15		total cover.		FACW species30
Sapling/Shrub Stratum (Plot size:) 1. Alnus serrulata	15	Yes	OBL	FAC species 15 x 3 = 45
· · ·				0
2. Acer rubrum	15	Yes	FAC	FACU species
3. Cyrilla racemiflora	10	Yes	FACW	UPL species x 5 =
4				Column Totals:95 (A)155 (B)
5				
Ď.				Prevalence Index = B/A =1.63
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9.				
	40	= Total Cove		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 20		total cover:	8	4 - Morphological Adaptations ¹ (Provide supporting
50 70 OI total cover	20 /6 01	iolai covei.		data in Remarks or on a separate sheet)
(Flot Size)	20	.,	ODI	Problematic Hydrophytic Vegetation ¹ (Explain)
1. Leersia oryzoides	20	Yes	OBL	
2. Persicaria sagittata	15	Yes	OBL	1
3. Scirpus cyperinus	10	No	FACW	¹Indicators of hydric soil and wetland hydrology must
Juncus effusus	10	No	FACW	be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
10				
11				Herb – All herbaceous (non-woody) plants, regardless
07.5		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 27.5	20% of	total cover:	11	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				_
2				
3.				
3				
4				Hydrophytic
5				Vegetation
	0	= Total Cove	er	Present? Yes No
50% of total cover:5	20% of	total cover:	2	
Remarks: (Include photo numbers here or on a separate s	heet.)			I.
(,,,			

	cription: (Describe t	o the de				or confirm	the absence	of indicators.)
Depth	Matrix	0/	Redox	K Feature	S T 1	10-2	Taxetorea	Dome de
(inches) 0-12	Color (moist) 10YR 3/1	<u>%</u> 95	Color (moist) 10YR 4/6	<u>%</u> 5	Type ¹ C	Loc ²	Texture SCL	Remarks
0-12			1011(4/0					
								<u>. </u>
						· <u></u>		
					-			
								<u>. </u>
						· <u></u>		
					-			
					· -			
	Concentration, D=Deple	etion, RM	=Reduced Matrix, MS	S=Masked	d Sand Gr	ains.		L=Pore Lining, M=Matrix.
Hydric Soil	Indicators:						Indic	ators for Problematic Hydric Soils ³ :
Histoso	l (A1)		Dark Surface	(S7)			2	cm Muck (A10) (MLRA 147)
Histic E	pipedon (A2)		Polyvalue Be	low Surfa	ice (S8) (N	ILRA 147 ,	148) 0	Coast Prairie Redox (A16)
Black H	listic (A3)		Thin Dark Su	rface (S9) (MLRA 1	147, 148)		(MLRA 147, 148)
Hydroge	en Sulfide (A4)		Loamy Gleye	d Matrix ((F2)		F	Piedmont Floodplain Soils (F19)
Stratifie	d Layers (A5)		Depleted Mat					(MLRA 136, 147)
	uck (A10) (LRR N)		✓ Redox Dark S	Surface (F	- 6)		V	/ery Shallow Dark Surface (TF12)
	ed Below Dark Surface	(A11)	Depleted Dar	k Surface	(F7)			Other (Explain in Remarks)
Thick D	ark Surface (A12)		Redox Depre	ssions (F	(8)			
Sandy N	Mucky Mineral (S1) (L	RR N,	Iron-Mangane	ese Mass	es (F12) (LRR N,		
	A 147, 148)		MLRA 136					
	Gleyed Matrix (S4)		Umbric Surfa	•	(MLRA 13	6, 122)	³ Inc	licators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
	d Matrix (S6)		Red Parent M					lless disturbed or problematic.
	Layer (if observed):			(, (,	
Type:	.,							
	nches):						Hydric Soil	Present? Yes V No No
							Hydric 30ii	rriesent: res No
Remarks:								



Photo 1
Wetland data point wjob111s_w facing south



Photo 2
Wetland data point wjob111s_w facing north

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston		Sampling Date: 2/11/2015			
Applicant/Owner: Dominion					Sampling Point: wjob111_u			
			on, Township, Range: No					
Landform (hillslope, terrace, etc.): hill s								
Subregion (LRR or MLRA): P		62417639	Long: -78.	16237352	Datum: WGS 1984			
Soil Map Unit Name: Wehadkee loam,	0 to 2 percent slope	s, frequently flood	led	NWI classific	ation: None			
Are climatic / hydrologic conditions on t	ne site typical for thi	s time of year? Y	es No	(If no, explain in R	emarks.)			
Are Vegetation, Soil, or	Hydrology s	significantly distur	bed? Are "Normal	Circumstances" p	resent? Yes No			
Are Vegetation, Soil, or								
SUMMARY OF FINDINGS – A								
Hydrophytic Vegetation Present?	Yes <u>✓</u> N	lo						
Hydric Soil Present?	YesN		Is the Sampled Area within a Wetland?	Yes	No			
Wetland Hydrology Present?	Yes N		within a wettand:	163				
HADBOI OCA								
HYDROLOGY				Casaadamiladiaa	tone (minimum of two monimum)			
Wetland Hydrology Indicators:	manuinado abaalo all	that analys			tors (minimum of two required)			
Primary Indicators (minimum of one is	•		D14\	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)				
Surface Water (A1) High Water Table (A2)		e Aquatic Plants (rogen Sulfide Od		Sparsely veg				
Saturation (A3)		-		Moss Trim Li				
Water Marks (B1)	I Iron (C4)		Water Table (C2)					
Sediment Deposits (B2)		n in Tilled Soils (C6)						
Drift Deposits (B3)	Thir		Saturation Visible on Aerial Imagery (C9)					
Algal Mat or Crust (B4)	Oth	er (Explain in Rer	narks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)				Geomorphic	Position (D2)			
Inundation Visible on Aerial Image	ery (B7)			Shallow Aqui				
Water-Stained Leaves (B9)					phic Relief (D4)			
Aquatic Fauna (B13)			ľ	FAC-Neutral	Test (D5)			
Field Observations:	Na V Da							
	No <u> </u>							
	No <u> </u>			lydrology Presen	t? Yes No			
(includes capillary fringe)					it: 165 NO			
Describe Recorded Data (stream gauge	ge, monitoring well,	aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								

Sampling	Point: wjob111_u	L
Sambillia	1 OIIII. , —	

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	Status	Number of Dominant Species
1 Quercus alba	35	Yes	FACU	That Are OBL, FACW, or FAC:5 (A)
2 Quercus nigra	10	Yes	FAC	(1)
				Total Number of Dominant
3				Species Across All Strata: 8 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 62.5 (A/B)
6				(11) That the OBE, 17(00), 0117(0).
7				Prevalence Index worksheet:
1	45			Total % Cover of: Multiply by:
50% of total cover: 22.5	.——	= Total Cove	er 9	OBL species0 x 1 =0
50% of total cover: 22.5	20% of	total cover:		0
Sapling/Shrub Stratum (Plot size:)				FACW species X Z = 100
1. Prunus serotina	15	Yes	FACU	FAC species x 3 =
2. Ilex opaca	15	Yes	FACU	FACU species65
3. Symplocos tinctoria	10	Yes	FAC	UPL species0 x 5 =0
4 Acer rubrum	10	Yes	FAC	Column Totals: 105 (A) 380 (B)
"				Column Totals (A)
5				Prevalence Index = B/A = 3.61
6				
7				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 25	20% of	total cover:	10	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation ¹ (Explain)
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
^				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11				
	0	T-1-10		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 2.5		= Total Cove	er 1	of size, and woody plants less than 3.20 it tall.
0070 01 10101 00 001.	20% of	total cover:	'	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1. Vitis rotundifolia	5	Yes	FAC	
2. Smilax rotundifolia	5	Yes	FAC	
3.				
4				Hydrophytic
5				Vegetation
	10	= Total Cove	er	Present? Yes No
50% of total cover:5	20% of	total cover:	2	
Remarks: (Include photo numbers here or on a separate sl	heet.)			
Tromano. (morado prioto namboro noto or on a doparato di	11001.1			

Profile Des	cription: (Describe	to the dept	h needed to docun	nent the i	ndicator	or confirm	the absen	ce of indicators.)
Depth	Matrix		Redo	x Feature	S1	. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u> SL	Remarks
0-7	10YR 3/3	100						
7-12	10YR 5/6	100					SCL	
			_					
							-	
								<u> </u>
					-		-	- ·
								_
	·							
	-							
1- 0.0						·	2	
	Concentration, D=Dep Indicators:	letion, RM=	Reduced Matrix, MS	S=Masked	Sand Gr	ains.		PL=Pore Lining, M=Matrix.
•							ina	icators for Problematic Hydric Soils ³ :
Histoso			Dark Surface		(00) (5			2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)		_	Piedmont Floodplain Soils (F19)
	ed Layers (A5)		Depleted Mat		-0)			(MLRA 136, 147)
	uck (A10) (LRR N)	o (A11)	Redox Dark S					Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
	ed Below Dark Surfac Park Surface (A12)	= (A11)	Depleted Dar Redox Depre				_	Other (Explain in Remarks)
	Mucky Mineral (S1) (L	RR N	Iron-Mangan			I RR N		
	A 147, 148)	ixix i v ,	MLRA 13		63 (1 12) (LIXIX IV,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MIRA 13	16 122)	3 ₁	ndicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					wetland hydrology must be present,
	d Matrix (S6)		Red Parent N					unless disturbed or problematic.
	Layer (if observed):		1100 1 010111	iatoriai (i	, (,, , <u>,</u> , , ,,	<u>, </u>	arried dictarbed of presidentiale.
Type:								
	l \						Hardela C	all Duna and O. Mar.
	nches):						Hydric So	oil Present? Yes No
Remarks:								



Photo 1 Upland data point wjob111_u facing north



Photo 2 Upland data point wjob111_u facing south

Project/Site: Atlantic Coast Pipe	eline	City/C	County: Johnston		Sampling Date: 2/6/2015
Applicant/Owner: Dominion					Sampling Point: wjob106f_w
Investigator(s): TP, CR		Section			
Landform (hillslope, terrace, etc					
Subregion (LRR or MLRA). P		Lat. 35.62303555	Long78.	16479432	Datum: WGS 1984
Soil Map Unit Name: Tomotley	sandy loam, 0 to 2	2 percent slopes, rarely floo	oded	NWI classific	ation: None
Are climatic / hydrologic condition	ons on the site typ	ical for this time of year? Y	′es No	(If no, explain in R	emarks.)
Are Vegetation, Soil	, or Hydrology	/ significantly distur	bed? Are "Norma	l Circumstances" p	present? Yes No
Are Vegetation, Soil					
_					, important features, etc.
Hydrophytic Vegetation Prese	nt? Yes	✓ No			
Hydric Soil Present?	Yes _	V No	Is the Sampled Area within a Wetland?	Vos V	No
Wetland Hydrology Present?		✓ No	within a wetland:	163	_ 110
Remarks: PFO wetland in a drainage way					
HYDROLOGY					
Wetland Hydrology Indicato	re			Socondary Indica	ators (minimum of two required)
, ,,		abook all that apply)		•	
Primary Indicators (minimum o	one is required;		(D14)	Surface Soil	
Surface Water (A1) High Water Table (A2)		True Aquatic Plants (Hydrogen Sulfide Od		<u>✓</u> Drainage Pa	getated Concave Surface (B8)
Saturation (A3)		Oxidized Rhizospher	` '	Moss Trim L	
Water Marks (B1)		Presence of Reduced	-		Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction	` '	Crayfish Bur	
Drift Deposits (B3)		Thin Muck Surface (0		· ·	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer			tressed Plants (D1)
Iron Deposits (B5)					Position (D2)
Inundation Visible on Aeri	al Imagery (B7)			Shallow Aqu	itard (D3)
Water-Stained Leaves (BS	9)			Microtopogra	aphic Relief (D4)
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)
Field Observations:					
Surface Water Present?		Depth (inches):	1		
Water Table Present?	Yes V No	Depth (inches):	0		
Saturation Present?	Yes V No	Depth (inches):	0 Wetland I	Hydrology Preser	nt? Yes <u>/</u> No
(includes capillary fringe) Describe Recorded Data (stream)	am gauge monito	ring well aerial photos, pre	vious inspections) if ava	ailahle:	
Describe Resoraca Bata (stre	am gaage, monte	ring wen, denai priotos, pre	wiodo inopodilonoj, ii dve	mable.	
Remarks:					

Sampling I	Point: wjob106f_	w
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•	Absolute	Dominant In	dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Liquidambar styraciflua	20	Yes	FAC	That Are OBL, FACW, or FAC: 7 (A)
2. Acer rubrum	15	Yes	FAC	T. IN I CD
3. Quercus phellos	10	Yes	FAC	Total Number of Dominant Species Across All Strata: 7 (B)
4				Opecies Across Air citata.
				Percent of Dominant Species
5				That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				
	45	= Total Cover		Total % Cover of: Multiply by:
50% of total cover: 22.5	20% of	total cover:	9	OBL species X I =
Sapling/Shrub Stratum (Plot size: 15)				FACW species 25
1 Magnolia virginiana	15	Yes	FACW	FAC species65
2. Acer rubrum	10	Yes	FAC	FACU species0 x 4 =0
2.71007 700707111			1710	UPL species
3				90 245
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.72
6				1 Tevalence index = B/T(=
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cover		4 - Morphological Adaptations¹ (Provide supporting
50% of total cover:12.5	20% of	total cover:	5	
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1 Arundinaria gigantea	10	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
		 -		
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of
7				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 Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 5		total cover:	2	
				Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:) 1 Smilax rotundifolia	10	Yes	FAC	height.
1. Sittiliax fotuliuliulia			170	
2				
3		· · · · · · · · · · · · · · · · · · ·		
4				
5.		· -		Hydrophytic Vegetation
<u> </u>	10	Total Cayor		Present? Yes No
50% of total cover: 5		= Total Cover	2	
		total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Feature	S	_	
(inches)	Color (moist)	<u>%</u>	Color (moist) %	Type ¹ Loc ²	<u>Texture</u>	Remarks
0-12	10YR 2/1	100			SCL	
	-				-	
	· 					· · · · · · · · · · · · · · · · · · ·
		·			· .	
		 				
		<u> </u>				
						•
						·
	· 				2	
		letion, RM=R	educed Matrix, MS=Maske	d Sand Grains.		PL=Pore Lining, M=Matrix.
dric Soil	Indicators:					ators for Problematic Hydric Soils ³ :
_ Histoso			Dark Surface (S7)			2 cm Muck (A10) (MLRA 147)
_ Histic E	pipedon (A2)		Polyvalue Below Surfa	ce (S8) (MLRA 147	7, 148) (Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Surface (S9			(MLRA 147, 148)
_ Hydrog	en Sulfide (A4)		Loamy Gleyed Matrix	(F2)	F	Piedmont Floodplain Soils (F19)
_ Stratifie	d Layers (A5)		Depleted Matrix (F3)			(MLRA 136, 147)
_ 2 cm M	uck (A10) (LRR N)		Redox Dark Surface (⁼ 6)	\	/ery Shallow Dark Surface (TF12)
_ Deplete	ed Below Dark Surfac	e (A11)	Depleted Dark Surface	e (F7)	(Other (Explain in Remarks)
	ark Surface (A12)		Redox Depressions (F	8)		
_ Sandy I	Mucky Mineral (S1) (I	_RR N,	Iron-Manganese Mass	es (F12) (LRR N,		
MLR	A 147, 148)		MLRA 136)			
Sandy (Gleyed Matrix (S4)		✓ Umbric Surface (F13)	(MLRA 136, 122)	³ Inc	dicators of hydrophytic vegetation and
Sandy I	Redox (S5)		Piedmont Floodplain S	oils (F19) (MLRA 1	48) we	etland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent Material (I	21) (MLRA 127, 1 4	17) ur	nless disturbed or problematic.
estrictive	Layer (if observed):					
Туре:						
	nches):		_		Hydric Soi	I Present? Yes ✓ No
			-		Tiyunc 301	11 leseilt: 1es 140
emarks:						



Photo 1
Wetland data point wjob106f_w facing north



Photo 2
Wetland data point wjob106f_w facing west

Project/Site: Atlantic Coast Pipeline	City/C	County: Johnston		Sampling Date: 2/6/2015
Applicant/Owner: Dominion				Sampling Point: wjob106_u
	Section Sectio			
Landform (hillslope, terrace, etc.): hill slope				
Subregion (LRR or MLRA): P	_{Lat} . 35.62290142	Long: -78.1	16493568	Datum: WGS 1984
Soil Map Unit Name: Tomotley sandy loam,	0 to 2 percent slopes, rarely floo	oded	NWI classification	ation: None
Are climatic / hydrologic conditions on the sit	ite typical for this time of year?	′es No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydr	rology significantly distur	bed? Are "Normal	Circumstances" p	resent? Yes No
Are Vegetation, Soil, or Hydr				
SUMMARY OF FINDINGS – Attac				
Hydrophytic Vegetation Present?	Yes			
Hydric Soil Present?	Yes No	Is the Sampled Area within a Wetland?	Voc	No
Wetland Hydrology Present?	Yes No V	within a wetland?	165	NO
Remarks: Upland point taken at edge of agricultural fields	elds.			
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is requ	uired; check all that apply)		Surface Soil (
Surface Water (A1)	True Aquatic Plants ((B14)		etated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Pat	
Saturation (A3)	Oxidized Rhizospher	es on Living Roots (C3)	Moss Trim Li	nes (B16)
Water Marks (B1)	Presence of Reduce	d Iron (C4)	Dry-Season \	Vater Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Burr	ows (C8)
Drift Deposits (B3)	Thin Muck Surface (0	C7)	Saturation Vis	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Rei	marks)	Stunted or St	ressed Plants (D1)
Iron Deposits (B5)			Geomorphic	
Inundation Visible on Aerial Imagery (E	B7)		Shallow Aqui	
Water-Stained Leaves (B9)				phic Relief (D4)
Aquatic Fauna (B13)		,	FAC-Neutral	Test (D5)
Field Observations:	N V 5 4 6 1 3			
	No Depth (inches):			
	No Depth (inches):			
Saturation Present? Yes (includes capillary fringe)	No Depth (inches):	Wetland H	lydrology Presen	t? Yes No
Describe Recorded Data (stream gauge, m	nonitoring well, aerial photos, pre	evious inspections), if ava	ilable:	
Remarks:				

Sampling Point:	wjob106	_L
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	Absolute	Dominant II	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		
1 Quercus nigra	10	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)
·				That Are OBL, FACW, OF FAC(A)
2				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:60 (A/B)
6				Prevalence Index worksheet:
7				
	10	= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover: 5		total cover:	2	OBL species0 x 1 =0
15	2070 01	10101 00 101		FACW species 0 x 2 = 0
Sapling/Shrub Stratum (Plot size: 13)	40		E4011	20 00
1. Ilex opaca	10	Yes	FACU	FAC species 20 x 3 = 90 80
2. Ligustrum sinense	10	Yes	FACU	FACU species x 4 =
3				UPL species0 x 5 =0
				Column Totals:50 (A)170 (B)
4				Column rotals (r) (b)
5				Prevalence Index = B/A = 3.4
6				Trevalence mack = B/TC =
				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	20	= Total Cove	r	
50% of total cover: 10		total cover:_	4	4 - Morphological Adaptations ¹ (Provide supporting
	20 /0 01	total cover		data in Remarks or on a separate sheet)
Tierb Stratum (1 lot size.	45			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Microstegium vimineum	15	Yes	FAC	residing right regulation (Explain)
2				
				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11				
11.	15			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 7.5	20% of	total cover:_	3	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1 Lonicera japonica	5	Yes	FAC	Tongs.
2				
2				
3				
4				Hydrophytic
5.				Vegetation
<u> </u>	5	= Total Cove		Present? Yes No No
50% of total cover: 2.5				
0070 01 10141 00701.		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

	Matrix	0/		x Features	T 1	Loc ²	T	Damania
inches) 0-6	Color (moist) 10YR 4/2	<u>%</u> 100	Color (moist)		Type ¹	LOC	<u>Texture</u> SL	Remarks
0-0	10114/2							
6-12	10YR 3/2	95	10YR4/6	5	С	М	SCL	
					 -			
	·							
	·							
me: C-Cc	ncentration D-Den	letion RM	=Reduced Matrix, M	S-Maskad S	and Grai	ne	² Location: P	L=Pore Lining, M=Matrix.
	ndicators:	ietion, ixiv	-iteaucea Mainx, M	O-Maskeu O	and Grai	113.		ators for Problematic Hydric Soils ³ :
			Dork Surface	(07)				•
_ Histosol			Dark Surface		(CO) /MI	DA 447		cm Muck (A10) (MLRA 147)
Black His	pipedon (A2)		Polyvalue Be		. , .		140)	Coast Prairie Redox (A16)
	n Sulfide (A4)		Loamy Gley			7, 140)	-	(MLRA 147, 148) Piedmont Floodplain Soils (F19)
	I Layers (A5)		Depleted Ma		-)		<u> </u>	
	ck (A10) (LRR N)		✓ Redox Dark	, ,				(MLRA 136, 147) /ery Shallow Dark Surface (TF12)
	Below Dark Surface	o (A11)		rk Surface (F6)				Other (Explain in Remarks)
	rk Surface (A12)	5 (A11)	Redox Depre		7)			otilei (Explaiii iii Neiliaiks)
	lucky Mineral (S1) (L	DD N	Iron-Mangar		(E12) (I I	DD N		
	147, 148)	-NN IN,	MLRA 13		(F12) (L	NN IN,		
	leyed Matrix (S4)		Umbric Surfa	•	I D A 126	122\	3Ind	licators of hydrophytic vegetation and
	edox (S5)		Piedmont Flo					etland hydrology must be present,
-								less disturbed or problematic.
	Matrix (S6) ayer (if observed):		Red Falenti	Material (F21) (IVILKA	121, 141) un	liess disturbed of problematic.
	ayer (ii observeu).							
Type:							Hydric Soil	Present? Yes No
Depth (inc	ches):						1	
Depth (inc	ches):							
Depth (inc	ches):							
Depth (inc	ches):						1 -	
Depth (inc	:hes):							
Depth (inc	ches):							
Depth (inc	ches):						, ·	
Depth (inc	ches):						1 '	
Depth (inc	ches):						1 *	
Depth (inc	ches):						1 *	
Depth (inc	ches):						1 *	
Depth (inc	ches):						,	
Depth (inc	ches):						,	
Depth (inc	ches):						,	
Depth (inc	ches):						,	
Depth (inc	ches):							
Depth (inc	ches):							
Depth (inc	ches):							
Depth (inc	ches):							
	ches):							
Depth (inc	ches):							
Depth (inc	ches):							
Depth (inc	ches):							
Depth (inc	ches):							
Depth (inc	ches):							



Photo 1 Upland data point wjob106_u facing west



Photo 2 Upland data point wjob106_u facing east

Project/Site: Atlantic Coast Pipeline	City/0	County: Johnston		Sampling Date: 2/5/2015
Applicant/Owner: Dominion				Sampling Point: wjob105f_w
	Secti			
Landform (hillslope, terrace, etc.): depressi				
Subregion (LRR or MLRA): P				
Soil Map Unit Name: Grantham silt loam, 0) to 2 percent slopes		NWI classifica	ation: PFO1A
Are climatic / hydrologic conditions on the s	site typical for this time of year?	res No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hyd	drology significantly distu	rbed? Are "Normal	Circumstances" pi	resent? Yes No
Are Vegetation, Soil, or Hyd				
SUMMARY OF FINDINGS – Atta				
Hydrophytic Vegetation Present?	Yes No			
Hydric Soil Present?	Yes No	Is the Sampled Area		No
	Yes No	within a Wetland?	Yes	NO
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is req	quired; check all that apply)		Surface Soil (
Surface Water (A1)	True Aquatic Plants	(B14)		etated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Patt	
Saturation (A3)	Oxidized Rhizospher		Moss Trim Lir	
Water Marks (B1)	Presence of Reduce	d Iron (C4)	Dry-Season V	Vater Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Burre	ows (C8)
Drift Deposits (B3)	Thin Muck Surface (Saturation Vis	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)	Stunted or Str	ressed Plants (D1)
Iron Deposits (B5)			Geomorphic F	
Inundation Visible on Aerial Imagery	(B7)		Shallow Aquit	
Water-Stained Leaves (B9)				phic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral	Test (D5)
Field Observations: Surface Water Present? Yes	No Depth (inches):			
	No Depth (inches):	1		
	No Depth (inches):	0 Wetlevel I	lydrology Present	40 Vaa V Na
(includes capillary fringe)	_ No Depth (inches)	wetland r	iyarology Presem	t? Yes <u> </u>
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, pre	evious inspections), if ava	ilable:	
Devente				
Remarks:				

Sampling Point	_t . wjob105t_	_w
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•	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Quercus nigra	15	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Liquidambar styraciflua	10	Yes	FAC	
Nyssa aquatica	10	Yes	OBL	Total Number of Dominant Species Across All Strata: 6 (B)
4.				Opedies Across Air otrata.
				Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cover		Total % Cover of: Multiply by:
50% of total cover:17.5	20% of	total cover:	7	OBL species x 1 = 20
Sapling/Shrub Stratum (Plot size: 15)				FACW species25
1 Persea borbonia	15	Yes	FACW	FAC species25
2 Viburnum nudum	10	Yes	OBL	FACU species 0 x 4 = 0
	10		FACW	0 0
3. Magnolia virginiana		Yes	FACW	70 145
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.07
6				Trevalence mack = B/T =
7				Hydrophytic Vegetation Indicators:
•		·		1 - Rapid Test for Hydrophytic Vegetation
8		-		✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cover		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:17.5	20% of	total cover:	/	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation ¹ (Explain)
2		-		¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4		-		Definitions of Four Vegetation Strata:
5				
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7		·		more in diameter at breast height (DBH), regardless of
7		·		height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Harb All borbossous (non woods) plants, regardless
	0	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0		total cover:	_	or size, and wesdy plants less than 8.25 it tall.
0070 01 total 00701.	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				
-		-		Hydrophytic
5				Vegetation Present? Yes No
		= Total Cover	^	1103CH1: 103 NO
50% of total cover:0	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features			
(inches)	Color (moist)	%	Color (moist) % Type ¹ Lo	c ² Text		KS
0-12	10YR 2/1	100		SI	L	
						
Type: C=C	oncentration D-Deni	letion RM-R	educed Matrix, MS=Masked Sand Grains.	² l ocati	ion: PL=Pore Lining, M=Mati	riy
	Indicators:	iedon, ixivi–ix	educed Matrix, MO-Masked Sarid Grains.	Locati	Indicators for Problematic	
-			Dark Surface (S7)			-
Histosol			Dark Surface (S7)	447 440\	2 cm Muck (A10) (MLR)	•
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA		Coast Prairie Redox (A1	10)
	stic (A3)		Thin Dark Surface (S9) (MLRA 147, 1	48)	(MLRA 147, 148)	:!- ([40)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain So	ons (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)	(TE40)
	uck (A10) (LRR N)	- (044)	Redox Dark Surface (F6)		Very Shallow Dark Surfa	
	d Below Dark Surface	= (ATT)	Depleted Dark Surface (F7)		Other (Explain in Remai	iks)
	ark Surface (A12)	יא ממ	Redox Depressions (F8)	NI .		
	Mucky Mineral (S1) (L	.RR N,	Iron-Manganese Masses (F12) (LRR	N,		
	A 147, 148)		MLRA 136)		3	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12		³ Indicators of hydrophytic v	
-	Redox (S5)		Piedmont Floodplain Soils (F19) (MLF		wetland hydrology must b	
	Matrix (S6)		Red Parent Material (F21) (MLRA 12)	7, 147)	unless disturbed or proble	ematic.
Restrictive	Layer (if observed):					
Type:			<u> </u>			
Depth (in	ches):		<u> </u>	Hydri	ic Soil Present? Yes	No
Remarks:				l		



Photo 1 Wetland data point wjob105f_w facing north



Photo 2
Wetland data point wjob105f_w facing east



Photo 3
Wetland data point wjob105f_w facing south



Photo 4
Wetland data point wjob105f_w facing west

Project/Site: Atlantic Coast Pipeline	City/County: Johnston	Sampling Date: 2/5/2015
Applicant/Owner: Dominion		State: NC Sampling Point: wjob105e_w
	Section, Township, Range: No.	
Landform (hillslope, terrace, etc.): drainage way		
Subregion (LRR or MLRA):		1690004 Datum: WGS 1984
Soil Map Unit Name: Lynchburg sandy loam, 0 to 2	percent slopes	NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typic	If for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology _	significantly disturbed? Are "Norma	I Circumstances" present? Yes No
Are Vegetation, Soil, or Hydrology _		
		ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes	No le the Sampled Area	
	, No	Yes No
	within a Wetland?	res No
Remarks:		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; cl	ack all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Surface Soil Cracks (Bb) Sparsely Vegetated Concave Surface (B8)
, ,	Hydrogen Sulfide Odor (C1)	Sparsely vegetated concave surface (B8) Drainage Patterns (B10)
	Oxidized Rhizospheres on Living Roots (C3)	Moss Trim Lines (B16)
	Presence of Reduced Iron (C4)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-Neutral Test (D5)
Field Observations:		
	Depth (inches):4	
	Depth (inches):	
Saturation Present? Yes No (includes capillary fringe)	Depth (inches): Wetland H	Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring)	g well, aerial photos, previous inspections), if ava	ailable:
·		
Remarks:		

Sampling Point, Michigan Loge N	Sampling	Point: wjob105e_	W
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00	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				
5				Percent of Dominant Species That Are OBL FACW or FAC: 100 (A/B)
0				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
		= Total Cove	r O	OBL species $0 \times 1 = 0$
50% of total cover:0	20% of	total cover:_		60 400
Sapling/Shrub Stratum (Plot size:)				racvi species x z =
1. Acer rubrum	5	Yes	FAC	FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals:65
-				
5				Prevalence Index = B/A =2.07
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
	5	= Total Cove	r	
50% of total cover: 2.5	20% of	total cover:_	1	4 - Morphological Adaptations ¹ (Provide supporting
Herb Stratum (Plot size: 5)				data in Remarks or on a separate sheet)
1 Arundinaria gigantea	60	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
· ·				
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				- W
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
7				height.
8				
9.				Sapling/Shrub – Woody plants, excluding vines, less
				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				my can:
11	60			Herb – All herbaceous (non-woody) plants, regardless
30		= Total Cove		of size, and woody plants less than 3.28 ft tall.
50% of total cover:30	20% of	total cover:_	12	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				
F				Hydrophytic Vegetation
5	0	T-1-1-0		Present? Yes V No No
50% of total cover: 0		= Total Cove	^	1 1 5 5 1 1 1 5 5 1 1 1 5 5 1 1 1 5 5 1
00700110101001011		total cover:_		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Profile Des	cription: (Describe t	the de				or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Feature:	S1	. 2	- .	5
(inches)	Color (moist) 10YR 4/2	<u>%</u>	Color (moist) 10YR 4/6	<u>%</u> 10	Type ¹ C	Loc ²	Texture SICL	Remarks
0-12	101R 4/2	90	10 1 R 4/0	10		M	SICL	
	· ———				-		-	
					·	· ·		
								
					-			-
						. ———		
						<u> </u>		
1Tymay C C	Concentration D. Donl	tion DN	A Doduced Metrix M	- Maakaa			2l continu	D. Dare Lining M. Metrix
	Concentration, D=Deple Indicators:	etion, Riv	i=Reduced Matrix, Mi	S=IVIasked	Sand Gr	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ :
-			Davida Occidence	(07)				
Histoso			Dark Surface	. ,	(00) (7	41 D 4 4 4 =		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		F2)			Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	,	,			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	(A11)	Depleted Dar				'	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) (LRR N,		
	A 147, 148)		MLRA 13	•			2	
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent N	Material (F	21) (MLR	A 127, 147	') u	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
	nches):						Hydric So	il Present? Yes No
							11,500.1000	
Remarks:								



Photo 1
Wetland data point wjob105e_w facing west



Photo 2
Wetland data point wjob105e_w facing south

Project/Site: Atlantic Coast Pipeline	City/	County: Johnston		Sampling Date: 2/5/2015	
Applicant/Owner: Dominion			State: NC	Sampling Point: wjob105_u	
	Sect				
Landform (hillslope, terrace, etc.): hill slope					
Subregion (LRR or MLRA): P					
Soil Map Unit Name: Grantham silt loam, 0	to 2 percent slopes		NWI classification	ation: None	
Are climatic / hydrologic conditions on the si	ite typical for this time of year?	Yes No ((If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydi	rology significantly distu	irbed? Are "Normal	Circumstances" p	resent? Yes No	
Are Vegetation, Soil, or Hydi					
SUMMARY OF FINDINGS – Attac					
Hydrophytic Vegetation Present?	Yes _ 🗸 _ No				
Hydric Soil Present?	Yes No	Is the Sampled Area	Vaa	No	
Wetland Hydrology Present?	Yes No ✓	within a Wetland?	res	NO	
Remarks:		1			
Upland point taken at edge of agricultural fi	eias.				
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum of one is requ	uired: check all that apply)		Surface Soil (
Surface Water (A1)	True Aquatic Plants				
High Water Table (A2)	Hydrogen Sulfide O		Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)		
Saturation (A3)		5 . (00)	Moss Trim Li		
Water Marks (B1)	Presence of Reduce	-		Vater Table (C2)	
Sediment Deposits (B2)	Recent Iron Reducti		Crayfish Burr		
Drift Deposits (B3)	Thin Muck Surface (sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)	Other (Explain in Re			ressed Plants (D1)	
Iron Deposits (B5)		,	Geomorphic	Position (D2)	
Inundation Visible on Aerial Imagery (I	B7)		Shallow Aqui		
Water-Stained Leaves (B9)				phic 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):				
	No Depth (inches):	Wetland H	lydrology Presen	t? Yes No	
(includes capillary fringe) Describe Recorded Data (stream gauge, n	monitoring well, aerial photos, pr	evious inspections), if ava	ilable:		
	3 / 1 /1	, ,,			
Remarks:					

Samonno Point "Jee "ee"	Samo	lina	Point:	wjob105_	_ι
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	Absolute	Dominant II	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)			Status	
1 Liquidambar styraciflua	30	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2. Quercus falcata	5	No	FACU	That Are OBL, I ACW, OF I AC(A)
2. 4007000 7070000				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				
5				Percent of Dominant Species That Are OBL FACW or FAC: 75 (A/R)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover:17.5	20% of	total cover:_	7	OBL species X I =
Sapling/Shrub Stratum (Plot size: 15)				FACW species0 x 2 =0
1 Ligustrum sinense	10	Yes	FACU	FAC species45
1. Ligada am amana				45 00
2				FACU species
3				UPL species x 5 =
4				Column Totals:60
5				Prevalence Index = B/A =3.25
6				Hydrophytic Vegetation Indicators:
7				-
8				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
9	10			3 - Prevalence Index is ≤3.0 ¹
_		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:5	20% of	total cover:_	2	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
1				
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
				Definitions of Four vegetation Strata.
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8.				
9.				Sapling/Shrub – Woody plants, excluding vines, less
<u> </u>				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				m) tan.
11				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:		total cover:_	0	
Woody Vine Stratum (Plot size:30)		_		Woody vine – All woody vines greater than 3.28 ft in
1 Lonicera japonica	10	Yes	FAC	height.
''				
2. Smilax rotundifolia	5	Yes	FAC	
3.				
				Hydrophytic
5				Vegetation
	15	= Total Cove	r	Present? Yes No
50% of total cover: 7.5	20% of	total cover:_	3	
Remarks: (Include photo numbers here or on a separate sl	neet)			
Tromano. (morade prioto numbero nere di dir a deparate di	1001.)			

Depth	Matrix		Redo	x Features		. 2		
inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
8-0	10YR 3/2	100					SL	
8-12	10YR 3/2	95	10YR 4/6	5	С	M	SICL	
								-
	•							
	-							
		letion, RM	=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: P	PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:							ators for Problematic Hydric Soils ³ :
_ Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		. , .		148) (Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Su			47, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye	,	-2)		F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Mat	. ,	_,			(MLRA 136, 147)
	uck (A10) (LRR N)	- (044)	<u>✓</u> Redox Dark S	•	,			/ery Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (A11)	Depleted Dar		. ,		(Other (Explain in Remarks)
	ark Surface (A12)	DD N	Redox Depre			DD N		
	Mucky Mineral (S1) (I	LKK N,	Iron-Mangan		s (F12) (LKK N,		
	A 147, 148)		MLRA 130	-	MI DA 42	c 400\	3 _{1m} a	diagtors of budrophytic vegetation and
	Gleyed Matrix (S4) Redox (S5)		Umbric Surfa					dicators of hydrophytic vegetation and
	d Matrix (S6)		Piedmont Flom Red Parent N					etland hydrology must be present, nless disturbed or problematic.
	Layer (if observed):		Neu Faieiil i	iateriai (i z	(IVILIX	H 127, 147) ui	iless disturbed of problematic.
	Layer (ii observed).	•						
Type:			<u></u>					
Depth (in	iches):						Hydric Soi	I Present? Yes No
emarks:								



Photo 1 Upland data point wjob105_u facing north



Photo 2 Upland data point wjob105_u facing east



Photo 3 Upland data point wjob105_u facing south



Photo 4 Upland data point wjob105_u facing west

Project/Site: Atlantic Coast Pipeline	City/0	County: Johnston		Sampling Date: 2/5/2015
Applicant/Owner: Dominion				Sampling Point: wjob105f_w
	Secti			
Landform (hillslope, terrace, etc.): depressi				
Subregion (LRR or MLRA): P				
Soil Map Unit Name: Grantham silt loam, 0) to 2 percent slopes		NWI classifica	ation: PFO1A
Are climatic / hydrologic conditions on the s	site typical for this time of year?	res No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hyd	drology significantly distu	rbed? Are "Normal	Circumstances" pi	resent? Yes No
Are Vegetation, Soil, or Hyd				
SUMMARY OF FINDINGS – Atta				
Hydrophytic Vegetation Present?	Yes No			
Hydric Soil Present?	Yes No	Is the Sampled Area		No
	Yes No	within a Wetland?	Yes	NO
Remarks:				
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of two required)
Primary Indicators (minimum of one is req	quired; check all that apply)		Surface Soil (
Surface Water (A1)	True Aquatic Plants	(B14)		etated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Od		Drainage Patt	
Saturation (A3)	Oxidized Rhizospher		Moss Trim Lir	
Water Marks (B1)	Presence of Reduce	d Iron (C4)	Dry-Season V	Vater Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Burre	ows (C8)
Drift Deposits (B3)	Thin Muck Surface (Saturation Vis	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Re	marks)	Stunted or Str	ressed Plants (D1)
Iron Deposits (B5)			Geomorphic F	
Inundation Visible on Aerial Imagery	(B7)		Shallow Aquit	
Water-Stained Leaves (B9)				phic Relief (D4)
Aquatic Fauna (B13)			FAC-Neutral	Test (D5)
Field Observations: Surface Water Present? Yes	No Depth (inches):			
	No Depth (inches):	1		
	No Depth (inches):	0 Wetlevel I	lydrology Present	40 Vaa V Na
(includes capillary fringe)	_ No Depth (inches)	wetland r	iyarology Presem	t? Yes <u> </u>
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, pre	evious inspections), if ava	ilable:	
Devente				
Remarks:				

Sampling Point	_t . wjob105t_	_w
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•	Absolute	Dominant Ir	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Status	Number of Dominant Species
1. Quercus nigra	15	Yes	FAC	That Are OBL, FACW, or FAC:6 (A)
2. Liquidambar styraciflua	10	Yes	FAC	
Nyssa aquatica	10	Yes	OBL	Total Number of Dominant Species Across All Strata: 6 (B)
4.				Opedies Across Air Otrata (b)
				Percent of Dominant Species
5		-		That Are OBL, FACW, or FAC:100 (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cover		Total % Cover of: Multiply by:
50% of total cover:17.5	20% of	total cover:	7	OBL species x 1 = 20
Sapling/Shrub Stratum (Plot size: 15)				FACW species25
1 Persea borbonia	15	Yes	FACW	FAC species25
2 Viburnum nudum	10	Yes	OBL	FACU species 0 x 4 = 0
	10		FACW	0 0
3. Magnolia virginiana		Yes	FACW	70 145
4				Column Totals: (A) (B)
5				Prevalence Index = B/A = 2.07
6				Trevalence mack = B/T =
7				Hydrophytic Vegetation Indicators:
•		·		1 - Rapid Test for Hydrophytic Vegetation
8		-		✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cover		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:17.5	20% of	total cover:	/	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation ¹ (Explain)
2		-		¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4		-		Definitions of Four Vegetation Strata:
5				
6.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
7		·		more in diameter at breast height (DBH), regardless of
7		·		height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Harb All borbossous (non woods) plants, regardless
	0	= Total Cover		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 0		total cover:	_	or size, and wesdy plants less than 8.25 it tall.
0070 01 total 00701.	20 /6 01	total cover		Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size:)				height.
1				
2				
3				
4				
-		-		Hydrophytic
5				Vegetation Present? Yes No
		= Total Cover	^	1103CH1: 103 NO
50% of total cover:0	20% of	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redox Features			
(inches)	Color (moist)	%	Color (moist) % Type ¹ Lo	c ² Text		KS
0-12	10YR 2/1	100		SI	L	
						
Type: C=C	oncentration D-Deni	letion RM-R	educed Matrix, MS=Masked Sand Grains.	² l ocati	ion: PL=Pore Lining, M=Mati	riy
	Indicators:	iedon, ixivi–ix	educed Matrix, MO-Masked Sarid Grains.	Locati	Indicators for Problematic	
-			Dark Surface (S7)			-
Histosol			Dark Surface (S7)	447 440\	2 cm Muck (A10) (MLR)	•
	pipedon (A2)		Polyvalue Below Surface (S8) (MLRA		Coast Prairie Redox (A1	10)
	stic (A3)		Thin Dark Surface (S9) (MLRA 147, 1	48)	(MLRA 147, 148)	:!- ([40)
	en Sulfide (A4)		Loamy Gleyed Matrix (F2)		Piedmont Floodplain So	ons (F19)
	d Layers (A5)		Depleted Matrix (F3)		(MLRA 136, 147)	(TE40)
	uck (A10) (LRR N)	- (044)	Redox Dark Surface (F6)		Very Shallow Dark Surfa	
	d Below Dark Surface	= (ATT)	Depleted Dark Surface (F7)		Other (Explain in Remai	iks)
	ark Surface (A12)	יא ממ	Redox Depressions (F8)	NI .		
	Mucky Mineral (S1) (L	.RR N,	Iron-Manganese Masses (F12) (LRR	N,		
	A 147, 148)		MLRA 136)		3	
	Gleyed Matrix (S4)		Umbric Surface (F13) (MLRA 136, 12		³ Indicators of hydrophytic v	
-	Redox (S5)		Piedmont Floodplain Soils (F19) (MLF		wetland hydrology must b	
	Matrix (S6)		Red Parent Material (F21) (MLRA 12)	7, 147)	unless disturbed or proble	ematic.
Restrictive	Layer (if observed):					
Type:			<u> </u>			
Depth (in	ches):		<u> </u>	Hydri	ic Soil Present? Yes	No
Remarks:				l		



Photo 1 Wetland data point wjob105f_w facing north



Photo 2
Wetland data point wjob105f_w facing east



Photo 3
Wetland data point wjob105f_w facing south



Photo 4
Wetland data point wjob105f_w facing west

Project/Site: Atlantic Coast Pipe	line	City/C	county: Johnston		Sampling Date: 2/5/2015			
Applicant/Owner: Dominion					Sampling Point: wjob105e_w			
Investigator(s): TP, CR		Section Section						
Landform (hillslope, terrace, etc								
Subregion (LRR or MLRA): P		Lat: 35.62118806	Long: -78.	1690004	Datum: WGS 1984			
Soil Map Unit Name: Lynchburg	sandy loam, 0 to 2	2 percent slopes		NWI classific	cation: PFO1A			
Are climatic / hydrologic condition	ons on the site typic	cal for this time of year? Y	es No	(If no, explain in R	demarks.)			
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Normal	Circumstances" p	oresent? Yes No			
Are Vegetation, Soil								
					s, important features, etc.			
Hydrophytic Vegetation Presei	nt? Yes	✓ No						
Hydric Soil Present?		No	Is the Sampled Area	V V	No			
Wetland Hydrology Present?		V No	within a Wetland?	res	NO			
Remarks:		<u> </u>						
HYDROLOGY								
Wetland Hydrology Indicator	<u></u>			Secondary Indica	ators (minimum of two required)			
Primary Indicators (minimum o		hack all that apply)		Surface Soil				
Surface Water (A1)	i one is required, c	True Aquatic Plants (P14)		getated Concave Surface (B8)			
High Water Table (A2)		Hydrogen Sulfide Od		Sparsely ve				
Saturation (A3)		Oxidized Rhizospher		Moss Trim L				
Water Marks (B1) Presence of Reduced Iron (C4)					Water Table (C2)			
Sediment Deposits (B2)		Recent Iron Reductio						
Drift Deposits (B3)		Thin Muck Surface (0		-	isible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)		Other (Explain in Rer	narks)	Stunted or S	tressed Plants (D1)			
Iron Deposits (B5)				Geomorphic	Position (D2)			
Inundation Visible on Aeria	al Imagery (B7)			Shallow Aqu	itard (D3)			
Water-Stained Leaves (BS	9)			Microtopogra	aphic Relief (D4)			
Aquatic Fauna (B13)				FAC-Neutral	Test (D5)			
Field Observations:								
Surface Water Present?		Depth (inches):	4 0					
Water Table Present?		Depth (inches):	0		,			
Saturation Present? (includes capillary fringe)	Yes V No _	Depth (inches):	Wetland F	lydrology Preser	nt? Yes <u>/</u> No			
Describe Recorded Data (stream	am gauge, monitori	ng well, aerial photos, pre	vious inspections), if ava	ilable:				
Remarks:								

Sampling Point, Mion 1036-M	Sampling	Point: wjob105e_	w
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00	Absolute	Dominant I	ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				(=/
5				Percent of Dominant Species That Are OBL FACW or FAC: 100 (A/B)
0				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7	0			Total % Cover of: Multiply by:
		= Total Cove	r O	OBL species $0 \times 1 = 0$
50% of total cover:0	20% of	total cover:_		60 400
Sapling/Shrub Stratum (Plot size:)				racvi species x z =
1. Acer rubrum	5	Yes	FAC	FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals:65
5				0.07
				Prevalence Index = B/A =2.07
6				Hydrophytic Vegetation Indicators:
7				1 - Rapid Test for Hydrophytic Vegetation
8				✓ 2 - Dominance Test is >50%
9				✓ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover: 2.5	20% of	total cover:_	1	data in Remarks or on a separate sheet)
Herb Stratum (Plot size: 5				•
1. Arundinaria gigantea	60	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
2				
3				¹ Indicators of hydric soil and wetland hydrology must
J				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8				Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10				m) tall.
11.				Harb All borbossous (non woods) plants, regardless
	60	= Total Cove		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
50% of total cover: 30		total cover:_		
Woody Vine Stratum (Plot size: 30)				Woody vine – All woody vines greater than 3.28 ft in
				height.
1				
2				
3				
4				Hydrophytic
5				Vegetation
	0	= Total 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.)			1
(,			
				.

Profile Des	cription: (Describe t	the de				or confirm	the absence	e of indicators.)
Depth	Matrix		Redo	x Feature:	S1	. 2	- .	5
(inches)	Color (moist) 10YR 4/2	<u>%</u>	Color (moist) 10YR 4/6	<u>%</u> 10	Type ¹ C	Loc ²	Texture SICL	Remarks
0-12	101R 4/2	90	10 1 R 4/0	10		M	SICL	
	· ———				-		-	
					·	· ·		
								
					-			-
						. ———		
						<u> </u>		
1Tymay C C	Concentration D. Donl	tion DN	A Doduced Metrix M	- Maakaa			2l continu	D. Dara Lining M. Matrix
	Concentration, D=Deple Indicators:	etion, Riv	i=Reduced Matrix, Mi	S=IVIasked	Sand Gr	ains.		PL=Pore Lining, M=Matrix. cators for Problematic Hydric Soils ³ :
-			Davida Occidence	(07)				· ·
Histoso			Dark Surface	. ,	(00) (7	41 D 4 4 4 =		2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be				148)	Coast Prairie Redox (A16)
	listic (A3)		Thin Dark Su			147, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye		⊢ 2)			Piedmont Floodplain Soils (F19)
	d Layers (A5)		<u>✓</u> Depleted Ma					(MLRA 136, 147)
	uck (A10) (LRR N)		Redox Dark	,	,			Very Shallow Dark Surface (TF12)
	ed Below Dark Surface	(A11)	Depleted Dar				'	Other (Explain in Remarks)
	ark Surface (A12)		Redox Depre					
	Mucky Mineral (S1) (L	RR N,	Iron-Mangan		es (F12) (LRR N,		
	A 147, 148)		MLRA 13	•			2	
	Gleyed Matrix (S4)		Umbric Surfa					dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					retland hydrology must be present,
Strippe	d Matrix (S6)		Red Parent N	Material (F	21) (MLR	A 127, 147	') u	nless disturbed or problematic.
Restrictive	Layer (if observed):							
Type:								
	nches):						Hydric So	il Present? Yes No
							11,500.1000	
Remarks:								



Photo 1
Wetland data point wjob105e_w facing west



Photo 2
Wetland data point wjob105e_w facing south

Project/Site: Atlantic Coast Pipeline	City/County: Johnstor	Sampling Date: 2/5/2015			
Applicant/Owner: Dominion		State: NC Sampling Point: wjob105_u			
	Section, Township, Ra				
		vex, none): none Slope (%): 2			
		ng: -78.16662927 Datum: WGS 1984			
Soil Map Unit Name: Grantham silt loam, 0 to 2 pe	ercent slopes	NWI classification: None			
Are climatic / hydrologic conditions on the site typic	cal for this time of year? Yes No _	(If no, explain in Remarks.)			
Are Vegetation, Soil, or Hydrology	significantly disturbed? Are	"Normal Circumstances" present? Yes No			
Are Vegetation, Soil, or Hydrology					
		ocations, transects, important features, etc.			
Hydrophytic Vegetation Present? Yes	✓ No le the Semple				
Hydric Soil Present? Yes	No Is the Sample within a Wetla				
Wetland Hydrology Present? Yes	No No	iid: 165NO			
Remarks: Upland point taken at edge of agricultural fields.					
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)	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)			
Saturation (A3)	Oxidized Rhizospheres on Living Roc				
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)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Stunted or Stressed Plants (D1)Geomorphic Position (D2)				
Iron Deposits (B5)					
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:	V 5 4 6 4 3				
	Depth (inches):				
	Depth (inches):				
Saturation Present? Yes No _ (includes capillary fringe)	Depth (inches): W	etland Hydrology Present? Yes No			
Describe Recorded Data (stream gauge, monitor	ing well, aerial photos, previous inspection	s), if available:			
Remarks:					

Sampling Point: wjob105_0	Sampl	ina	Point:	wjob105	_\
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	Absolute	Dominant II	ndicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)			Status	
1 Liquidambar styraciflua	30	Yes	FAC	Number of Dominant Species That Are OBL, FACW, or FAC:3 (A)
2. Quercus falcata	5	No	FACU	That Are OBL, I ACW, OF I AC (A)
2. Querous raisatu				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				
5				Percent of Dominant Species That Are OBL FACW or FAC: 75 (A/B)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				
		= Total Cove	r	Total % Cover of: Multiply by:
50% of total cover:17.5	20% of	total cover:_	7	OBL species X I =
Sapling/Shrub Stratum (Plot size: 15				FACW species0 x 2 =0
1 Ligustrum sinense	10	Yes	FACU	FAC species45
1. Ligacian emerica				45 00
2				FACU species
3				UPL species x 5 =
4				Column Totals:60
5				Prevalence Index = B/A =3.25
6				Hydrophytic Vegetation Indicators:
7				
8		· ·		1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
9	10			3 - Prevalence Index is ≤3.0 ¹
_		= Total Cove		4 - Morphological Adaptations ¹ (Provide supporting
50% of total cover:5	20% of	total cover:_	2	
Herb Stratum (Plot size:)				data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
1				
2				¹ Indicators of hydric soil and wetland hydrology must
3				be present, unless disturbed or problematic.
4				Definitions of Four Vegetation Strata:
				Definitions of Four vegetation Strata.
5				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6				more in diameter at breast height (DBH), regardless of
7				height.
8.				
9.				Sapling/Shrub – Woody plants, excluding vines, less
<u> </u>				than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				m) tan.
11				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:		total cover:_	0	
Woody Vine Stratum (Plot size:30)		_		Woody vine – All woody vines greater than 3.28 ft in
1 Lonicera japonica	10	Yes	FAC	height.
''				
2. Smilax rotundifolia	5	Yes	FAC	
3.				
				Hydrophytic
5				Vegetation
	15	= Total Cove	r	Present? Yes No
50% of total cover: 7.5	20% of	total cover:_	3	
Remarks: (Include photo numbers here or on a separate sl	neet)			
Tromano. (morade prioto numbero nere di dir a deparate di	1001.)			

Depth	Matrix		Redo	x Features		. 2		
inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-8	10YR 3/2	100					SL	
8-12	10YR 3/2	95	10YR 4/6	5	С	M	SICL	
					-			
	•							
								• •
		letion, RM	l=Reduced Matrix, MS	S=Masked	Sand Gra	ains.	² Location: F	PL=Pore Lining, M=Matrix.
ydric Soil	Indicators:							eators for Problematic Hydric Soils ³ :
Histosol			Dark Surface					2 cm Muck (A10) (MLRA 147)
	pipedon (A2)		Polyvalue Be		. , .		148) (Coast Prairie Redox (A16)
	istic (A3)		Thin Dark Su			47, 148)		(MLRA 147, 148)
	en Sulfide (A4)		Loamy Gleye	•	=2)		F	Piedmont Floodplain Soils (F19)
	d Layers (A5)		Depleted Ma	, ,	0)		,	(MLRA 136, 147)
	uck (A10) (LRR N)	- (044)	<u>✓</u> Redox Dark	•	,			Very Shallow Dark Surface (TF12)
	d Below Dark Surfac	e (ATT)	Depleted Date		. ,		_ '	Other (Explain in Remarks)
	ark Surface (A12) Mucky Mineral (S1) (I	I DD N	Redox Depre Iron-Mangan			DDM		
	Mucky Milleral (31) (1 A 147, 148)	LKK N,	MLRA 13		5 (F12) (LKK N,		
	Gleyed Matrix (S4)		Umbric Surfa	•	MI D A 13	6 122)	3Inc	dicators of hydrophytic vegetation and
	Redox (S5)		Piedmont Flo					etland hydrology must be present,
-	d Matrix (S6)		Red Parent N					nless disturbed or problematic.
	Layer (if observed)	<u> </u>		natoriai (i i	- 1 / (11121)		, <u></u>	noce dictarged of problematic.
Type:		-						
	abaa\.						Undria Cai	I Present? Yes ✓ No
Depth (in	iches):						Hydric Soi	I Present? Yes No No
emarks:								



Photo 1 Upland data point wjob105_u facing north



Photo 2 Upland data point wjob105_u facing east



Photo 3 Upland data point wjob105_u facing south



Photo 4 Upland data point wjob105_u facing west

Project/Site: ACP	City/County:	shastor	_ Sampling Date: _7/16/14
Applicant/Owner: Pominicm		State: NL	Sampling Point: Wjoo 004 F
Investigator(s): EST (J Benton)	Section, Township	Range: NA	
Landform (hillslone terrace etc.): Flat	Local relief (concav	ve. convex. none): Leva	2016 Slope (%): U-57
Subregion (LRR or MLRA): Lat: 35. Soil Map Unit Name: OXVIIIe	61989 N	lang: - 78, 170	78 W Datum: N/c5 24
Soil Map Unit Name: Coxville		NIAR sleep	Facility PFO
Are climatic / hydrologic conditions on the site typical for this time of y			
Are Vegetation, Soil, or Hydrology significantly			" 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 poi	nt locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks:	is the Sain		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Ind	icators (minimum of two required)
Sediment Deposits (B2)	113) 15) (LRR U) 10 Odor (C1) Sheres along Living Forced Iron (C4) Suction in Tilled Soils the (C7) Remarks)	Roots (C3) Capinage Moss Trin	oil Cracks (B6) Vegetated Concave Surface (B8) Patterns (B10) In Lines (B16) On Water Table (C2) Burrows (C8) In Visible on Aerial Imagery (C9) Inic Position (D2) Aquitard (D3) Itral Test (D5) Im moss (D8) (LRR T, U)
Surface Water Present? Yes No Depth (inche	es). NA		
Water Table Present? Yes No X Depth (inche	· · · · · · · · · · · · · · · · · · ·		
Saturation Present? Yes No Depth (inche		Wetland Hydrology Pre	sent? Yes X No
(includes capillary fringe)	,		
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspe	ctions), if available:	
/D			
/Remarks:			
•			
		•	
W. C			
·			·
	•	•	

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

30.20		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 +30		Species?		Number of Dominant Species
1. VINVO tucala	50		MAC	That Are OBL, FACW, or FAC: (A)
2. Acer rubrum	20		FAC	Total Number of Dominant
3				Species Across All Strata:
4				Dersent of Deminont Species
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6			I	<u> </u>
7				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	70	= Total Cov	er er	OBL species x 1 =
50% of total cover:	20% 0	total cover	. 4	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 3 0 x30)		(010, 0010)	· -	FAC species x 3 =
	20	N	PAC.	FACU species x 4 =
1. Liquidamber Styraciflya	10	\	FIAL	UPL species x 5 =
3. Symplocos tinctoria	15	-	FAL	Column Totals: (A) (B)
_	. ——	1	FAC	
4. Mirella Cerifera	_	- 1 4		Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				Rapid Test for Hydrophytic Vegetation
7	-			2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.01
	<u> 55</u>	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 2 2	<u>~ 5</u> 20% o	f total cover	: <u> </u>	
Herb Stratum (Plot size: 3° x 30)				Indicators of hydric soil and wetland hydrology must
1. Ilex omen	<u>- 5</u>	<u> </u>	PAC	be present, unless disturbed or problematic.
2. Arvadinaria gijantea	5	4	FACIO	Definitions of Four Vegetation Strata:
3.				
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 5 m. DBT and greater than 5.25 m (1 m) tail.
8				Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10		·	•	Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
	_	_ = Total Co		
50% of total cover:	20%	of total cove	r:	
Woody Vine Stratum (Plot size: 30 x30)				
1. Vitis rotundifolia	<u> 5</u>	<u> Y </u>	PAC	
2.				
3.				
4.		-		1
	_			
5	<	- Tet-1 0:		Hydrophytic Vegetation
	2000	_ = Total Co		Present? Yes No No
		of total cove	er:	-
Remarks: (If observed, list morphological adaptations be	low).			

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the in	ndicator	or confirm	the absence	of indicators.)	
Depth	Matrix		Redo	x Features	φ ₁ 1	12	Тана	D /	
(inches) () — 4	254 3/1	95	Color (moist) 1,54R 5/8	- % -	Type ¹	Loc ²	Texture	Remarks	<u> </u>
<u> </u>		· -	/ /		<u> </u>	M 101	Ch lo.		chia adaga
4-14	2,545/2	<u> 95</u> -	7.5.1R 9/8	5		MPL		w/ ox.dized	1 uisosbracz
14-20	2,545/2	10	107R 6/8	10	<u> </u>	<u>M</u>	CHO.		
								_	
						·			
									
1Typo: C=C	oncentration, D=Dep	letion DM-6	Paducad Matrix M	S=Masked	Sand G	raine		PL=Pore Lining, M=M:	etriv
	Indicators: (Applic					anis.		for Problematic Hydr	
☐ Histoso			Polyvalue B			LRR S. T. I	_	fluck (A9) (LRR O)	
	pipedon (A2)		Thin Dark S					luck (A10) (LRR S)	
Black H	istic (A3)		Loamy Muci			R O)		ed Vertic (F18) (outsid	· ·
	en Sulfide (A4)		Loamy Gley		F2)			ont Floodplain Soils (F	, ,
1	d Layers (A5)	T 11\	Depleted Ma		:e)	•		alous Bright Loamy Soi RA 153B)	I\$ (F2U)
	: Bodies (A6) (LRR F ucky Mineral (A7) (L		Redox Dark Depleted Da					arent Material (TF2)	
	resence (A8) (LRR I		Redox Depr					Shallow Dark Surface (1	ΓF12)
	uck (A9) (LRR P, T)		Marl (F10) (LRR U)			U Other	(Explain in Remarks)	1
	d Below Dark Surface	ce (A11)	Depleted O						
=	ark Surface (A12)		Iron-Manga					cators of hydrophytic ve	
 	Prairie Redox (A16) (Mucky Mineral (S1) () Umbric Surf					tland hydrology must b less disturbed or proble	
·	Gleyed Matrix (S4)	LINIX 0, 0)	Reduced Vo					icaa diatarbed or proble	matio.
	Redox (S5)		Piedmont F		-				
	d Matrix (S6)		Anomalous	Bright Loa	my Soils	(F20) (MLI	RA 149A, 153C	C, 153D)	
	urface (S7) (LRR P,								
1	Layer (if observed):							'
Type:							1		,
	nches):						Hydric Soi	I Present? Yes <u>X</u>	
Remarks:									
				•					
				,					
1				1					
1									



Wetland data point wjoo004f_w facing south.

Project/Site: ACP	City/County: Johnston Sampling Date: 7/16/14
Applicant/Owner: Poys . ~ 7 for	State: NC Sampling Point: W100004-L
Investigator(s): ESI (JBenton)	Section, Township, Range:
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none): Flax Slope (%): 0 5/
Subregion (LRR or MLRA): L&R P Lat: 35	5.62009 N Long: 78.17070 W Datum: W6584
Subregion (LRR of MLRA):	
Soil Map Unit Name: Lynch Berry Conty Com	
Are climatic / hydrologic conditions on the site typical for this time of	
Are Vegetation, Soil, or Hydrology significant	
Are Vegetation, Soil, or Hydrology naturally p	oroblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Remarks: Yes No Yes No	Is the Sampled Area within a Wetland? Yes No
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required: check all that appl	I
Surface Water (A1)	
High Water Table (A2) Mari Deposits (B	- 1 · · · · · · · · · · · · · · · · · ·
☐ Saturation (A3) ☐ Hydrogen Sulfide ☐ Water Marks (B1) ☐ Oxidized Rhizos	e Odor (C1)
Sediment Deposits (B2) Presence of Rec	
1 ' ' '	luction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	ice (C7) Geomorphic Position (D2)
Iron Deposits (B5)	n Remarks) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
☐ Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	nest NA
Surface Water Present? Yes No X Depth (inch	163/.
Water Table Present? Yes No Depth (inch	
Saturation Present? Yes No _X Depth (includes capillary fringe)	wetland hydrology Present? Tes No
Describe Recorded Data (stream gauge, monitoring well, aerial ph	notos, previous inspections), if available:
Remarks:	
·	
,	
7	•
1	

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

30.20		Dominant		Dominance Test worksheet:
Tree Stratum (Plot size: 30 + 30	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Pinus tueda	40	Y	PAC	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
2. Acer rubrum	25	Ÿ	PAL	
				Total Number of Dominant
3. Queras nigra	75	Ν	PAL	Total Number of Dominant Species Across All Strata: (B)
4				Percent of Dominant Species QQ
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
6				Prevalence Index worksheet:
7				
8				Total % Cover of: Multiply by:
·	0.6			OBL species x 1 =
		= Total Co	ver	
50% of total cover:	20% of	total cover	- 16	FACW species x 2 =
2 3 A	20 /0 0.	total core		FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 3っょ30)		.		
1. Flex opaca	15	7 .	PIAC.	FACU species x 4 =
	10	7	PAC	UPL species x 5 =
2. Morella cerifera			17/1	1
3. Symplaces finctoria	10	7	THE	Column Totals: (A) (B)
4. Acer rubrum	15	<u> </u>	301	į į
4. /\CLI 10010M	139		111	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
				
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				☐ 3 - Prevalence Index is ≤3.0 ¹
	<u> 30</u>	= Total Co	ver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 25	20% 0	f total cove	r: 113	residinate . ij siep i ytte i egetateit (===pitati)
	20/00	TOTAL COVE		
Herb Stratum (Plot size: 30 x 30)				¹ Indicators of hydric soil and wetland hydrology must
1. Sassafras albidum	5	ч	PALU	be present, unless disturbed or problematic.
C li co di di banca	lo			
2. Gaylussacia dumosa	10	. <u> </u>	<u>PAC</u>	Definitions of Four Vegetation Strata:
3			•	
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8	·			Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
12.		-		• [
· .		_ = Total C	over	
50% of total cover:	5 20%	of total cov		
			-·· <u></u> -	·
Woody Vine Stratum (Plot size: 30)	_			
1. Vitis rotundifolia	5	V	PAC	
				• [
1.2				.
	-			1
2		_		
3.	<u> </u>	_		-
l _				
3				
3				- Hydrophytic
3	5	_ = Total C	Gover	Vegetation
3	5	_ = Total C		
3	5 20%			Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation
3	5 20%	_ = Total C		Vegetation

Profile Desc	ription: (Describe	to the depth	needed to docum	nent the	indicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature		 		
(inches)	Color (moist)	45	Color (moist)	<u> </u>	Type ¹	_Loc²	Texture	Remarks
0-5	Z.54 4/1		1		. <u> </u>	<u>~</u>	<u>_S</u> L	
5-10	2,575/2	75 -	7,54R5/8	5	<u> </u>	<u> M</u> _	34	
10-20	2545/3	90	107R'68	10	C	M	g-	
		· — -		· ———				
ļ . — · · · · · · · · · · · · · · · · · · 	•	· — —		· 	. ——			
					· ····			
¹Type: C≃C	oncentration, D=Dep	letion. RM=R	educed Matrix, MS	S=Maske	d Sand Gr	ains.	² Location: PL	=Pore Lining, M=Matrix.
	ndicators: (Applic					•		r Problematic Hydric Soils ³ :
☐ Histosol	• • •		Polyvalue Be			RR S. T. I		ck (A9) (LRR O)
_	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)
Black Hi			Loamy Muck					Vertic (F18) (outside MLRA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gleye	ed Matrix	(F2)		L Piedmont	Floodplain Soils (F19) (LRR P, S, T)
	i Layers (A5)		Depleted Ma					us Bright Loamy Soils (F20)
	Bodies (A6) (LRR P		Redox Dark		•		□ - (MLRA	· · · · · · · · · · · · · · · · · · ·
	icky Mineral (A7) (LI		Depleted Da					ent Material (TF2)
: =	esence (A8) (LRR L	1)	Redox Depre	•	-8)			liow Dark Surface (TF12) (plain in Remarks)
I	ick (A9) (LRR P, T) d Below Dark Surfac	(Δ11) م	☐ Marl (F10) (L☐ Depleted Oc	-	/MIRA 1	51)	Other (Ex	cpiairi ir Remarks)
	ark Surface (A12)	C (731 1)	iron-Mangan			•	T) ³ Indicate	ors of hydrophytic vegetation and
	rairie Redox (A16) (I	MLRA 150A)						nd hydrology must be present,
	lucky Mineral (S1) (Delta Ochric					s disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 1	50A, 150B	3)	·
	Redox (S5)		Piedmont Flo	oodplain	Soils (F19)	(MLRA 1	49A)	
	Matrix (\$6)		Anomalous !	Bright Loa	amy Soils	(F20) (ML I	RA 149A, 153C, 1	53D)
	rface (S7) (LRR P,							
*	Layer (if observed)	:						
Type:			<u> </u>					
Depth (in	ches):						Hydric Soil Pi	resent? Yes_X_ No
Remarks:								
								İ
ļ								
1								



Upland data point wjoo004_u facing north.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: SERP City/County: JOhn Ston State: NC Sampling Point: Wip 022f-W Applicant/Owner: Dominion Investigator(s): EST-J. Harbour, K. Murphrey Section. Township, Range: NA Landform (hillslope, terrace, etc.): FINT Subregion (LRR or MLRA): LRR (NWI classification: PFC Soil Map Unit Name: Rains Sandy (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: **HYDROLOGY** Secondary Indicators (minimum of two required) Wetland Hydrology Indicators: Surface Soil Cracks (B6) Primary Indicators (minimum of one is required; check all that apply) Sparsely Vegetated Concave Surface (B8) ☐ Aquatic Fauna (B13) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Water Marks (B1) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Sediment Deposits (B2) Saturation Visible on Aerial imagery (C9) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Geomorphic Position (D2) Thin Muck Surface (C7) Algal Mat or Crust (B4) Other (Explain in Remarks) Shallow Aquitard (D3) ☐ Iron Deposits (B5) FAC-Neutral Test (D5) puńdation Visible on Aerial Imagery (B7) Sphagnum moss (D8) (LRR T, U) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Depth (inches): 10 Water Table Present? Wetland Hydrology Present? Yes Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

				\sim	$\Lambda \Lambda$	Λ.	1
Samolina	Point:	W	0	Pυ	٨٨	⊤ -	W

Stratum (Plot size: 20X3)) Pinas Jacka Ligaidambar Strataristas	Absolute % Cover 20 10	Species?	Status FAC	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: (A)
Pinus taeta Liquidambar Sturaristua	_ <u>20</u> .	<u> </u>	FAL	
Liquidambor Stateristus		1/	1- 1	mar Are Obc. FACVV, or FACV
		1.7	ا بیسد	
			FAC	Total Number of Dominant
		,	`	Total Number of Dominant Species Across All Strata: (B)
				Species Across Air Strate.
				Percent of Dominant Species (50)
				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
·				THE ALE ODE, I NOVI, OF I NO.
				Prevalence Index worksheet:
				1
				Total % Cover of: Multiply by:
				OBL species x1 =
		= Total Co		The state of the s
50% of total cover:	20% of	f total cover	r: Φ	FACW species x 2 =
				FAC species x 3 =
pling/Shrub Stratum (Plot size:)	Les	.	-A	FACU species x4 =
Liquidambor Sturaciatus	(O	<u> </u>	FIL	l '
V -		,		UPL species x 5 =
				Column Totals: (A) (B)
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
			_	2 - Dominance Test is >50%
		 		-
	(()	_ = Total C	over	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:				TI I toblematic rivotophytic vegetation (expression
50% of total cover:	20% (oi totai cov	ei. <u>–</u>	- }
erb Stratum (Plot size:)	,			Indicators of hydric soil and wetland hydrology must
Woodwardia areolata	. 5	¥	FACW	be present, unless disturbed or problematic.
V 1 V		- 😽		= 1 == f: === : · · · ·
. Woodwardia virginico	<u> </u>		FACW	Definitions of Four Vegetation Strata:
•		,		m / / / / / / / / / / / / / / / / /
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
·				more in diameter at breast height (DBH), regardless of
				height.
				Call and the table of the state
),				Sapling/Shrub – Woody plants, excluding vines, less
·				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
3.				
•				at aire and we adventage to so those 2.79 ft tall
)				of size, and woody plants less than 5.26 it tail.
10				- Woody vine - All woody vines greater than 3.28 ft in
10				- Woody vine - All woody vines greater than 5.20 it in
11				\ height.
12				
1 001	<u> </u>	= Total	Cours	
	~ / /			
50% of total cover:	<u>5,></u> 20%	% of total co	over: <u>いけ</u>	·
-				ì
Woody Vine Stratum (Plot size:)	1	1 1	F. 7	-
1. Smilax (Otundifolia	ر ا		<u> [~A (</u>	<u>-</u>
		1		
2				
3				<u> </u>
4.				ì
				
5				Hydrophytic
	11	= Tota	al Cover	Vegetation
	 سے		cover: 2	Present? Yes No
50% of total cover:		18303 TO ove	cover:	
	no boloud			
	ns uciowi			
Remarks: (If observed, list morphological adaptatio	ins below).			
	ins below).			•
	itis below).			•
	ilis Delow).			•
	nis Delow).			•
	ins delow).			•

Profile Desc	ription: (Describe t	o the depth	needed to docum	ent the i	ndicator o	or confirm	the absence of	indicators.)
Depth	Matrix		Redox	Features	3			
(inches)	Color (moist)	<u>%</u>	Color_(moist)	%	_Type	Loc2	Texture _	Remarks
<u>0-6</u>	104R2/1	(Q) -	10 0/11/			·		
6-8	104R4/1	95	104R4/6	<u> </u>		170	<u>SL</u>	
8-204	106RH1	90_	106RSH	<u>'()</u>	<u> </u>	<u></u>	<u>SL_</u>	
	7		ç.					
			<u> </u>		. ——			
-								
							2	N. Destricted M. Markey
'Type: C=C	oncentration, D=Der	etion, RM≃	Reduced Matrix, MS	wise not	o Sano Gr ted I	ains.		PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ :
		able to all	Polyvalue Be			RRSTI		uck (A9) (LRR O)
☐ Histoso	pipedon (A2)		Thin Dark Su					uck (A10) (LRR S)
	listic (A3)		Loamy Muck					d Vertic (F18) (outside MLRA 150A,B)
=	en Sulfide (A4)		Loamy Gleye		(F2)			int Floodplain Soils (F19) (LRR P, S, T)
	ed Layers (A5)		Depleted Ma					lous Bright Loamy Soils (F20)
	c Bodies (A6) (LRR I		Redox Dark					.A 153B) rrent Material (TF2)
=	lucky Mineral (A7) (L		Depleted Da Redox Depre					hallow Dark Surface (TF12)
==	Presence (A8) (LRR Nuck (A9) (LRR P, T)	-	Marl (F10) (I		, 0,			Explain in Remarks)
	ed Below Dark Surfa		☐ Depleted Oc) (MLRA	151)		· ·
=	Dark Surface (A12)		Iron-Mangar	nese Mas	sses (F12)	(LRR O, P		ators of hydrophytic vegetation and
Coast	Prairie Redox (A16)	(MLRA 150						land hydrology must be present,
==	Mucky Mineral (S1)	(LRR O, S)						ess disturbed or problematic.
=	Gleyed Matrix (S4)		Reduced Ve					
	r Redox (S5) ed Matrix (S6)		7	•			RA 149A, 153C	:. 153D)
	Surface (S7) (LRR P.	. S. T. U)		5g/	,	(/ (, ,
	e Layer (if observed					·		
Туре: _							}	V
Depth	(inches):						Hydric Soil	Present? Yes No
Remarks:			· • - · ·					
i								
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1								
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ļ								
1								
	4							
					•			
i								
								•
}								



Wetland data point wjop022f_w facing southwest.

Project/Site: SERP	City	//County: JOhnsto	70	Sampling Date:	6/16/14
Applicant/Owner: DOMINIO			State: NC	Sampling Point: W	00032-i
nvestigator(s): FST-J. Harbour,	K. Murphrey se	ction. Township, Range:	NA		
	1			Slope (%): <u>()-7</u>
Subregion (LRR or MLRA):RRP	Lat: 35, 6	cal relief (concave, convex Long:	-78.175	50 Datum:	W6584
Soil Map Unit Name: Rains Sond	, Idam	<u> </u>	NWI classif		
Are climatic / hydrologic conditions on the site t	voicel for this time of year	Yes No			
Are Vegetation, Soil, or Hydrolo		sturbed? Are "Norm	al Circumstances		No
Are Vegetation, Soil, or Hydrold			, explain any ansv		
SUMMARY OF FINDINGS - Attach					ıres, etc.
,					
Hydric Soil Present? Yes	No No	is the Sampled Area		No	_
Wetland Hydrology Present? Yes	No No No No	within a Wetland?	Yes	NO	
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:			_	dicators (minimum of tw	o required)
Primary Indicators (minimum of one is required			T ==	Soil Cracks (B6)	-fana (B0)
Surface Water (A1)	Aquatic Fauna (B13			Vegetated Concave Su	inace (B8)
High Water Table (A2)	Marl Deposits (B15) Hydrogen Sulfide O			Patterns (B10) m Lines (B16)	
Saturation (A3) Water Marks (B1)		eres along Living Roots (C		son Water Table (C2)	
Sediment Deposits (B2)	Presence of Reduc			Burrows (C8)	
Drift Deposits (B3)	Recent Iron Reduct	ion in Tilled Soils (C6)	☐ Saturation	on Visible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface	(C7)	Geomor	phic Position (D2)	
Iron Deposits (B5)	U Other (Explain in R	emarks)		Aquitard (D3)	
Inundation Visible on Aerial Imagery (E	37)		=	utral Test (D5)	111
Water-Stained Leaves (B9)			Spnagn	um moss (D8) (LRR T,	
Field Observations:	No Depth (inches	NA			
Surface Water Present? Yes	No Depth (inches	72011			_
Water Table Present? Yes Saturation Present? Yes		720'1 Wetla	and Hydrology P	resent? Yes	No L
(includes canillary fringe)					
Describe Recorded Data (stream gauge, n	nonitoring well, aenal phot	os, previous inspections),	if available:		
Remarks:	<u> </u>				
	•				
}			•		
					. '
	<u></u>				

ETATION (Four Strata) – Use scientific	Absolute	Dominant		Sampling Point: Wjop 027 Dominance Test worksheet:
Stratum (Plot size: 3)(X30)		Species?		Number of Dominant Species 7
incis toxeda	<u> </u>		FAC	That Are OBL, FACW, or FAC:(A)
				Total Number of Dominant
				Species Across Ali Strata: (B)
				
				Percent of Dominant Species \$7.5 (A/B)
				That Are OBL, FACW, or FAC: (A/B)
				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
	15	= Total Co	ver	OBL species x 1 =
50% of total cover; _	7.5	f total cove	r 3	FACW species x 2 =
ling/Shrub Stratum (Plot size: 30 X 30)	<u>,,</u>		· ·	FAC species x 3 =
ling/Shrub Stratum (Plot size: XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX) 10	V	FAC	FACU species x 4 =
igustium sinenst		- 		UPL species x 5 =
Middenden functifue			FACU	Column Totals: (A) (B)
iquidomoor Styrocist	610x 10		FAC	Column Totals: (A)(5)
				Prevalence Index = B/A =
				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
				3 - Prevalence Index is ≤3.01
	<u> 25</u>	_ = Total C	over	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	12.5 20%	of total cov	ет: <u> </u>	
rb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
RUDINS AVOCATOR	5	У	FA(be present, unless disturbed or problematic.
WALES STORY		— - ; ; -	FAC	Definitions of Four Vegetation Strata:
Microstegium Vimen.	<u> </u>	- - '/	_ 1	Definitions of Four Vegetation Strata:
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o
				more in diameter at breast height (DBH), regardless of
				height.
				Sapling/Shrub - Woody plants, excluding vines, less
				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
				- }
				 Herb – All herbaceous (non-woody) plants, regardles
				of size, and woody plants less than 3.28 ft tall.
)				 Woody vine - All woody vines greater than 3.28 ft in
1				height.
2.		= Total	Cover	
	_		- 1	
50% of total cove	r: 20	% of total co	over:	_
Voody Vine Stratum (Plot size:	-) ^	<i>Z</i>		
SMILON (Otand: FOIL)	<u> </u>	<u>,> </u>	- FAC	·
VITES YOTUNDIBULIE	<u> </u>	\	FAC	
		 /		-
				-
ł				-
5				— Hydrophytic
		<u>, 5 = Tota</u>	al Cover	Vegetation
50% of total cove			cover: _ [,	S Present? Yes No No No No No No No No No No No No No
		- / (-
Remarks: (If observed, list morphological adapta	itions below).			

Profile Description: (Describe to the depth	Heeded to document the indicator of committee	ie absence of marcarors.
Depth Matrix	Redox Features	}
(inches) Color (moist) %	Color (moist) % Type ³ Loc ²	Texture Remarks
0-2 104R2/2100		36
2-10 104R4/2 100_		F5
10-20 104R5/2 100		=<
10 20 30 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		
Ì		
¹ Type: C=Concentration, D=Depletion, RM=	Reduced Matrix MS=Masked Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all I	RRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1)	Polyvalue Below Surface (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epipedon (A2)	Thin Dark Surface (S9) (LRR S, T, U)	2 cm Muck (A10) (LRR S)
Black Histic (A3)	Loamy Mucky Mineral (F1) (LRR O)	Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5)	Depleted Matrix (F3)	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U)	Redox Dark Surface (F6)	(MLRA 153B) Red Parent Material (TF2)
5 cm Mucky Mineral (A7) (LRR P, T, U)	Depleted Dark Surface (F7) Redox Depressions (F8)	Very Shallow Dark Surface (TF12)
Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T)	Mari (F10) (LRR U)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Ochric (F11) (MLRA 151)	
Thick Dark Surface (A12)	Iron-Manganese Masses (F12) (LRR O, P,	T) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150		wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17) (MLRA 151)	unless disturbed or problematic.
Sandy Gleyed Matrix (S4)	Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 14	
Stripped Matrix (S6)	Anomalous Bright Loamy Soils (F20) (MLR	(A 149A, 153C, 153D)
Dark Surface (S7) (LRR P, S, T, U)		
- · · · · · · · · · · · · · · · · · · ·		
Restrictive Layer (if observed):		
Type:		Hudrin Sail Brosant? Vos No.
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No
Type:		Hydric Soil Present? Yes No
Type: Depth (inches):		Hydric Soil Present? Yes No



Upland data point wjop022_u facing northeast.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region Project/Site: 5ERP Sampling Point: W10 P 02 D f - W Applicant/Owner: DOMINION Investigator(s): FSI-J. Harbour, K, Murphrey Section. Township, Range: NA Local relief (concave, convex, none): None Landform (hillslope, terrace, etc.): FIA+ Subregion (LRR or MLRA): LRRP Soil Map Unit Name: Kains Sandy Are climatic / hydrologic conditions on the site typical for this time of year? Yes 💆 (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: **HYDROLOGY** Secondary Indicators (minimum of two required) Wetland Hydrology Indicators: Surface Soil Cracks (B6) Primary Indicators (minimum of one is required: check all that apply) Sparsely Vegetated Concave Surface (B8) Aquatic Fauna (B13) → Surface Water (A1) Drainage Patterns (B10) Marl Deposits (B15) (LRR U) High Water Table (A2) Saturation (A3) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Water Marks (B1) Presence of Reduced Iron (C4) Crayfish Burrows (C8) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) 🔟 Drift Deposits (B3) Thin Muck Surface (C7) Geomorphic Position (D2) Algal Mat or Crust (B4) Shallow Aquitard (D3) Other (Explain in Remarks) Iron Deposits (B5) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Sphagnum moss (D8) (LRR T, U) Water-Stained Leaves (B9) Field Observations: Depth (inches): NA Surface Water Present? Depth (inches): Water Table Present? Wetland Hydrology Present? Yes Depth (inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Sampling Point: Wiop 020 f-W

2312-11	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30'×30')	% Cover	Species?		Number of Dominant Species
Pinus taeda	<u> </u>		FAC	That Are OBL, FACW, or FAC:(A)
Acer worum	- 12-		FAC	Total Number of Dominant
3				Species Across All Strata: (B)
l				Percent of Dominant Species 1/17
S				That Are OBL, FACW, or FAC: (A/B)
ò.				
,				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
	<u>35</u>	= Total Co	ver _	OBL species x 1 =
50% of total cover:	7.5 20% 0	of total cove	er: <u> </u>	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: $30' \times 30'$)	/			FAC species × 3 =
Acer rubrum	15	V	FAC	FACU species x 4 =
Liquidombar Autocitice	70	- - //	FAC	UPL species x 5 =
a Nyssa sylvatica		<u> </u>	FAC	Column Totals: (A) (B)
tlex craco	- 	- \(\)	FAC	- \
				Prevalence Index = B/A =
5				- Hydrophytic Vegetation Indicators:
6				Rapid Test for Hydrophytic Vegetation
7				- │ 🢆 2 - Dominance Test is >50%
8	2 IX			 I 3 - Prevalence Index is ≤3.0¹
	<u> </u>	_ = Total C	Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20%	of total cov	rer: <u>6, 0</u>	<u></u>
Herb Stratum (Plot size: 301x301)				¹ Indicators of hydric soil and wetland hydrology must
1 Allandinavio aidontes	<u> </u>		_ FAC	be present, unless disturbed or problematic.
2 Woodwardia Trivainica	<u>a 5</u>	<u> </u>	<u> OBL</u>	Definitions of Four Vegetation Strata:
3		,		The late the standard excluding times 2 in /7 6 cm) of
4				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5				height.
6				in a more relative month of the state of the
7			 	_ \
8				Herb – All herbaceous (non-woody) plants, regardless
9		-		
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
·	<u> </u>	= Tota	Cover	
50% of total cover:	11 20	% of total c	over: H	
Woody Vine Stratum (Plot size: 30 ×301)		2		
1. Smilax votundiscio	,	/ <	/ FK	C
			<u> </u>	
2.				
3				
4				
5				— Hydrophytic
			al Cover	Vegetation
50% of total cover:	3,5_2	0% of total	cover: 🚺	Present? Yes No
Remarks: (If observed, list morphological adaptation				
			سر . م	
Sphognum	M_0S	S P	resec)+
7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7				
ļ				

Profile Desc	ription: (Describe	to the dep	h needed to docum	nent the	indicator	or confire	n the absence of i	indicators.)	ļ
Depth	Matrix		Redo	x Feature	es				
(inches)	Color (moist)	%	Color (moist)	%	Type Type	Loc ²	Texture	Remai	<u>ks</u>
O-4_	104R3/1	100			_		SiHL_		
4-24	104RS/1	95	104R5/6	5	(PL	SL		
1 012:	1 John Carlot		100/10/0						
				-					
					. —.				
					-		- ,		
									
¹Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, M	S=Maske	ed Sand G	rains.		L=Pore Lining, M=	
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	erwise no	oted.)			r Problematic Hy	dric Soils":
☐ Histoso	(A1)		Polyvalue B	elow Sur	face (S8) (LRR S, T	· —	ck (A9) (LRR O)	
Histic E	pipedon (A2)		Thin Dark S					ck (A10) (LRR S)	
	listic (A3)		Loamy Muc			R 0)			side MLRA 150A,B)
☐ Hydrog	en Sulfide (A4)		Loemy Gley						(F19) (LRR P, S, T)
	ed Layers (A5)		Depleted M					ous Bright Loamy S	Soils (F20)
	c Bodies (A6) (LRR		Redox Darl		` '			4 153B)	
	lucky Mineral (A7) (1				• •			ent Material (TF2)	
	Presence (A8) (LRR	•	Redox Dep		(⊢8)			allow Dark Surface	
	luck (A9) (LRR P, T		Marl (F10)	-	A AE 51	d = d\	Uther (E	explain in Remarks	5)
_	ed Below Dark Surfa	ace (A11)	Depleted C			-	D = 31 - 21 - 2	f broken whi die	a vonetation and
==	Dark Surface (A12)		Iron-Manga					tors of hydrophytic	
=	Prairie Redox (A16)					-		and hydrology mus ss disturbed or pro	
	Mucky Mineral (S1)							ss distained of pic	DUCITIANO.
=	Gleyed Matrix (S4)		Reduced \						
	Redox (S5)		Piedmont				(149A) MLRA 149A, 153C,	153D)	
_	ed Matrix (S6)	. C T 11\	Anomaiou	S DIIGIR L	oamy Son	\$ (FZU) (IV	MERA 148A, 1550,	1330)	
	Surface (S7) (LRR F e Layer (if observe		· -						
		u).					Ì		
Type:							1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	D	No
Depth	(inches):	·					Hydric Soil	Present? Yes	
Remarks:									
ļ									
ļ									
l									
			•						
1								•	
}									
1									
1									
1									



Wetland data point wjop020f_w facing southwest.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region State: NC Sampling Point: wjop 020-C Project/Site: 5ERP city/county: Johnston Applicant/Owner: Dominion Investigator(s): ESI-J. Harbour, K. Murphrey Section. Township, Range: NA Landform (hillslope, terrace, etc.): + W+ Subregion (LRR or MLRA): LORP Soil Map Unit Name: RainS (If no, explain in Remarks.) Are climatic / hydrologic conditions on the site typical for this time of year? Yes Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? is the Sampled Area Hydric Soil Present? within a Wetland? Wetland Hydrology Present? Remarks: HYDROLOGY Secondary Indicators (minimum of two required) Wetland Hydrology Indicators: Surface Soil Cracks (B6) Primary Indicators (minimum of one is required; check all that apply) Sparsely Vegetated Concave Surface (B8) Aquatic Fauna (B13) Surface Water (A1) Marl Deposits (B15) (LRR U) Drainage Patterns (B10) High Water Table (A2) Hydrogen Sulfide Odor (C1) Moss Trim Lines (B16) Saturation (A3) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Water Marks (B1) Crayfish Burrows (C8) Presence of Reduced Iron (C4) Sediment Deposits (B2) Saturation Visible on Aerial Imagery (C9) Recent iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Geomorphic Position (D2) Thin Muck Surface (C7) Algal Mat or Crust (B4) Shallow Aquitard (D3) Other (Explain in Remarks) ☐ Iron Deposits (B5) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Sphagnum moss (D8) (LRR T, U) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Wetland Hydrology Present? Yes _ Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:

Sampling Point: WOD 020_U

	Absolute	Dominant	Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30'X30')		Species?		Number of Dominant Species
pinus taeda	20	V	FAC	That Are OBL, FACW, or FAC: (A)
A cold ((dot) of)		-	FAC	4
ACPY YUNGUM			<u> </u>	Total Number of Dominant
				Species Across All Strata: (B)
	_			15.3
				Percent of Dominant Species That Are ORL FACW or FAC: (A) 9 (A/B)
				That Are OBL, FACW, or FAC:
				Duratana Indoorwerkshoot
				Prevalence Index worksheet:
				Total % Cover of:Multiply by:
				OBL species x 1 =
	<u> </u>	= Total Co	over	FACW species x 2 =
50% of total cover:	1 20% c	of total cove	er: _ _6	1 1
apling/Shrub Stratum (Plot size: 30 X301	1			FAC species x 3 =
Arcold Character (Flot size. 3- 1135	' i<	V	FAC	FACU species x 4 =
Acer rubram	15	- - /		
Liquidambor Sturaci	8160 5		FAC	- I
TIPY OPACA	~	\\ / <i>I</i>	FAC	Column Totals: (A) (B)
 \		1		
		- —		Prevalence Index = B/A =
•				- Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
				- │ M 2 - Dominance Test is >50%
·				3 - Prevalence Index is ≤3.0 ¹
	25	= Total (Cover	Problematic Hydrophytic Vegetation (Explain)
50% of total cover:	12.5 200/	eficial co	_{vor:} <	
2 1 1 (C) 1	2070	or total co	vci	-
Herb Stratum (Plot size: 30 × 30%)		1.7	6 4	Indicators of hydric soil and wetland hydrology must
1. Alundicatia gigante	8 >	7	FAC	be present, unless disturbed or problematic.
				Definitions of Four Vegetation Strata:
Z				_ Definitions of Four Fogotation Parent
3				 Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
				height.
5				
6				Sapling/Shrub - Woody plants, excluding vines, less
7,				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
				1
8				to the state of th
9				of size, and woody plants less than 3.20 it tall.
10.				Woody vine - All woody vines greater than 3.28 ft in
				height.
11				theight.
12				
	5	= Tota	al Cover	
	215	% of total of		
50% of total cove	20	% of total o	cover:i	 }
Woody Vine Stratum (Plot size: 30 X30	<u>'</u> ')			\frac{1}{2}
1 SMILAX rotundifolio	<	` \/	FA	C
			7 TEA	-
2. VIXIX VOTUM FOLIA		<u> </u>	<u> </u>	<u>~</u>
3.		,		
4				 }
5				— Hydrophytic
	1	() = To	tal Cover	Vegetation
			_	Present? Yes No
50% of total cov	/er: 2	0% of total	l cover:	<u> </u>
Remarks: (If observed, list morphological adapt	ations helow)			
Tremains. (ii observed, not morphological double				
	,			
}				
}				
\				
İ				

epth	Matrix			Features			e absence of ir	,	
nches)	Color (moist)		Color (moist)		Type	_Loc² _	Texture	Remarks	
<u>-4</u>	10UR3/1	100					<u> 5L</u>		
r-20	10 VR5/2	100					<u> </u>		
	i				· 			· · · · · · · · · · · · · · · · · · ·	
	 								
									
									
/pe: C≖C	oncentration, D=Der	oletion, RM=F	Reduced Matrix, MS	S=Maske	d Sand Gr	ains.		=Pore Lining, M=Matrix.	
dric Soil	Indicators: (Applic	cable to all L						Problematic Hydric Soils ³ :	i
Histoso			Polyvalue Be					k (A9) (LRR O)	
t .	pipedon (A2)		Thin Dark St					k (A10) (LRR S)	4504 D\
•	istic (A3)		Loamy Muck			R O)		Vertic (F18) (<mark>outside MLRA</mark> Floodplain Soils (F19) (LRR	
	en Sulfide (A4)		Loamy Gleye Depleted Ma		(174)		-T-1	us Bright Loamy Soils (F20)	F, 3, 1)
	d Layers (A5) Bodies (A6) (LRR I	P T II)	Redox Dark		(F6)		(MLRA		
	ucky Mineral (A7) (L		Depleted Da					nt Material (TF2)	
í	resence (A8) (LRR		Redox Depr					llow Dark Surface (TF12)	
•	iuck (A9) (LRR P, T)		Marl (F10) (LRR U)			Other (E)	rplain in Remarks)	
	ed Below Dark Surfa	ice (A11)	Depleted Or				2		
=	Park Surface (A12)		=			(LRR O, P,		ors of hydrophytic vegetation	
₹	Prairie Redox (A16)							nd hydrology must be presen	π,
=	Mucky Mineral (S1)	(LRR 0, S)	Delta Ochrid) 50A, 150B)	unies	s disturbed or problematic.	
	Gleyed Matrix (S4) Redox (S5)		· —) (MLRA 14:	(Ae		
_	ed Matrix (S6)						o., A 149A, 153C, 1	153D)	
	Surface (S7) (LRR P	, S, T, U)		J .	•	,	, ,	•	
	Layer (if observe						1		
Type:_							Ì		
Depth (inches):						Hydric Soil F	resent? Yes N	°
emarks:							1		
						_			
								•	



Upland data point wjop020_u facing northeast.

ject/Site: SERP	City/County:	nhston s	ampling Date: <u>8/2<i>0</i>/14</u>
olicant/Owner: Dom WillOM		State: 	ampling Point: Wjop 021f_
estigator(s): ESI J. Harbour, L. Rope	Section, Township, R	tange: NA	
dform (hillslope, terrace, etc.):	Local relief (concave	. convex, none): Lon(a)	Slope (%): <u>U-Z'/.</u>
region (LRR or MLRA): L (at: 35.60914	Long: <u>-73.\78</u>	Datum: W658
Map Unit Name: Toisnot lown, 1	2-21, slopes	NWI classificati	on: <u>PFO</u>
climatic / hydrologic conditions on the site typical for this			
Vegetation, Soil, or Hydrologys			sent? Yes No
Vegetation, Soil, or Hydrology r		needed, explain any answers	
MMARY OF FINDINGS - Attach site map			•
ydrophytic Vegetation Present? YesN	lo is the Samp		
ydric Soil Present? Yes	— I within a wei	land? Yes	No
/etland Hydrology Present? YesN emarks:	10		· · · · · · · · · · · · · · · · · · ·
/DROLOGY			
		Secondary Indicat	ors (minimum of two required)
letland Hydrology Indicators: rimary Indicators (minimum of one is required; check al	that annly)	Surface Soil C	
- ·	c Fauna (B13)		etated Concave Surface (B8)
-	eposits (B15) (LRR U)	Drainage Pati	
	gen Sulfide Odor (C1)	Moss Trim Lir	nes (B16)
₹ ``′	ed Rhizospheres along Living R	<u></u>	Vater Table (C2)
	nce of Reduced Iron (C4)	Crayfish Burr	
	nt Iron Reduction in Tilled Soils (Muck Surface (C7)	Geomorphic	sible on Aerial Imagery (C9) Position (D2)
	(Explain in Remarks)	Shallow Aqui	
Inundation Visible on Aerial Imagery (B7)	, ,	FAC-Neutral	Test (D5)
Water-Stained Leaves (B9)		Sphagnum n	noss (D8) (LRR T, U)
Field Observations:	NA		
	Depth (inches): NF		
		Wetland Hydrology Preser	nt? Yes No
(includes capillary fringe)	·	<u></u>	it. 163 (7)
Describe Recorded Data (stream gauge, monitoring we	ll, aerial photos, previous inspe	ctions), if available:	
Remarks:			
portions of welling	invadated		
1			
			uer =

EGETATION (Four Strata) - Ose scientific ha	anes of plants.	Sampling Forte. 41
	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u> </u>	% Cover Species? Status	Number of Dominant Species
1. Iquerous nigra	15 7 PO	That Are OBL, FACW, or FAC: (A)
2 Pinos treca	16 1 YHO	Total Number of Dominant
3. Alex nohum	is y pac	Species Across Ali Strata: (B)
Ligariamber stypicitles	10 N FAC	
12 *		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: 160 (A/B)
3		Prevalence Index worksheet:
7		
3.		Total % Cover of:Multiply by:
	55 = Total Cover	OBL species x1 =
2001 - 51-4-1 2	1 20% of total cover:	FACW species x 2 =
	20% of total cover	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30 K30)	tale to make	FACU species x 4 =
1. QUENUS night	10 1 PAC	i ·
2 Alex mileran	IV T PHO	UPL species x 5 =
3. Lipuldentour styruiche	a 5 Y PAC	Column Totals: (A) (B)
<i>U</i>		
4		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
6		Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.01
<u> </u>	= Total Cover	
\	25 20% of total cover: 5	Problematic Hydrophytic Vegetation ¹ (Explain)
	20% of total cover:	•
Herb Stratum (Plot size: 30x30_)	con en	Indicators of hydric soil and wetland hydrology must
1. Woodwardia arcolato	10 Y PACU	be present, unless disturbed or problematic.
2. Parathelyptoris novebocaren	sisto y fac	Definitions of Four Vegetation Strata:
	, — — — — — — — — — — — — — — — — — — —	Į.
3		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of height.
5		- Height,
6		_ Sapling/Shrub - Woody plants, excluding vines, less
7		then 2 in DDU and greater than 3.28 ft (1 m) tall
8		of size and woody planta loss than 2.29 ft tall
9		of size, and woody plants less than 3.20 it tail.
10		Woody vine - All woody vines greater than 3.28 ft in
11		_ height.
12	 :	
12.	20 = Total Cover	
50% of total cover:	10 20% of total cover: 4	- Ì
Woody Vine Stratum (Plot size: 39 x 30)	_	
1 Viha notundatolia	15 Y PAC	,
a Smalley moderal planting	15 Y CM	.
2. STANIAL YOUNGETON		
3. Toxicodending modizans		
4		
5.		- Hydrophytic
0	40 = Total Cover	Vegetation
		Present? Yes No
50% of total cover:	$\overline{ u}$ 20% of total cover: $\underline{8}$	
Remarks: (If observed, list morphological adaptations	s below).	
Tromano. (ii obodired, iid melpidegear adapter	,	
1		
1		

Profile Desc	ription: (Describe t	to the depth n	eeded to docun	nent the indica	tor or confirm	the absence of	indicators.)
Depth	Matrix (Color (moint)	<u> </u>	Redo:	x Features 	e¹ Loc²	Texture	Remarks
(inches)	Color (moist)	185 TO	10 4/1	<u> </u>	<u>Ψ 100</u>	LS -	ronding
<u> </u>	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	<u>ا س ال</u> 11	NR W.	10 0	M	<u>LS</u>	
5-10	1070 312	45 1	DYR The	- Com	= W	15	
	+10144	190 Tr	JY'L 3/1	<u> </u>	M	12 -	
10- 20	, 10 14 11	10 10	112 10				
·		· 					
			 -				
¹Type: C=C	oncentration, D=Dep	letion RM=Re	duced Matrix M	S=Masked San	d Grains.	² Location: F	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	rwise noted.)		Indicators fo	or Problematic Hydric Soils ³ :
Histoso			·	elow Surface (S			uck (A9) (LRR O)
Transit	pipedon (A2)		TE	urface (S9) (LR ky Mineral (F1)	•		uck (A10) (LRR S) d Vertic (F18) (outside MLRA 150A,B)
_	listic (A3) en Sulfide (A4)		=	ed Matrix (F2)	(LIXIX O)		nt Floodplain Soils (F19) (LRR P, S, T)
	ed Layers (A5)	,	Depleted Ma	atrix (F3)			ous Bright Loamy Soils (F20)
_	Bodies (A6) (LRR F			: Surface (F6)			A 153B) rent Material (TF2)
1 ==	lucky Mineral (A7) (L Presence (A8) (LRR l			ark Surface (F7) ressions (F8)			nallow Dark Surface (TF12)
1 cm M	luck (A9) (LRR P, T)		Mari (F10) ((LRR U)			Explain in Remarks)
· ·	ed Below Dark Surfac	ce (A11)		chric (F11) (ML nese Masses (F		T) ³ Indice	ators of hydrophytic vegetation and
	Dark Surface (A12) Prairie Redox (A16) ((MLRA 150A)		face (F13) (LRF	• •		and hydrology must be present,
Sandy	Mucky Mineral (S1)		Delta Ochri	ic (F17) (MLRA	151)		ess disturbed or problematic.
	Gleyed Matrix (S4)		=	'ertic (F18) (MLI Floodplain Soils			
T 7	Redox (S5) ed Matrix (S6)					.RA 149A, 153C,	, 153D)
	Surface (S7) (LRR P,	S, T, U)					
Restrictive	e Layer (if observed	i):					
Type:						Livedria Cail	Present? Yes No
Remarks:	inches):					Hydric Soil	Fresent! Tes V
Remarks:							
		_					_
	•						
ļ							
,							
1							



Wetland data point wjop021f_w facing southwest.

Project/Site: SER P	City/County:	hnston	Sampling Date: <u>8/20/14</u>
Applicant/Owner: Dominion		State: _	Sampling Point: WJOP 021-4
nvestigator(s): EST J. Hurbour, L. A	Section, Township, F	Range: NA	
Landform (hillslope, terrace, etc.): +la+	Local relief (concave	convex none): (A\(\alpha\)	Ul Slope (%): 0-7%
	35,609177	100g: -78 179	Datum: WGSBY
		NWI classific	
Soil Map Unit Name: Toisnat loam, O-			
Are climatic / hydrologic conditions on the site typical for this	·	(If no, explain in Re	
Are Vegetation, Soil, or Hydrologys	• ,	re "Normal Circumstances" p	
Are Vegetation, Soil, or Hydrology r	aturally problematic? (If	needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling poin	t locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes N	O Is the Samp	lad Ausa	
Hydric Soil Present? Yes N	i is the samp		No.
	o	uand: res	
Remarks:	 -		
INVERSION OF THE PROPERTY OF T			
HYDROLOGY		0	-t (minimum of two conviced)
Wetland Hydrology Indicators:	1144-1-A	_	ators (minimum of two required)
Primary Indicators (minimum of one is required: check al		_	l Cracks (B6) egetated Concave Surface (B8)
1 	c Fauna (B13) eposits (B15) (LRR U)		atterns (B10)
1 	gen Sulfide Odor (C1)		Lines (B16)
A New Control of the	ed Rhizospheres along Living F		n Water Table (C2)
1 	nce of Reduced Iron (C4)	🔲 Crayfish Bı	urrows (C8)
Drift Deposits (B3)	t Iron Reduction in Tilled Soils	` ′	Visible on Aerial Imagery (C9)
	fluck Surface (C7)		ic Position (D2)
 	(Explain in Remarks)		quitard (D3) al Test (D5)
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)		=	n moss (D8) (LRR T, U)
Field Observations:	- 10	<u></u> opg	,
. /	Depth (inches):		
Water Table Present? Yes No [Depth (inches): >20		
Saturation Present? Yes No I (includes capillary fringe)	·	Wetland Hydrology Pres	sent? Yes No
Describe Recorded Data (stream gauge, monitoring we	ll, aerial photos, previous inspe	ctions), if available:	
Remarks:			
	•		
•			
}			
}			

Sampling Point: Wjop 021 _ u

GETATION (Four Strata) - Ose scientific	Absolute Dominant Indicator	Dominance Test worksheet:
ree Stratum (Plot size: 30 K30)	% Cover Species? Status	Number of Dominant Species
Pinus trueda		That Are OBL, FACW, or FAC:(A)
Carya illinoinensis	10 Y FACU	Total Number of Dominant
		Species Across Ali Strata: (B)
	•	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
		That Ale OBL, FACTV, of FAC.
		Prevalence Index worksheet:
	= Total Cover	OBL species x 1 =
5000 of total account	7,5 20% of total cover: _3	FACW species x 2 =
50% of total cover:	713 20% of total cover.	FAC species x 3 =
apling/Shrub Stratum (Plot size: 20x 3)	· • · · · · · · · · · · · · · · · · · ·	
Carya illinoinensis	15 Y FACU	·
Pinks tapda	S Y FAC	UPL species x 5 =
		Column Totals: (A) (B)
		·]
		Prevalence Index = B/A =
		Hydrophytic Vegetation Indicators:
		- Rapid Test for Hydrophytic Vegetation
·		,
		- <u> </u> 3 - Prevalence Index is ≤3.0¹
	26 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	1 0 20% of total cover: 4	
5 5 3		more in diameter at breast height (DBH), regardless of height.
7.		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		1 1000000000000000000000000000000000000
10 11		Woody vine – All woody vines greater than 3.28 ft in height.
12.		
12.	= Total Cover	
50% of total cover:	: 20% of total cover:	 - ∖
Woody Vine Stratum (Plot size: 30130)	
1. Gelsemium Sempervirens	D Y FAC	<u>'</u>
	15 × 001	,
2 Smilax notinditalia	- 13 T Y THE	<u></u>
3. V:273 NATA 1+212	15 1, YM	_
4 Rubus argutus	N PAT	<u>()</u>
		1,1,1,0
5	<u> </u>	— Hydrophytic / Vegetation
	75 = Total Cover	Present? Yes V. No No No
50% of total cover	r: <u>22,5</u> 20% of total cover: <u>9</u>	- 1.03cm: 103_ <u>v</u>
Remarks: (If observed, list morphological adaptati	ions below)	<u> </u>
Remarks: (if observed, list morphological adaptati	ions below).	
1		
Į.		
<u> </u>		
	•	

Profile Descripti	on: (Describe to	the dept	n needed	d to docum	ent the i	ndicator	or confirm	the absence	of indicato	rs.)	
Depth	Matrix Color (moist)	 -	Color	Redox (moist)	Features %	Type ¹	Loc²	Texture		Remarks	ļ
	51/2 25/2						M	لك	MOUKS	4 charbo	. 1
	NY 24	100	1140	1-13	14			13	10000	01-01-020	-
10-20+1		<u> </u>									
											
										<u></u>	
							.				
······································											 \
¹ Type: C=Conce	ntration, D=Depl	etion, RM=	Reduced	d Matrix, MS	S=Masked	d Sand G	rains.			ining, M=Matrix.	3.
Hydric Soil Indi		able to all						-		ematic Hydric Soils	i:
Histosol (A1	•			olyvalue Be hin Dark Su					Muck (A9) (Muck (A10)		
Black Histic		1		oarny Muck		-				F18) (outside MLR	A 150A,B)
Hydrogen S	• •		=	oamy Gleye	-		•			lain Soils (F19) (LR	
Stratified La				epleted Ma				· · · · · · · · · · · · · · · · · · ·	-	nt Loamy Soils (F20)	' <u></u>
_	ties (A6) (LRR P Mineral (A7) (LF		=	Redox Dark : Depleted Da					LRA 153B) Parent Mate	erial (TF2)	[
768	nce (A8) (LRR U		=	Redox Depre				7-7		rk Surface (TF12)	
=	(A9) (LRR P, T)	•	_	Marl (F10) (I				☐ Othe	er (Explain in	Remarks)	
= '	elow Dark Surfac	e (A11)	_	Depleted Oc				T) 3 ₁₀	disalara af b	udronkutia vogotatia	on and
'hon-ri	Surface (A12) ie Redox (A16) (Î	WI DA 150	=	ron-Mangar Jmbric Surf			•			ydrophytic vegetatic ology must be prese	
	ky Mineral (S1) (I		· =	Delta Ochrid		•	=		-	bed or problematic.	•
= -	ed Matrix (S4)		□ ,	Reduced Ve							
Sandy Red			=	Piedmont FI	-	•		•	0C 4E3D)		
Stripped Ma	atrix (S6) ce (S7) (LRR P, :	S T 11)	<i>ا</i> الله	Anomalous	Rught Fo	amy Soll	s (F20) (ML	RA 149A, 15	30, 1530)		
	er (if observed)										
Type:											
• • •	es):							Hydric S	oil Present	? Yes <u>/</u> 1	No
Remarks:											-
	<u>س</u> ا							ı /			
Soil	5hows	5 ev	ider	ice of	A 1	Jast	di	sturba	nce.		
Į				L	ן נ						
[
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		•									
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	•										
											•
1											• .



Upland data point wjop021_u facing northeast.

Project/Site: ACP	City/County: Sampling Date:
Applicant/Owner: 130m m. nor	State: NC Sampling Point: WJ00 009 F
Investigator(s): EST (L Roper)	Section, Township, Range: NW
	Local relief (concave, convex, none): Lon Love Slope (%): D-5/,
Landform (missiope, terrace, etc.).	5.60713 Long: -78.18535 Datum: NG84
	Long: 10.10377 Datum: NGOO
Soil Map Unit Name: Rains Sand loam	NWI classification: PFO
Are climatic / hydrologic conditions on the site typical for this time	
Are Vegetation, Soil, or Hydrology signifi	
Are Vegetation, Soil, or Hydrology natura	lly problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	wing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No	within a Wetland? Yes No
·	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	<u></u>
Surface Water (A1) Aquatic Faur	
	s (B15) (LRR U) Drainage Pattems (B10)
	ulfide Odor (C1)
 	zospheres along Living Roots (C3)
	Reduced Iron (C4)
	Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Contract in Resition (D2)
Algal Mat or Crust (B4) Thin Muck S Iron Deposits (B5) Other (Explain	urface (C7)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (
Water Table Present? Yes No Depth (
Saturation Present? Yes No Depth ((includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	
Remarks:	
	- <u></u> -

0 - 2\		Dominant		Dominance Test worksheet:		
Tree Stratum (Plot size: 30x30)		Species?		Number of Dominant Species	7	
1. Lario con dron to livitera	15	<u> </u>	PHU	That Are OBL, FACW, or FAC:		(A)
2. Lignidambar Styniflua	ID	Ν	PAC			
3. Nyssa sylvatra	30	_	FAL	Total Number of Dominant	a	, D.
3. 10 4300 0410 Della		—	1110	Species Across All Strata:		_ (B)
4				Percent of Dominant Species	80	
5				That Are OBL, FACW, or FAC:	_ 88_	_ (A/B)
6						~ ` ·
7				Prevalence Index worksheet:		
				Total % Cover of:	Multiply by:	
8	40			OBL speciesx	1 =	-
27		= Total Cov	er	FACW species x		
50% of total cover: <u>27</u>	<u> </u>	total cover	: <u>//</u>			
Sapling/Shrub Stratum (Plot size: 30 x30)	_			FAC species x		
1. Liquidam trav styraciflia	15	Ÿ	FAC	FACU species x	4 =	 ∣
2. Sambucus nigra var canadensis	30	7	FACW	UPL species x	5 =	
_	_ ,,, v	$\overline{}$		Column Totals: (/	Α)	(B)
3						`
4				Prevalence Index = B/A =	:	
5				Hydrophytic Vegetation Indic	ators:	
6				1 - Rapid Test for Hydrophy		
7						1
	- —			2 - Dominance Test is >50°		
8	112			L 3 - Prevalence Index is ≤3.	01	
,	<u> 45</u>	= Total Cov	/er	Problematic Hydrophytic Ve	egetation¹ (Exp	lain)
50% of total cover: 2-3	20% o ک	f total cover	:			
Herb Stratum (Plot size: <u>30 x30</u>)			•	¹ Indicators of hydric soil and we	tland hydrolog	z muet
1. YUBUS avantus	40	\forall	PAC	be present, unless disturbed or	oroblematic	ymusi
f J			1142		-	_
2				Definitions of Four Vegetation	n Strata:	
3				Tree - Woody plants, excluding	vines, 3 in. (7	.6 cm) or
4				more in diameter at breast heig		
5				height.		
6.				Carling/Charle Mandy-land		
				Sapling/Shrub – Woody plants than 3 in. DBH and greater tha		
7				There is bort and greater tha		ÇAII.
8				Herb - All herbaceous (non-wo	ody) plants, re	gardless
9				of size, and woody plants less	than 3.28 ft tall	
10				Mondy vine All woody vines	granter than 2	20 ft in
11				Woody vine – All woody vines height.	greater than 5	.20 11 111
12.				i i i i i i i i i i i i i i i i i i i		
12	- U/s			•		
_		= Total Co				
50% of total cover:	20% (of total cove	r: <u>(4</u>			
Woody Vine Stratum (Plot size: 30x30)						
1. Sunitary votendifation	0]	Υ	FW	1		
2 Vins votunditolia	10	<u> </u>	TW.	,		
	<u> </u>	- —	0/1/			
3. Com sold made made	_ <u>_ 5</u>	<u>y</u>		:		
4		_				
5.				- Hydrophytic		
	25	_ = Total Co	wer -	Vegetation	/	
	5 2004		2	Present? Yes	No	
50% of total cover: 12	20%	or total cove	er: <u></u>	-		
Remarks: (If observed, list morphological adaptations be	elow).					
•						

nches)	Matrix			x Features		the absence of i	·
	Color (moist)	%	Color (moist)	<u> % Tyr</u>	e ¹ Loc ²	<u>Texture</u>	Remarks
<u> </u>	2.5/3/	<u> । १७० </u>	A MI			<u> 56 </u>	
-70	7.545/2	<u> 45</u> -	104R416	_5	M	<u>sch</u>	
				. 			
		 -					
				· 			
 -	oncentration, D=De				d Grains.		=Pore Lining, M=Matrix.
yarıc Soli i 7 Histosol	Indicators: (Appli	cable to all £		rwise noted.) :low Surface (S	0\/IDDCTI		Problematic Hydric Soils ³ : k (A9) (LRR O)
	pipedon (A2)			rface (S9) (LR			k (A10) (LRR S)
	istic (A3)			y Mineral (F1)			Vertic (F18) (outside MLRA 150A,E
	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)	· -		Floodplain Soils (F19) (LRR P, S, T
	d Layers (A5)		Depleted Ma				s Bright Loamy Soils (F20)
	Bodies (A6) (LRR I			Surface (F6)		(MLRA	153B) nt Material (TF2)
	ucky Mineral (A7) (L resence (A8) (LRR		Redox Depre	rk Surface (F7) essions (F8)			nt material (1F2) low Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (1				plain in Remarks)
Deplete	d Below Dark Surfa	ce (A11)	·= ·	hric (F11) (MLI	•		•
	ark Surface (A12)			iese Masses (F			rs of hydrophytic vegetation and
	rairie Redox (A16) (Mucky Mineral (S1)			ace (F13) (LRR (F17) (MLRA	-		d hydrology must be present, disturbed or problematic.
•	Gleyed Matrix (S4)	(LKK O, 3)		rtic (F18) (MLR			disturbed of problematic.
•	Redox (S5)		_	oodplain Soils (
	d Matrix (S6)		Anomalous	Bright Loamy S	oils (F20) (MLF	RA 149A, 153C, 1	53D)
	urface (S7) (LRR P,						
	Layer (if observed	1):				ļ	
Type:	nches):					Hydric Soil Pr	esent? Yes No
emarks:	cites).					Hydric 30ii Fi	esentr resNo
anains.							
					,		
					•		
					,		
					,		
					,		
					,		
					,		
					,		



Wetland data point wjoo009f_w facing south.

Project/Site: ACP	City/County:	Johnston	Sampling Date:
Applicant/Owner: Dominion			Sampling Point: Wino009_L
Investigator(s): EST (L Roper)	Section, Towns	hip, Range: V	
Landform (hillslope, terrace, etc.):	Local relief (cor	cave convex none). W	Care Slope (%): 0-4%
Subregion (LRR or MLRA): LPK P			35 Datum: W6584
Soil Map Unit Name: Pains sandy	laun	•	ification: NA
	1 1111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	/	
Are climatic / hydrologic conditions on the site typical for	~		
Are Vegetation, Soil, or Hydrology		Are "Normal Circumstances	
Are Vegetation, Soil, or Hydrology	_ naturally problematic?	(If needed, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	ap showing sampling p	point locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes	No Is the S		,
Hydric Soil Present? Yes	No /	ampled Area	No
Wetland Hydrology Present? Yes	No Within a	Wetland? Yes	NO <u></u>
Remarks:			
· ·			
LIVEROL COV			
HYDROLOGY			standard fundamental and a second seed
Wetland Hydrology Indicators:	all that annia		dicators (minimum of two required)
Primary Indicators (minimum of one is required: check	ratic Fauna (B13)		Soil Cracks (B6) Vegetated Concave Surface (B8)
	1 Deposits (B15) (LRR U)		Patterns (B10)
	lrogen Sulfide Odor (C1)	· – ·	m Lines (B16)
	dized Rhizospheres along Livi	— — — — — — — — — — — — — — — — — — —	on Water Table (C2)
Sediment Deposits (B2)	sence of Reduced Iron (C4)	Crayfish	Burrows (C8)
	cent Iron Reduction in Tilled So		n Visible on Aerial Imagery (C9)
	n Muck Surface (C7)	= '	ohic Position (D2)
☐ Iron Deposits (B5) ☐ Oth ☐ Inundation Visible on Aerial Imagery (B7)	er (Explain in Remarks)		Aquitard (D3) Itral Test (D5)
Water-Stained Leaves (B9)		=	m moss (D8) (LRR T, U)
Field Observations:	1.0		
Surface Water Present? Yes No	Depth (inches):	_	
Water Table Present? Yes No	Depth (inches):	<u>) </u>	
Saturation Present? Yes No	Depth (inches):	Wetland Hydrology Pro	esent? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring v	vell, aerial photos, previous in	spections), if available:	
	,		
Remarks:			
	<u></u>		

Sampling Point: <u>W べつむ</u> り
nce Test worksheet:
of Dominant Species
OBL, FACW, or FAC: (A)
mber of Dominant
Across All Strata:
of Dominant Species
of Dominant Species OBL, FACW, or FAC: 701/ (A/B)
nce Index worksheet:
al % Cover of: Multiply by:
ecies x 1 =
pecies x 2 =
ecies x 3 =
pecies x 4 =
ecies x 5 =
Totals: (A) (B)
(-)
evalence Index = B/A =
hytic Vegetation Indicators:
· •
Rapid Test for Hydrophytic Vegetation
Dominance Test is >50%
Prevalence Index is ≤3.01
blematic Hydrophytic Vegetation ¹ (Explain)
bicinatio riyarophytic vegetation (Explain)
ors of hydric soil and wetland hydrology must
ent, unless disturbed or problematic.
ons of Four Vegetation Strata:
Woody plants, excluding vines, 3 in. (7.6 cm) or
diameter at breast height (DBH), regardless of
/Shrub - Woody plants, excluding vines, less
n. DBH and greater than 3.28 ft (1 m) tall.
All herbaceous (non-woody) plants, regardless
and woody plants less than 3.28 ft tall.
vine – All woody vines greater than 3.28 ft in
The Thirthoody Philos greater than 0.20 it in
phytic 🔪
ation
nt? Yes No
-

Profile Desc	ription: (Describe t	to the depth n				or confirm	the absence of	indicators.)	
Depth	Matrix			lox Features		Loc ²	Taxdona	Damada	
(inches)	2.5 Y 4/u	100	Color (moist)		Type'	LOC	<u>Texture</u>	Remarks	
0-11		-					<u> </u>		
12-10	2.57 33	98 10	YR 4/10			<u>_ //</u>	_5		
	•		•		_	٠,	ŕ		
									i
			. 						
¹Type: C=C	oncentration, D=Dep	letion. RM=Re	duced Matrix. N	MS=Masked	Sand Gra	ains.	² Location: Pl	_=Pore Lining, M=Matrix.	
	Indicators: (Application							r Problematic Hydric Soi	ls³:
☐ Histosof	(A1)		Polyvalue E	Below Surfac	ce (S8) (L	RR S, T, U) 🔲 1 cm Muc	ck (A9) (LRR O)	
	oipedon (A2)		=	Surface (S9)				ck (A10) (LRR S)	ļ
Black Hi	stic (A3)			cky Mineral (O)		Vertic (F18) (outside MLF	
=	n Sulfide (A4)	-		yed Matrix (F2)			t Floodplain Soils (F19) (L 1	
	d Layers (A5)		Depleted M					us Bright Loamy Soils (F20))
_	Bodies (A6) (LRR P			k Surface (F	-		(MLRA		1
	ıcky Mineral (A7) (LF esence (A8) (LRR U		=	ark Surface ressions (F				ent Material (TF2) illow Dark Surface (TF12)	l
	esence (A6) (LRR 0 uck (A9) (LRR P, T)		Mari (F10)	-	0)			kplain in Remarks)	į
	d Below Dark Surface	e (A11)		Chric (F11)	(MLRA 1	51)	<u></u>	pair in Condition	
-	ark Surface (A12)	- ` ,		anese Mass			T) ³ Indicate	ors of hydrophytic vegetati	on and
	rairie Redox (A16) (M	MLRA 150A)		rface (F13) (nd hydrology must be pres	ent,
	Mucky Mineral (S1) (I	_RR O, \$)	Deita Ochr	ic (F17) (M L	.RA 151)		unless	s disturbed or problematic.	
	Sleyed Matrix (S4)			/ertic (F18) (
	Redox (S5)		_	Floodplain S			•		
	l Matrix (S6)	· T III	Anomalous	s Bright Loai	my Soils (F20) (MLR	A 149A, 153C, 1	53D)	
	rface (S7) (LRR P, S Layer (if observed):						 		
1	Layer (ii observed).	•							
Type:	-1						1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
	ches):		_				Hydric Soil P	resent? Yes	No
Remarks:									
								.	
								-	
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1	,								
1									

Environmental Field Surveys Wetland Photo Page



Upland data point wjoo009_u facing north.

Project/Site: ACP	City/County: Johnst	m	Sampling Date: 7/17/14
Applicant/Owner: Dominium	,,		Sampling Point: Wjoo010e
Investigator(s): EST (L Loper)	Section, Township, Range:		
Landform (hillslope, terrace, etc.):			ave Slope (%): 0-4
Subregion (LRR or MLRA): LVLY Lat: 35	Local teller (concave, conve	78.1810	33 Dokum 1 1 (~ 5 25 4
Subregion (LRR or MLRA): Lat: 35	Long:	-10110 U	Datum: VVOSO
Soil Map Unit Name: Newfolk Loany Sand,	<i>P</i>		
Are climatic / hydrologic conditions on the site typical for this time of years.	•		/
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Norn	nal Circumstances" բ	oresent? Yes No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? (If needed	d, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing	g sampling point loca	tions, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes No			,
Hydric Soil Present? Yes No	Is the Sampled Are		Mar.
Wetland Hydrology Present? Yes No	within a Wetland?	res_ V	NO
Remarks:	N 1 1 .		
ditch along ag. fields fi	ned wiveget	ration	
ا ا	U		
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required: check all that apply)	_	Cracks (B6)
Surface Water (A1) Aquatic Fauna (B	•		getated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B'			atterns (B10)
Saturation (A3) Hydrogen Sulfide Oxidized Rhizes	heres along Living Roots (C3	Moss Trim I	Water Table (C2)
Water Marks (B1) Sediment Deposits (B2) Water Marks (B1) Presence of Redu		Crayfish Bu	i i
	uction in Tilled Soils (C6)		/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface		Geomorphi	Position (D2)
☐ Iron Deposits (B5) ☐ Other (Explain in	Remarks)	Shallow Aq	uitard (D3)
Inundation Visible on Aerial Imagery (B7)		FAC-Neutra	• •
Water-Stained Leaves (B9)			moss (D8) (LRR T, U)
Field Observations:	es): 1 1		·
Surface Water Present? Yes No Depth (inche			.pr
Water Table Present? Yes No Depth (inche	es): Sur face		No. No. Market
Saturation Present? Yes No Depth (inche (includes capillary fringe)	es): Sur FACE Wetlar	nd Hydrology Prese	ent? Yes <u>v</u> No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if	available:	
	<u> </u>		
Remarks:			
·			

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

20 = 10	Absolute Dominant Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 x (0)	% Cover Species? Status	Number of Dominant Species
1. NONC	. <u></u>	That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata: 2 (B)
4.	i	, ,
5		Percent of Dominant Species That Are OBL, FACW, or FAC: 100 1. (A/B)
	Į.	That Are OBL, FACW, or FAC: 1007. (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8		OBL species x 1 =
	C_ = Total Cover	FACW species x 2 =
	20% of total cover:	FAC species x3 =
Sapling/Shrub Stratum (Plot size: 30 x 10)		FACU species x 4 =
1. NONE		
2		UPL species x 5 =
3	- 	Column Totals: (A) (B)
4	=""	Prevalence Index = B/A =
5.		Hydrophytic Vegetation Indicators:
6.		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		l 🚍
	= Total Cover	3 - Prevalence Index is ≤3.0¹
EDD/ afficial across		Problematic Hydrophytic Vegetation¹ (Explain)
	20% of total cover:	<u> </u>
Herb Stratum (Plot size: 30 x 0)	60 y obl	Indicators of hydric soil and wetland hydrology must
1. Persicaria hydropipervides		be present, unless disturbed or problematic.
2. Juneus effusus	20 Y OF	Definitions of Four Vegetation Strata:
3. Carex gigantea	15 N OBL	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of
5		height.
6		Sapling/Shrub - Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.		Herb – All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		
l e e e e e e e e e e e e e e e e e e e		Woody vine – All woody vines greater than 3.28 ft in height.
11.		neight.
12	= Total Cover	·
70 1	715 20% of total cover: 19	
Woody Vine Stratum (Plot size: 30 x (0)		
1. <u>None</u>		
2		
3		
4		
5		Hydrophytic
	= Total Cover	Vegetation
50% of total cover:		Present? Yes No No
Remarks: (If observed, list morphological adaptations be		
	······································	
		`

	ription: (Describe	to the depth n				or confirm	the absence	of indicators.)
Depth (inches)	Matrix Color (moist)	<u> </u>	Redo: Color (moist)	x Feature: %	s Type ¹	Loc ²	Texture	Remarks
6-10	2.5731		5/2 5/8			M	SCL	Nemana
V- 10			J [- 15			· ·		
16-10	2.543/1	100				- 1 1	LS	
							-	
					· ——			· · · · · · · · · · · · · · · · · · ·
¹ Type: C=C	oncentration, D=Dep	oletion, RM=Re	duced Matrix, MS	S=Masked	d Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRI	Rs, unless other	rwise not	ed.)		Indicators	for Problematic Hydric Soils ³ :
☐ Histosol	(A1)	[Polyvalue Be	low Surfa	ice (S8) (L	LRR S, T, L	J) 📙 1 cm N	Muck (A9) (LRR O)
	oipedon (A2)		Thin Dark Su					Muck (A10) (LRR S)
	stic (A3)		Loamy Muck			R O)		ced Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye		(F2)			nont Floodplain Soils (F19) (LRR P, S, T)
—	d Layers (A5)		Depleted Ma		-c\			alous Bright Loamy Soils (F20)
	Bodies (A6) (LRR F ucky Mineral (A7) (Ll		Redox Dark				1 1 '	RA 153B) 'arent Material (TF2)
	esence (A8) (LRR L		Redox Depre					Shallow Dark Surface (TF12)
	ick (A9) (LRR P, T)	-,	Mari (F10) (L	•	~)		— ·	(Explain in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Oc		(MLRA 1	51)		V
	ark Surface (A12)	` '	🔲 Iron-Mangan				, T) ³ Indi	cators of hydrophytic vegetation and
Coast P	rairie Redox (A16) (MLRA 150A)	Umbric Surfa					tland hydrology must be present,
	Mucky Mineral (S1) ((LRR O, S)	Delta Ochric					less disturbed or problematic.
	Gleyed Matrix (S4)		Reduced Ve		-	-		
	Redox (S5)	•	Piedmont Fle	-	-		-	
	Matrix (S6)	ет III.	Anomaious i	Bright Loa	imy Soils	(F20) (MLF	RA 149A, 1530	J, 153D)
	rface (S7) (LRR P, Layer (if observed)						<u> </u>	
	Layer (II Observed))·					İ	<i>,</i>
Type:			_					il Present? Yes No
	iches):			•			nyaric Soi	Present? Yes No
Remarks:								
								8
	•							0
								•
	4							
	•							
	•							
ļ								

Environmental Field Surveys Wetland Photo Page



Wetland data point wjoo010e_w facing southwest.

Project/Site: ACP	City/County: Sampling Date:
Applicant/Owner: Dominion	State: NC Sampling Point: Wjoo 010 - C
Investigator(s): EST LL Poper)	Section, Township, Range:
Landform (hillslope, terrace, etc.): _f(at	Local relief (concave, convex, none): None Slope (%):
Subresian (I BB or MI BA): / A R-P	5.100640 Long: 18.18632 Datum: W6584
· ·	1. 2-6/1 Slope NWI classification:
Are climatic / hydrologic conditions on the site typical for this time o	
Are Vegetation, Soil, or Hydrology significa	
Are Vegetation, Soil, or I-lydrology naturally	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Yes No Yes No	Is the Sampled Area within a Wetland? Yes Np
ag. field edge Lsay	beans)
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that ap	oly) Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna	
High Water Table (A2)	The state of the s
Saturation (A3) Hydrogen Sulfi	——————————————————————————————————————
 	educed Iron (C4) Dry-Season Water Table (C2) Crayfish Burrows (C8)
	eduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Sur	<u> </u>
☐ Iron Deposits (B5) ☐ Other (Explain	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (in	ches): VA
Water Table Present? Yes No Depth (in	ches):
Saturation Present? Yes No Depth (in (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial)	
Describe Recorded Data (stream gauge, monitoring weil, aenai	onotos, previous inspections), ii available.
Remarks:	

	About to Dominout to the	I To the state of
Tree Stratum (Plot size: 30 x 30)	Absolute Dominant Indicator	Dominance Test worksheet:
	<u>% Cover Species? Status</u>	Number of Dominant Species
1. none		That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata:
4		
		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
5		That Are OBL, FACW, or FAC: (A/B)
6		, , ,
		Prevalence Index worksheet:
7		1
8		Total % Cover of: Multiply by:
0		OBL species x 1 =
	= Total Cover	
50% of total cover:	20% of total cover:	FACW species x 2 =
		FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30×30)		FACU species x 4 =
1None		
		UPL species 50 x5 = 400
2		Column Totals: 80 (A) 400 (B)
3		
		1 5.0
4		Prevalence Index = B/A =
5		Hydrophytic Vegetation Indicators:
6.		
		1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.0¹
· · · · · · · · · · · · · · · · · · ·	= Total Cover	
	•	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% of total cover:	
		` _
Herb Stratum (Plot size: 30x30)	20 1 1 10	¹ Indicators of hydric soil and wetland hydrology must
1. Glycine max	80 Y UPL	be present, unless disturbed or problematic.
		Definitions of Four Vegetation Strata:
2	_ 	Definitions of Four Vegetation Strata.
3		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of
4		
5		height.
l e		Caulia -/Charle - Mandy slants avaluding visco loss
6		Sapling/Shrub – Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		
1		
9		of size, and woody plants less than 3.28 ft tall.
10		
11		_ height.
12.		
12.	- 20	-
	= Total Cover	,
50% of total cover:	20% of total cover: 1 6	
Woody Vine Stratum (Plot size: 30 x 30)		-
1. NOME		_
2		- \
3		
		Į.
4		-
5		_ Hydrophytic
	= Total Cover	Vegetation
		Present? Yes No
50% of total cover:	20% of total cover:	_
Remarks: (If observed, list morphological adaptations b	nelow)	-
andries Salan Coald		
active system field	•	
1		

Sampling Point:	wj00010_	u
Samoling Point:	1-0-1	_

SOIL

Profile Desc	ription: (Pescribe	to the depth	needed to docum	ent the indic	ator or confirm	the absence of i	ndicators.)
Depth							Damada
(inches)	Color (moist)	<u> </u>	Color (moist)	<u>%</u> _T	/pe¹ Loc²	Texture	Remarks
<u>N-20</u>	2.5 Y 3/1	95-	112 AL-18	<u> </u>	<u> </u>	<u> </u>	
			····				
							
	oncentration, D=Dep						=Pore Lining, M=Matrix.
Hydric Soil	ndicators: (Applic	able to all Li	RRs, unless other	wise noted.)		Indicators for	Problematic Hydric Soils ³ :
	(A1)				S8) (LRR S , T, L		k (A9) (LRR O)
	pipedon (A2)		Thin Dark Su			· —	k (A10) (LRR S)
Black Hi			Loamy Mucky				Vertic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gleye				Floodplain Soils (F19) (LRR P, S, T) us Bright Loamy Soils (F20)
	l Layers (A5)) T t1\	Depleted Mark			(MLRA	
	Bodies (A6) (LRR P cky Mineral (A7) (Li		Depleted Dai		7)		nt Material (TF2)
	esence (A8) (LRR L		Redox Depre	-	•		llow Dark Surface (TF12)
=	ick (A9) (LRR P, T)	•	Marl (F10) (L				plain in Remarks)
	d Below Dark Surfac	e (A11)	Depleted Oct	hric (F11) (MI	_RA 151)		
	ark Surface (A12)				F12) (LRR O, P,		ors of hydrophytic vegetation and
	rairie Redox (A16) (d hydrology must be present,
_	flucky Mineral (S1) (LRR O, S)	Delta Ochric		•		s disturbed or problematic.
_	Sleyed Matrix (S4)		_		.RA 150A, 150B) : (F19) (MLRA 14		
	Redox (S5) I Matrix (S6)					19 A) RA 149A, 153C, 1	53D)
	rface (S7) (LRR P,	S. T. U)		ongrit Louing	00113 (1 20) (III 21	o. 1407, 1000, 1	,
	Layer (if observed)						
Type:		•				1	/
Depth (in	ches):					Hydric Soil Pa	resent? Yes No
Remarks:							
Tromano.							
İ							ľ
1							
						-	
			•				
1							

Environmental Field Surveys Wetland Photo Page



Upland data point wjoo010_u facing northeast.

Acplication (Pilotopy Lorance etc.): EVEX Sampling Point Wipp 0000000000000000000000000000000000	Project/Site: ACP	City/County: TOWNS+ON Sampling Date: 7/17/14
Investigator(s):	Annlicant/Owner: DOM (1:00)	State: NC Sampling Point: Wiop 004f-u
Landform (hillslope, terrace, etc.): FVAT Local relief (concave, convex, none): NOTE Slope (%): COLOR Subregion (LRR or MLRA): LQC P Lat: 35.00 (1 % Long: 78.18952 Datum: Words 1 kg	Investigator(s): FST(K, MC/Pfn/eG)	Section Township Range: NA
Subtragion (LRR or MLRA): LR.C. Lat: 35.001 8 Long: 78.1845 Datum: Datum: Work classification: PC NWI classificati	Landform (hillsland torrace etc.): £100+	Local relief (conceive convex pope): None Slone (%): ()-2
Are climatic / hydrologic conditions on the site typical for this time of year? Yes		601 (8 long) - 78, 18952 Detumbly 648
Are Vegetation Soil or Hydrology significantly disturbed?		ADAM alteria (FC)
Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Weltand Hydrology Present? Yes No No Weltand Hydrology Present? Yes No No No No No No No No No No No No No	1	
Are Vegetation, Soil, or Hydrology	, ,	
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) Hygh Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Into Deposits (B5) Into Deposits (B5) Into Deposits (B5) Into Deposits (B5) Into Deposits (B5) Water Present? Wetland Hydrology Indicators: No Secondary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (minimum of two required) Sparsely Vegetated Concave Surface (B8) Primary Indicators (mi	· · · · · · · · · · · · · · · · · · ·	
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Hydrogen Sulfide Odor (C1) Saturation (A3) Hydrogen Sulfide Odor (C1) Hydrogen Sulfide Odor (C1) Hydrogen Sulfide Odor (C1) Hydrogen Sulfide Odor (C2) Hydrogen Sulfide Odor (C4) Hydrogen Sulfide Odor (C	Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any answers in Remarks.)
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Prainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation (A3) Presence of Reduced Iron (C4) Drift Deposits (B3) Recent Iron Reduction in Titled Soils (C6) Algal Mat or Crust (B4) Thin Muck Surface (C7) Water Table (Day Sparsely Vegetated Concave Surface (B8) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Water-Stained Leaves (B9) Field Observations: Surface Volter Fresent? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, moniloring well, aerial photos, previous inspections), if available:	SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, transects, important features, etc.
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) High Water Table (A2) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Inon Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water (Present? Water Table (Present? Water Table (Present? Water Marks (Ps) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Secondary Indicators (minimum of two required) Secondary Indicators (minimum of two required) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Spársely Vegetated Concave Surface (B8) Drainage Pattems (B10) Moss Trim Lines (B16) Drainage Pattems (B10) Moss Trim Lines (B16) Dray-Season Water Table (C2) Crayfish Burrows (C8) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Water Algal Mat or Crust (B4) Thin Muck Surface (C7) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Hydric Soil Present? Yes V No No	
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Indicators (Maria Deposits (B7) Indicators (Minimum of one is required; check all that apply) Saturation (A3) Water Marks (B1) Sediment Deposits (B3) Algal Mat or Crust (B4) Indicators (Minimum of two required) Marl Deposits (B5) (LRR U) Drainage Pattems (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Inon Deposits (B3) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Algal Water Table (C2) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Water Table (A2) Drainage Pattems (B10) Moss Trim Lines (B16) Dray-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Algal Mat or Crust (B4) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water (Present? Yes No Depth (inches): 20	HYDROLOGY	
Surface Water (A1)	Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
High Water Table (A2) High Water Table (A2)	Primary Indicators (minimum of one is required; check all that apply	Surface Soil Cracks (B6)
Saturation (A3)		
Water Marks (B1) Oxidized Rhizospheres along Living Roots (C3) Dry-Season Water Table (C2) Crayfish Burrows (C8) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No No Depth (inches): Saturation Present? Yes No No Saturation Present? Yes No No Saturation Present? Yes No Saturation Present? Y		
Sediment Deposits (B2) Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Algal Mat or Crust (B4) Iron Deposits (B5) Unundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation (C4) Recent Iron Reduction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) Geomorphic Position (D2) Shallow Aquitard (D3) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Visible on Aerial Imagery (C9) FAC-Neutral Test (D5) Sphagnum moss (D8) (LRR T, U) Wetland Hydrology Present? Yes No (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		- I
Drift Deposits (B3) Recent Iron Reduction in Tilled Soils (C6) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Saturation 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 inspections), if available:		
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Water Table Present? Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	 ' ' '	i i i i i i i i i i i i i i i i i i i
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): VA Water Table Present? Yes No Depth (inches): Ves Vo Depth (inches): Ves Vo Depth (inches): Ves Vo Depth (inches): Ves Vo Depth (inches): Ves Vo Depth (inches): Ves Vo Depth (inches): Ves Vo Ves Vo Depth (inches): Ves Vo Vo Ves Vo Vo Vo Ves Vo		
Water-Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches):	 	
Field Observations: Surface Water Present? Yes No Depth (inches):		
Surface Water Present? Yes No Depth (inches):		Spriagnum moss (bo) (ERIX 1, 0)
Water Table Present? Yes No Depth (inches): 720 '' Saturation Present? Yes No Depth (inches): 2 Wetland Hydrology Present? Yes No Depth (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water Present? Yes No Depth (inch	
Saturation Present? Yes V No Depth (inches): A Wetland Hydrology Present? Yes No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present? Yes No Depth (inch	es): 720''
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present? Yes V No Depth (inch	es): 2 Wetland Hydrology Present? Yes No
Remarks:		otos, previous inspections), if available:
	Remarks:	
		•

Sampling Point: Wpp004f-W

20/20/	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 30 × 30)		Species?		Number of Dominant Species
1. Acer rubrum	40		FAC	That Are OBL, FACW, or FAC: (A)
2. Liriodend fon tulipifera 3.	<u>20</u>		FACU	Total Number of Dominant Species Across All Strata: (B)
4				Described Described Consider (175
5				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7			 .	Total % Cover of: Multiply by:
8	7.0			OBL species x1 =
50% of total cover: <u>3</u> C	<u> </u>	= Total Cov	ver I 🔿	FACW species x 2 =
50% of total cover:	20% o	f total cover	: 1 4	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30 X30)	iÒ	الم	T 1	FACU species x4 =
1. Quercus alba	10	<u> </u>	FAC	UPL species x5 =
2. Ilex opaca	40	- Z	FAC	Column Totals: (A) (B)
3. Vaccinium corymbosum	<u>30</u>	· 	FACW	Column rotals. (A)
4. Persea borbonia	20	-}-	FACW	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6.			. ——	Rapid Test for Hydrophytic Vegetation
7	-			2 - Dominance Test is >50%
8	700			3 - Prevalence Index is ≤3.0¹
1, 6	<u> 40 </u>	_ = Total Co of total cove	iver	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 45	<u>)</u> 20% c	of total cove	r: <u> </u>	
Herb Stratum (Plot size: 30 × 30)	• ->	\ <i>\</i> /	UBL	¹ Indicators of hydric soil and wetland hydrology must
1. Woodwardia virginica	20	<u>. </u>		be present, unless disturbed or problematic.
2. Woodwardia afeolata		- , ``	<u>08l</u>	Definitions of Four Vegetation Strata:
3				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10				18t - Austria Allino divides agreetes them 2.70 % in
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.		-		. The same
	30	_ = Total C		
50% of total cover:	20%	of total cov	/	
Woody Vine Stratum (Plot size: 30' ×30')	2 2070	OI TOTAL COV	··· <u> </u>	-
1. Smilax Vorunditolia	20	Y	FAC	
1. DINTER TOWNACTION				-
2				-
3.	_			-
4				-
5				- Hydrophytic
,,	् <u> २०</u>	= Total C	1 1	Vegetation Present? Yes No
50% of total cover:	<u>/</u>	of total cov	/er:	_ Present?
Remarks: (If observed, list morphological adaptations be	elow).	-		
				•

	dicator or confirm t	he absence of indicators.)
Depth Matrix Redox Features		
(inches) Color (moist) % Color (moist) %	Type ¹ Loc ²	Texture Remarks
0-14 104R2/1 10U		<u> </u>
14-20-2,56R25/10U	-	5
The state of the s	 -	
		
		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked	Sand Grains.	² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise note	d.)	Indicators for Problematic Hydric Soils ³ :
☐ Histosol (A1) ☐ Polyvalue Below Surfac	e (S8) (LRR S, T, U)	1 cm Muck (A9) (LRR O)
Histic Epipedon (A2) Thin Dark Surface (S9)		2 cm Muck (A10) (LRR S)
Black Histic (A3) Loamy Mucky Mineral (Reduced Vertic (F18) (outside MLRA 150A,B)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F	⁵ 2)	Piedmont Floodplain Soils (F19) (LRR P, S, T)
Stratified Layers (A5) Depleted Matrix (F3)	•	Anomalous Bright Loamy Soils (F20)
Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (Fi	3)	(MLRA 153B)
5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface	•	Red Parent Material (TF2)
Muck Presence (A8) (LRR U) Redox Depressions (F8	5)	Very Shallow Dark Surface (TF12)
1 cm Muck (A9) (LRR P, T)		Other (Explain in Remarks)
☐ Depleted Below Dark Surface (A11) ☐ Depleted Ochric (F11) (
Thick Dark Surface (A12) Iron-Manganese Masse	es (F12) (LRR O, P, T) ³ Indicators of hydrophytic vegetation and
Coast Prairie Redox (A16) (MLRA 150A) 🔲 Umbric Surface (F13) (I	LRR P, T, U)	wetland hydrology must be present,
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (ML	RA 151)	unless disturbed or problematic.
☐ Sandy Gleyed Matrix (S4) ☐ Reduced Vertic (F18) (MLRA 150A, 150B)	
Sandy Redox (S5) Piedmont Floodplain Se	oils (F19) (MLRA 149)A)
Stripped Matrix (S6)	ny Soils (F20) (MLRA	A 149A, 153C, 153D)
Dark Surface (\$7) (LRR P, S, T, U)		
Restrictive Layer (if observed):		
Туре:		. /
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		
ł	•	
	•	
	·	
	•	
ha.		
	•	

Environmental Field Surveys Wetland Photo Page



Wetland data point wjop004f_w facing north.

Project/Site: ACP	City/County: うの	115401	Sampling Date: 7/17/14 Sampling Point: Wiop 004-4
Applicant/Owner: DUMINION		State: NC	Sampling Point: WIODOUY-U
Investigator(s): ESI CK, Murphre	Section, Township,	Range: NA	
Landform (hillslope, terrace, etc.):	Legal soliof (coppose	e, convex, none): Non-	Slope (%): 2-4
Subregion (LRR or MLRA): LRR P	Lat: 35,60135	-78.189	55 Datum: W658
Subregion (LRR of MLRA):		Long: / O/I /	Daguni. WSSE
Soil Map Unit Name: Rains Sondy Loo			cation: NA
Are climatic / hydrologic conditions on the site typical for th		(If no, explain in I	
Are Vegetation, Soil, or Hydrology	•	re "Normal Circumstances"	
Are Vegetation, Soil, or Hydrology	naturally problematic? (I	needed, explain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map	showing sampling poir	t locations, transect	s, important features, etc.
Hydric Soil Present? Yes ! Wetland Hydrology Present? Yes !	No Is the Samp within a We		No
Remarks:			
HYDROLOGY			
Wetland Hydrology Indicators:		Secondary India	cators (minimum of two required)
Primary Indicators (minimum of one is required: check at	I that apply)	_	il Cracks (B6)
Surface Water (A1)	c Fauna (B13)	☐ Sparsely V	egetated Concave Surface (B8)
High Water Table (A2) Marl D	eposits (B15) (LRR U)	Drainage P	Patterns (B10)
	gen Sulfide Odor (C1)	<u></u>	Lines (B16)
	ed Rhizospheres along Living R	_	n Water Table (C2)
	nce of Reduced Iron (C4)	-	urrows (C8)
	it Iron Reduction in Tilled Soils (Nuck Surface (C7)		Visible on Aerial Imagery (C9) ic Position (D2)
	(Explain in Remarks)		quitard (D3)
Inundation Visible on Aerial Imagery (B7)	(Explaint in Flatinity)		ral Test (D5)
Water-Stained Leaves (B9)		_	moss (D8) (LRR T, U)
Field Observations:	١.٨		
Surface Water Present? Yes No C	epth (inches):		
Water Table Present? Yes No E	epth (inches):		
Saturation Present? Yes No C (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well	Depth (inches): 20"	Wetland Hydrology Pres	ent? Yes No
2000 No Noos 200 200 (choom gange, no no no	,,		
Remarks:			

231-7-1	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 301×301)		Species?		
1 Quercus alba	10	У	FACL	Number of Dominant Species That Are OBL, FACW, or FAC:
2 Liquidambar Sturacistua	20	$\overline{}$	FAC	Tidt Ale Obl., FACW, 01 FAC.
2. Ligor Control State Citad	<u> </u>	/	F11C	Total Number of Dominant
3				Species Across All Strata: (B)
4				
5				Percent of Dominant Species That Are OBL. FACW. or FAC:
				That Are OBL, FACW, or FAC:
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				
	<u>30 </u>	= Total Cov	/er	OBL species x 1 =
50% of total cover:	20% of	f total cover	: 6	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30 x30)		(0,0.0010.	· 	FAC species x 3 =
1 '6 (Secolo Ox Chi Voci Elico)	10	y	FAC	FACU species x 4 =
1. Liquidambor Styrocifica	10			UPL species x 5 =
2. ITEX OPACO	<u> 15</u>		FAC	I '
3				Column Totals: (A) (B)
4				Brovelence Index - B/A -
				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6	· 			T - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.01
	25	= Total Co	ver	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover: [2.	5 20% 0	f total cover	5	Problematic Hydrophytic Vegetation (Explain)
	20780	i lolai cove		1
Herb Stratum (Plot size: 30 x 30)	40	V	TACIAL	¹Indicators of hydric soil and wetland hydrology must
1. Clethra alaifulion	•	<u> </u>	FACW	be present, unless disturbed or problematic.
2. Parthphocissus quinquefaio	5	<u>N</u>	FACC	Definitions of Four Vegetation Strata:
3				
				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of height.
5			·	Holgin.
6				Sapling/Shrub - Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Harb. All backsoners (non-urneds) plants reportings
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9				or ones, and woody plants loop than ones it tam
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12.				
	45	_ = Total Co	over _	
50% of total cover: 22	5 20%	- of total cove	f L	
		J. 10101 00 FC	··· ——	
	10	Y	FAC	
1. Vitis rotundifolia			- 1700	.
2. SMI/OX rotundifiolia	<u> 10</u>	<u> </u>	FAC	
3. Lonicera japonica	3	N	EVC	
1				•
			_	
5				Hydrophytic
	_	_ = Total C		Vegetation Present? Yes No
50% of total cover: 12	<u>· S</u> 20%	of total cove	er:	rieseitt iesNo
Remarks: (If observed, list morphological adaptations be	low).			-
	•			

Profile Desc	ription: (Describe to the dept	needed to document th	e indicator or confirm	the absence of indicators.)	
Depth	Matrix	Redox Feat	ıres		
(inches)	Color (moist) %	Color (moist) %	Type¹ Loc²		Remarks
016	7,54R4/3 100	·····		<u> </u>	
16-20	7.54R5/6100			\$	
					
					
			<u> </u>		
170		Dadward Matrix MC-Man	ked Cond Cosine	21 Linius DI - Dana Linius	- 14-14-14:
	oncentration, D=Depletion, RM= Indicators: (Applicable to all I			² Location: PL=Pore Linin Indicators for Problema	
1	- · · ·			_	=
Histosol			urface (S8) (LRR S, T, U		
	pipedon (A2)	Thin Dark Surface (Loamy Mucky Mine		2 cm Muck (A10) (LR	(outside MLRA 150A,B)
_	istic (A3) en Sulfide (A4)	Loamy Gleyed Mat			Soils (F19) (LRR P, S, T)
_	d Layers (A5)	Depleted Matrix (F3		Anomalous Bright Lo	
	Bodies (A6) (LRR P, T, U)	Redox Dark Surfac	•	(MLRA 153B)	any constracy
	ucky Mineral (A7) (LRR P, T, U)	Depleted Dark Surf	` '	Red Parent Material	TF2)
	resence (A8) (LRR U)	Redox Depressions	- •	Very Shallow Dark S	
1 ==	uck (A9) (LRR P, T)	Marl (F10) (LRR U		Other (Explain in Rer	' '
	d Below Dark Surface (A11)	Depleted Ochric (F	11) (MLRA 151)		
☐ Thick D	ark Surface (A12)	Iron-Manganese M	asses (F12) (LRR O, P,		ohytic vegetation and
	rairie Redox (A16) (MLRA 150 A			wetland hydrology	
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric (F17)		unless disturbed o	r problematic.
	Gleyed Matrix (S4)		8) (MLRA 150A, 150B)		
, =	Redox (S5)		in Soils (F19) (MLRA 14		
	d Matrix (S6)	Anomalous Bright	_oamy Soils (F20) (MLR	A 149A, 153C, 153D)	
	urface (S7) (LRR P, S, T, U)				
1	Layer (if observed):				
Type:					V
Depth (in	nches):	··· 		Hydric Soil Present?	es No
Remarks:					
	•				
1					
1					
					•
1					

Environmental Field Surveys Wetland Photo Page



Upland data point wjop004_u facing south.

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston County	y	Sampling Date: 1/12/2016
Applicant/Owner: Dominion					Sampling Point: wjoe001f_w
Investigator(s): CG, AS		Section	on, Township, Range: N		
Landform (hillslope, terrace, etc.): floo					
Subregion (LRR or MLRA): P		Local	Teller (corleave, correct	, none). -78 1963713	Slope (70)
Soil Map Unit Name: Nason silt loam,	8 to 15 percent sla	_ Lat: selection les			
Are climatic / hydrologic conditions on					
Are Vegetation, Soil, o	r Hydrology	significantly distur	bed? Are "Norma	al Circumstances"	present? Yes No
Are Vegetation, Soil, o	r Hydrology	naturally problema	atic? (If needed,	explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - A	Attach site ma	ap showing sam	pling point location	ons, transects	s, important features, etc.
Hydrophytic Vegetation Present?	Yes 🗸	No			
Hydric Soil Present?		No	Is the Sampled Area	4	,
Wetland Hydrology Present?		No	within a Wetland?	Yes	No
Remarks:					
Headwater Forest					
					ļ.
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)
Primary Indicators (minimum of one i	s required; check	all that apply)		Surface Soil	Cracks (B6)
Surface Water (A1)	Aqua	atic Fauna (B13)		Sparsely Ve	getated Concave Surface (B8)
High Water Table (A2)	Marl	Deposits (B15) (LRF	R U)	✓ Drainage Pa	itterns (B10)
Saturation (A3)	Hydr	rogen Sulfide Odor (0	C1)	Moss Trim L	ines (B16)
Water Marks (B1)	Oxid	ized Rhizospheres a	long Living Roots (C3)	Dry-Season	Water Table (C2)
✓ Sediment Deposits (B2)	Pres	ence of Reduced Iro	n (C4)	Crayfish Bur	
Drift Deposits (B3)	Rece	ent Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)		<u>✓</u> Geomorphic	
Iron Deposits (B5)		er (Explain in Remark	s)	Shallow Aqu	
Inundation Visible on Aerial Imag	jery (B7)			FAC-Neutra	, ,
Water-Stained Leaves (B9)				Spnagnum r	moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes	No. 🗸	Depth (inches):			
		Depth (inches):			
		Depth (inches):		Undreles V Dress	nt? Yes V No
Saturation Present? Yes _ (includes capillary fringe)	NO <u>*</u>	Depth (inches).	wetiand	nyarology Presei	nt? Yes <u> </u>
Describe Recorded Data (stream gau	uge, monitoring we	ell, aerial photos, pre	vious inspections), if av	ailable:	
Remarks:					
					ļ.

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)		Species?	Status	Number of Dominant Species
1. Liquidambar styraciflua	35	Yes	FAC	That Are OBL, FACW, or FAC: 4 (A)
2. Acer rubrum	20	Yes	FAC	Total Number of Dominant
3. Platanus occidentalis	10	No	FACW	Species Across All Strata: 4 (B)
4. Carpinus caroliniana	10	No	FAC	
5. Carpinus caroliniana	10	No	FAC	Percent of Dominant Species That Are OBL, FACW, or FAC:100 (A/B)
6.				That Are OBE, I AGW, OF I AG.
7				Prevalence Index worksheet:
				Total % Cover of: Multiply by:
8	75	= Total Cove		OBL species0 x 1 =0
500/ - 51-1-1			15	FACW species10 x 2 =20
50% of total cover:	20% of	total cover:		FAC species 95 x 3 = 285
Sapling/Shrub Stratum (Plot size: 15)	40	V	EAC	FACU species 0 x 4 = 0
1. Cocculus carolinus	10	Yes	FAC	UPL species $0 \times 5 = 0$
2. Cocculus carolinus	10	Yes	FAC	105 305
3				Column Totals: (A) (B)
4				Prevalence Index = B/A = 2.9
5				Hydrophytic Vegetation Indicators:
6.				
7				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
8	10			3 - Prevalence Index is ≤3.0 ¹
5		= Total Cove	_	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:5	20% of	total cover:		
Herb Stratum (Plot size:5				¹ Indicators of hydric soil and wetland hydrology must
1. Smilax rotundifolia	20	Yes	FAC	be present, unless disturbed or problematic.
2. Smilax rotundifolia	20	Yes	FAC	Definitions of Four Vegetation Strata:
3.				
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
				height.
5				
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	20	= Total Cove	er	
50% of total cover:10		total cover:		
	20 /0 01	total cover.		
/ / / / / / / / / / / / / / / / / / /				
1				
2				
3				
4				
5				Hydrophytic
	0	= Total Cove	er	Vegetation
50% of total cover:0				Present? Yes No No
Remarks: (If observed, list morphological adaptations below				
Tremarks. (II observed, list morphological adaptations below	vv).			

SOIL Sampling Point: wjoe001f_w

Depth	cription: (Describe Matrix			x Features					
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks	
0-16	10YR 5/2	95	10YR 4/6	5	C	M	SICL		
	-								
¹ Type: C=C	concentration, D=Dep	letion RM=F	Reduced Matrix M	S=Masked	Sand Gr	ains	² I ocation: P	L=Pore Lining, M=Matri	×
	Indicators: (Applic							or Problematic Hydric	
Histoso			Polyvalue Be		•	RR S. T. U		ck (A9) (LRR O)	
	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)	
	istic (A3)		Loamy Muck					Vertic (F18) (outside I	MLRA 150A.B)
	en Sulfide (A4)		Loamy Gleye			,		t Floodplain Soils (F19)	
	d Layers (A5)		✓ Depleted Ma		,			us Bright Loamy Soils (
	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (F	6)		(MLRA		•
_	ucky Mineral (A7) (Li		Depleted Da	•	,			ent Material (TF2)	
	resence (A8) (LRR U		Redox Depre					allow Dark Surface (TF1	2)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	₋RR U)			Other (Ex	xplain in Remarks)	
Deplete	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11) (MLRA 1	51)			
Thick D	ark Surface (A12)		Iron-Mangan	ese Masse	es (F12) (LRR O, P,		ors of hydrophytic vege	
	Prairie Redox (A16) (I					, U)		nd hydrology must be p	
-	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric				unless	s disturbed or problema	tic.
	Gleyed Matrix (S4)		Reduced Ve						
-	Redox (S5)		Piedmont Flo						
	d Matrix (S6)		Anomalous I	Bright Loan	ny Soils (F20) (MLR	A 149A, 153C, 1	53D)	
	urface (S7) (LRR P, S						Г		
Restrictive	Layer (if observed):								
Type:									
Depth (ir	iches):						Hydric Soil Pi	resent? Yes	No
Remarks:									
1									
ı									
i									



Photo 1
Wetland data point wjoe001f_w facing south



Photo 2
Wetland data point wjoe001f_w facing north

Project/Site: Atlantic Coast Pipeline		City/C	County: Johnston Coun	ty	Sampling Date: 1/12/2016
Applicant/Owner: Dominion					Sampling Point: wjoe001_u
Investigator(s): CG, AS		Section	on, Township, Range:		•
Landform (hillslope, terrace, etc.): Slo					
Subregion (LRR or MLRA): P					
Soil Map Unit Name: Nason silt loam	8 to 15 percent slo	_ Lai. <u>************************************</u>	Long.		
Are climatic / hydrologic conditions or					
Are Vegetation, Soil,				al Circumstances"	present? Yes No
Are Vegetation, Soil,	or Hydrology	naturally problemate	atic? (If needed	, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS -	Attach site ma	ıp showing san	npling point locat	ions, transects	s, important features, etc.
Hydrophytic Vegetation Present?	Yes	No			
Hydric Soil Present?	Yes		Is the Sampled Area		
Wetland Hydrology Present?	Yes	No 🔽	within a Wetland?	Yes	No
Remarks:					
LIVER OF COMME					
HYDROLOGY				Canadam India	atom (minimum of the monetimed)
Wetland Hydrology Indicators: Primary Indicators (minimum of one	is required; check	all that apply)			ators (minimum of two required)
	-				l Cracks (B6) egetated Concave Surface (B8)
Surface Water (A1) High Water Table (A2)		atic Fauna (B13) Deposits (B15) (LR I	R U)		atterns (B10)
Saturation (A3)		ogen Sulfide Odor (Moss Trim L	
Water Marks (B1)		-	along Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)	Prese	ence of Reduced Iro	n (C4)	Crayfish Bu	
Drift Deposits (B3)	Rece	ent Iron Reduction in	Tilled Soils (C6)	Saturation V	/isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)			Position (D2)
Iron Deposits (B5)		r (Explain in Remarl	(S)	Shallow Aqu	
Inundation Visible on Aerial Ima	agery (B7)			FAC-Neutra	
Water-Stained Leaves (B9)			1	Spnagnum i	moss (D8) (LRR T, U)
Field Observations: Surface Water Present? Yes	No 🗸	Depth (inches):			
		Depth (inches):			
		Depth (inches):		Hydrology Prese	nt? Yes No ✓
(includes capillary fringe)				-	
Describe Recorded Data (stream ga	auge, monitoring we	ell, aerial photos, pre	evious inspections), if av	vailable:	
Demodes					
Remarks: no hydrology observed					
no nyarology observed					

20		Dominant		Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species	
1. Quercus rubra	25	Yes	FACU	' 2	(A)
2. Carpinus caroliniana	10	Yes	FAC		
3. Carpinus caroliniana	10	Yes	FAC	Total Number of Dominant Species Across All Strata: 5	(B)
4. Liquidambar styraciflua	10	Yes	FAC		(5)
5. Liquidambar styraciflua	10	Yes	FAC	Percent of Dominant Species That Are ORL FACW or FAC: 60	
6. Liquidambar styraciflua	10	Yes	FAC	That Are OBL, FACW, or FAC:	(A/B)
				Prevalence Index worksheet:	
7				Total % Cover of: Multiply by:	
8					-
	45	= Total Cov		OBL species X 1 =	•
50% of total cover: 22.5	20% of	total cover:	9	FACW species x z =	
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =	
1				FACU species 42 x 4 = 168	
				UPL species0 x 5 =0	
2				Column Totals:(A)273	(B)
3					. (/
4				Prevalence Index = B/A = 3.54	_
5				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				✓ 2 - Dominance Test is >50%	
8.					
o	0	= Total Cov		3 - Prevalence Index is ≤3.0 ¹	
500/ 5/ 1			•	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 0	20% of	total cover:			
Herb Stratum (Plot size:5) 1 Glycine max	30	Yes		¹ Indicators of hydric soil and wetland hydrology mube present, unless disturbed or problematic.	ust
2. Smilax rotundifolia	15	Yes	FAC	Definitions of Four Vegetation Strata:	
3. Smilax rotundifolia	15	Yes	FAC	Definitions of Four Vegetation Strata.	
		No		Tree - Woody plants, excluding vines, 3 in. (7.6 ci	m) or
4. Allium vineale	10		FACU	more in diameter at breast height (DBH), regardles	ss of
5. Lonicera japonica	5	No No	FACU	height.	
6. Rubus idaeus	2	No	FACU	Sapling/Shrub – Woody plants, excluding vines, I	less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
8				Hark All banks are see from the share are seen	
9.				Herb – All herbaceous (non-woody) plants, regard of size, and woody plants less than 3.28 ft tall.	ness
				0. 0.20, a.i.a irooay piaino iooo ailan 0.20 it aliii	
10				Woody vine – All woody vines greater than 3.28 f	t in
11				height.	
12					
		= Total Cov			
50% of total cover: 31	20% of	total cover:	12.4		
Woody Vine Stratum (Plot size: 30)					
1.					
2.					
3					
4					
5				Hydrophytic	
	0	= Total Cov	er	Vegetation	
50% of total cover: 0	20% of	total cover:	0	Present? Yes No	
Remarks: (If observed, list morphological adaptations below	w)			1	
The market (in experience, not morphological adaptations sold	,.				

SOIL Sampling Point: wjoe001_u

Depth	cription: (Describe to Matrix			x Feature					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-16	10YR 5/4	100	,		·		SICL		
				-					-
	<u> </u>			<u> </u>					
				- ·					
1Type: C=C	concentration, D=Depl	etion PM=F	Peduced Matrix M	S=Macked	d Sand Gr	aine	² Location: Pl	.=Pore Lining, M=Matrix	
	Indicators: (Application)					airio.		Problematic Hydric S	_
-		1510 to un <u>-</u> 1				DD C T II		•	00 .
Histoso			Polyvalue Be Thin Dark Su					k (A9) (LRR O)	
	pipedon (A2) listic (A3)		Loamy Muck					k (A10) (LRR S) Vertic (F18) (outside M	I D A 150 A B)
	en Sulfide (A4)		Loamy Gleye			(0)		Floodplain Soils (F19) (
	d Layers (A5)		Depleted Ma		(1 2)			is Bright Loamy Soils (F	
	: Bodies (A6) (LRR P,	T. U)	Redox Dark		- 6)		(MLRA		20)
_	ucky Mineral (A7) (LR		Depleted Da				•	nt Material (TF2)	
	resence (A8) (LRR U		Redox Depre		. ,			low Dark Surface (TF12)
·	uck (A9) (LRR P, T)		Marl (F10) (L		-,			plain in Remarks)	,
	d Below Dark Surface	e (A11)	Depleted Oc		(MLRA 1	51)		,	
	ark Surface (A12)	, ,	Iron-Mangan	ese Mass	es (F12) (LRR O, P,	T) ³ Indicato	rs of hydrophytic vegeta	ation and
Coast F	Prairie Redox (A16) (N	ILRA 150A)	Umbric Surfa	ace (F13)	(LRR P, T	, U)	wetland	d hydrology must be pre	esent,
Sandy I	Mucky Mineral (S1) (L	.RR O, S)	Delta Ochric	(F17) (M I	-RA 151)		unless	disturbed or problemati	C.
Sandy	Gleyed Matrix (S4)		Reduced Ve	rtic (F18)	(MLRA 15	60A, 150B)			
Sandy I	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 149	9A)		
	d Matrix (S6)		Anomalous E	Bright Loa	my Soils (F20) (MLR	A 149A, 153C, 15	53D)	
Dark Su	urface (S7) (LRR P, S	, T, U)							
Restrictive	Layer (if observed):								
Type:									
Depth (in	iches):						Hydric Soil Pre	esent? Yes	No
Remarks:									



Photo 1 Upland data point wjoe001_u facing south



Photo 2 Upland data point wjoe001_u facing north

Project/Site: Atlantic Coast Pipeline	City/C	county: Johnston County	•	Sampling Date: 1/13/2016
Applicant/Owner: Dominion				Sampling Point: wjoe002f_w
• • • • • • • • • • • • • • • • • • • •	Section			
Landform (hillslope, terrace, etc.): floodplain				
Subragion (LBB or MLBA): P	1 at: 35.59379444	Long:	78.19789152	
Subregion (LRR or MLRA): P Soil Map Unit Name: Wehadkee loam, 0 to 2 p	ercent slopes, frequently flood		NIM/L clossifi	Datum
Are climatic / hydrologic conditions on the site t				
Are Vegetation, Soil, or Hydrolo				present? Yes No
Are Vegetation, Soil, or Hydrolo			explain any answe	
SUMMARY OF FINDINGS – Attach	site map showing sam	npling point location	ons, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes	_ ✓ No	lo the Compled Area		
	✓ No	Is the Sampled Area within a Wetland?	Voc V	No
Wetland Hydrology Present? Yes	No	within a Wetland:	163	
NCWAM classification is a bottomland hardwo	od forest.			
HYDROLOGY				
Wetland Hydrology Indicators:			-	ators (minimum of two required)
Primary Indicators (minimum of one is require			Surface Soil	` '
	Aquatic Fauna (B13)	- · · ·		getated Concave Surface (B8)
	Marl Deposits (B15) (LRF		Drainage Pa	
Saturation (A3) Water Marks (B1)	Hydrogen Sulfide Odor (COxidized Rhizospheres a		Moss Trim L	Water Table (C2)
· ·	Presence of Reduced Iron		Crayfish Bur	
✓ Drift Deposits (B3)	Recent Iron Reduction in			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)		✓ Geomorphic	Position (D2)
Iron Deposits (B5)	Other (Explain in Remark	as)	Shallow Aqu	uitard (D3)
Inundation Visible on Aerial Imagery (B7)			FAC-Neutra	
Water-Stained Leaves (B9)		.	Sphagnum r	moss (D8) (LRR T, U)
Field Observations:	Double (South Co.)			
	Depth (inches): Depth (inches):			
	Depth (inches): Depth (inches):		lydrology Prese	nt? Yes ✔ No
(includes capillary fringe)				ntr res NO
Describe Recorded Data (stream gauge, mon	itoring well, aerial photos, pre	vious inspections), if ava	nilable:	
Remarks:				
ixemarks.				

20	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?		Number of Dominant Species
1. Fraxinus pennsylvanica	30	Yes	FACW	That Are OBL, FACW, or FAC:3 (A)
2. Acer rubrum	15	Yes	FAC	Total Newsham of Densin and
3. Ostrya virginiana	10	No	FACU	Total Number of Dominant Species Across All Strata: 4 (B)
4. Liquidambar styraciflua	5	No	FAC	(2)
5. Betula nigra	0	No	FACW	Percent of Dominant Species That Are ORL FACW or FAC: 75
	-			That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species $0 \times 1 = 0$
		= Total Cov		20 00
50% of total cover:30	20% of	total cover:	12	77 x 2 = x 2 =
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1. Ostrya virginiana	10	Yes	FACU	FACU species
2.				UPL species x 5 = 0
				Column Totals: (A) (B)
3				
4				Prevalence Index = B/A = 2.87
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
	10	= Total Cov	er	
50% of total cover: 5				Problematic Hydrophytic Vegetation ¹ (Explain)
	20 /6 01	lulai cuvei.		
Herb Stratum (Plot size:) 1 Smilax rotundifolia	7	V	FAC	¹ Indicators of hydric soil and wetland hydrology must
1. Strillax roturidilolla		Yes	FAC_	be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5.				height.
6				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 3 in. DBH and greater than 3.20 it (1 iii) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
12:	7	= Total Cov		
50% of total cover: 3.5				
	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover:0	20% of	total cover:		1103cm: 103 100
Remarks: (If observed, list morphological adaptations belo	w).			

SOIL Sampling Point: wjoe002f_w

Depth	cription: (Describe to Matrix	allo dopuir ii					anderior				
(inches)	1 3						Texture Remarks				
0-14	10 YR 6/1		5 YR 5/8	30	C	PL/M	SICL	remarko			
	·										
-		-									
-	· 										
¹ Type: C=C	Concentration, D=Depl	etion, RM=Re	duced Matrix, MS	S=Masked	Sand Gr	ains.	² Location:	PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applica	able to all LRI	Rs, unless other	wise note	ed.)		Indicators	for Problematic Hydric Soils ³ :			
Histoso	l (A1)		Polyvalue Be	low Surfa	ce (S8) (I	RR S. T. U	1 cm M	luck (A9) (LRR O)			
	pipedon (A2)	_	Thin Dark Su					luck (A10) (LRR S)			
	listic (A3)	_	Loamy Mucky					ed Vertic (F18) (outside MLRA 150A,B)			
	en Sulfide (A4)	-	Loamy Gleye			. •,		ont Floodplain Soils (F19) (LRR P, S, T)			
	ed Layers (A5)	-	✓ Depleted Mat)			lous Bright Loamy Soils (F20)			
	Bodies (A6) (LRR P ,	T. U)	Redox Dark S		:6)			(A 153B)			
-	ucky Mineral (A7) (LR		Depleted Dar	•	,			arent Material (TF2)			
	resence (A8) (LRR U)		Redox Depre					hallow Dark Surface (TF12)			
	uck (A9) (LRR P, T)	-	Marl (F10) (L		5)			Explain in Remarks)			
	ed Below Dark Surface	- - (Δ11)	Nan (1 10) (2 Depleted Och		(MIRA 1	51)	Other (Explain in Remarks)			
	ark Surface (A12)	_ (\(\cappa_11)\)	Iron-Mangane				T) ³ Indica	ators of hydrophytic vegetation and			
	Prairie Redox (A16) (N	Π R Δ 150Δ)	Umbric Surfa					and hydrology must be present,			
	Mucky Mineral (S1) (L		Delta Ochric			, 0,		ess disturbed or problematic.			
	Gleyed Matrix (S4)		Reduced Ver			ΛΔ 150R)	unic	as disturbed of problematic.			
	Redox (S5)	-	Piedmont Flo				24)				
	d Matrix (S6)	-					יה, A 149A, 153C,	153D)			
	urface (S7) (LRR P, S	T II)	Anomalous b	rigiit Loai	ily Solis (1 20) (WILIXA	, 143A, 133C,	1330)			
	Layer (if observed):	, 1, 0)									
	Layer (II observeu).										
Type:			_								
Depth (ir	nches):		_				Hydric Soil	Present? Yes No			
Remarks:											
ı											



Photo 1
Wetland data point wjoe002f_w facing southeast



Photo 2
Wetland data point wjoe002f_w facing northeast

Project/Site: Atlantic Coast Pipeline		City/C	County: Johnston Count	y	Sampling Date: 1/13/2016		
Applicant/Owner: Dominion					Sampling Point: wjoe002_u		
Investigator(s): CG, AS		Section	on, Township, Range: N				
Landform (hillslope, terrace, etc.): sr							
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Wehadkee loar	m 0 to 2 percent slc	poes frequently floor	Long ded	NIVA/I alaasifi	Datum. None		
Are climatic / hydrologic conditions o							
Are Vegetation, Soil,				al Circumstances"	present? Yes No		
Are Vegetation, Soil,	or Hydrology	_ naturally problem	atic? (If needed,	explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS -	Attach site ma	ıp showing san	npling point locati	ons, transects	s, important features, etc.		
Hydrophytic Vegetation Present?	Yes 🗸	No					
Hydric Soil Present?	Yes		Is the Sampled Area		🗸		
Wetland Hydrology Present?	Yes	No 🔽	within a Wetland?	Yes	No		
HYDROLOGY Wetland Hydrology Indicators:				Socondary Indio	ators (minimum of two required)		
Primary Indicators (minimum of one	e is required; check	all that annly)		Surface Soil			
Surface Water (A1)	-	atic Fauna (B13)			getated Concave Surface (B8)		
High Water Table (A2)		Deposits (B15) (LR	R U)	Drainage Pa			
Saturation (A3)		ogen Sulfide Odor (Moss Trim L			
Water Marks (B1)		-	along Living Roots (C3)	· · ·			
Sediment Deposits (B2)	Preso	ence of Reduced Iro	on (C4)	Crayfish Burrows (C8)			
Drift Deposits (B3)	Rece	ent Iron Reduction in	Tilled Soils (C6)				
Algal Mat or Crust (B4)		Muck Surface (C7)		Geomorphic Position (D2)			
Iron Deposits (B5)		r (Explain in Remarl	ks)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Ima	agery (B7)			FAC-Neutral Test (D5)			
Water-Stained Leaves (B9) Field Observations:				Spriagrium i	moss (D8) (LRR T, U)		
	s No 🔽	Denth (inches):					
	No						
	No			Hydrology Presei	nt? Yes No		
(includes capillary fringe)				, ,,			
Describe Recorded Data (stream ga	auge, monitoring we	ell, aerial photos, pre	evious inspections), if av	ailable:			
Remarks:							
Kemarks.							

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?	Status	Number of Dominant Species
1. Pinus taeda	70	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Carpinus caroliniana	20	No	FAC	Total Number of Dominant
3. Acer rubrum	10	No	FAC	Species Across All Strata: 5 (B)
4. Ostrya virginiana	5	No	FACU	
5.				Percent of Dominant Species That Are ORL EACW or EAC: 100 (A/R)
				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8	105			OBL species0 x 1 =0
52.5		= Total Cove		FACW species0 x 2 =0
50% of total cover:52.5	20% of	total cover:	21	125 405
Sapling/Shrub Stratum (Plot size: 15)				FAC species 5 x 3 = 403
1. Pinus taeda	10	Yes	FAC	FACU species X 4 =
2. Carpinus caroliniana	10	Yes	FAC	UPL species x 5 =
3.				Column Totals:(A)(B)
				2.02
4				Prevalence Index = B/A =3.03
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		= Total Cove	er	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:10	20% of	total cover:	4	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1 Smilax rotundifolia	10	Yes	FAC	be present, unless disturbed or problematic.
2. Bignonia capreolata	5	Yes	FAC	Definitions of Four Vegetation Strata:
				Definitions of Four Vogetation Strata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
11.				Woody vine – All woody vines greater than 3.28 ft in
				height.
12	15			
7.5		= Total Cove	_	
50% of total cover: 7.5	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4.				
5				
J		= Total Cove		Hydrophytic Vegetation
500/ 5/ 1				Present? Yes No
50% of total cover: 0		total cover:		
Remarks: (If observed, list morphological adaptations below	w).			

SOIL Sampling Point: wjoe002_u

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	indicator	or confirm	the absence o	f indicato	rs.)	
Depth	Matrix			ox Feature		1 2	Tantona		Damada	
(inches) 0-6	Color (moist) 10YR 4/2	<u>%</u> 100	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>		Remarks	
					· ·					
6-16	10YR 5/3	100					CL			
	-									
		· —— —								
		<u> </u>		_						
¹ Type: C=C	oncentration, D=Dep	letion RM=R	educed Matrix M	S=Masked	d Sand Gr	ains	² Location: P	I =Pore Li	ning M=Mat	rix
	Indicators: (Applic						Indicators fo			
Histoso	(A1)		Polyvalue B	elow Surfa	ce (S8) (L	.RR S. T. U) 1 cm Mu	ck (A9) (L	RR O)	
	pipedon (A2)		Thin Dark S					ck (A10) (•	
	istic (A3)		Loamy Mucl							MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gley	ed Matrix ((F2)		Piedmor	nt Floodpla	in Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					-	Loamy Soils	(F20)
_	Bodies (A6) (LRR P		Redox Dark					\ 153B)		
	ucky Mineral (A7) (LF		Depleted Da					ent Materi		:40)
	resence (A8) (LRR U)	Redox Depr		8)				Surface (TF	12)
	uck (A9) (LRR P, T) d Below Dark Surfac	۵ (۵11)	Marl (F10) (I		(MI DA 1	51)	Other (E	xplain in F	kemarks)	
-	ark Surface (A12)	C (ATT)	Iron-Mangar				T) ³ Indicat	ors of hyd	rophytic veg	etation and
	rairie Redox (A16) (I	MLRA 150A)					•		gy must be i	
	/ucky Mineral (S1) (I		Delta Ochric					-	d or problem	
Sandy (Gleyed Matrix (S4)		Reduced Ve	ertic (F18) ((MLRA 15	0A, 150B)				
Sandy F	Redox (S5)		Piedmont FI							
	l Matrix (S6)		Anomalous	Bright Loai	my Soils (F20) (MLR	A 149A, 153C, 1	153D)		
	rface (S7) (LRR P, S									
Restrictive	Layer (if observed):									
Type:			 "							
Depth (in	ches):		_				Hydric Soil P	resent?	Yes	No
Remarks:										



Photo 1 Upland data point wjoe002_u facing south



Photo 2 Upland data point wjoe002_u facing north

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston Count	y	Sampling Date: 1/13/2016		
Applicant/Owner: Dominion					Sampling Point: wjoe003f_w		
Investigator(s): CG, AS		Section	on, Township, Range: N				
Landform (hillslope, terrace, etc.): $\underline{\text{toe o}}$ Subregion (LRR or MLRA): \underline{P}	·	25.5912466	Langu	, none). -78.20201813	Glope (70):		
Soil Map Unit Name: Nason silt loam, 8	to 15 percent sl	_ Lai. <u>***********</u> ones	Long	NIMI -IIF	Datum. None		
Are climatic / hydrologic conditions on the							
Are Vegetation, Soil, or	Hydrology	significantly distur	bed? Are "Norma	al Circumstances"	present? Yes No		
Are Vegetation, Soil, or	Hydrology	naturally problema	atic? (If needed,	explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS - A	ttach site ma	ap showing sam	pling point locati	ons, transects	s, important features, etc.		
Hydrophytic Vegetation Present?	Yes 🗸	No					
Hydric Soil Present?		No	Is the Sampled Area	44			
Wetland Hydrology Present?		No	within a Wetland?	Yes	No		
Remarks:	<u> </u>						
NCWAM is a headwater forest.							
					ļ		
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indica	ators (minimum of two required)		
Primary Indicators (minimum of one is	required; check	all that apply)		Surface Soil Cracks (B6)			
Surface Water (A1)	Aqua	atic Fauna (B13)		Sparsely Ve	getated Concave Surface (B8)		
High Water Table (A2)		Deposits (B15) (LRF	R U)	✓ Drainage Pa			
<u>✓</u> Saturation (A3)	Hydr	rogen Sulfide Odor (0	C1)	Moss Trim L	ines (B16)		
Water Marks (B1)	Oxid	ized Rhizospheres a	long Living Roots (C3)	Dry-Season	Water Table (C2)		
Sediment Deposits (B2)	Pres	ence of Reduced Iro	n (C4)	Crayfish Bui	rrows (C8)		
Drift Deposits (B3)	Rece	ent Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)		Muck Surface (C7)		<u>✓</u> Geomorphic			
Iron Deposits (B5)		er (Explain in Remark	ss)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Image	ry (B7)			FAC-Neutral Test (D5)			
✓ Water-Stained Leaves (B9)				Sphagnum r	moss (D8) (LRR T, U)		
Field Observations:	Na 🗸	Danth (inches)					
		Depth (inches):					
Water Table Present? Yes	No V	Depth (inches): 0					
Saturation Present? Yes (includes capillary fringe)	NO	Depth (inches):	wetland	etland Hydrology Present? Yes No			
Describe Recorded Data (stream gaug	e, monitoring we	ell, aerial photos, pre	vious inspections), if av	ailable:			
Remarks:							
					ļ		
					ļ		
					ļ		

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1. Quercus laurifolia	30	Yes	FACW	That Are OBL, FACW, or FAC: 6 (A)
2. Carpinus caroliniana	10	Yes	FAC	Total Number of Descinant
3. Persea palustris	5	No	FACW	Total Number of Dominant Species Across All Strata: 6 (B)
4 Acer rubrum	3	No	FAC	(2)
5				Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
				That Are OBL, FACW, or FAC:(A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				0
	48	= Total Cove		OBL species X 1 - X 1 -
50% of total cover: 24	20% of	total cover:	9.6	PACW species
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =
1 llex opaca	30	Yes	FAC	FACU species x 4 =
2 Carpinus caroliniana	20	Yes	FAC	UPL species0 x 5 =0
				Column Totals:138 (A)369 (B)
3				
4				Prevalence Index = B/A = 2.67
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
	50	= Total Cove		
50% of total cover: 25		total cover:	40	Problematic Hydrophytic Vegetation ¹ (Explain)
50 % of total cover	20% 01	total cover.		
Tierb Stratum (Flot size:)	20		EAC	¹ Indicators of hydric soil and wetland hydrology must
1. Smilax rotundifolia	30	Yes	FAC	be present, unless disturbed or problematic.
2. Arundinaria gigantea	10	Yes	FACW	Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5.				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Was divides All was divides are starthan 2.20 ft in
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				noight.
12.	40	T-4-1 0		
20		= Total Cove	^	
50% of total cover: 20	20% of	total cover:		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cove		Vegetation
50% of total cover:0	20% of	total cover:	0	Present? Yes No No
Remarks: (If observed, list morphological adaptations below	w).			<u>I</u>
· · · · · · · · · · · · · · · · · · ·	,			

SOIL Sampling Point: wjoe003f_w

Profile Des	cription: (Describe	to the dept	h needed to docu	ment the i	indicator	or confirm	the absence of	indicators.)			
Depth Matrix Redox Features											
(inches) 0-6	Color (moist) 10 YR 3/1	100	Color (moist)	%	Type ¹	Loc ²	Texture SIL	Remarks			
				_							
6-12	10 YR 7/1	80	10 YR 5/8	20	С	M	VFSL				
					•						
		· ·		_	-						
	-										
	-										
	-			_							
¹Tyne: C=C	oncentration, D=Dep	letion RM=	Reduced Matrix M	S=Masker	Sand Gr	ains	² Location: PL	_=Pore Lining, M=Matri	<u> </u>		
	Indicators: (Applic					anio.		r Problematic Hydric			
Histoso			Polyvalue Be		•	RR S. T. U		ck (A9) (LRR O)			
	pipedon (A2)		Thin Dark Su					ck (A10) (LRR S)			
	istic (A3)		Loamy Muck					Vertic (F18) (outside I	MLRA 150A,B)		
Hydroge	en Sulfide (A4)		Loamy Gley				Piedmont	Floodplain Soils (F19)	(LRR P, S, T)		
Stratifie	d Layers (A5)		Depleted Ma	atrix (F3)			Anomalou	us Bright Loamy Soils (F20)		
_	Bodies (A6) (LRR P		Redox Dark	•	,		(MLRA				
	ucky Mineral (A7) (Li		Depleted Da					nt Material (TF2)			
	resence (A8) (LRR U)	Redox Depre		8)			llow Dark Surface (TF1	2)		
	uck (A9) (LRR P, T) d Below Dark Surfac	o (A11)	Marl (F10) (I		/MIDA 1	5 4\	Other (Ex	plain in Remarks)			
-	ark Surface (A12)	C (A11)	Iron-Mangar				T) ³ Indicate	ors of hydrophytic vege	tation and		
	rairie Redox (A16) (I	VILRA 150A	_					d hydrology must be pr			
	Mucky Mineral (S1) (I		Delta Ochric			•		disturbed or problema			
-	Gleyed Matrix (S4)		Reduced Ve			0A, 150B)		·			
Sandy F	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 149	9A)				
	d Matrix (S6)		Anomalous I	Bright Loai	my Soils (F20) (MLR	A 149A, 153C, 1	53D)			
	ırface (S7) (LRR P, S						T				
Restrictive	Layer (if observed):										
Type:											
Depth (in	ches):						Hydric Soil Pr	esent? Yes	No		
Remarks:											



Photo 1 Wetland point wjoe003f_w facing east



Photo 2
Wetland point wjoe002f_w facing north

Project/Site: Atlantic Coast Pipeline		City/C	County: Johnston Co	ounty	Sampling Date: 1/13/2016		
Applicant/Owner: Dominion					Sampling Point: wjoe003_u		
Investigator(s): CG, AS		Section		e: No PLSS in this are			
Landform (hillslope, terrace, etc.): hi							
Subregion (LRR or MLRA): P							
Soil Map Unit Name: Nason silt loan	n. 8 to 15 percent sk	_ Lat. <u></u> opes					
			_				
Are climatic / hydrologic conditions o							
Are Vegetation, Soil,				ormal Circumstances"	present? Yes No		
Are Vegetation, Soil,	or Hydrology	_ naturally problema	atic? (If need	ed, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS -	Attach site ma	ıp showing san	npling point loc	ations, transects	s, important features, etc.		
Hydrophytic Vegetation Present?	Yes	No					
Hydric Soil Present?	Yes		Is the Sampled Ar		🗸		
Wetland Hydrology Present?	Yes	No 🔽	within a Wetland?	? Yes	No		
HYDROLOGY				Casandan India	otore (esigies use of hus no suite d)		
Wetland Hydrology Indicators:	o io roquirod: obook	all that apply)		-	ators (minimum of two required)		
Primary Indicators (minimum of one	-				Cracks (B6)		
Surface Water (A1) High Water Table (A2)		atic Fauna (B13) Deposits (B15) (LR I	R III	Sparsely ve	getated Concave Surface (B8)		
Saturation (A3)		ogen Sulfide Odor (Moss Trim L			
Water Marks (B1)		-	along Living Roots (C	·			
Sediment Deposits (B2)		ence of Reduced Iro		Crayfish Burrows (C8)			
Drift Deposits (B3)	Rece	ent Iron Reduction in	Tilled Soils (C6)	- · · · · · · · · · · · · · · · · · · ·			
Algal Mat or Crust (B4)		Muck Surface (C7)		Geomorphic Position (D2)			
Iron Deposits (B5)		r (Explain in Remarl	(s)	Shallow Aquitard (D3)			
Inundation Visible on Aerial Im	agery (B7)			FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)			T	Sphagnum r	moss (D8) (LRR T, U)		
Field Observations: Surface Water Present? Yes	s No 🗸 I	Donth (inches):					
	s No						
	s No I			nd Hydrology Prese	nt? Yes No ✔		
(includes capillary fringe)		. , , ,			105		
Describe Recorded Data (stream g. No hydrology present.	auge, monitoring we	ell, aerial photos, pre	evious inspections), if	f available:			
Remarks:							
					,		

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1. Quercus laurifolia	30	Yes	FACW	That Are OBL, FACW, or FAC: 4 (A)
2. Liriodendron tulipifera	10	Yes	FACU	Total Number of Dominant
3. Quercus rubra	10	Yes	FACU	Species Across All Strata: 7 (B)
4. Ostrya virginiana	10	Yes	FACU	Barrant of Barringat On a sign
5. Betula cordifolia	5	No	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: 57.14285714 (A/B)
6				That / it o o b z , i / to v , o i i / to .
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
	65	= Total Cov	er	OBL species x 1 =
50% of total cover: 32.5		total cover:	13	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15)	2070 01	total cover.		FAC species 32 x 3 = 96
1 llex opaca	30	Yes	FAC	FACU species39
2 Kalmia carolina	5	No	FACW	UPL species0 x 5 =0
2			TAOW	Column Totals: 121 (A) 352 (B)
3				(-)
4	-			Prevalence Index = B/A = 2.9
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				✓ 3 - Prevalence Index is ≤3.0 ¹
		= Total Cov		Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:17.5	20% of	total cover:	. 7	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1. Smilax laurifolia	10	Yes	FACW	be present, unless disturbed or problematic.
2. Arundinaria gigantea	5	Yes	FACW	Definitions of Four Vegetation Strata:
3. Lonicera japonica	2	No	FACU	_
4. Ilex opaca	2	No	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5 Polystichum acrostichoides	2	No	FACU	height.
•	-			
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
7				than 6 m. BBT and greater than 6.20 h (1 m) tail.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
		= Total Cov		
50% of total cover: 10.5	20% of	total cover:	4.2	
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5.				Hydrophytic
	0	= Total Cov	er	Vegetation
50% of total cover:		total cover:		Present? Yes No
Remarks: (If observed, list morphological adaptations below		total cover.		
Remarks. (II observed, list morphological adaptations belo	w).			

SOIL Sampling Point: wjoe003_u

Profile Des	cription: (Describe	to the dept	h needed to docu	ment the i	indicator	or confirm	the absence of	indicators.)		
Depth	Matrix	%	Redo Color (moist)	ox Feature		Loc ²	Texture Remarks			
(inches) 0-5	Color (moist) 10 YR 4/2	100	Color (moist)	%	Type ¹	LOC	I exture	Remarks	<u> </u>	
			40 VD 5/0							
5-14	2.5 Y 4/3	98	10 YR 5/8	_ 2	C	M	CL			
		- · · · · · · · · · · · · · · · · · · ·								
	-									
				_	·					
¹Type: C=C	oncentration, D=Dep	letion, RM=	Reduced Matrix, M	S=Masked	d Sand Gr	ains.	² Location: Pl	L=Pore Lining, M=Ma	atrix.	
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless othe	rwise not	ed.)		Indicators fo	r Problematic Hydri	c Soils³:	
Histoso	l (A1)		Polyvalue Be	elow Surfa	ce (S8) (L	RR S, T, U) 1 cm Mud	ck (A9) (LRR O)		
	pipedon (A2)		Thin Dark S					ck (A10) (LRR S)		
	istic (A3)		Loamy Muck			R O)		Vertic (F18) (outside		
	en Sulfide (A4)		Loamy Gley		(F2)			t Floodplain Soils (F1		
l	d Layers (A5) : Bodies (A6) (LRR P	T 11\	Depleted Ma Redox Dark		-6)		Anomalo	us Bright Loamy Soils	s (F20)	
-	ucky Mineral (A7) (LI		Depleted Da					ent Material (TF2)		
	resence (A8) (LRR L		Redox Depr					illow Dark Surface (T	F12)	
	uck (A9) (LRR P, T)	,	Marl (F10) (I		-,			xplain in Remarks)	,	
	d Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 1	51)		,		
	ark Surface (A12)		Iron-Mangar				•	ors of hydrophytic ve		
	Prairie Redox (A16) (I					', U)		nd hydrology must be		
-	Mucky Mineral (S1) (I	LRR O, S)	Delta Ochric			OA 450B)	unless	s disturbed or probler	natic.	
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont Fl				۵۸)			
-	d Matrix (S6)						an, A 149A, 153C, 1	53D)		
	urface (S7) (LRR P, \$	S, T, U)	/ #10111410401	ongni Loai	my conc (. 20) (2 .		002,		
	Layer (if observed)									
Type:										
Depth (in	iches):						Hydric Soil Pr	resent? Yes	No	
Remarks:							_			



Photo 1 Upland data point wjoe003_u facing north



Photo 2 Upland data point wjoe003_u facing west

Project/Site: Atlantic Coast Pipeline		City/C	ounty: Johnston Co	ounty	Sampling Date: 1/13/2016		
Applicant/Owner: Dominion				Sampling Point: wjoe004f_w			
Investigator(s): CG, AS Section, Township, Range: No PLSS in this area							
Landform (hillslope, terrace, etc.): valley fla							
Subregion (LRR or MLRA): P		25.58915311	Lon	-78.20431526	Clope (70):		
Soil Map Unit Name: Nason silt loam, 8 to	15 percent sl	_ Lat opes	LOI	NWI classific	Datum Datum.		
			_				
Are climatic / hydrologic conditions on the s							
Are Vegetation, Soil, or Hyd				ormal Circumstances"	present? Yes No		
Are Vegetation, Soil, or Hyd	Irology	naturally problema	atic? (If need	led, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Atta	ch site ma	ap showing sam	pling point loc	ations, transects	s, important features, etc.		
Hydrophytic Vegetation Present?	Yes 🗸	No					
1 7 7 7 7		No	Is the Sampled A				
		No	within a Wetland?	? Yes	No		
Remarks:		l					
HYDROLOGY							
Wetland Hydrology Indicators:				Secondary Indicate	ators (minimum of two required)		
Primary Indicators (minimum of one is rec	uired; check	all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)	Aqua	atic Fauna (B13)		Sparsely Ve	egetated Concave Surface (B8)		
High Water Table (A2)		Deposits (B15) (LRF		Drainage Pa			
Saturation (A3)	-	rogen Sulfide Odor (0		Moss Trim L			
Water Marks (B1)		lized Rhizospheres a			Water Table (C2)		
Sediment Deposits (B2)		sence of Reduced Iron		Crayfish Bu			
✓ Drift Deposits (B3)		ent Iron Reduction in	Tilled Solls (C6)	_	/isible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Iron Deposits (B5)		Muck Surface (C7) er (Explain in Remark	·e)	✓ Geomorphic			
Inundation Visible on Aerial Imagery		i (Explain in Noman	,	Shallow Aquitard (D3) ✓ FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)	, ,			Sphagnum moss (D8) (LRR T, U)			
Field Observations:							
Surface Water Present? Yes	No 🗸	Depth (inches):					
Water Table Present? Yes	No 🔽	Depth (inches):					
Saturation Present? Yes	No 🗸	Depth (inches):	Wetla	and Hydrology Prese	nt? Yes <u> </u>		
(includes capillary fringe) Describe Recorded Data (stream gauge,	monitoring w	all aprial photos pre	vious inspections) i	f available:			
Describe Recorded Data (Stream gauge,	nonitoring w	eli, aeriai priotos, pre	vious irispections), i	i avaliable.			
Remarks:							
remarks.							

00	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1. Acer rubrum	30	Yes	FAC	That Are OBL, FACW, or FAC:5 (A)
2. Betula nigra	30	Yes	FACW	T. (1) (5) (7)
3. Fraxinus pennsylvanica	25	Yes	FACW	Total Number of Dominant Species Across All Strata: 5 (B)
4 Persea palustris	10	No	FACW	(b)
" 				Percent of Dominant Species That Are ORL FACW or FAC: 100 (A/R)
5				That Are OBL, FACW, or FAC: (A/B)
6				Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				•
	95	= Total Cov		OBL species X 1 -
50% of total cover: 47.5	20% of	total cover:	19	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 15)				FAC species x 3 =
1 Ligustrum sinense	20	Yes	FAC	FACU species0 x 4 =0
2 Carpinus caroliniana	20	Yes	FAC	UPL species0 x 5 =0
				Column Totals: 135 (A) 340 (B)
3				(2)
4				Prevalence Index = B/A =2.51
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				
				2 - Dominance Test is >50%
8	40			3 - Prevalence Index is ≤3.0 ¹
20		= Total Cov	•	Problematic Hydrophytic Vegetation ¹ (Explain)
' <u>-</u>	20% of	total cover:	8	
Herb Stratum (Plot size:)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
				Definitions of Four Vegetation Grata.
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	0	= Total Cov	er	
50% of total cover:		total cover:	^	
50 % Of total cover.	20% 01	total cover.		
Woody Vine Stratum (Plot size:)				
1				
2				
3				
4				
5				Hydrophytic
		= Total Cov		Vegetation Present? Yes No
50% of total cover:0	20% of	total cover:	0	Present? Yes No
Remarks: (If observed, list morphological adaptations below	w).			I.
The market (in experience, not morphological adaptations sold	,.			