WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline	City/County: Randolph	Sampling Date: 6/2/2016
Applicant/Owner: Dominion	State:	
Investigator(s): CG, RP	Section, Township, Range:	
Landform (hillslope, terrace, etc.): road cut	Local relief (concave, convex, none):	ave Slope (%): <u>10</u>
Subregion (LRR or MLRA): Lat: 38.5	83594 Long: -80.15833	Datum:
Soil Map Unit Name:	NWI	classification: UPL
Are climatic / hydrologic conditions on the site typical for this	s time of year? Yes 🖌 No (If no, exp	olain in Remarks.)
Are Vegetation, Soil 🔽 , or Hydrology 🗹 s	gnificantly disturbed? Are "Normal Circumst	ances" present? Yes No
Are Vegetation, Soil, or Hydrology n	aturally problematic? (If needed, explain an	y answers in Remarks.)

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

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

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 S	oils (C6) Crayfish Burrows (C8)
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No 🖌 Depth (inches):	
Water Table Present? Yes No 🖌 Depth (inches):	
Saturation Present? Yes No 🖌 Depth (inches):	Wetland Hydrology Present? Yes No
Saturation Present? Yes <u>No</u> Depth (inches): (includes capillary fringe)	
Saturation Present? Yes <u>Ves</u> No <u>V</u> Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe) Mo Depth (inches): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspective)	
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VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: norae030

, , , , , , , , , , , , , , , , , , ,		Absolute	Dominant I	ndicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 30			Species?			
1 none	/	0	000000	Olalao	Number of Dominant Species	
· ··					That Are OBL, FACW, or FAC: (A	•)
2					Total Number of Dominant	ļ
3					Species Across All Strata: 2 (B	3)
4						<i>'</i>
					Percent of Dominant Species	
5					That Are OBL, FACW, or FAC: (A	\/B)
6					Developes in dev workshaat.	
7					Prevalence Index worksheet:]
		0	= Total Cove	<u>م</u> r	Total % Cover of: Multiply by:	
50'	% of total cover: 0		total cover:	•	OBL species x 1 =0	ļ
	4 -	20,000.	10101 00 101.		FACW species 62 x 2 = 124	ļ
Sapling/Shrub Stratum (Plot size:)	^			30 60]
1. none		0			FAC species $x_3 = 0$]
2					FACU species $x 4 = 4$]
3					UPL species 20 x 5 = 100	ļ
					102 284	(B)
4						<u>с</u> ,
5					Prevalence Index = B/A =2.78	
6						
					Hydrophytic Vegetation Indicators:	
7					1 - Rapid Test for Hydrophytic Vegetation	ļ
8					2 - Dominance Test is >50%	
9					✓ 3 - Prevalence Index is $\leq 3.0^{1}$	
		0	= Total Cove	<u></u>	—	ļ
50	% of total cover: 0		total cover:	0	4 - Morphological Adaptations ¹ (Provide support	ting
-		2070.01	10101 00101.		data in Remarks or on a separate sheet)	
)	50			Problematic Hydrophytic Vegetation ¹ (Explain)]
1. Viola cucullata		50	Yes	FACW		
2. Dryopteris campyloptera		20	Yes	UPL		
_{3.} Solidago rugosa		15	No	FAC	¹ Indicators of hydric soil and wetland hydrology must	st
4. Leersia virginica		10	No	FACW	be present, unless disturbed or problematic.]
					Definitions of Four Vegetation Strata:	
5. Acer rubrum		5	No	FAC		
6. Fraxinus pennsylvanica		2	No	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm)	
					more in diameter at breast height (DBH), regardless	; of
7					height.	
8					Sapling/Shrub – Woody plants, excluding vines, les	22
9			. <u> </u>		than 3 in. DBH and greater than or equal to 3.28 ft (
10					m) tall.	
11		102			Herb – All herbaceous (non-woody) plants, regardle	SS
	E1		= Total Cove		of size, and woody plants less than 3.28 ft tall.	
50'	% of total cover: 51	20% of	total cover:	20.4	Woody vine – All woody vines greater than 3.28 ft ir	n
Woody Vine Stratum (Plot size:	30)				height.	
1. none		0			Tolgi	
						ļ
2						
3						
4					Hydrophytic	
5					Vegetation	
0. <u></u>			Tatal Cours		Present? Yes V No	
	% of total cover: 0		= Total Cove	<u>^</u>		
			total cover:			
Remarks: (Include photo numbers	here or on a separate sh	heet.)				

	cription: (Describe t	o the dep				or confirm	n the absence of i	ndicators.)	
Depth	Matrix			x Feature		. 2	-	-	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-2	7.5YR 3/2	100					L		
2-6	10YR 5/6	90	2.5YR 5/8	10	С	PL	CL		
6-12	10YR 5/6	100					CL		
						·			
¹ Type: C=C Hydric Soil Histosol		etion, RM	I=Reduced Matrix, M		d Sand Gra	ains.			ic Hydric Soils ³ :
Histic E Black H Hydroge Stratified 2 cm Mu Deplete	pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) uck (A10) (LRR N) d Below Dark Surface ark Surface (A12)	e (A11)	Polyvalue Be Thin Dark Su Loamy Gleye Depleted Ma Redox Dark Depleted Da Redox Depre	elow Surfa urface (S9 ed Matrix (htrix (F3) Surface (F rk Surface)) (MLRA 1 (F2) =6) e (F7)		148) Coas (M Piedr (M Very	t Prairie Redox (<i>/</i> LRA 147, 148) nont Floodplain S LRA 136, 147) Shallow Dark Su ^r (Explain in Rem	A16) Soils (F19) rface (TF12)
MLR/ Sandy G Sandy F Stripped	Aucky Mineral (S1) (L A 147, 148) Gleyed Matrix (S4) Redox (S5) Matrix (S6)	RR N,	Iron-Mangan MLRA 13 Umbric Surfa Piedmont Flo Red Parent I	6) ace (F13) podplain S	(MLRA 13 Soils (F19)	6, 122) (MLRA 14	I8) wetlan	ors of hydrophytic d hydrology mus disturbed or prol	t be present,
Restrictive Type: R	Layer (if observed): DCK								
	ches): <u>12</u>						Hydric Soil Pre	sent? Yes	No 🖌
Remarks:									



Non-water data point norae030 facing east



Non-water data point norae030 facing west



Non-water data point NORAE031 facing west



Non-water data point NORAC102 facing north



Non-water data point NORAC102 facing west



Non-water data point NORAE032 facing north

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: Atlantic Coast Pipeline	City/County: Ran	dolph	Sampling Date: 8/8/2016
Applicant/Owner: Dominion		State: WV	Sampling Point: norae072
Investigator(s): CG, KO	Section, Townshi	p, Range:	
Landform (hillslope, terrace, etc.): Summit	Local relief (concave	e, convex, none): <u>convex</u>	Slope (%): <u>10</u>
Subregion (LRR or MLRA): Lat: 38	.50249497	_ Long: <u>-80.10242953</u>	Datum: WGS1984
Soil Map Unit Name:		NWI classifi	cation: UPLAND
Are climatic / hydrologic conditions on the site typical for th	his time of year? Yes	No (If no, explain in I	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances"	present? Yes 🖌 No
Are Vegetation, Soil, or Hydrology	naturally problematic?	(If needed, explain any answ	ers in Remarks.)

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

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No
Remarks:					
Upland data point taken in mapped NW	I area to show t	here is no existing w	etland.		

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)
Primary Indicators (minimum of one is required; check all that apply)	 Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2)
Field Observations:	
Surface Water Present? Yes No ✓ Depth (inches): Water Table Present? Yes No ✓ Depth (inches): Saturation Present? Yes No ✓ Depth (inches): (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	Wetland Hydrology Present? Yes No
Remarks: no hydrology	

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

Sampling Point: norae072

	A h = = h + t =	• Density of the	Perter	Deminence Test werkelsest
Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Ir Species?		Dominance Test worksheet:
Acer rubrum	15	Yes	FAC	Number of Dominant Species That Are OBL EACW or EAC: 4 (A)
		· ·		That Are OBL, FACW, or FAC: (A)
2		· ·		Total Number of Dominant
3				Species Across All Strata: 6 (B)
4				· · · · · · · · · · · · · · · · · · ·
		· ·		Percent of Dominant Species
5		· ·		That Are OBL, FACW, or FAC: <u>66.666666666</u> (A/B)
6		· ·		Prevalence Index worksheet:
7				
	15	= Total Cover		Total % Cover of: Multiply by:
50% of total cover:7.5		total cover:	3	OBL species x 1 =0
15	20/0 01	total 00ver		FACW species x 2 =0
Sapling/Shrub Stratum (Plot size: 13)	10	Vee		FF 10F
1. Acer rubrum	10	Yes	FAC	FAC species 55 x 3 = 105
_{2.} Pinus strobus	5	Yes	FACU	FACU species $x 4 = $
3		· ·		UPL species $0 x 5 = 0$
		· ·		Column Totals: 80 (A) 265 (B)
4		· ·		
5				Prevalence Index = B/A =3.31
6.				
7				Hydrophytic Vegetation Indicators:
7		· ·		1 - Rapid Test for Hydrophytic Vegetation
8				 2 - Dominance Test is >50%
9				3 - Prevalence Index is ≤3.0 ¹
	15	= Total Cover		
50% of total cover:7.5		total cover:	3	4 - Morphological Adaptations ¹ (Provide supporting
F	20/0 01	total 00ver		data in Remarks or on a separate sheet)
Therb Stratum (Flot size)	20			Problematic Hydrophytic Vegetation ¹ (Explain)
1. Dendrolycopodium obscurum	20	Yes	FACU	
2. Desmodium canadense	20	Yes	FAC	1
3. Solidago rugosa	10	Yes	FAC	¹ Indicators of hydric soil and wetland hydrology must
<u>. </u>		· ·		be present, unless disturbed or problematic.
4		· ·		Definitions of Four Vegetation Strata:
5				
6				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
				more in diameter at breast height (DBH), regardless of height.
7				neight.
8		· ·		Sapling/Shrub – Woody plants, excluding vines, less
9				than 3 in. DBH and greater than or equal to 3.28 ft (1
10.				m) tall.
11.				
· · · · ·	50			Herb – All herbaceous (non-woody) plants, regardless
		= Total Cover		of size, and woody plants less than 3.28 ft tall.
50% of total cover: 25	20% of	total cover:	10	Woody vine – All woody vines greater than 3.28 ft in
Woody Vine Stratum (Plot size: 30)				height.
1. none	0			
		· ·		
2		· ·		
3				
4				Hydrophytic
5				Vegetation
	-	Tatal Cause		Present? Yes V No
50% of total cover: 0		= Total Cover	•	
50% of total cover: 0	20% 01	total cover:		
Remarks: (Include photo numbers here or on a separate s	heet.)			

Depth	Matrix		Redo	ox Features					
inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Rema	arks
0-3	10YR 4/2	100					SIL		
	<u></u>								
vpe: C=C	Concentration, D=Dep	letion. RM=	Reduced Matrix. M	S=Masked	Sand Gra	ains.	² Location: PL=P	ore Linina. M=M;	atrix.
	Indicators:		,						ic Hydric Soils ³
Histoso	bl (A1)		Dark Surfac	e (S7)			2 cm	Muck (A10) (ML	RA 147)
Histic E	Epipedon (A2)		Polyvalue B	elow Surfac	e (S8) (M	LRA 147,		t Prairie Redox (/	
Black H	Histic (A3)		Thin Dark S					LRA 147, 148)	
_ Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix (F	-2)		Piedn	nont Floodplain S	Soils (F19)
Stratifie	ed Layers (A5)		Depleted Ma	atrix (F3)			(MI	LRA 136, 147)	
2 cm M	luck (A10) (LRR N)		Redox Dark	Surface (F	6)		Very	Shallow Dark Su	rface (TF12)
_ Deplete	ed Below Dark Surface	e (A11)	Depleted Date	rk Surface	(F7)		Other	(Explain in Rem	arks)
_ Thick D	Dark Surface (A12)		Redox Depr	essions (F8	3)				
_ Sandy	Mucky Mineral (S1) (L	.RR N,	Iron-Mangar	nese Masse	es (F12) (I	_RR N,			
MLR	A 147, 148)		MLRA 13	86)					
Sandy	Gleyed Matrix (S4)		Umbric Surfa					ors of hydrophytic	c vegetation and
Sandy	Redox (S5)		Piedmont Fl	oodplain So	oils (F19)	(MLRA 14	8) wetland	d hydrology mus	t be present,
	d Matrix (S6)		Red Parent	Material (F2	21) (MLR	A 127, 147	7) unless	disturbed or prol	blematic.
	Layer (if observed):								
Type: ro	DCK								
	nches): <u>3</u>						Hydric Soil Pre	sent? Yes	No 🖌
	/								



Non-water data point norae072 facing east



Non-water data point norae072 facing west



Non-water data point NOPOE300 facing east



Non-water data point NOPOE301 facing southeast



Non-water data point NOPOC100 facing east