ATTACHMENT D UPLAND DATA SHEETS

Project/Site: Falcon Ethane Pipeline	City/County: Washington Sampling Date: 19.	-Oct-16
Applicant/Owner: Shell Pipeline Company, LP	State: PA Sampling Point: UPL-MRK-00)8
Investigator(s): M.R.Kline, E.M.Dillon	Section, Township, Range: S T Robinson	R
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): CONVEX Slope: 1.	0%_ / 0.6 °
Subregion (LRR or MLRA): MLRA 126 in LRR N La	- t.: 40.371860	m: NAD83
Soil Map Unit Name: Udorthents, strip mine, steep	NWI classification: PEM1Cx	
Are climatic/hydrologic conditions on the site typical for this time of	f year? Yes No (If no, explain in Remarks.)	
	antly disturbed? Are "Normal Circumstances" present? Yes Yes	No O
	ly problematic? (If needed, explain any answers in Remarks.)	
- , - ,	,	turos oto
	g sampling point locations, transects, important fea	ltures, etc.
Hydrophytic Vegetation Present? Yes No •		
Hydric Soil Present? Yes No •	Is the Sampled Area within a Wetland? Yes ○ No ●	
Wetland Hydrology Present? Yes ○ No ●	within a wetland?	
Hydrology		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply	Secondary Indicators (minimum of two re Surface Soil Cracks (B6)	<u>quirea)</u>
Surface Water (A1) True Aquatic Pl		(B8)
High Water Table (A2) Hydrogen Sulfic	_ , ,	(50)
	spheres along Living Roots (C3) Moss Trim Lines (B16)	
	duced Iron (C4)	
Sediment Deposits (B2) Recent Iron Re	duction in Tilled Soils (C6) Crayfish Burrows (C8)	
☐ Drift deposits (B3) ☐ Thin Muck Surf	ace (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	s):	
Water Table Present? Yes No Depth (inches	s): Wetland Hydrology Present? Yes O No •	
Saturation Present? Yes No Depth (inches		
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections), if available:	
Remarks:		

		Dominant Section 2	Sampling Point: <u>UPL-MRK-008</u>
Tree Stratum (Plot size:)	Absolute % Cover		dicator Dominance Test worksheet:
1	0	0.0%	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)
2		0.0%	mat are obe, mon, or me.
3		0.0%	Total Number of Dominant
		0.0%	Species Across All Strata:3(B)
4		0.0%	Percent of dominant Species
5		0.0%	That Are OBL, FACW, or FAC: 0.0% (A/B)
6		0.0%	Prevalence Index worksheet:
7		0.0%	Total % Cover of: Multiply by:
8		= Total Cover	
Sapling-Sapling/Shrub Stratum (Plot size:)	- Total Cover	
1		0.0%	FACW species x 2 =0
2		0.0%	FAC speci es0 x 3 =0
3		0.0%	FACU species 85 x 4 = 340
4		0.0%	UPL species $\frac{70}{}$ x 5 = $\frac{350}{}$
5		0.0%	Column Totals: 155 (A) 690 (B)
6		0.0%	Prevalence Index = B/A = 4.452
7		0.0%	
8		0.0%	Hydrophytic Vegetation Indicators:
9		0.0%	Rapid Test for Hydrophytic Vegetation
0		0.0%	Dominance Test is > 50%
		= Total Cover	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size: 15' radius)			Morphological Adaptations 1 (Provide supporting
1. Elaeagnus umbellata		✓ 100.0% UI	
2			Problematic Hydrophytic Vegetation ¹ (Explain)
3	0		Indicators of hydric soil and wetland hydrology must
4	0		be present, unless disturbed or problematic.
5	0	0.0%	Definition of Vegetation Strata:
6	0	0.0%	Four Vegetation Strata:
7	0	0.0%	Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u>)	10=	= Total Cover	regardless of height. Sapling/shrub stratum – Consists of woody plants, excluding
1. Lolium perenne		<u>✓</u> 51.7% FA	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Trifolium pratense	5		Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Coronilla varia	50	✓ 34.5% UI	regardless of size, and all other plants less than 3.28 ft tall.
4. Daucus carota	10	6.9%UI	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5. <u>Cirsium arvense</u>	5		ACU
6	0	0.0%	Five Vegetation Strata:
7	0	0.0%	Tree - Woody plants, excluding woody vines, approximately 20
8	0	0.0%	ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9.	0	0.0%	diameter at breast height (DBH).
0	0	0.0%	Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
1		0.0%	than 3 in. (7.6 cm) DBH.
2.		0.0%	Shrub stratum – Consists of woody plants, excluding woody
	145	= Total Cover	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)		0.000	Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
1	0	0.0%	species, except woody vines, less than approximately 3 ft (1
2			m) in height.
3			Woody vines – Consists of all woody vines, regardless of height.
4		0.0%	
5	0		Hydrophytic
6	0	0.0%	Vegetation
		= Total Cover	Present? Yes V NO V
Remarks: (Include photo numbers here or on a separate	sheet \		ı
(<i></i> ,		

Profile Descrip	ption: (Describe to	the depth ne	eded to document	the indica	ator or co	nfirm the a	absence of indicators.)	
Depth -	Matrix		Rec	dox Featu	res			
(inches)	Color (moist)		Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-14	10YR 5/3	100					Silt Loam	
			-					
				-		-		
				-				
				-				
¹ Type: C=Conce	entration. D=Depletion	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	d Sand Gra	ains ² Loca	tion: PL=Pore Lining. M=Matr	ix
Hydric Soil Ir			_		_		Indicators for Problem	atic Hydric Soils ³ :
Histosol (A	1)		Dark Surface (•			2 cm Muck (A10) (M	•
Histic Epipe	edon (A2)		Polyvalue Belov	w Surface (S	S8) (MLRA	147,148)	Coast Prairie Redox	,
Black Histic	(A3)		☐ Thin Dark Surfa	ace (S9) (M	LRA 147, 1	148)	(MLRA 147,148)	(A16)
Hydrogen S	Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Piedmont Floodplain	Soils (F19)
Stratified L	ayers (A5)		☐ Depleted Matrix	x (F3)			(MLRA 136, 147)	
2 cm Muck	(A10) (LRR N)		Redox Dark Su	rface (F6)			☐ Very Shallow Dark S	urface (TF12)
Depleted B	elow Dark Surface (A	11)	Depleted Dark	Surface (F7)		Other (Explain in Re	marks)
Thick Dark	Surface (A12)		Redox Depress	ions (F8)				
Sandy Muc MLRA 147,	k Mineral (S1) (LRR N 148)	,	Iron-Manganes MLRA 136)	e Masses (F	12) (LRR	N,		
Sandy Gley	ed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	22)	2	
Sandy Red	ox (S5)		Piedmont Floor	dplain Soils	(F19) (MLI	RA 148)	o Indicators of hydro	drophytic vegetation and logy must be present,
Stripped M	atrix (S6)		Red Parent Ma	terial (F21)	(MLRA 12	7, 147)		rbed or problematic.
	<i></i>							
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ○ No ●
Depth (inch	es):						,	100 - 110 -
Remarks:								

Project/Site: Falcon Ethane Pipeline	City/County: Washington	Sampling Date: 19-Oct-16
Applicant/Owner: Shell Pipeline Company, LP	State: PA Sampl	ing Point: UPL-MRK-009
Investigator(s): M.R.Kline, E.M.Dillon	Section, Township, Range:	T Robinson R
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex,	none): convex Slope: 1.0% / 0.6 °
Subregion (LRR or MLRA): MLRA 126 in LRR N La	- t.: 40.372692 L o	ong.: -80.275573
Soil Map Unit Name: Udorthents, strip mine, steep		I classification: PUBHh
Are climatic/hydrologic conditions on the site typical for this time o	fyear? Yes No (If no	o, explain in Remarks.)
	•	al Circumstances" present? Yes No
		explain any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point locatio	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •		
Hydric Soil Present? Yes ○ No •	Is the Sampled Area	
Wetland Hydrology Present?	within a Wetland?	Yes ○ No •
Hydrology		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply	v)	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6)
Surface Water (A1)	ants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfid	de Odor (C1)	Drainage Patterns (B10)
	spheres along Living Roots (C3)	Moss Trim Lines (B16)
	duced Iron (C4) duction in Tilled Soils (C6)	☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8)
Drift deposits (B3) Thin Muck Surf	• ,	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain	` '	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	s)·	
M		
	Wetland Hy	drology Present? Yes O No 💿
(includes capillary fringe) Yes V No Depth (inches		
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspections), if ava	nilable:
Demonto		
Remarks:		

		Dominant Species 2	Sampling Point: UPL-MRK-009
Tree Stratum (Plot size:)	Absolute % Cover	-Species? Rel.Strat. Cover Status	
1	0	0.0%	Number of Dominant Species That are OBL, FACW, or FAC: (A)
2		0.0%	
3		0.0%	Total Number of Dominant Species Across All Strata: 3 (B)
4		0.0%	Species not oss nin ottata.
5		0.0%	Percent of dominant Species
6		0.0%	That Are OBL, FACW, or FAC: 0.0% (A/B)
7		0.0%	Prevalence Index worksheet:
8	0	0.0%	Total % Cover of: Multiply by:
	0 =	= Total Cover	0BL species
Sapling-Sapling/Shrub Stratum (Plot size:)		FACW species 0 x 2 = 0
1			FAC species x 3 =60
2			FACU species $90 \times 4 = 360$
3	0		70 050
4	0		'
5	0		Col umn Total s: <u>180</u> (A) <u>770</u> (B)
6	0		Prevalence Index = B/A = 4.278
7			Hydrophytic Vegetation Indicators:
8			Rapid Test for Hydrophytic Vegetation
9	0		Dominance Test is > 50%
0	0	0.0%	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size: _15' radius)		= Total Cover	Morphological Adaptations ¹ (Provide supporting
1. Elaeagnus umbellata	10	✓ 100.0% UPL	data in Remarks or on a separate sheet)
2.		0.0%	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
3		0.0%	¹ Indicators of hydric soil and wetland hydrology must
4		0.0%	be present, unless disturbed or problematic.
5		0.0%	Definition of Vegetation Strata:
5 6		0.0%	Four Vegetation Strata:
o		0.0%	Tree stratum – Consists of woody plants, excluding vines, 3 in.
(Diet einer El volt e		= Total Cover	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5' radius</u>)			Sapling/shrub stratum – Consists of woody plants, excluding
1. Lolium perenne		✓ 29.4% FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Trifolium pratense	5		Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
3. <u>Coronilla varia</u>		✓ 29.4% UPL	Woody vines – Consists of all woody vines greater than 3.28 ft
4. Solidago canadensis		14.7% FACU	in height.
5. <u>Cirsium arvense</u>		5.9% FACU	
6. <u>Symphyotrichum pilosum</u>		11.8% FAC	Five Vegetation Strata:
7. <u>Daucus carota</u>			Tree - Woody plants, excluding woody vines, approximately 20
8			ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9			Sapling stratum – Consists of woody plants, excluding woody
0			vines, approximately 20 ft (6 m) or more in height and less
1			than 3 in. (7.6 cm) DBH. Shrub stratum – Consists of woody plants, excluding woody
2		0.0%	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	170 =	= Total Cover	Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1
2		0.0%	m) in height.
3.		0.0%	Woody vines – Consists of all woody vines, regardless of
4		0.0%	height.
5		0.0%	
5 6		0.0%	Hydrophytic Vegetation
·		= Total Cover	Present? Yes No •

Profile Descr	iption: (Describe to	the depth	needed to document	the indic	ator or co	nfirm the	absence of indicators.)	
Depth	<u>Matrix</u>			dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%_	Tvpe 1	Loc2	Texture	Remarks
0-8	10YR 4/4	_ 100					Silt Loam	
8-16	2.5Y 5/3	100					Silty Clay Loam	
							-	
¹ Type: C=Con	centration. D=Depletion	on. RM=Redu	iced Matrix. CS=Covere	ed or Coate	ed Sand Gra	nins ² Loca	ntion: PL=Pore Lining. M=M	atrix
Hydric Soil 1			ioda manun, do dovere		<i>ya oana on</i>			
Histosol (Dark Surface (S7)			Indicators for Proble	ematic Hydric Soils ³ :
	pedon (A2)		Polyvalue Belov		(SQ) (MI DA	147 149)	2 cm Muck (A10)	(MLRA 147)
Black Hist			Thin Dark Surfa				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed			40)	(MLRA 147,148)	
	Layers (A5)		Depleted Matrix		,		Piedmont Floodpl	ain Soils (F19)
	k (A10) (LRR N)		Redox Dark Su				(MLRA 136, 147)	0.5 (77.10)
		11)	Depleted Dark	` ,	7)			
	Below Dark Surface (A k Surface (A12)	(11)	Redox Depress		,,		Other (Explain in	Remarks)
	• •		☐ Iron-Manganes		(F12) (LRR	N		
Sandy Mu MLRA 147	ıck Mineral (S1) (LRR 1 7, 148)	Ν,	MLRA 136)		. , ,			
Sandy Gle	eyed Matrix (S4)		Umbric Surface				3 Indicators of	hydrophytic vegetation and
Sandy Re			☐ Piedmont Floor	dplain Soils	(F19) (MLI	RA 148)	wetland hyd	Irology must be present,
Stripped I	Matrix (S6)		Red Parent Ma	terial (F21)) (MLRA 12	7, 147)	unless dis	sturbed or problematic.
Restrictive L	ayer (if observed):							
Depth (inc	hes):						Hydric Soil Present?	Yes O No 💿
Remarks:							1	
rtomants.								
1								

Project/Site: Falcon Ethane Pipeline	City/County: Washington	Sampling Date: 19-Oct-16
Applicant/Owner: Shell Pipeline Company, LP	State: PA Sam	pling Point: UPL-MRK-010
Investigator(s): M.R.Kline, E.M.Dillon	Section, Township, Range	: S T Robinson R
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, conve	x, none): convex Slope: 1.0% / 0.6 °
Subregion (LRR or MLRA): MLRA 126 in LRR N		1 1.070 0.0
		Long.: -80.275726 Datum: NAD83 WI classification: PUBHh
Soil Map Unit Name: Udorthents, strip mine, steep	0 0	
Are climatic/hydrologic conditions on the site typical for this		no, explain in Remarks.) mal Circumstances" present? Yes No No
Are Vegetation , Soil , or Hydrology s	ignificantly disturbed? Are "Nor	mal Circumstances" present? Yes No
Are Vegetation \square , Soil \square , or Hydrology \square n	aturally problematic? (If neede	ed, explain any answers in Remarks.)
Summary of Findings - Attach site map sho	wing sampling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ○ No •		
Hydric Soil Present? Yes ○ No •	Is the Sampled Are	a Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?	res Uno U
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that	t apply)	Surface Soil Cracks (B6)
	uatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	en Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3) Oxidized	Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
	e of Reduced Iron (C4)	Dry Season Water Table (C2)
	Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
	ck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
	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) Aquatic Fauna (B13)		☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations:		TAC-neutral rest (D3)
	(inches):	
		lydrology Present? Yes O No 💿
(includes capillally inflige)	(inches):	
Describe Recorded Data (stream gauge, monitoring well, as	rial photos, previous inspections), if a	vailable:
Domarks		
Remarks:		

		Dominant		Sampling Point: UPL-MRK-010
	Absolute % Cover		Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2		0.0%		
3.		0.0%		Total Number of Dominant Species Across All Strata: 6 (B)
4.	_	0.0%		Species Across Air Strata.
5.		0.0%		Percent of dominant Species
6.		0.0%		That Are OBL, FACW, or FAC: 16.7% (A/B)
7		0.0%		Prevalence Index worksheet:
8		0.0%		Total % Cover of: Multiply by:
	0 :	= Total Cove	r	0BL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum_ (Plot size:)				FACW species 0 x 2 = 0
1		0.0%		FAC species 20 x 3 = 60
2		0.0%		FACU species $\frac{20}{20}$ x 4 = $\frac{500}{20}$
3	0	0.0%		' 05 405
4	0	0.0%		'
5	0	0.0%		Column Totals: <u>170</u> (A) <u>685</u> (B)
6		0.0%		Prevalence Index = B/A = 4.029
7				Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size: 15' radius)		= Total Cove	r	Morphological Adaptations ¹ (Provide supporting
1. Elaeagnus umbellata	_10_	100.0%	UPL	data in Remarks or on a separate sheet)
2.		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3.		0.0%		¹ Indicators of hydric soil and wetland hydrology must
4		0.0%		be present, unless disturbed or problematic.
5		0.0%		Definition of Vegetation Strata:
6.		0.0%		Four Vegetation Strata:
7.	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
		= Total Cove	r	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: 5' radius)		_		Sapling/shrub stratum – Consists of woody plants, excluding
1. Trifolium pratense	50	31.3%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Solidago canadensis		15.6%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
3. Lolium perenne		12.5%	FACU	Woody vines – Consists of all woody vines greater than 3.28 ft
4. Cirsium arvense		✓ 12.5% ✓ 12.5%	FACU	in height.
5. <u>Symphyotrichum pilosum</u>			FAC	
6. <u>Daucus carota</u>	10	6.3%	UPL	Five Vegetation Strata:
7. Plantago major		6.3%	FACU	Tree - Woody plants, excluding woody vines, approximately 20
8. Coronilla varia	5	3.1%	UPL	ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9		0.0%		Sapling stratum – Consists of woody plants, excluding woody
10		0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11				Shrub stratum – Consists of woody plants, excluding woody
12	0	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	160 :	= Total Cove	r	Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1
2	0	0.0%		m) in height.
3	0_	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		Hadaankadia
6	0	0.0%		Hydrophytic Vegetation
	0	= Total Cove	r	Present? Yes No •
Remarks: (Include photo numbers here or on a separate sheet	+ \			
Remarks. (Include photo humbers here of on a separate sheet	.,			

Profile Descri	iption: (Describe to	the depth	needed to document	the indic	ator or co	nfirm the a	absence of indicators.)	
Depth	Matrix			lox Featu				
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-6	10YR 5/2						Silt Loam	
6-12	2.5Y 5/3	100					Silty Clay Loam	
	-			-				
¹ Type: C=Cond	centration. D=Depletion	n. RM=Redu	iced Matrix, CS=Covere	d or Coate	ed Sand Gra	ains ² Loca	ition: PL=Pore Lining. M=Matr	ix
Hydric Soil I	ndicators:						Indicators for Problem	natic Hydric Soils ³ :
Histosol (A	A1)		Dark Surface (S	S7)				-
Histic Epip	edon (A2)		Polyvalue Belov	v Surface ((S8) (MLRA	147,148)	☐ 2 cm Muck (A10) (N	
☐ Black Histi	ic (A3)		Thin Dark Surfa	ice (S9) (N	/ILRA 147, 1	48)	Coast Prairie Redox (MLRA 147,148)	(A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed I	Matrix (F2))		Piedmont Floodplair	Soils (F10)
Stratified L	Layers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	1 30113 (1 17)
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	face (F6)			Very Shallow Dark S	Surface (TF12)
Depleted E	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in Re	emarks)
Thick Dark	Surface (A12)		Redox Depressi	ions (F8)				•
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	١,	Iron-Manganes MLRA 136)	e Masses ((F12) (LRR	N,		
Sandy Gle	yed Matrix (S4)		Umbric Surface	(F13) (ML	_RA 136, 12	22)		
Sandy Rec			Piedmont Flood	Iplain Soils	(F19) (MLI	RA 148)	³ Indicators of hy	drophytic vegetation and logy must be present,
Stripped M			Red Parent Mat	terial (F21)) (MLRA 12	7, 147)	unless distu	rbed or problematic.
	ayer (if observed):							
-							Hydric Soil Present?	Yes O No •
	nes):						,	165 - 116 -
Remarks:								

Project/Site: Falcon Ethane Pipeline		City/County: Washington	Sampling Date: 19-Oct-16
Applicant/Owner: Shell Pipeline Company	y, LP	State: PA Sample	ng Point: UPL-MRK-011
Investigator(s): M.R.Kline, E.M.Dillon		Section, Township, Range:	T Robinson R
Landform (hillslope, terrace, etc.):	lillside	Local relief (concave, convex,	none): convex Slope: 1.0% / 0.6 °
Subregion (LRR or MLRA): MLRA 126	6 in LRR N Lat.:	40.373455 Lo	ong.: -80.275962
Soil Map Unit Name: Udorthents, strip	mine, steep		I classification: PUBHh
Are climatic/hydrologic conditions on th	ne site typical for this time of v	ear? Yes • No O (If no	o, explain in Remarks.)
		-	al Circumstances" present? Yes No
			explain any answers in Remarks.)
Summary of Findings - Attac	ch site man showing s		ns, transects, important features, etc.
	Yes No •		ins, cransces, important reatures, etc.
	res ○ No ⊙		
1,		Is the Sampled Area within a Wetland?	Yes ○ No •
Wetland Hydrology Present?	Yes O No •		
Hydrology			
Wetland Hydrology Indicators: Primary Indicators (minimum of one r	roquired; check all that apply)		Secondary Indicators (minimum of two required)
Surface Water (A1)	True Aquatic Plant	ts (R14)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide (Drainage Patterns (B10)
Saturation (A3)		eres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduc		Dry Season Water Table (C2)
Sediment Deposits (B2)		ction in Tilled Soils (C6)	Crayfish Burrows (C8)
☐ Drift deposits (B3)	Thin Muck Surface		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in F	` '	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		,	Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B	37)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			☐ Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:			
	No Depth (inches):		
Water Table Present? Yes	No Depth (inches):		
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):	Wetland Hyd	Irology Present? Yes O No 💿
Describe Recorded Data (stream gauge	e, monitoring well, aerial photo	os, previous inspections), if ava	allable:
Remarks:			

		Dominant Creation 2	Sampling Point: UPL-MRK-011		
Tree Stratum (Plot size:)	Absolute % Cover		is		
1	0	0.0%	Number of Dominant Species That are OBL, FACW, or FAC: 0 (A)		
2		0.0%	mat are obe, mon, or me.		
3		0.0%	Total Number of Dominant		
		0.0%	Species Across All Strata: 4 (B)		
4		0.0%	Percent of dominant Species		
5 6		0.0%	That Are OBL, FACW, or FAC: 0.0% (A/B)		
o 7		0.0%	Prevalence Index worksheet:		
8		0.0%	Total % Cover of: Multiply by:		
		= Total Cover	0BL speci es 0 x 1 = 0		
Sapling-Sapling/Shrub Stratum (Plot size:)	_	FACW species $0 \times 2 = 0$		
1	0	0.0%			
2	0				
3	0	0.0%			
4	0	0.0%	UPL species 20 x 5 = 100		
5	0		Column Totals: <u>145</u> (A) <u>590</u> (B)		
6			Prevalence Index = B/A = 4.069		
7		0.0%	Hydrophytic Vegetation Indicators:		
8		0.0%	Rapid Test for Hydrophytic Vegetation		
9	0	0.0%	Dominance Test is > 50%		
0	0	0.0%	Prevalence Index is ≤3.0 ¹		
Shrub Stratum (Plot size: 15' radius)	0=	= Total Cover	Morphological Adaptations ¹ (Provide supporting		
1. Elaeagnus umbellata	5	✓ 100.0% UPL	data in Remarks or on a separate sheet)		
2		0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)		
3.		0.0%	Indicators of hydric soil and wetland hydrology must		
4		0.0%	be present, unless disturbed or problematic.		
5		0.0%	Definition of Vegetation Strata:		
		0.0%	Four Vegetation Strata:		
6		0.0%	Tree stratum – Consists of woody plants, excluding vines, 3 in.		
7		= Total Cover	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
Herb Stratum (Plot size: <u>5' radius</u>)		_	Sapling/shrub stratum – Consists of woody plants, excluding		
1. Trifolium pratense		✓ 35.7% FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Lolium perenne		14.3% FAC	regardless of size and all other plants less than 2.29 ft tall		
3. Achillea millefolium		✓ 14.3% FAC			
4. Solidago canadensis		7.1% FAC	in height.		
5. Symphyotrichum pilosum					
6. <u>Daucus carota</u>			Five Vegetation Strata:		
7. Plantago major			Tree - Woody plants, excluding woody vines, approximately 20		
8. Coronilla varia		3.6%UPL	ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
9. Phleum pratense	5	3.6% FAC	Sapling stratum – Consists of woody plants, excluding woody		
0		0.0%	vines, approximately 20 ft (6 m) or more in height and less		
1			than 3 in. (7.6 cm) DBH.		
2			Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size:)	140 =	= Total Cover	Herb stratum – Consists of all herbaceous (non-woody) plants,		
1	0	0.0%	including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1		
2	0	0.0%	m) in height.		
3.	0	0.0%	Woody vines – Consists of all woody vines, regardless of		
4		0.0%	height.		
5		0.0%			
6		0.0%	Hydrophytic Vegetation		
0		= Total Cover	Present? Yes No •		

Profile Descr	iption: (De	escribe to	the depth	needed to	documen	t the indic	ator or co	onfirm the a	absence of indicators.)				
Depth	Depth Matrix Redox Features												
(inches)		(moist)		Color	(moist)	%	Tvpe 1	Loc2	<u>Texture</u>	Remarks			
0-4	2.5Y	5/2	_ 100						Silt Loam				
4-14	2.5Y	5/3	60	10YR	6/8	40	C	M	Silty Clay Loam				
					-				-				
	-												
							-						
¹ Type: C=Cond	centration.	D=Depletio	n. RM=Rec	luced Matrix,	CS=Cover	ed or Coate	ed Sand Gr	ains ² Loca	tion: PL=Pore Lining. M=M	latrix			
Hydric Soil I	indicators								Indicators for Proble	ematic Hydric Soils ³ :			
Histosol (A1)			Dar	k Surface ((S7)			2 cm Muck (A10)				
Histic Epip	pedon (A2)			Poly	value Belo	w Surface (S8) (MLRA	147,148)		`			
☐ Black Hist	ic (A3)			Thir	Dark Surf	ace (S9) (M	ILRA 147,	148)	Coast Prairie Red (MLRA 147,148)	ox (A16)			
Hydrogen	Sulfide (A4	1)		Loa	my Gleyed	Matrix (F2)			Piedmont Floodpl	ain Soils (F10)			
Stratified	Layers (A5)			Dep	leted Matri	ix (F3)			(MLRA 136, 147)				
2 cm Mucl	k (A10) (LR	R N)		Red	ox Dark Su	ırface (F6)			☐ Very Shallow Dark Surface (TF12)				
Depleted	Below Dark	Surface (A	11)	Dep	leted Dark	Surface (F7	7)		Other (Explain in	Remarks)			
Thick Darl	k Surface (A	A12)		Red	ox Depress	sions (F8)			_ ` ` '	,			
Sandy Mu MLRA 147	ick Mineral (7, 148)	(S1) (LRR N	١,		-Mangane: A 136)	se Masses (F12) (LRR	N,					
	Sandy Gleyed Matrix (S4)				bric Surfac	e (F13) (ML	.RA 136, 1	22)					
	Sandy Redox (S5)				Piedmont Floodplain Soils (F19) (MLRA 148)				³ Indicators of	hydrophytic vegetation and			
	Matrix (S6)					iterial (F21)				drology must be present, sturbed or problematic.			
Restrictive La													
Type:									Hydric Soil Present?	Yes O No 💿			
Depth (incl	nes):								-				
Remarks:													
Soils are mixe	ed/disturb	ed.											

Project/Site: Falcon Ethane Pipeline			City/County:	Washington		Sampling Date	: 19-Oct-16	
Applicant/Owner: Shell Pipeline Company, LP			State: PA	Samplin	g Point:	UPL-MRK-012		
Investigator(s): M.R.Kline, E.M.Dillon			Section, Town	nship, Range: S	т	Robinson	R	
Landform (hillslope, terrace, etc.):	Hillside		Local relief (co	ncave, convex, n	one): convex	Slope:		
Subregion (LRR or MLRA): MLRA 1	26 in LRR N	Lat.:	40.377265	Lon	-80.275579		Datum: NAD83	
Soil Map Unit Name: Dormont-Culled					classification: Pl			
Are climatic/hydrologic conditions on	the site tur	sical for this time of ve	ar? Yes 💿	No O (If no	explain in Remar	ks)		
	, or Hydrolo		y disturbed?	` '	-		s • No O	
	, or Hydrold		roblematic?		Circumstances" p	i cociici		
		· ·				_		
Summary of Findings - Att			ampling po	int location	s, transects,	important	features, etc.	
Hydrophytic Vegetation Present?		No •						
Hydric Soil Present?	Yes 💿	No O		Sampled Area	Yes O No •			
Wetland Hydrology Present?	Yes 🔾	No 💿	within	a Wetland?				
Hydrology								
Wetland Hydrology Indicators:					Secondary Indicato	ors (minimum of t	wo required)	
Primary Indicators (minimum of one	required;	check all that apply)			Surface Soil Cr.		vo required,	
Surface Water (A1)		True Aquatic Plants	s (B14)			ated Concave Sur	face (B8)	
☐ High Water Table (A2)		Hydrogen Sulfide O	dor (C1)		☐ Drainage Patte	rns (B10)		
Saturation (A3)		Oxidized Rhizosphe	eres along Living F	Roots (C3)	Moss Trim Line	es (B16)		
Water Marks (B1)		Presence of Reduce	ed Iron (C4)		Dry Season Wa	ater Table (C2)		
Sediment Deposits (B2)		Recent Iron Reduct	tion in Tilled Soils	(C6)	Crayfish Burrov	ws (C8)		
Drift deposits (B3)		Thin Muck Surface	(C7)		Saturation Visib	ole on Aerial Imag	ery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Re	emarks)		Stunted or Stre	essed Plants (D1)		
☐ Iron Deposits (B5)					Geomorphic Po			
☐ Inundation Visible on Aerial Imagery	(B7)				Shallow Aquita	. ,		
Water-Stained Leaves (B9)					Microtopograpi			
Aquatic Fauna (B13)					FAC-neutral Te	est (D5)		
Field Observations: Surface Water Present? Yes	No 💿	Depth (inches):						
Water Table Present? Yes	No 💿	-						
Saturation Present? (includes capillary frings) Yes	No 💿	Depth (inches):		Wetland Hydr	ology Present?	Yes O No	o •	
(includes capillary fringe) Describe Recorded Data (stream gau		Depth (inches):	e provious incr	octions) if avail	ablo			
Describe Recorded Data (stream gad	ige, monito	illig well, aerial prioto:	s, previous irisp	ections), ii avaii	able.			
Remarks:								
Remarks.								

		Dominant	Sampling Point: UPL-MRK-012
Tree Stratum (Plot size:)	Absolute % Cover	Rel.Strat. Indicator Status	Dominance Test worksheet:
1	0	0.0%	Number of Dominant Species That are OBL, FACW, or FAC: (A)
2		0.0%	
3		0.0%	Total Number of Dominant Species Across All Strata: 3 (B)
4		0.0%	Species / No ess / No estatu.
5		0.0%	Percent of dominant Species
6		0.0%	That Are OBL, FACW, or FAC: 0.0% (A/B)
7	_	0.0%	Prevalence Index worksheet:
8	0	0.0%	Total % Cover of: Multiply by:
	0 =	Total Cover	0BL species0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:)		FACW species 0 x 2 = 0
1		0.0%	FAC species10_ x 3 =30_
2			FACU species 85 x 4 = 340
3			' 40 000
4			·
5			Column Totals: <u>135</u> (A) <u>570</u> (B)
6	0		Prevalence Index = B/A = 4.222
7	0	0.0%	Hydrophytic Vegetation Indicators:
8	0	0.0%	Rapid Test for Hydrophytic Vegetation
9	0	0.0%	☐ Dominance Test is > 50%
0	0	0.0%	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size: _15' radius)	=	Total Cover	Morphological Adaptations ¹ (Provide supporting
1. Elaeagnus umbellata	10	✓ 100.0% UPL	data in Remarks or on a separate sheet)
2.		0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)
3		0.0%	¹ Indicators of hydric soil and wetland hydrology must
4		0.0%	be present, unless disturbed or problematic.
5		0.0%	Definition of Vegetation Strata:
5. 6.		0.0%	Four Vegetation Strata:
7	0	0.0%	Tree stratum – Consists of woody plants, excluding vines, 3 in.
(2)		Total Cover	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5' radius</u>)			Sapling/shrub stratum – Consists of woody plants, excluding
1. Andropogon virginicus		✓ 40.0% FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Coronilla varia		✓ 16.0% UPL	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
3. Solidago canadensis		8.0% FACU	Woody vines – Consists of all woody vines greater than 3.28 ft
4. Symphyotrichum pilosum		8.0% FAC	in height.
5. <u>Daucus carota</u>			
6. <u>Plantago major</u>		8.0% FACU	Five Vegetation Strata:
7. Lolium perenne		8.0% FACU	Tree - Woody plants, excluding woody vines, approximately 20
8. Achillea millefolium			ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9			Sapling stratum – Consists of woody plants, excluding woody
0			vines, approximately 20 ft (6 m) or more in height and less
1			than 3 in. (7.6 cm) DBH.
2	0		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)		Total Cover	Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%	including herbaceous vines, regardless of size, and woody
2		0.0%	species, except woody vines, less than approximately 3 ft (1 m) in height.
3		0.0%	Woody vines – Consists of all woody vines, regardless of
5 4		0.0%	height.
	_	0.0%	
		0.0%	Hydrophytic Vegetation
6		= Total Cover	Present? Yes No •
	()		

Depth (inches)		•				e absence of indicators.)	
(inches)	Matrix			ox Feature			
	Color (moist)	<u>%</u> _	Color (moist)	<u></u> %	Tvpe Loc²	Texture	Remarks
0-16	5Y 5/1	100				Silt Loam	
						-	
¹ Type: C=Cond	entration. D=Depletion	n. RM=Reduce	ed Matrix, CS=Covere	d or Coated :	Sand Grains ² Lo	cation: PL=Pore Lining. M=Ma	ıtrix
Hydric Soil I	ndicators:					Indicators for Proble	matic Hydric Soils ³ :
Histosol (A	11)		Dark Surface (S	7)		2 cm Muck (A10)	
Histic Epip	edon (A2)		Polyvalue Below	Surface (S8) (MLRA 147,148)		
Black Histi	c (A3)		Thin Dark Surfa	ce (S9) (MLR	A 147, 148)	Coast Prairie Redo (MLRA 147,148)	x (A16)
	Sulfide (A4)		Loamy Gleyed N	Matrix (F2)		Piedmont Floodpla	in Soils (F19)
Stratified I	_ayers (A5)		✓ Depleted Matrix	(F3)		(MLRA 136, 147)	565 (. 1.7)
2 cm Muck	(A10) (LRR N)		Redox Dark Sur	face (F6)		Very Shallow Dark	Surface (TF12)
Depleted I	Below Dark Surface (A	11)	Depleted Dark S	Surface (F7)		Other (Explain in F	Remarks)
Thick Dark	Surface (A12)		Redox Depressi				
Sandy Muc MLRA 147	ck Mineral (S1) (LRR N , 148)	l,	Iron-Manganese MLRA 136)	Masses (F1	2) (LRR N,		
Sandy Gle	yed Matrix (S4)		Umbric Surface	(F13) (MLRA	136, 122)	2	
Sandy Red	lox (S5)		Piedmont Flood	plain Soils (F	19) (MLRA 148)	³ Indicators of h	ydrophytic vegetation and ology must be present,
Stripped N	latrix (S6)		Red Parent Mat	erial (F21) (N	MLRA 127, 147)		turbed or problematic.
Postrictivo I s	wor (if observed):						
Type:	yer (if observed):						
Depth (inch	200).					Hydric Soil Present?	Yes ● No ○
	les)						
Remarks:							
	d/disturbed with ro	ck througho	ut.				
Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
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Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
Solls are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							
Soils are mixe							

Project/Site: Falcon Ethane Pipeline			City/Cour	ity: Washington		Sampling Date:	: 19-Oct-16	
Applicant/Owner: Shell Pipeline Company, LP			State: PA	Samplir	ng Point:	UPL-MRK-013		
Investigator(s): M.R.Kline, E.M.Dillon			Section,	Township, Range: S	т	Robinson	R	
Landform (hillslope, terrace, etc.):	Hillside		Local relief	f (concave, convex, r	none): convex	Slope:		
Subregion (LRR or MLRA): MLRA 12	22 in LRR	N Lat.:	40.37051	.0 Lo r	ng.: -80.277275		Datum: NAD83	
Soil Map Unit Name: Udorthents, stri			10.07001		classification: Pl			
Are climatic/hydrologic conditions on			VAS		, explain in Remar			
	-			•	-	-	s • No O	
	or Hydrol		-		l Circumstances" p	, count.		
	or Hydrol			(=: :::::::::,	explain any answe	_		
Summary of Findings - Atta			ampling	point location	ns, transects,	important	features, etc.	
Hydrophytic Vegetation Present?	Yes 🔾	No 💿						
Hydric Soil Present?	Yes 🔾	No 💿		the Sampled Area	Yes ○ No ●			
Wetland Hydrology Present?	$_{Yes}$ \bigcirc	No 💿	w	ithin a Wetland?	ies 🔾 NO 🕓			
Hydrology								
Wetland Hydrology Indicators:					_Secondary Indicate	ors (minimum of t	wo required)	
Primary Indicators (minimum of one	required;	check all that apply)			Surface Soil Cr		No required)	
Surface Water (A1)		True Aquatic Plants	s (B14)			tated Concave Sur	face (B8)	
☐ High Water Table (A2)		Hydrogen Sulfide C	Odor (C1)		☐ Drainage Patte	rns (B10)		
Saturation (A3)		Oxidized Rhizosphe	eres along Li	ving Roots (C3)	Moss Trim Line	es (B16)		
Water Marks (B1)		Presence of Reduce	ed Iron (C4)		Dry Season Wa	ater Table (C2)		
Sediment Deposits (B2)		Recent Iron Reduc	tion in Tilled	Soils (C6)	Crayfish Burrov	ws (C8)		
Drift deposits (B3)		☐ Thin Muck Surface	(C7)		Saturation Visil	ble on Aerial Imag	jery (C9)	
Algal Mat or Crust (B4)		Other (Explain in R	emarks)		Stunted or Stre	essed Plants (D1)		
☐ Iron Deposits (B5)					Geomorphic Po			
Inundation Visible on Aerial Imagery	(B7)				Shallow Aquita			
Water-Stained Leaves (B9)					Microtopograp			
Aquatic Fauna (B13)					FAC-neutral Te	st (D5)		
Field Observations: Surface Water Present? Yes	No 💿	Depth (inches):						
	No 💿	•		_				
		Depth (inches):		Wetland Hyd	rology Present?	Yes O No	o •	
(includes capillary fringe) Yes	No 💿	Depth (inches):			U-1-1-			
Describe Recorded Data (stream gau	ge, moniti	oring weil, aerial photo	s, previous	inspections), if avai	liable:			
Do ma o mico.								
Remarks:								

		Dominant		Sampling Point: UPL-MRK-013
	Absolute % Cover		Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
2		0.0%		
3.		0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4	_	0.0%		Species neross nii strata.
5		0.0%		Percent of dominant Species
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7		0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
(Dlat size)	0	= Total Cover		0BL species0 x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:)		0.000		FACW species
1		0.0%		FAC species <u>10</u> x 3 = <u>30</u>
2	-	0.0%		FACU species85 x 4 =340
3		0.0%		UPL species $\frac{45}{100} \times 5 = \frac{225}{100}$
4		0.0%		Column Totals: 140 (A) 595 (B)
5		0.0%		(1)
6		0.0%		Prevalence Index = B/A = 4.250
7		0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9		0.0%		☐ Dominance Test is > 50%
10		= Total Cover		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size: 15' radius)				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. Elaeagnus umbellata		100.0%	UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
2		0.0%		
3		0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		0.0%		Definition of Vegetation Strata:
5		0.0%		Four Vegetation Strata:
6		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7				(7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u>)	5	= Total Cover		regardless of height. Sapling/shrub stratum – Consists of woody plants, excluding
1. Andropogon virginicus	30	22.2%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Coronilla varia	30	22.2%	UPL	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Solidago canadensis	10	7.4%	FACU	regardless of size, and all other plants less than 3.28 ft tall.
4. Symphyotrichum pilosum	10		FAC	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5. Daucus carota		7.4%	UPL	
6. <u>Plantago major</u>		7.4%	FACU	Five Vegetation Strata:
7. Lolium perenne		18.5%	FACU	Tree - Woody plants, excluding woody vines, approximately 20
8. Achillea millefolium		3.7%	FACU	ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9. <u>Cirsium arvense</u>		3.7%	FACU	Sapling stratum – Consists of woody plants, excluding woody
10		0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11		0.0%		Shrub stratum – Consists of woody plants, excluding woody
12	125			vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	135			Herb stratum – Consists of all herbaceous (non-woody) plants,
1		0.0%		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1
2	0			m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of height.
4	0			neigna
5	0	0.0%		Hydrophytic
6	0	0.0%		Vegetation
	0	= Total Cover	<u> </u>	Present? Yes VO
Remarks: (Include photo numbers here or on a separate shee	et.)			

Profile Descr	iption: (Describe to	the depth no	eeded to document	the indic	ator or co	nfirm the a	absence of indicators.)	
Depth	Matrix Redox Features Color (moist) % Color (moist) % Type 1 Loc²							
(inches)	Color (moist)		Color (moist)	%	Type	Loc2	Texture	Remarks
0-16	10YR 5/3						Silt Loam	
								-
¹ Type: C=Con	centration. D=Depletio	n. RM=Reduc	ed Matrix, CS=Cover	ed or Coate	ed Sand Gra	ins ² Loca	ition: PL=Pore Lining. M=N	Matrix
Hydric Soil I	Indicators:						Indicators for Drobl	ematic Hydric Soils ³ :
Histosol (Dark Surface (S7)				
	pedon (A2)		Polyvalue Belo		(S8) (MLRA	147,148)	2 cm Muck (A10)) (MLRA 147)
Black Hist			Thin Dark Surfa				Coast Prairie Red	lox (A16)
	Sulfide (A4)		Loamy Gleyed	Matrix (F2))		(MLRA 147,148)	L . C . L (540)
Stratified	Layers (A5)		Depleted Matri				Piedmont Floodp (MLRA 136, 147)	iain Soiis (F19)
2 cm Muc	k (A10) (LRR N)		Redox Dark Su				Very Shallow Dar	
Depleted	Below Dark Surface (A	.11)	Depleted Dark	Surface (F	7)		Other (Explain in	
	k Surface (A12)	•	Redox Depress	ions (F8)			United (Explain in	Remarksy
	ıck Mineral (S1) (LRR N	١,	Iron-Manganes MLRA 136)	se Masses	(F12) (LRR	N,		
			Umbric Surface	e (F13) (MI	RA 136, 12	(2)		
Sandy Gle	eyed Matrix (S4)		☐ Piedmont Floo				³ Indicators of	hydrophytic vegetation and
	Matrix (S6)		Red Parent Ma				wetland hy	drology must be present, isturbed or problematic.
Stripped i	wattix (30)		Red I dient wa	iteriai (121)) (IVILIA 12	7, 147)	uniess u	isturbed of problematic.
	ayer (if observed):							
							Hydric Soil Present?	Yes ○ No •
Depth (inc	hes):						nyunc son Present	res Uno U
Remarks:								
Soils are mixe	ed/disturbed with ro	ock througho	ut.					

Project/Site: Falcon Ethane Pipeline	City/County: Washington	Sampling Date: 19-Oct-16
Applicant/Owner: Shell Pipeline Company, LP	State: PA Sam	pling Point: UPL-MRK-014
Investigator(s): M.R.Kline, E.M.Dillon	Section, Township, Range	: S T Robinson R
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, conve	ex, none): convex Slope: 1.0% / 0.6
Subregion (LRR or MLRA): MLRA 126 in LRR N L	— at.: 40.370600	Long.: -80.277763 Datum: NAD83
Soil Map Unit Name: Culleoka channery silt loam, 15 to 25 perce		WI classification: PUBHh
Are climatic/hydrologic conditions on the site typical for this time of		
	,	f no, explain in Remarks.) mal Circumstances" present? Yes No
Are Vegetation , Soil 🗹 , or Hydrology signific	cantly disturbed? Are "Nor	mal Circumstances" present? Yes No
Are Vegetation U , Soil U , or Hydrology U natura	lly problematic? (If neede	ed, explain any answers in Remarks.)
Summary of Findings - Attach site map showin	g sampling point locati	ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No •		
Hydric Soil Present? Yes No •	Is the Sampled Are	
Wetland Hydrology Present?	within a Wetland?	ea Yes ○ No •
Hydrology		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that app	lv)	Secondary Indicators (minimum of two required)
Surface Water (A1) True Aquatic F		Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) High Water Table (A2) Hydrogen Sulf		Drainage Patterns (B10)
	spheres along Living Roots (C3)	Moss Trim Lines (B16)
	educed Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	eduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	face (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 (inche	-)	
Water Table Present? Yes No Depth (inche	vs):	Hydrology Present? Yes ○ No ●
Saturation Present? (includes capillary fringe) Yes No Depth (inche	ss):	
Describe Recorded Data (stream gauge, monitoring well, aerial p	notos, previous inspections), if a	available:
Remarks:		

		Dominant		Sampling Point: UPL-MRK-014
Tree Stratum (Plot size:)	Absolute % Cover	. conociuci	Indicator Status	300000000000000000000000000000000000000
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
2		0.0%		
3		0.0%		Total Number of Dominant
3 4		0.0%		Species Across All Strata:4(B)
5		0.0%		Percent of dominant Species
6		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7		0.0%		Prevalence Index worksheet:
8		0.0%		Total % Cover of: Multiply by:
		= Total Cove	r	0BL species x 1 =0
Sapling-Sapling/Shrub Stratum (Plot size:)	_		FACW species $0 \times 2 = 0$
1	0	0.0%		
2		0.0%		<u> </u>
3		0.0%		45
4	0	0.0%		UPL species $\frac{45}{}$ x 5 = $\frac{225}{}$
5	0	0.0%		Column Totals: <u>150</u> (A) <u>635</u> (B)
6	0	0.0%		Prevalence Index = B/A =4.233
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		Dominance Test is > 50%
0	0	0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size: 15' radius)	0=	= Total Cove	r	Morphological Adaptations ¹ (Provide supporting
1. Elaeagnus umbellata	5	✓ 100.0%	UPL	data in Remarks or on a separate sheet)
		0.0%	0.2	Problematic Hydrophytic Vegetation ¹ (Explain)
2		0.0%		¹ Indicators of hydric soil and wetland hydrology must
3		0.0%		be present, unless disturbed or problematic.
4		0.0%		Definition of Vegetation Strata:
5		0.0%		Four Vegetation Strata:
6		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		= Total Cove		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5' radius</u>)		_	F	Sapling/shrub stratum – Consists of woody plants, excluding
1. Andropogon virginicus		20.7%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Coronilla varia		20.7%	UPL	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Solidago canadensis	10	6.9%_	FACU	regardless of size, and all other plants less than 3.28 ft tall.
4. Symphyotrichum pilosum		6.9%	FAC	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5. Daucus carota	10	6.9%	UPL	
6. Plantago major	10	6.9%	FACU	Five Vegetation Strata:
7. Lolium perenne		20.7%	FACU	Tree - Woody plants, excluding woody vines, approximately 20
8. Achillea millefolium		3.4%	FACU	ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9. Cirsium arvense	10	6.9%	FACU	diameter at breast height (DBH). Sapling stratum – Consists of woody plants, excluding woody
0		0.0%		vines, approximately 20 ft (6 m) or more in height and less
1	0	0.0%		than 3 in. (7.6 cm) DBH.
2	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	145 =	= Total Cove	r	Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
2	0	0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4		0.0%		height.
		0.0%		
5 6		0.0%		Hydrophytic Vegetation
U				Present? Yes No •
	0	= Total Cove	ar a	Present? 103 0 110 0

Depth	Matrix		Red	lox Featu				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Tvpe 1	Loc2	Texture	Remarks
0-16	2.5Y 6/3	100					Silt Loam	
							-	
								•
								•
	-			-				
				-				
Type: C=Con	centration. D=Depletic	on. RM=Redu	iced Matrix, CS=Covere	d or Coate	d Sand Gra	ins ² Loca	tion: PL=Pore Lining. M=N	1atrix
Hydric Soil I	Indicators:						Indicators for Probl	ematic Hydric Soils ³ :
Histosol (Dark Surface (S	57)				-
_	pedon (A2)		Polyvalue Below	, , Surface (S8) (MLRA	147,148)	2 cm Muck (A10)	(MLRA 147)
Black Hist			Thin Dark Surfa				Coast Prairie Red	ox (A16)
	Sulfide (A4)		Loamy Gleyed N			ŕ	(MLRA 147,148)	
_	Layers (A5)		Depleted Matrix				Piedmont Floodp (MLRA 136, 147)	lain Soils (F19)
	k (A10) (LRR N)		Redox Dark Sur					k Surface (TF12)
	Below Dark Surface (A	(11)	Depleted Dark S	` '	7)			
	k Surface (A12)	(11)	Redox Depressi		,		Other (Explain in	Remarks)
	ick Mineral (S1) (LRR N	NI.	☐ Iron-Manganese		F12) (LRR	N.		
MLRA 147	7, 148)	ν,	MLRA 136)	(, (=, (=, , ,			
Sandy Gle	eyed Matrix (S4)		Umbric Surface	(F13) (ML	.RA 136, 12	22)	•	
Sandy Re			Piedmont Flood	plain Soils	(F19) (MLI	RA 148)	³ Indicators of	hydrophytic vegetation and drology must be present,
Stripped N	Matrix (S6)		Red Parent Mat	erial (F21)	(MLRA 12	7, 147)		isturbed or problematic.
	ayer (if observed):							
Type:							Hydric Soil Present?	Yes ○ No •
Depth (inc	hes):						Tryunc Son Fresent:	Tes C NO C
Remarks:								
oils are mixe	ed/disturbed with ro	ock through	out.					