Project/Site: Bluewater Te	erminal SPM Project	City/Coun	ty: Aransas	Sampling Date	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point: W	VP1053_WET_E2EM_A
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	ange: S N/A T N/	'A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relie	= f (concave, convex, none)	: Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T			917337 Lo n	g: -97.134011	Datum: NAD 83
Soil Map Unit Name: Musta	ang fine sand, 0 to 1 percent sk	ppes, occasionally flooded, fre	quently ponde NWI Class	ification: PEM1A	
Are climatic/hydrologic con	nditions on the site typical f	or this time of year?		no, explain in Remarks.)	
	Soil , or Hydrology	significantly dist		Circumstances" present	
	Soil , or Hydrology	naturally probler		explain any answers in R	0 0
Are vegetation,	Jon , or riyurology		natic: (If needed, e	Apiani any answers in N	emarksi)
SUMMARY OF FINDING	S – Attach site map sho	wing sampling point lo	cations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Pres	ent? Yes •	No O	Is the Sampled Area		
Hydric Soil Present?	Yes •	No O	within a Wetland?	Yes	No
Wetland Hydrology Present?	Yes •	No O			
Remarks:	ric coil and watland budgalogy	are present. This is a wetland			
Hydrophytic vegetation, nydr	ric soil, and wetland hydrology	are present. This is a wetland.			
HYDROLOGY					
Wetland Hydrology Indic					
	num of one required; check	all that apply)	Second	larv Indicators (Minimur	n of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Conca	. ,
High Water Table (A2)		Marl Deposits (B15) (LRR U)		Drainage Patterns (B10)	ve surrace (bo)
Saturation (A3)		Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres along	Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Presence of Reduced Iron (Co	=	Crayfish Burrows (C8)	,
Drift Deposits (B3)		Recent Iron Reduction in Tille	ed Soils (C6)	Saturation Visible on Aeria	ıl Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)	· · ·	Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae	erial Imagery (B7)	, , , , , , , , , , , , , , , , , , , ,	✓	FAC-Neutral Test (D5)	
Water-Stained Leaves (E	39)			Sphagnum moss (D8) (LR	R T, U)
Field Observations:					
Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present?	Yes O No •	Depth (inches):	-		
Saturation Present?	Yes No	Depth (inches): 4	Wetland	d Hydrology Present?	Yes • No O
(includes capillary fringe)			-		
Describe Recorded Data (str	ream gauge, monitor well, aeria	I photos, previous inspections	s), if available:		
Remarks:					
Remarker					

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 15

20% of Total Cover: 0

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

2 Borrichia frutescens 3 . Andropogon glomeratus

50% of Total Cover: 38

50% of Total Cover: 0

1 . Spartina patens

1.____

Herb Stratum

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0__

0_

0__

0__

0

0

0

0

0

0

0

0

0

0

0

0

0 0

0

0 0

0

0

0

Rel.Strat. Indicator

0.0%

0.0%_

0.0%

0.0% 0.0%

0.0%

0.0%

0.0%_

0.0% 0.0%

0.0% 0.0%

0.0%_

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0%

0.0%_

0.0%

= Total Cover

50 🗸 ___66.7%__FACW__

26.7% OBL

0.0%

0.0%_ 0.0% 0.0%

0.0%_

0.0%_ 0.0%

0.0%_

= Total Cover

6.7% FACW 0.0%

0.0%

0.0%

= Total Cover

Status

Sampling P	Point:	WP105	3_WE	T_E2E	M_A
Dominance Test work					
Number of Dominant Sp That are OBL, FACW, ro			3	_	(A)
Total Number of Domina Species Across All Strata			3	_	(В
Percent of Dominant Spo That are OBL, FACW, or			_100.0	0%_	(A/B)
Prevalence Index wo	rksheet:				
Total % Cover of:		Multip	ly by:		_
OBL species	20_	x 1		20_	
FACW species	55_	x 2		110	
FAC species	0	x 3	- —	0	
FACU species	0	x 4	- —		
UPL species	0	x 5	- —	0	
Colum Totals:	75	(A)	_	130	(B)
Prevalence Index	c = B/A=			1.733	
1 - Rapid Test for ✓ 2 - Dominance Te ✓ 3 - Prevalence In Problematic Hydr	est is > 5 idex is ≤	3.0¹	-		n)
✓ 2 - Dominance Te ✓ 3 - Prevalence In	est is > 5 idex is ≤ rophytic ic soil an	0% 3.0¹ Vegeta	tion¹ (I	Explair	n)
2 - Dominance Te 3 - Prevalence In Problematic Hydr 1 Indicators of hydr	est is > 5 Idex is ≤ sophytic ic soil and present, if the control of the contro	3.01 Vegeta d wetlaunless Strata ing wo more i er at bre	and disturb 3: ody vin n heigh	ed or es, t and (3 in.
2 - Dominance To 3 - Prevalence In Problematic Hydr 1 Indicators of hydrihydrology must be p Definition of Vego Tree - Woody plants approximately 20 ft (7.6 cm) or larger in	est is > 5 Idex is ≤ solder is ≤ rophytic ic soil an oresent, if etation s, exclud (6 m) or diamete (6 m) or diamete (6 m) or DBH.	3.01 Vegeta d wetlaunless Strata ing wo more i er at bro	and disturbed a: ody vin n heigh east he woody n heigh	ed or es, t and (ight (vines, t and I	3 in. BH). ess
2 - Dominance To 3 - Prevalence In Problematic Hydr 1 Indicators of hydr hydrology must be p Definition of Veg Tree - Woody plants approximately 20 ft (7.6 cm) or larger in Sapling - Woody pla approximately 20 ft than 3 in. (7.6 cm) E Sapling/Shrub - Wood	est is > 5 idex is ≤ rophytic ic soil an oresent, the etation s, exclud (6 m) or diamete (6 m) or DBH. ody plant greater the ts, excludits, e	oo% 3.0¹ Vegeta d wetlaunless Strata ing wo more i er at bro luding more i ts, excl han 3.2 ding w	and disturbed a: ody vin n heigh east he woody n heigh	ed or es, t and (ight (ines, I m) tall. nes,	3 in. BH). ess
2 - Dominance To 3 - Prevalence In Problematic Hydr 1 Indicators of hydrinydrology must be properly Definition of Vegous Tree - Woody plants approximately 20 ft (7.6 cm) or larger in Sapling - Woody plants approximately 20 ft than 3 in. (7.6 cm) E Sapling/Shrub - Woody plants in. DBH and general specific than 3 in. Table	est is > 5 idex is ≤ soldex is ≤ rophytic ic soil an oresent, the etation is, exclud (6 m) or diamete (6 m) or DBH. ody plantigreater the title, exclude (7 to the exclude (8 m) or DBH.	one of the control of	and disturbed a: ody vin n heigh east he woody n heigh luding v 28 ft (1r oody vi n heigh	ed or es, t and (ines, It and It) tines, It and It. include woody	3 in. BH). ess ess

Woody Vine Stratum	(Plot Size : <u>30</u>)				
1	0		0.0%_		
2		. 🗆 📖	0.0%_		
3	0	. 🗆 📖	0.0%_	Hydrophytic	

0.0%

0.0%

= Total Cover

Vegetation

Present ?

Remarks: (If observed, list morphological adaptations below).

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1053_WET_E2EM_A

Profile Description	on: (Describe to th	e depth need	ed to docu	ument th	e indicator or	confirm the a	osence of indicators.)	
Depth (inches)	Matrix				Features			
(inches)	Color (moist)		or (moist)	<u>%</u>	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 6/1	100					Sand	
¹Type: C=Concentrati	on, D=Depletion, RM=	Reduced Matrix	, CS=Covered	d or Coate	d Sand Grains.	² Location: PL=Po	re Lining, M=Matrix.	
Hydric Soil Indica	tors:						Indicators for Prob	lematic Hydric Soils ³ :
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed Matrix (Stripped M	e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15) eral (S1) (LRR O, S) atrix (S4)		Thin I Loamy Loamy Deple Redox Deple Redox Marl (Deple Iron-N Umbri Delta Reduc	Dark Surfa y Mucky N y Gleyed I ted Matrix c Dark Sur ted Dark Sur ted Oark C Depress F10) (LRF ted Ochric Manganes ic Surface Ochric (F ced Vertic cont Flooc	rface (F6) Surface (F7) ions (F8) R U) c (F11) (MLRA 1 e Masses (F12) (F13) (LRR P, 17) (MLRA 151) (F18) (MLRA 1! lplain Soils (F19)	T, U) R O) L51) (LRR O, P, T) T, U) 50A, 150B)) (MLRA 149A)	Piedmont Floodp Anomalous Brigh Red Parent Mate Very Shallow Da Other (Explain in) (LRR S) F18) (outside MLRA 150A,B) Ilain Soils (F19) (LRR P, S, T) It Loamy Soils (F20) (MLRA 153B) rial (TF2) rk Surface (TF12)
Restrictive Layer (Type: Depth (inches):						_	Hydric Soil Present?	Yes No
Remarks:								

Project/Site: Bluewater Te	rminal SPM Project	City/County: Aransas		Sampling Date:	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	: TX Sam	npling Point: WP1	053_WET_E2EM_B
Investigator(s): B. Bringh	urst & A. Ostrowski	Section	on, Township, Range:	S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave	, convex, none): Flat	S	lope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 27.917309	Long: -97.	133482 I	Datum: NAD 83
	ula coile (De)	271317303	NWI Classificatio		10.15 05
Soil Map Unit Name: Diano			— NWI Classificatio	MI. PEMIC	
Are climatic/hydrologic cor	nditions on the site typical for th	is time of year? Yes •	No (If no, expl	lain in Remarks.)	
Are Vegetation ,	Soil , or Hydrology	significantly disturbed?	Are "Normal Circum	nstances" present?	Yes No
Are Vegetation ,	Soil , or Hydrology	naturally problematic?	(If needed, explain	any answers in Rema	ırks.)
SUMMARY OF FINDING	S – Attach site map showing	sampling point locations, to	ansects, important	features, etc.	
Hydrophytic Vegetation Pres	ent? Yes • No	0			
Hydric Soil Present?	Yes No		e Sampled Area n a Wetland?	Yes •	No O
Wetland Hydrology Present?	Yes No		ra vvolana:		
Remarks: Hydrophytic vegetation, hydrophytic vegetatio	ric soil, and wetland hydrology are pr	esent. This is a wetland.			
Wetland Hydrology Indic	ators:				
	num of one required: check all t	hat apply)	Secondary Inc	dicators (Minimum of	2 required)
		,		•	. ,
Surface Water (A1) High Water Table (A2)		tic Fauna (B13) Deposits (B15) (LRR U)		ely Vegetated Concave S	urface (B8)
✓ Saturation (A3)		ogen Sulfide Odor (C1)		ge Patterns (B10)	
Water Marks (B1)		zed Rhizospheres along Living Roots		Frim Lines (B16)	
Sediment Deposits (B2)		ence of Reduced Iron (C4)		eason Water Table (C2)	
Drift Deposits (B3)		nt Iron Reduction in Tilled Soils (C6)		sh Burrows (C8)	20m/ (CO)
Algal Mat or Crust (B4)		Muck Surface (C7)		tion Visible on Aerial Ima orphic Position (D2)	agery (C9)
Iron Deposits (B5)		• •		w Aquitard (D3)	
Inundation Visible on A		r (Explain in Remarks)		eutral Test (D5)	
Water-Stained Leaves (E				num moss (D8) (LRR T,	11)
water-stained Leaves (L			Spriagi	num moss (D8) (LRR 1,	
Field Observations:	v				
Surface Water Present?		Depth (inches):			
Water Table Present? Saturation Present?		Depth (inches):	Madle o d Headas	alama Duaranta - Van	Au N
(includes capillary fringe)	Yes No	Depth (inches): 4	wetland Hydro	ology Present? Yes	• No O
Describe Recorded Data (st	ream gauge, monitor well, aerial pho	tos, previous inspections), if available	e:		

Sampling Point:	WP1053	WET	ESEM	В
Sampling Point:	VVP105.3	WEI	EZEM	В

	Dominant	Dominance Test worksheet:
	Absolute Species? Rel.Strat. Indicator Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC: (A)
Tree Stratum (Plot Size : 30		Total Number of Dominant Species Across All Strata:2(B
2		Species Across All Strata:2 (B
3		Percent of Dominant Species
4		That are OBL, FACW, or FAC: 100.0% (A/B)
5		Prevalence Index worksheet:
6		Total % Cover of: Multiply by:
7.		OBL species $100 \times 1 = 100$
8.		FACW species $0 \times 2 = 0$
50% of Total Cover: 0 20% of Total Cover:		FAC species $0 \times 3 = 0$
Conline on Conline (Church Church Chu		FACU species $0 \times 4 = 0$
Sapling or Sapling/Shrub Stratum (Plot Size : 30		UPL species $0 \times 5 = 0$
1		Colum Totals: 100 (A) 100 (B)
2		Column locals: 100 (A) 100 (B)
3		Prevalence Index = B/A= 1.000
4		Hydrophytic Vegetation Indicators:
5		
6		✓ 1 - Rapid Test for Hydrophytic Vegetation
7		✓ 2 - Dominance Test is > 50%
8		3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: Shrub Stratum (Plot Size : 3		Problematic Hydrophytic Vegetation¹ (Explain)
1		
2		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
3		nyarology must be present, unless distarbed of
4		Definition of Vegetation Strate.
5		Definition of Vegetation Strata:
6	0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0 20% of Total Cover:		(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 3		
1. Monanthochloe littoralis	-	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2 . Salicornia bigelovii	20 20 20 20 20 20 20 20 20 20 20 20 20 2	than 3 in. (7.6 cm) DBH.
3		
4		Sapling/Shrub - Woody plants, excluding vines, less
		than 3 in. DBH and greater than 3.28 ft (1m) tall.
56	0.0%	
		Shrub - Woody plants, excluding woody vines,
7		approximately 3 to 20 ft (1 to 6 m) in height.
8		Herb - All herbaceous (non-woody) plants, including
9		herbaceous vines, regardless of size, and woody
10		plants, except woody vines, less than approximately
11		3 ft (1 m) in height.
12	0 0.0% 20 100 = Total Cover	Woody vine - All woody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30		
1		
2	0	
3		Hydrophytic
4		Vegetation Yes No
5		Present ?
50% of Total Cover: 0 20% of Total Cover:		
Remarks: (If observed, list morphological adaptation	s below).	•
*Indicator suffix = National status or prefereignal desiring	cianad bacquea Pagianal status not defined by DAIC	
*Indicator suffix = National status or professional decision as	signed because Regional status not defined by FWS.	

SOIL Sampling Point: WP1053_WET_E2EM_B

Profile Description	on: (Describe to the	depth needed to	document t	he indicator o	r confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	Or Colon (ma		Features	I a setti a se 2	T.	B arrandon
0 - 16	Color (moist) 10YR 6/1	<u>Color (mo</u>	ist) %	Tvpe ¹	Location ²	Texture	Remarks
	10111 0,1					- Control of the cont	
¹ Type: C=Concentrati	on, D=Depletion, RM=R	educed Matrix, CS=Co	vered or Coate	ed Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	tors:					Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) (A5) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (ace (A12) dox (A16) (MLRA 150/ eral (S1) (LRR O, S) atrix (S4)	T	hin Dark Surt oamy Mucky oamy Gleyed epleted Matr edox Dark Su epleted Dark edox Depress larl (F10) (LR epleted Ochr ron-Mangane imbric Surfac elta Ochric (I educed Verti iedmont Floo	ix (F3) urface (F6) Surface (F7) sions (F8) UR U) cic (F11) (MLRA se Masses (F12) e (F13) (LRR P, F17) (MLRA 151 c (F18) (MLRA 1 dplain Soils (F19	5, T, U) RR O) 151) (LRR O, P, T) T, U)) 50A, 150B)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3 Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) urface (TF12)
Restrictive Layer Type: Depth (inches):						Hydric Soil Present? Υε	es • No 🔾
Remarks:							

Project/Site: Bluewater Te	rminal SPM Project	City/Count	ty: Aransas	Sampling Date	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point: W	P1053_WET_E2EM_C
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	ange: S N/A T N/A	A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relie	= f (concave, convex, none):	Flat	Slope: 1 % 0.6 °
Subregion (LRR): LRR T				g: -97.134031	Datum: NAD 83
	ung fine cand. 0 to 1 percent c	lopes, occasionally flooded, free		ification: PEM1C	TVAD 03
Son Map Offic Name. Music	rig fille safid, 0 to 1 percent s	lopes, occasionally hooded, free	quentity portue (14441 Class	TEMIC	
Are climatic/hydrologic con	ditions on the site typical	for this time of year?	Yes No (If n	o, explain in Remarks.)	
Are Vegetation , 9	Soil , or Hydrology	significantly dist	urbed? Are "Normal	Circumstances" present	? Yes • No O
Are Vegetation , 9	Soil , or Hydrology	naturally problem	matic? (If needed, e	xplain any answers in R	emarks.)
SUMMARY OF FINDING	5 – Attach site map sho	owing sampling point lo	cations, transects, impo	ortant features, etc.	
Hydrophytic Vegetation Prese	ent? Yes •	No O	la tha Cananlad Ana		
Hydric Soil Present?	Yes •	No O	Is the Sampled Area within a Wetland?	Yes	No
Wetland Hydrology Present?	Yes •	No O			
	ic soil, and wetland hydrology	are present. This is a wetland.			
HYDROLOGY					
Wetland Hydrology Indic		t Hater and N	C	T. d. L. Zharin	()
, ,	num of one required; chec		Second	ary Indicators (Minimun	n of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Concar	ve Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LRR U)		Drainage Patterns (B10)	
Saturation (A3)		Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres along		Dry Season Water Table (0	C2)
Sediment Deposits (B2)		Presence of Reduced Iron (C4	_	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in Tille	ed Soils (C6)	Saturation Visible on Aeria	Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae			✓	FAC-Neutral Test (D5)	
Water-Stained Leaves (E	9)			Sphagnum moss (D8) (LRF	R T, U)
Field Observations:					
Surface Water Present?	Yes O No 💿	Depth (inches):			
Water Table Present?	Yes O No 💿	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches): 4	Wetland	Hydrology Present?	res • No O
Remarks:	eam gauge, monitor well, aer	ial photos, previous inspections	;), if available:		

Tree Stratum

(Plot Size : <u>30</u>)

Sampling Point: WP1053_WE	T_E2EM_C					
Dominance Test worksheet:						
Number of Dominant Species That are OBL, FACW, ro FAC: 2	(A)					
Total Number of Dominant Species Across All Strata: 2	(B					
Percent of Dominant Species That are OBL, FACW, or FAC: 100.	.0% (A/B)					
Prevalence Index worksheet:						
Total % Cover of: Multiply by:						
OBL species 25 x 1 = FACW species 60 x 2 = FAC species 5 x 3 = FACU species 0 x 4 = UPL species 0 x 5 = Colum Totals: 90 (A)	25 120 15 0 0 160 (B)					
Prevalence Index = B/A=	1.778					
 ✓ 1 - Rapid Test for Hydrophytic Vegetation ✓ 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or 						
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vir approximately 20 ft (6 m) or more in heigh (7.6 cm) or larger in diameter at breast he Sapling - Woody plants, excluding woody approximately 20 ft (6 m) or more in heighthan 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding than 3 in. DBH and greater than 3.28 ft (1 Shrub - Woody plants, excluding woody v approximately 3 to 20 ft (1 to 6 m) in heighthar - All herbaceous (non-woody) plants herbaceous vines, regardless of size, and plants, except woody vines, less than app 3 ft (1 m) in height.	nt and 3 in. eight (DBH). vines, nt and less vines, less m) tall. ines, ht. i, including I woody proximately					
Woody vine - All woody vines, regardless	of height.					

1	0	Total Number of Dominant			
2.	0.0%	Species Across All Strata: (B			
3.	0.0%	Percent of Dominant Species			
4	0	That are OBL, FACW, or FAC: 100.0% (A/B)			
5	0	Prevalence Index worksheet:			
6	0	Total % Cover of: Multiply by:			
7	0.0%	OBL species 25 x 1 = 25			
8.	0.0%	FACW species $60 \times 2 = 120$			
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $5 \times 3 = 15$			
Continue on Continue (Charles Charles (Charles Charles		FACU species $0 \times 4 = 0$			
Sapling or Sapling/Shrub Stratum (Plot Size : 30)	0	UPL species $0 \times 5 = 0$			
1		Colum Totals: 90 (A) 160 (B)			
2		COTUM TOCATS: 90 (A) 100 (B)			
3		Prevalence Index = B/A= <u>1.778</u>			
4		Hydrophytic Vegetation Indicators:			
5					
6	0.0%	✓ 1 - Rapid Test for Hydrophytic Vegetation			
7		✓ 2 - Dominance Test is > 50%			
8	0	3 - Prevalence Index is ≤ 3.01			
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)			
Shrub Stratum (Plot Size : 30)					
1	0	¹ Indicators of hydric soil and wetland			
2	0	hydrology must be present, unless disturbed or			
3	0				
4	00.0%	Definition of Vegetation Strata:			
5	00.0%	Tree - Woody plants, excluding woody vines,			
6	0.0%	approximately 20 ft (6 m) or more in height and 3 in.			
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).			
Herb Stratum (Plot Size : 30)					
	60 ✓66.7% FACW	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less			
Spartina patens Borrichia frutescens	25 ✓ 27.8% OBL	than 3 in. (7.6 cm) DBH.			
Schinus terebinthifolia	5 5.6% FAC				
4.		Sapling/Shrub - Woody plants, excluding vines, less			
		than 3 in. DBH and greater than 3.28 ft (1m) tall.			
5					
6	0	Shrub - Woody plants, excluding woody vines,			
7	0	approximately 3 to 20 ft (1 to 6 m) in height.			
8	0.0%	Harb All bank account from a sent Nation to the first			
9	0	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody			
10		plants, except woody vines, less than approximately			
11		3 ft (1 m) in height.			
12	0				
50% of Total Cover: 45 20% of Total Cover: 18	90 = Total Cover	Woody vine - All woody vines, regardless of height.			
Woody Vine Stratum (Plot Size : 30) 1	0				
2	0.0%				
		l			
3		Hydrophytic Vegetation Yes No			
4	0.0%	Vegetation Yes • No Present ?			
5	0				
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover				

Dominant Species? Rel.Strat.

Cover

Indicator

Status

Absolute

% Cover

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1053_WET_E2EM_C

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redox	Features			
(inches)	Color (moist)	% Color (m	oist) %	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 6/1	100				Sand	
¹ Type: C=Concentrat	ion, D=Depletion, RM=R	educed Matrix, CS=Co	overed or Coated	d Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	itors:					Indicators for Problema	ntic Hydric Soils ³ :
5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Mir Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) f (A5) (A6) (LRR P, T, U) feral (A7) (LRR P, T, L) (A8) (LRR U) (LRR P, T) Dark Surface (A11) face (A12) dox (A16) (MLRA 150 feral (S1) (LRR O, S) feral (S4)	-		ice (S9) (LRR S dineral (F1) (LR Matrix (F2) c (F3) face (F6) Surface (F7) ons (F8) c (F11) (MLRA e Masses (F12) (F13) (LRR P, L7) (MLRA 151) (F18) (MLRA 1	, T, U) R O) 151) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	. ,					lydric Soil Present? Ye	s • No 🔾
Remarks:							

Project/Site: Bluewater Te	rminal SPM Project	City/Cou	Inty: Aransas	Sampling Date:	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point: V	VP1053_WET_E2SS
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township,	Range: S N/A T N/A	R N/A
Landform (hillslope, terrace	, etc.): Flat	Local rel	— lief (concave, convex, non-	e): Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T				ong: -97.134011	Datum: NAD 83
	ung fine cand. 0 to 1 norse	nt slopes, occasionally flooded, f		ssification: PEM1C	TVAD 03
Soil Map Offic Name. Music	ing fine sand, 0 to 1 perce	in slopes, occasionally flooded, i	requertity portice	SSINCACION. PENIC	
Are climatic/hydrologic con	ditions on the site typic	cal for this time of year?	Yes No (I	f no, explain in Remarks.)	
Are Vegetation , 9	Soil , or Hydrolo	gy significantly di	sturbed? Are "Norm	al Circumstances" present?	Yes No
Are Vegetation, \$	Soil 🗌 , or Hydrolo	gy 🔲 naturally probl	ematic? (If needed	, explain any answers in Re	marks.)
SUMMARY OF FINDING	S — Attach site map :	showing sampling point l	ocations, transects, im	portant features, etc.	
Hydrophytic Vegetation Prese			, , , , , , , , , , , , , , , , , , ,	· · ·	
Hydric Soil Present?	Yes		Is the Sampled Ar within a Wetland?	ea Yes 🤄	No O
Wetland Hydrology Present?		• No O	within a wettand?		
Remarks:	163	<u> </u>			
	ic soil, and wetland hydrol	ogy are present. This is a wetlan	d.		
HYDROLOGY					
Wetland Hydrology Indic					
Primary Indicators (Minin	num of one required; c	heck all that apply)	<u>Seco</u>	ndary Indicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Concave	e Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LRR U	J)	Drainage Patterns (B10)	
✓ Saturation (A3)		Hydrogen Sulfide Odor (C1)	Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres alon	g Living Roots (C3)	Dry Season Water Table (Ca	2)
Sediment Deposits (B2)		Presence of Reduced Iron ((C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in T	illed Soils (C6)	Saturation Visible on Aerial	(C9) (magery
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae	rial Imagery (B7)		•	✓ FAC-Neutral Test (D5)	
Water-Stained Leaves (E	39)			Sphagnum moss (D8) (LRR	T, U)
Field Observations:					
Surface Water Present?	Yes O No 💿	Depth (inches):			
Water Table Present?	Yes O No 💿	Depth (inches):	_		
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches): 2	Wetla	nd Hydrology Present? Ye	es • No O
Describe Recorded Data (str	eam gauge, monitor well,	aerial photos, previous inspectio	ons), if available:		
Remarks:					

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 13

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

1 . Tamarix chinensis 2 . Schinus terebinthifolia

50% of Total Cover: 33

1 . Borrichia frutescens

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Sampling Point: W	VP1053_WET_E2SS					
Dominance Test worksheet:						
Number of Dominant Species That are OBL, FACW, ro FAC:	(A)					
Total Number of Dominant Species Across All Strata:	2(B					
Percent of Dominant Species That are OBL, FACW, or FAC:	100.0%_ (A/B)					
Prevalence Index worksheet:						
Total % Cover of:	Multiply by:					
OBL species 20	x 1 =20					
FACW species 60	x 2 = 120					
FAC species 5	x 3 =15					
FACU species 0	x 4 =0					
UPL species 0	x = 0					
Colum Totals: 85	(A) <u>155</u> (B)					
Prevalence Index = $B/A=$	1.824					
 ✓ 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or 						
¹ Indicators of hydric soil and	wetland					
¹ Indicators of hydric soil and hydrology must be present, u	wetland nless disturbed or					
¹ Indicators of hydric soil and	wetland nless disturbed or Strata: ng woody vines, nore in height and 3 in.					
Indicators of hydric soil and hydrology must be present, un Definition of Vegetation S Tree - Woody plants, excluding approximately 20 ft (6 m) or m	Strata: ng woody vines, nore in height and 3 in. at breast height (DBH).					
¹ Indicators of hydric soil and hydrology must be present, under the present of t	Strata: Ing woody vines, nore in height and 3 in. at breast height (DBH). Inding woody vines, nore in height and less					
¹ Indicators of hydric soil and hydrology must be present, under the present of t	Strata: Ing woody vines, nore in height and less disturbed or at breast height (DBH). Inding woody vines, nore in height and less an 3.28 ft (1m) tall. Ing woody vines, less an 3.28 ft (1m) tall.					
¹ Indicators of hydric soil and hydrology must be present, under the present of t	I wetland nless disturbed or Strata: Ing woody vines, nore in height and 3 in. at breast height (DBH). Idding woody vines, nore in height and less Is, excluding vines, less an 3.28 ft (1m) tall. Iting woody vines, 6 m) in height.					

50% of Total Cover: 10	20% of Total Cover: 4	20	= Total Cover	Woody vine - All woody vines, regardless of heigh
Woody Vine Stratum	(Plot Size : <u>30</u>)			

Hydrophytic

Vegetation

Present ?

0.0%

Dominant Species?

Cover

Absolute % Cover

0

0_

0__

0

0___

0

0

0

0

0

0

0

0

0

0

65

0 0

0

0 0

0

0

Rel.Strat. Indicator

0.0%

0.0%_

0.0%

0.0% 0.0%

0.0%

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

60 **✓** 92.3% FACW

0.0%

0.0%

0.0% 0.0%_

0.0% 0.0%_ _

0.0% 0.0% 0.0%

0.0%

0.0%_ 0.0%

0.0%

= Total Cover

20 **✓** _100.0% OBL

7.7% FAC 0.0%

0.0%_

0.0%

= Total Cover

Status

0 0.0% 0 0.0% 0 0.0%

0.0% 0 0 0.0% 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover

Remarks: (If observed, list morphological adaptations below).

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1053_WET_E2SS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix		Redox Fe	atures			
(inches)	Color (moist)	% Color (moist)	<u>%</u>	Tvpe ¹	Location ² _	Texture	Remarks
0 - 16	10YR 6/1	100				Sand	
Tuna: C-Consentrati	on D-Dopletion PM-P-P	duced Matrix, CS=Covered	or Coated S	and Grains	² Location: PL=Pore	Lining M-Matriy	
Hydric Soil Indica	·	udced Matrix, C3–Covered	or coated sa	inu Granis.	Location, PL-Pore	Indicators for Problema	atic Hydric Soils ³ :
	e (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) (A8) (LRR U)	Thin Do Loamy Loamy ✓ Deplete Redox Redox	ark Surface Mucky Mine Gleyed Mat ed Matrix (F Dark Surfac ed Dark Sur Depressions	F3) ce (F6) face (F7) s (F8)	T, U)	Piedmont Floodplain S	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed M Sandy Redox (St Stripped Matrix (Dark Surface (A11) Ice (A12) Idox (A16) (MLRA 150A eral (S1) (LRR O, S) atrix (S4)	Deplete Iron-M Umbric Delta C Reduce Piedmo	anganese M Surface (F: Ochric (F17) ed Vertic (F: ont Floodpla	F11) (MLRA 1 flasses (F12) 13) (LRR P, 7 (MLRA 151) 18) (MLRA 15 iin Soils (F19)	(LRR O, P, T) -, U)	wetland unless	of hydrophytic vegetation and nydrology must be present, disturbed or problematic.
Restrictive Layer (Type: Depth (inches):	,					lydric Soil Present? Ye	s • No 🔾
Remarks:							

Project/Site: Bluewater Te	rminal SPM Project	City/County: Aransas		Sampling Date:	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	:: TX San	mpling Point: W	P1053_WET_E2USP
Investigator(s): B. Bringh	ırst & A. Ostrowski	Section	on, Township, Range:	S N/A T N/A	R N/A
Landform (hillslope, terrace	, etc.): Flat	Local relief (concave,	convex, none): Flat		Slope: 0 % 0.0 °
Subregion (LRR): LRR T		Lat: 27.917205	Long: -97	133511	Datum: NAD 83
	la coile (De)	2/151/203	NWI Classification		10.15 05
Soil Map Unit Name: Diano	.a solis (Ds)		— INVI Classification	OII. PEMIC	
Are climatic/hydrologic con	ditions on the site typical for thi	s time of year? Yes •	No (If no, exp	olain in Remarks.)	
Are Vegetation , 9	Soil , or Hydrology	significantly disturbed?	Are "Normal Circur	mstances" present?	Yes No
Are Vegetation , 9	Soil , or Hydrology	naturally problematic?	(If needed, explain	any answers in Ren	narks.)
SUMMARY OF FINDING	S — Attach site map showing	sampling point locations, tr	ansects, important	t features, etc.	
Hydrophytic Vegetation Prese		\bigcirc	· ·	,	
Hydric Soil Present?	Yes • No		Sampled Area	Yes •	No O
Wetland Hydrology Present?	Yes • No	Within	n a Wetland?		
Remarks:	les © NO				
	ic soil, and wetland hydrology are pr	esent. This is a wetland.			
HYDROLOGY Wetland Hydrology Indica					
	ators: num of one required; check all ti	hat apply)	Socondary In	ndicators (Minimum o	of 2 required)
, , , , , , , , , , , , , , , , , , , ,	. ,	,,		•	. ,
Surface Water (A1)		tic Fauna (B13)		ely Vegetated Concave	Surface (B8)
High Water Table (A2)		Deposits (B15) (LRR U)		age Patterns (B10)	
Saturation (A3)		ogen Sulfide Odor (C1)		Trim Lines (B16)	
Water Marks (B1)		zed Rhizospheres along Living Roots	,	eason Water Table (C2)	
Sediment Deposits (B2)		ence of Reduced Iron (C4)		sh Burrows (C8)	
Drift Deposits (B3)		nt Iron Reduction in Tilled Soils (C6)		ation Visible on Aerial Ir	magery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)		orphic Position (D2)	
Iron Deposits (B5)		(Explain in Remarks)		w Aquitard (D3)	
Inundation Visible on Ae				leutral Test (D5)	
☐ Water-Stained Leaves (E	9)		Sphag	ınum moss (D8) (LRR T	-, U)
Field Observations:					
Surface Water Present?		epth (inches):			
Water Table Present?	Yes ○ No ● D	epth (inches):			
Saturation Present? (includes capillary fringe)	Yes No D	epth (inches): 4	Wetland Hydr	ology Present? Yes	s • No O
Describe Recorded Data (str Remarks:	eam gauge, monitor well, aerial phol	tos, previous inspections), if available	e:		_

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 1

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum 1.____

Herb Stratum

50% of Total Cover: 0

1 . Salicornia bigelovii

50% of Total Cover: 2.5

50% of Total Cover: 0

Woody Vine Stratum

1.___

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0

0_

0 _

0

0

0

0

0

0

0

0

0

0 0

0

0

0

0

0 0

0

0 0

0

0

5

0

0

0

0

0

0

Rel.Strat. Indicator

0.0%_

0.0%_

0.0% 0.0%

0.0%

0.0%

0.0%_

0.0% 0.0%

0.0% 0.0%

0.0% 0.0%

= Total Cover

0.0%_

0.0%_ 0.0% 0.0%_

0.0%

0.0%

= Total Cover

5 ✓ _100.0% _OBL

0.0%

0.0%

0.0% 0.0%

0.0%

0.0%_ _ 0.0%

0.0%

0.0%_ 0.0%

0.0%_ _

= Total Cover

0.0%

0.0%

0.0%

0.0%

____0.0%____

= Total Cover

Hydrophytic

Vegetation

Present ?

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling Point: WP105	53_WET_E2USP					
Dominance Test worksheet:						
Number of Dominant Species That are OBL, FACW, ro FAC:	1 (A)					
Total Number of Dominant Species Across All Strata:	1(B					
Percent of Dominant Species That are OBL, FACW, or FAC:	100.0%_ (A/B)					
Prevalence Index worksheet:						
Total % Cover of: Multip	bly by:					
OBL species5 x 1	=5_					
FACW species0 x 2	=					
FAC species0 x 3	=					
FACU species0 x 4	=					
UPL species <u> </u>	=0					
Colum Totals: <u>5</u> (A)	5_ (B)					
Prevalence Index = B/A=	1.000					
Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or						
Definition of Vegetation Strata	a:					
Tree - Woody plants, excluding wo approximately 20 ft (6 m) or more i (7.6 cm) or larger in diameter at bro	n height and 3 in.					
Sapling - Woody plants, excluding approximately 20 ft (6 m) or more i than 3 in. (7.6 cm) DBH.						
Sapling/Shrub - Woody plants, exc than 3 in. DBH and greater than 3.2						
Shrub - Woody plants, excluding ware approximately 3 to 20 ft (1 to 6 m) i						
Herb - All herbaceous (non-woody) herbaceous vines, regardless of siz plants, except woody vines, less that it (1 m) in height.	ze, and woody					
Woody vine - All woody vines, rega	ardless of height.					

Remarks: (If observed	lict morphological	adaptations bolow)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1053_WET_E2USP

Profile Description	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth (inches)	Matrix	Or Colon (ma		Features	I a setti a se 2	T.	B arrandon	
0 - 16	Color (moist) 10YR 6/1	<u>Color (mo</u>	ist) %	Tvpe ¹	Location ²	Texture	Remarks	
	10111 0,1					- Control of the cont		
¹ Type: C=Concentrati	on, D=Depletion, RM=R	educed Matrix, CS=Co	vered or Coate	ed Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.		
Hydric Soil Indica	tors:					Indicators for Problema	atic Hydric Soils³:	
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) (A5) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (ace (A12) dox (A16) (MLRA 150/ eral (S1) (LRR O, S) atrix (S4)	T	hin Dark Surt oamy Mucky oamy Gleyed epleted Matr edox Dark Su epleted Dark edox Depress larl (F10) (LR epleted Ochr ron-Mangane imbric Surfac elta Ochric (I educed Verti iedmont Floo	ix (F3) urface (F6) Surface (F7) sions (F8) UR U) cic (F11) (MLRA se Masses (F12) e (F13) (LRR P, F17) (MLRA 151 c (F18) (MLRA 1 dplain Soils (F19	5, T, U) RR O) 151) (LRR O, P, T) T, U)) 50A, 150B)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3 Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) urface (TF12)	
Restrictive Layer Type: Depth (inches):						Hydric Soil Present? Υε	es • No 🔾	
Remarks:								

Project/Site: Bluewater Terminal SPM Project	City/County: Aransas	Sampling Date: 2/	14/2019
Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point: WP105	54_UP
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township,	Range: S N/A T N/A R	N/A
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none): Convex Slope:	1 % 0.6 °
Subregion (LRR): LRR T	Lat: 27.916551 Lo	ng: -97.134467 Datum:	NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasi	onally flooded, frequently ponde NWI Clas	sification: None	
Are climatic/hydrologic conditions on the site typical for this time	e of year? Yes $lacktriangle$ No $lacktriangle$ (If	no, explain in Remarks.)	
		I Circumstances" present? γes	A No O
	-	explain any answers in Remarks.)	● No U
Are vegetation	initially problematic. (If needed,	explain any answers in Remarksiy	
SUMMARY OF FINDINGS — Attach site map showing sam	pling point locations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Present? Yes • No	Is the Sampled Are		
Hydric Soil Present? Yes • No	within a Wetland?	Yes O No 🗨)
Wetland Hydrology Present? Yes No			
Remarks: Hydrophytic vegetation and wetland hydrology are not present. This is r	not a wetland		
Trydrophydic vegetadon and wedand flydrology are not present. This is i	iot a wetjand.		
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required; check all that a	oply) Secon	dary Indicators (Minimum of 2 requir	ed)
Surface Water (A1) Aquatic Fau	ına (B13)	Sparsely Vegetated Concave Surface (B8	3)
High Water Table (A2) Marl Depos	its (B15) (LRR U)	Drainage Patterns (B10)	•
Saturation (A3) Hydrogen S	Sulfide Odor (C1)	Moss Trim Lines (B16)	
Water Marks (B1) Oxidized Rh	nizospheres along Living Roots (C3)	Dry Season Water Table (C2)	
Sediment Deposits (B2)	f Reduced Iron (C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)	n Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9))
Algal Mat or Crust (B4)	Surface (C7)	Geomorphic Position (D2)	
Iron Deposits (B5) Other (Exp	lain in Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)	
Field Observations:			
Surface Water Present? Yes O No • Depth ((inches):		
Water Table Present? Yes No • Depth ((inches):		
Saturation Present? (includes capillary fringe) Yes No Depth ((inches): Wetlan	nd Hydrology Present? Yes	No •
(Includes capillary Inflige)			
Describe Recorded Data (stream gauge, monitor well, aerial photos, pr	evious inspections), if available:		
Remarks:			

		Dominant	T
		Species?	Dominance Test worksheet:
		Absolute Rel.Strat. Indicator	Number of Dominant Species
		% Cover Cover Status	That are OBL, FACW, ro FAC: 0 (A)
<u>Stratum</u>	(Plot Size : <u>30</u>)		Tatal Number of Deminsur
		0	Total Number of Dominant Species Across All Strata: (B
		0	Species Across Air Strata.
			Percent of Dominant Species
			That are OBL, FACW, or FAC:
			Prevalence Index worksheet:
			Total % Cover of: Multiply by:
			OBL species $0 \times 1 = 0$
		0	FACW species $0 \times 2 = 0$
0% of Total Cover: 0	20% of Total Cover: 0	0 = Total Cover	FAC species $0 \times 3 = 0$
ing or Sanling/Shrub	Stratum (Plot Size : <u>30</u>)		FACU species 40 x 4 = 160
		0.0%	UPL species $60 \times 5 = 300$
			Colum Totals: 100 (A) 460 (B)
			Prevalence Index = B/A= 4,600
		0.0%	Hydrophytic Vegetation Indicators:
			✓ 1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is > 50%
50% of Total Cover: 0	20% of Total Cover: 0		3 - Prevalence Index is ≤ 3.0¹
====	20% of Total Cover. 0	0 = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
<u>ıb Stratum</u>	(Plot Size : <u>30</u>)		
		0.0%	¹ Indicators of hydric soil and wetland
			hydrology must be present, unless disturbed or
			, , ,
			Definition of Verstetion Streets.
			Definition of Vegetation Strata:
			Tree - Woody plants, excluding woody vines,
		0	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0	20% of Total Cover: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
b Stratum	(Plot Size : <u>30</u>)		Sapling - Woody plants, excluding woody vines,
Medicago lupulina	` _ /		Japiniu - Woody Dianis, excluding words vines
i icaicado iabalilia		60 ✓ 60.0% UPI	
Cynodon dactylon		60 60.0% UPL	approximately 20 ft (6 m) or more in height and less
		25	
		25 2 5.0% FACU 15 15.0% FACU	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less
Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
Lvsimachia arvensis		25 25.0% FACU 15 15.0% FACU 0 0.0% 0 0.0%	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines,
Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
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Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
Lvsimachia arvensis		25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Lvsimachia arvensis 0% of Total Cover: 50	20% of Total Cover: 20	25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
Lvsimachia arvensis 00% of Total Cover: 50 ody Vine Stratum	20% of Total Cover: 20 (Plot Size : 30)	25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Lvsimachia arvensis 0% of Total Cover: 50 ody Vine Stratum	20% of Total Cover: 20 (Plot Size : 30)	25 25.0% FACU 15 15.0% FACU 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 100 100% 0 100 100%	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Lvsimachia arvensis 0% of Total Cover: 50 ody Vine Stratum	20% of Total Cover: 20 (Plot Size : 30)	25 25.0% FACU 15 15.0% FACU 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 100 = Total Cover	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Lvsimachia arvensis 50% of Total Cover: 50 50dy Vine Stratum	20% of Total Cover: 20 (Plot Size : 30)	25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Lvsimachia arvensis	20% of Total Cover: 20 (Plot Size : 30)	25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Yes No
ody Vine Stratum	20% of Total Cover: 20 (Plot Size : 30)	25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
Lvsimachia arvensis 50% of Total Cover: 50 60dy Vine Stratum	20% of Total Cover: 20 (Plot Size : 30)	25	approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Yes No

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

SOIL Sampling Point: WP1054_UP

Depth (inches) Color (me		Color (moist)	%	Tvpe1	Location ²	T	
0 - 8 10YR				I VDC-	Location-	Texture	Remarks
	5/1 100					Sandy Loam	
e: C=Concentration, D=Depletic	on, RM=Reduced	Matrix, CS=Covered	or Coated	d Sand Grains.	² Location: PL=Pore		
ric Soil Indicators: Histosol (A1)			5.1	G ((GO) (LDD C T II)	Indicators for Problemat	•
Histosu (A1) Histic Epipedon (A2) Histic Epipedon (A2) Hydrogen Sulfide (A4) Hydrogen Sulfide (A4) Hydrogen Sulfide (A5) Hydrogen Sulfide (A6) Hydrogen Sulfide (A6) Hydrogen Bodies (A6) (LRR P, T) Hydrogen Mucky Mineral (A7) (LRI Huck Presence (A8) (LRR U) Hydrogen Muck (A9) (LRR P, T) Hydrogen Muck (A9) Hydrogen Muck Mineral (A1) Hydrogen Matrix (A16) Hydrogen Matrix (A1	(A11) LRA 150A)	Thin Date of Loamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-Marl Umbric Delta C Redoxe	ark Surfa Mucky M Gleyed Metrix Dark Sur ed Dark S Depressi 10) (LRR ed Ochric anganese Surface Ochric (F1 ed Vertic	face (F6) Surface (F7) ons (F8)	T, U) R O)51) (LRR O, P, T) T, U)50A, 150B)	Red Parent Material (TI Very Shallow Dark Surf Other (Explain in Rema	outside MLRA 150A,B) putside MLRA 150A,B) pulside (F19) (LRR P, S, T) ny Soils (F20) (MLRA 153B) F2) face (TF12)
Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, Control of the C		Anoma	lous Brig	ht Loamy Soils	(F20) (MLRA 149A	, 153C, 153D)	
ype: gravel epth (inches): 8					_ +	lydric Soil Present? Yes	No
arks:							

Project/Site: Bluewater Te	rminal SPM Project	City/County: Aransas		Sampling Date:	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	: TX	Sampling Point: W	P1054_WET_E2EM_A
Investigator(s): B. Bringh	urst & A. Ostrowski	Section	on, Township, Ra	ange: S N/A T N/A	A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave	, convex, none):	Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 27.916319		 : -97.134261	Datum: NAD 83
	and fine cand 0 to 1 parcent clans	es, occasionally flooded, frequently pond		fication: PEM1C	10.00
Thusia	ing fine sand, 0 to 1 percent slope	es, occasionally hooded, frequently point		TICATION: PEPIIC	
Are climatic/hydrologic con	nditions on the site typical for	this time of year? Yes •	No (If n	o, explain in Remarks.)	
Are Vegetation ,	Soil , or Hydrology	significantly disturbed?	Are "Normal (Circumstances" present?	Yes • No 🔾
Are Vegetation , 9	Soil , or Hydrology	naturally problematic?	(If needed, e	kplain any answers in Re	emarks.)
SUMMARY OF FINDING	S – Attach site map showi	ng sampling point locations, t	ransects, impo	rtant features, etc.	
Hydrophytic Vegetation Pres	ent? Yes	No •			
Hydric Soil Present?	Yes		e Sampled Area n a Wetland?	Yes	○ No ●
Wetland Hydrology Present?	Yes	No O	ra vvolana.		
Remarks: Hydrophytic vegetation, hydrophytic vegetatio	ric soil, and wetland hydrology are	present. This is a wetland.			
Wetland Hydrology Indic					
	num of one required: check a	II that apply)	Second	arv Indicators (Minimum	of 2 required)
		• • • • • • • • • • • • • • • • • • • •	Second	,	. ,
Surface Water (A1)		juatic Fauna (B13)		Sparsely Vegetated Concav	re Surface (B8)
✓ High Water Table (A2)✓ Saturation (A3)		arl Deposits (B15) (LRR U) vdrogen Sulfide Odor (C1)		Drainage Patterns (B10)	
Water Marks (B1)		rarogen Suinde Odor (C1) kidized Rhizospheres along Living Roots		Moss Trim Lines (B16)	· ¬ \
Sediment Deposits (B2)		esence of Reduced Iron (C4)		Dry Season Water Table (C Crayfish Burrows (C8)	.2)
Drift Deposits (B3)		ecent Iron Reduction in Tilled Soils (C6)		Saturation Visible on Aerial	Imagony (CO)
Algal Mat or Crust (B4)		nin Muck Surface (C7)		Geomorphic Position (D2)	imagery (C3)
Iron Deposits (B5)		ther (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae		THE (EXPLAIT III REMARKS)		FAC-Neutral Test (D5)	
Water-Stained Leaves (E	- · · ·			Sphagnum moss (D8) (LRR	: T. U)
				opnagnam moss (50) (2m	
Field Observations: Surface Water Present?	Yes O No •	Dankle (in ale an)			
Water Table Present?		Depth (inches):			
Saturation Present?		Depth (inches):	Wotland	Hydrology Present? Y	'es ● No ○
(includes capillary fringe)	Yes No	Depth (inches):6	Wedand	riyurology Present:	
Describe Recorded Data (str	eam gauge, monitor well, aerial p	hotos, previous inspections), if availabl	e:		

Sampling Point:	WP1054	WET	E2EM_	Α

		Domina		Dominance Test worksheet:	
		Absolute % Cover Cove	at. Indicator	Number of Dominant Species That are OBL, FACW, ro FAC:	(A)
Tree Stratum 1	(Plot Size : <u>30</u>)	0	.0%_	Total Number of Dominant Species Across All Strata:	2(B
2			.0%	Species Across Ali Strata.	
3			.0%	Percent of Dominant Species	(A/D)
4		00	.0%	That are OBL, FACW, or FAC:	(A/B)
5		00	.0%	Prevalence Index worksheet:	
6		00	.0%	Total % Cover of: Mult	iply by:
7		00	.0%		1 = 50
8			.0%		2 = 90
50% of Total Cover: 0	20% of Total Cover: 0	0 = Tot	al Cover		3 = 0
Sapling or Sapling/Shrub S	tratum (Plot Size : 30)				4 =0
1		00	.0%_		5 = 0
2.			.0%	Colum Totals: 100 (A)) 460 (B)
3.			.0%	Drawalence Index D/A	
4			.0%	Prevalence Index = B/A=	4.600
5			.0%	Hydrophytic Vegetation Indicators	:
6.			.0%	1 - Rapid Test for Hydrophytic	Vegetation
7			0%	2 - Dominance Test is > 50%	regetation.
8.		00	0%	3 - Prevalence Index is ≤ 3.0¹	
	20% of Total Cover: 0	0 = Tota	al Cover	Problematic Hydrophytic Veget	tation¹ (Explain)
Shrub Stratum	(Plot Size : <u>30</u>)				
1			.0%	¹ Indicators of hydric soil and wet	
2			.0%	hydrology must be present, unless	s disturbed or
3			.0%		
4			.0%	Definition of Vegetation Stra	ta:
5			.0%	Tree - Woody plants, excluding w	
6			.0%	approximately 20 ft (6 m) or more (7.6 cm) or larger in diameter at b	
50% of Total Cover: 0	20% of Total Cover: 0	0 = Tota	al Cover		
Herb Stratum 1 . Spartina patens	(Plot Size : <u>30</u>)	45 - ✓ 47	.4%FACW	Sapling - Woody plants, excluding approximately 20 ft (6 m) or more	
2 2 111 6 1			4%_OBL	than 3 in. (7.6 cm) DBH.	iii rieigiit and less
0 0 11 1 1 11			.3% OBL	, ,	
4.			.0%	Sapling/Shrub - Woody plants, ex	
		0 0	.0%	than 3 in. DBH and greater than 3	.28 ft (1m) tall.
5 6		0 0	.0%		
7			.0%	Shrub - Woody plants, excluding vapproximately 3 to 20 ft (1 to 6 m)	
8.			.0%		in neight.
9.			.0%	Herb - All herbaceous (non-wood)	/) plants, including
10.			.0%	herbaceous vines, regardless of s	size, and woody
11.			0%	plants, except woody vines, less t 3 ft (1 m) in height.	han approximately
12.			.0%	Sit (1 III) iii neight.	
50% of Total Cover: 48	20% of Total Cover: 19		al Cover	Woody vine - All woody vines, reg	jardless of height.
Woody Vine Stratum	(Plot Size : 30)				
1		00	.0%		
2		00	.0%		
3			.0%	Hydrophytic	
4		00	.0%	Vegetation Yes	No 💿
5		00	.0%	Present ?	
50% of Total Cover: 0	20% of Total Cover: 0	0 = Tota	al Cover		
Remarks: (If observed, list morph	nological adaptations below)	•			
*Indicator suffix = National status or p	professional decision assigned ho	rause Regional status not o	lefined by FWS		
Transactor Surffix — Hudioffal Status UI p		regional status not t			

SOIL Sampling Point: WP1054_WET_E2EM_A

0 - 16 10YR 6/1 10	Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR	s) (LRR S, T, U) . S, T, U)	Texture Remark Sand Texture Remark Sand Texture Remark Sand Texture Remark Remark Relation Remark Texture Remark Tex	.В) Т)
1 Type: C=Concentration, D=Depletion, RM=Reconstruction (A1) Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	duced Matrix, CS=Covered or Coated Sand Grains. Polyvalue Below Surface (S8 Thin Dark Surface (S9) (LRR Loamy Mucky Mineral (F1) (i Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR	² Location: PL=Pore s) (LRR S, T, U) s S, T, U)	e Lining, M=Matrix. Indicators for Problematic Hydric Soils³: 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2)	.В) Т)
Type: C=Concentration, D=Depletion, RM=Rec Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	duced Matrix, CS=Covered or Coated Sand Grains. Polyvalue Below Surface (S8 Thin Dark Surface (S9) (LRR Loamy Mucky Mineral (F1) (i Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR	s) (LRR S, T, U) . S, T, U)	e Lining, M=Matrix. Indicators for Problematic Hydric Soils³: 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2)	T)
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Polyvalue Below Surface (S8 Thin Dark Surface (S9) (LRR Loamy Mucky Mineral (F1) (I Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR	s) (LRR S, T, U) . S, T, U)	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2)	T)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Thin Dark Surface (S9) (LRR Loamy Mucky Mineral (F1) (I Loamy Gleyed Matrix (F2) ✓ Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR	S, T, U)	1 cm Muck (A9) (LRR O) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2)	T)
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Thin Dark Surface (S9) (LRR Loamy Mucky Mineral (F1) (I Loamy Gleyed Matrix (F2) ✓ Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR	S, T, U)	2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2)	T)
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Loamy Mucky Mineral (F1) (Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR		Reduced Vertic (F18) (outside MLRA 150A, Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2)	T)
Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	✓ Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR		Piedmont Floodplain Soils (F19) (LRR P, S, Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2)	T)
Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR		Anomalous Bright Loamy Soils (F20) (MLRAR Red Parent Material (TF2)	
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Depleted Dark Surface (F7) Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR.		Red Parent Material (TF2)	
Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Redox Depressions (F8) Marl (F10) (LRR U) Depleted Ochric (F11) (MLR		Very Shallow Dark Surface (TF12)	·
1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Marl (F10) (LRR U) Depleted Ochric (F11) (MLR			
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Depleted Ochric (F11) (MLR		Other (Explain in Remarks)	
Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)				
Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Iron Manganoso Massos (E1	A 151)		
Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4)	Ifon-Manganese Masses (F1	2) (LRR O, P, T)		
Sandy Gleyed Matrix (S4)) Umbric Surface (F13) (LRR F	P, T, U)		
	Delta Ochric (F17) (MLRA 15	51)	³ Indicators of hydrophytic vegeta wetland hydrology must be pr	
Sandy Redox (S5)	Reduced Vertic (F18) (MLRA		unless disturbed or problem	
	Piedmont Floodplain Soils (F			
Stripped Matrix (S6)	Anomalous Bright Loamy So		PA, 153C, 153D)	
Dark Surface (S7) (LRR P, S, T, U)				
Restrictive Layer (If observed): Type: Depth (inches):			Hydric Soil Present? Yes No	
Remarks:				

Project/Site: Bluewater T	Terminal SPM Project	:		City/County: Aransas		Sampling	Date:	2/14/	2019
Applicant/Owner: Phillip	s 66 Pipeline, LLC			State	e: TX	Sampling Point:	WP10	54_WET_	_E2EM_B
Investigator(s): B. Bring	jhurst & A. Ostrowski	i		Section	on, Township, Rai	nge: S N/A	T N/A	R N/A	4
Landform (hillslope, terra	ce, etc.): Flat			Local relief (concave,	, convex, none):	Concave	Slo	ope: 1	% 0.6 °
Subregion (LRR): LRR T				Lat: 27.915918	Long	: -97.134848	Da	atum:	NAD 83
Soil Map Unit Name: Mus	stang fine sand, 0 to	1 percent slo	opes, occasionall	v flooded, frequently pond				_	
_									
Are climatic/hydrologic co		te typical f		•		, explain in Remar	_		
Are Vegetation	, Soil , or H	ydrology	signi	ficantly disturbed?	Are "Normal C	ircumstances" pre	sent?	Yes 💿	No O
Are Vegetation	, Soil , or H	ydrology	natu	rally problematic?	(If needed, ex	plain any answers	in Remar	ks.)	
SUMMARY OF FINDING	GS – Attach site	map sho	wing samplin	ng point locations, t	ransects, impor	tant features, e	tc.		
Hydrophytic Vegetation Pre	esent?	Yes •	No O	1	<u> </u>	•			
Hydric Soil Present?	Scite.	Yes •	No O		Sampled Area	Υ	′es	No O	
Wetland Hydrology Present	·?	Yes •	No O	Within	n a Wetland?				
Remarks:	··	165	110						
Hydrophytic vegetation, hy	dric soil, and wetland	d hydrology	are present. This	is a wetland.					
HYDROLOGY									
Wetland Hydrology Ind	icators:								
Primary Indicators (Min	<u>imum of one requ</u>	ired; check	call that apply))	<u>Seconda</u>	ry Indicators (Mini	mum of 2	<u>required;</u>)
Surface Water (A1)			Aquatic Fauna (B13)		Sparsely Vegetated Co	oncave Sur	rface (B8)	
High Water Table (A2))		Marl Deposits (E	315) (LRR U)		Prainage Patterns (B1		` ,	
✓ Saturation (A3)			Hydrogen Sulfid	e Odor (C1)	N	Moss Trim Lines (B16)		
Water Marks (B1)			Oxidized Rhizos	pheres along Living Roots	(C3)	ory Season Water Tal	ole (C2)		
Sediment Deposits (B2	2)		Presence of Red			Crayfish Burrows (C8)			
Drift Deposits (B3)	,			duction in Tilled Soils (C6)		Saturation Visible on A		jery (C9)	
Algal Mat or Crust (B4)		Thin Muck Surfa			Geomorphic Position (_	,, (,	
Iron Deposits (B5)	,		Other (Explain in			Shallow Aquitard (D3)			
Inundation Visible on	Aerial Imagery (B7)		Other (Explain)	ir remarks)		AC-Neutral Test (D5)			
Water-Stained Leaves						Sphagnum moss (D8)		1)	
Field Observations				Ī		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
Field Observations: Surface Water Present?	Yes O No	•	Depth (inche	oc).					
Water Table Present?	Yes O No	$\overset{\smile}{\bullet}$	Depth (inche						
Saturation Present?					Wetland	Hydrology Present	? Yes	No	\bigcirc
(includes capillary fringe)	Yes No	0	Depth (inche	es):	Wedana	iryarology i reseme		·	<u> </u>
Describe Recorded Data (s	stream gauge, monit	or well, aeria	al photos, previou	us inspections), if available	e:				
Remarks:									

20% of Total Cover: 0

(Plot Size : <u>30</u>)

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum 1.____

Herb Stratum

50% of Total Cover: 0

1 . Fimbristvlis castanea

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.___

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0_

0 _

0

0 0

0

0

0

0

0

0

0

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0

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0

0

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100

Rel.Strat. Indicator

0.0%_

0.0%_

0.0%_ 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%_

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= Total Cover

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0.0%

0.0%_ _

0.0%

0.0%_

0.0%

0.0%

0.0%

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

0.0%

= Total Cover

100 ✓ _100.0% _OBL

0.0%

0.0%

Status

Sampling Point: WP	1054_WET_E2E	M_B
Dominance Test worksheet:		
Number of Dominant Species That are OBL, FACW, ro FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B
Percent of Dominant Species That are OBL, FACW, or FAC:	100.0%	(A/B)
Prevalence Index worksheet:		
Total % Cover of: M	ultiply by:	
OBL species 100	$1 = \underline{100}$	
FACW species 0	2 =0	
FAC species $0 \rightarrow$	3 =0	
FACU species0 >	4 =0	
UPL species 0	5 =0	
	(A) 100	(B)
Prevalence Index = B/A=	1.000	
✓ 3 - Prevalence Index is ≤ 3.0		
Problematic Hydrophytic Veg 1 Indicators of hydric soil and w hydrology must be present, unle	getation¹ (Explain getland))
¹ Indicators of hydric soil and w hydrology must be present, unlo	getation¹ (Explain getland gess disturbed or)
¹ Indicators of hydric soil and w	vetland ess disturbed or rata: woody vines, ire in height and 3	3 in.
Indicators of hydric soil and whydrology must be present, unle Definition of Vegetation Strate - Woody plants, excluding approximately 20 ft (6 m) or mo	vetland ess disturbed or rata: woody vines, ire in height and 3 t breast height (D	3 in. BH).
¹ Indicators of hydric soil and whydrology must be present, unled Definition of Vegetation Strate - Woody plants, excluding approximately 20 ft (6 m) or mo (7.6 cm) or larger in diameter a Sapling - Woody plants, excluding approximately 20 ft (6 m) or mo	vetland ess disturbed or rata: woody vines, ire in height and 3 t breast height (D ing woody vines, ire in height and le	3 in. BH). ess
¹ Indicators of hydric soil and whydrology must be present, unled Definition of Vegetation Strate - Woody plants, excluding approximately 20 ft (6 m) or mo (7.6 cm) or larger in diameter at Sapling - Woody plants, excluding approximately 20 ft (6 m) or mo than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, we have the same than 3 in. (7.6 cm) DBH.	vetland ess disturbed or rata: woody vines, ire in height and 3 t breast height (D ing woody vines, ire in height and le excluding vines, le i 3.28 ft (1m) tall. g woody vines,	3 in. BH). ess
¹ Indicators of hydric soil and whydrology must be present, unled Definition of Vegetation Str Tree - Woody plants, excluding approximately 20 ft (6 m) or mo (7.6 cm) or larger in diameter at Sapling - Woody plants, excluding approximately 20 ft (6 m) or mo than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, with an 3 in. DBH and greater than Shrub - Woody plants, excluding the same street was the same street with the same street with the same street was same street with the same street with the same street was same street was same street with the same street was same street with the same street was same street with the same street was same street was same street with the same street was same street with the same street was	vetland ess disturbed or rata: woody vines, ire in height and 3 t breast height (D ing woody vines, ire in height and le excluding vines, le i 3.28 ft (1m) tall. g woody vines, m) in height. ody) plants, includ f size, and woody	3 in. BH). ess ess
¹ Indicators of hydric soil and whydrology must be present, unled Definition of Vegetation Str Tree - Woody plants, excluding approximately 20 ft (6 m) or mo (7.6 cm) or larger in diameter at Sapling - Woody plants, excluding approximately 20 ft (6 m) or mo than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding approximately 3 to 20 ft (1 to 6 m) than 3 in. DBH and greater than Shrub - Woody plants, excluding approximately 3 to 20 ft (1 to 6 m) therbaceous vines, regardless of plants, except woody vines, less	vetland ess disturbed or rata: woody vines, re in height and 3 t breast height (D ing woody vines, re in height and le excluding vines, le a 3.28 ft (1m) tall. g woody vines, m) in height. edy) plants, includ f size, and woody s than approximat	Bin. BH). ess ess

	1	
Remarks: (If observed.	list morphologica	I adaptations below).

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

No O

SOIL Sampling Point: WP1054_WET_E2EM_B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix	0/	Colon (monitor)		Features	1 1 2	T.	Ddes
0 - 16	Color (moist) 10YR 4/1	. _% 97	Color (moist) 10YR 5/1	% 3	Tvpe¹ C	<u>Location²</u> PL	Sandy Clay Loam	Remarks
	10111 1/12		J/1				Sundy Cidy Eddin	
¹Type: C=Concentrat	ion, D=Depletion, RM=	Reduced	Matrix, CS=Covered	or Coated	d Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re	(A2)) e (A4) 5 (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) hace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) hatrix (S4) 5		Thin D Loamy Loamy Deplet Redox Deplet Redox Marl (I Deplet Iron-M Umbric Delta G Reduc	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi F10) (LRR ed Ochric langanese Surface Ochric (F1 ed Vertic ont Flood	ice (S9) (LRR Sineral (F1) (Li Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) (U) (F11) (MLRA e Masses (F12 (F13) (LRR P, L7) (MLRA 151 (F18) (MLRA 151	151)) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (** Very Shallow Dark Sui Other (Explain in Rem 3Indicators wetland h unless	O) R S) (outside MLRA 150A,B) ioils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Restrictive Layer Type: Depth (inches):						F	lydric Soil Present? Ye	s • No 🔾
Remarks:								

Project/Site: Bluewater T	erminal SPM Project	City/County: Aransas	Sampling Date: 2/14/2019				
Applicant/Owner: Phillips	s 66 Pipeline, LLC	State:	TX Sampling Point: WP1054_WET_E2SS				
Investigator(s): B. Bring	hurst & A. Ostrowski	Section,	Township, Range: S N/A T N/A R N/A				
Landform (hillslope, terrac	ce, etc.): Flat	Local relief (concave, co	onvex, none): Concave Slope: 0 % 0.0 °				
Subregion (LRR): LRR T		Lat: 27.916052	Long: -97.134841 Datum: NAD 83				
Soil Map Unit Name: Mus	tang fine sand, 0 to 1 percent slopes, oc	casionally flooded, frequently ponde	NWI Classification: None				
Are climatic/hydrologic co	onditions on the site typical for this t	time of year? Yes No	(If no, explain in Remarks.)				
Are Vegetation ,	Soil , or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes No				
Are Vegetation,	Soil , or Hydrology	naturally problematic?	(If needed, explain any answers in Remarks.)				
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Pre	sent? Yes • No	0	ampled Area				
Hydric Soil Present?	Yes No		ampled Area Wetland? Yes ● No ○				
Wetland Hydrology Present	? Yes • No	\circ					
Hydrophytic vegetation, hyd HYDROLOGY	dric soil, and wetland hydrology are pres	ent. This is a wetland.					
Wetland Hydrology Indi	cators:						
Primary Indicators (Mini	imum of one required; check all tha	nt apply)	Secondary Indicators (Minimum of 2 required)				
✓ Surface Water (A1)	Aquatic	: Fauna (B13)	Sparsely Vegetated Concave Surface (B8)				
High Water Table (A2)		eposits (B15) (LRR U)	Drainage Patterns (B10)				
✓ Saturation (A3)	Hydrog	en Sulfide Odor (C1)	Moss Trim Lines (B16)				
Water Marks (B1)	Oxidize	d Rhizospheres along Living Roots (C					
Sediment Deposits (B2	Presence	ce of Reduced Iron (C4)	Crayfish Burrows (C8)				
Drift Deposits (B3)	Recent	Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)) Thin Mu	uck Surface (C7)	Geomorphic Position (D2)				
Iron Deposits (B5)	Other (Explain in Remarks)	Shallow Aquitard (D3)				
Inundation Visible on A	erial Imagery (B7)		FAC-Neutral Test (D5)				
✓ Water-Stained Leaves ((B9)		Sphagnum moss (D8) (LRR T, U)				
Field Observations:							
Surface Water Present?	Yes No Den	oth (inches): 1					
Water Table Present?		oth (inches):					
Saturation Present? (includes capillary fringe)		oth (inches): 0	Wetland Hydrology Present? Yes ● No ○				
Describe Recorded Data (s Remarks:	stream gauge, monitor well, aerial photos	s, previous inspections), if available:					

20% of Total Cover: 0

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Sampling Point:	WP1054_WET_E2SS					
Dominance Test worksheet:						
Number of Dominant Species That are OBL, FACW, ro FAC:	1(A))				
Total Number of Dominant Species Across All Strata:	1(B					
Percent of Dominant Species That are OBL, FACW, or FAC:	(A _/	/B)				
Prevalence Index worksheet:						
Total % Cover of:	Multiply by:					
OBL species 0	x 1 = 0					
FACW species 0	x 2 =0					
FAC species 100	x 3 = 300					
FACU species 0	x 4 = 0					
UPL species 0	x = 0					
Colum Totals: 100	(A) <u>300</u> (I	в)				
Prevalence Index = B/A=	3.000					
Hydrophytic Vegetation Indicators:						
✓ 1 - Rapid Test for Hydrophytic Vegetation✓ 2 - Dominance Test is > 50%						

by:	(B (A/B)
by: . 0 . 300 . 300 . 300 . 3000 getation	(B)
300 300 300 300 3.000	
300 300 300 300 3.000	
300 300 300 300 3.000	
300 0 300 3.000 3.000	
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3.000 3.000 getation on¹ (Explain	
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getation on¹ (Explain	n)
on¹ (Explai:	n)
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on¹ (Explai:	n)
nd	n)
nd	n)
nd	•
dy vines, height and	
oody vines,	·
, and wood	у
dless of heig	ght.
No 🔾	
	dy vines, height and ast height (I roody vines, height and ding vines, at (1m) tall ody vines, height. Polants, inclues, and wood n approximated the sof height.

1 . Schinus terebinthifolia 100_ 🗸 __100.0%__FAC___ 0.0%_ 0.0% 0 0.0% 0 0.0% 0 0.0% 50% of Total Cover: 50 20% of Total Cover: 20 100 = Total Cover **Herb Stratum** (Plot Size : 30) 0 0.0%_ 0.0% 0 0.0% 0.0% 0.0%_ 0 0.0% 0.0%_ _ 0.0%_ 0 0 0.0%_ 0 0.0%_ 0.0% 0 0.0%_ 50% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover **Woody Vine Stratum** (Plot Size : 30) 1.___ 0.0%_ 0 0.0% 0 0.0%___ 0.0%_ 0 0 0.0% 50% of Total Cover: 0 20% of Total Cover: 0 = Total Cover Remarks: (If observed, list morphological adaptations below). *Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Dominant

Species?

Cover

Absolute % Cover

0

0_

0 _

0

0 0

0

0

0

0

0

0

Rel.Strat. Indicator

0.0%_

0.0%_

0.0%_ 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0% 0.0%

0.0%

0.0%

= Total Cover

0.0%

0.0%

Status

US Army Corps of Engineers

Atlantic and Gulf Coastal Plain Region - Version 2.0

SOIL Sampling Point: WP1054_WET_E2SS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)						
Depth	Matrix		Redox Features			
(inches)	Color (moist) %	Color (moist)		Location ²	Texture	Remarks
0 - 16	10YR 6/1 100				Sand	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore L	-	
Hydric Soil Indica	itors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) f (A5) (A6) (LRR P, T, U) feral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) face (A12) dox (A16) (MLRA 150A) fieral (S1) (LRR O, S) latrix (S4)	Thin Do Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	tue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) E Surface (F13) (LRR P, Ochric (F17) (MLRA 151 ed Vertic (F18) (MLRA 151 ed Vertic (F18) (MLRA 151 ent Floodplain Soils (F19)	5, T, U) 151) 1 (LRR O, P, T) T, U) 1 (50A, 150B) 2) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3Indicators wetland unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):			н	ydric Soil Present? Ye	ss • No 🔾
Remarks:						

Project/Site: Bluewater Te	rminal SPM Project	City/Cou	nty: Aransas	Sampling D	Date: 2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1054_WET_E2USP_A
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, Ra	ange: S N/A T	Γ N/A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local rel	— ief (concave, convex, none):	Flat	Slope: 0 % 0.0 °
Subregion (LRR): LRR T		 Lat: 27	.915747 Lon e	g: -97.134343	Datum: NAD 83
Soil Map Unit Name: Diano	ola soils (Ds)		NWI Classi	ification: PEM1C	
Are climatic/hydrologic con	nditions on the site typical f	or this time of year?	Yes • No (If no	o, explain in Remark	(S-)
	Soil , or Hydrology	significantly dis		Circumstances" pres	••
	Soil , or Hydrology	naturally proble		xplain any answers i	
Are regetation	Join / or rivatology		cinade. (Il necaca, e.	cpiani any answers i	ii Kemarksiy
SUMMARY OF FINDING	S – Attach site map sho	wing sampling point l	ocations, transects, impo	rtant features, et	C.
Hydrophytic Vegetation Pres	ent? Yes •	No O	Is the Sampled Area		
Hydric Soil Present?	Yes •	No O	within a Wetland?	Υe	es • No 🔾
Wetland Hydrology Present?	Yes •	No O			
Remarks: Hydrophytic vegetation, hydi	ric soil, and wetland hydrology a	are present. This is a wetland	d.		
HYDROLOGY					
Wetland Hydrology Indic	ators:				
Primary Indicators (Minin	num of one required; check	all that apply)	<u>Second</u>	ary Indicators (Minin	num of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Co	ncave Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LRR U		Drainage Patterns (B10	0)
Saturation (A3)		Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres alone		Dry Season Water Tab	le (C2)
Sediment Deposits (B2)		Presence of Reduced Iron (Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in Ti		Saturation Visible on A	
Algal Mat or Crust (B4) Iron Deposits (B5)		Thin Muck Surface (C7)		Geomorphic Position (I	J2)
Inundation Visible on Ae	erial Imagery (B7)	Other (Explain in Remarks)		Shallow Aquitard (D3) FAC-Neutral Test (D5)	
Water-Stained Leaves (E				Sphagnum moss (D8)	
				Spriagrium moss (Do)	(LIK 1, 0)
Field Observations: Surface Water Present?	Yes O No •	Depth (inches):			
Water Table Present?	Yes O No •	Depth (inches):	_		
Saturation Present?			Wetland	Hydrology Present?	? Yes • No O
(includes capillary fringe)	Yes • No O	Depth (inches): 0	_	,	
Describe Recorded Data (str	ream gauge, monitor well, aeria	I photos, previous inspection	ns), if available:		
Damanda					
Remarks:					

Sampling Point:	WP1054_WET_E2USP_A

	Dominant	Dominance Test worksheet:
	Absolute Species? Rel.Strat. Cover Status	Number of Dominant Species That are OBL, FACW, ro FAC: (A)
Tree Stratum (Plot Size : 30) 1	0	Total Number of Dominant Species Across All Strata:1(B
2	0	Species Across All Strata.
3		Percent of Dominant Species
4		That are OBL, FACW, or FAC: 100.0% (A/B)
5.		Prevalence Index worksheet:
6.		Total % Cover of: Multiply by:
7		
8		
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FACW species $0 \times 2 = 0$
		FAC species $0 \times 3 = 0$
Sapling or Sapling/Shrub Stratum (Plot Size : 30)		FACU species $0 \times 4 = 0$
1		UPL species $0 \times 5 = 0$
2		Colum Totals: $\underline{\qquad 5}$ (A) $\underline{\qquad 5}$ (B)
3		Prevalence Index = B/A= 1.000
4		
5		Hydrophytic Vegetation Indicators:
6	0	1 - Rapid Test for Hydrophytic Vegetation
7	0	✓ 2 - Dominance Test is > 50%
8	0	✓ 3 - Prevalence Index is ≤ 3.01
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Shrub Stratum (Plot Size : 30)		
1		¹ Indicators of hydric soil and wetland
2		hydrology must be present, unless disturbed or
3		
4		Definition of Vegetation Strata:
5		Tree - Woody plants, excluding woody vines,
6	0	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 30)	3 🗸60.0%OBL	Sapling - Woody plants, excluding woody vines,
1Salicornia depressa		approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2Monanthochloe littoralis		than o iii. (1.0 oiii) BBIII.
3		Sapling/Shrub - Woody plants, excluding vines, less
4	0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
5	0.0%	
6	0	Shrub - Woody plants, excluding woody vines,
7	0	approximately 3 to 20 ft (1 to 6 m) in height.
8	0	
9		Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
10	0	plants, except woody vines, less than approximately
11	0	3 ft (1 m) in height.
12	0	
50% of Total Cover: 2.5 20% of Total Cover: 1	5 = Total Cover	Woody vine - All woody vines, regardless of height.
<u>Woody Vine Stratum</u> (Plot Size : <u>30</u>) 1	0	
3		
		Hydrophytic Vegetation Yes No
4		Present ?
5 50% of Total Cover: 0 20% of Total Cover: 0		
50% of Total Cover: 0 20% of Total Cover: 0 Remarks: (If observed, list morphological adaptations below)	0 = Total Cover	
remains. (ii observed, list morphological adaptations below)	•	
*Indicator suffix = National status or professional decision assigned be	cause Regional status not defined by FWS.	
<u> </u>	· · · · · · · · · · · · · · · · · · ·	

SOIL Sampling Point: WP1054_WET_E2USP_A

Profile Description	on: (Describe to the d	lepth needed to docu	ment the indicator o	confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	(Colon (model)	Redox Features	La saki sa 2	T-	D
0 - 16		6 Color (moist) 00	% Tvpe ¹	Location ²		Remarks
	10111 1/12				Solid	
¹Type: C=Concentrati	on, D=Depletion, RM=Rec	luced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Histosol (A1) Histic Epipedon Black Histic (A3)	(A2)	Thin D	ue Below Surface (S8) (ark Surface (S9) (LRR S Mucky Mineral (F1) (LR	, T, U)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LRR Reduced Vertic (F18)	O)
Hydrogen Sulfide Stratified Layers	(A5)	Loamy ✓ Deplete	Gleyed Matrix (F2) ed Matrix (F3)		Piedmont Floodplain S Anomalous Bright Loa	oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B)
_		Depleti Redox	Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) :10) (LRR U)		Red Parent Material (Very Shallow Dark Sui Other (Explain in Rem	face (TF12)
Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed M Sandy Redox (St Stripped Matrix	Dark Surface (A11) ace (A12) dox (A16) (MLRA 150A) eral (S1) (LRR O, S) atrix (S4) 5)	Deplet Iron-M Umbric Delta C Reduce	ed Ochric (F11) (MLRA anganese Masses (F12) : Surface (F13) (LRR P, Ochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) lous Bright Loamy Soils	(LRR O, P, T) T, U)) 50A, 150B))) (MLRA 149A)	wetland h unless	of hydrophytic vegetation and nydrology must be present, disturbed or problematic.
Restrictive Layer Type: Depth (inches):				н	ydric Soil Present? Ye	s • No 🔾
Remarks:						

Project/Site: Bluewater Ter	minal SPM Project	City/County: Aransas		Sampling Date:	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State	: TX San	npling Point: WP1	.054_WET_E2USP_B
Investigator(s): B. Bringhu	ırst & A. Ostrowski	Section	n, Township, Range:	S N/A T N/A	R N/A
Landform (hillslope, terrace	, etc.): Flat	Local relief (concave,	convex, none): Flat		Slope: 0 % 0.0 °
Subregion (LRR): LRR T	-	Lat: 27.916252	Long: -97.	134528	Datum: NAD 83
	ng fine cand. 0 to 1 percent clopes	occasionally flooded, frequently pond			10/15/05
Son Map Offic Name: Musta	rig fille salid, o to 1 percent slopes,	occasionally hooded, frequently porte	— INVI CIASSIIICALIC	Jii. None	
Are climatic/hydrologic con	ditions on the site typical for th	is time of year? Yes •	No (If no, exp	lain in Remarks.)	
Are Vegetation , S	Soil , or Hydrology	significantly disturbed?	Are "Normal Circun	nstances" present?	Yes No
Are Vegetation , S	Soil , or Hydrology	naturally problematic?	(If needed, explain	any answers in Ren	narks.)
SUMMARY OF FINDINGS	5 – Attach site map showing	g sampling point locations, tr	ansects, important	: features, etc.	
Hydrophytic Vegetation Prese	ent? Yes • No) ()	Commission Area		
Hydric Soil Present?	Yes No		· Sampled Area ı a Wetland?	Yes 💿	No O
Wetland Hydrology Present?	Yes No		. a		
Hydrophytic vegetation, hydr HYDROLOGY	ic soil, and wetland hydrology are pi	resent. This is a wetland.			
Wetland Hydrology Indica	ators:				
Primary Indicators (Minim	num of one required; check all t	:hat apply)	Secondary In	dicators (Minimum o	of 2 required)
Surface Water (A1)	Agua	atic Fauna (B13)	Sparse	ely Vegetated Concave	Surface (B8)
High Water Table (A2)		Deposits (B15) (LRR U)		ige Patterns (B10)	
✓ Saturation (A3)		rogen Sulfide Odor (C1)		Trim Lines (B16)	
Water Marks (B1)		ized Rhizospheres along Living Roots		eason Water Table (C2)	ı
Sediment Deposits (B2)	Pres	ence of Reduced Iron (C4)		sh Burrows (C8)	
Drift Deposits (B3)	Rece	ent Iron Reduction in Tilled Soils (C6)		ition Visible on Aerial Ir	magery (C9)
Algal Mat or Crust (B4)	Thin	Muck Surface (C7)		orphic Position (D2)	
Iron Deposits (B5)	Othe	er (Explain in Remarks)	Shallo	w Aquitard (D3)	
Inundation Visible on Ae		` .	✓ FAC-N	eutral Test (D5)	
Water-Stained Leaves (B	9)		Sphag	num moss (D8) (LRR T	-, U)
Field Observations:					
Surface Water Present?	Yes No •	Depth (inches):			
Water Table Present?		Depth (inches):			
Saturation Present? (includes capillary fringe)		Depth (inches): 0	Wetland Hydro	ology Present? Yes	s • No O
Describe Recorded Data (str Remarks:	eam gauge, monitor well, aerial pho	otos, previous inspections), if available	2:		

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : <u>30</u>)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0.6

20% of Total Cover: 0

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

1.____

Herb Stratum

50% of Total Cover: 0

1 . Salicornia depressa

50% of Total Cover: 1.5

50% of Total Cover: 0

Woody Vine Stratum

1.___

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0_

0 _

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0 0

0

0

3

0

0

0 0 Rel Strat. Indicator

0.0%

0.0%_

0.0% 0.0%

0.0%

0.0%

0.0%_

0.0% 0.0%

0.0% 0.0%_

0.0% 0.0%

= Total Cover

0.0%

0.0%_ 0.0%

0.0%

0.0%

0.0%

= Total Cover

3 ✓ _100.0% OBL

0.0%_

0.0% 0.0%

0.0%_

0.0% 0.0%_ 0.0%

0.0%_

0.0%_ 0.0%

0.0%___

= Total Cover

0.0%

0.0%

0.0% 0.0%

___0.0%___

= Total Cover

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling Point:	WP1054_WET_E2U	ISP_B
Dominance Test worksheet:		
Number of Dominant Species That are OBL, FACW, ro FAC:	1	(A)
Total Number of Dominant Species Across All Strata:	1	(B
Percent of Dominant Species That are OBL, FACW, or FAC:	100.0%_	(A/B)
Prevalence Index worksheet:		
Total % Cover of:	Multiply by:	_
OBL species3	x 1 =3	_
FACW species 0	x 2 =0	
FAC species 0	x 3 = 0	
FACU species 0	x 4 =0	
UPL species 0	x 5 = 0	
Colum Totals: 3	(A) <u>3</u>	(B)
Prevalence Index = B/A=	1.000	
✓ 2 - Dominance Test is > 5 ✓ 3 - Prevalence Index is ≤ Problematic Hydrophytic ¹ Indicators of hydric soil an hydrology must be present, u	3.0 ¹ Vegetation¹ (Explair d wetland	n)
Definition of Vegetation	Strata:	
Tree - Woody plants, exclud approximately 20 ft (6 m) or (7.6 cm) or larger in diamete	ing woody vines, more in height and 3	
Sapling - Woody plants, excl approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.		ess
Sapling/Shrub - Woody plant than 3 in. DBH and greater tl		ess
Shrub - Woody plants, exclu- approximately 3 to 20 ft (1 to		
Herb - All herbaceous (non-v herbaceous vines, regardles plants, except woody vines, l	s of size, and woody	/

3 ft (1 m) in height.

Woody vine - All woody vines, regardless of height.

lydrophytic /egetation	Yes 💿	No O
Present ?	res 💌	NO U

Remarks: (If observed, list morphological adaptations below).

SOIL Sampling Point: WP1054_WET_E2USP_B

Profile Description	on: (Describe to the	depth needed to docu	ment the indicator o	confirm the abse	ence of indicators.)	
Depth (inches)	Matrix	Onlaw (mariet)	Redox Features	1 1 2	-	D
0 - 16		Color (moist) 00		Location ²	Sand	Remarks
	10111 3/1 1				School	
¹Type: C=Concentrati	ion, D=Depletion, RM=Re	duced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	ining, M=Matrix.	
Hydric Soil Indica	tors:				Indicators for Problema	tic Hydric Soils ³ :
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	e (A4) (A5) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (A2) (doc (A12) (A3) (LRR U) (A4) (A4) (A5) (A5) (A6)	Thin D Loamy Loamy ✓ Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbric Reduce Piedmo	lue Below Surface (S8) (ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12) c: Surface (F13) (LRR P, Ochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19)	, T, U) R O) 151) (LRR O, P, T) T, U)) 50A, 150B) v) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem 3Indicators wetland b unless	R S) (outside MLRA 150A,B) ioils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Restrictive Layer Type: Depth (inches):	· ,			н	ydric Soil Present? Ye	s • No 🔾
Remarks:						

Project/Site: Bluewater Terminal Si	PM Project	City/County: Aransas		Sampling Date:	2/14/2019
Applicant/Owner: Phillips 66 Pipeli	ne, LLC	State	e: TX S	Sampling Point:	WP1055_UP
Investigator(s): B. Bringhurst & A.	. Ostrowski	Section	on, Township, Rang	je: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.):	Flat	Local relief (concave	, convex, none): C	onvex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		 Lat: 27.911436	Long: -	97.138223	Datum: NAD 83
Soil Map Unit Name: Mustang fine	sand, 0 to 1 percent slopes, occ	asionally flooded, frequently pone	de NWI Classific	ation: None	-
Are climatic/hydrologic conditions	on the site typical for this t	ime of year? Yes (•)	── No (If no, e	explain in Remarks.)	
Are Vegetation , Soil	, or Hydrology	significantly disturbed?		cumstances" present?	v
Are Vegetation , Soil	, or Hydrology	naturally problematic?		ain any answers in Rei	Yes • No ·
Are vegetation, 30ii	_ , or rivurology	пасигану рговієтайс:	(II necueu, expir	alli ally allswers ill Kei	nai ks.)
SUMMARY OF FINDINGS – Att	ach site map showing sa	ampling point locations, t	ransects, importa	ant features, etc.	
Hydrophytic Vegetation Present?	Yes No) le the	e Sampled Area		
Hydric Soil Present?	Yes No		n a Wetland?	Yes C) No ●
Wetland Hydrology Present?	Yes No	•			
Remarks:	h. dualani ana nakanasant Thia	in make makland			
Hydrophytic vegetation and wetland I	hydrology are not present. This	is not a wetland.			
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (Minimum of	one required; check all that	: apply)	Secondary	Indicators (Minimum	of 2 required)
Surface Water (A1)	Aquatic	Fauna (B13)		arsely Vegetated Concave	•
High Water Table (A2)		posits (B15) (LRR U)		ainage Patterns (B10)	()
Saturation (A3)	Hydroge	n Sulfide Odor (C1)		ss Trim Lines (B16)	
Water Marks (B1)	Oxidized	Rhizospheres along Living Roots	(C3) Dry	/ Season Water Table (C2)
Sediment Deposits (B2)	Presence	e of Reduced Iron (C4)	Cra	ayfish Burrows (C8)	
Drift Deposits (B3)	Recent I	ron Reduction in Tilled Soils (C6)	Sat	curation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)	Thin Mu	ck Surface (C7)	Geo	omorphic Position (D2)	
Iron Deposits (B5)	Other (E	xplain in Remarks)	Sha	allow Aquitard (D3)	
Inundation Visible on Aerial Imag	gery (B7)		FAC	C-Neutral Test (D5)	
Water-Stained Leaves (B9)			Spl	hagnum moss (D8) (LRR ⁻	T, U)
Field Observations:					
Surface Water Present? Yes	○ No ● Dept	th (inches):			
Water Table Present? Yes	◯ No ⊙ Dept	th (inches):			
Saturation Present? (includes capillary fringe) Yes	○ No ● Dept	th (inches):	Wetland Hy	drology Present? Ye	s No •
Describe Recorded Data (stream gau	usa manitan wall sanial shatas	provious inspections) if available			
Describe Recorded Data (Stream gat	ige, monitor well, aerial photos,	, previous irispections), ir availabi	e:		
Remarks:					

	Dominant Species?	Dominance Test worksheet:
	Absolute Rel.Strat. Indica % Cover Cover Stat	
ee Stratum (Plot Size : 30)		Total Number of Dominant
•		Species Across All Strata: 2 (B
•		
		That are obly thew, of the
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $0 \times 3 = 0$
ling or Sapling/Shrub Stratum (Plot Size: 30)		FACU species $\underline{65}$ x 4 = $\underline{260}$
-		
		rievalence muex – b/A– 3 500
•		3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
ub Stratum (Plot Size : 30) .		hydrology must be present, unless disturbed or
•	0 0.0%	i Definition of Vegetation Strata:
	0	Tree - Woody plants, excluding woody vines,
	0	Tree - Woody plants, excluding woody vines,
50% of Total Cover: 0 20% of Total Cover: 0	0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines,
	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FAC	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
•	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% OBL 10 11.1% FACI	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
Solve of Total Cover: 0 20% of Total Cover: 0 Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon glomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
Solve of Total Cover: 0 20% of Total Cover: 0 Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon glomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines,
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon glomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% OBL 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon dlomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% OBL 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon glomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 10 11.1% FACI 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
Solve of Total Cover: 0 20% of Total Cover: 0 Stratum (Plot Size : 30) Covnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon glomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon alomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
Schratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon glomeratus Helianthus argophyllus	0 0.0% 0 0.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
:	0 0.0% 0 10.0% 0 = Total Cover 40 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
b Stratum (Plot Size : 30) Cvnodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon glomeratus Helianthus argophyllus	0 0.0% 0 10.0% 0 = Total Cover 40 ✓ 44.4% FACU 15 ✓ 16.7% FACU 10 11.1% FACU 10 11.1% FACU 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
:	0 0.0% 0 10.0% 0 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
	0 0.0% 0 10.0% 0 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.
	0 0.0% 0 10.0% 0 44.4% FACI 15 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Yes No
ch Stratum (Plot Size : 30) Conodon dactvlon Schizachvrium scoparium Ambrosia artemisiifolia Borrichia frutescens Andropogon alomeratus Helianthus argophyllus	0 0.0% 0 10.0% 0 44.4% FACI 15 ✓ 44.4% FACI 15 ✓ 16.7% FACI 10 11.1% FACI 10 11.1% FACI 5 5.6% UPL 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Yes No

SOIL Sampling Point: WP1055_UP

Depth .	Matr	ix		Redox	Features			
(inches)	Color (moist		Color (moist)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 5/1	100					Sandy Loam	
oo. C-Concentratio	un D-Donlotion F	M-Padusas	Matrix CS=Covered	or Coato	l Sand Grains	21 ocation, DI = Doro	Lining M-Matrix	
ric Soil Indicat	•	ivi=Reduced	Matrix, CS=Covered	or Coated	a Sanu Grains.	² Location: PL=Pore	Indicators for Problemat	ic Hydric Soils³:
Histosol (A1)			Polyva	ue Belov	v Surface (S8) ((LRR S, T, U)	1 cm Muck (A9) (LRR ())
Histic Epipedon (A2)				ice (S9) (LRR S		2 cm Muck (A10) (LRR	
Black Histic (A3)					1ineral (F1) (LR		Reduced Vertic (F18) (•
Hydrogen Sulfide	(A4)		Loamy	Gleyed I	Matrix (F2)		Piedmont Floodplain Sc	
Stratified Layers ((A5)		✓ Deplet	ed Matrix	(F3)			ny Soils (F20) (MLRA 153B)
Organic Bodies (<i>F</i>	46) (LRR P, T, U)	Redox	Dark Sui	face (F6)		Red Parent Material (Ti	
cm Mucky Mine	eral (A7) (LRR P,	T, U)	Deplet	ed Dark :	Surface (F7)		Very Shallow Dark Surf	•
Muck Presence (A	48) (LRR U)		Redox	Depress	ons (F8)		Other (Explain in Rema	
l cm Muck (A9) ((LRR P, T)		Marl (F	10) (LRF	R U)		Galer (Explain in Nema	110)
Depleted Below D	Dark Surface (A1	1)			(F11) (MLRA	151)		
Thick Dark Surfac	ce (A12)				e Masses (F12)	•		
Coast Prairie Red	ox (A16) (MLRA	150A)			(F13) (LRR P,			
Sandy Muck Mine	eral (S1) (LRR O,	. S)			(, 15) (1.41) 17) (MLRA 151)			f hydrophytic vegetation and
Sandy Gleyed Ma					(F18) (MLRA 1		wetland hy unless d	drology must be present, isturbed or problematic.
Sandy Redox (S5						9) (MLRA 149A)	unicss a	starbed or problematic.
Stripped Matrix (S							1E2C 1E2D)	
Dark Surface (S7)	•	J)	Anoma	ious Brig	int Loamy Soils	(F20) (MLRA 149A	i, 153C, 153D)	
	, (=====, =, =, =,							
trictive Layer (If observed):						lydric Soil Present? Yes	O No O
Depth (inches):						— I '	tydric Soil Present? Yes	No
narks:								

Project/Site: Bluewat	er Terminal	SPM Project	:		City/County: Aransas		Sampling	Date:	2/14/2	2019
Applicant/Owner: Ph	nillips 66 Pip	eline, LLC			State	e: TX	Sampling Point:	WP	1055_WET_	_PEM_A
Investigator(s): B. B	sringhurst &	A. Ostrowsk	i		Section	on, Township, Ra	nge: S N/A	T N/A	R N/A	
Landform (hillslope, te	rrace, etc.): Flat			Local relief (concave	, convex, none):	Concave	:	Slope: 1	% 0.6 °
Subregion (LRR): LRR	t T				Lat: 27.911426	Long	j: -97.137896	_	Datum:	NAD 83
		e sand, 0 to	1 percent sle	opes, occasional	ly flooded, frequently pon	-	fication: None		_	
Are climatic/hydrologi		ns on the si	te typical f		•		o, explain in Remar	_		
Are Vegetation	, Soil	, or H	ydrology	sign	ificantly disturbed?	Are "Normal C	Circumstances" pre	sent?	Yes 💿	No O
Are Vegetation	, Soil	, or H	ydrology	natu	rally problematic?	(If needed, ex	plain any answers	in Rem	arks.)	
SUMMARY OF FIND	INGS – A	ttach site	map sho	wing samplii	ng point locations, t	ransects, impo	rtant features, e	tc.		
Hydrophytic Vegetation			Yes O	No •						
Hydric Soil Present?	riesent:		Yes •	No O		e Sampled Area	`	Yes 🔘	No •	
•	cont?				withi	n a Wetland?				
Wetland Hydrology Pre	sentr		Yes •	No U						
Remarks: Hydrophytic vegetation	hvdric soil	and wetland	d hydrology .	are present. This	s is a wetland					
Try and project to gette along	,, ae 5511,	, and modali	a 11, a. 0,0g,	are present rine	o io a victaria.					
HYDROLOGY										
Wetland Hydrology	Indicators									
Primary Indicators (ired: check	all that annly	1	Seconda	arv Indicators (Mini	imum o	of 2 required)	
✓ Surface Water (A1		one requ			•					
High Water Table	•			Aquatic Fauna (Marl Deposits (· · · · · ·		Sparsely Vegetated C		ourface (B8)	
Saturation (A3)	,AZ)			Hydrogen Sulfic			Drainage Patterns (B1	-		
Water Marks (B1)					spheres along Living Roots		Moss Trim Lines (B16	•		
Sediment Deposits	· (B3)				duced Iron (C4)		Dry Season Water Tal			
Drift Deposits (B3)					duction in Tilled Soils (C6)		Crayfish Burrows (C8)	-	(CO)	
							Saturation Visible on		lagery (C9)	
✓ Algal Mat or Crust				Thin Muck Surfa			Geomorphic Position			
Iron Deposits (B5)		··· (DZ)		Other (Explain i	in Remarks)		Shallow Aquitard (D3)			
Inundation Visible		nagery (B7)					FAC-Neutral Test (D5			
Water-Stained Lea	ves (B9)						Sphagnum moss (D8)) (LRR T,	, U)	
Field Observations:										
Surface Water Present	:? Yes	No	Ö	Depth (inch	ies):					
Water Table Present?	Yes	O No	\bullet	Depth (inch	es):					
Saturation Present? (includes capillary fring	ge) Yes	No	\bigcirc	Depth (inch	nes): 0	Wetland	Hydrology Present	:? Yes	No No	0
		augo monit	or well seris	al photos provio	ous inspections), if available	lo:				
Describe Recorded Da	ta (Stream g	jauge, monic	or well, aeric	ai priotos, previo	ius irispections), ii availabi	c.				
Remarks:										
r comanie										

Sampling Point	WP1055	WFT	PFM	Δ

		Domina		Dominance Test worksheet:	
		Absolute % Cover Cover	it. Indicator	Number of Dominant Species That are OBL, FACW, ro FAC:	0 (A)
Tree Stratum 1.	(Plot Size : <u>30</u>)	0	0%	Total Number of Dominant	? /p
2			0%	Species Across All Strata:	(B
3			0%	Percent of Dominant Species	4-4-1
4			0%	That are OBL, FACW, or FAC:	<u>0.0%</u> (A/B)
5			0%	Prevalence Index worksheet:	
6			0%	Total % Cover of: Multiply by	v.
7.			0%		
8.			0%		
50% of Total Cover: 0 209			l Cover		
_	_				
Sapling or Sapling/Shrub Strat		0 0	20/		
1			<u> </u>		245
2			0%	Colum Totals: 90 (A)	315 (B)
3			0%	Prevalence Index = B/A=	3.500
4			<u> </u>	Hydrophytic Vegetation Indicators:	<u> </u>
5			0%		
6			<u> </u>	1 - Rapid Test for Hydrophytic Vege	tation
7			0%_	2 - Dominance Test is > 50%	
8			0%	3 - Prevalence Index is ≤ 3.0 ¹	
50% of Total Cover: 0 20° Shrub Stratum	% of Total Cover: 0 ——— (Plot Size : <u>30</u>)	0 = Tota	l Cover	Problematic Hydrophytic Vegetation	¹ (Explain)
1		0 0.	0%		
2			0%	¹ Indicators of hydric soil and wetland hydrology must be present, unless dist	urbod or
3			0%	inyurology must be present, unless uist	urbed or
			0%	Definition of Variation Church	
4				Definition of Vegetation Strata:	
5			<u> </u>	Tree - Woody plants, excluding woody approximately 20 ft (6 m) or more in he	
6	% of Total Cover: 0		0%	(7.6 cm) or larger in diameter at breast	
50% of Total Cover: 0 20° Herb Stratum	% of Total Cover: 0	= lota	l Cover		- ' '
	(1 lot 3126 : <u>30</u>)	30 🗸 42.	9%OBL	Sapling - Woody plants, excluding woo approximately 20 ft (6 m) or more in he	
2 2 11 1			7% FACW	than 3 in. (7.6 cm) DBH.	agrit and 1033
3 . Panicum virgatum			4% FAC		
4			0%	Sapling/Shrub - Woody plants, excludir	ng vines, less
		0 0	70/	than 3 in. DBH and greater than 3.28 ft	(1m) tall.
5		0 0.)%		
6			0%	Shrub - Woody plants, excluding wood	
7			0%	approximately 3 to 20 ft (1 to 6 m) in he	agnt.
8			0%	Herb All berbesseus (non woods) als	nte includina
9			0%	Herb - All herbaceous (non-woody) platherbaceous vines, regardless of size, a	
10			0%	plants, except woody vines, less than a	
11			0%	3 ft (1 m) in height.	
12			0%		
_	% of Total Cover: 14	= Tota	l Cover	Woody vine - All woody vines, regardle	ss of height.
Woody Vine Stratum 1.	(Plot Size : <u>30</u>)	0	0%		
2			0%_ 		
3			<u> </u>	Hydrophytic Vegetation Yes	No (•)
4			0% 0%	Present ?	
5					
			l Cover		
Remarks: (If observed, list morpholo	gicai adaptations below).				
de la constant			s		
*Indicator suffix = National status or profe	essional decision assigned bed	ause Regional status not de	etined by FWS.		

SOIL Sampling Point: WP1055_WET_PEM_A

Profile Description	on: (Describe to th	e depth	needed t	o docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Redox	Features			
(inches)	Color (moist)_	<u> </u>	Color (n	noist)	<u>%</u>	Tvpe1	Location ²	Texture	Remarks
0 - 16	10YR 4/1	97	10YR	5/6	3	С	PL, M	Sandy Clay	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix.									
5 cm Mucky Mir Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Mir Sandy Gleyed M Sandy Redox (S Stripped Matrix	(A2)) le (A4) s (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) lace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) latrix (S4)	0A)		Thin Da Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce Piedmo	ark Surfa Mucky M Gleyed Ned Matrix Dark Sur ed Dark S Depressi (10) (LRR ed Ochric anganese (1) Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR Sineral (F1) (Li Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) (U) (F11) (MLRA Masses (F12 (F13) (LRR P, L7) (MLRA 151 (F18) (MLRA 151 plain Soils (F1	151)) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem 3Indicators wetland I unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):							lydric Soil Present? Ye	s • No
Remarks:									

Project/Site: Bluewater Te	rminal SPM Project	City/Cou	unty: Aransas	Sampling Date:	2/14/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point: W	/P1055_WET_PEM_B
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	tange: S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local rel	— lief (concave, convex, none)	: Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 27	7.911525 Lo n		Datum: NAD 83
	and fine sand 0 to 1 perce	nt slopes, occasionally flooded, f		sification: None	
Are climatic/hydrologic cor	iditions on the site typi	cal for this time of year?	Yes ● No (If r	no, explain in Remarks.)	
Are Vegetation,	Soil , or Hydrolo	gy significantly di	sturbed? Are "Normal	Circumstances" present?	Yes • No
Are Vegetation ,	Soil , or Hydrolo	gy naturally probl	lematic? (If needed, e	explain any answers in Re	:marks.)
SUMMARY OF FINDING	S – Attach site map	showing sampling point l	ocations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Pres	ent? Yes	• No O	la tha Camanlad Area		
Hydric Soil Present?	Yes	No	Is the Sampled Area within a Wetland?	Yes 🤄	No O
Wetland Hydrology Present?	Yes	No			
	ic soil, and wetland hydro	logy are present. This is a wetlan	nd.		
HYDROLOGY Wetland Hydrology Indic	ators:				
Primary Indicators (Minir	num of one required; o	heck all that apply)	Second	dary Indicators (Minimum	of 2 required)
✓ Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Concave	• •
High Water Table (A2)		Marl Deposits (B15) (LRR L	J)	Drainage Patterns (B10)	2 Surface (Bo)
✓ Saturation (A3)		Hydrogen Sulfide Odor (C1		Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres alon	_	Dry Season Water Table (Ca	2)
Sediment Deposits (B2)		Presence of Reduced Iron (Crayfish Burrows (C8)	-,
Drift Deposits (B3)		Recent Iron Reduction in T		Saturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on A	erial Imagery (B7)	_		FAC-Neutral Test (D5)	
Water-Stained Leaves (39)			Sphagnum moss (D8) (LRR	T, U)
Field Observations:			<u> </u>		
Surface Water Present?	Yes No	Depth (inches): 1			
Water Table Present?	Yes O No •	Depth (inches): 1 Depth (inches):	_		
Saturation Present?			— Wetland	d Hydrology Present? Yo	es • No O
(includes capillary fringe)	Yes No	Depth (inches): 0	_	,	
Describe Recorded Data (st	eam gauge, monitor well,	aerial photos, previous inspectio	ons), if available:		

(Plot Size : <u>30</u>)

20% of Total Cover: 0

Tree Stratum

50% of Total Cover: 0

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

1.___

Sampling Point:	***	033_	_WET_PE	WI_D
Dominance Test worksheet	:			
Number of Dominant Species That are OBL, FACW, ro FAC:		-	3	(A)
Total Number of Dominant Species Across All Strata:			3	(В
Percent of Dominant Species That are OBL, FACW, or FAC:		_	100.0%	(A/B)
Prevalence Index workshe	et:			
Total % Cover of:	Mu	ltiply	by:	_
OBL species	2x	1 =	2	
FACW species 9	5 x	2 =	190	
FAC species	<u>0</u> x	3 =	0	
FACU species	<u>0</u> x	4 =	0	
UPL species	<u> </u>	5 =	0	
Colum Totals: 9	<u>7</u> (4	()	192	(B)
Prevalence Index = B/A	\=		1.979	
✓ 2 - Dominance Test is: ✓ 3 - Prevalence Index is Problematic Hydrophy	> 50% s ≤ 3.0¹	_	etation on¹ (Explai	n)
✓ 2 - Dominance Test is :✓ 3 - Prevalence Index is	> 50% s ≤ 3.0¹ tic Vege and we	etatio	on¹ (Explai d	n)
2 - Dominance Test is 2 3 - Prevalence Index is Problematic Hydrophys 1 Indicators of hydric soil	> 50% i ≤ 3.0¹ tic Vege and we it, unles	etatio etlane ss dis	on¹ (Explai d	n)
2 - Dominance Test is 3 3 - Prevalence Index is Problematic Hydrophyl 1 Indicators of hydric soil hydrology must be presen	> 50% s ≤ 3.0¹ tic Vege and we tt, unles on Stra luding v or more	etations dis	d sturbed or y vines, neight and	3 in.
2 - Dominance Test is 3 3 - Prevalence Index is Problematic Hydrophys 1 Indicators of hydric soil hydrology must be presented. Definition of Vegetation Tree - Woody plants, excapproximately 20 ft (6 m)	> 50% > 50% > 4 3.01 tic Vege and we tt, unles on Stra luding v or moneter at excludir	etlandess dis	d sturbed or y vines, neight and st height (loody vines)	3 in. OBH).
2 - Dominance Test is 3 3 - Prevalence Index is Problematic Hydrophys 1 Indicators of hydric soil hydrology must be presented. Definition of Vegetation Tree - Woody plants, excapproximately 20 ft (6 m) (7.6 cm) or larger in diam. Sapling - Woody plants, excapproximately 20 ft (6 m) approximately 20 ft (6 m)	> 50% > 50% > 4 3.01 tic Vege and we tt, unles on Stra luding v or more eter at excludir or more ants, e	etlanticetlantiss dissertions dissertions dissertions dissertions dissertions distributed by the second distributed by the	d sturbed or y vines, neight and st height (I cody vines neight and ling vines,	3 in. DBH). less
2 - Dominance Test is 3 3 - Prevalence Index is Problematic Hydrophys 1 Indicators of hydric soil hydrology must be presented. Definition of Vegetation Tree - Woody plants, excapproximately 20 ft (6 m) (7.6 cm) or larger in diamonth Sapling - Woody plants, eapproximately 20 ft (6 m) than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, eapproximately 20 ft (6 m) than 3 in. (7.6 cm) DBH.	> 50% > 50% > 4 3.01 tic Vege and we tit, unles on Stra luding v or more eter at excludir or more ants, ear than cluding	etlandess dissertions discontinuous disconti	d sturbed or y vines, neight and st height (I and sine ight and ling vines, ft (1m) tall dy vines,	3 in. DBH). less
2 - Dominance Test is : 3 - Prevalence Index is Problematic Hydrophys 1 Indicators of hydric soil hydrology must be present Definition of Vegetation Tree - Woody plants, excapproximately 20 ft (6 m) (7.6 cm) or larger in diam Sapling - Woody plants, excapproximately 20 ft (6 m) than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in. DBH and greated Shrub - Woody plants, excapproximately 20 ft (6 m) than 3 in.	> 50% s ≤ 3.0¹ tic Vege and we tt, unles on Stra luding v or more eter at excludir or more er than cluding to 6 m n-wood less of	wood e in h xxclud 3.28 woo o) in h ly) pl	y vines, neight and ling vines, ft (1m) tall dy vines, neight.	3 in. DBH). less less .

4	0	
5	0.0%	Hydrophytic Vegetation Indicators:
6.	0.0%	1 - Rapid Test for Hydrophytic Vegetation
7	0.0%	✓ 2 - Dominance Test is > 50%
8.	0.0%	✓ 3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
Shrub Stratum (Plot Size: 30)		
1	0	¹ Indicators of hydric soil and wetland
2	0	hydrology must be present, unless disturbed or
3	0	
4	0	Definition of Vegetation Strata:
5	0	Tree - Woody plants, excluding woody vines,
6	0	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
Herb Stratum (Plot Size : 30)		Sapling - Woody plants, excluding woody vines,
1 . Spartina patens	95_ 🗹97.9%FACW	approximately 20 ft (6 m) or more in height and less
2 . Borrichia frutescens	2OBL	than 3 in. (7.6 cm) DBH.
3	0	Conline/Chrish Woods plants evaluating since less
4	0	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
5	0	and to the BBH and groater than older it (1111) tain
6	0	Shrub - Woody plants, excluding woody vines,
7	0	approximately 3 to 20 ft (1 to 6 m) in height.
8	0	
9	0	Herb - All herbaceous (non-woody) plants, including
10	0	herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
11	0	3 ft (1 m) in height.
12	0	
50% of Total Cover: 49 20% of Total Cover: 19	97 = Total Cover	Woody vine - All woody vines, regardless of height.
Noody Vine Stratum (Plot Size : 30)		
1	0	
2	0	
3	0	Hydrophytic
4	0	Vegetation Yes No Present?
5	0.0%	
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
marks: (If observed, list morphological adaptations below).		
ndicator suffix = National status or professional decision assigned becau	ico Pogianal status not defined by EMS	

Dominant Species?

Cover

0.0% 0.0%

0.0% 0.0% 0.0%

Absolute % Cover

0

0 ____

0

Rel.Strat. Indicator

0.0%

0.0%_ 0.0%

= Total Cover

0.0% 0.0%

0.0%

Status

SOIL Sampling Point: WP1055_WET_PEM_B

Profile Description	on: (Describe to th	e depth	needed to	o docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Redox	Features			
(inches)	Color (moist)_	<u> </u>	Color (n	noist)	<u>%</u>	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	97	10YR	5/6	3		М	Sandy Clay	
Tuna: C=Concentrati	ion, D=Depletion, RM=	-Paducad N	Matriy CS-(1	Covered	or Costophy	Sand Grains	² Location: PL=Pore	Lining M-Matrix	
•	•	neuuceu i	viatrix, C3=C	Lovereu	or coated	Saliu Grailis.	Location, FL-Fore		
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	(A2)) le (A4) s (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) lace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) latrix (S4)	0A)		Thin Da Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce Piedmo	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi 10) (LRR ed Ochric anganese Surface Ochric (F1 ed Vertic ont Flood	ce (S9) (LRR 9) lineral (F1) (Li latrix (F2) (F3) face (F6) fourface (F7) ons (F8) U) c (F11) (MLRA e Masses (F12 (F13) (LRR P, 7) (MLRA 151 (F18) (MLRA	151)) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem 3Indicators wetland I unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer Type: Depth (inches):	,						F	lydric Soil Present? Ye	s • No 🔾
Remarks:									

Project/Site: Bluewater Term	ninal SPM Project	City/County: Aransas	Sampling Date: 2/14/2019	9
Applicant/Owner: Phillips 66	5 Pipeline, LLC	State	e: TX Sampling Point: WP1055_WET_F	PSS
Investigator(s): B. Bringhur	st & A. Ostrowski	Section	on, Township, Range: S N/A T N/A R N/A	
Landform (hillslope, terrace,	etc.): Flat	Local relief (concave,	c, convex, none): Concave Slope: 0 %	0.0 °
Subregion (LRR): LRR T		 Lat: 27.911495	Long: -97.137748	D 83
Soil Map Unit Name: Mustan	g fine sand, 0 to 1 percent slop	pes, occasionally flooded, frequently pond	de NWI Classification: None	
	itions on the site typical fo	r this time of year? Yes 🌘	No (If no, explain in Remarks.)	
Are Vegetation, So		significantly disturbed?		
Are Vegetation, So		naturally problematic?	(If needed, explain any answers in Remarks.)	10 🔾
- ,	_ , , ,			
SUMMARY OF FINDINGS	- Attach site map show	ing sampling point locations, tr	ransects, important features, etc.	
Hydrophytic Vegetation Presen		No O Is the	e Sampled Area	
Hydric Soil Present?	Yes •		n a Wetland?	
Wetland Hydrology Present?	Yes •	No O		
Remarks: Hydrophytic vegetation, hydric	soil, and wetland hydrology a	e present. This is a wetland.		
HYDROLOGY				
Wetland Hydrology Indicat		- II + I + I- N	Consolination (Minimum of 2 months)	
Primary Indicators (Minimu		• • • • •	Secondary Indicators (Minimum of 2 required)	
✓ Surface Water (A1) High Water Table (A2)		Aquatic Fauna (B13) Marl Deposits (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8)	
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10) Moss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres along Living Roots		
Sediment Deposits (B2)		Presence of Reduced Iron (C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Thin Muck Surface (C7)	Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aeri	al Imagery (B7)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)	
Field Observations:				
	Yes • No O	Depth (inches):4		
	Yes No •	Depth (inches):		_
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):0	Wetland Hydrology Present? Yes ● No ○)
Describe Recorded Data (stre	am gauge, monitor well, aerial	photos, previous inspections), if available	e:	
`				
Remarks:				

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 16

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

50% of Total Cover: 0

1 . Schinus terebinthifolia

2 . Triadica sebifera

50% of Total Cover: 40

50% of Total Cover: 0

50% of Total Cover: 0

Woody Vine Stratum

1.___

Shrub Stratum

Herb Stratum

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

Dominant Species?

Cover

Absolute % Cover

0

0_

0 _

0

0 0

0

0

0

0

0

0

0

0

0

80

0

0

0

0

0 0

0

0

0

0

0

0

0

Rel.Strat. Indicator

0.0%_

0.0%_

0.0% 0.0%

0.0% 0.0%

0.0%

= Total Cover

0.0%

0.0% 0.0%

0.0% 0.0%_

0.0%

= Total Cover

70 🗸 ___87.5% FAC__ 12.5% FAC

0.0%

0.0%

0.0%

0.0%

0.0%_ 0.0%

0.0%

0.0%

0.0% 0.0% 0.0%_ _ 0.0%_

0.0%

0.0%_ 0.0%

0.0%_ _

0.0%

0.0%

0.0%

0.0%

0.0%

= Total Cover

= Total Cover

0.0%

= Total Cover

0.0%

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant				
That are OBL, FACW,	ro FAC:			(A)
Total Number of Dom			1	(D
Species Across All Str	ata:			(B
Percent of Dominant : That are OBL, FACW,			100.0%	(A/B)
Prevalence Index v	worksheet:			
Total % Cover	of:	Multip		_
OBL species	0	x 1		
FACW species	0	x 2	240	
FAC species	80	x 3		
FACU species UPL species	0	x 4	_	
Colum Totals:	80	x 5 (A)	240	(B)
		(4)		(6)
Prevalence Inc	dex = B/A=		3.000	
✓ 1 - Rapid Test ✓ 2 - Dominance ✓ 3 - Prevalence Problematic Hy ¹ Indicators of hy hydrology must b	Test is > 50 Index is ≤ 50 ydrophytic Noric soil and	0% 3.0¹ /egeta	tion¹ (Expla and	•
✓ 2 - Dominance ✓ 3 - Prevalence Problematic Hy ¹ Indicators of hy hydrology must b	Test is > 5 Index is < i ydrophytic \ dric soil and e present, u	0% 3.0¹ /egeta d wetla	tion¹ (Expla and disturbed or	•
2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b	Test is > 50 Index is \(\le \) Index in \(\le \) Index is \(\le \) Index in \(\le \) Index is \(\le \) Index is \(\le \) Index is \(\le \) Index is \(\le \) I	0% 3.0¹ /egeta d wetla inless	tion¹ (Expla and disturbed or a:	•
✓ 2 - Dominance ✓ 3 - Prevalence Problematic Hy ¹ Indicators of hy hydrology must b	Test is > 50 Index is ≤ 5 ydrophytic N dric soil and e present, u egetation nts, excludift (6 m) or i	0% 3.0¹ /egeta d wetla inless Strata ng wo more in	and disturbed or 3: ody vines, n height and	3 in.
2 - Dominance 3 - Prevalence Problematic Hy Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20	Test is > 50 Index is ≤ 5 ydrophytic N dric soil and e present, u egetation nts, excludift (6 m) or in diamete plants, excl ft (6 m) or if	3.01 /egeta d wetlanless of the second secon	and disturbed or 3: ody vines, n height and east height (woody vines	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic Hy Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20	Test is > 50 Index is ≤ 1 ydrophytic N dric soil and e present, u egetation nts, excludi ft (6 m) or 1 in diamete plants, excl ft (6 m) or 1) DBH.	0% 3.0¹ /egeta d wetlanless Strata ng wor more in r at bre uding more in	and disturbed or a: ody vines, n height and east height (woody vines n height and	3 in. DBH). , less
2 - Dominance 3 - Prevalence Problematic Hy Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm Sapling/Shrub - W	rest is > 50 Index is ≤ 5 Index is ≤ 5 Index is ≤ 6 Inde	o% 3.0¹ /egeta d wetlanless of Strata ng word more in r at bre uding more in s, exclanan 3.2 ding wo	and disturbed or a: ody vines, n height and east height (woody vines n height and	3 in. DBH). , less
2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm Sapling/Shrub - W than 3 in. DBH an Shrub - Woody pl	rest is > 5 Index is ≤ 1 Index is ≤ 2 Index is ≤ 3 Index is ≤ 3 Index is ≤ 4 Index is ≤ 5 Index	owo 3.01 /egeta d wetlanless of Strata ng wormore in r at breading wording wor	and disturbed or a: ody vines, n height and east height (woody vines, n height and luding vines, 28 ft (1m) tal oody vines, n height.	3 in. DBH). , less less l.

	_	_	
Remarks: (If observed,	list morphological adaptati	ons below).	

20% of Total Cover: 0

20% of Total Cover: 0

(Plot Size : 30)

SOIL Sampling Point: WP1055_WET_PSS

Profile Descriptio	n: (Describe to th	e depth ne	eded to docu	ment the	indicator or	confirm the abs	ence of indicators.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u> </u>	Color (moist)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 5/1	100					Sandy Clay	
Type: C-Concentration	on D-Donlation PM-	Padurad Mar	triv CS-Covered	or Costad	Sand Grains	² l cention: Pl =Porc	Lining M-Matriy	
	on, D=Depletion, RM=	Keduced IVIa	trix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore	-	stic Usadria Cailo3.
Hydric Soil Indica	tors:						Indicators for Problema	atic Hydric Soils ³ :
Histosol (A1)			Polyval	ue Below	Surface (S8) ((LRR S, T, U)	1 cm Muck (A9) (LRR	0)
Histic Epipedon (` '		Thin D	ark Surfac	ce (S9) (LRR S	, T, U)	2 cm Muck (A10) (LR	R S)
Black Histic (A3)			Loamy	Mucky Mi	ineral (F1) (LR	R O)	Reduced Vertic (F18)	(outside MLRA 150A,B)
Hydrogen Sulfide	` '		Loamy	Gleyed M	latrix (F2)		Piedmont Floodplain	Soils (F19) (LRR P, S, T)
Stratified Layers	, ,		✓ Deplete	ed Matrix	(F3)		Anomalous Bright Loa	amy Soils (F20) (MLRA 153B)
	(A6) (LRR P, T, U)		Redox	Dark Surf	ace (F6)		Red Parent Material (TF2)
	eral (A7) (LRR P, T,	U)	Deplet	ed Dark Si	urface (F7)		Very Shallow Dark Su	rface (TF12)
Muck Presence ((A8) (LRR U)		Redox	Depressio	ons (F8)		Other (Explain in Ren	narks)
1 cm Muck (A9)	(LRR P, T)		Marl (F	10) (LRR	U)		` '	•
Depleted Below	Dark Surface (A11)		Deplete	ed Ochric	(F11) (MLRA 1	151)		
Thick Dark Surfa	ice (A12)		Iron-M	anganese	Masses (F12)	(LRR O, P, T)		
Coast Prairie Rec	dox (A16) (MLRA 150	0A)			(F13) (LRR P,			
Sandy Muck Mine	eral (S1) (LRR O, S)				7) (MLRA 151)			of hydrophytic vegetation and hydrology must be present,
Sandy Gleyed Ma	atrix (S4)				(F18) (MLRA 1			disturbed or problematic.
Sandy Redox (S	5)) (MLRA 149A)		·
Stripped Matrix ((S6)					(F20) (MLRA 149A	. 153C. 153D)	
Dark Surface (S7	7) (LRR P, S, T, U)					(1.20) (1.12.01.2.157.	, 1000, 1000)	
Restrictive Layer (Type: Depth (inches):						•	lydric Soil Present? Ye	s • No 🔾
Remarks:								

Project/Site: Bluewater Terminal SPM Project	City/County: Aransas	Sampling Date:	2/25/2019
Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	WP1056_UP
Investigator(s): B. Bringhurst & R. Conley	Section, Township, Ra	nge: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, none):	Flat	Slope: 1 % 0.6 °
Subregion (LRR): LRR T	Lat: 27.912361 Long	j: -97.137811	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasi		fication: None	
Are climatic/hydrologic conditions on the site typical for this tim	ne of year? Yes $lacktriangle$ No $lacktriangle$ (If no	o, explain in Remarks.)	
Are Vegetation , Soil , or Hydrology	significantly disturbed? Are "Normal (Circumstances" present?	Yes ● No 🔾
Are Vegetation , Soil , or Hydrology ı	naturally problematic? (If needed, ex	cplain any answers in Re	marks.)
SUMMARY OF FINDINGS — Attach site map showing sam	npling point locations, transects, impo	rtant features, etc.	
Hydrophytic Vegetation Present? Yes • No	In the Consider Asset		
Hydric Soil Present? Yes No •	Is the Sampled Area within a Wetland?	Yes	No ●
Wetland Hydrology Present? Yes No •			
Hydric soil and wetland hydrology are not present. This is not a wetland HYDROLOGY	<u>. </u>		
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required: check all that a	pply) Seconda	arv Indicators (Minimum	of 2 required)
Surface Water (A1) Aquatic Fat	una (B13)	Sparsely Vegetated Concave	e Surface (B8)
		Drainage Patterns (B10)	o danace (bo)
		Moss Trim Lines (B16)	
Water Marks (B1) Oxidized RI		Dry Season Water Table (Ca	2)
Sediment Deposits (B2)		Crayfish Burrows (C8)	,
Drift Deposits (B3)	n Reduction in Tilled Soils (C6)	Saturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4)	Surface (C7)	Geomorphic Position (D2)	
Iron Deposits (B5) Other (Exp	olain in Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR	T, U)
Field Observations:			
	(inches):		
Water Table Present? Yes No • Depth ((inches):		
Saturation Present?		Hydrology Present? You	es O No •
Describe Recorded Data (stream gauge, monitor well, aerial photos, proceedings).	revious inspections), if available:		

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : <u>30</u>)

20% of Total Cover: 2

20% of Total Cover: 19

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

1 . Schinus terebinthifolia

50% of Total Cover: 5

1 _Smilax bona-nox

3 . Panicum virgatum

2 . Schizachvrium scoparium

4. Leucaena leucocephala 5 . Helianthus argophyllus

50% of Total Cover: 48

50% of Total Cover: 0

Woody Vine Stratum

1.__

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0

0

0 _

0

0 0

0

0

0

0

0

0

0

0

0

0

10

5

0

0

0 0

0

0

95

0__ 0

0

0 0 Rel.Strat. Indicator

0.0%_

0.0%

0.0% 0.0%

0.0% 0.0%_

0.0%

= Total Cover

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%_

0.0%

= Total Cover

10 ✓ 100.0% FAC 0.0%_ 0.0%

0.0%

0.0%

31.6% FACU

5.3% FACU

5.3%__UPL

0.0%

0.0%_ 0.0%_

0.0%_

0.0% 0.0%

0.0%_

0.0%_

0.0%_

0.0% 0.0%_

0.0%

= Total Cover

= Total Cover

0.0%

30 **✓** 31.6% FAC

25 ✓ 26.3% FAC

= Total Cover

0.0%

0.0%

Status

	Sampling Point: WP1056_UP
Т	Dominance Test worksheet:
	Number of Dominant Species
	That are OBL, FACW, ro FAC: (A)
	Total Number of Dominant Species Across All Strata: (B
	Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B)
	Prevalence Index worksheet:
	Total % Cover of: Multiply by:
	OBL species $0 \times 1 = 0$
	FACW species $0 \times 2 = 0$
	FAC species $\underline{65} x 3 = \underline{195}$
	FACU species $35 \times 4 = 140$
	UPL species $5 \times 5 = 25$
	Colum Totals: 105 (A) 360 (B)
	Prevalence Index = B/A= 3.429
	Hydrophytic Vegetation Indicators:
	1 - Rapid Test for Hydrophytic Vegetation
	✓ 2 - Dominance Test is > 50%
	3 - Prevalence Index is ≤ 3.01
	Problematic Hydrophytic Vegetation ¹ (Explain)
	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
	Definition of Vegetation Strata:
	Tree - Woody plants, excluding woody vines,
	approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
	Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height.
	Woody vine - All woody vines, regardless of height.
	Hydrophytic Vegetation Yes • No Present ?

	(7.6)	D. J. L. J. J. J.	adaptations below)
≀emarks'	(If observed	list morphological	adantations helow)

SOIL Sampling Point: WP1056_UP

Profile Description	n: (Describe to the de	pth needed to docu	ment the indicator or	confirm the abs	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches) 0 - 16	Color (moist) % 10YR 4/1 100	•		Location ²	Texture	Remarks
				21	Sandy Clay	
Hydric Soil Indicat	on, D=Depletion, RM=Redu	ced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore	Indicators for Problema	atic Hydric Soile ³ :
Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies (A3) Muck Presence (A3) 1 cm Muck (A9) Depleted Below I Thick Dark Surfact Coast Prairie Red Sandy Muck Mine Sandy Gleyed Matrix (S5) Stripped Matrix (S5)	A2) (A4) (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) A8) (LRR U) (LRR P, T) Dark Surface (A11) ce (A12) lox (A16) (MLRA 150A) eral (S1) (LRR O, S) etrix (S4)	Thin Dalta Commands In the process of the process o	ue Below Surface (S8) (ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) (10) (LRR U) ed Ochric (F11) (MLRA 1 anganese Masses (F12) (Surface (F13) (LRR P, Ochric (F17) (MLRA 151) ed Vertic (F18) (MLRA 1 ont Floodplain Soils (F19) lous Bright Loamy Soils	, T, U) R O) 151) (LRR O, P, T) T, U)) 50A, 150B) v) (MLRA 149A)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LR Reduced Vertic (F18) Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer (Type: Depth (inches):	·				lydric Soil Present? Ye	s No •
Remarks:						

City/County: Aransas

Sampling Date:

2/25/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1056_WET_PSS
Investigator(s): B. Bringhurst & R. Conley	Section, Township, Range: S N/A T N/A R N/A
Landform (hillslope, terrace, etc.): Flat Local relief (co	oncave, convex, none): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.9123	16 Long: -97.137999 Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, frequer	ntly ponde NWI Classification: None
	S No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significantly disturbed	
Are Vegetation , Soil , or Hydrology naturally problemati	ic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No	main a Wolana.
Remarks:	
Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not a wetland	and.
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (Minimum of one required; check all that apply)	Secondary Indicators (Minimum of 2 required)
✓ 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)
Water Marks (B1) Oxidized Rhizospheres along Livin	ng Roots (C3) Dry Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Burrows (C8)
✓ Drift Deposits (B3) Recent Iron Reduction in Tilled So	
Algal Mat or Crust (B4) 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)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
` '	Springram moss (56) (ERR 1, 6)
Field Observations:	
Surface Water Present? Yes • No Depth (inches): 11	
Water Table Present? Yes No Depth (inches):	
Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0	Wetland Hydrology Present? Yes ● No ○
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if	available:
besome Recorded bata (Stream gauge, monitor well, dental photos, previous inspections), if	uvaliable.
Remarks:	

Project/Site: Bluewater Terminal SPM Project

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : <u>30</u>)

20% of Total Cover: 14

20% of Total Cover: 2

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

1 . Schinus terebinthifolia

50% of Total Cover: 35

1 . Smilax bona-nox

50% of Total Cover: 5

50% of Total Cover: 0

Woody Vine Stratum

1.___

2 . Triadica sebifera

Sapling or Sapling/Shrub Stratum (Plot Size : 30)

50% of Total Cover: 0 20% of Total Cover: 0

Dominant Species?

Cover

Absolute % Cover

0

0

0_

0 _

0

0

0

0

0

0

0

0

0

0

0

0

70

0

0

0

0 0

0

0

0__ 0

0

0

0

10

0

Rel.Strat. Indicator

0.0%_

0.0%_

0.0% 0.0%

0.0%

0.0%

0.0%

0.0% 0.0%

0.0% 0.0%_

0.0%_

0.0%

0.0%

0.0%

0.0%

0.0%_

= Total Cover

10 ✓ 100.0% FAC

0.0%

0.0%

0.0% 0.0%_

0.0%_ 0.0%_ 0.0%_

0.0%_

0.0%_ 0.0%

0.0%_ _

0.0%

0.0%

0.0% 0.0%

0.0%

= Total Cover

Present?

= Total Cover

= Total Cover

65 **✓** __92.9%__FAC__ _____7.1%___FAC___

0.0%

0.0%

= Total Cover

0.0%

Status

Dominance Test wo	orksheet:			
Number of Dominant That are OBL, FACW,			3	(A)
Total Number of Dom Species Across All Str			4	_ (B
Percent of Dominant : That are OBL, FACW,			75.0%	(A/B)
Prevalence Index v	vorksheet:			
Total % Cover of	of:	Multip	ly by:	
OBL species	0	x 1		0
FACW species	0	x 2		0
FAC species	80	x 3	= 24	_
FACU species	0	x 4		0
UPL species	0	x 5		0_
Colum Totals:	80	(A)	24	(B)
Prevalence Inc	dex = B/A=		3.0	00_
Uvduonbutio Vocat	ation Indic	ators		
Hydrophytic Veget 1 - Rapid Test ✓ 2 - Dominance ✓ 3 - Prevalence Problematic Hy ¹ Indicators of hy	Test is > 5 Index is ≤ ydrophytic	0% 3.0¹ Vegeta	tion¹ (Exp	olain)
1 - Rapid Test 2 - Dominance 3 - Prevalence	Test is > 5 Index is ≤ ydrophytic ' dric soil an	0% 3.0¹ Vegeta	tion¹ (Exp	ŕ
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy	Test is > 5 Index is ≤ ydrophytic dric soil and e present, t	0% 3.0¹ Vegeta d wetk inless	tion¹ (Exp and disturbed	ŕ
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b	Test is > 5 Index is ≤ ydrophytic \(\text{dric soil and e present, } \) tegetation nts, excludift (6 m) or	0% 3.0¹ Vegeta d wetla inless Strata ing wo more i	and disturbed 3: ody vines n height a	or , , ,nd 3 in.
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20	Test is > 5 Index is ≤ ydrophytic dric soil and e present, the egetation ints, excluding ft (6 m) or in diamete plants, excl ft (6 m) or in diamete plants, excl ft (6 m) or in diamete plants, excl ft (6 m) or in diamete	0% 3.0¹ Vegeta d wetlanless Strata ng wo more i r at bro uding	and disturbed 3: ody vines n height a east heigh	or , ,nd 3 in. nt (DBH).
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20	Test is > 5 Index is ≤ ydrophytic \(\text{dric soil and e present, u} \) egetation \(\text{nts}, \text{ excludift (6 m) or in diamete plants, excl ft (6 m) or) DBH. \(\text{/oody plant} \)	0% 3.0¹ Vegeta d wetlanless Strata ng wo more i r at bro uding more i	and disturbed a: ody vines n height a east heigh woody vir n height a	or , and 3 in. ant (DBH). anes, and less and less and less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - W	Test is > 5 Index is ≤ ydrophytic \(\frac{1}{2} \) dric soil and e present, \(\frac{1}{2} \) egetation nts, excludift (6 m) or in diamete plants, excl ft (6 m) or) DBH. /oody plant d greater the	0% 3.0¹ Vegeta d wetlanless Strata ng wo more i r at bro uding more i s, exc nan 3.2 ding w	and disturbed a: ody vines n height a east heigh woody vir n height a	or and 3 in. at (DBH). aes, and less es, less tall.
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic Hy 1 Indicators of hy hydrology must b Definition of Ve Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm Sapling/Shrub - W than 3 in. DBH an Shrub - Woody pla	Test is > 5 Index is ≤ ydrophytic ' dric soil and e present, the egetation in the egetation in diamete plants, excludift (6 m) or in diamete plants, excludift (6 m) or in diamete plants, excludift (6 m) or in diamete plants, excluding the egetation of the egetation in the eget	o% 3.0¹ Vegeta d wetlanless Strata ng wo more i r at bro uding more i s, exc nan 3.2 ding w 6 m) i voody) s of siz	and disturbed a: ody vines n height a east heigh woody vine n height a luding vine 28 ft (1m) oody vine n height.	or , and 3 in. and (DBH). and less and

Domarke: (If ohe	carvad lict mai	rnhological ada	ntations holow)

SOIL Sampling Point: WP1056_WET_PSS

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth Matrix Redox Features									
(inches)	Color (moist)	<u> </u>	olor (moist)	<u></u>	Tvpe ¹	Location ²	Texture	Remarks	
0 - 16	10YR 5/1	100					Sandy Clay		
¹Tvne: C=Concentrati	on D=Depletion RM=	Reduced Mala	rix CS=Covered	or Coated	Sand Grains	² Location: PL=Pore	Lining M=Matrix		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :									
Histosol (A1) Histic Epipedon					Surface (S8) (ce (S9) (LRR S		1 cm Muck (A9) (LRR	0)	
Black Histic (A3)					ineral (F1) (LR			(outside MLRA 150A,B)	
Hydrogen Sulfide	e (A4)				latrix (F2)	ŕ		Soils (F19) (LRR P, S, T)	
Stratified Layers	(A5)		✓ Deplet	ed Matrix	(F3)			amy Soils (F20) (MLRA 153B)	
Organic Bodies (A6) (LRR P, T, U)		Redox	Dark Surf	ace (F6)		Red Parent Material (
5 cm Mucky Min	eral (A7) (LRR P, T,	U)	Deplet	ed Dark Si	urface (F7)		Very Shallow Dark Su	<i>'</i>	
Muck Presence ((A8) (LRR U)		Redox	Depressio	ons (F8)		Other (Explain in Ren		
1 cm Muck (A9)	(LRR P, T)		Marl (F	10) (LRR	U)		Outer (Explain in Ren	idi Ko)	
Depleted Below	Dark Surface (A11)				(F11) (MLRA 1	151)			
Thick Dark Surfa	ce (A12)				. , .	(LRR O, P, T)			
Coast Prairie Rec	dox (A16) (MLRA 15	0A)			(F13) (LRR P, ⁻				
Sandy Muck Min	eral (S1) (LRR O, S)				7) (MLRA 151)			of hydrophytic vegetation and	
Sandy Gleyed Ma	atrix (S4)				F18) (MLRA 1		wetland hydrology must be present, unless disturbed or problematic.		
Sandy Redox (S	5)) (MLRA 149A)	4555		
Stripped Matrix ((F20) (MLRA 149A	153C 153D)		
	7) (LRR P, S, T, U)		Allollid	ilous brigin	ic Louiny John	(120) (11104 1134	, 1550, 1550)		
Restrictive Layer ((If observed):								
Туре:						'	Hydric Soil Present? Yes No		
Depth (inches):									
Remarks:									

Appendix C
Photographic Log (see enclosed electronic copy)