Tree Stratum

1 . Ouercus virginiana

50% of Total Cover: 2.5

Shrub Stratum

Herb Stratum

1 . Ouercus virginiana 2 . Ilex vomitoria

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

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

50% of Total Cover: 23 20% of Total Cover: 9

50% of Total Cover: 20 20% of Total Cover: 8

50% of Total Cover: 0 20% of Total Cover: 0 Remarks: (If observed, list morphological adaptations below).

1 . Schizachvrium scoparium

2 . Andropoaon virainicus

Woody Vine Stratum

1._____

(Plot Size : 30)

20% of Total Cover: 1

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

(Plot Size : 30)

(Plot Size : 30)

nes of plants.	Sampling Point: UPP1076
Dominant Species? solute Rel.Strat. Control	Dominance Test worksheet: Number of Dominant Species
Cover Cover Status	That are OBL, FACW, ro FAC: 2 (A)
5 🗸 100.0% FACU 0.0%	Total Number of Dominant Species Across All Strata: 4 (B
0.0%	Percent of Dominant Species That are OBL, FACW, or FAC: 50.0% (A/B)
0.0%	That are obe, friend, or fried
0.0%	Prevalence Index worksheet:
0.0%	Total % Cover of: Multiply by:
0.0%	OBL species $0 \times 1 = 0$
0.0% 5 = Total Cover	FACW species $0 \times 2 = 0$
	FAC species $30 \times 3 = 90$ FACU species $60 \times 4 = 240$
• 🗆 • • • • •	
0.0% 0 0.0%	245
0.0%	Colum Totals: 65 (A) 245 (B)
0 0.0%	Prevalence Index = B/A= 3.769
0.0%	Hydrophytic Vegetation Indicators:
0 0.0%	1 Panid Tost for Hydronhytic Variation
0 0.0%	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50%
0 0.0%	3 - Prevalence Index is ≤ 3.0¹
0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
	Troblemate Hydrophytic Vegetation (Explain)
35 ✓	
10 ✓ 22.2% FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
0.0%	
0.0%	Definition of Vegetation Strata:
0.0%	Tree - Woody plants, excluding woody vines,
0.0%	approximately 20 ft (6 m) or more in height and 3 in.
45 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
	Sapling - Woody plants, excluding woody vines,
20 🗸50.0%FACU	approximately 20 ft (6 m) or more in height and less
20 🗸50.0%_ FAC	than 3 in. (7.6 cm) DBH.
0.0%	
0.0%	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
0.0%	than 5 m. bbit and greater than 5.20 ft (1111) tall.
0.0%	Shrub - Woody plants, excluding woody vines,
0.0%	approximately 3 to 20 ft (1 to 6 m) in height.
0.0%	
0.0%	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
0.0%	plants, except woody vines, less than approximately
0.00/	3 ft (1 m) in height.
0.0%	
0.0%	
	Woody vine - All woody vines, regardless of height.
0 0.0% 40 = Total Cover	Woody vine - All woody vines, regardless of height.
0 0.0% 40 = Total Cover 0 0.0%	Woody vine - All woody vines, regardless of height.
0 0.0% 40 = Total Cover 0 0.0% 0 0.0%	
0 0.0% 40 = Total Cover 0 0.0% 0 0.0% 0 0.0%	Hydrophytic Vegetation Yes No ●
0 0.0% 40 = Total Cover 0 0.0% 0 0.0% 0 0.0%	Hydrophytic

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>	Color (moist)	%	Tvpe1	Location ²	Texture	Remarks
0 - 4	10YR	3/1	100					Sandy Loam	
4 - 16	10YR	4/2	100					Sand	
¹Type: C=Concentratio	on, D=Deple	tion, RM=	Reduced	Matrix, CS=Covered	or Coatec	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indicat	tors:							indicators for Problema	uc nyaric Soils:
Histosol (A1)	(.a)					Surface (S8) (1 cm Muck (A9) (LRR	0)
Histic Epipedon (• •					ce (S9) (LRR S		2 cm Muck (A10) (LRI	₹ \$)
Black Histic (A3)						lineral (F1) (LR	R O)	Reduced Vertic (F18)	(outside MLRA 150A,B)
Hydrogen Sulfide				Loamy	Gleyed N	4atrix (F2)		Piedmont Floodplain S	Soils (F19) (LRR P, S, T)
Stratified Layers					ed Matrix	• •		Anomalous Bright Loa	ımy Soils (F20) (MLRA 153B)
Organic Bodies (Redox	Dark Sur	face (F6)		Red Parent Material (ΓF2)
5 cm Mucky Mine			U)	Deplete	ed Dark S	Surface (F7)		Very Shallow Dark Su	rface (TF12)
Muck Presence (A8) (LRR U)		Redox	Depressi	ons (F8)		Other (Explain in Rem	iarks)
1 cm Muck (A9)	(LRR P, T)			Marl (F	10) (LRR	. U)			•
Depleted Below I	Dark Surfac	ce (A11)		Deplete	ed Ochric	(F11) (MLRA 1	.51)		
Thick Dark Surfa	ce (A12)			Iron-Ma	anganese	e Masses (F12)	(LRR O, P, T)		
Coast Prairie Rec	dox (A16) (MLRA 150	OA)	Umbric	Surface	(F13) (LRR P,	Γ, U)		
Sandy Muck Mine	eral (S1) (L	RR O, S)				.7) (MLRA 151)			of hydrophytic vegetation and nydrology must be present,
Sandy Gleyed Ma	atrix (S4)					(F18) (MLRA 1			disturbed or problematic.
Sandy Redox (S5	5)					plain Soils (F19			·
Stripped Matrix ((F20) (MLRA 149A	153C 153D)	
Dark Surface (S7		S, T, U)		Alloma	ous brig	nic Louinty Solis	(120) (11LIVA 113A	, 155C, 155D)	
	,	, , ,							
Restrictive Layer ((If observ	ed):							
Type:	-	-						Hydric Soil Present? Ye	s No •
Depth (inches):								,	
Remarks:									

City/County: Aransas

Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	UPP1077
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township, Ra	ange: S N/A 1	ΓN/A R N/A
Landform (hillslope, terrace, etc.): Flat	Local relief (con	cave, convex, none):	Flat	Slope: 0 % 0.0 °
Subregion (LRR): LRR T	 Lat: 27 . 919744	Long	g: -97.139365	Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 perc	ent slopes, occasionally flooded	(GM) NWI Classi	ification: None	
Are climatic/hydrologic conditions on the site typical for t	his time of year? Yes	● No (If no	o, explain in Remark	/c)
	-			
Are Vegetation , Soil , or Hydrology	significantly disturbed		Circumstances" pres	100 0 110 0
Are Vegetation . , Soil . , or Hydrology	naturally problematic?	(11 needed, ex	xplain any answers i	in Kemarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point location	ns, transects, impo	ortant features, et	:C.
Hydrophytic Vegetation Present? Yes N	lo •			
		Is the Sampled Area within a Wetland?	Ye	es O No •
Wetland Hydrology Present? Yes N	lo •	within a wolland.		
Remarks:				
Hydrophytic vegetation, hydric soil, and wetland hydrology are	not present. This is not a wetland	i.		
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of one required: check all	that annly)	Second	ary Indicators (Minir	mum of 2 required)
	uatic Fauna (B13) 1 Deposits (B15) (LRR U)		Sparsely Vegetated Co	• •
	drogen Sulfide Odor (C1)		Drainage Patterns (B16)	-
	dized Rhizospheres along Living		Moss Trim Lines (B16) Dry Season Water Tab	
	sence of Reduced Iron (C4)		Crayfish Burrows (C8)	ne (CZ)
	ent Iron Reduction in Tilled Soils		Saturation Visible on A	erial Imageny (C9)
	n Muck Surface (C7)		Geomorphic Position (
	ner (Explain in Remarks)		Shallow Aquitard (D3)	<i>52)</i>
Inundation Visible on Aerial Imagery (B7)	ici (Explain in Nemarks)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8)	
· ·				(
Field Observations: Surface Water Present? Yes No	Double (in alcos)			
	Depth (inches):			
Water Table Present? Yes No Saturation Present?	Depth (inches):	Watland	Hydrology Present?	? Yes O No •
(includes capillary fringe) Yes No	Depth (inches):	Weciand	i nyurology Present:	
Describe Recorded Data (stream gauge, monitor well, aerial ph	notos, previous inspections), if a	ailable:		
	, , , , , , , , , , , , , , , , , , , ,			
Remarks:				

Project/Site: Bluewater Terminal SPM Project

Sampling Date: 2/13/2019

	Dominant	Dominance Test worksheet:
	Absolute Species? Rel Strat Indicator	Number of Dominant Species
	% Cover Cover Status	That are OBL, FACW, ro FAC:2 (A)
<u>Tree Stratum</u> (Plot Size : <u>30</u>)		
1 . Ouercus virginiana	25 🗹100.0%FACU	Total Number of Dominant Species Across All Strata:5(B
2	0	Species Across All Strata.
3		Percent of Dominant Species
4		That are OBL, FACW, or FAC: 40.0% (A/B)
5		Prevalence Index worksheet:
6		Total % Cover of: Multiply by:
7	0	OBL species $0 \times 1 = 0$
8.	0	FACW species $0 \times 2 = 0$
50% of Total Cover: 13 20% of Total Cover: 5	25 = Total Cover	FAC species 65 x 3 = 195
Continuo on Continuo (Church Churchum (Clat Circ. 20.)		FACU species $45 \times 4 = 180$
Sapling or Sapling/Shrub Stratum (Plot Size : 30)	0 0.0%	UPL species $5 \times 5 = 25$
1		Colum Totals: 90 (A) 330 (B)
2		Corum rocars. 90 (A) 335 (B)
3	0.0%	Prevalence Index = B/A= 3.667
4		Hydrophytic Vegetation Indicators:
5	0	Tryurophytic 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 Vegetation ¹ (Explain)
Shrub Stratum (Plot Size : <u>30</u>)		
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	0.0%	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)	_	
4 Buston Carlon	65 🗸 72.2% FAC	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
2 Condendad Inc	10	than 3 in. (7.6 cm) DBH.
Schizachvrium scoparium Phlox drummondii	5 5.6% UPL	Sapling/Shrub - Woody plants, excluding vines, less
4 . Philox drummondii		than 3 in. DBH and greater than 3.28 ft (1m) tall.
5		
6	0.0%	Shrub - Woody plants, excluding woody vines,
7	0.0%	approximately 3 to 20 ft (1 to 6 m) in height.
8	0.0%	Herb - All herbaceous (non-woody) plants, including
9	0.0%	herbaceous vines, regardless of size, and woody
10	0 0.0%	plants, except woody vines, less than approximately
11	0 0.0%	3 ft (1 m) in height.
12		
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	
3	0	Hydrophytic
4	0	Vegetation Yes ○ No ●
5	0.0%	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
lomatics (If observed list mountained admirations to the		<u>l</u>
temarks: (If observed, list morphological adaptations below)	•	

Sampling Point:

UPP1077

Profile Description	on: (Describe to th	e depth n	eeded to docu	nent the	indicator or	confirm the abs	ence of indicators.)		
Depth Matrix Redox Features									
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u></u>	Tvpe ¹	Location ²	Texture	Remarks	
0 - 16	10YR 5/2	100					Sand		
¹Tvpe: C=Concentrati	on. D=Depletion. RM=	-Reduced M	atrix. CS=Covered.	or Coated	Sand Grains.	² Location: PI=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 Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies (5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Ree Sandy Muck Min Sandy Gleyed M Sandy Redox (S) Stripped Matrix ((A2) 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)	0A)	Thin Date Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surfac Mucky Mi Gleyed M. ed Matrix (Dark Surfac ed Dark Su Depressio 10) (LRR ed Ochric anganese Surface (Surface (Sur	(F3) ace (F6) urface (F7) ns (F8) U) (F11) (MLRA 1 Masses (F12) F13) (LRR P, - 7) (MLRA 151) F18) (MLRA 1! lain Soils (F19	.T, U) R O) .51) (LRR O, P, T) T, U)	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 Rem	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):	. ,						lydric Soil Present? Ye	s ○ No ●	
Remarks:									

City/County: Aransas

Sampling Date:

2/14/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Samplin	g Point:	UPP1078
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, Range: S	I/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: 27.91	203 Long: -97.1374	03	Datum: NAD 83
Soil Map Unit Name: Galveston-Mustang complex, 0 to 3 percent slopes, occasionally floo	ed (GM) NWI Classification:	None	
	 -	in Domonko \	
	s No (If no, explain	-	
Are Vegetation , Soil , or Hydrology significantly disturbed.		•	Yes ● No ○
Are Vegetation U, Soil U, or Hydrology U naturally problems	tic? (If needed, explain any	answers in Rer	marks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point loca	ions, transects, important fea	tures, etc.	
Hydrophytic Vegetation Present? Yes No •			
Hydric Soil Present? Yes No •	Is the Sampled Area within a Wetland?	Yes C	No ●
Wetland Hydrology Present?	within a Wetland:		
Remarks;			
Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not a we	and.		
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required; check all that apply)	Secondary Indica	ors (Minimum	of 2 required)
Surface Water (A1) Aquatic Fauna (B13)		egetated Concave	. ,
High Water Table (A2) Marl Deposits (B15) (LRR U)		atterns (B10)	e Surface (Bo)
Saturation (A3) Hydrogen Sulfide Odor (C1)		Lines (B16)	
Water Marks (B1) Oxidized Rhizospheres along Liv		Water Table (C2	?)
Sediment Deposits (B2) Presence of Reduced Iron (C4)	Crayfish Bu	-	-,
Drift Deposits (B3) Recent Iron Reduction in Tilled		Visible on Aerial I	Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)		c Position (D2)	5 / (/
Iron Deposits (B5) Other (Explain in Remarks)	Shallow Aq	uitard (D3)	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutra	l Test (D5)	
Water-Stained Leaves (B9)	Sphagnum	moss (D8) (LRR	T, U)
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No Depth (inches):			
Saturation Present?	Wetland Hydrolog	y Present? Ye	es O No 💿
(includes capillary fringe) Yes No Depth (inches):			
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections),	f available:		
Remarks:			

Project/Site: Bluewater Terminal SPM Project

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 18

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

1.____

Herb Stratum

1 . Rubus trivialis

2 . Panicum virgatum

3 . Helianthus argophyllus 4 . Schizachvrium scoparium

50% of Total Cover: 45

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

0__ 0

0

0 0

90

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%_ 0.0%

0.0%

0.0%

33.3%__FAC

___11.1%__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%

= Total Cover

= Total Cover

0.0% = Total Cover

30_ **✓** __33.3%__FACU

20 **✓** __22.2% _UPL

0.0%

0.0%_

Status

Multi x 1 x 2 x 3 x 4 x 5 (A)	L = 2 = 3 = 4 = 5 =	1 2 50.0% 0 0 90 160 100 400 3.478	
x 1 x 2 x 3 x 4 x 5 (A)	L = 2 = 3 = 4 = 5 =	2 50.0% oy: 0 0 90 160 100 400	(B)
x 1 x 2 x 3 x 4 x 5 (A)	L = 2 = 3 = 4 = 5 =	50.0% 00 00 90 160 100 400	(A/B
x 1 x 2 x 3 x 4 x 5 (A)	L = 2 = 3 = 4 = 5 =	90 160 400	
x 1 x 2 x 3 x 4 x 5 (A)	L = 2 = 3 = 4 = 5 =	0 90 160 100 400	
x 1 x 2 x 3 x 4 x 5 (A)	L = 2 = 3 = 4 = 5 =	0 90 160 100 400	
x 2 x 3 x 4 x 5 (A)	2 = 3 = 4 = 5 =	90 160 100 400	
x 4 x 5 (A)	3 = 4 = 5 =	90 160 100 400	
x 4 x 5 (A)	+ = 5 =	160 100 400	
x 5	5 =	100 400	
(A)		400	
)		
ators:		3.478	2
ators:			_
19tic [.] 0%	vege	etation	
	atio	n¹ (Expl	ain)
			r
Strat	ta:		
		v vines,	
more	in h	eight an	
sofs	ize,	and woo	ody
s, reg	ardl	ess of h	eight.
. C)	No •	
	d wet unless Straing we more rat b uding wore as, ex	d wetland inless dis Strata: ing wood more in her at breas uding womore in hers, excluding an 3.28 ding wood 6 m) in her woody) plays of size, ess than is, regardless, regardless, regardless.	Vegetation¹ (Expl d wetland unless disturbed o

Remarks:	(If observed,	list morphological	adaptations	below).
i terriarits.	(II ODSCIVEG)	not mor priorogical	adaptations	00.000

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix			Redox F	eatures				
(inches)	Color (moist)	%	Color (moist)	<u>%</u> _	Tvpe ¹	Location ²	Texture	Remarks	
0 - 16	10YR 3/1	100					Sandy Loam		
¹Tvpe: C=Concentrati	on, D=Depletion, RM=	-Reduced M	latrix. 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 Black Histic (A3) Hydrogen Sulfidd Stratified Layers Organic Bodies (5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed Mi Sandy Redox (S! Stripped Matrix ((A2) e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, A8) (LRR U) (LRR P, T) Dark Surface (A11) ce (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) etrix (S4)	0A)	Thin Da Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky Mi Gleyed M ed Matrix of Dark Surface Depression 10) (LRR ed Ochric anganese Surface (S	(F3) ace (F6) urface (F7) ns (F8) U) (F11) (MLRA 1 Masses (F12) F13) (LRR P, 7 7) (MLRA 151) F18) (MLRA 15	T, U) R O) 51) (LRR O, P, T) T, U)	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 Rem	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):	,					H	lydric Soil Present? Ye	s No •	
Remarks:									

City/County: Aransas

Sampling Date:

2/14/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	UPP1079
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, R	ange: S N/A T N/A	A R N/A
Landform (hillslope, terrace, etc.): Flat Local relief (c	concave, convex, none)	: Convex	Slope: 2 % 1.1 °
Subregion (LRR): LRR T Lat: 27.9120)91 Lo n	g: -97.137594	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, freque	ntly ponde NWI Class	sification: None	
		no, explain in Remarks.)	
Are Vegetation , Soil , or Hydrology significantly disturb		Circumstances" present?	165 (116 (
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 naturally problemat	ic? (If needed, e	explain any answers in Re	:marks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locat	ions, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Present? Yes No •			
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?	Yes (○ No •
Wetland Hydrology Present? Yes No •	Willing a Welland:		
Remarks:			
Hydrophytic vegetation and wetland hydrology are not present. This is not a wetland.			
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required; check all that apply)	Second	dary Indicators (Minimum	of 2 required)
Surface Water (A1) Aquatic Fauna (B13)		Sparsely Vegetated Concav	
High Water Table (A2) Marl Deposits (B15) (LRR U)		Drainage Patterns (B10)	e Surface (Bb)
Saturation (A3) Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1) Oxidized Rhizospheres along Livi	na Roots (C3)	Dry Season Water Table (C	2)
Sediment Deposits (B2) Presence of Reduced Iron (C4)		Crayfish Burrows (C8)	-,
Drift Deposits (B3) Recent Iron Reduction in Tilled S	oils (C6)	Saturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)		Geomorphic Position (D2)	3 , ()
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)
Field Observations:			
Surface Water Present? Yes No Depth (inches):			
Water Table Present? Yes No Depth (inches):			
Saturation Present?	Wetland	d Hydrology Present? Y	res No 💿
(includes capillary fringe) Yes No Depth (inches):			
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if	available:		
Remarks:			

Project/Site: Bluewater Terminal SPM Project

	Dominant	Dominance Test worksheet:
	Absolute Species? % Cover State Species? Rel.Strat. Cover State	
ree Stratum (Plot Size : 30)		
1 . Ouercus virginiana		Species Across All Strata: 3 (B
2 . Leucaena leucocephala		_
3		
4		That are obe, then, or the
5		
6		
7		
8	0.0%	FACW species $0 \times 2 = 0$
50% of Total Cover: 10 20% of Total Cover: 4	= Total Cover	FAC species
npling or Sapling/Shrub Stratum (Plot Size : 30)	0	
1		
2 3		
4		— Prevalence Index = B/A= 3.889
5		
6		
7		
8	0 = Total Cover	
		Problematic Hydrophytic Vegetation ¹ (Explain)
rub Stratum (Plot Size : 30) Schinus terebinthifolia	90 ✔100.0%FAC	
		- Indicators of flydric soil and wediand
2		
3		Buffelting of Manufaction Clouds
4 ·		
5		
6 50% of Total Cover: 45 20% of Total Cover: 18	0 0.0% 90 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot Size : 30)	0.0%	Sapling - Woody plants, excluding woody vines,
1		
2		
3		Sapling/Shrub - Woody plants, excluding vines, less
4 5		than 3 in. DBH and greater than 3.28 ft (1m) tall.
6		— I Shidb - Woody plants, excluding woody vines,
7		
8		
9		
0		
1	0 0.0%	
		_
		Woody vine - All woody vines, regardless of height.
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
50% of Total Cover: 0 20% of Total Cover: 0 coody Vine Stratum (Plot Size : 30)		
50% of Total Cover: 0 20% of Total Cover: 0 cody Vine Stratum (Plot Size : 30) 1.	0 0.0%	
50% of Total Cover: 0 20% of Total Cover: 0 cody Vine Stratum (Plot Size : 30) 1	0 0.0%	_
50% of Total Cover: 0 20% of Total Cover: 0 cody Vine Stratum (Plot Size : 30) 1 2 3	0	— Hydrophytic
50% of Total Cover: 0 20% of Total Cover: 0 7000dy Vine Stratum (Plot Size : 30) 1.	0 0.0% 0 0.0% 0 0.0% 0 0.0%	— Hydrophytic
50% of Total Cover: 0 20% of Total Cover: 0 Coody Vine Stratum (Plot Size : 30) 1.	0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0%	Hydrophytic Vegetation Yes No ●
50% of Total Cover: 0 20% of Total Cover: 0 Coody Vine Stratum (Plot Size : 30) 1.	0 0.0% 0 0.0% 0 0.0% 0 0.0%	Hydrophytic Vegetation Yes No ●
/oody Vine Stratum (Plot Size : 30) 1 2 3 4 5	0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 0.0% 0 Total Cover	Hydrophytic Vegetation Yes No

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Total Capacity Matrix,	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=R
rpe: C-Concentration, D-Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. *Indicators for Problematic Hydric Soils2: Histosol (A1)	rpe: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ³Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils²:
Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Corganic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Below Dark Surface (A11) Thick Dark Surface (A11) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Medox (S5) Piedmont Floodplain Soils (F19) (LRR P) Depleted Matrix (F3) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Piedmont Floodplain Soils (F20) (MLRA 150A) Stripped Matrix (S6) In m Muck (A9) (LRR P, T, U) In m Muck (A9) (LRR P, T, U) Depleted Dark Surface (F6) Red Parent Material (TF2) Piedmont Floodplain in Remarks) Other (Explain in Remarks) Indicators for Problematic Hydric Soils³: I cm Muck (A9) (LRR O) Reduced Vertic (F18) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O) Depleted Dark Surface (F8) Depleted Ochric (F11) (MLRA 151) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6)	Hic Soil Indicators: Histosol (A1) Histosol (A2) Histosol (A2) Histosol (A2) Histosol (A3) Histosol (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Tem Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) I cm Mucky Mineral (A7) (LRR P, T, U) Depleted Below Dark Surface (F7) Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Andicators for Problematic Hydric Soils³: Indicators for Problematic Hydric Soils³: I cm Muck (A9) (LRR O) I cm Muck (A9) (LRR O) Reduck (A9) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (LRR P, S, F19) Reduced Vertic (F18) (LRR P, S, F19) Piedmont Floodplain Soils (F19) (LRR P, S, F19) Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegeta wetland hydrology must be present to the present of hydrophytic vegeta wetland hydrology must be present to the
Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) 1 tim Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, B) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, B) Reduced Vertic (F18) (VER P, S, T) Anomalous Bright Loamy Soils (F20) (MLRA 151) Redox Dark Surface (F6) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Redox Depressions (F8) Other (Explain in Remarks) Other (Explain in Remarks) Timor-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Indicators for Problematic Hydric Soils³: Histosol (A1) Histic Epipedon (A2) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, F19) Reduced Vertic (F18) (LRR P, F, U) Piedmont Floodplain Soils (F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) Reduced Vertic (F18) (URR P, S, F19) Reduced Vertic (F18) (URR P,
Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) 1 tim Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) dydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Com 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) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150B) Delta Ochric (F17) (MLRA 150B) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F30) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A)	Indicators for Problematic Hydric Soils³: distosol (A1) distic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Coam Muck (M9) (LRR P, T, U) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Indicators for Problematic Hydric Soils³: Indicators Soils (F20) Reduced Vertic (F18) (outside MLRA 150A, F19) Reduced Vertic (F18) (URR P, T, U) Indicators for Problematic Hydric Soils (F19) (LRR P, T, U) Indicators for Problematic Hydric Soils (F19) (LRR P, T, U) Indicators of Hydrophytic Vegeta wetland hydrology must be presented as the problem of the probl
Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) distic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Dark Surface (S9) (LRR S, T, U) Dark Surface (S9) (LRR S, T, U) Reduced Vertic (F18) (outside MLRA 150A, B) divergen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Mard (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Dark Surface (F13) (LRR P, T, U) Depleted Below Dark Surface (A12) Dron-Manganese Masses (F12) (LRR P, T, U) Dath Coast Prairie Redox (A16) (MLRA 150A) Delta Ochric (F17) (MLRA 151) Finds Dark Surface (A12) Delta Ochric (F17) (MLRA 151) Find Qleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Indicators: Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) distic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Delack Histic (A3) Nydrogen Sulfide (A4) Indicators for Problematic Hydric Soils³: Indicators ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils³: Indicators for Problematic Hydric Soils³: Indicators ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils³: Indicators for Problematic Hydric Soils³: Indicators ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils ild Muck (A9) (LRR O) Indicators ild Muck (A9) (LRR O) Indicators ild Muck (A10) (LRR O) Indicators il
Tric Soil Indicators:	Indicators for Problematic Hydric Soils³: Histosol (A1) Histic Epipedon (A2) Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Coast Presence (A8) (LRR P, T, U) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Matrix (F10) (LRR U) Depleted Below Dark Surface (A12) Depleta Ochric (F13) (LRR P, T, U) Depleta Ochric (F13) (LRR P, T, U) Depleta Ochric (F13) (LRR P, T, U) Depleta Ochric (F11) (MLRA 151) Finick Dark Surface (A12) Dela Ochric (F17) (MLRA 151) I cm Muck (A9) (LRR P, T, U) Depleta Ochric (F17) (MLRA 151) January Muck Mineral (S1) (LRR P, S) January Muck (A9) (LRR P, T) Depleted Dark Surface (F13) (LRR P, T, U) January Muck Mineral (S1) (LRR P, T) January Muck Mineral (S1) (LRR P, T, U) January Muck Mineral (S1) (
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) I cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) I cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, B) Reduced Vertic (F18) (outside MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A) I cm Muck (A9) (LRR P, T, U) Redox Dark Surface (F6) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Tinche Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Finick Dark Surface (A12) I ron-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Reduced Vertic (F18) (MLRA 150A) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) Brack Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F20) Forganic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Form Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) Com Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Depleted Dark Surface (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 151) Brandy Muck Mineral (S1) (LRR Q, S) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 151)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Dark Surface (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, 150A) Dark Surface (S9) (LRR S, T, U) Dark Surface (F1) (LRR P, S, T) Piedmont Floodplain Soils (F19) (LRR P, S, T) Anomalous Bright Loamy Soils (F20) (MLRA 150A) Dark Surface (F6) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Dark Surface (A11) Dark Surface (A12) Dark Surface (F13) (LRR O, P, T) Dark Surface (A16) (MLRA 150A) Dark Surface (F13) (LRR P, T, U) Jandy Muck Mineral (S1) (LRR O, S) Dark Order (F17) (MLRA 151) Dark Surface (F17) (MLRA 150A) Dark Surface (F17) Dark Sur	Thin Dark Surface (S9) (LRR S, T, U) Slack Histic (A3) Hydrogen Sulfide (A4) Coamy Mucky Mineral (F1) (LRR O) Depleted Matrix (F3) Community Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Coast Prairie Redox (A16) (MLRA 150A) Standy Muck Mineral (S1) (LRR O, S) Delta Ochric (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, Endeath Source (F18) (LRR O, F, F, U) Reduced Vertic (F18) (outside MLRA 150A, Endeath Source (F2) Reduced Vertic (F19) (LRR O, F2) Reduced Vertic (F19) (LRR O, F2) Reduced Vertic (F19) (LRR O, F2) Reduced Vertic (F19) (LRR O, F2)
	Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
rictive Layer (If observed): ype: Hydric Soil Present? Yes • No epth (inches):	ype: Hydric Soil Present? Yes No

City/County: Aransas

Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	UPP1080
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township, Ra	ange: S N/A T N	I/A R N/A
Landform (hillslope, terrace, etc.): Flat	Local reli	ef (concave, convex, none):	Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T	 Lat: 27.	909703 Long		Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent	slopes, occasionally flooded, fre	equently ponde NWI Classi	fication: PEM1A	
Are climatic/hydrologic conditions on the site typica			o, explain in Remarks.	\
Are Vegetation , Soil , or Hydrology			Circumstances" presen	
Are Vegetation, Soil, or Hydrology	naturally proble	ematic? (If needed, ex	kplain any answers in	Kemarks.)
SUMMARY OF FINDINGS — Attach site map sl	owing sampling point lo	cations, transects, impo	rtant features, etc.	
Hydrophytic Vegetation Present? Yes	No ●			
Hydric Soil Present? Yes	No O	Is the Sampled Area within a Wetland?	Yes	O No •
Wetland Hydrology Present? Yes	No ●	Willim a Wolland.		
Remarks:	<u>, , , , , , , , , , , , , , , , , , , </u>			
Hydrophytic vegetation and wetland hydrology are not p	esent. This is not a wetland.			
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of one required; cho	eck all that apply)	Seconda	ary Indicators (Minimu	ım of 2 required)
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Conc	ave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRR U)		Drainage Patterns (B10)	ave sarrace (Bo)
Saturation (A3)	Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)	Oxidized Rhizospheres along		Dry Season Water Table	(C2)
Sediment Deposits (B2)	Presence of Reduced Iron (C		Crayfish Burrows (C8)	()
Drift Deposits (B3)	Recent Iron Reduction in Till		Saturation Visible on Aeri	ial 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 Aerial Imagery (B7)	Other (Explain in Remarks)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LI	DD T 11)
value stained leaves (B3)			Spriagrium moss (D6) (Li	(K 1, 0)
Field Observations:				
Surface Water Present? Yes No	Depth (inches):	_		
Water Table Present? Yes No	Depth (inches):	_		
Saturation Present? (includes capillary fringe) Yes No •	Depth (inches):	Wetland	Hydrology Present?	Yes O No •
Describe Recorded Data (stream gauge, monitor well, a	eriai pnotos, previous inspection	is), ir avallable:		
Remarks:				
remarks.				

Project/Site: Bluewater Terminal SPM Project

Sampling Date: 2/14/2019

	Daminant	
	Dominant Species? Absolute Rel.Strat. % Cover Cover Status	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, ro FAC: 1
e Stratum (Plot Size : 30)	% Cover Cover Status	That are OBL, FACW, ro FAC: (A)
(0	Total Number of Dominant Species Across All Strata: 3 (B
		Species Across All Strata:3(B
		Percent of Dominant Species
		That are OBL, FACW, or FAC: 33.3% (A/
		Prevalence Index worksheet:
	0	Total % Cover of: Multiply by:
	0	OBL species $0 \times 1 = 0$
	0	FACW species $0 \times 2 = 0$
% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $0 \times 3 = 0$
ng or Sapling/Shrub Stratum (Plot Size : 30)		FACU species $75 \times 4 = 300$
	0	UPL species $\underline{10}$ x 5 = $\underline{50}$
	0	Colum Totals: <u>110</u> (A) <u>350</u> (E
	0	Prevalence Index = B/A= 3.182
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is > 50%
	0	3 - Prevalence Index is ≤ 3.0 ¹
0% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
	0 0.0%	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or Definition of Vegetation Strata:
		_
	0 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: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH)
<u> </u>		
Schizachvrium scoparium	55 🗸64.7% _FACU	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Rubus trivialis		than 3 in. (7.6 cm) DBH.
Helianthus argophyllus		
		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.
	00.0%	5 · · (· · · · ·) · · · · · · · · · · ·
50% of Total Cover: 43 20% of Total Cover: 17	85 = Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)		g
		Hydrophytic
	0	Vegetation Yes No •
	0.0%	Present ?

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Total Capacity Matrix,	Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=RM=Reduced Matrix, CS=Covered or Coated Sand Grains. Type: C=Concentration, D=Depletion, RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=RM=R
rpe: C-Concentration, D-Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. *Indicators for Problematic Hydric Soils2: Histosol (A1)	rpe: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ³Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils²:
Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Corganic Bodies (A6) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Below Dark Surface (A11) Thick Dark Surface (A11) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Medox (S5) Piedmont Floodplain Soils (F19) (LRR P) Depleted Matrix (F3) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Sandy Redox (S5) Piedmont Floodplain Soils (F20) Piedmont Floodplain Soils (F20) (MLRA 150A) Stripped Matrix (S6) In m Muck (A9) (LRR P, T, U) In m Muck (A9) (LRR P, T, U) Depleted Dark Surface (F6) Red Parent Material (TF2) Piedmont Floodplain in Remarks) Other (Explain in Remarks) Indicators for Problematic Hydric Soils³: I cm Muck (A9) (LRR O) Reduced Vertic (F18) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O) Depleted Dark Surface (F8) Depleted Ochric (F11) (MLRA 151) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Stripped Matrix (S6)	Hic Soil Indicators: Histosol (A1) Histosol (A2) Histosol (A2) Histosol (A2) Histosol (A3) Histosol (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Tem Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) I cm Mucky Mineral (A7) (LRR P, T, U) Depleted Below Dark Surface (F7) Muck (A9) (LRR P, T) Marl (F10) (LRR U) Depleted Ochric (F11) (MLRA 151) Andicators for Problematic Hydric Soils³: Indicators for Problematic Hydric Soils³: I cm Muck (A9) (LRR O) I cm Muck (A9) (LRR O) Reduck (A9) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F19) Reduced Vertic (F18) (LRR P, S, F19) Reduced Vertic (F18) (LRR P, S, F19) Piedmont Floodplain Soils (F19) (LRR P, S, F19) Anomalous Bright Loamy Soils (F20) (MLRA Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Indicators of hydrophytic vegeta wetland hydrology must be present to the present of hydrophytic vegeta wetland hydrology must be present to the
Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) 1 tim Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, B) Polyvalue Below Surface (S9) (LRR S, T, U) 1 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, B) Reduced Vertic (F18) (VER P, S, T) Anomalous Bright Loamy Soils (F20) (MLRA 151) Redox Dark Surface (F6) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Redox Depressions (F8) Other (Explain in Remarks) Other (Explain in Remarks) Timor-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Indicators for Problematic Hydric Soils³: Histosol (A1) Histic Epipedon (A2) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, F19) Reduced Vertic (F18) (LRR P, F, U) Piedmont Floodplain Soils (F19) (LRR P, S, F19) Reduced Vertic (F18) (outside MLRA 150A, F19) Reduced Vertic (F18) (URR P, S, F19) Reduced Vertic (F18) (URR P,
Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) 1 tim Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) dydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Redox Depressions (F8) Com 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) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150B) Delta Ochric (F17) (MLRA 150B) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F30) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A)	Indicators for Problematic Hydric Soils³: distosol (A1) distic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Coam Muck (M9) (LRR P, T, U) Depleted Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Indicators for Problematic Hydric Soils³: Indicators Soils (F20) Reduced Vertic (F18) (outside MLRA 150A, F19) Reduced Vertic (F18) (URR P, T, U) Indicators for Problematic Hydric Soils (F19) (LRR P, T, U) Indicators for Problematic Hydric Soils (F19) (LRR P, T, U) Indicators of Hydrophytic Vegeta wetland hydrology must be presented as the problem of the probl
Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) distic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Dark Surface (S9) (LRR S, T, U) Dark Surface (S9) (LRR S, T, U) Reduced Vertic (F18) (outside MLRA 150A, B) divergen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Red Parent Material (TF2) Depleted Dark Surface (F7) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F7) Mard (F10) (LRR U) Depleted Below Dark Surface (A11) Depleted Dark Surface (F13) (LRR P, T, U) Depleted Below Dark Surface (A12) Dron-Manganese Masses (F12) (LRR P, T, U) Dath Coast Prairie Redox (A16) (MLRA 150A) Delta Ochric (F17) (MLRA 151) Finds Dark Surface (A12) Delta Ochric (F17) (MLRA 151) Find Qleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Indicators: Indicators for Problematic Hydric Soils³: distosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) distic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Delack Histic (A3) Nydrogen Sulfide (A4) Indicators for Problematic Hydric Soils³: Indicators ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils³: Indicators for Problematic Hydric Soils³: Indicators ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils³: Indicators for Problematic Hydric Soils³: Indicators ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils ild Muck (A9) (LRR O) Indicators for Problematic Hydric Soils ild Muck (A9) (LRR O) Indicators ild Muck (A9) (LRR O) Indicators ild Muck (A10) (LRR O) Indicators il
Tric Soil Indicators:	Indicators for Problematic Hydric Soils³: Histosol (A1) Histic Epipedon (A2) Histic (A3) Hydrogen Sulfide (A4) Depleted Matrix (F2) Depleted Matrix (F3) Depleted Matrix (F3) Coast Presence (A8) (LRR P, T, U) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Matrix (F10) (LRR U) Depleted Below Dark Surface (A12) Depleta Ochric (F13) (LRR P, T, U) Depleta Ochric (F13) (LRR P, T, U) Depleta Ochric (F13) (LRR P, T, U) Depleta Ochric (F11) (MLRA 151) Finick Dark Surface (A12) Dela Ochric (F17) (MLRA 151) I cm Muck (A9) (LRR P, T, U) Depleta Ochric (F17) (MLRA 151) January Muck Mineral (S1) (LRR P, S) January Muck (A9) (LRR P, T) Depleted Dark Surface (F13) (LRR P, T, U) January Muck Mineral (S1) (LRR P, T) January Muck Mineral (S1) (LRR P, T, U) January Muck Mineral (S1) (
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) I cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) I cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, B) Reduced Vertic (F18) (outside MLRA 150A, 150B) Reduced Vertic (F18) (MLRA 150A) I cm Muck (A9) (LRR P, T, U) Redox Dark Surface (F6) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Tinche Dark Surface (A11) Depleted Ochric (F11) (MLRA 151) Finick Dark Surface (A12) I ron-Manganese Masses (F12) (LRR O, P, T) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Reduced Vertic (F18) (MLRA 150A) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)	Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) Thin Dark Surface (S9) (LRR S, T, U) Black Histic (A3) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR O) Brack Histic (A3) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Reduced Vertic (F18) (outside MLRA 150A, F19) (LRR P, S, F20) Forganic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Form Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Muck Presence (A8) (LRR U) Redox Depressions (F8) Com Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Depleted Dark Surface (F11) (MLRA 151) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 151) Brandy Muck Mineral (S1) (LRR Q, S) Delta Ochric (F17) (MLRA 151) Delta Ochric (F17) (MLRA 151)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) Dark Surface (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A, 150A) Dark Surface (S9) (LRR S, T, U) Dark Surface (F1) (LRR P, S, T) Piedmont Floodplain Soils (F19) (LRR P, S, T) Anomalous Bright Loamy Soils (F20) (MLRA 150A) Dark Surface (F6) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Other (Explain in Remarks) Dark Surface (A11) Dark Surface (A12) Dark Surface (F13) (LRR O, P, T) Dark Surface (A16) (MLRA 150A) Dark Surface (F13) (LRR P, T, U) Jandy Muck Mineral (S1) (LRR O, S) Dark Order (F17) (MLRA 151) Dark Surface (F17) (MLRA 150A) Dark Surface (F17) Dark Sur	Thin Dark Surface (S9) (LRR S, T, U) Slack Histic (A3) Hydrogen Sulfide (A4) Coamy Mucky Mineral (F1) (LRR O) Depleted Matrix (F3) Community Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F7) Coast Prairie Redox (A16) (MLRA 150A) Standy Muck Mineral (S1) (LRR O, S) Delta Ochric (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Reduced Vertic (F18) (outside MLRA 150A, Endeath Source (F18) (LRR O, F, F, U) Reduced Vertic (F18) (outside MLRA 150A, Endeath Source (F2) Reduced Vertic (F19) (LRR O, F2) Reduced Vertic (F19) (LRR O, F2) Reduced Vertic (F19) (LRR O, F2) Reduced Vertic (F19) (LRR O, F2)
	Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
rictive Layer (If observed): ype: Hydric Soil Present? Yes • No epth (inches):	ype: Hydric Soil Present? Yes No

City/County: San Patricio

Sampling Date:

2/14/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	UPP1081
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, F	Range: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave	Slope: 3 % 1.7 °
Subregion (LRR): LRR T Lat: 27.908	878 Lo	ng: -97.139943	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, frequency	ently ponde NWI Clas	sification: None	-
Are climatic/hydrologic conditions on the site typical for this time of year? Ye	es • No (If	no, explain in Remarks.)	
		-	
Are Vegetation , Soil , or Hydrology significantly disturb		Circumstances" present?	0 0
Are Vegetation U , Soil U , or Hydrology U naturally problema	tic? (If needed,	explain any answers in Re	marks.)
SUMMARY OF FINDINGS – Attach site map showing sampling point local	tions, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Present? Yes No •			
Hydric Soil Present? Yes ○ No ●	Is the Sampled Are within a Wetland?	a Yes	○ No ●
Wetland Hydrology Present? Yes No			
Remarks:			
Hydric soil is not present. This is not a wetland.			
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required; check all that apply)	<u>Secon</u>	dary 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)		Drainage Patterns (B10)	
Saturation (A3) Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1) Oxidized Rhizospheres along Liv	ing Roots (C3)	Dry Season Water Table (C2	2)
Sediment Deposits (B2) Presence of Reduced Iron (C4) Drift Deposits (B3) Recent Iron Reduction in Tilled 9	Soile (C6)	Crayfish Burrows (C8)	I (CO)
Algal Mat or Crust (B4) Thin Muck Surface (C7)		Saturation Visible on Aerial Geomorphic Position (D2)	Imagery (C9)
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 II)
		Spriagram moss (56) (Erric	
Field Observations: Surface Water Present? Yes No Denth (inches):			
Depart (menes).			
Saturation Procent?	Wetlan	d Hydrology Procent? V	es • No
(includes capillary fringe) Yes No Depth (inches): 0	Wedan	d Hydrology Present? Yo	3
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections),	if available:		
Remarks:			

Project/Site: Bluewater Terminal SPM Project

(Plot Size : 30)

20% of Total Cover: 0

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

20% of Total Cover: 1

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 . Rubus trivialis

2 _ Smilax bona-nox

3 . Campsis radicans 4 . Andropogon glomeratus

50% of Total Cover: 48

50% of Total Cover: 0

Woody Vine Stratum

1.__

1 . Baccharis halimifolia

50% of Total Cover: 2.5

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

5

0

0

0

0 0

0

0

96

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

5 🗸 _ 100.0%_ FAC___

0.0% 0.0%

0.0%

0.0%

31.3% FAC

1.0% 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

Vegetation

Present?

= Total Cover

0.0%

= Total Cover

40 **✓** __41.7%__FACU

25 ✓ 26.0% FAC

0.0%

0.0%

= Total Cover

0.0%

Status

Sampling Poin	nt· II	JPP10	191				
		JPFIO	101				
Dominance Test workshown Number of Dominant Species							
That are OBL, FACW, ro FA			_	0	(A)		
Total Number of Dominant Species Across All Strata:			_	2	(B		
Percent of Dominant Specie That are OBL, FACW, or FA			_	0.0%	(A/B)		
Prevalence Index works	heet:						
Total % Cover of:		Multip	ly b				
OBL species	0_	x 1	=	0			
FACW species	1_	x 2	=	2			
FAC species	60_	x 3	=	180			
FACU species	40_	x 4	=	160			
UPL species	0_	x 5	=	0			
Colum Totals:	85_	(A)		350	(B)		
Prevalence Index = B/A= 4.118							
Hydrophytic Vegetation Indicators:							
¹ Indicators of hydric s hydrology must be pres				urbed or			
Definition of Vegeta	ation 9	Strata	a:				
Tree - Woody plants, e approximately 20 ft (6 i (7.6 cm) or larger in dia	m) or r	nore i	n he	eight and			
Sapling - Woody plants approximately 20 ft (6 than 3 in. (7.6 cm) DBI	m) or r				ess		
Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.							
Shrub - Woody plants, approximately 3 to 20 f							
Herb - All herbaceous (herbaceous vines, rega plants, except woody v 3 ft (1 m) in height.	rdless	of siz	ze, a	and woody	/		
Woody vine - All woody	/ vines	, rega	ırdle	ess of heig	ıht.		
Hydrophytic				_	_		

	(7.6)	10	adaptations below)
Remarks	/ It observed	list morphological	adantations helow)

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

Yes 🔘

No 💿

Profile Description	n: (Describe to th	ne depth	needed to docur	nent the	indicator or	confirm the abso	ence of indicators.)	
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	100					Sandy Loam	
¹Type: C=Concentrati	on. D=Depletion. RM=	=Reduced	Matrix. CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	•						Indicators for Problema	ntic Hydric Soils³:
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfidd Stratified Layers Organic Bodies (5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed Mi Sandy Redox (S! Stripped Matrix ((A2) 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)	50A)	Thin Da Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky Mi Gleyed M ed Matrix Dark Surface Depressio 10) (LRR ed Ochric anganese Surface (chric (F1: dd Vertic (int Floodp	ace (F6) urface (F7) ons (F8) U) (F11) (MLRA 1 Masses (F12) (F13) (LRR P, - 7) (MLRA 151) (F18) (MLRA 1:	.T, U) R O) .51) (LRR O, P, T) T, U)	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 3Indicators wetland unless	O) R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) Imy Soils (F20) (MLRA 153B) TF2) rface (TF12)
Restrictive Layer of Type: Depth (inches):	,						lydric Soil Present? Ye	s ○ No ●
Remarks:								

City/County: San Patricio

Sampling Date:

2/15/2019

Applicant/Owner: Phillips	66 Pipeline, LLC			State	: TX	Sampling Point:	,	UPP10	82
Investigator(s): B. Bringh	urst & A. Ostrowski	i		Section	n, Township, R	ange: S N/A	T N/A	RN	/A
Landform (hillslope, terrace	e, etc.): Flat		Local rel	 lief (concave,	convex, none)	: Convex		Slope: 1	% 0.6 °
Subregion (LRR): LRR T				7.908005	Lor			Datum:	NAD 83
Soil Map Unit Name: Musta	ang fine sand. 0 to	1 nercent slo				ification: PEM1A		_	
		·			_				
Are climatic/hydrologic con				Yes (•)		no, explain in Remar	-		
Are Vegetation, \$	Soil, or H	ydrology	significantly di		Are "Normal	Circumstances" pre	sent?	Yes 🕑	No 🔾
Are Vegetation, \$	Soil , or H	ydrology	naturally probl	ematic?	(If needed, e	explain any answers	in Rem	narks.)	
SUMMARY OF FINDING	S — Attach site	map show	wing sampling point l	ocations, tr	ansects, imp	ortant features, e	tc.		
		Yes •							
Hydrophytic Vegetation Prese	entr	_	No O		Sampled Area	a ,	res 🔘	No •	
Hydric Soil Present?		Yes •	No O	withir	n a Wetland?	·		110	
Wetland Hydrology Present?		Yes U	No •						
Remarks: Wetland hydrology is not pre	esent This is not a	wetland							
Wedana nyarology is not pre	Schi. This is not u	wedana.							
HYDROLOGY									
Wetland Hydrology Indic	atoro.								
Primary Indicators (Minin		irod: chock	all that apply)		Socono	lary Indicators (Min	imum c	of 2 require	۹)
	lum or one requ	irea, crieck	,		Second	lary Indicators (Min		•	ŢŢ
Surface Water (A1)			Aquatic Fauna (B13)	1)		Sparsely Vegetated C		Surface (B8)	
High Water Table (A2) Saturation (A3)			Marl Deposits (B15) (LRR U Hydrogen Sulfide Odor (C1)	•		Drainage Patterns (B:	-		
Water Marks (B1)			Oxidized Rhizospheres alon	-	(C3)	Moss Trim Lines (B16 Dry Season Water Ta	-		
Sediment Deposits (B2)			Presence of Reduced Iron (_	(63)	Crayfish Burrows (C8)			
Drift Deposits (B3)			Recent Iron Reduction in Ti	. ,		Saturation Visible on	-	madery (C9)	
Algal Mat or Crust (B4)			Thin Muck Surface (C7)			Geomorphic Position		nagery (C5)	
Iron Deposits (B5)			Other (Explain in Remarks)			Shallow Aquitard (D3)			
Inundation Visible on Ae	erial Imagery (B7)		Carlos (Explain in Terriario)		<u>~</u>		-		
Water-Stained Leaves (E	39)					Sphagnum moss (D8)	-	·, U)	
Field Observations				I			•		
Field Observations: Surface Water Present?	Yes O No	•	Depth (inches):						
Water Table Present?	Yes No	•	Depth (inches):	_					
Saturation Present?	-		, , ,	_	Wetland	d Hydrology Present	? Yes	. O N	o •
(includes capillary fringe)	Yes O No	ullet	Depth (inches):	_		, u. o.o.g, e.o			•
Describe Recorded Data (str	ream gauge, monito	or well, aeria	I photos, previous inspectio	ns), if available	e:				
Remarks:									

Project/Site: Bluewater Terminal SPM Project

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

1.____

50% of Total Cover: 0

1 . Hvdrocotvle umbellata 2 . Schizachvrium scoparium

4. Ambrosia artemisiifolia

5 . Helianthus argophyllus

3 . Spartina patens

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

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

Dominant Species?

Cover

0 🔲 ___

0

0

0 _

0

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

0

Absolute % Cover 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%

25.0% FACU

___10.0%__FACU__

0.0%_

0.0%

0.0%_

0.0%_

0.0%

0.0%_ 0.0%

5.0% UPL

0.0% = Total Cover

35 **✓** __35.0% OBL

25_ **2**5.0% FACW

____0.0%__

= Total Cover

0.0%

0.0%

0.0% 0.0%

0.0%

____0.0%__

= Total Cover

Status

Sampling Point: UPP1(082
Dominance Test worksheet:	
Number of Dominant Species That are OBL, FACW, ro FAC:	3 (A)
Total Number of Dominant Species Across All Strata:	4(B
Percent of Dominant Species That are OBL, FACW, or FAC:	(A/B)
Prevalence Index worksheet:	
Total % Cover of: Multip	oly by:
OBL species 35 x 1	= 35
FACW species25_ x 2	= 50
FAC species0 x 3	=
FACU species 35 x 4	= 140
UPL species <u>5</u> x 5	= 25
Colum Totals: 100 (A)	<u>250</u> (B)
Prevalence Index = B/A=	2.500
Hydrophytic Vegetation Indicators:	2.300
1 - Rapid Test for Hydrophytic V 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegeta ¹ Indicators of hydric soil and wetl hydrology must be present, unless	ation¹ (Explain) and
Definition of Vegetation Strata Tree - Woody plants, excluding we approximately 20 ft (6 m) or more i (7.6 cm) or larger in diameter at br	oody vines, in height and 3 in. east height (DBH). woody vines,
approximately 20 ft (6 m) or more i than 3 in. (7.6 cm) DBH.	in height and less
Sapling/Shrub - Woody plants, exc than 3 in. DBH and greater than 3.	
Shrub - Woody plants, excluding w approximately 3 to 20 ft (1 to 6 m)	
Herb - All herbaceous (non-woody) herbaceous vines, regardless of sizplants, except woody vines, less that (1 m) in height.	ze, and woody
Woody vine - All woody vines, rega	ardless of height.
Hydrophytic Vegetation Yes • Present ?	No 🔾

50% of Total Cover: 50 20% of Total Cover: 20		Woody vine - All wo	ody vines, regardless of height.
Woody Vine Stratum (Plot Size : 30)			
1	0		
2	0.0%		
3	0 0.0%	Hydrophytic	
4	0.0%	Vegetation	Yes No
5.	0.0%	Present ?	
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover		
Remarks: (If observed, list morphological adaptations b *Indicator suffix = National status or professional decision assign			
· · · · · ·	,		
JS Army Corps of Engineers		Atlantic and G	ulf Coastal Plain Region - Version 2.0

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Tvpe1	Location ²	Texture	Remarks
0 - 16	10YR 5/1	100					Sand	
[†] Type: C=Concentratio	on, D=Depletion, RM=	-Reduced N	∕latrix, CS=Covered (or Coated :	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	tors:						Indicators for Problema	tic Hydric Soils³:
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed Ma Sandy Redox (St Stripped Matrix (e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, A8) (LRR U) (LRR P, T) Dark Surface (A11) ce (A12) dox (A16) (MLRA 15 eral (S1) (LRR O, S) atrix (S4)	0A)	Thin Da Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky Mi Gleyed M ed Matrix of Dark Surface Depression 10) (LRR ed Ochric anganese Surface (S	ace (F6) Jurface (F7) Jurface (F7) Jurface (F7) Jurface (F8) Jurface (F12) Jurface (F13) Jurface (F13) Jurface (F13)	.T, U) R O) .51) (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	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:								

		City/County: San Patricio)	Sampling Date:	2/15/2	2019
66 Pipeline, LLC		State:	TX	Sampling Point:	UPP108	3
urst & A. Ostrowski		Section,	Township, Rai	nge: S N/A T N/A	R N/A	
e, etc.): Flat		Local relief (concave, co	onvex, none):	Concave	Slope: 1	% 0.6 °
		Lat: 27.907103		: -97.140829	Datum:	NAD 83
and fine cand 0 to 1 no	roont clanac accasionally			-	- Datum.	NAD 03
ang me sanu, o to 1 per	cent slopes, occasionally	y nooded, frequently poride	- INVVI CIASSIII	- None		
iditions on the site ty	pical for this time of	year? Yes 💿 No	(If no	, explain in Remarks.)		
Soil , or Hydro	logy signi	ficantly disturbed?	Are "Normal C	ircumstances" present?	Yes 💿	No O
Soil 🗌 , or Hydro	logy natu	rally problematic?	(If needed, ex	plain any answers in Re	marks.)	
S – Attach site ma	p showing samplin	ng point locations, tran	nsects, impor	tant features, etc.		
ent? Ye	s No	la tha O				
Ye	s O No 💿			Yes	No 💿	
Ye	s No					
is is not a wetland.						
ators:						
	check all that apply))	Seconda	ry Indicators (Minimum	of 2 required)	
nam or one required,					, ,	
		•		. , .	e Surface (Bo)	
		* *		• •	2)	
				•	-,	
					Imagery (C9)	
	Thin Muck Surfa	ice (C7)			3 , ()	
	Other (Explain in	n Remarks)		Shallow Aquitard (D3)		
erial Imagery (B7)		•	✓ F	AC-Neutral Test (D5)		
39)				Sphagnum moss (D8) (LRR	T, U)	
		<u> </u>				
Yes O No •	Depth (inche	es):				
Yes O No •	Depth (inche	es):				
Yes O No •			Wetland	Hydrology Present? Ye	es • No	\circ
ream gauge, monitor we	ell, aerial photos, previou	us inspections), if available:				
	nditions on the site ty Soil , or Hydro Soil , or Hydro SS – Attach site mal Sent? Ye Ye Ye So Ye The site of th	nditions on the site typical for this time of Soil , or Hydrology	ang fine sand, 0 to 1 percent slopes, occasionally flooded, frequently ponde inditions on the site typical for this time of year? Soil , or Hydrology	ang fine sand, 0 to 1 percent slopes, occasionally flooded, frequently ponde NWI Classifications on the site typical for this time of year? Yes No (If no, Soil , or Hydrology significantly disturbed? Are "Normal Classifications of the site typical for this time of year? Soil , or Hydrology significantly disturbed? Are "Normal Classifications of the site map showing sampling point locations, transects, important of the site map showing sampling point locations, transects, important of the site of the sampled Area within a Wetland? Yes No Aquatic Fauna (B13) Aquatic	ang fine sand, 0 to 1 percent slopes, occasionally flooded, frequently ponde nditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Soil , or Hydrology naturally problematic? (If needed, explain any answers in Re is S – Attach site map showing sampling point locations, transects, important features, etc. Sent? Yes No	Ang fine sand, 0 to 1 percent slopes, occasionally flooded, frequently ponde Inditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) SS – Attach site map showing sampling point locations, transects, important features, etc. SS – Attach site map showing sampling point locations, transects, important features, etc. Is the Sampled Area within a Wetland? Yes No No O

(Plot Size : 30)

20% of Total Cover: 0

(Plot Size : 30)

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

50% of Total Cover: 0

1 . Chloracantha spinosa

3 . Hvdrocotvle umbellata

6 . Sesbania drummondii

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.___

2. Vitis mustangensis

4 . Panicum virgatum 5 . Ambrosia artemisiifolia

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

15

10

10

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% 0.0%

0.0%

0.0%

____0.0%__

= Total Cover

35 **✓** 35.0% FACW

15 **✓** __15.0% FAC

15.0% UPL

10.0% FACU

___10.0%__ FACW_

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

___15.0%__OBL

0.0%

0.0%_

Status

Sampling Point: _ լ	JPP10	083		
Dominance Test worksheet:				
Number of Dominant Species				
That are OBL, FACW, ro FAC:		_	2	(A)
Total Novel on of Donain and				
Total Number of Dominant Species Across All Strata:			3	(B
•				
Percent of Dominant Species That are OBL, FACW, or FAC:		_	66.7%	(A/B)
Prevalence Index worksheet:				
Total % Cover of:	Multip	oly b	y:	
OBL species 15	x 1	=	15	
FACW species 45	x 2	=	90	
FAC species 15	x 3	=	45	
FACU species 10	x 4	=	40	
UPL species15	x 5	=	75	
Colum Totals: 100	(A)		265	(B)
Prevalence Index = B/A=			2.650	
Hydrophytic Vegetation Indica	ators:			
✓ 3 - Prevalence Index is ≤ Problematic Hydrophytic V 1 Indicators of hydric soil and hydrology must be present, u	Vegeta d wetl	and		·
Definition of Vegetation Tree - Woody plants, excludi approximately 20 ft (6 m) or 1 (7.6 cm) or larger in diameter	ng wo more i	ody in he	eight and	
Sapling - Woody plants, excl approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.				
Sapling/Shrub - Woody plant than 3 in. DBH and greater th				
Shrub - Woody plants, exclude approximately 3 to 20 ft (1 to				
Herb - All herbaceous (non-wherbaceous vines, regardless plants, except woody vines, I 3 ft (1 m) in height.	s of siz	ze, a	and wood	dy
Woody vine - All woody vines	s, rega	ardle	ess of he	ight.
Hydrophytic				

w).

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)	<u>%</u> _	Tvpe ¹	Location ²	Texture	Remarks		
0 - 16	10YR 4/1	100				Sand			
¹Tvne: C=Concentrati	on D=Depletion RM=F	Reduced Matrix CS=Covere	d 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 :									
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec	e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, U A8) (LRR U) (LRR P, T) Dark Surface (A11) ce (A12) dox (A16) (MLRA 150	Thin Loam Loam Deple Redo Redo Marl Deple Iron-	Dark Surfac y Mucky Mi y Gleyed M eted Matrix x Dark Surf eted Dark S x Depressic (F10) (LRR eted Ochric Manganese	(F3) Face (F6) Face (F7) Fons (F8)	, T, U) R O) 151) (LRR O, P, T)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) rface (TF12) narks)		
Sandy Gleyed Machine Sandy Redox (St. Stripped Matrix (5)	Redu Piedn	ced Vertic (nont Floodp			wetland unless	of hydrophytic vegetation and hydrology must be present, disturbed or problematic.		
Restrictive Layer (Type: Depth (inches):	,					lydric Soil Present? Ye	No •		
Remarks:									

City/County: San Patricio

Sampling Date:

2/15/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	UPP1084
Investigator(s): B. Bringhurst & A. Ostrowski	Section, Township, Ran	ge: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none):	Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.906	626 Long:	-97.141096	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, frequency	ently ponde NWI Classifi	cation: None	
Are climatic/hydrologic conditions on the site typical for this time of year? Ye	es • No (If no,	explain in Remarks.)	
Are Vegetation , Soil , or Hydrology significantly disturb		rcumstances" present?	Yes • No O
Are Vegetation , Soil , or Hydrology naturally problema		· lain any answers in Ren	
SUMMARY OF FINDINGS – Attach site map showing sampling point local		-	,
Hydrophytic Vegetation Present? Yes No			
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			
Wetland Hydrology Indicators:			
Primary Indicators (Minimum of one required; check all that apply)	Secondar	y Indicators (Minimum o	of 2 required)
Surface Water (A1) Aquatic Fauna (B13)			
High Water Table (A2) Marl Deposits (B15) (LRR U)		parsely Vegetated Concave rainage Patterns (B10)	Surrace (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)		oss Trim Lines (B16)	
Water Marks (B1) Oxidized Rhizospheres along Liv		ry Season Water Table (C2)	
Sediment Deposits (B2) Presence of Reduced Iron (C4)		rayfish Burrows (C8)	
Drift Deposits (B3)		aturation Visible on Aerial Ir	magery (C9)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	✓ G	eomorphic Position (D2)	
Iron Deposits (B5) Other (Explain in Remarks)	SI	hallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7)	F/	AC-Neutral Test (D5)	
Water-Stained Leaves (B9)	S	phagnum moss (D8) (LRR T	-, U)
Field Observations:			
Surface Water Present? Yes No • Depth (inches):			
Water Table Present? Yes No Depth (inches):			
Saturation Present? (includes capillary fringe) Yes No • Depth (inches):	Wetland H	lydrology Present? Yes	s No •
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections),	f available:		
Remarks:			

Project/Site: Bluewater Terminal SPM Project

Tree Stratum 1 . Celtis laevigata

50% of Total Cover: 15

Shrub Stratum

Herb Stratum

1 . Schinus terebinthifolia

50% of Total Cover: 10

1 . Panicum virgatum 2. Leucaena leucocephala

3 . Solanum triguetrum

50% of Total Cover: 38

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

(Plot Size : 30)

20% of Total Cover: 6

(Plot Size : 30)

20% of Total Cover: 4

20% of Total Cover: 15

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Dominant Species?

Cover

30 **✓** _100.0% _FACW_

Absolute % Cover

0

0

0

0

0

0

0

0

0

0

0

0 0

20

0

0 0

0 0

0

0

75

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

20 🗸 __100.0% __FAC___ 0.0%_ 0.0%

0.0%

40 **✓** __53.3% FAC

25 **✓** __33.3% _FACU

___13.3%__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% 0.0%_

0.0%

= Total Cover

= Total Cover

= Total Cover

0.0%_ 0.0%

0.0%

Status

Sampling Point: _ Լ	JPP10	84	
Dominance Test worksheet:			
Number of Dominant Species			
That are OBL, FACW, ro FAC:		3	(A)
Total Number of Dominant Species Across All Strata:		4	(В
Percent of Dominant Species That are OBL, FACW, or FAC:		75.0%	(A/B)
Prevalence Index worksheet:			
Total % Cover of:	Multip	ly by:	_
OBL species 0	x 1	=0	
FACW species 30	x 2	=60	
FAC species60_	x 3	= 180	
FACU species25_	x 4	= 100	
UPL species <u>10</u>	x 5	=50_	
Colum Totals: <u>125</u>	(A)	390	(B)
Prevalence Index = B/A=		3.120	
Hydrophytic Vegetation Indica	ators:		
2 - Dominance Test is > 50 3 - Prevalence Index is ≤ 3 Problematic Hydrophytic N 1 Indicators of hydric soil and hydrology must be present, u	3.0¹ /egeta d wetla	and	in)
Definition of Vegetation of Tree - Woody plants, excluding approximately 20 ft (6 m) or (7.6 cm) or larger in diameter Sapling - Woody plants, excluding the same of the same	ng woo more ii r at bre	ody vines, n height and east height (DBH).
approximately 20 ft (6 m) or than 3 in. (7.6 cm) DBH.			
Sapling/Shrub - Woody plant than 3 in. DBH and greater th			
Shrub - Woody plants, exclude approximately 3 to 20 ft (1 to			
Herb - All herbaceous (non-wherbaceous vines, regardless plants, except woody vines, leading of the first terms of the first te	of siz	e, and wood	dy
Woody vine - All woody vines	s, rega	rdless of he	ight.
Hydrophytic Vegetation Yes Present ?	• •	No 🔾	

Remarks: ((If observed,	list mor	phological	adaptations	below).
Cilians, ((II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

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	<u> </u>	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	7.5YR 2.5/2	100				Sandy Clay	
¹Type: C=Concentrat	ion, D=Depletion, RM=I	Reduced Matrix, CS=Covere	d or Coated	Sand Grains.	² Location: PL=Pore l	Lining, M=Matrix.	
Hydric Soil Indica	·					Indicators for Problema	ntic Hydric Soils ³ :
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfid Stratified Layers Organic Bodies 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)) e (A4) s (A5) (A6) (LRR P, T, U) deral (A7) (LRR P, T, U) (LRR P, T) Dark Surface (A11) doc (A12) dox (A16) (MLRA 150 deral (S1) (LRR O, S) latrix (S4)	Thin Loan Loan Depl Redo Marl Depl Iron- OA) Delta Redo	Dark Surface y Mucky Micky Gleyed Meted Matrix x Dark Surfeted Dark S x Depression (F10) (LRR eted Ochric Manganese ric Surface (Ochric (F1) ced Vertic (nont Floodp	(F3) Face (F6) Furface (F7) Fons (F8) U) (F11) (MLRA 1 FMASSES (F12) (F13) (LRR P, 7) (MLRA 151) (F18) (MLRA 15) FMASSIS (F19)	.T, U) R O) 	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 3Indicators wetland 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):	. ,				н	lydric Soil Present? Ye	s No •
Remarks:							

Project/Site: Bluewater Ter	minal SPM Project	City	//County: San Patricio)	Sampling Date:	2/25/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC		State:	TX Sam	npling Point:	UPP1085
Investigator(s): B. Bringhu	ırst & R. Conley		Section,	Township, Range:	S N/A T N/A	R N/A
Landform (hillslope, terrace,	, etc.): Flat	Loc	al relief (concave, co	onvex, none): Flat		Slope: 1 % 0.6 °
Subregion (LRR): LRR T			at: 27.902403	Long: -97.	.142679	Datum: NAD 83
Soil Map Unit Name: Musta	ng fine sand, 0 to 1 percent slc	ppes, occasionally floo	ded, frequently ponde	NWI Classification	on: None	
Are climatic/hydrologic cond	ditions on the site typical fo	or this time of year?	Yes (•) No	■ O (If no. expl	lain in Remarks.)	
	Soil , or Hydrology			Are "Normal Circum	-	Yes ● No ○
,	Soil , or Hydrology		•		any answers in Ren	
Are regettation	on , or mydrology	natarany	problematic.	(11 needed, explain	uny unswers in Ren	na koj
SUMMARY OF FINDINGS	3 – Attach site map show	wing sampling po	int locations, trar	nsects, important	: features, etc.	
Hydrophytic Vegetation Prese	ent? Yes •	No O	ls the S	ampled Area		
Hydric Soil Present?	Yes •	No O		Wetland?	Yes C) No ●
Wetland Hydrology Present?	Yes O	No •				
Remarks:	and This is a second and added the					
Wetland hydrology is not pres	sent. This is not a wetland.					
HYDROLOGY						
Wetland Hydrology Indica						
	num of one reauired: check	all that apply)		Secondary Inc	dicators (Minimum o	of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		_ ′	ely Vegetated Concave	. ,
High Water Table (A2)		Marl Deposits (B15) (LRR U)		nge Patterns (B10)	Surface (Bo)
Saturation (A3)		Hydrogen Sulfide Odo	•		Trim Lines (B16)	
Water Marks (B1)		· -	s along Living Roots (C		eason Water Table (C2)
Sediment Deposits (B2)		Presence of Reduced			sh Burrows (C8)	,
Drift Deposits (B3)		Recent Iron Reduction	n in Tilled Soils (C6)		ition Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C	7)		orphic Position (D2)	3 , ()
Iron Deposits (B5)		Other (Explain in Rem	•		w Aquitard (D3)	
Inundation Visible on Ae		(1	,		leutral Test (D5)	
Water-Stained Leaves (B	9)			Sphagi	num moss (D8) (LRR 1	Γ, U)
Field Observations:						
Surface Water Present?	Yes O No •	Depth (inches):				
Water Table Present?	Yes O No 💿	Depth (inches):				
Saturation Present?	Yes O No •	Depth (inches):		Wetland Hydro	ology Present? Ye	s O No 💿
(includes capillary fringe)						
Describe Recorded Data (stre	eam gauge, monitor well, aeria	I photos, previous ins	pections), if available:			
Remarks:						
Remarks.						

Tree Stratum

1 . Populus deltoides

50% of Total Cover: 2.5

Shrub Stratum

Herb Stratum

1 . Schinus terebinthifolia

50% of Total Cover: 5

1 . Panicum virgatum

2. Leucaena leucocephala

3 . Hvdrocotvle umbellata 4. Helianthus argophyllus

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

(Plot Size : 30)

20% of Total Cover: 1

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

20% of Total Cover: 2

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Dominant Species?

Cover

Absolute % Cover

0

0

0

0

0

0

0

0

0

0

0

0

10

0 0

0

0 0

0

0

0

0

0

0

100

0_____

Rel.Strat. Indicator

0.0%

5 ✓ 100.0% FAC

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%

10.0% FACU

5.0% OBL

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

5.0% UPL 0.0%_

0.0%

80 **✓** 80.0% FAC

= Total Cover

0.0%

Status

Dominance Test worksheet:				
Number of Dominant Species That are OBL, FACW, ro FAC:			3	(A)
Total Number of Dominant Species Across All Strata:		_	4	(В
Percent of Dominant Species That are OBL, FACW, or FAC:		75	5.0%_	(A/B)
Prevalence Index worksheet:				
Total % Cover of:	Multip	ly by:		
OBL species 5	x 1		5_	
FACW species 0	x 2		0_	
FAC species 95	x 3	= -	285	
FACU species 10	x 4		40	
UPL species <u>5</u> Colum Totals: 115	x 5		25 355	(=)
Colum Totals: 115	(A)	-	333	(B)
Prevalence Index = B/A=		-	3.087	
1 - Rapid Test for Hydroph ✓ 2 - Dominance Test is > 50 3 - Prevalence Index is ≤ 3	0% 3.0¹			
✓ 2 - Dominance Test is > 50	0% 3.0¹ /egeta	tion¹	(Explair	n)
2 - Dominance Test is > 50 3 - Prevalence Index is < 3 Problematic Hydrophytic V	0% 3.0¹ /egeta d wetla	tion¹ and distur	(Explair	1)
2 - Dominance Test is > 50 3 - Prevalence Index is < 3 Problematic Hydrophytic V 1 Indicators of hydric soil and hydrology must be present, u	0% 3.01 /egeta d wetla inless Strata ng womore in	and distur a: ody v	(Explaination of the control of the	3 in.
2 - Dominance Test is > 56 3 - Prevalence Index is < 3 Problematic Hydrophytic V 1 Indicators of hydric soil and hydrology must be present, u Definition of Vegetation S Tree - Woody plants, excluding approximately 20 ft (6 m) or research.	3.01 /egeta d wetlanless of the second secon	and distur a: ody v n heig east h	bed or ines, ght and deight (E	3 in. 9BH).
2 - Dominance Test is > 56 3 - Prevalence Index is < 3 Problematic Hydrophytic V 1 Indicators of hydric soil and hydrology must be present, u Definition of Vegetation S Tree - Woody plants, excluding approximately 20 ft (6 m) or r (7.6 cm) or larger in diameter Sapling - Woody plants, excluding approximately 20 ft (6 m) or r approximately 20 ft (6 m) or r	3.01 /egeta d wetlanless Strata ng womore in r at bre uding more in	and distured to the control of the c	bed or ines, ght and deight (E y vines, ght and l	3 in. PBH). ess
2 - Dominance Test is > 56 3 - Prevalence Index is < 3 Problematic Hydrophytic V 1 Indicators of hydric soil and hydrology must be present, u Definition of Vegetation S Tree - Woody plants, excluding approximately 20 ft (6 m) or r (7.6 cm) or larger in diameter Sapling - Woody plants, excluding approximately 20 ft (6 m) or r than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants	D% 3.01 /egeta d wetlanless of Strata ng womore in r at bre uding more in s, exclana 3.2 ding wo	and distur is: ody v heigeast h wood heigeast ft (bed or ines, ght and deight (E y vines, ght and I vines, I	3 in. PBH). ess
2 - Dominance Test is > 56 3 - Prevalence Index is < 3 Problematic Hydrophytic V 1 Indicators of hydric soil and hydrology must be present, u Definition of Vegetation S Tree - Woody plants, excluding approximately 20 ft (6 m) or r (7.6 cm) or larger in diameter Sapling - Woody plants, excluding approximately 20 ft (6 m) or r than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants than 3 in. DBH and greater the Shrub - Woody plants, excluding the same statement of the same stat	D9% 3.01 /egeta d wetlanless of strata ng wormore in rat bre uding more in s, exclana 3.2 ding wo 6 m) i	woodd n heige uding 28 ft (plant te, an heige plan	tines, ght and livines, ght and livines, ght and livines, ght.	3 in. BH). ess ess

Domorka	/If absorted	list morphological	adaptations below)

SOIL Sampling Point: UPP1085

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 Soils ³ :
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, sturbed 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:								

City/County: San Patricio

Sampling Date:

2/25/2019

Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX	Sampling Point:	UPP1086
Investigator(s): B. Bringhurst & R. Conley	Section, Township, R	ange: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.): Flat Local relief (o	concave, convex, none):	Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T Lat: 27.903	501 Lon	g: -97.142602	Datum: NAD 83
Soil Map Unit Name: Mustang fine sand, 0 to 1 percent slopes, occasionally flooded, freque		ification: None	
		o, explain in Remarks.)	
Are Vegetation , Soil , or Hydrology significantly disturb		Circumstances" present?	.65 🥥5 👙
Are Vegetation , Soil , or Hydrology naturally problemat	tic? (If needed, e	xplain any answers in Re	marks.)
SUMMARY OF FINDINGS — Attach site map showing sampling point locat	ions, transects, impo	ortant features, etc.	
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area within a Wetland?	Yes 🤇	○ No ●
Wetland Hydrology Present? Yes ○ No ●	within a wettand?		
Remarks:			
Hydrophytic vegetation, hydric soil, and wetland hydrology are not present. This is not a wet	and.		
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
HYDROLOGY			
Wetland Hydrology Indicators:	Cooned	an Tadiantana (Minimum	of 2 magnined)
Primary Indicators (Minimum of one required; check all that apply)	Second	ary Indicators (Minimum	• •
Surface Water (A1) Aquatic Fauna (B13) Augustic Fauna (B13)		Sparsely Vegetated Concave	e Surface (B8)
High Water Table (A2) Marl Deposits (B15) (LRR U) Seturation (A2)		Drainage Patterns (B10)	
Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Oxidized Rhizospheres along Livi	ng Poots (C3)	Moss Trim Lines (B16)	2)
Sediment Deposits (B2) Sediment Deposits (B2) Presence of Reduced Iron (C4)	rig Roots (C3)	Dry Season Water Table (Ca Crayfish Burrows (C8)	2)
Drift Deposits (B3) Recent Iron Reduction in Tilled S	ioils (C6)	Saturation Visible on Aerial	Imageny (CQ)
Algal Mat or Crust (B4) Thin Muck Surface (C7)	=	Geomorphic Position (D2)	inagery (C3)
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)
Field Observations: Surface Water Present? Yes No Depth (inches):			
Depart (inches):			
Cotuation Descent?	Wetland	l Hydrology Present? Yo	es O No 💿
(includes capillary fringe) Yes No Depth (inches):	Wedane	i nyurology i resent:	
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), it	f available:		
Remarks:			

Project/Site: Bluewater Terminal SPM Project

20% of Total Cover: 0

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

20% of Total Cover: 2

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

Herb Stratum

1 . Prosopis alandulosa

50% of Total Cover: 5

1 _Cvnodon dactvlon

3 . Medicago lupulina 4 . Geranium carolinianum

2 . Parietaria pensylvanica

5 . Eleocharis montevidensis

6 . Sesbania vesicaria

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

0

0

10

15

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

10 ✓ 100.0% UPL 0.0% 0.0%

0.0%

0.0%

0.0%

30 **✓** __30.0% _FACU

20 **✓** 20.0% FACU

___15.0%__UPL

___15.0%__UPL

15.0% FACW

5.0%__FAC

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

= Total Cover

0.0%

0.0%_

Status

Sampling Point: UPP1(
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 worksheet:		
Total % Cover of: Multip	ply by:	_
OBL species0 x 1	=	
FACW species15_ x 2	=30	
FAC species <u>5</u> x 3	=15	
FACU species 50 x 4	= 200	
UPL species <u>40</u> x 5	=	
Colum Totals: <u>110</u> (A)	445	(B)
Prevalence Index = B/A=	4.045	
Hydrophytic Vegetation Indicators:		
,	ation¹ (Explai	n)
¹ Indicators of hydric soil and wetl hydrology must be present, unless	land	n)
¹ Indicators of hydric soil and wetl	and disturbed or	n)
¹ Indicators of hydric soil and wetl hydrology must be present, unless	land disturbed or a: body vines, in height and	3 in.
¹ Indicators of hydric soil and weth hydrology must be present, unless Definition of Vegetation Strat. Tree - Woody plants, excluding we approximately 20 ft (6 m) or more in	land disturbed or a: body vines, in height and reast height (I	3 in. DBH).
¹ Indicators of hydric soil and wetl hydrology must be present, unless Definition of Vegetation Strat. Tree - Woody plants, excluding we approximately 20 ft (6 m) or more it (7.6 cm) or larger in diameter at brown o	land disturbed or a: body vines, in height and reast height (I woody vines, in height and land land land land land land land	3 in. DBH). less
¹ Indicators of hydric soil and weth hydrology must be present, unless Definition of Vegetation Strat. Tree - Woody plants, excluding we approximately 20 ft (6 m) or more in (7.6 cm) or larger in diameter at brown sapling - Woody plants, excluding approximately 20 ft (6 m) or more in than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding approximately 20 ft (6 m) or more in than 3 in. (7.6 cm) DBH.	a: body vines, in height and reast height (I woody vines, in height and reast height and cluding vines, 28 ft (1m) tall	3 in. DBH). less
¹ Indicators of hydric soil and wetl hydrology must be present, unless Definition of Vegetation Strat. Tree - Woody plants, excluding we approximately 20 ft (6 m) or more in (7.6 cm) or larger in diameter at brown o	a: oody vines, in height and east height (I woody vines, in height and cluding vines, 28 ft (1m) tall voody vines, in height.	3 in. DBH). less less .
¹ Indicators of hydric soil and wetl hydrology must be present, unless Definition of Vegetation Strat: Tree - Woody plants, excluding we approximately 20 ft (6 m) or more it (7.6 cm) or larger in diameter at br Sapling - Woody plants, excluding approximately 20 ft (6 m) or more it than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, excluding approximately 20 ft (1 m) or more it than 3 in. DBH and greater than 3. Shrub - Woody plants, excluding we approximately 3 to 20 ft (1 to 6 m) Herb - All herbaceous (non-woody) herbaceous vines, regardless of sizplants, except woody vines, less the	land disturbed or a: body vines, in height and reast height (I woody vines, in height and cluding vines, 28 ft (1m) tall voody vines, in height. b) plants, incluze, and wood an approxima	3 in. DBH). less less ding y ately

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

SOIL Sampling Point: UPP1086

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 3/1 100				Sandy Clay Loam	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I		
Hydric Soil Indica	tors:				Indicators for Problema	<u>tic Hydric Soils³:</u>
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re	e (A4) e (A5) (A6) (LRR P, T, U) eral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 150A) eral (S1) (LRR O, S) atrix (S4)	Thin Date of Loamy Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce Piedmo	lue Below Surface (S8) ark Surface (S9) (LRR Mucky Mineral (F1) (L 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 15 ed Vertic (F18) (MLRA ont Floodplain Soils (F1	S, T, U) RR O) 151) 2) (LRR O, P, T) 7, T, U) 1) 150A, 150B) 9) (MLRA 149A)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem 3Indicators wetland l unless	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) Imy Soils (F20) (MLRA 153B) TF2) rface (TF12)
_	7) (LRR P, S, T, U)	Anoma	llous Bright Loamy Soil	S (F20) (MLKA 149A,	, 153C, 153D)	
Restrictive Layer Type: Depth (inches):	·			н	lydric Soil Present? Ye	s ○ No ●
Remarks:						

Project/Site: Bluewater Terminal SPI	M Project	City/County: San Patricio	Sampling Date:	2/6/2019
Applicant/Owner: Phillips 66 Pipelin	ie, LLC	State: TX	Sampling Point:	WP1001_UP
Investigator(s): B. Bringhurst & A. (Ostrowski	Section, Tow	nship, Range: S N/A T N/A	R N/A
Landform (hillslope, terrace, etc.):	Toeslope	Local relief (concave, conve	x, none): Flat	Slope: 3 % 1.7 °
Subregion (LRR): LRR T		Lat: 27.93172	Long: -97.269357	Datum: NAD 83
Soil Map Unit Name: Banquete clay,	0 to 1 percent slopes (Ec)	N	WI Classification: None	
Are climatic/hydrologic conditions o	on the site typical for this time of	year? Yes 💿 No 🤇	(If no, explain in Remarks.)	
Are Vegetation, Soil		•	"Normal Circumstances" present?	Yes ● No ○
Are Vegetation , Soil		•	eeded, explain any answers in Rei	9 9
Are regetation	, or rivarology nata	many problematic. (1)	ceaca, explain any answers in Kei	marksi)
SUMMARY OF FINDINGS — Atta	ch site map showing sampli	ng point locations, transec	ts, important features, etc.	
Hydrophytic Vegetation Present?	Yes O No •	Is the Samp	oled Area	
Hydric Soil Present?	Yes O No 💿	within a Wet		No 💿
Wetland Hydrology Present?	Yes O No •			
Remarks:	de alle al le de de la constante de la constan	The control of the sale		
Hydrophytic vegetation, hydric soil, an	d wetland hydrology are not present.	This is not a wetland.		
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (Minimum of o	one required: check all that apply	y)	Secondary Indicators (Minimum	of 2 required)
Surface Water (A1)	Aquatic Fauna (•	Sparsely Vegetated Concave	. ,
High Water Table (A2)	Marl Deposits (Drainage Patterns (B10)	, Surface (Bo)
Saturation (A3)	Hydrogen Sulfic		Moss Trim Lines (B16)	
Water Marks (B1)		spheres along Living Roots (C3)	Dry Season Water Table (C2	2)
Sediment Deposits (B2)	Presence of Re	duced Iron (C4)	Crayfish Burrows (C8)	•
Drift Deposits (B3)	Recent Iron Re	duction in Tilled Soils (C6)	Saturation Visible on Aerial I	Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surfa	ace (C7)	Geomorphic Position (D2)	3 / ()
Iron Deposits (B5)	Other (Explain	in Remarks)	Shallow Aquitard (D3)	
Inundation Visible on Aerial Image		,	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR	T, U)
Field Observations:				
Surface Water Present? Yes	No • Depth (inch	nes):		
Water Table Present? Yes	No • Depth (inch	nes):		
Saturation Present? (includes capillary fringe) Yes	No Depth (inch	nes):	Wetland Hydrology Present? Ye	es O No 💿
(includes capillary irrige)				
Describe Recorded Data (stream gaug	je, monitor well, aerial photos, previo	ous inspections), if available:		
Remarks:				

	Domi		Dominance Test worksheet:
	Absolute Rel.S		Number of Dominant Species
	% Cover Cov	Ctatus	That are OBL, FACW, ro FAC:0 (A)
e Stratum (Plot Size : 30)			Total Number of Dominant
-		0.0%	Species Across All Strata:3(B
		0.0%	
		0.0%	Percent of Dominant Species That are OBL, FACW, or FAC: 0.0% (A/B)
		0.0%	That are OBE, FACW, OF FAC.
		0.0%	Prevalence Index worksheet:
		0.0%	Total % Cover of: Multiply by:
		0.0%	OBL species $0 \times 1 = 0$
		0.0%	FACW species $0 \times 2 = 0$
0% of Total Cover: 0 20% of Total Cover: 0	0 = To	otal Cover	FAC species $90 \times 3 = 270$
ing or Sapling/Shrub Stratum (Plot Size: 30)	_		FACU species $13 \times 4 = 52$
		0.0%	UPL species $7 \times 5 = 35$
		0.0%	Colum Totals: 110 (A) 445 (B)
		0.0%	Prevalence Index = B/A= 4.045
		0.0%	,
		0.0%	Hydrophytic Vegetation Indicators:
		0.0%	1 - Rapid Test for Hydrophytic Vegetation
		0.0%	2 - Dominance Test is > 50%
		0.0%	3 - Prevalence Index is ≤ 3.01
0% of Total Cover: 0 20% of Total Cover: 0	0 = To	otal Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
ib Stratum (Plot Size : 30)			
_ Vachellia farnesiana	10_ 🗸6	6.7%FACU	¹ Indicators of hydric soil and wetland
_Lvsimachia arvensis		20.0% FACU	hydrology must be present, unless disturbed or
Geranium carolinianum		13.3% UPL	
		0.0%	Definition of Vegetation Strata:
		0.0%	Tree - Woody plants, excluding woody vines,
		0.0%	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 7.5 20% of Total Cover: 3		otal Cover	(7.6 cm) or larger in diameter at breast height (DBH).
b Stratum (Plot Size : 30)	90 🗸 🤦	94.7%FAC	Sapling - Woody plants, excluding woody vines,
. Andropogon gerardii			approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
Bothriochloa ischaemum var. songarica		5.3% UPL	and to an (ric on) being
_		0.0%	Sapling/Shrub - Woody plants, excluding vines, less
		0.0%	than 3 in. DBH and greater than 3.28 ft (1m) tall.
		0.0%	
		0.0%	Shrub - Woody plants, excluding woody vines,
		0.0%	approximately 3 to 20 ft (1 to 6 m) in height.
		0.0%	Llowb All howbosses (non-seader) whents including
		0.0%	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
		0.0%	plants, except woody vines, less than approximately
		0.0%	3 ft (1 m) in height.
		0.0%	
50% of Total Cover: 48 20% of Total Cover: 19	95 = T c	otal Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)			
		0.0%	
		0.0%	
		0.0%	Hydrophytic
		0.0%	Vegetation Yes No •
		0.0%	Present ?
			1

SOIL Sampling Point: WP1001_UP

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 4/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore	-	
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) 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 Dalta C	lue Below Surface (S8) ark Surface (S9) (LRR Mucky Mineral (F1) (L 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, Dehric (F17) (MLRA 15) ed Vertic (F18) (MLRA ont Floodplain Soils (F1 allous Bright Loamy Soil	151)) (LRR O, P, T) .T, U) 1150A, 150B) 9) (MLRA 149A)	Piedmont Floodplain: 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) rrface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):			н	lydric Soil Present? Ye	es O No •
Remarks:						

Project/Site: Bluewater Ter	rminal SPM Project	City/County: San Patricio	Sampling Date: 2/6/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State: TX	Sampling Point: WP1001_WET_PEM
Investigator(s): B. Bringhu	urst & A. Ostrowski	Section, Towns	ship, Range: S N/A T N/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: 27.932004	Long: -97.26915 Datum: NAD 83
	uete clay, 0 to 1 percent slopes (Ec)		I Classification: None
Banqu	tete day, 0 to 1 percent slopes (EC)		1 Classification. Note
Are climatic/hydrologic con	ditions on the site typical for this time	e of year? Yes No	(If no, explain in Remarks.)
Are Vegetation , S	Soil , or Hydrology s	ignificantly disturbed? Are "N	lormal Circumstances" present? Yes No
Are Vegetation, S	Soil . , or Hydrology n	aturally problematic? (If nee	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS	S — Attach site map showing sam	pling point locations, transects	s, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes No •	le the Coursele	A A
Hydric Soil Present?	Yes No	Is the Sample within a Wetla	
Wetland Hydrology Present?	Yes No		
Remarks: Hydrophytic vegetation, hydri HYDROLOGY	ic soil, and wetland hydrology are present.	This is a wetland.	
Wetland Hydrology Indica	ators:		
	num of one required: check all that ar	nnly)	Secondary Indicators (Minimum of 2 required)
✓ Surface Water (A1)	Aquatic Fau		
High Water Table (A2)		ts (B15) (LRR U)	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)
✓ Saturation (A3)		ulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)		izospheres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Reduced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)		Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck S	• •	Geomorphic Position (D2)
Iron Deposits (B5)		ain in Remarks)	Shallow Aguitard (D3)
Inundation Visible on Ae		an in Kemanoy	FAC-Neutral Test (D5)
Water-Stained Leaves (B			Sphagnum moss (D8) (LRR T, U)
Field Observations			
Field Observations: Surface Water Present?	Yes No Depth (inches): 1	
Water Table Present?	Yes No Depth (i		
Saturation Present?	. ,		Vetland Hydrology Present? Yes No
(includes capillary fringe)	Yes No Depth (i	inches): 0	
Describe Recorded Data (str	eam gauge, monitor well, aerial photos, pro	evious inspections), if available:	

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30)

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

Tree Stratum

50% of Total Cover: 0

Shrub Stratum 1.____

Herb Stratum

10.___

1.__

50% of Total Cover: 0

1 . Andropogon gerardii

3 . Cvperus virens 4 . Eleocharis minima

5 Ludwigia palustris

6 . Marsilea vestita

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

2 . Eleocharis montevidensis

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

3

0

0 0

0

0

0 0

0

0 0

100

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% 0.0%

0.0%

0.0%_

15.0% FACW

5.0% FACW

5.0% OBL

3.0% OBL

2.0%_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

= Total Cover

___0.0%_ = Total Cover

70 **-** 70.0% FAC

0.0%_

0.0%_

Status

Dominance Test w	orksheet:			
Number of Dominant	•			
That are OBL, FACW,	ro FAC:			(A)
Total Number of Don			_	
Species Across All Sti	rata:		3	(B
Percent of Dominant That are OBL, FACW,			33.3%	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multip	y by:	_
OBL species	10	x 1	=10	
FACW species	20_	x 2		
FAC species	70	x 3		
FACU species	0		=	
UPL species	0	x 5		
Colum Totals:	110	(A)	357	(B)
Prevalence In	dex = B/A =		3.245	
1 - Rapid Test 2 - Dominance 3 - Prevalence	e Test is > 5	0%	egetation	
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b	e Test is > 5 Index is ≤ ydrophytic rdric soil and e present, u	0% 3.0¹ Vegeta d wetla unless o	tion¹ (Explai and listurbed or	n)
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy	e Test is > 5 Index is ≤ ydrophytic rdric soil and he present, the egetation house, excluding ft (6 m) or	0% 3.0¹ Vegeta d wetla inless o Strata ng woo more ir	tion¹ (Explai	3 in.
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20	e Test is > 5 Index is ≤ Index i	0% 3.0¹ Vegeta d wetla unless o Strata ng woo more ir r at bre uding v	tion¹ (Explaind disturbed or :: ody vines, height and east height (I	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic H Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20	e Test is > 5 Index is ≤ Index i	0% 3.0¹ Vegeta d wetla unless o Strata ng woo more ir r at bre uding v more ir	tion¹ (Explaind disturbed or continue): by the continue of th	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V	e Test is > 5 Index is ≤ Index i	0% 3.0¹ Vegeta Vegeta Strata ng woo more ir r at bre uding vegeta s, excl	tion¹ (Explained and disturbed or and di	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic H Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V than 3 in. DBH ar Shrub - Woody p	e Test is > 5 Index is ≤ ydrophytic or ydric soil and ye present, the present, the present, the present of the	o% 3.0¹ Vegeta Vegeta Strata ng woo more ir r at bre uding v more ir s, excl nan 3.2 ding wo 6 m) ii voody) s of siz	tion¹ (Explained disturbed or a library times, a height and a library times, a height and a library times, a height and a library times, a height.	3 in. DBH). less less .

D =l	/T6 - b	المعادمات والماسية	adaptations below)

SOIL Sampling Point: WP1001_WET_PEM

Profile Description	on: (Describe to the d	epth needed to docum	nent the indicator or	confirm the abso	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist)%	Color (moist)	% Type¹	Location ²	Texture	Remarks
0 - 16	10YR 5/1 10	0			Silty Clay	
Hydric Soil Indica	·	uced Matrix, CS=Covered o	r Coated Sand Grains.	² Location: PL=Pore	Lining, M=Matrix. Indicators for Problema	tic Hydric Soils³:
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies (5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Ree Sandy Muck Min Sandy Gleyed M Sandy Redox (S) Stripped Matrix ((A2)) e (A4) (A5) (A6) (LRR P, T, U) deral (A7) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) doc (A12) dox (A16) (MLRA 150A) deral (S1) (LRR O, S) atrix (S4) 5	Thin Dai Loamy M Loamy C ✓ Depleted Redox D Marl (F1 Depleted Iron-Mai Umbric S Reduced Piedmor	te Below Surface (S8) (rk Surface (S9) (LRR S, Mucky Mineral (F1) (LRI Gleyed Matrix (F2) d Matrix (F3) Oark Surface (F6) d Dark Surface (F7) Oepressions (F8) O) (LRR U) d Ochric (F11) (MLRA 1 Inganese Masses (F12) Surface (F13) (LRR P, Chric (F17) (MLRA 151) d Vertic (F18) (MLRA 151) d Vertic (F18) (MLRA 151) at Floodplain Soils (F19) ous Bright Loamy Soils	T, U) R O) 51) (LRR O, P, T) T, U) 50A, 150B)) (MLRA 149A)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LRI Reduced Vertic (F18) Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Rem	O) R S) (outside MLRA 150A,B) (oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Restrictive Layer Type: Depth (inches):					lydric Soil Present? Ye	s • No 🔾
Remarks:						

Project/Site: Bluewater Te	erminal SPM Project	Ci	ty/County: San Patr	icio	Sampling Date:	2/6/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State	e: TX San	npling Point:	WP1002_UP
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	Lo	ocal relief (concave,	, convex, none): Flat		Slope: 1 % 0.6 °
Subregion (LRR): LRR T			Lat: 27.928521	Long: - 97.	.211026	Datum: NAD 83
Soil Map Unit Name: Calall	len sandy clay loam, 0 to 1 perc	ent slopes (Os)		NWI Classification	on: None	
	nditions on the site typical fo	or this time of yea	r? Yes 💿	── No ○ (If no, exp	lain in Remarks.)	
	Soil , or Hydrology		intly disturbed?	Are "Normal Circum	-	Yes ● No ○
	Soil , or Hydrology		y problematic?		any answers in Rer	
Are regetation			y problematic.	(II needed) explain	uny unswers in Ker	nun Kor)
SUMMARY OF FINDING	S – Attach site map show	wing sampling p	point locations, ti	ransects, important	t features, etc.	
Hydrophytic Vegetation Pres	ent? Yes •	No O	ls the	e Sampled Area		
Hydric Soil Present?	Yes 🔾	No 💿		n a Wetland?	Yes C) No ●
Wetland Hydrology Present?	Yes •	No O				
Remarks: Hydrophytic yegetation and I	hydric soil are not present. This	is not a wetland.				
	nyane son are not present This	is not a wedana.				
HYDROLOGY						
Wetland Hydrology Indic	ators:					
Primary Indicators (Minin	num of one required; check	all that apply)		Secondary In	dicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B13))	Sparse	ely Vegetated Concave	: Surface (B8)
High Water Table (A2)		Marl Deposits (B15)	(LRR U)	Draina	age Patterns (B10)	
✓ Saturation (A3)		Hydrogen Sulfide O	dor (C1)	Moss -	Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospher	res along Living Roots	(C3) Dry Se	eason Water Table (C2	.)
Sediment Deposits (B2)		Presence of Reduce	ed Iron (C4)	Crayfis	sh Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reducti	ion in Tilled Soils (C6)	Satura	ation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface ((C7)	Geom	orphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Re	emarks)	Shallo	w Aquitard (D3)	
Inundation Visible on Ae	• , , ,			FAC-N	leutral Test (D5)	
Water-Stained Leaves (E	39)			Sphag	num moss (D8) (LRR ⁻	T, U)
Field Observations:						
Surface Water Present?	Yes No •	Depth (inches):				
Water Table Present?	Yes O No 💿	Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):	2	Wetland Hydr	ology Present? Ye	es • No O
	ream gauge, monitor well, aeria	Il nhotos previous ir	espections) if available	۵۰		
Describe Recorded Data (su	ream gauge, monitor well, aene	ii priotos, previous ii	ispections), ii available	.		
Remarks:						

20% of Total Cover: 0

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

20% of Total Cover: 1

20% of Total Cover: 17

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

1 . Prosopis glandulosa

50% of Total Cover: 2.5

1 . Andropogon gerardii

3 . Cvnodon dactvlon

2 . Eleocharis montevidensis

50% of Total Cover: 43

Woody Vine Stratum

50% of Total Cover: 0

1.__

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

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

4 . Bothriochloa ischaemum var. songarica

5 . Opuntia lindheimeri

0.0%

5 ✓ 100.0% <u>UPL</u>

0.0% 0.0%

0.0%

50 **✓** _ 58.8% FAC

Absolute % Cover

0

0_

0 _

0

0 0

0

0

0

0

0

0

0

0

0 0

5

5

0

0

0

0

0

0

0

0

0 0

Dominant Species? Red.Strat. Cover Status That are OBL, FACW, ro FAC: 1 (A)	plants.		Sampling Point: WP1002_UP
Rel. Stratt. Cover Indicator Cover Number of Dominant Species That are OBL, FACW, ro FAC: 1 (A) 0.0% 0.0% Percent of Dominant Species That are OBL, FACW, or FAC: 1 (B 0.0% 0.0% Percent of Dominant Species That are OBL, FACW, or FAC: 100.0% (A/B) 0.0% Prevalence Index worksheet: Total % Cover of: Multiply by: 0.0% 0.0% O.0% O.0% Cover of: Multiply by: 0.0% 0.0% O.0% Sepecies 10 x 2 = 20 20 FACW species 50 x 3 = 150 FACW species 10 x 4 = 40 40 UPL species 20 x 5 = 100 X 4 = 40 40 UPL species 20 x 5 = 100 X 5 = 100 0.0% Colum Totals: 90 (A) 310 (B) Prevalence Index = B/A			Dominance Test worksheet:
That are OBL, FACW, ro FAC: 1 (A) 0.0%			
Species Across All Strata:		Status	That are OBL, FACW, ro FAC: (A)
Species Across All Strata:	0.00/		Total Number of Dominant
0.0%			·
D.0%	_		Percent of Dominant Species
0.0% 0.0%	_		
D.0% DBL species D x 1 = D			Provalence Index worksheet
0.0%	_		
Total Cover			
FAC species 50 x 3 = 150 FACU species 10 x 4 = 40 UPL species 20 x 5 = 100 Colum Totals: 90 (A) 310 (B) Prevalence Index = B/A= 3.444 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 100.0% 1 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain) 1 100.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1 - Total Cover 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 woody vines, approximately 20 ft (6 m) or more in height and 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. United the provided that			
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. Sapling - Woody plants, excluding woody vines, approximately 20 ft (10 6 m) in height. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Consecution of the proximate of the proximately 3 ft (1 m) in height. Devent - All woody vines, regardless of height.	= Total Cov	ver	
0,0%			
0.0%	0.0%		100
0.0% 0.0%	_		210
0.0% Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain)	_		Discussion on Tradey, D/A
0.0% 1 - Rapid Test for Hydrophytic Vegetation 0.0% 0.0% 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹ Problematic Hydrophytic Vegetation¹ (Explain)	_		Prevalence Index = B/A= 3.444
1 - Rapid Test for Hydrophytic Vegetation 0.0% 0.0% 0.0% 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 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. 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 Indicators:
3 - Prevalence Index is ≤ 3.0¹			1 - Rapid Test for Hydrophytic Vegetation
Problematic Hydrophytic Vegetation¹ (Explain) 100.0% UPL 0.0% UPL 0.0% 0.0% 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 - 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%_		✓ 2 - Dominance Test is > 50%
100.0% UPL 0.0% 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 - 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%		3 - Prevalence Index is ≤ 3.0¹
0.0% 0.0%	= Total Cov	ver	Problematic Hydrophytic Vegetation¹ (Explain)
0.0% 0.0%	100.0%	LIDI	
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 - 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.			
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 - 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.	_		inyurology must be present, unless disturbed of
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 - 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.	_		Definition of Vegetation Strata:
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 - 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.	_		-
Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. 11.8% FACU 11.8% UPL 5.9% UPL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0			
approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. 11.8% FACU 11.8% UPL 5.9% UPL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	= Total Cov	ver	(7.6 cm) or larger in diameter at breast height (DBH).
approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. 11.8% FACU 11.8% UPL 5.9% UPL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0			Sapling - Woody plants, excluding woody vines,
11.8% FACU 11.8% UPL 5.9% UPL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 0.0	58.8%_	FAC	approximately 20 ft (6 m) or more in height and less
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.	11.8%_	_FACW	than 3 in. (7.6 cm) DBH.
than 3 in. DBH and greater than 3.28 ft (1m) tall. 5.9% UPL 0.0% 0.0% 0.0% 0.0% 0.0% 0.0% 1.0% 0.0% 1.0%	11.8%_	FACU	Sanling/Shrub Woody plants, evaluding vines, loss
Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. O.0% O.0% O.0% O.0% O.0% O.0% O.0% O.			
approximately 3 to 20 ft (1 to 6 m) in height. 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% 0.0%			
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. Total Cover Woody vine - All woody vines, regardless of height.			approximately 3 to 20 ft (1 to 6 m) in height.
herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Total Cover Woody vine - All woody vines, regardless of height.			Herh - All herhaceous (non woody) plants, including
plants, except woody vines, less than approximately 3 ft (1 m) in height. Total Cover Woody vine - All woody vines, regardless of height.			
= Total Cover Woody vine - All woody vines, regardless of height.			plants, except woody vines, less than approximately
= Total Cover Woody vine - All woody vines, regardless of height.			3 π (1 m) in height.
0.0%		ver	Woody vine All woody vines recordless of height
0.0%	o.a. co		vvoody virie - All woody vines, regardless of neight.
0.0%	0.0%		
0.004			
U.U.70	0.0%		Hydrophytic
0.0% Vegetation Yes No			Vegetation Yes No
0.0% Present ?			Present ?
= Total Cover			
			l

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

SOIL Sampling Point: WP1002_UP

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator	or confirm the abso	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)		Location ²	Texture	Remarks
0 - 16	10YR 3/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I	-	
Hydric Soil Indica	itors:				Indicators for Problema	atic 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) 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	lue Below Surface (S8 ark Surface (S9) (LRR Mucky Mineral (F1) (Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLR anganese Masses (F1 E Surface (F13) (LRR F Dehric (F17) (MLRA 15 ed Vertic (F18) (MLRA ant Floodplain Soils (F allous Bright Loamy So	A 151) 2) (LRR O, P, T) P, T, U) 51)	Piedmont Floodplain: 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):				ydric Soil Present? Ye	es No •
Remarks:						

Project/Site: Bluewater Ter	minal SPM Project	City/County: San Patricio	Sampling Date: 2/6/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State: TX	Sampling Point: WP1002_WET_PEM
Investigator(s): B. Bringhu	ırst & A. Ostrowski	Section, Town	ship, Range: S N/A T N/A R N/A
 _andform (hillslope, terrace	, etc.): Flat	Local relief (concave, convex,	, none): Concave Slope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat: 27.92867	Long: -97.210408 Datum: NAD 83
	en sandy clay loam, 0 to 1 percent slopes	_	/I Classification: None
			T Classification. Note
Are climatic/hydrologic con	ditions on the site typical for this tim	ne of year? Yes ● No ○	(If no, explain in Remarks.)
Are Vegetation , S	Soil . , or Hydrology	significantly disturbed? Are "I	Normal Circumstances" present? Yes No
Are Vegetation, S	Soil , or Hydrology	naturally problematic? (If ne	eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS	5 — Attach site map showing san	npling point locations, transect	s, important features, etc.
Hydrophytic Vegetation Prese	ent? Yes No •	la tha Cample	od Araa
Hydric Soil Present?	Yes No	Is the Sample within a Wetl	
Wetland Hydrology Present?	Yes No		
Remarks: Hydrophytic vegetation, hydri HYDROLOGY	ic soil, and wetland hydrology are present	. This is a wetland.	
Wetland Hydrology Indica	ators:		
	num of one required: check all that a	(vlaa	Secondary Indicators (Minimum of 2 required)
✓ Surface Water (A1)	Aquatic Fa		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		sits (B15) (LRR U)	Drainage Patterns (B10)
✓ Saturation (A3)		Sulfide Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)		hizospheres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)		of 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)		plain in Remarks)	Shallow Aquitard (D3)
Inundation Visible on Ae		in in itematics)	FAC-Neutral Test (D5)
Water-Stained Leaves (B	9)		Sphagnum moss (D8) (LRR T, U)
·	<u>, </u>		
Field Observations: Surface Water Present?	Yes No Depth	(inches):	
Water Table Present?		(inches): 1	
Saturation Present?	·	(inches):	Wetland Hydrology Present? Yes ● No ○
(includes capillary fringe)	Yes No Depth	(inches):	wedand nydrology Present: Tes S No
Describe Recorded Data (str	eam gauge, monitor well, aerial photos, p	revious inspections), if available:	

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 20

20% of Total Cover: 0

(Plot Size : 30)

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

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

2. Ludwigia peploides 3 . Andropogon gerardii

4 . Marsilea macropoda

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.__

1 . Eleocharis montevidensis

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

5

0

0

0

0 0

0

0

0 0

0

0 0

100

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% 0.0%

0.0%

0.0%_

___0.0%_

= Total Cover

60 **✓** 60.0% FACW

20.0% OBL

5.0% OBL

0.0%

___15.0%__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%

= Total Cover

= Total Cover

0.0%_

0.0%_

Status

Do	ominance Test wo	rksheet:			
	imber of Dominant S	•			
In	at are OBL, FACW,	ro FAC:			(A)
To	tal Number of Domi	nant			
Sp	ecies Across All Stra	ita:		2	(B
	rcent of Dominant S			E0.00/	(A/R)
Th	at are OBL, FACW,	or FAC:		50.0%_	(A/B)
Pr	evalence Index w				
_	Total % Cover o		Multip	25	_
	BL species	25_	x 1	420	
	CW species	60_		45	
	C species	15			
	CU species	0	x 4		
	L species	0	x 5		L .
CC	olum Totals:	90_	(A)	310	_ (B)
	Prevalence Ind	ex = B/A =		3.444	
Н	ydrophytic Vegeta	tion Indica	ators:	-	
	1 - Rapid Test f 2 - Dominance 3 - Prevalence Problematic Hy Indicators of hydrology must be	Test is > 5 Index is ≤ drophytic \understand	0% 3.0¹ Vegeta	tion¹ (Expla	
	2 - Dominance 3 - Prevalence Problematic Hy	Test is > 5 Index is ≤ drophytic \understand	0% 3.0¹ Vegeta	tion¹ (Expla	
ŀ	2 - Dominance 3 - Prevalence Problematic Hy Indicators of hyd	Test is > 5 Index is ≤ drophytic \(\) dric soil and \(\) e present, \(\)	0% 3.0 ¹ Vegeta d wetla	tion¹ (Expla and disturbed or	
r C	2 - Dominance 3 - Prevalence Problematic Hy Indicators of hydrology must be	Test is > 5 Index is ≤ drophytic dric soil and present, u getation	0% 3.0¹ Vegeta d wetla unless Strata	tion¹ (Expla and disturbed or	
T a	2 - Dominance 3 - Prevalence Problematic Hy Indicators of hydrology must be	Test is > 5 Index is ≤ drophytic \ dric soil and expresent, to getation ats, excludift (6 m) or	0% 3.0¹ Vegeta d wetla inless Strata ng wo	tion¹ (Expland disturbed or an and an	1 3 in.
T a (2 - Dominance 3 - Prevalence Problematic Hy Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 of 7.6 cm) or larger	Test is > 5 Index is ≤ drophytic value present, to getation ints, excludift (6 m) or in diamete	0% 3.0¹ Vegeta d wetla unless Strata ng woo more in	and disturbed or a: ody vines, n height and east height (d 3 in. (DBH).
Ta	2 - Dominance 3 - Prevalence Problematic Hy Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20	Test is > 5 Index is ≤ drophytic dric soil and expresent, to getation ats, excludift (6 m) or in diamete plants, excludift (6 m) or in diamete	0% 3.0¹ Vegeta d wetla inless Strata ng wo more in r at bra uding	and disturbed or a: ody vines, n height and east height of	1 3 in. (DBH).
T a (2 - Dominance 3 - Prevalence Troblematic Hy Indicators of hydrology must be Definition of Ve Tree - Woody plan approximately 20 fr 7.6 cm) or larger Sapling - Woody p approximately 20 fr an 3 in. (7.6 cm)	Test is > 5 Index is ≤ Index is ≤ Idrophytic Idric soil and a present, to getation ats, excludift (6 m) or in diamete Iolants, excl Ift (6 m) or in DBH.	0% 3.0¹ Vegeta d wetlanless of Strata ng word more in r at bre uding	and disturbed or a: ody vines, n height and east height of woody vines n height and	d 3 in. (DBH). s, d less
Ta() Satt	2 - Dominance 3 - Prevalence Troblematic Hy Indicators of hydrology must be Definition of Ve Tree - Woody plan pproximately 20 (7.6 cm) or larger Sapling - Woody p pproximately 20 (p)	Test is > 5 Index is ≤ Index is ≤ Idrophytic Idric soil and Expresent, in the present, in the present of the pr	0% 3.0¹ Vegeta d wetlanless Strata ng wor more in r at bre uding more in	and disturbed or a: ody vines, n height and east height or woody vines n height and	d 3 in. (DBH). s, d less
C Ta() Satt	2 - Dominance 3 - Prevalence 1 - Problematic Hy Indicators of hydrology must be Definition of Ve Tree - Woody plan pproximately 20 f 7.6 cm) or larger Capling - Woody p pproximately 20 f han 3 in. (7.6 cm) Capling/Shrub - W	Test is > 5 Index is ≤ Index is ≤ Idrophytic Idric soil and a present, to getation ats, excludift (6 m) or in diamete Iolants, excludift (6 m) or in DBH. Ioody plant digreater the interpretation of the interpretation of the iolants, excluding the iolants is a constant to the iolants in the iolants in the iolants is a constant to the iolants in t	0% 3.0¹ Vegeta d wetlaunless 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 or woody vines n height and uding vines 28 ft (1m) ta oody vines,	d 3 in. (DBH). s, d less
F C Ta() Satt St Sa Hhp	2 - Dominance 3 - Prevalence 1 - Problematic Hy Indicators of hydrology must be Definition of Ve Tree - Woody plan pproximately 20 f 7.6 cm) or larger Eapling - Woody plan pproximately 20 f phan 3 in. (7.6 cm) Eapling/Shrub - Woody plan Shrub - Woody plan Shrub - Woody plan Shrub - Woody plan	Test is > 5 Index is < 5 Index is < 5 Index is < 6 Index is < 6 Index is < 7 Index	o% 3.0¹ Vegeta d wetla unless of Strata ng wor more in r at bre uding more in s, excl nan 3.2 ding wo 6 m) i	and disturbed or a: ody vines, n height and east height and uding vines theight and uding vines theight and uding vines, n height, plants, include, and woo	d 3 in. (DBH). 5, d less , less II.

Remarks: (If observed.	list morphological	adaptations below)
icinancs. (ii obscivcu,	iist moi priologicai	adaptations below	,

SOIL Sampling Point: WP1002_WET_PEM

Profile Description	on: (Describe to th	e depth	needed to docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	0/	Colon (modest)		Features	Location?	Tarabassa	Damanka
0 - 16	Color (moist) 10YR 4/1	. _% 97	Color (moist) 10YR 4/6	_% 3	Tvpe ¹	<u>Location²</u> PL	Texture	Remarks
	<u>'</u>		•					
	ion, D=Depletion, RM=	Reduced	Matrix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore		
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) 5 (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) 1 (LRR P, T) Dark Surface (A11) lace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) latrix (S4)		Thin D Loamy Loamy Loamy Deplet Redox Deplet Redox Marl (F Deplet Iron-M Umbric Delta (Reducc	ark Surfa Mucky M Gleyed N ed 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) (LF) datrix (F2) (F3) face (F6) Surface (F7) ons (F8) (F11) (MLRA Masses (F12) (F13) (LRR P, L7) (MLRA 151) (F18) (MLRA 151) (F18) (MLRA 151)	151)) (LRR O, P, T) T, U))	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3 Indicators wetland unless	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):							Hydric Soil Present? Ye	s • No 🔾
Remarks:								

Project/Site: Bluewater Terminal SPM Project	City/County: San Patricio Sampling Date: 2/7/2019
Applicant/Owner: Phillips 66 Pipeline, LLC	State: TX Sampling Point: WP1003_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: 27.929003 Long: -97.207223 Datum: NAD 83
Soil Map Unit Name: Narta loam, 0 to 1 percent slopes, rarely flooded (N	a) NWI Classification: None
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
	rally problematic? (If needed, explain any answers in Remarks.)
Are regetation / or injurcity inter-	(ar needed, explain any answers in ternantsi)
SUMMARY OF FINDINGS — Attach site map showing sampli	ng point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes • No	Is the Sampled Area
Hydric Soil Present? Yes No •	within a Wetland?
Wetland Hydrology Present? Yes No	
Remarks: Hydrophytic vegetation, hydric soil, and wetland 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) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (
Saturation (A3) Hydrogen Sulfi	
	pheres along Living Roots (C3) Dry Season Water Table (C2)
	duced Iron (C4) Crayfish Burrows (C8)
	duction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	ace (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	
Surface Water Present? Yes No Depth (incl	es):
Water Table Present? Yes No • Depth (incl	es):
Saturation Present? (includes capillary fringe) Yes No Depth (incl	es): Wetland Hydrology Present? Yes No •
Describe Recorded Data (stream gauge, monitor well, aerial photos, previo	us inspections) if available:
Describe Recorded Data (Stream gauge, monitor well, aerial photos, previo	us inspections), ii avaliable.
Remarks:	

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

1.____

Herb Stratum

1 _Bothriochloa ischaemum___ 2 . Astragalus nuttallianus

3 . Cvnodon dactvlon

Woody Vine Stratum

1._____

4 . Andropogon gerardii

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

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

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

5 . Medicago lupulina

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

Absolute

% Cover

	<u> </u>	-
	Dominant Species?	Dominance Test worksheet:
ute ver	Rel.Strat. Indicator	Number of Dominant Species That are OBL, FACW, ro FAC: 0
	Cover Status	(A)
0	0.0%	Total Number of Dominant
0	0.0%	Species Across All Strata: 3 (B
0	0.0%	Percent of Dominant Species
0	0.0%	That are OBL, FACW, or FAC: 0.0% (A/B)
0	0.0%	Prevalence Index worksheet:
0	0.0%	Total % Cover of: Multiply by:
0	0.0%_	OBL species $0 \times 1 = 0$
0_	0.0%	FACW species $0 \times 2 = 0$
0	= Total Cover	FAC species $15 \times 3 = 45$
		FACU species $25 \times 4 = 100$
0	0.0%_	UPL species $60 \times 5 = 300$
0	0.0%	Colum Totals: 100 (A) 445 (B)
0	0.0%	
0	0.0%	Prevalence Index = B/A= 4.450
0	0.0%	Hydrophytic Vegetation Indicators:
0	0.0%	✓ 1 - Rapid Test for Hydrophytic Vegetation
0	0.0%	2 - Dominance Test is > 50%
0	0.0%	3 - Prevalence Index is ≤ 3.0¹
0	= Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
0	0.0%	1 You disconnection discounting and according of
0	0.0%	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
0	0.0%	.,
0	0.0%	Definition of Vegetation Strata:
0	0.0%	Tree - Woody plants, excluding woody vines,
0	0.0%	approximately 20 ft (6 m) or more in height and 3 in.
0	= Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
_		Sapling - Woody plants, excluding woody vines,
30	✓ 30.0% UPL	approximately 20 ft (6 m) or more in height and less
25	✓ 25.0% UPL	than 3 in. (7.6 cm) DBH.
25	✓ 25.0% FACU	
15	15.0%FAC	Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1m) tall.
5_	5.0%UPL	Than 5 III. Don and greater than 5.20 it (IIII) tall.
0	0.0%	Shrub - Woody plants, excluding woody vines,
0	0.0%	approximately 3 to 20 ft (1 to 6 m) in height.
0	0.0%	
0	0.0%_	Herb - All herbaceous (non-woody) plants, including
0	0.0%_	herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
0	0.0%_	3 ft (1 m) in height.
0_	0.0%_	
.00	= Total Cover	Woody vine - All woody vines, regardless of height.
0	0.0%_	
0	0.0%_	
0_	0.0%_	Hydrophytic
0_	0.0%_	Vegetation Yes No
0_	0.0%_	Present ?
		1

50% of Total Cover:	0	20% of Total Cover:	0
Remarks: (If observed, l	ist mo	rphological adaptation	s below).

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

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

SOIL Sampling Point: WP1003_UP

Color Colo
ric Soil Indicators: Indicators for Problematic Hydric Soils?: Indicators for Problematic Hydric
Listosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) I tom Muck (A9) (LRR O) Inhin Dark Surface (S9) (LRR S, T, U) I com Muck (A10) (LRR S) Idack Histic (A3) Idack Histic (A10) Idack Histic (A10) Idack Histic (A10) Idack Histic (A10) Idack Histic (A21) Idack Histic (A23) Idack Mistic (A23) Idack Mistic (A23) Idack Mistic (A23) Idack Mistic (A23) Idack Histic (A23) Idack Histic (A23) Idack Mistic (A23) Idack Histic (A23) Idack Histic (A23) Idack Mistic (A23) Idack Mistic (A23) Idack Histic (A23) Idack Mistic (A23) Idack Histic (A23) Id
Indicators: Indicators for Problematic Hydric Soils*: Initic Soil Indicators: Indicators for Problematic Hydric Soils*: Initic Soil Indicators In Muck (A9) (LRR O) In thin Dark Surface (S9) (LRR S, T, U) In thin Dark Surface (F19) (LRR O, S) In thin Dark Surface (F19)
Polyvalue Below Surface (S8) (LRR S, T, U)
Indication (A2) In this Dark Surface (S9) (LRR S, T, U) In this Dark Surface (S9) (LRR S, T, U) In this Dark Surface (S9) (LRR S, T, U) In this Dark Surface (S9) (LRR S, T, U) In this Dark Surface (S9) (LRR S, T, U) In this Dark Surface (F18) (outside MLRA 150A,B) In this Dark Surface (F18) (Durside MLRA 150A,B) In this Dark Surface (F18) (Durside MLRA 150A,B) In this Dark Surface (F19) (LRR P, S, T) In this Dark Surface (F20) (MLRA 150A) In this Dark Surface (F3) In this Dark Surface (F41) In this Dar
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) Sandy Muck Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D)
trictive Layer (If observed): ype:gravel

Project/Site: Bluewater Te	rminal SPM Project	City/Count	y: San Patricio	Sampling Da	te: 2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1003_WET_PEM
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, F	Range: S N/A T N	N/A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief	(concave, convex, none)	: Concave	Slope: 2 % 1.1 °
Subregion (LRR): LRR T		 Lat: 27.92	29029 Lo i	ng: -97.207356	Datum: NAD 83
Soil Map Unit Name: Narta	loam, 0 to 1 percent slopes, rare	ely flooded (Na)	NWI Class	sification: None	
Are climatic/hydrologic con	nditions on the site typical for	this time of year?	 Yes ● No ((If i	no, explain in Remarks.)
	Soil , or Hydrology	significantly distu		Circumstances" preser	
	Soil , or Hydrology	naturally problem		explain any answers in	
Are regettation	you , or mydrology	naturally problem	die (include)	explain any answers in	Kemarksiy
SUMMARY OF FINDING	S – Attach site map show	ing sampling point loc	ations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Prese		No •	Is the Sampled Are	a	
Hydric Soil Present?	Yes •	No O	within a Wetland?	Yes	○ No ●
Wetland Hydrology Present?	Yes •	No O			
Remarks: Hydrophytic vegetation, hydr	ric soil, and wetland hydrology an	e present. This is a wetland.			
	, , , , , , , , , , , , , , , , , , , ,	•			
HYDROLOGY					
Wetland Hydrology Indic	ators:				
Primary Indicators (Minin	num of one required; check a	ıll that apply)	Second	dary Indicators (Minimu	ım of 2 required)
Surface Water (A1)	A	quatic Fauna (B13)		Sparsely Vegetated Cond	cave Surface (B8)
High Water Table (A2)		larl Deposits (B15) (LRR U)		Drainage Patterns (B10)	
Saturation (A3)	F	ydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)	<u></u> □ c	xidized Rhizospheres along L	iving Roots (C3)	Dry Season Water Table	(C2)
Sediment Deposits (B2)	P	resence of Reduced Iron (C4))	Crayfish Burrows (C8)	
Drift Deposits (B3)	R	ecent Iron Reduction in Tilled	d Soils (C6)	Saturation Visible on Aer	ial Imagery (C9)
Algal Mat or Crust (B4)	T	hin Muck Surface (C7)		Geomorphic Position (D2	2)
Iron Deposits (B5)		ther (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) (L	RR 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): 0	Wetlan	d Hydrology Present?	Yes • No O
	ream gauge, monitor well, aerial	photos provious inspections)	if available:		
Describe Recorded Data (Sti	eam gauge, monitor well, aeriai	priotos, previous irispections)	, ii avallable.		
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

50% of Total Cover: 0

1 . Borrichia frutescens

3 . Andropogon gerardii 4 . Spartina patens

5 . Cvperus entrerianus

7 . Paspalum plicatulum

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

6 . Cvperus virens

10.___

1.__

2 . Panicum virgatum

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

25

15

10

10

5

0 0

0

0

0

0 0

0

0

0

100

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

___25.0%__OBL

___15.0%__FAC

15 ✓ ___15.0%__FACW__

20.0% FAC

10.0% FACW

___10.0%__FACW_

5.0%__FAC 0.0%_

0.0%_

0.0%

0.0%

0.0%_ _

0.0%

0.0%

0.0%

0.0%

____0.0%____

= Total Cover

Vegetation

Present ?

= Total Cover

0.0%_

0.0%

= Total Cover

0.0%_

Status

Dominance Test w	orksheet			
Number of Dominant				
That are OBL, FACW				(A)
Total Number of Dor Species Across All St			3	(В
Percent of Dominant That are OBL, FACW			0.0%	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multiply	y by:	_
OBL species	25	x 1 :	25	
FACW species	35_	x 2 =	=	
FAC species	40	x 3 =	= 120	
FACU species	0	x 4 =	=	
UPL species	0	x 5 =	=0	
Colum Totals:	100	(A)	445	(B)
Prevalence In	dex = B/A=		4.450	
Hydrophytic Vege 1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	for Hydropl e Test is > 5 e Index is ≤ lydrophytic	nytic Ve 0% 3.0¹ /egetat	ion¹ (Explai	n)
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large	for Hydrople Test is > 5 Index is ≤ Index is ≤ Index is ≤ Index is of Index is of Index is of Index in Index i	nytic Ve 0% 3.0¹ /egetat d wetlan inless d Strata ng woo more in r at bre.	ion¹ (Explai nd isturbed or : dy vines, height and ast height (I	3 in. DBH).
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must b Definition of V Tree - Woody pla approximately 20	for Hydrople Test is > 5 Index is ≤ Index i	nytic Ve 0% 3.0¹ /egetat d wetlan inless d Strata ng woo more in r at brea	ion¹ (Explai nd isturbed or : dy vines, height and ast height (I	3 in. DBH).
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must b Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 approximately	for Hydrople Test is > 5 Index is ≤ Index is constant in the present, the present, the present, the present in	nytic Ve 0% 3.0¹ /egetat d wetlan inless d Strata ng woo more in r at bre uding w more in	ion¹ (Explai and isturbed or : dy vines, height and ast height (I voody vines, height and	3 in. DBH). less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H Indicators of hydrology must b Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V	e for Hydrople Test is > 5 e Index is ≤ e Index is < e In	nytic Ve 0% 3.0¹ /egetat d wetlan inless d Strata ng woo more in r at bre uding w more in s, exclusion 3.26 ding wo	ion¹ (Explai nd isturbed or : dy vines, height and ast height (I voody vines, height and uding vines, 8 ft (1m) tall ody vines,	3 in. DBH). less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V than 3 in. DBH and	efor Hydrople Test is > 5 e Index is ≤ e Index is < e Ind	wytic Ve 0% 3.0¹ /egetat d wetlan inless d Strata ng woo more in r at brea uding w more in s, exclunan 3.26 ding wo 6 m) in /oody) p	ion¹ (Explai nd isturbed or : dy vines, height and ast height (I voody vines, height and uding vines, 8 ft (1m) tall ody vines, height.	3 in. DBH). less less

Remarks: ((If observed,	list mor	phological	adaptations	below).
Cilians, ((II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

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

Yes 🔘

SOIL Sampling Point: WP1003_WET_PEM

Profile Description	on: (Describe to th	e depth :	needed to docui	nent the	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Features			
(inches)	Color (moist)	<u></u>	Color (moist)	<u></u>	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	97	10YR 5/6	3		PL	Clay	
'Type: C=Concentrati Hydric Soil Indica	on, D=Depletion, RM=	Reduced N	fatrix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix. Indicators for Problem	
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min	e (A4) (A5) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (A2) (A3) (MLRA 15) (A4) (A5) (MLRA 15) (A6) (MLRA 15) (A6) (MLRA 0, S)	,	Thin Da Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Ma Umbric Delta C	ark Surface Mucky M Gleyed M d Matrix Dark Surf d Dark S Depressic 10) (LRR d Ochric anganese Surface chric (F1	ce (S9) (LRR Silineral (F1) (LF Matrix (F2) (F3) face (F6) Surface (F7) ons (F8) U) (F11) (MLRA Masses (F12) (F13) (LRR P, 7) (MLRA 151	151)) (LRR O, P, T) T, U))	Piedmont Floodplain Anomalous Bright Lo Red Parent Material (Very Shallow Dark St Other (Explain in Rer	of hydrophytic vegetation and hydrology (voutside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) TF2) of hydrophytic vegetation and hydrology must be present,
Sandy Gleyed M Sandy Redox (Si Stripped Matrix (Dark Surface (Si Restrictive Layer	5) (S6) 7) (LRR P, S, T, U)		Piedmo	nt Flood		9) (MLRA 149A) s (F20) (MLRA 149A	unless , 153C, 153D)	disturbed or problematic.
Type:						_ '	Hydric Soil Present? Yo	es • No O
Remarks:								

Project/Site: Bluewater	Terminal SPM Project	City	//County: San Patricio	Sampling Date:	2/7/2019
Applicant/Owner: Philli	ips 66 Pipeline, LLC		State: TX	Sampling Point:	WP1004_UP
Investigator(s): B. Brin	nghurst & A. Ostrowski		Section, Tow	nship, Range: S N/A T N/A	R N/A
Landform (hillslope, terra	ace, etc.): Flat	Loc	al relief (concave, conve	x, none): Convex	Slope: 2 % 1.1 °
Subregion (LRR): LRR T			at: 27.928589	Long: -97.206789	Datum: NAD 83
Soil Map Unit Name: Na	arta loam, 0 to 1 percent slopes, ra	rely flooded (Na)	- N\	WI Classification: None	-
	conditions on the site typical f	or this time of year?	Yes (•) No ((If no, explain in Remarks.)	
Are Vegetation	, Soil , or Hydrology			'Normal Circumstances" present?	Yes ● No ○
Are Vegetation	, Soil , or Hydrology		•	eeded, explain any answers in Re	9 9
Are regetation		naturally	problematic. (11 iii	ecucu, explain any answers in itel	marksiy
SUMMARY OF FINDIN	IGS – Attach site map show	wing sampling po	oint locations, transect	ts, important features, etc.	
Hydrophytic Vegetation Pr	resent? Yes •	No O	Is the Samp	led Area	
Hydric Soil Present?	Yes 🔾	No 💿	within a Wet) No ●
Wetland Hydrology Preser	nt? Yes 🔾	No •			
Remarks: Hydrophytic vegetation, h	ydric soil, and wetland hydrology	are not present. This is	s not a wetland.		
HYDROLOGY					
Wetland Hydrology Inc	dicators:				
Primary Indicators (Mi	nimum of one required; check	all that apply)		Secondary Indicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparsely Vegetated Concave	e Surface (B8)
High Water Table (A2	2)	Marl Deposits (B15) (I	·	Drainage Patterns (B10)	
Saturation (A3)		Hydrogen Sulfide Odo		Moss Trim Lines (B16)	
Water Marks (B1)		•	s along Living Roots (C3)	Dry Season Water Table (C2	<u>'</u>)
Sediment Deposits (E	32)	Presence of Reduced		Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction	• •	Saturation Visible on Aerial I	imagery (C9)
Algal Mat or Crust (B	4)	Thin Muck Surface (C.	•	Geomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Rem	narks)	Shallow Aquitard (D3)	
Inundation Visible on				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):			0 0
Saturation Present? (includes capillary fringe)	Yes No 💿	Depth (inches):		Wetland Hydrology Present? Ye	es O No •
Describe Recorded Data	(stream gauge, monitor well, aeria	al photos, previous ins	pections), if available:		
			•		
Remarks:					

		Dominant	Dominance Test worksheet:
	Absolute % Cover	Species? Rel.Strat. Cover Indicator Status	Number of Dominant Species That are OBL, FACW, ro FAC: 4 (A)
e Stratum (Plot Size : 30)			
			Total Number of Dominant Species Across All Strata:4 (B
	0	0.0%	Species Across Air Strata.
	0	0.0%_	Percent of Dominant Species
	0	0.0%	That are OBL, FACW, or FAC: 100.0% (A/B)
	0	0.0%	Prevalence Index worksheet:
	0	0.0%	Total % Cover of: Multiply by:
	0	0.0%	OBL species $0 \times 1 = 0$
	0	0.0%	FACW species $0 \times 2 = 0$
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	FAC species $0 \times 3 = 0$
line on Conline (Church Church	_		FACU species $55 \times 4 = 220$
ling or Sapling/Shrub Stratum (Plot Size : 30)	0	0.00/	UPL species $45 \times 5 = 225$
		0.0%	
			Colum Totals:(A)
	Г		Prevalence Index = B/A= 4.450
			Hydrophytic Vogotation Tudicators:
		0.0%	Hydrophytic Vegetation Indicators:
	0	0.0%_	1 - Rapid Test for Hydrophytic Vegetation
		0.0%_	✓ 2 - Dominance Test is > 50%
	0	0.0%_	3 - Prevalence Index is ≤ 3.0¹
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
ub Stratum (Plot Size : 30)	0	0.0% 0.0% 0.0%	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
		0.0%	Definition of Vegetation Strata
		0.0%	Definition of Vegetation Strata:
		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: 0	0	= Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
		- Total Cover	
b Stratum (Plot Size : 30)	[•	Sapling - Woody plants, excluding woody vines,
Cvnodon dactvlon			approximately 20 ft (6 m) or more in height and less
_Bothriochloa ischaemum var. songarica			than 3 in. (7.6 cm) DBH.
. Astragalus nuttallianus			Sapling/Shrub - Woody plants, excluding vines, less
. Medicago lupulina		5.0%UPL	than 3 in. DBH and greater than 3.28 ft (1m) tall.
		0.0%_	J
		0.0%_	Shrub - Woody plants, excluding woody vines,
	0	0.0%_	approximately 3 to 20 ft (1 to 6 m) in height.
	0	0.0%_	
		0.0%	Herb - All herbaceous (non-woody) plants, including
		0.0%	herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately
		0.0%	3 ft (1 m) in height.
	0	0.0%	- · · (· · · · / · · · · · · · · · · · ·
50% of Total Cover: 50 20% of Total Cover: 20	100	= Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)			
	0	0.0%	
	0	0.0%	
		0.0%	Hydrophytic
		0.0%	Vegetation Yes No
		0.0%	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover	
2070 OF TOTAL COVER. 0 2070 OF TOTAL COVER. 0		- I ULAI CUVEF	

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

SOIL Sampling Point: WP1004_UP

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)	<u></u> _	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	100					Silty Clay	
Type: C-Concentration	on D-Deplation PM	-Paducad M	atrix CS-Covered	or Costad	Sand Grains	² l ocation: DI – Porc	Lining M-Matriy	
	on, D=Depletion, RM=	-Keaucea Ma	atrix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore		atic Hydric Soile3:
Hydric Soil Indica	tors:						Indicators for Problema	iuc nyaric Soilss:
Histosol (A1)	(42)				Surface (S8) (1 cm Muck (A9) (LRR	0)
Histic Epipedon (` '				ce (S9) (LRR S		2 cm Muck (A10) (LR	R S)
Black Histic (A3)					ineral (F1) (LR	R O)	Reduced Vertic (F18)	(outside MLRA 150A,B)
Hydrogen Sulfide					latrix (F2)		Piedmont Floodplain	Soils (F19) (LRR P, S, T)
Stratified Layers				ed Matrix	. ,			amy Soils (F20) (MLRA 153B)
	(A6) (LRR P, T, U)	1.13		Dark Surf	` '		Red Parent Material (TF2)
	eral (A7) (LRR P, T,	U)			urface (F7)		Very Shallow Dark Su	rface (TF12)
Muck Presence (Depressio	. ,		Other (Explain in Ren	narks)
1 cm Muck (A9)				10) (LRR				
	Dark Surface (A11)				(F11) (MLRA 1	*		
Thick Dark Surfa	` ,				Masses (F12)			
	dox (A16) (MLRA 15				(F13) (LRR P,		3Indicators	of hydrophytic vegetation and
	eral (S1) (LRR O, S)				7) (MLRA 151)		wetland	hydrology must be present,
Sandy Gleyed Ma					F18) (MLRA 1		unless	disturbed or problematic.
Sandy Redox (S			Piedmo	nt Floodp	olain Soils (F19) (MLRA 149A)		
Stripped Matrix (Anoma	lous Brigh	nt Loamy Soils	(F20) (MLRA 149A	, 153C, 153D)	
Dark Surface (S7	7) (LRR P, S, T, U)							
Restrictive Layer (If observed): Type: Depth (inches):					Hydric Soil Present? Yes No			
pa. (o.)								_
Remarks:								

Project/Site: Bluewater Terr	minal SPM Project		City/County: San Patricio	Sampling Da	ate: 2/7/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC		State: TX	Sampling Point:	WP1004_WET_PEM
Investigator(s): B. Bringhu	rst & A. Ostrowski		Section, Towns	ship, Range: S N/A T	N/A R N/A
 Landform (hillslope, terrace,	etc.): Flat		Local relief (concave, convex,	none): Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T			Lat: 27.928621	Long: -97.20687	Datum: NAD 83
Soil Map Unit Name: Narta	loam 0 to 1 porcent	clanes rarely flooded (Na		I Classification: None	10.00
Marta I	oam, o to i percent	siopes, rarely flooded (Na)	T Classification. None	
Are climatic/hydrologic cond	litions on the site	typical for this time of	year? Yes No	(If no, explain in Remarks	5.)
Are Vegetation , S	oil , or Hyd	rology signi	ficantly disturbed? Are "N	ormal Circumstances" prese	ent? Yes • No 🔾
Are Vegetation, S	oil 🗌 , or Hyd	rology natu	rally problematic? (If nee	eded, explain any answers ir	n Remarks.)
SUMMARY OF FINDINGS	– Attach site m	nap showing samplin	g point locations, transects	, important features, etc	C.
Hydrophytic Vegetation Prese	nt?	Yes O No •	la tha Camala	d A.s	
Hydric Soil Present?		Yes No	Is the Sample within a Wetla		s O No 💿
Wetland Hydrology Present?		Yes No			
Hydrophytic vegetation, hydri	soil, and wetland h	ydrology are present. This	is a wetland.		
Wetland Hydrology Indica	tors:				
Primary Indicators (Minim		ed: check all that apply)	1 5	Secondary Indicators (Minim	num of 2 required)
✓ Surface Water (A1)		Aquatic Fauna (I		Sparsely Vegetated Cor	. ,
High Water Table (A2)		Marl Deposits (B	-	Drainage Patterns (B10	` '
✓ Saturation (A3)		Hydrogen Sulfid		Moss Trim Lines (B16)	J
Water Marks (B1)			pheres along Living Roots (C3)	Dry Season Water Table	e (C2)
Sediment Deposits (B2)		Presence of Red		Crayfish Burrows (C8)	o (02)
Drift Deposits (B3)			luction in Tilled Soils (C6)	Saturation Visible on Ae	erial Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surfa	• •	Geomorphic Position (D	
Iron Deposits (B5)		Other (Explain in	• •	Shallow Aquitard (D3)	•
Inundation Visible on Aer	ial Imagery (B7)		,	FAC-Neutral Test (D5)	
Water-Stained Leaves (B9))			Sphagnum moss (D8) (LRR T, U)
Field Observations:					
Surface Water Present?	Yes No	Depth (inche	es): 2		
Water Table Present?	Yes No	_			
Saturation Present?	Yes • No	Depth (inche		Vetland Hydrology Present?	Yes No
(includes capillary fringe)	103 0 140	Jopan (man			
Describe Recorded Data (stre	am gauge, monitor	well, aerial photos, previou	us inspections), if available:		

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

2 . Cvnodon dactvlon

4 . Cvperus virens

3 . Marsilea macropoda

5 . Borrichia frutescens

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.___

1 . Eleocharis montevidensis

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

3

2

0

0

0 0

0

0

0 0

0

0

0

100

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%_ 0.0%

0.0%

0.0%

0.0% = Total Cover

70 **✓** ____70.0%___FACW___

20.0% FACU

5.0% OBL

3.0% FACW

2.0%_OBL_

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

Vegetation

Present ?

= Total Cover

0.0%

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant That are OBL, FACW	Species		0	(A)
Total Number of Dor Species Across All St			3	(В
Percent of Dominant That are OBL, FACW			0.0%	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multipl	y by:	_
OBL species	7	x 1 :	=7	
FACW species	73_	x 2	146	
FAC species	0_	x 3 :	=0	
FACU species	20_	x 4	=80	
UPL species	0	x 5	=	
Colum Totals:	100	(A)	445	(B)
Prevalence In	dex = B/A=		4.450	
Hydrophytic Vege 1 - Rapid Test 2 - Dominance	for Hydroph	ıytic Ve	getation	
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of V Tree - Woody pla	for Hydroph Test is > 50 Index is ≤ Index is < Index is	nytic Ve 0% 3.0¹ /egetat d wetla inless d Strata ng woo	nd isturbed or idy vines,	
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must b	for Hydrophe Test is > 50 Index is ≤ Index in the present, under the present, under the present in diameter plants, excluding the present in diameter plants, excluding the present in diameter plants, excluding the present in the present i	nytic Ve 0% 3.0¹ Vegetat d wetla inless d Strata ng woo more in r at bre	nd ilisturbed or dy vines, height and ast height (I	3 in. DBH).
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hydrology must b Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 approximately	for Hydrophe Test is > 50 Index is ≤ Index is one present, under the present, under the present in diameter plants, excluding the form of the present in diameter plants, excluding the form of the present in DBH. Woody plant	nytic Ve 0% 3.0¹ Vegetat d wetla inless d Strata ng woo more in r at bre uding v more in	nd ilisturbed or dy vines, height and ast height (I	3 in. DBH). less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H Indicators of hydrology must b Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V	e Test is > 50 e Index is ≤ 1 ydric soil and be present, u egetation ants, excluding the form of the plants, excluding the plants, excluding the form of the plants, excluding the plants is the plants of t	nytic Ve 0% 3.0¹ /egetat d wetla inless d Strata ng woo more in r at bre uding v more in s, exclusion 3.2 ding wo	nd iisturbed or indy vines, height and ast height (I woody vines, height and uding vines, 8 ft (1m) tall	3 in. DBH). less
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of V Tree - Woody pla approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V than 3 in. DBH and	efor Hydrophe Test is > 50 and the present, under the present, under the plants, excluding the first (6 m) or in diameter plants, excluding the first (6 m) or in DBH. Woody plant and greater the plants, excluding the first (5 m) or in the plants, excluding the first (6 m) or in the plants, excluding the first (6 m) or in the fi	wetlander of the control of the cont	nd ilisturbed or the dy vines, a height and ast height (I woody vines, a height and adding vines, a height. body vines, a height. plants, inclue, and wood	3 in. DBH). less less .

Domarke	(If obcorred	list morphological	adaptations	holow
Ciliai ks.	(II Observed,	list moi priologicai	auaptations	Delow).

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

Yes 🔘

No 💿

SOIL Sampling Point: WP1004_WET_PEM

Profile Description	on: (Describe to th	e depth	needed to docu	ment th	e indicator o	r confirm the abs	sence of indicators.)	
Depth (inches)	Matrix	0/-	Color (moist)		Features	Location?	Tourture	Domayla
0 - 16	Color (moist) 10YR 4/1	. _% 97	Color (moist) 10YR 5/6	<u>%</u> 3	Tvpe ¹	Location ² PL	Texture Silty Clay	Remarks
Trues Consentent	ion Deposition DM	Dadward	Matriu CC-Course	ov Control	d Canal Crains	21 continue DI - Dono	Lining M-Makriy	
•	ion, D=Depletion, RM=	Keaucea	iviatrix, CS=Covered	or Coated	i Sand Grains.	² Location: PL=Pore	-	skia Uluduia Caila?.
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)) e (A4) 5 (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) latrix (S4) 5		Thin ID Loamy Loamy Deplet Redox Deplet Redox Marl (i Deplet Iron-N Umbri Delta Reduc Piedm	oark Surfa Mucky M Gleyed Natrix Dark Sur Ed Dark S Depressi F10) (LRR Ed Ochric Anganese C Surface Ochric (F2 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)	151)) (LRR O, P, T) T, U)	Piedmont Floodplain: Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3 Indicators wetland unless	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):							Hydric Soil Present? Ye	es No
Remarks:								

Project/Site: Bluewater Ter	rminal SPM Project	City/Count	y: San Patricio	Sampling Date:	2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1005_UP
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	tange: S N/A T N/A	R N/A
andform (hillslope, terrace	, etc.): Flat	Local relief	(concave, convex, none)	Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T				ng: -97.205185	Datum: NAD 83
Soil Map Unit Name: Narta	loam 0 to 1 percent slopes in		_	sification: None	
Are climatic/hydrologic con	ditions on the site typical f	or this time of year?	Yes ● No (If r	no, explain in Remarks.)	
Are Vegetation , S	Soil , or Hydrology	significantly distu	ırbed? Are "Normal	Circumstances" present?	Yes • No O
Are Vegetation , S	Soil , or Hydrology	naturally problem	natic? (If needed, e	explain any answers in Rei	narks.)
SUMMARY OF FINDINGS	S — Attach site map sho	wing sampling point loc	ations, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Prese	ent? Yes •	No O	la the Campled Area	2	_
Hydric Soil Present?	Yes •	No O	Is the Sampled Area within a Wetland?	Yes •	No 🔾
Wetland Hydrology Present?	Yes •	No O			
Hydrophytic vegetation is not HYDROLOGY	present. This is not a wetland	i.			
Wetland Hydrology Indica	ators:				
	num of one required: chec	<u>call that apply)</u>	Second	dary 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 L	iving Roots (C3)	Dry Season Water Table (C2	<u>'</u>)
Sediment Deposits (B2)		Presence of Reduced Iron (C4)	Crayfish Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction in Tilled	d Soils (C6)	Saturation Visible on Aerial I	magery (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	rial Imagery (B7)			FAC-Neutral Test (D5)	
Water-Stained Leaves (B	9)			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	Wetlan	d Hydrology Present? Ye	es • No O
Describe Recorded Data (str	eam gauge, monitor well, aeri	al photos, previous inspections)	, if available:		

20% of Total Cover: 0

(Plot Size : 30)

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

50% of Total Cover: 0

1 . Panicum virgatum

3 . Cvnodon dactvlon

4 . Chloris cucullata

5 . Cvperus virens

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.__

2 . Bothriochloa ischaemum var. songarica

1.____

Herb Stratum

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

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

0.0%

35 **✓** __35.0% FAC

20 **✓** ____20.0%___FACL

Absolute % Cover

0

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

0__ 0

0

0 0

100

ants.		Sampling Point: WP1005_UP
ominant		Dominance Test worksheet:
pecies? el.Strat.	Indicator	Number of Dominant Species
Cover	Status	That are OBL, FACW, ro FAC:1(A)
0.0%		Total Number of Dominant
		Species Across All Strata: (B
0.0%		Percent of Dominant Species
0.0%		That are OBL, FACW, or FAC: 50.0% (A/B)
0.0%		Prevalence Index worksheet:
0.0%		Total % Cover of: Multiply by:
0.0%		OBL species $0 \times 1 = 0$
0.0%		FACW species $5 \times 2 = 10$
Total Co	over	FAC species $35 \times 3 = 105$
		FACU species $20 \times 4 = 80$
0.0%		UPL species $40 \times 5 = 200$
0.0%		Colum Totals: <u>100</u> (A) <u>233</u> (B)
		Prevalence Index = B/A= 2.330
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		2 - Dominance Test is > 50%
		✓ 3 - Prevalence Index is ≤ 3.0 ¹
: Total Co	over	Problematic Hydrophytic Vegetation ¹ (Explain)
0.00/		
		¹ Indicators of hydric soil and wetland
		hydrology must be present, unless disturbed or
0.0%		Definition of Vegetation Strates
0.0%		Definition of Vegetation Strata:
0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in.
Total Co		(7.6 cm) or larger in diameter at breast height (DBH).
35.0%	FAC	Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
30.0%		than 3 in. (7.6 cm) DBH.
	FACU	
	UPL	Sapling/Shrub - Woody plants, excluding vines, less
	FACW	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
0.0%		herbaceous vines, regardless of size, and woody
		plante except woody vince lose than approximately
0.0%	_	plants, except woody vines, less than approximately 3 ft (1 m) in height.
0.0% 0.0%		plants, except woody vines, less than approximately 3 ft (1 m) in height.
0.0% 0.0%	=	
0.0% 0.0% 0.0% • Total Co	over	3 ft (1 m) in height.
0.0% 0.0% 0.0% • Total Co	over	3 ft (1 m) in height.
0.0% 0.0% 0.0% = Total Co	over	3 ft (1 m) in height.
0.0% 0.0% • Total Co 0.0% 0.0%	over	3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Hydrophytic
0.0% 0.0% 0.0% = Total Co	over	3 ft (1 m) in height. Woody vine - All woody vines, regardless of height.

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

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

SOIL Sampling Point: WP1005_UP

Profile Description	on: (Describe to th	e depth neede	d to docu	ment th	e indicator o	or confirm the abs	ence of indicators.)	
Depth	Matrix			Redox	Features			
(inches)	Color (moist)	% Colo	(moist)	%	Tvpe1	Location ²	Texture	Remarks
0 - 16	10YR 4/1	97 10YR	5/6	3	С	PL	Silty Clay	
¹Tvpe: C=Concentrati	ion, D=Depletion, RM=	Reduced Matrix.	S=Covered	or Coated	d Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica		Treduced Widerix,	5- cov ered	or coatea	Tourid Grains.	Editation. TE-1 die	Indicators for Problema	atic Hydric Soils ³ :
Histosol (A1) Histic Epipedon Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies (5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min Sandy Gleyed M. Sandy Redox (S) Stripped Matrix ((A2) 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)	0A)	Thin D Loamy Loamy Deplet Redox Deplet Redox Marl (I Deplet Iron-M Umbri Delta (Reduc	oark Surfa Mucky M Gleyed N Gleyed Natrix Dark Sur Gled Dark S Depressi F10) (LRR Gled Ochric Janganese C 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)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LR Reduced Vertic (F18) Piedmont Floodplain (Anomalous Bright Loak Red Parent Material (Very Shallow Dark Sure Other (Explain in Ren 3 Indicators wetland unless	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):	. ,						Hydric Soil Present? Ye	es No
Remarks:								

Project/Site: Bluewater	Terminal SPM Project	t		City/County: San Patr	icio	Sampling [Date:	2/7/2	019
Applicant/Owner: Philli	ips 66 Pipeline, LLC			State	e: TX	Sampling Point:	WP10	05_WE	Г_РЕМ
Investigator(s): B. Brin	nghurst & A. Ostrowsk	d		Section	on, Township, Ra	ange: S N/A 1	Γ N/A	R N/A	
Landform (hillslope, terra	ace, etc.): Flat			Local relief (concave,	, convex, none):	Concave	Slope	e: 1	% 0.6 °
Subregion (LRR): LRR T				Lat: 27.929164			Datu		NAD 83
Soil Map Unit Name: Na		ent slones rare	ly flooded (Na)	-		fication: None	_	_	
_					_				
Are climatic/hydrologic o	onditions on the s	ite typical for		0	No (If no	o, explain in Remark	(S.)		
Are Vegetation	, Soil , or H	lydrology	signif	icantly disturbed?	Are "Normal (Circumstances" pres	ent?	Yes 💿	No O
Are Vegetation	, Soil , or H	lydrology	natura	ally problematic?	(If needed, ex	kplain any answers i	in Remarks	.)	
SUMMARY OF FINDIN	IGS — Attach site	e map showi	ing sampling	g point locations, tr	ransects, impo	rtant features, et	ic.		
Hydrophytic Vegetation Pr			No •	<u>, </u>	, •	<u> </u>			
Hydric Soil Present?	CSCITC:		No O		e Sampled Area	Y	es 🔾 No	. •	
Wetland Hydrology Preser	nt?	_	No O	witnir	n a Wetland?				
Remarks:	ic:		110						
Hydrophytic vegetation, h	ydric soil, and wetlan	d hydrology are	e present. This	is a wetland.					
HYDROLOGY									
Wetland Hydrology Inc	dicators:								
Primary Indicators (Mi	nimum of one requ	<u> jired; check a</u>	ıll that apply)		<u>Seconda</u>	ary Indicators (Minir	num of 2 re	equired)	
Surface Water (A1)		Ac	quatic Fauna (B	313)		Sparsely Vegetated Co	oncave Surfac	ce (B8)	
High Water Table (A2	2)	Ma	arl Deposits (B	15) (LRR U)		Drainage Patterns (B1	0)		
✓ Saturation (A3)		☐ Hy	ydrogen Sulfide	e Odor (C1)		Moss Trim Lines (B16))		
Water Marks (B1)		O	xidized Rhizosp	heres along Living Roots	(C3)	Dry Season Water Tab	ole (C2)		
Sediment Deposits (E	32)	Pr	resence of Redu	uced Iron (C4)		Crayfish Burrows (C8)			
Drift Deposits (B3)	•	Re	ecent Iron Redi	uction in Tilled Soils (C6)		Saturation Visible on A		v (C9)	
Algal Mat or Crust (B	4)		hin Muck Surfac	• •		Geomorphic Position (, (,	
Iron Deposits (B5)	,		ther (Explain in	• •		Shallow Aquitard (D3)			
Inundation Visible on	Aerial Imagery (B7)		CICI (EXPIGITIN	remandy		FAC-Neutral Test (D5)			
Water-Stained Leaves						Sphagnum moss (D8)			
Field Observations:									
Surface Water Present?	Yes O No	•	Depth (inche	s)·					
Water Table Present?	Yes O No	•	Depth (inche						
Saturation Present?					Wetland	Hydrology Present?	Yes 💿	No	\circ
(includes capillary fringe)	Yes • No	0	Depth (inche	·s):		, ,,			
Describe Recorded Data	(stream gauge, moni	tor well, aerial p	ohotos, previou	s inspections), if available	e:				
Remarks:									

20% of Total Cover: 0

(Plot Size : 30)

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

50% of Total Cover: 0

1 . Cvperus entrerianus

3 . Andropogon gerardii

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.__

5 . Cvperus virens

4 . Panicum virgatum

2 . 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

10

5

0

0

0 0

0

0

0 0

0

0 0

100

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% 0.0%

0.0%

0.0%

____0.0%__

= Total Cover

55 🗸 ___ 55.0% _ FACW

___15.0%__FAC

___10.0%__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%

= Total Cover

= Total Cover

15.0% FACW

5.0%__FACW

0.0%_

0.0%

Status

Dominano	e Test wo	rksheet:			
Number of	Dominant 9	Species			
That are OI	BL, FACW, 1	ro FAC:			(A)
	per of Domi			2	/D
Species Aci	oss All Stra	ita:		3	(B
	Dominant S BL, FACW, o			33.3%_	(A/B)
Prevalenc	e Index w	orksheet:			
Total	% Cover o	f:	Multip	ly by:	_
OBL spec	ies	0	x 1	=0	
FACW spe	cies	75	x 2	=150	
FAC spec	ies	25_	x 3	=75	
FACU spe	cies	0	x 4		
UPL spec		0	x 5		
Colum To	tals:	100	(A)	395	(B)
Prev	alence Inde	ex = B/A=		3.950	
Hydronby	tic Voqeta	ntion Indica	atore:		
2 - Do 3 - Pr Proble	evalence I ematic Hy tors of hyd	Test is > 5 Index is ≤ drophytic \ dric soil and	0% 3.0¹ Vegeta	tion¹ (Expla	in)
2 - Do 3 - Pr Proble 1 Indicat	ominance of the control of the contr	Test is > 5 Index is ≤ drophytic \ dric soil and	0% 3.0¹ Vegeta	tion¹ (Expla	in)
2 - Do 3 - Pr Proble 1 Indicate hydrolog	evalence is ewalence is ematic Hy tors of hyd yy must be	Test is > 5 Index is ≤ drophytic \ dric soil and	0% 3.0¹ Vegeta d wetla	tion¹ (Expla and disturbed or	in)
2 - Do 3 - Pr Proble 1 Indicat hydrolog Definiti Tree - W approxim	evalence 1 ematic Hy tors of hyd y must be on of Ve toody plan hately 20 f	Test is > 5 Index is \(\le \) Index in \(\le \) Index is \(\le \) I	0% 3.0¹ Vegeta d wetla inless o Strata ng woo more ii	tion¹ (Expla and disturbed or	3 in.
2 - Do 3 - Pr Proble 1 Indicat hydrolog Definiti Tree - W approxim (7.6 cm) Sapling - approxim	cevalence is ematic Hy tors of hydromust be con of Vertical in the condition of the conditi	Test is > 5 Index is ≤ Index is ≤ Idrophytic Idric soil and In present, to Idrogetation Ints, excludift (6 m) or in diamete Indiamete Interpretation or in diamete Interpretation or in diamete	0% 3.0¹ Vegeta d wetla inless o Strata ng woo more ii r at bre uding v	tion¹ (Expla and disturbed or I: ody vines, n height and	3 in. DBH).
2 - Do 3 - Pr Proble 1 Indicat hydrolog Definiti Tree - W approxim (7.6 cm) Sapling - approxim than 3 in Sapling/S	cevalence I cevale	Test is > 5 Index is ≤ Index is ≤ Idrophytic value Idric soil and a present, u getation Ints, excludiff (6 m) or in diamete Iolants, excl Iff (6 m) or in DBH. oody plant	0% 3.0¹ Vegeta d wetlanless of Strata ng woo more in r at bre uding von more in	tion¹ (Expla	3 in. DBH). , less
2 - Do 3 - Pr Proble 1 Indicat hydrolog Definiti Tree - W approxim (7.6 cm) Sapling - approxim than 3 in Sapling/S than 3 in	tors of hydromatic Hymust be on of Vertical Moody plantately 20 for larger in the larg	Test is > 5 Index is ≤ Index is ≤ Idrophytic value Idric soil and a present, to getation Ints, excludift (6 m) or in diamete Interpolation or in DBH.	0% 3.0¹ Vegeta d wetlaunless of Strata ng woo more in r at bre uding ventage more in s, exclanan 3.2 ding we	tion¹ (Explained disturbed or i: body vines, height and east height (woody vines height and uding vines, 8 ft (1m) tal	3 in. DBH). , less
2 - Do 3 - Pr Proble 1 Indicat hydrolog Definiti Tree - W approxim (7.6 cm) Sapling - approxim than 3 in Sapling/3 than 3 in Shrub - V approxim Herb - Al herbacec plants, ex	cevalence I ematic Hy tors of hyc y must be on of Ve oody plan hately 20 f or larger i Woody plan hately 20 f or (7.6 cm) Shrub - W DBH and Woody plan hately 3 to	Test is > 5 Index is < 5 Index is < 5 Index is < 6 Index is < 6 Index is < 7 Index	o% 3.0¹ Vegeta d wetlaunless of Strata ng woo more in r at bre uding ventors, excl han 3.2 ding wo 6 m) i	tion¹ (Explained disturbed or i: body vines, height and east height (woody vines height and uding vines, 8 ft (1m) tal	3 in. DBH). , less less l.

Remarks: ((If observed,	list mor	phological	adaptations	below).
Cilians, ((II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

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

SOIL Sampling Point: WP1005_WET_PEM

Profile Description	on: (Describe	e to th	e depti	needed 1	to docu	ment th	e indicator o	r confirm the abs	sence of indicators.)	
Depth	M	atrix				Redox	Features			
(inches)	_Color (m	oist)_	<u>%</u>	Color (ı	moist)	%	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR	4/1	97	10YR	5/6	3	С	PL	Silty Clay	
¹Type: C=Concentration Hydric Soil Indica		on, RM=I	Reduced	Matrix, CS=	Covered	or Coated	l Sand Grains.	² Location: PL=Pore	Lining, M=Matrix. Indicators for Problem	atic Hydric Soils³·
Histosol (A1) Histic Epipedon (Black Histic (A3) Hydrogen Sulfide Stratified Layers Organic Bodies (5 cm Mucky Min- Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec Sandy Muck Min- Sandy Gleyed Min-	(A2) e (A4) (A6) (LRR P, 7) eral (A7) (LRI (A8) (LRR U) (LRR P, T) Dark Surface ace (A12) dox (A16) (MI eral (S1) (LRI atrix (S4)	(A11) (R P, T, I			Thin Da Loamy Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S Depressi (10) (LRR ed Ochric anganese Surface Ochric (F1	face (F6) Surface (F7) ons (F8) LU) C (F11) (MLRA	5, T, U) RR O) 151)) (LRR O, P, T) T, U)	1 cm Muck (A9) (LRF 2 cm Muck (A10) (LF Reduced Vertic (F18) Piedmont Floodplain Anomalous Bright Lo Red Parent Material (Very Shallow Dark Su Other (Explain in Rer	R O) RR S) I (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) amy Soils (F20) (MLRA 153B) (TF2) urface (TF12)
Sandy Redox (SS Stripped Matrix (Dark Surface (S7	(S6)	T, U)			1			9) (MLRA 149A) s (F20) (MLRA 149A	A, 153C, 153D)	
Restrictive Layer (Type: Depth (inches):	`								Hydric Soil Present? Yo	es • No 🔾
Remarks:										

Project/Site: Bluewater Te	rminal SPM Project	City/County:	San Patricio	Sampling Date:	2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1006_UP
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	Range: S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief (concave, convex, none)	: Convex	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		 Lat: 27.928	3975 Lo r	ng: -97.202012	Datum: NAD 83
Soil Map Unit Name: Narta	loam, 0 to 1 percent slopes, rare	ly flooded (Na)	_	sification: None	
Are climatic/hydrologic con	nditions on the site typical for	this time of year?	es No (If I	no, explain in Remarks.)	
	Soil , or Hydrology	significantly distur		Circumstances" present?	· · ·
	Soil , or Hydrology	naturally problema		explain any answers in Rei	Yes • No ·
Are vegetation,.	on , or rivarology		dic: (Il lieeded, e	explain any answers in Kei	iidi k5.)
SUMMARY OF FINDING	S – Attach site map show	ing sampling point loca	tions, transects, imp	ortant features, etc.	
Hydrophytic Vegetation Pres	ent? Yes •	No O	Is the Sampled Area	2	
Hydric Soil Present?	Yes 🔾	No •	within a Wetland?	Yes C	No 💿
Wetland Hydrology Present?	Yes 🔾	No •			
Remarks:			u J		
Hydrophytic vegetation, hydr	ric soil, and wetland hydrology ar	e not present. This is not a we	tiand.		
HYDROLOGY					
Wetland Hydrology Indic	atore:				
	num of one required; check a	ıll that apply)	Second	darv Indicators (Minimum	of 2 required)
Surface Water (A1)		quatic Fauna (B13)		Sparsely Vegetated Concave	. ,
High Water Table (A2)		arl Deposits (B15) (LRR U)		Drainage Patterns (B10)	Surface (Bo)
Saturation (A3)		ydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
Water Marks (B1)		xidized Rhizospheres along Liv	ring Roots (C3)	Dry Season Water Table (C2	<u>'</u>)
Sediment Deposits (B2)		resence of Reduced Iron (C4)		Crayfish Burrows (C8)	,
Drift Deposits (B3)	R	ecent Iron Reduction in Tilled	Soils (C6)	Saturation Visible on Aerial I	imagery (C9)
Algal Mat or Crust (B4)	□ т	hin Muck Surface (C7)		Geomorphic Position (D2)	5 , . ,
Iron Deposits (B5)	Пс	ther (Explain in Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae		,		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?	Yes O No •	Depth (inches):	Wetlan	d Hydrology Present? Ye	es O No 💿
(includes capillary fringe)					
Describe Recorded Data (str	ream gauge, monitor well, aerial	ohotos, previous inspections),	if available:		
Remarks:					

Total Number of Dominant Species Across All Strates: 2 (8		B	1
Absolute		Species?	
Decision		Absolute Rel.Strat. Indicator	
0	· · ·		Total Number of Deminant
D			
Double			
0			
D D.03% O D.05% O			That are OBL, FACW, or FAC:
O		0	Prevalence Index worksheet:
		0	Total % Cover of: Multiply by:
0		0	OBL species $0 \times 1 = 0$
Pact Total Cover 0 20% of Total Cover 0 0 = Total Cover		00.0%	
0	0% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
0	ing or Sapling/Shrub Stratum (Plot Size : 30)		FACU species $\underline{15}$ x 4 = $\underline{60}$
Definition of Vegetation Stratum		0	UPL species $45 \times 5 = 225$
0 0.0% Hydrophytic Vegetation Indicators: 2 0.0% 0.0% Hydrophytic Vegetation 2 0.0% 0.0% 0.0% 2 0.0% 0.0% 2 0.0% 3 0.0% 3 2 0.0% 3 2 0.0% 3 2 0.0% 3 0.0% 3 2 0.0% 3 2 0.0% 3 2 0.0% 3 0.0% 3 2 0.0% 3 2 0.0% 3 2 0.0% 3 0.0%		0	Colum Totals: <u>80</u> (A) <u>345</u> (E
0		00.0%	Provalence Index - R/A-
Q			4.313
0			Hydrophytic Vegetation Indicators:
0 0.0% 0.0% 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤ 3.0¹			✓ 1 - Rapid Test for Hydrophytic Vegetation
3 - Prevalence Index is ≤ 3.0¹			
20% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover			
Definition of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) or larger in diameter at breast height (DBH Lysimachia arvensis 10 12.53% FACU Stratus 5 6.3% FACU Stratus 6 6 6 6 6 6 6 6 6			
Description of Total Cover: 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 20 stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii 20 ✓ 25,0% FAC Medicago lupulina Is 18.8% UPL Lysimachia arvensis 10 12.5% FACU Trea - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) 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 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 woody 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. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Yes No			Definition of Vegetation Strata:
0 0.0% approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH (7.6 cm) or larger in diameter at breast height (PBH (7.6 cm) or larger in diameter at breast height (PBH (7.6 cm) or larger in d			
0% of Total Cover: 0 20% of Total Cover: 0 0 = Total Cover 1. Stratum (Plot Size : 30) Chloris cucullata 30 ✓ 37.5% UPL Andropogon gerardii 20 ✓ 25.0% FAC Medicao lupulina 15 18.8% UPL Lvsimachia arvensis 10 12.5% FACU Taraxacum officinale 5 6.3% FACU 0 0.0% Shrub - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) 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 woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. Shrub - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody plants, except woody vines, less than approximately 3 ft (1 m) in height. Woody vine - All woody vines, regardless of height. Woody vine - All woody vines, regardless of height. Hydrophytic Vegetation Yes No Present?			_
Chloris cucullata 30 ✓ 37.5% UPL Andropogon gerardii 20 ✓ 25.0% FAC Medicago lupulina 15		0.0%	Tree - Woody plants, excluding woody vines,
Andropogon gerardii Andropogon gerardii Andropogon gerardii Description of Total Cover: 40 20% of Total Cover: 16 add Vine Stratum Chloris cucullata 30		0.0%	_
Medicano lubulina Lysimachia arvensis Taraxacum officinale 5 6.3% FACU FACU 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. O 0.0% 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. O 0.0% O 0.0% 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?	50% of Total Cover: 0 20% of Total Cover: 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)
Medicaco lubulina 15	0% of Total Cover: 0 20% of Total Cover: 0 D Stratum (Plot Size : 30)	0 0.0% 0 0.0% 0 = Total Cover	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH) Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Taraxacum officinale 5	0% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata	0 0.0% 0 0.0% 0 = Total Cover	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH) Sapling - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less
Taraxacum officinale 5	0% of Total Cover: 0 20% of Total Cover: 0 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% 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
Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. O	0% of Total Cover: 0 20% of Total Cover: 0 D Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% 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
O 0.0% 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. O 0.0% of Total Cover: 40 20% of Total Cover: 16 80 = Total Cover Woody 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?	0% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lysimachia arvensis	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU	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
0 0.0% 0	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) 2 Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU	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.
O O.0% O.0% O.0% O.0% O.0% O.0% O.0% O.0%	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU 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,
D	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU 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,
0 0.0% 3 ft (1 m) in height. 80 = Total Cover Woody vine - All woody vines, regardless of height. 10% of Total Cover: 40 20% of Total Cover: 16 80 = Total Cover Woody vine - All woody vines, regardless of height. 10 0 0.0% 10	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU 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.
0 0.0% 80 = Total Cover Woody vine - All woody vines, regardless of height. O 0.0%	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) 2 Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU 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
Solution Cover 40 20% of Total Cover 16 80 = Total Cover Woody vine - All woody vines, regardless of height.	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) 2 Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU 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
Ody Vine Stratum	b Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU 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
0 0.0% Hydrophytic Vegetation Present ?	0% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% 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%	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.
United State O O O.0%	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% 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%	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.
United State O	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale 30% of Total Cover: 40 20% of Total Cover: 16 30% of Total Cover: 40 (Plot Size : 30)	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% 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 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.
	20% of Total Cover: 0 20% of Total Cover: 0 2 Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale 20% of Total Cover: 40 20% of Total Cover: 16	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% 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 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.
0 Present ?	b Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale Taraxacum officinale Cody Vine Stratum (Plot Size : 30) (Plot Size : 30)	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% 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 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) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale	0 0.0% 0 0.0% 0 = Total Cover 30 ✓ 37.5% UPL 20 ✓ 25.0% FAC 15 18.8% UPL 10 12.5% FACU 5 6.3% 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 0.0% 0 0.0% 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
	b Stratum (Plot Size : 30) Chloris cucullata Andropogon gerardii Medicago lupulina Lvsimachia arvensis Taraxacum officinale Cody Vine Stratum (Plot Size : 30) (Plot Size : 30) (Plot Size : 30)	0 0.0% 0 0.0% 0 10.0% 0 20.0% 0 25.0% 15 18.8% UPL 10 12.5% FACU 5 6.3% FACU 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

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

SOIL Sampling Point: WP1006_UP

Profile Descriptio	n: (Describe to the d	epth needed to docu	ment the indicator or	confirm the abso	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches) 0 - 16	Color (moist) 9/10YR 5/2 10	-		Location ²	Texture Silty Clay	Remarks
	<u>, , , , , , , , , , , , , , , , , , , </u>	uced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore		
Hydric Soil Indicat	tors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Mine Muck Presence (A 1 cm Muck (A9) Depleted Below I Thick Dark Surfar Coast Prairie Rec Sandy Muck Mine Sandy Gleyed Ma Sandy Redox (S5 Stripped Matrix (e (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) atrix (S4)	Thin Da Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-Marcon Delta C Reduce Piedmo	ue Below Surface (S8) (ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) and Matrix (F3) Dark Surface (F6) and Dark Surface (F7) Depressions (F8) (10) (LRR U) anganese Masses (F12) Surface (F13) (LRR P, Ochric (F17) (MLRA 151) and Vertic (F18) (MLRA 1 and Floodplain Soils (F19) lous Bright Loamy Soils	T, U) R O) L51) (LRR O, P, T) T, U) 50A, 150B)) (MLRA 149A)	Piedmont Floodplain: 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):					lydric Soil Present? Ye	ns No •
Remarks:						

Project/Site: Bluewater Ter	minal SPM Project	City/County: San Patricio	Sampling Date: 2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	State: TX	Sampling Point: WP1006_WET_PEM_A
Investigator(s): B. Bringhu	ırst & A. Ostrowski	Section, Township, R	ange: S N/A T N/A R N/A
 _andform (hillslope, terrace	, etc.): Flat	Local relief (concave, convex, none)	: Flat Slope: 1 % 0.6 °
Subregion (LRR): LRR T			ng: -97.203075
	loam, 0 to 1 percent slopes, rarely flooded (Na		sification: None
			Mone
Are climatic/hydrologic con	ditions on the site typical for this time of	year? Yes No (If I	no, explain in Remarks.)
Are Vegetation , S	Soil , or Hydrology signi	ificantly disturbed? Are "Normal	Circumstances" present? Yes No
Are Vegetation , S	Soil 🗌 , or Hydrology 🔲 natu	rally problematic? (If needed, e	explain any answers in Remarks.)
SUMMARY OF FINDINGS	5 — Attach site map showing samplir	ng point locations, transects, imp	ortant features, etc.
Hydrophytic Vegetation Prese	ent? Yes No •	In the Consider Ass	_
Hydric Soil Present?	Yes ● No ○	Is the Sampled Area within a Wetland?	Yes No •
Wetland Hydrology Present?	Yes No	William a Violana.	
Remarks: Hydrophytic vegetation, hydr HYDROLOGY	ic soil, and wetland hydrology are present. This	s is a wetland.	
Wetland Hydrology Indica	atore:		
	num of one required: check all that apply	Socono	dary Indicators (Minimum of 2 required)
	, , , , , , , , , , , , , , , , , , , ,		, , ,
Surface Water (A1)	Aquatic Fauna (Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)✓ Saturation (A3)	Marl Deposits (I Hydrogen Sulfic		Drainage Patterns (B10)
Water Marks (B1)		spheres along Living Roots (C3)	Moss Trim Lines (B16)
Sediment Deposits (B2)		duced Iron (C4)	Dry Season Water Table (C2)
Drift Deposits (B3)		duction in Tilled Soils (C6)	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surfa		Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain i		Shallow Aguitard (D3)
Inundation Visible on Ae	· · · · · · · · · · · · · · · · · · ·		FAC-Neutral Test (D5)
Water-Stained Leaves (B	• , , ,		Sphagnum moss (D8) (LRR T, U)
Water Stained Leaves (B			Spriagram moss (56) (ERC 1, 6)
Field Observations:			
Surface Water Present?	Yes No Depth (inch	· ——	
Water Table Present?	Yes No Depth (inch		
Saturation Present? (includes capillary fringe)	Yes No Depth (inch	les): 2 Wetlan	d Hydrology Present? Yes • No O
Describe Recorded Data (str	eam gauge, monitor well, aerial photos, previo	us inspections), if available:	

20% of Total Cover: 0

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

20% of Total Cover: 0

20% of Total Cover: 16

20% of Total Cover: 0

(Plot Size : 30)

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

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

1 . Paspalum plicatulum

4. Borrichia frutescens 5 . Tamarix chinensis

50% of Total Cover: 40

50% of Total Cover: 0

Woody Vine Stratum

1.___

3 . Acourtia wrightii

2 . Monanthochloe littoralis

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

10

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%

= Total Cover

0.0%

0.0%_ 0.0%

0.0%

0.0%

___0.0%_

= Total Cover

30 🗸 ___37.5% __FAC

20 **✓** ___25.0%__OBL

___12.5%__UPL

___12.5%__OBL

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

Vegetation

Present ?

= Total Cover

12.5% FACW

0.0%

0.0%

= Total Cover

0.0%

Status

Dominance Test workshe	et:			
Number of Dominant Species That are OBL, FACW, ro FAC:		_	1	(A)
Total Number of Dominant Species Across All Strata:		_	2	(В
Percent of Dominant Species That are OBL, FACW, or FAC:		_	50.0%	(A/B)
Prevalence Index worksh	eet:			
Total % Cover of:	Mu	ltiply b	y:	_
OBL species	30_ x	1 =	30	
FACW species	10 x	2 =	20_	
FAC species	30 x	3 =	90	
FACU species	_0x	4 =	0	
	10 x	5 =	50_	
Colum Totals:	80 (A	()	345	(B)
Prevalence Index = B_i	'A=		4.313	
1 - Rapid Test for Hyd 2 - Dominance Test is 3 - Prevalence Index Problematic Hydroph	> 50% is ≤ 3.0¹			1)
2 - Dominance Test is 3 - Prevalence Index	s > 50% is ≤ 3.0¹ ytic Vege il and we	etatio	n¹ (Explair	1)
2 - Dominance Test is 3 - Prevalence Index Problematic Hydroph 1 Indicators of hydric so	s > 50% is ≤ 3.0¹ ytic Vege il and we ent, unles	etation etland ss dist	n¹ (Explair	n)
2 - Dominance Test is 3 - Prevalence Index Problematic Hydroph 1 Indicators of hydric so hydrology must be prese	is > 50% is ≤ 3.0¹ ytic Vege ill and we ent, unles ion Stra cluding v) or more	etation etland ss dist ata: voody e in he	urbed or vines, eight and 3	3 in.
2 - Dominance Test is 3 - Prevalence Index Problematic Hydroph 1 Indicators of hydric so hydrology must be prese Definition of Vegetat Tree - Woody plants, ex approximately 20 ft (6 m	is ≤ 3.0¹ ytic Vege ill and we ent, unles ion Stra cluding v) or more neter at excludir) or more	etation etland is dist ata: voody e in he breas	urbed or vines, eight and 3 t height (D	3 in. BH).
2 - Dominance Test is 3 - Prevalence Index Problematic Hydroph 1 Indicators of hydric so hydrology must be prese Definition of Vegetat Tree - Woody plants, ex approximately 20 ft (6 m (7.6 cm) or larger in diar Sapling - Woody plants, approximately 20 ft (6 m approxim	is ≤ 3.0¹ ytic Vege ill and we ent, unles ion Stra cluding v) or more neter at excludir) or more	etland ss dist ata: woody e in he breas	urbed or vines, eight and 3 t height (D ody vines, eight and I	3 in. 9BH). ess
2 - Dominance Test is 3 - Prevalence Index Problematic Hydroph 1 Indicators of hydric so hydrology must be prese Definition of Vegetat Tree - Woody plants, ex approximately 20 ft (6 m (7.6 cm) or larger in diar Sapling - Woody plants, approximately 20 ft (6 m than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants,	is ≤ 3.0¹ ytic Vege ill and we ent, unles ion Stra cluding v) or more neter at excludir) or more blants, e ter than	etland ss dist voody e in he breas g woo e in he xcludi	eurbed or vines, eight and 3 t height (D ody vines, eight and I ng vines, I t (1m) tall.	3 in. 9BH). ess
2 - Dominance Test is 3 - Prevalence Index Problematic Hydroph 1 Indicators of hydric so hydrology must be prese Definition of Vegetat Tree - Woody plants, ex approximately 20 ft (6 m (7.6 cm) or larger in diar Sapling - Woody plants, approximately 20 ft (6 m than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, approximately 20 ft (6 m than 3 in. DBH and greated) Shrub - Woody plants, expression of the same shrub - W	is ≤ 3.0¹ ytic Vege ill and we ent, unles ion Stra cluding v) or more neter at excludirs, e ter than xcluding (1 to 6 m on-wooddless of	etlands dist	eurbed or vines, eight and 3 t height (D ody vines, eight and I t (1m) tall. ly vines, eight.	3 in. BH). ess

Remarks: (If observed.	list morphological	adaptations below).
remains.	i observed,	not morphological	adaptations below)

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

Yes 🔘

No 💿

SOIL Sampling Point: WP1006_WET_PEM_A

Profile Description	on: (Describe to th	e depth :	needed to docur	nent the	e indicator or	confirm the abs	ence of indicators.)	
Depth	Matrix			Redox F	Features			
(inches)	Color (moist)	<u> </u>	Color (moist)	<u></u>	Tvpe1	Location ² _	Texture	Remarks
0 - 16	10YR 6/1	100					Sandy Clay	
Trunc Concentrati	ion Deposition PM-	Doduced N	Anthrity CC- Countred	na Control	Sould Capita	21 continue DI - Dono	lising M.Matriy	
	on, D=Depletion, RM=	Keaucea IV	latrix, CS=Covered (or Coated	Sand Grains.	² Location: PL=Pore		
5 cm Mucky Min Muck Presence 1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re	(A2)) 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 150 eral (S1) (LRR O, S) atrix (S4)		Thin Da Loamy Loamy ✓ Deplete Redox I Deplete Redox I Marl (F Deplete Iron-Ma Umbric Delta O Reduce Piedmo	ark Surface Mucky M Gleyed M dd Matrix Dark Surf dd Dark S Depressic 10) (LRR dd Ochric anganese Surface Surface dd Vertic nt Floodp	Face (F6) Surface (F7) Ons (F8) U) (F11) (MLRA 1 Masses (F12) (F13) (LRR P, - 7) (MLRA 151) (F18) (MLRA 1! plain Soils (F19)	T, U) R O)51) (LRR O, P, T) T, U)50A, 150B)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (** Very Shallow Dark Sui Other (Explain in Rem 3 Indicators wetland h unless	O) R S) (outside MLRA 150A,B) (oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) fface (TF12)
Dark Surface (S	7) (LRR P, S, T, U)			9.	, , , , , , , , , , , , , , , , , , , ,	(, ==) (, ,== ; , = ; ; ,	,,,	
Restrictive Layer Type: Depth (inches):							lydric Soil Present? Ye	s • No O
Remarks:								

Project/Site: Bluewater Te	rminal SPM Project	City/Coun	San Patricio	Sampling Date	2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point: V	WP1006_WET_PEM_B
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	Range: 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			29151 Lo r	ng: -97.202886	Datum: NAD 83
Soil Map Unit Name: Narta	loam, 0 to 1 percent slopes, rar	ely flooded (Na)	NWI Class	sification: None	
Are climatic/hydrologic con	nditions on the site typical fo	r this time of year?	Yes No (If I	no, explain in Remarks.)	
	Soil , or Hydrology	significantly dist		Circumstances" present	
	Soil , or Hydrology	naturally probler		explain any answers in R	0 0
	S — Attach site map show				,
Hydrophytic Vegetation Prese	ent? Yes •	No O	In the Orange In the	_	
Hydric Soil Present?	Yes •	No O	Is the Sampled Area within a Wetland?	a Yes	No
Wetland Hydrology Present?	Yes •	No O			
Remarks: Hydrophytic vegetation, hydr HYDROLOGY	ric soil, and wetland hydrology a	re present. This is a wetland.			
Wetland Hydrology Indic	_ ators:				
Primary Indicators (Minin	num of one required; check	all that apply)	Second	dary Indicators (Minimur	m of 2 required)
✓ Surface Water (A1)	✓ ;	Aquatic Fauna (B13)		Sparsely Vegetated Conca	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 (C2)
Sediment Deposits (B2)		Presence of Reduced Iron (Ca		Crayfish Burrows (C8)	
✓ Drift Deposits (B3)✓ Algal Mat or Crust (B4)		Recent Iron Reduction in Tille Fhin Muck Surface (C7)	a soils (C6)	Saturation Visible on Aeria	
Iron Deposits (B5)		Other (Explain in Remarks)		Geomorphic Position (D2) Shallow Aquitard (D3)	
Inundation Visible on Ae		other (Explain in Kemarks)	✓	FAC-Neutral Test (D5)	
Water-Stained Leaves (E	· , , ,			Sphagnum moss (D8) (LR	R T, U)
Field Observations:	·		<u> </u>		
Surface Water Present?	Yes No	Depth (inches): 2			
Water Table Present?	Yes O No •	Depth (inches):	-		
Saturation Present?	Yes No	Depth (inches): 0	Wetlan	d Hydrology Present?	Yes • No O
(includes capillary fringe)			-		
Describe Recorded Data (str	ream gauge, monitor well, aerial	photos, previous inspections), if available:		
Remarks:					

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0.6

20% of Total Cover: 20

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

1 . Tamarix chinensis

50% of Total Cover: 1.5

1 . Paspalum plicatulum 2 . Cvperus virens

3 ._Rumex crispus

50% of Total Cover: 50

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

3

0

0

0 0

0

0

0

100

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

3 ✓ _100.0% _FACW_

0.0%

0.0%

0.0% 0.0%

0.0%_

= Total Cover

65 **✓** 65.0% FAC

20 **2**0.0% FACW

___15.0%__FAC___

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%

Status

Sampling Point:	VVP10		NET_PEN	<u></u>
Dominance Test worksheet:				
Number of Dominant Species That are OBL, FACW, ro FAC:		_	2	(A)
Total Number of Dominant Species Across All Strata:		_	2	(В
Percent of Dominant Species That are OBL, FACW, or FAC:		_1	00.0%	(A/B)
Prevalence Index workshee	t:			
Total % Cover of:	Multi	ply by	/ :	
OBL species 0	x 1	=	0	
FACW species 23	_ x 2	=	46_	
FAC species 80	_ x 3	=	240_	
FACU species 0	_ x 4	=	0	
UPL species0	_ x 5	=	0	
Colum Totals: 103	(A)		286	(B)
Prevalence Index = B/A=	=		2.777	
 ✓ 2 - Dominance Test is > ✓ 3 - Prevalence Index is Problematic Hydrophyti 	≤ 3.0¹	-		1)
✓ 2 - Dominance Test is >✓ 3 - Prevalence Index is	50% ≤ 3.0¹ c Vegeta	ation	ı¹ (Explaiı	1)
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyti 1 Indicators of hydric soil a	50% ≤ 3.0¹ c Vegeta and wetl	atior land dist	ı¹ (Explaiı	1)
✓ 2 - Dominance Test is > ✓ 3 - Prevalence Index is ✓ Problematic Hydrophyti ¹ Indicators of hydric soil a hydrology must be present	50% ≤ 3.0¹ c Vegeta and wetl , unless n Strat	ation land dist a:	1 (Explair urbed or	n)
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyti Indicators of hydric soil a hydrology must be present Definition of Vegetatio	50% ≤ 3.0¹ c Vegeta and wetl , unless n Strat uding wo	ation land dist a: pody in he	urbed or vines,	3 in.
✓ 2 - Dominance Test is > ✓ 3 - Prevalence Index is ☐ Problematic Hydrophyti ¹ Indicators of hydric soil a hydrology must be present Definition of Vegetatio Tree - Woody plants, excluapproximately 20 ft (6 m) of	50% ≤ 3.0¹ c Vegeta and wetl c, unless n Strat ading wc or more ter at br ccluding	land dist a: coody in he east	vines, eight and in height (E	3 in. 9BH).
✓ 2 - Dominance Test is > ✓ 3 - Prevalence Index is ✓ Problematic Hydrophyti ¹ Indicators of hydric soil a hydrology must be present Definition of Vegetatio Tree - Woody plants, excluapproximately 20 ft (6 m) of (7.6 cm) or larger in diame Sapling - Woody plants, exapproximately 20 ft (6 m) of approximately 20 ft (6 m) of approxi	50% ≤ 3.0¹ c Vegeta and wetle, unless n Strat ading weber more ter at br ccluding or more ants, exe	land dist a: coody in he ceast wood in he	vines, eight and it height (E	3 in. DBH). dess
✓ 2 - Dominance Test is > ✓ 3 - Prevalence Index is ☐ Problematic Hydrophyti ¹ Indicators of hydric soil a hydrology must be present Definition of Vegetatio Tree - Woody plants, excluapproximately 20 ft (6 m) of (7.6 cm) or larger in diame Sapling - Woody plants, exapproximately 20 ft (6 m) of than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants	50% ≤ 3.0¹ c Vegeta and wetle c, unless n Strat uding wo or more ter at br kcluding or more than 3. luding w	ation land dist a: oody in he reast wood in he cludin	vines, eight and in the day vines, eight and in the day vines, eight and in the day vines, in the day	3 in. DBH). dess
2 - Dominance Test is > 3 - Prevalence Index is Problematic Hydrophyti Indicators of hydric soil a hydrology must be present Definition of Vegetatio Tree - Woody plants, excluapproximately 20 ft (6 m) of (7.6 cm) or larger in diame Sapling - Woody plants, exapproximately 20 ft (6 m) of than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants, exapproximately 20 ft (6 m) of than 3 in. DBH and greaters.	50% ≤ 3.0¹ c Vegeta and wetl , unless n Strat uding wo or more ter at br ccluding or more than 3. luding w to 6 m) n-woody ess of si	land dist a: cody in he ceast woodin he cody in he cody in he cody in he cody in he cody	vines, eight and land vines, eight and land vines, eight and land vines, eight.	3 in. DBH). less

2	0 0.0% 0 0.0% 0 0.0% 0 = Total Cover	Hydrophytic Vegetation Present ?	Yes No
Remarks: (If observed, list morphological adaptations below).			
Indicator suffix = National status or professional decision assigned becau	use Regional status not defined by FWS.		

SOIL Sampling Point: WP1006_WET_PEM_B

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>	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	97	10YR	5/6	3	С	PL	Silty Clay	
¹Type: C=Concentrat	ion, D=Depletion, RM=	Reduced N	Matrix, CS=0	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)) 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 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 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 Ren 3Indicators wetland 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:									

ing Date: 2/7/2019
nt: WP1006_WET_PEM_C
T N/A R N/A
Slope: 1 % 0.6 °
Datum: NAD 83
marks.)
present? Yes • No
vers in Remarks.)
s, etc.
Yes No
Minimum of 2 required)
ed Concave Surface (B8)
s (B10)
(B16) er Table (C2)
(C8)
e on Aerial Imagery (C9)
tion (D2)
(D3)
: (D5)
(D8) (LRR T, U)
-
sent? Yes • No ·

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 10

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

2 . Paspalum plicatulum 3 . Batis maritima

50% of Total Cover: 25

50% of Total Cover: 0

Woody Vine Stratum

1.__

4 . Rumex crispus

Distichlis spicata

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

50

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%

30.0% FAC

0.0%

___10.0%__OBL ___10.0%__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%___

= Total Cover

= Total Cover

0.0%

= Total Cover

25 ✓ ___50.0% OBL

0.0%

0.0%

= Total Cover

Status

Sampling Point:	WP1006_WET_PEN	1_C
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 workshee	t:	
Total % Cover of:	Multiply by:	_
OBL species 30	x 1 =30	_
FACW species 0	x 2 = 0	
FAC species 20	x 3 = 60	
FACU species 0	x 4 = 0	
UPL species 0	x 5 = 0	
Colum Totals: 50		(B)
Prevalence Index = B/A=		(-)
Hydrophytic Vegetation Ind	licators:	
1 - Rapid Test for Hydro ✓ 2 - Dominance Test is > ✓ 3 - Prevalence Index is Problematic Hydrophyti ¹ Indicators of hydric soil a hydrology must be present	• 50% ≤ 3.0¹ ic Vegetation¹ (Explain and wetland)
Definition of Vegetatio	n Strata:	
Tree - Woody plants, excluapproximately 20 ft (6 m) of (7.6 cm) or larger in diame	or more in height and 3	
Sapling - Woody plants, exapproximately 20 ft (6 m) of than 3 in. (7.6 cm) DBH.		ess
Sapling/Shrub - Woody plathan 3 in. DBH and greater		ess
Shrub - Woody plants exc	luding woody vines	

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 No O Present ?

Domarke	(If observed	list morphological	adaptations below)

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

SOIL Sampling Point: WP1006_WET_PEM_C

Profile Description	on: (Describe to th	e depth i	needed to	o docu	ment the	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Redox I	Features			
(inches)	Color (moist)	<u> </u>	Color (n	noist)	<u>%</u>	Type1	Location ²	Texture	Remarks
0 - 16	10YR 5/2	97	10YR	4/6	3	С	PL	Silty Clay	
¹ Type: C=Concentrati	ion, D=Depletion, RM=	Reduced N	/latrix, CS=C	Covered	or Coated	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
	e (A4) s (A5) (A6) (LRR P, T, U) neral (A7) (LRR P, T,	U)		Thin Da Loamy Loamy Deplete Redox Deplete	ark Surfa Mucky M Gleyed N ed Matrix Dark Sur ed Dark S	ce (S9) (LRR S lineral (F1) (Ll Matrix (F2) (F3) face (F6) Surface (F7)		Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su	R S) (outside MLRA 150A,B) Soils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B) TF2) rface (TF12)
1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re Sandy Muck Min Sandy Gleyed M Sandy Redox (S Stripped Matrix	(LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 acral (S1) (LRR O, S) latrix (S4) 5)	0A)		Marl (F Deplete Iron-M Umbric Delta C Reduce Piedmo	anganese Surface Ochric (F1 ed Vertic ont Flood	(H) (MLRA) (F11) (MLRA) (F13) (LRR P, (F13) (MLRA 151) (F18) (MLRA 151)) (LRR O, P, T) T, U) .)	wetland unless	narks) of hydrophytic vegetation and hydrology must be present, disturbed or problematic.
Restrictive Layer Type: Depth (inches):	. ,							lydric Soil Present? Ye	s ● No ○
Remarks:									

Project/Site: Bluewater Terr	minal SPM Project	City/County: San Patricio	Sampling Date: 2/7/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC	State: TX	Sampling Point: WP1006_WET_PEM_D
Investigator(s): B. Bringhu	ırst & A. Ostrowski	Section, Township, I	Range: S N/A T N/A R N/A
 Landform (hillslope, terrace,	, etc.): Flat	Local relief (concave, convex, none): Concave Slope: 0 % 0.0 °
Subregion (LRR): LRR T			ng: -97.202535
	loam, 0 to 1 percent slopes, rarely flooded (Na		sification: None
Are climatic/hydrologic cond	ditions on the site typical for this time of	year? Yes (●) No () (If	no, explain in Remarks.)
Are Vegetation , S	oil , or Hydrology signi	ficantly disturbed? Are "Norma	I Circumstances" present? Yes ● No ○
Are Vegetation , S	oil , or Hydrology natu	rally problematic? (If needed,	explain any answers in Remarks.)
SUMMARY OF FINDINGS	6 — Attach site map showing samplin	ng point locations, transects, imp	portant features, etc.
Hydrophytic Vegetation Prese	nt? Yes • No •	Is the Sampled Are	
Hydric Soil Present?	Yes No	within a Wetland?	Yes • No ·
Wetland Hydrology Present?	Yes No		
Hydrophytic vegetation, hydri	c soil, and wetland hydrology are present. This	s is a wetland.	
Wetland Hydrology Indica	ators:		
Primary Indicators (Minim	num of one required; check all that apply	<u>Secon</u>	dary Indicators (Minimum of 2 required)
✓ Surface Water (A1)	✓ Aquatic Fauna (B13)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (E	B15) (LRR U)	Drainage Patterns (B10)
✓ Saturation (A3)	Hydrogen Sulfid	le Odor (C1)	Moss Trim Lines (B16)
Water Marks (B1)	Oxidized Rhizos	pheres along Living Roots (C3)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Presence of Rec	duced Iron (C4)	Crayfish Burrows (C8)
Drift Deposits (B3)	Recent Iron Rec	duction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)
✓ Algal Mat or Crust (B4)	Thin Muck Surfa	ace (C7)	Geomorphic Position (D2)
Iron Deposits (B5)	Other (Explain i	n Remarks)	Shallow Aquitard (D3)
Inundation Visible on Aer	rial Imagery (B7)	✓	FAC-Neutral Test (D5)
Water-Stained Leaves (B9	9)		Sphagnum moss (D8) (LRR T, U)
Field Observations:			
Surface Water Present?	Yes No Depth (inche	es): 2	
Water Table Present?	Yes No Depth (inche		
Saturation Present? (includes capillary fringe)	Yes No Depth (inche	Wotlan	nd Hydrology Present? Yes No
Describe Recorded Data (stre	eam gauge, monitor well, aerial photos, previor	us inspections), if available:	

20% of Total Cover: 0

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

20% of Total Cover: 0

20% of Total Cover: 11

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 . Tamarix chinensis 2 . Paspalum plicatulum

3 . Rumex crispus

50% of Total Cover: 28

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

55

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% 0.0%

0.0%

0.0%

0.0%

= Total Cover

25 **✓** 45.5% FACW

___18.2%__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%

= Total Cover

Hydrophytic

Vegetation

Present ?

= Total Cover

20 🗸 ___36.4%__FAC_

0.0%

0.0%

Status

		WP1006		_
Dominance Test wor				
Number of Dominant S That are OBL, FACW, ro		-	2	(A)
Total Number of Domin Species Across All Strat			2	(В
Percent of Dominant Sp That are OBL, FACW, o			100.0%	(A/B)
Prevalence Index wo	orksheet:			
Total % Cover of	:	Multiply	by:	_
OBL species	0	x 1 =	0	
FACW species	25	x 2 =	50_	
FAC species	30	x 3 =	90	
FACU species	0	x 4 =	0_	
UPL species	0	x 5 =	0_	
Colum Totals:	55	(A)	140	(B)
Prevalence Inde	x = B/A=		2.545	
2 - Dominance T 3 - Prevalence I Problematic Hyd	est is > 5 ndex is ≤	3.01		1)
2 - Dominance T 3 - Prevalence I	est is > 5 ndex is ≤ Irophytic ric soil an	0% 3.0¹ Vegetatio	on¹ (Explair d	1)
2 - Dominance T 3 - Prevalence I Problematic Hyd	est is > 5 ndex is ≤ Irophytic ric soil an present, i	3.01 Vegetation d wetland	on¹ (Explair d	n)
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hydrology must be	rest is > 5 ndex is ≤ Irophytic ric soil an present, i getation ts, exclud t (6 m) or	3.0¹ Vegetation d wetland unless dis Strata: ing wood more in h	on¹ (Explair d sturbed or y vines, neight and 3	3 in.
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft	ric soil an present, ric soil an present, ric soil an ats, exclude (6 m) or an diameter ants, exc	3.01 Vegetation d wetlandunless dis Strata: ing wood more in her at brea	d sturbed or y vines, neight and 3 st height (D	3 in. 9BH).
2 - Dominance T 3 - Prevalence I Problematic Hyd 1 Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in Sapling - Woody pl approximately 20 ft	ric soil an present, ric soil an present, ric soil an ants, exclude (6 m) or an diameter ants, exc (6 m) or DBH.	3.0 ¹ Vegetation d wetland unless dis Strata: ing wood more in the at breat luding wo more in the strate in the s	d sturbed or y vines, neight and 3 st height (D body vines, neight and I	3 in. 9BH). ess
2 - Dominance T 3 - Prevalence II Problematic Hyd 1 Indicators of hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in Sapling - Woody plant approximately 20 ft (7.6 cm) Sapling - Woody plant approximately 20 ft (7.6 cm) Sapling - Woody plant approximately 20 ft (7.6 cm)	ric soil an present, ric soil an present, ric soil an present, ric soil an diameter ants, exclude (6 m) or DBH.	3.0 ¹ Vegetation d wetland unless dis Strata: ing wood more in her at brea luding wo more in her at sea at	d y vines, neight and 3 st height (D ody vines, neight and I ft (1m) tall. dy vines,	3 in. 9BH). ess
✓ 2 - Dominance T ✓ 3 - Prevalence II ☐ Problematic Hyd ¹ Indicators of hyd hydrology must be Definition of Veg Tree - Woody plant approximately 20 ft (7.6 cm) or larger in Sapling - Woody pl approximately 20 ft than 3 in. (7.6 cm) Sapling/Shrub - Wo than 3 in. DBH and	ric soil an present, ric soil an present, ric soil an present, ric soil an diameter ants, exclude (6 m) or DBH. cody plant greater the greater the cody plant greater the cody plant greater the cody fit (1 to bus (non-vergardles)	d wetlandunless districts, excluding wood han 3.28 ding wood 6 m) in law woody) pls of size,	d sturbed or y vines, neight and 3 st height (D body vines, neight and I ft (1m) tall. dy vines, height. ants, includant woody	3 in. 9BH). ess ess

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: WP1006_WET_PEM_D

Color Col	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features								
ype: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.				Color (moist)			Location ²	Texture	Remarks
Histosol (A1) Histosol (A2) Histosol (A2) Histosol (A3) Histosol (A1) Histosol (A3) Histosol (A1) Histonol (A1) Hi	0 - 16								
Histosol (A1)									
Histosol (A1) Polyvalue Below Surface (S8) (LRR S, T, U) 1 cm Muck (A9) (LRR O) Histic Epipedon (A2) Thin Dark Surface (S9) (LRR S, T, U) 2 cm Muck (A10) (LRR S) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,B) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (LRR P, S, T) Stratified Layers (A5) Popleted Matrix (F3) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Organic Bodies (A6) (LRR P, T, U) Popleted Dark Surface (F6) Red Parent Material (TF2) Sc m Mucky Mineral (A7) (LRR P, T, U) Popleted Dark Surface (F6) Red Parent Material (TF2) Muck Presence (A8) (LRR U) Redox Depressions (F8) Other (Explain in Remarks) 1 cm Muck (A9) (LRR P, T) Popleted Dark Surface (F11) (MLRA 151) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Thick Dark Surface (A12) Depleted Ochric (F11) (MLRA 151) Sandy Muck Mineral (S1) (LRR O, S) Pelad Ochric (F17) (MLRA 151) Anomalous Bright Loamy Soils (F19) (MLRA 149A) Sandy Muck Mineral (S1) (LRR O, S) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) **Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) **Strictive Layer (If observed): Type:		·	=Reduced	Matrix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore		
Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) 5 cm Mucky Mineral (A7) (LRR P, T, U) Depleted Dark Surface (F6) Red Parent Material (TF2) Depleted Dark Surface (F7) Wery Shallow Dark Surface (TF12) Muck Presence (A8) (LRR U) 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) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (IRR P, S, T) Pepleted Matrix (F2) Piedmont Floodplain Soils (F20) (MLRA 153B) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Anomalous Bright Loamy Soils (F20) (MLRA 153B) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Other (Explain in Remarks) Inon-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Piedmont Floodplain Soils (F19) (MLRA 151) Reduced Vertic (F18) (MLRA 150A) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Piedmont Floodplain Soils (F20) (MLRA 149A, 153C, 153D)	Histosol (A1) Histic Epipedon (Thin Da	ark Surfa	ce (S9) (LRR S	. T, U)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LRF	O) R S)
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) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Depleted Dark Surface (F13) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Depleted Ochric (F17) (MLRA 151) Tron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A), 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Piestrictive Layer (If observed): Type: Depth (inches): Hydric Soil Present? Yes No	Stratified Layers	(A5)		Loamy✓ Deplete	Gleyed N ed Matrix	Matrix (F2) (F3)	•	Piedmont Floodplain S Anomalous Bright Loa	oils (F19) (LRR P, S, T) my Soils (F20) (MLRA 153B)
Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Muck Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Dark Surface (S7) (LRR P, S, T, U) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Pestrictive Layer (If observed): Type: Depth (inches): Tron-Manganese Masses (F12) (LRR O, P, T) Umbric Surface (F13) (LRR P, T, U) Delta Ochric (F17) (MLRA 151) Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes No	5 cm Mucky Mine Muck Presence (eral (A7) (LRR P, T A8) (LRR U)	, U)	Deplete Redox	ed Dark S Depressi	Surface (F7) ons (F8)		Very Shallow Dark Sur	face (TF12)
Sandy Redox (S5)	Thick Dark Surfa Coast Prairie Rec Sandy Muck Mine	ce (A12) lox (A16) (MLRA 1 eral (S1) (LRR O, S	50A)	Iron-Ma Umbric Delta C	anganese Surface Ochric (F1	e Masses (F12) (F13) (LRR P, 17) (MLRA 151)	(LRR O, P, T) T, U)	wetland h	ydrology must be present,
Type: Hydric Soil Present? Yes • No O	Stripped Matrix (S6)		Piedmo	nt Flood	plain Soils (F19) (MLRA 149A)	A, 153C, 153D)	
marks:	Туре:						_	Hydric Soil Present? Yes	s • No O
	emarks:								

City/County: San Patricio

Applicant/Owner: Phillips 66 Pipeline, LLC		State: TX	Sampling Point:	WP1007_UP
Investigator(s): B. Bringhurst & A. Ostrowski		Section, Township, Ra	ange: S N/A T	N/A R N/A
Landform (hillslope, terrace, etc.): Flat	Local relief (co	ncave, convex, none):	Flat	Slope: 0 % 0.0 °
Subregion (LRR): LRR T	 Lat: 27.92943	1 Long	g: -97.200516	Datum: NAD 83
Soil Map Unit Name: Narta loam, 0 to 1 percent slopes, rar	rely flooded (Na)	NWI Classi	fication: None	
Are climatic/hydrologic conditions on the site typical fo	r this time of year? Yes	No O (Tf n	o, explain in Remark	(a.)
	_			
Are Vegetation , Soil , or Hydrology	significantly disturbed		Circumstances" pres	0 0
Are Vegetation , Soil , or Hydrology	naturally problematic	? (IT needed, ex	xplain any answers i	n Kemarks₌)
SUMMARY OF FINDINGS — Attach site map show	ving sampling point locatio	ns, transects, impo	rtant features, et	С.
Hydrophytic Vegetation Present? Yes	No O			
Hydric Soil Present? Yes	No •	Is the Sampled Area within a Wetland?	Ye	es O No •
Wetland Hydrology Present? Yes	No •	Within a Wodana.		
Remarks:	<u>I</u>			
Hydrophytic vegetation, hydric soil, and wetland hydrology a	re not present. This is not a wetlan	d.		ļ
, , , , , , , , , , , , , , , , , , , ,	·			
LIVE BOLOGY				
HYDROLOGY				
Wetland Hydrology Indicators:	-II th-t	Carand	T (NA::-	
Primary Indicators (Minimum of one required; check	,,		ary Indicators (Minin	• •
	Aquatic Fauna (B13)		Sparsely Vegetated Co	• •
	Marl Deposits (B15) (LRR U)		Drainage Patterns (B10	
	Hydrogen Sulfide Odor (C1)		Moss Trim Lines (B16)	
	Oxidized Rhizospheres along Living	ROOTS (C3)	Dry Season Water Tab	ie (C2)
	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soil	c (C6)	Crayfish Burrows (C8)	ovial Imagen (CO)
	Thin Muck Surface (C7)	5 (CO)	Saturation Visible on A Geomorphic Position (I	
I — - ¹ - · · · · · · · · · · · · · · · · · ·	Other (Explain in Remarks)		Shallow Aquitard (D3)	72)
Inundation Visible on Aerial Imagery (B7)	other (Explain in Nemarks)		FAC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sphagnum moss (D8)	(IRR T II)
			- Spriagnam mess (30)	
Field Observations: Surface Water Present? Yes No •	5 11 (1 1)			
Surface Water Frescher	Depth (inches):			
Water Table Present? Yes No • Saturation Present?	Depth (inches):	Wetlerd	Hydrology Present?	Vac O No O
(includes capillary fringe) Yes No	Depth (inches): 4	weciand	nydrology Present:	Yes ∪ No •
Describe Recorded Data (stream gauge, monitor well, aerial	photos, previous inspections), if a	vailable:		
	, , , , , , , , , , , , , , , , , , ,			
Remarks:				

Project/Site: Bluewater Terminal SPM Project

Sampling Date: 2/7/2019

	Dominant	Dominance Test worksheet:
	Absolute Species? Indicator	Number of Dominant Species
	% Cover Cover Status	That are OBL, FACW, ro FAC: (A)
e Stratum (Plot Size : 30)	0.00	Total Number of Dominant
	0.0%	Species Across All Strata: 2 (B
		Percent of Dominant Species
		That are OBL, FACW, or FAC: 100.0% (A/B)
		Burnelium Tudam undaharta
		Prevalence Index worksheet:
		Total % Cover of: Multiply by:
	0 0.0%	OBL species $\begin{array}{cccccccccccccccccccccccccccccccccccc$
60% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	
		FAC species
ling or Sapling/Shrub Stratum (Plot Size : 30)	0.0%	UPL species $50 \times 5 = 250$
		Colum Totals: 83 (A) 338 (B)
	_	Prevalence Index = B/A= 4.072
		Hydrophytic Vegetation Indicators:
		1 - Rapid Test for Hydrophytic Vegetation
		✓ 2 - Dominance Test is > 50%
		3 - Prevalence Index is ≤ 3.0¹
0% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
ub Stratum (Plot Size : 30)	_	
العربي (Flot Size : عول)	0	
		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or
	_	nyarotogy mass as presently aniess also also as
	_	Definition of Vegetation Strata:
		Tree - Woody plants, excluding woody vines,
		approximately 20 ft (6 m) or more in height and 3 in.
0% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
o Stratum (Plot Size : 30)		Sapling - Woody plants, excluding woody vines,
. Chloris cucullata	50 🗸60.2%_ UPL	approximately 20 ft (6 m) or more in height and less
_Andropogon gerardii	20 4 24404 540	than 3 in. (7.6 cm) DBH.
Lvsimachia arvensis	5 6.0% FACU	
Monanthochloe littoralis	5 🗌 6.0% OBL	Sapling/Shrub - Woody plants, excluding vines, less
Batis maritima		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.
	0	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	
50% of Total Cover: 42 20% of Total Cover: 17	83 = Total Cover	Woody vine - All woody vines, regardless of height.
ody Vine Stratum (Plot Size : 30)		
	0	
		Hydrophytic
		Vegetation Yes ● No ○ Present ?
	0	Present :
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	

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

SOIL Sampling Point: WP1007_UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)						
Depth	Matrix		Redox Features			
(inches) 0 - 16	Color (moist) % 10YR 4/1 10	•		Location ²	Texture Silty Clay	Remarks
	on, D=Depletion, RM=Redu		or Coated Sand Grains.	² Location: PL=Pore		
Hydric Soil Indicat	tors:				Indicators for Problema	atic Hydric Soils³:
5 cm Mucky Mine Muck Presence (1 cm Muck (A9) Depleted Below I Thick Dark Surfa Coast Prairie Rec Sandy Muck Mine Sandy Gleyed Ma Sandy Redox (S5 Stripped Matrix (e (A4) (A5) A6) (LRR P, T, U) eral (A7) (LRR P, T, U) A8) (LRR U) (LRR P, T) Dark Surface (A11) ce (A12) dox (A16) (MLRA 150A) eral (S1) (LRR O, S) atrix (S4)	Thin Dalta C	ue Below Surface (S8) (ark Surface (S9) (LRR S Mucky Mineral (F1) (LR Gleyed Matrix (F2) and Matrix (F3) Dark Surface (F6) and Dark Surface (F7) Depressions (F8) (10) (LRR U) anganese Masses (F12) Surface (F13) (LRR P, Ochric (F17) (MLRA 151) and Vertic (F18) (MLRA 151) and Vertic (F18) (MLRA 151) and Floodplain Soils (F19) lous Bright Loamy Soils	, T, U) R O) L51) (LRR O, P, T) T, U) 50A, 150B)) (MLRA 149A)	Piedmont Floodplain Anomalous Bright Loc 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) urface (TF12)
Restrictive Layer (Type: Depth (inches):	. ,				lydric Soil Present? Ye	es No •
Remarks:						

Project/Site: Bluewater Te	rminal SPM Project	City/County:	San Patricio	Sampling Dat	e: 2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1007_WET_PEM
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, R	Range: S N/A T N	/A R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local relief (c	concave, convex, none)	: Concave	Slope: 1 % 0.6 °
Subregion (LRR): LRR T		 Lat: 27.929	147 Lo r	ng: -97.20073	Datum: NAD 83
Soil Map Unit Name: Narta	loam, 0 to 1 percent slopes, rare	ely flooded (Na)	NWI Class	sification: None	
Are climatic/hvdrologic con	nditions on the site typical for	this time of vear? Ye	s	no, explain in Remarks.)	
	Soil , or Hydrology	significantly disturb		Circumstances" presen	
	Soil , or Hydrology	naturally problemat		explain any answers in I	
	S — Attach site map show				· · · · · · · · · · · · · · · · · · ·
Hydrophytic Vegetation Prese	ent? Yes	No •	In the Open Ind Ass	_	
Hydric Soil Present?	Yes •	No O	Is the Sampled Area within a Wetland?	a Yes	○ No ●
Wetland Hydrology Present?	Yes •	No O			
HYDROLOGY	ric soil, and wetland hydrology ar	e present. This is a wegand.			
Wetland Hydrology Indic					
l '	num of one required; check a	,	<u>Secono</u>	dary Indicators (Minimu	m of 2 required)
Surface Water (A1)		quatic Fauna (B13)		Sparsely Vegetated Conc	ave Surface (B8)
☐ High Water Table (A2) ✓ Saturation (A3)		farl Deposits (B15) (LRR U)		Drainage Patterns (B10)	
✓ Saturation (A3) Water Marks (B1)		lydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Livi	na Roots (C3)	Moss Trim Lines (B16) Dry Season Water Table	(C3)
Sediment Deposits (B2)		resence of Reduced Iron (C4)	ilg Roots (C5)	Crayfish Burrows (C8)	(C2)
Drift Deposits (B3)		ecent Iron Reduction in Tilled S	oils (C6)	Saturation Visible on Aeri	al Imagery (C9)
Algal Mat or Crust (B4)		hin 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) (LF	RR T, U)
Field Observations:					
Surface Water Present?	Yes No	Depth (inches): 2			
Water Table Present?	Yes O No 💿	Depth (inches):			
Saturation Present? (includes capillary fringe)	Yes No	Depth (inches):0	Wetlan	d Hydrology Present?	Yes ● No ○
Describe Recorded Data (str	ream gauge, monitor well, aerial	photos, previous inspections), if	available:		

20% of Total Cover: 0

(Plot Size : 30)

20% of Total Cover: 0

20% of Total Cover: 14

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

50% of Total Cover: 0

2 . Paspalum plicatulum

50% of Total Cover: 35

50% of Total Cover: 0

Woody Vine Stratum

1.__

3 . Tamarix chinensis 4 . Batis maritima

Distichlis spicata

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

0

0

70

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%

28.6% FAC

7.1% OBL

0.0%_

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

25 **✓** __35.7%_ OBL

20 **28.**6% FACW

0.0%

0.0%

= Total Cover

0.0%

Status

Dominance Test w	orksheet:			
Number of Dominant				
That are OBL, FACW,			1	(A)
Fotal Number of Don	ninant			
Species Across All Str			2	(B
Percent of Dominant	Species			
That are OBL, FACW,			50.0%_	(A/B)
Prevalence Index v	worksheet:			
Total % Cover	of:	Multipl	y by:	_
OBL species	30	x 1 :	30	
FACW species	20	x 2 :	<u>40</u>	
FAC species	20_	x 3 :	=60_	
FACU species	0	x 4 :	=	
JPL species	0	x 5 :		
Colum Totals:	83	(A)	338	(B)
Prevalence Inc	dex = B/A=		4.072	
Hydrophytic Veget				
1 - Rapid Test 2 - Dominance 3 - Prevalence Problematic H	Index is ≤ ydrophytic	3.0¹ Vegetat		n)
2 - Dominance 3 - Prevalence Problematic H	Index is ≤ ydrophytic \ vdric soil an	3.0¹ Vegetat d wetla	nd	n)
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b	Index is ≤ ydrophytic ' ydric soil and the present, the present, the present, the present is the present in the present in the present is the present in the present in the present is the present in th	3.0¹ Vegetat d wetla inless d	nd isturbed or	n)
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b	Index is ≤ ydrophytic \ dric soil and e present, the present of t	3.0¹ Vegetat d wetla inless d Strata	nd isturbed or :	n)
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b	Index is ≤ ydrophytic vdric soil and the present, the present, the present in th	3.01 Vegetat d wetla unless d Strata ing woo more in	nd isturbed or : dy vines, height and	3 in.
2 - Dominance 3 - Prevalence Problematic H Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20	rdric soil and present, to present, to present, to present, to present presen	3.01 Vegetat d wetla unless d Strata ing woo more in r at bre uding w	nd isturbed or dy vines, height and ast height ([3 in. DBH).
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20	rdric soil and persent, under the present, under the present of t	3.01 Vegetat d wetla unless d Strata ing woo more in r at bre uding v more in	nd isturbed or dy vines, height and ast height (I	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic H Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm Sapling/Shrub - V	rdric soil and present, to present, to present, to present, to present, to present, to present plants, excluding the first term of the fi	d wetla unless d Strata ing woo more in r at bre uding womore in s.s, exclunan 3.25 ding wooding wo	nd isturbed or dy vines, height and ast height (I voody vines, height and adding vines, 8 ft (1m) tall ody vines,	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic H 1 Indicators of hy hydrology must b Definition of Vo Tree - Woody pla approximately 20 (7.6 cm) or larger Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V than 3 in. DBH ar Shrub - Woody pla	rdric soil and present, use present, use present, use present, use present, use plants, excluding (6 m) or in diamete plants, excluding (6 m) or in diamete plants, excluding plants, excluding greater the lants, excluding 20 ft (1 to eous (non-ver, regardlessody vines, l	d wetla unless d Strata ing woo more in r at bre uding womore in as, exclusion and 3.20 ding woody) is of size	nd isturbed or : dy vines, height and ast height (I woody vines, height and uding vines, a ft (1m) tall ody vines, height.	3 in. DBH). less less

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

SOIL Sampling Point: WP1007_WET_PEM

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator o	r confirm the abse	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)	<u> </u>	Location ²	Texture	Remarks
0 - 16	10YR 5/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I		
Hydric Soil Indica	itors:				Indicators for Problema	atic Hydric Soils ³ :
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re	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 Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LI Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) f10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12 c Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 2 ont Floodplain Soils (F1 alous Bright Loamy Soils	5, T, U) RR O) 151) 1 (LRR O, P, T) T, U) 1 (150A, 150B) 9) (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)
Dark Surface (S	7) (LRR P, S, T, U)					
Restrictive Layer Type: Depth (inches):	·			н	lydric Soil Present? Ye	s • No O
Remarks:						

Project/Site: Bluewater Te	erminal SPM Project	c	city/County: San Patr	icio	Sampling Date:	2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State	e: TX San	npling Point:	WP1008_UP
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	L	ocal relief (concave	, convex, none): Flat		Slope: 1 % 0.6 °
Subregion (LRR): LRR T			Lat: 27.929547	Long: -97	.197264	Datum: NAD 83
Soil Map Unit Name: Arans	sas clay, saline (As)			NWI Classification	on: PEM1A	
Are climatic/hydrologic con	nditions on the site typical fo	or this time of ve	ar? Yes 💿	── No ○ (If no, exp	lain in Remarks.)	
	Soil , or Hydrology		antly disturbed?	Are "Normal Circum	-	Yes ● No ○
	Soil , or Hydrology		ly problematic?		any answers in Rer	
Are regetation			ry problematic.	(II needed) explain	uny unswers in Ker	narksi)
SUMMARY OF FINDING	S – Attach site map show	wing sampling	point locations, ti	ransects, important	t features, etc.	
Hydrophytic Vegetation Pres	ent? Yes •	No O	ls the	e Sampled Area		
Hydric Soil Present?	Yes 🔾	No 💿		n a Wetland?	Yes C	No ●
Wetland Hydrology Present?	Yes •	No O				
Remarks: Hydrophytic vegetation and I	hydric soil are not present. This	is not a wetland.				
,	.,,					
HYDROLOGY						
Wetland Hydrology Indic	cators:					
Primary Indicators (Minin	mum of one required; check	all that apply)		Secondary In	dicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B13	3)	Sparse	ely Vegetated Concave	Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LRR U)	Draina	age Patterns (B10)	
Saturation (A3)		Hydrogen Sulfide C	Odor (C1)	Moss	Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizosphe	eres along Living Roots	(C3) Dry Se	eason Water Table (C2)
Sediment Deposits (B2)		Presence of Reduce	ed Iron (C4)	Crayfi	sh Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduct	tion in Tilled Soils (C6)	Satura	ation Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface	(C7)	Geom	orphic Position (D2)	
Iron Deposits (B5)		Other (Explain in R	emarks)		w Aquitard (D3)	
Inundation Visible on Ae	erial Imagery (B7)			FAC-N	leutral Test (D5)	
Water-Stained Leaves (E	39)			Sphag	num moss (D8) (LRR 1	Γ, 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)	:	Wetland Hydr	ology Present? Ye	s • No O
. , , , ,	ream gauge, monitor well, aeria	al nhotos previous i	inspections) if available	۵۰		
Describe Recorded Data (su	ream gaage, monitor well, acrie	ii priotos, previous i	mapeedionay, ii availabi	. .		
Remarks:						

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 7

20% of Total Cover: 9

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

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

Tree Stratum

50% of Total Cover: 0

50% of Total Cover: 0

1 . Prosopis alandulosa

50% of Total Cover: 18

2 . Andropogon gerardii 3 . Spartina patens

4 . Lvsimachia arvensis

50% of Total Cover: 23

50% of Total Cover: 0

Woody Vine Stratum

1.__

Bothriochloa ischaemum var. songarica

2 . Celtis pallida 3 . Forestiera anaustifolia

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

0

0

35

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%

14.3% UPL

0.0%_

___11.1%__FACW_

___11.1%__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%_

= Total Cover

= Total Cover

0.0%

____0.0%__

20 **✓** <u>44.4%</u> <u>UPL</u>

15 ✓ ___33.3% __FAC

= Total Cover

= Total Cover

20 🗸 ___57.1% _UPL_ 10 **✓** __28.6% _UPL

0.0%_

0.0%_

Status

Dominance Test worksheet:			
Number of Dominant Species That are OBL, FACW, ro FAC:	,	3	(A)
Total Number of Dominant Species Across All Strata:		3	(B
Percent of Dominant Species That are OBL, FACW, or FAC:	,	100.0%	(A/B
Prevalence Index worksheet	:		
Total % Cover of:	Multiply	y by:	_
OBL species 0	x 1 =	0	
FACW species 5	x 2 =	10	
FAC species 15	_ x 3 =	<u>45</u>	
FACU species5	_ x 4 =		
UPL species55	_ x 5 =	275	
Colum Totals: 80	(A)	350	(B)
Prevalence Index = B/A=		4.375	
Hydrophytic Vegetation Indi	cators:		
	vegetat	ion¹ (Explair	1)
¹ Indicators of hydric soil a hydrology must be present,	nd wetlaı	nd	1)
	nd wetland unless description of the strata: ding wooder more in	nd isturbed or dy vines, height and 3	3 in.
Definition of Vegetation Tree - Woody plants, exclus approximately 20 ft (6 m) o	nd wetland unless de strata: ding wooder more in the stream of the stre	nd isturbed or dy vines, height and a ast height (D	3 in. 0BH).
Definition of Vegetation Tree - Woody plants, exclus approximately 20 ft (6 m) or (7.6 cm) or larger in diameted Sapling - Woody plants, exapproximately 20 ft (6 m) or (6 m) or (6 m) or (7.6 m) or (nd wetland unless de n Strata: ding woo r more in ter at breat cluding we remore in termore in term	nd isturbed or dy vines, height and i ast height (D roody vines, height and i	3 in. DBH). less
Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plants	nd wetland unless de la Strata: ding woo remore in ter at bread cluding were more in la strata and the strata a	nd isturbed or dy vines, height and i ast height (D roody vines, height and i ding vines, i ft (1m) tall. ody vines,	3 in. DBH). less
Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plant than 3 in. DBH and greater Shrub - Woody plants, exclu	nd wetland unless denoted in Strata: ding woo in the at bread	dy vines, height and lading vines, height and lading vines, height and lading vines, height.	3 in. DBH). less
Definition of Vegetation Tree - Woody plants, exclu approximately 20 ft (6 m) o (7.6 cm) or larger in diamet Sapling - Woody plants, ex approximately 20 ft (6 m) o than 3 in. (7.6 cm) DBH. Sapling/Shrub - Woody plant than 3 in. DBH and greater Shrub - Woody plants, excl approximately 3 to 20 ft (1 to Herb - All herbaceous (non- herbaceous vines, regardle plants, except woody vines	nd wetland unless denoted in the second wetland wood in the second wetland in the second wood wood in the second wood wood in the second wood wood wood in the second wood wood wood wood wood wood wood w	dy vines, height and last height.	3 in. DBH). less less

Remarks: ((If observed,	list mor	phological	adaptations	below).
Cilians, ((II ODSCIVCU)	iiot iiioi	priological	adaptations	DCIOVY).

SOIL Sampling Point: WP1008_UP

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			Redox F	eatures			
(inches)	Color (moist)	<u> </u>	Color (moist)	<u></u> _	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 4/1	100					Silty Clay	
Type: C-Concentration	on D-Danlation PM	-Padurad	Matrix CS-Covered	or Costed	Sand Grains	² l cention: Pl =Porc	Lining M-Matrix	
¹Type: C=Concentration	•	=Keaucea	iviatrix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore		atic Hydric Soile3:
Hydric Soil Indica	tors:						Indicators for Problema	iuc nyaric Soilss:
Histosol (A1)	(42)				Surface (S8) (1 cm Muck (A9) (LRR	0)
Histic Epipedon (` '				ce (S9) (LRR S		2 cm Muck (A10) (LR	R S)
Black Histic (A3)					ineral (F1) (LR	R O)	Reduced Vertic (F18)	(outside MLRA 150A,B)
Hydrogen Sulfide	• •				latrix (F2)		Piedmont Floodplain	Soils (F19) (LRR P, S, T)
Stratified Layers	. ,			ed Matrix	• •			amy Soils (F20) (MLRA 153B)
	(A6) (LRR P, T, U)	1115		Dark Surf	` '		Red Parent Material (TF2)
	eral (A7) (LRR P, T,	U)			urface (F7)		Very Shallow Dark Su	rface (TF12)
Muck Presence (Depressio	. ,		Other (Explain in Ren	narks)
1 cm Muck (A9)				10) (LRR				
	Dark Surface (A11)				(F11) (MLRA	•		
Thick Dark Surfa	` ,					(LRR O, P, T)		
	dox (A16) (MLRA 15	•			(F13) (LRR P,		3Indicators	of hydrophytic vegetation and
	eral (S1) (LRR O, S))			7) (MLRA 151)		wetland	hydrology must be present,
Sandy Gleyed Ma					(F18) (MLRA 1		unless	disturbed or problematic.
Sandy Redox (S			Piedmo	nt Floodp	olain Soils (F19) (MLRA 149A)		
Stripped Matrix (Anoma	lous Brigh	nt Loamy Soils	(F20) (MLRA 149A	, 153C, 153D)	
Dark Surface (S7	7) (LRR P, S, T, U)							
Restrictive Layer (Type: Depth (inches):	,						lydric Soil Present? Ye	s ○ No ●
Remarks:								

Project/Site: Bluewater Ter	minal SPM Proj	ect		City/County: San Patr	ricio	Sampling	Date: 2	/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC	2		State	e: TX	Sampling Point:	WP1008_	WET_PEM
Investigator(s): B. Bringhu	ırst & A. Ostrow	vski		Section	on, Township, Ra	mge: 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: 27.929369	Long		Datum:	NAD 83
Soil Map Unit Name: Arans	ac clay caling (Δελ				fication: PEM1A		
					_			
Are climatic/hydrologic con	ditions on the	site typical f	or this time of	year? Yes •	No (If no	, explain in Remai	·ks.)	
Are Vegetation , S	Soil , o	r Hydrology	signi	ficantly disturbed?	Are "Normal C	ircumstances" pre	sent? Yes	No 🔾
Are Vegetation , S	Soil , o	r Hydrology	natu	rally problematic?	(If needed, ex	plain any answers	in Remarks.)	
SUMMARY OF FINDINGS	5 – Attach si	ite map sho	wing samplin	ng point locations, t	ransects, impo	rtant features, e	etc.	
Hydrophytic Vegetation Prese	ent?	Yes 🔾	No •	lo the	e Sampled Area			
Hydric Soil Present?		Yes 💿	No 🔾		n a Wetland?	,	Yes 🔾 No 🖲	•)
Wetland Hydrology Present?		Yes 💿	No O					
Hydrophytic vegetation, hydr HYDROLOGY	c soil, and wetl	land hydrology	are present. This	is a wetland.				
Wetland Hydrology Indica	ators:							
Primary Indicators (Minim		auired: check	all that apply)	Seconda	rv Indicators (Min	imum of 2 requir	red)
✓ Surface Water (A1)			Aquatic Fauna (-		Sparsely Vegetated C	•	•
High Water Table (A2)			Marl Deposits (E	•		Drainage Patterns (B	•	,, ,
✓ Saturation (A3)			Hydrogen Sulfid			Moss Trim Lines (B16	•	
Water Marks (B1)			· -	pheres along Living Roots		Dry Season Water Ta	-	
Sediment Deposits (B2)			Presence of Red			Crayfish Burrows (C8		
Drift Deposits (B3)			Recent Iron Rec	duction in Tilled Soils (C6)		Saturation Visible on	-)
Algal Mat or Crust (B4)			Thin Muck Surfa	ace (C7)		Geomorphic Position		•
Iron Deposits (B5)			Other (Explain in	n Remarks)		Shallow Aquitard (D3)	
Inundation Visible on Ae	rial Imagery (B	7)		•	✓ 1	FAC-Neutral Test (D5	5)	
Water-Stained Leaves (B	9)					Sphagnum moss (D8) (LRR T, U)	
Field Observations:								
Surface Water Present?	Yes N	lo O	Depth (inche	es): 1				
Water Table Present?	Yes O N	lo 💿	Depth (inche					
Saturation Present? (includes capillary fringe)	Yes N	lo O	Depth (inche		Wetland	Hydrology Present	t? Yes 💿	No O
Describe Recorded Data (str	eam gauge, mo	onitor well, aeria	al photos, previou	us inspections), if available	e:			

20% of Total Cover: 0

(Plot Size : 30)

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

50% of Total Cover: 0

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.__

1 . Eleocharis montevidensis 2 . 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

0

0 0

0

0 0

100

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%_ 0.0%

0.0%

0.0%

0.0% = Total Cover

90 **✓** 90.0% FACW

10.0% 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% 0.0%

0.0%

= Total Cover

= Total Cover

0.0%

0.0%_

Status

Domi	inance Test wo	rksheet:			
Numb	er of Dominant S	Species			
That a	are OBL, FACW,	ro FAC:			(A)
	Number of Domi			4	/D
Speci	es Across All Stra	ata:			(B
	nt of Dominant S are OBL, FACW,			25.0%	(A/B)
Preva	alence Index w	orksheet:			
	Total % Cover o	f:	Multip	ly by:	_
OBL	species	0	x 1	=0	
FACW	species	100	x 2	= 200	
FAC	species	0	x 3		
	species	0	x 4		
	species -	0	x 5		
Colu	m Totals:	80_	(A)	350	(B)
	Prevalence Ind	ex = B/A=		4.375	
Hvdr	ophytic Vegeta	ation Indica	ators:		
	L - Rapid Test 1 2 - Dominance 3 - Prevalence Problematic Hy dicators of hyd	Test is > 5 Index is ≤ drophytic \ dric soil and	0% 3.0¹ Vegeta	tion¹ (Explai	in)
	2 - Dominance 3 - Prevalence Problematic Hy	Test is > 5 Index is ≤ drophytic \ dric soil and	0% 3.0¹ Vegeta	tion¹ (Explai	in)
1 In	2 - Dominance 3 - Prevalence Problematic Hy adicators of hyd	Test is > 5 Index is ≤ drophytic v dric soil and e present, t	0% 3.0 ¹ Vegeta d wetla	tion¹ (Explai and disturbed or	in)
¹ Inhyd Def Tree app	2 - Dominance 3 - Prevalence Problematic Hy dicators of hydrology must be	Test is > 5 Index is ≤ drophytic \ dric soil and present, \(\text{c}\) getation ints, excludiff (6 m) or \(\text{in}\)	0% 3.0¹ Vegeta d wetla inless Strata ng wo	and disturbed or a: ody vines, n height and	3 in.
¹ In hyd ¹ Ire app (7.6 Sappapp	2 - Dominance 3 - Prevalence Problematic Hy dicators of hydrology must be inition of Ve e - Woody plar roximately 20	Test is > 5 Index is ≤ strophytic value present, use present, use present, use present	0% 3.0¹ Vegeta d wetla inless Strata ng wo more in r at bra uding	and disturbed or a: ody vines, n height and east height (3 in. DBH).
Def Tree app (7.6 Sapp app thar	2 - Dominance 3 - Prevalence Problematic Hy dicators of hydrology must be inition of Ve e - Woody plar roximately 20 cm) or larger ding - Woody proximately 20 roximately 20	Test is > 5 Index is ≤ drophytic value present, use present, use present, use present, use present pre	0% 3.0¹ Vegeta 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 uding vines,	3 in. DBH). , less
1 Inhyd 1 Inhyd Def Tree appp (7.6 Sappa appt thar Sappt thar	2 - Dominance 3 - Prevalence Problematic Hy dicators of hydrology must be inition of Ve e - Woody plar roximately 20 cm) or larger ding - Woody p roximately 20 n 3 in. (7.6 cm)	Test is > 5 Index is < draphytic varieties oil and expresent, contained and the present of the p	0% 3.0¹ Vegeta d wetlaunless 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 uding vines, 28 ft (1m) tal	3 in. DBH). , less
Def Tree app (7.6 Sapp than Sapp than Shriapp Herl hert plan	2 - Dominance 3 - Prevalence Problematic Hy Indicators of hydrology must be Finition of Ve 9 - Woody plar Proximately 20 10 cm) or larger Finition of Ve 10 - Woody plar Proximately 20 11 3 in. (7.6 cm) 12 ing/Shrub - Woody plar Proximately 20 13 in. DBH and Proximately 20 14 in 3 in. DBH and Proximately 20 15 in 3 in. DBH and Proximately 20 16 ing/Shrub - Woody plar Proximately 20 17 in 3 in. DBH and Proximately 20 18 in 3 in. DBH and Proximately 20 19 in 3 in. DBH and Proximately 20 10 ing/Shrub - Woody plar Proximately 20 11 ing/Shrub - Woody plar Proximately 20 12 ing/Shrub - Woody plar Proximately 20 13 ing/Shrub - Woody plar Proximately 20 15 ing/Shrub - Woody plar Proximately 20 16 ing/Shrub - Woody plar Proximately 20 17 ing/Shrub - Woody plar Proximately 20 18 ing/Shrub - Woody plar Proximately 20	Test is > 5 Index is < colored in the present, to the present in diameter to the present in diameter the present in t	o% 3.0¹ Vegeta d wetla unless of Strata ng wor more in r at bre uding more in s, excl nan 3.2 ding wo 6 m) i	and disturbed or a: ody vines, n height and east height (woody vines, n height and uding vines, 28 ft (1m) tal cody vines, n height.	3 in. DBH). , less less l.

Remarks:	(If observed,	list morphological	adaptations	below).
remands.	(II ODSCIVEU)	not mor priorogical	adaptations	00.011

SOIL Sampling Point: WP1008_WET_PEM

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator o	r confirm the abse	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)	<u> </u>	Location ²	Texture	Remarks
0 - 16	10YR 5/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore I		
Hydric Soil Indica	itors:				Indicators for Problema	atic Hydric Soils ³ :
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Re	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 Loamy Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	lue Below Surface (S8) ark Surface (S9) (LRR S Mucky Mineral (F1) (LI Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) f10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12 c Surface (F13) (LRR P, Dehric (F17) (MLRA 151 ed Vertic (F18) (MLRA 2 ont Floodplain Soils (F1 alous Bright Loamy Soils	5, T, U) RR O) 151) 1 (LRR O, P, T) T, U) 1 (150A, 150B) 9) (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)
Dark Surface (S	7) (LRR P, S, T, U)					
Restrictive Layer Type: Depth (inches):	·			н	lydric Soil Present? Ye	s • No O
Remarks:						

Project/Site: Bluewater Te	erminal SPM Project	City/	County: San Patrici	0	Sampling Date:	2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State:	TX Sam	pling Point:	WP1009_UP
Investigator(s): B. Bringh	nurst & A. Ostrowski		Section	, Township, Range:	S N/A T N/A	R N/A
Landform (hillslope, terrace	e, etc.): Flat	Local	relief (concave, c	convex, none): Flat		Slope: 1 % 0.6 °
Subregion (LRR): LRR T		Lat	: 27.9296	Long: -97.	19653	Datum: NAD 83
Soil Map Unit Name: Arans	sas clay, saline (As)			NWI Classification	on: PEM1A	
Are climatic/hydrologic cor	nditions on the site typical fo	or this time of year?	Yes (•) N	─ lo () (If no, expl	lain in Remarks.)	
	Soil . , or Hydrology	•	/ disturbed?	Are "Normal Circum	_	Yes ● No ○
	Soil , or Hydrology	naturally pr		(If needed, explain	-	
Are vegetation	Jon / Or Hydrology	naturally pr	obiematic.	(II necucu, explain	any answers in Ker	narksi)
SUMMARY OF FINDING	S – Attach site map sho	wing sampling poir	nt locations, tra	nsects, important	features, etc.	
Hydrophytic Vegetation Pres	sent? Yes •	No O	ls the S	Sampled Area		
Hydric Soil Present?	Yes 🔾	No •		a Wetland?	Yes C	No ●
Wetland Hydrology Present?	Yes •	No O				
Remarks:	hydric cail are not present. This	is not a wotland				
Hydrophytic vegetation and i	hydric soil are not present. This	is not a wettand.				
HYDROLOGY						
Wetland Hydrology Indic						
	num of one required; check	all that apply)		Secondary Inc	dicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		Sparse	ly Vegetated Concave	Surface (B8)
High Water Table (A2)		Marl Deposits (B15) (LR	R U)		ge Patterns (B10)	
✓ Saturation (A3)		Hydrogen Sulfide Odor	(C1)		Frim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres a	along Living Roots (0	C3) Dry Se	ason Water Table (C2)
Sediment Deposits (B2)		Presence of Reduced Ire	on (C4)	Crayfis	sh Burrows (C8)	
Drift Deposits (B3)		Recent Iron Reduction i	n Tilled Soils (C6)	Satura	tion Visible on Aerial I	magery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		Geomo	orphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Remar	rks)	Shallov	w Aquitard (D3)	
Inundation Visible on A	erial Imagery (B7)			FAC-N	eutral Test (D5)	
Water-Stained Leaves (E	39)			Sphag	num moss (D8) (LRR 1	Г, 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):	0	Wetland Hydro	ology Present? Ye	s • No
		1.1.1.1				_
Describe Recorded Data (sti	ream gauge, monitor well, aeria	ii pnotos, previous inspe	ctions), if available:			
Remarks:						

	Dominant	Daminana Tast waykshaat
	Absolute Species? Rel.Strat. Indicator Cover Status	Dominance Test worksheet: Number of Dominant Species That are OBL, FACW, ro FAC:
ee Stratum (Plot Size : 30)	· · _ · _ · _ · _ · _ · _ · _ · _ ·	
·	0	Total Number of Dominant Species Across All Strata:3 (B
	0	Species Across All Strata.
		Percent of Dominant Species
1.		That are OBL, FACW, or FAC: 33.3% (A/E
5.		Prevalence Index worksheet:
5		
		Total % Cover of: Multiply by:
3		OBL species $0 \times 1 = 0$
50% of Total Cover: 0 20% of Total Cover: 0		FACW species $40 \times 2 = 80$
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	FAC species $0 \times 3 = 0$
pling or Sapling/Shrub Stratum (Plot Size : <u>30</u>)		FACU species $\underline{25}$ x 4 = $\underline{100}$
•	0	UPL species $30 \times 5 = 150$
2	0	Colum Totals: 95 (A) 330 (B)
3	0	Prevalence Index = B/A= 3.474
l.,		3.4/4
ō		Hydrophytic Vegetation Indicators:
5		✓ 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: 0	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
(Plat Circ + 20.)		Troblemade Tryarophytic regetation (Explain)
rub Stratum (Plot Size : 30)	20 A 100 00/ UDI	
1. Prosopis alandulosa		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	0.0%	approximately 20 ft (6 m) or more in height and 3 in.
50% of Total Cover: 10 20% of Total Cover: 4	= Total Cover	(7.6 cm) or larger in diameter at breast height (DBH).
erb Stratum (Plot Size : 30)		Sapling - Woody plants, excluding woody vines,
1 . Spartina patens	30 ✓ 40.0% FACW	approximately 20 ft (6 m) or more in height and less
2 . Cvnodon dactvlon	20 🗸 26.7% FACU	than 3 in. (7.6 cm) DBH.
3Eleocharis montevidensis		
4Bothriochloa ischaemum var. songarica		Sapling/Shrub - Woody plants, excluding vines, less
5 . Taraxacum officinale		than 3 in. DBH and greater than 3.28 ft (1m) tall.
6.		
		Shrub - Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
7		approximately 5 to 20 it (i to 6 m) in neight.
3		Herb - All herbaceous (non-woody) plants, including
9		herbaceous vines, regardless of size, and woody
0		plants, except woody vines, less than approximately
1		3 ft (1 m) in height.
2		
50% of Total Cover: 38 20% of Total Cover: 15	75 = Total Cover	Woody vine - All woody vines, regardless of height.
oody Vine Stratum (Plot Size : 30)		
1	0	
2		
3 .		Hydrophytic
4		Vegetation Yes • No
5	0 0.0%	Present ?
50% of Total Cover: 0 20% of Total Cover: 0	0 = Total Cover	

SOIL Sampling Point: WP1009_UP

Profile Description	on: (Describe to the dept	h needed to docu	ment the indicator o	or confirm the abs	ence of indicators.)	
Depth	Matrix		Redox Features			
(inches)	Color (moist) _ %	Color (moist)		Location ²	Texture	Remarks
0 - 16	10YR 4/1 100				Silty Clay	
	ion, D=Depletion, RM=Reduce	d Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore	-	
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 Dalta C	lue Below Surface (S8) ark Surface (S9) (LRR Mucky Mineral (F1) (L Gleyed Matrix (F2) ed Matrix (F3) Dark Surface (F6) ed Dark Surface (F6) ed Dark Surface (F7) Depressions (F8) E10) (LRR U) ed Ochric (F11) (MLRA anganese Masses (F12 c Surface (F13) (LRR P, Dehric (F17) (MLRA 15) ed Vertic (F18) (MLRA ont Floodplain Soils (F1 allous Bright Loamy Soil	151)) (LRR O, P, T) .T, U) 1150A, 150B) 9) (MLRA 149A)	Piedmont Floodplain: 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) rrface (TF12)
Restrictive Layer Type: Depth (inches):	(If observed):			н	lydric Soil Present? Ye	es O No •
Remarks:						

Project/Site: Bluewater Ter	minal SPM Project		City/County: San Patrio	cio	Sampling Da	te: 2/7/2019
Applicant/Owner: Phillips 6	66 Pipeline, LLC		State	: TX Sar	mpling Point:	WP1009_WET_PEM
nvestigator(s): B. Bringhu	rst & A. Ostrowsk	i	Section	n, Township, Range:	S N/A T	N/A R N/A
.andform (hillslope, terrace,	etc.): Flat		Local relief (concave,	convex, none): Flat		Slope: 1 % 0.6 °
Subregion (LRR): LRR T			Lat: 27.929905	Long: -97	.196342	Datum: NAD 83
Soil Map Unit Name: Aransa	se clavi salina (As)			NWI Classificati		
				_		
Are climatic/hydrologic cond	litions on the si	te typical for this time	e of year? Yes (●)	No (If no, exp	olain in Remarks.)
Are Vegetation , S	oil , or H	ydrology s	ignificantly disturbed?	Are "Normal Circur	mstances" presei	nt? Yes • No 🔾
Are Vegetation, S	oil 🗌 , or H	ydrology n	aturally problematic?	(If needed, explain	any answers in	Remarks.)
SUMMARY OF FINDINGS	– Attach site	map showing sam	pling point locations, tra	ansects, importan	t features, etc.	
Hydrophytic Vegetation Prese	nt?	Yes O No •	la tha	Sampled Area		
Hydric Soil Present?		Yes No		a Wetland?	Yes	○ No •
Wetland Hydrology Present?		Yes No				
Hydrophytic vegetation, hydri HYDROLOGY	c soil, and wetland	d hydrology are present.	This is a wetland.			
Wetland Hydrology Indica	tors:					
Primary Indicators (Minim		ired: check all that ar	(vlac	Secondary In	ndicators (Minimu	um of 2 required)
✓ Surface Water (A1)	•	Aquatic Fau			ely Vegetated Cond	. ,
High Water Table (A2)			its (B15) (LRR U)		age Patterns (B10)	ave surface (bo)
✓ Saturation (A3)			ulfide Odor (C1)		Trim Lines (B16)	
Water Marks (B1)		Oxidized Rh	izospheres along Living Roots		eason Water Table	(C2)
Sediment Deposits (B2)		Presence of	Reduced Iron (C4)		sh Burrows (C8)	` ,
Drift Deposits (B3)		Recent Iron	Reduction in Tilled Soils (C6)		ation Visible on Aer	ial Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck S	Surface (C7)		orphic Position (D2	
Iron Deposits (B5)		Other (Expl	ain in Remarks)	Shallo	w Aquitard (D3)	
Inundation Visible on Aer	ial Imagery (B7)		,	✓ FAC-N	leutral Test (D5)	
Water-Stained Leaves (B	9)			Sphag	jnum moss (D8) (L	RR T, U)
Field Observations:						
Surface Water Present?	Yes • No	O Depth (inches): 1			
Water Table Present?	Yes O No	Depth (
Saturation Present? (includes capillary fringe)	Yes • No	Depth (Wetland Hydr	ology Present?	Yes No
Describe Recorded Data (stro	eam gauge, monit	or well, aerial photos, pr	evious inspections), if available			

20% of Total Cover: 0

(Plot Size : 30)

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

10.___

1.___

50% of Total Cover: 0

1 . Spartina patens

2. Ludwigia palustris

3 . Eleocharis minima 4. Paspalum plicatulum

5 . Marsilea macropoda

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

6 . Eleocharis montevidensis

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

5

0

0 0

0

0

0 0

0

0 0

100

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

70_ 🗸 ___70.0%__FACW__

10.0% OBL

5.0%_ OBL

5.0%__FAC

5.0% 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

= Total Cover

5.0% FACW

0.0%_

0.0%

= Total Cover

0.0%_

Status

Dominance Test v	vorksheet:			
Number of Dominan	t Species			
That are OBL, FACW	I, ro FAC:			(A)
Total Number of Do Species Across All S			3	(B
Percent of Dominant That are OBL, FACW			33.3%	(A/B)
Prevalence Index	worksheet:			
Total % Cover	of:	Multip	y by:	_
OBL species	20	x 1	=20	
FACW species	75	x 2	= 150	
FAC species	5	x 3	=15	
FACU species	0	x 4	=	
UPL species	0	x 5		
Colum Totals:	95_	(A)	330	(B)
Prevalence Ir	ndex = B/A=		3.474	
Hydrophytic Vege	tation Indic	ators:		
1 - Rapid Tes 2 - Dominanc 3 - Prevalence Problematic H	e Test is > 5 e Index is ≤ Hydrophytic \ ydric soil an	0% 3.0¹ Vegeta	tion¹ (Explai	n)
2 - Dominanc 3 - Prevalenc Problematic F	e Test is > 5 e Index is ≤ Hydrophytic \ ydric soil an	0% 3.0¹ Vegeta	tion¹ (Explai	n)
2 - Dominanc 3 - Prevalenc Problematic F	e Test is > 5 e Index is ≤ dydrophytic \ ydric soil and be present, i	0% 3.0¹ Vegeta d wetla inless o	tion¹ (Explai and listurbed or	n)
2 - Dominanc 3 - Prevalence Problematic H 1 Indicators of h hydrology must	e Test is > 5 e Index is ≤ dydrophytic \ ydric soil and be present, u /egetation ants, excludion of (6 m) or	0% 3.0¹ Vegeta d wetla unless o Strata ing woo more ir	ind disturbed or : ody vines, n height and	3 in.
2 - Dominance 3 - Prevalence Problematic F 1 Indicators of h hydrology must Definition of V Tree - Woody pl approximately 20	e Test is > 5 e Index is ≤ elydrophytic ydric soil and be present, u regetation ants, excludi oft (6 m) or er in diamete y plants, excl oft (6 m) or	0% 3.0¹ Vegeta d wetlaunless of Strata ing woo more ir r at bre uding v	tion¹ (Explaind disturbed or :: ody vines, height and east height (I	3 in. OBH).
2 - Dominance 3 - Prevalence Problematic F Indicators of h hydrology must Definition of V Tree - Woody pl approximately 20 (7.6 cm) or large Sapling - Woody approximately 20	e Test is > 5 e Index is ≤ e Index is ≤ elydrophytic \(\) ydric soil and \(\) be present, \(\) "egetation ants, excludion ff (6 m) or \(\) or in diamete y plants, excl of ff (6 m) or \(\) m) DBH. Woody plant	0% 3.0¹ Vegeta Vegeta Strata ing woo more ir r at bre uding v	tion¹ (Explained disturbed or library times, in height and least height (I woody vines in height and least h	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic F 1 Indicators of h hydrology must Definition of V Tree - Woody pl approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm Sapling/Shrub - V	e Test is > 5 e Index is ≤ e Index is ≤ elydrophytic \(\) ydric soil and be present, \(\) degetation ants, excluding ft (6 m) or er in diamete \(\) y plants, excluding ft (6 m) or er in diamete \(\) y plants, excluding DBH. Woody plant and greater the plants, excluding excluding excluding excluding excluding exclusions and exclusions are the plants, exclusions are exclusive.	0% 3.0¹ Vegeta Vegeta Strata ing woo more ir r at bre uding v more ir as, excl	tion¹ (Explained disturbed or library times, and height and least height (I woody vines and height and least	3 in. DBH). less
2 - Dominance 3 - Prevalence Problematic F 1 Indicators of h hydrology must Definition of V Tree - Woody pl approximately 20 (7.6 cm) or large Sapling - Woody approximately 20 than 3 in. (7.6 cm) Sapling/Shrub - V than 3 in. DBH a Shrub - Woody p	e Test is > 5 e Index is ≤ e In	0% 3.0¹ Vegeta Vegeta Strata ing woo more ir r at bre uding v more ir as, excl nan 3.2 ding wo 6 m) ii voody) s of siz	tion¹ (Explained disturbed or a library times, a height and a library times, a height and library times, a height and library times, a height.	3 in. DBH). less less

Damarke: (If ohearva	d list morphological	adantations holow)

SOIL Sampling Point: WP1009_WET_PEM

Profile Description	on: (Describe to the d	epth needed to docu	ment the indicator o	confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	(Calan (mariet)	Redox Features	La saki sa 2	T.	Ddes
0 - 16	Color (moist) 9 10YR 5/1 10	Color (moist)		Location ²	Texture	Remarks
	10111 1011					
¹ Type: C=Concentrat	on, D=Depletion, RM=Red	uced Matrix, CS=Covered	or Coated Sand Grains.	² Location: PL=Pore	Lining, M=Matrix.	
Hydric Soil Indica	tors:				Indicators for Problema	atic Hydric Soils³:
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) (A6) (LRR P, T, U) (A6) (LRR P, T, U) (A8) (LRR U) (LRR P, T) Dark Surface (A11) (A8) (A12) (A8) (MLRA 150A) (A8) (A16) (MLRA 150A) (A8) (A16) (MLRA 0, S) (A16) (MLRA 0, S) (A16) (MLRA 0, S)	Thin Dalamy Loamy Loamy Deplete Redox Deplete Redox Marl (F Deplete Iron-M Umbric Delta C Reduce	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) clous Bright Loamy Soils	, T, U) R O) 151) (LRR O, P, T) T, U)) 50A, 150B) v) (MLRA 149A)	Piedmont Floodplain 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):	,				lydric Soil Present? Ye	s • No 🔾
Remarks:						

Project/Site: Bluewater Te	erminal SPM Project	City/Cou	nty: San Patricio	Sampling Date:	2/7/2019
Applicant/Owner: Phillips	66 Pipeline, LLC		State: TX	Sampling Point:	WP1010_UP
Investigator(s): B. Bringh	urst & A. Ostrowski		Section, Township, Rar	ge: S N/A T N/A	R N/A
 Landform (hillslope, terrac	e, etc.): Flat	Local reli	ief (concave, convex, none):	———— —— Flat	Slope: 1 % 0.6 °
Subregion (LRR): LRR T	. ,		.930899 Long:	-97.191252	Datum: NAD 83
Soil Map Unit Name: Narta	loam 0 to 1 percent clanes			cation: PEM1A	TAB 03
Nara	rioam, o to 1 percent slopes,	raiely flooded (Na)	INWI Classiii	Cation. PEMIA	
Are climatic/hydrologic co	nditions on the site typical	for this time of year?	Yes No (If no,	explain in Remarks.)	
Are Vegetation ,	Soil , or Hydrology	significantly dis	sturbed? Are "Normal Ci	rcumstances" present?	Yes No
Are Vegetation ,	Soil 🗌 , or Hydrology	naturally proble	ematic? (If needed, exp	olain any answers in Re	marks.)
SUMMARY OF FINDING	S — Attach site map sh	owing sampling point lo	ocations, transects, impor	tant features, etc.	
Hydrophytic Vegetation Pres	ent? Yes •	No O	1 11 0 1 14		
Hydric Soil Present?	Yes •	No 🔾	Is the Sampled Area within a Wetland?	Yes	No 💿
Wetland Hydrology Present?	Yes C	No •			
Remarks: Wetland hydrology is not pro	esent. This is not a wetland.				
Wetland Hydrology Indic	ators:				
	num of one required; che	ck all that apply)	Secondar	v Indicators (Minimum	of 2 required)
Surface Water (A1)		Aquatic Fauna (B13)		parsely Vegetated Concave	•
High Water Table (A2)		Marl Deposits (B15) (LRR U)		rainage Patterns (B10)	: Surface (Bo)
Saturation (A3)		Hydrogen Sulfide Odor (C1)		loss Trim Lines (B16)	
Water Marks (B1)		Oxidized Rhizospheres along		ry Season Water Table (C2	2)
Sediment Deposits (B2)		Presence of Reduced Iron (rayfish Burrows (C8)	•
Drift Deposits (B3)		Recent Iron Reduction in Til		aturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4)		Thin Muck Surface (C7)		eomorphic Position (D2)	
Iron Deposits (B5)		Other (Explain in Remarks)		hallow Aquitard (D3)	
Inundation Visible on A	erial Imagery (B7)		F	AC-Neutral Test (D5)	
Water-Stained Leaves (39)			phagnum 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 O No •	Depth (inches):	Wetland I	lydrology Present? Ye	es O No •
Describe Recorded Data (st	ream gauge, monitor well, ae	rial photos, previous inspection	ns), if available:		

20% of Total Cover: 0

20% of Total Cover: 0

20% of Total Cover: 7

20% of Total Cover: 16

20% of Total Cover: 0

(Plot Size : 30)

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

50% of Total Cover: 0

1 Prosopis alandulosa 2 . Baccharis halimifolia

3 . Forestiera anaustifolia

4 . Zanthoxvlum fagara

50% of Total Cover: 18

2._Andropogon gerardii

3 . Lvsimachia arvensis 4 . Helenium amarum

5 . Geranium carolinianum

50% of Total Cover: 40

50% of Total Cover: 0

Woody Vine Stratum

1.__

1 . Spartina patens

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

0

0

35

5

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%

= Total Cover

0.0%

0.0% 0.0%

0.0%

0.0%

0.0%

0.0%

___14.3%__UPL

0.0%

___14.3%__FACU__

= Total Cover

15 **✓** __42.9% _UPL

10 **✓** __28.6% _FAC

0.0%

= Total Cover

50 **✓** 62.5% FACW

18.8% FAC

6.3% FACU

6.3% 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

6.3% FACU

0.0%

Status

Dominance Test wo	rksheet:			
Number of Dominant S				
That are OBL, FACW, r	o FAC:		2	(A)
Total Number of Domir	nant			
Species Across All Strat	ta:		3	(B
Percent of Dominant S _l That are OBL, FACW, c			66.7%	(A/B)
Prevalence Index w	orksheet:			
Total % Cover of		Multiply		_
OBL species	0	x 1 :		
FACW species	50_	x 2 :	75	
FAC species	25	x 3 =		
FACU species	15	x 4 =	125	
UPL species Colum Totals:	25	x 5 =	360	(D)
	115	(A)		(B)
Prevalence Inde	ex = B/A=		3.130	
Hydrophytic Vegeta	tion Indica	ators:		
✓ 1 - Rapid Test fo	or Hydropl	ıytic Ve	getation	
✓ 2 - Dominance 1	Test is > 5	0%		
3 - Prevalence I	ndex is ≤	3.01		
Problematic Hyd	drophytic \	Vegetat	ion¹ (Explai	n)
¹ Indicators of hyd hydrology must be	present, ι	ınless d	isturbed or	
hydrology must be	present, u	ınless d Strata	isturbed or	
Definition of Veg Tree - Woody plan	getation ts, excludi	inless d Strata ng woo	isturbed or : dy vines,	2 in
hydrology must be	getation ts, excludit (6 m) or	Strata ng woo	isturbed or : dy vines, height and	
Definition of Veg Tree - Woody plan approximately 20 ff	getation ts, excludit (6 m) or	Strata ng woo	isturbed or : dy vines, height and	
Definition of Veg Tree - Woody plan approximately 20 ft (7.6 cm) or larger in Sapling - Woody p	getation ts, excludit (6 m) or n diamete	Strata ng woo more in r at brea	isturbed or dy vines, height and ast height ([OBH).
Definition of Veg Tree - Woody plan approximately 20 ff (7.6 cm) or larger in	getation ts, excludit (6 m) or in diamete lants, excl	Strata ng woo more in r at brea	isturbed or dy vines, height and ast height ([OBH).
Definition of Veg Tree - Woody plan approximately 20 ft (7.6 cm) or larger in Sapling - Woody p approximately 20 ft	getation ts, excludit (6 m) or in diamete lants, excl	Strata ng woo more in r at brea	isturbed or dy vines, height and ast height ([OBH).
Definition of Veg Tree - Woody plan approximately 20 ft (7.6 cm) or larger in Sapling - Woody p approximately 20 ft	getation ts, excludit (6 m) or in diamete lants, excl t (6 m) or in DBH.	Strata Ing woo more in r at brea uding w more in	dy vines, height and ast height (I voody vines, height and	DBH). less less
Definition of Veg Tree - Woody plan approximately 20 ft (7.6 cm) or larger it Sapling - Woody p approximately 20 ft than 3 in. (7.6 cm)	getation ts, excludit (6 m) or in diamete lants, excludit (6 m) or in DBH. Dody plant I greater the	Strata ng woo more in r at bre uding w more in s, exclu	dy vines, height and ast height (I voody vines, height and adding vines, 3 ft (1m) tall ody vines,	DBH). less less
Definition of Veg Tree - Woody plan approximately 20 ff (7.6 cm) or larger if Sapling - Woody p approximately 20 ff than 3 in. (7.6 cm) Sapling/Shrub - Wo than 3 in. DBH and	getation ts, excludit (6 m) or in diamete lants, excl t (6 m) or in DBH. coody plant d greater th nts, excludit 20 ft (1 to cous (non-wing ardless dy vines, I	Strata ng woo more in r at bre uding w more in s, exclu nan 3.26 ding wo 6 m) in voody) p s of size	dy vines, height and ast height (I voody vines, height and adding vines, a ft (1m) tall ody vines, height.	DBH). less less . ding
Definition of Veg Tree - Woody plan approximately 20 ft (7.6 cm) or larger it Sapling - Woody p approximately 20 ft than 3 in. (7.6 cm) Sapling/Shrub - Wo than 3 in. DBH and Shrub - Woody pla approximately 3 to Herb - All herbaced herbaceous vines, plants, except wood	getation ts, excludit (6 m) or in diamete lants, excludit (6 m) or in DBH. coody plant in greater the properties of the	Strata ng woo more in r at bre uding w more in s, exclu nan 3.2i ding wo 6 m) in voody) p s of size ess tha	dy vines, height and ast height (I voody vines, height and adding vines, at (1 m) tall ody vines, height.	DBH). less less . ding y ately

Remarks: (If observed,	list morphological	adaptations below	١.
recinal its.	(II ODSCIVEU)	not morphological	adaptations below	,,

SOIL Sampling Point: WP1010_UP

Profile Description	on: (Describe to th	e depth n	needed to docur	nent the	e indicator o	r confirm the abs	ence of indicators.)	
Depth	Matrix				Features			
(inches)	Color (moist)		Color (moist)	<u></u> -	Tvpe ¹	Location ²	Texture	Remarks
0 - 16	10YR 3/1	97	10YR 5/6	3		PL, M	Sandy Clay	
	on, D=Depletion, RM=	Reduced M	atrix, CS=Covered	or Coated	Sand Grains.	² Location: PL=Pore	Lining, M=Matrix. Indicators for Problema	
5 cm Mucky Min Muck Presence (1 cm Muck (A9) Depleted Below Thick Dark Surfa Coast Prairie Rec	(A2) 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 150 eral (S1) (LRR O, S) atrix (S4)	•	Thin Da Loamy Loamy Deplete Redox Redox Marl (F Deplete Iron-Ma Umbric Delta C Reduce Piedmo	ark Surface Mucky M Gleyed M dd Matrix Dark Surface Depression Depression Office Depression Office Depression Office Depression Office Depression Office Off	ce (S9) (LRR Sineral (F1) (LI datrix (F2) (F3) face (F6) furface (F7) ons (F8) U) (F11) (MLRA Masses (F12 (F13) (LRR P, 7) (MLRA 151 (F18) (MLRA 251)	151)) (LRR O, P, T) T, U)	1 cm Muck (A9) (LRR 2 cm Muck (A10) (LR Reduced Vertic (F18) Piedmont Floodplain Anomalous Bright Loc 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) rrface (TF12)
Restrictive Layer Type: Depth (inches):							Hydric Soil Present? Υε	es • No O
Remarks:								

Project/Site: Bluewater Termin	nal SPM Project	City/County: San Pat	ricio	Sampling Date	2/7/2019
Applicant/Owner: Phillips 66	Pipeline, LLC	Stat	e: TX	Sampling Point:	WP1010_WET_PEM
Investigator(s): B. Bringhurst	: & A. Ostrowski	Secti	on, Township, Ran	ige: S N/A T N/A	A R N/A
Landform (hillslope, terrace, e	tc.): Flat	Local relief (concave	e, convex, none):	Concave	Slope: 2 % 1.1 °
Subregion (LRR): LRR T		Lat: 27.930892	Long:	-97.190491	Datum: NAD 83
Soil Map Unit Name: Narta loa	m, 0 to 1 percent slopes, rarely	flooded (Na)	NWI Classific	cation: PEM1A	
Are climatic/hydrologic condit	ions on the site typical for t	his time of year? Yes •	── No ○ (If no,	explain in Remarks.)	
Are Vegetation , Soil		significantly disturbed?		rcumstances" present?	? Yes • No O
Are Vegetation, Soil		naturally problematic?		olain any answers in Re	0 0
•	_ ,	g sampling point locations, t		-	
Hydrophytic Vegetation Present?	? Yes ● N	0 0	. 0 1 - 1 4		
Hydric Soil Present?	Yes N		e Sampled Area n a Wetland?	Yes	No
Wetland Hydrology Present?	Yes N	o ()			
Hydrophytic vegetation, hydric s		reseric. Tilis is a wedarid.			
Wetland Hydrology Indicato				- "	
Primary Indicators (Minimur		11 17		y Indicators (Minimum	. ,
Surface Water (A1)		ratic Fauna (B13)		parsely Vegetated Concav	e Surface (B8)
✓ High Water Table (A2)✓ Saturation (A3)		l Deposits (B15) (LRR U) Irogen Sulfide Odor (C1)		rainage Patterns (B10) loss Trim Lines (B16)	
Water Marks (B1)		dized Rhizospheres along Living Root		ry Season Water Table (C	"21
Sediment Deposits (B2)		sence of Reduced Iron (C4)		rayfish Burrows (C8)	-)
Drift Deposits (B3)	Rec	ent Iron Reduction in Tilled Soils (C6		aturation Visible on Aerial	Imagery (C9)
Algal Mat or Crust (B4)	Thi	n Muck Surface (C7)	G	eomorphic Position (D2)	
Iron Deposits (B5)		er (Explain in Remarks)	SI	hallow Aquitard (D3)	
Inundation Visible on Aerial	Imagery (B7)		✓ F	AC-Neutral Test (D5)	
Water-Stained Leaves (B9)			Sı	phagnum moss (D8) (LRR	: T, U)
Field Observations:					
	′es ● No ○	Depth (inches): 1			
	′es ○ No •	Depth (inches):			- 0 0
Saturation Present? (includes capillary fringe)	es No	Depth (inches):0	Wetland F	lydrology Present? Y	∕es ● No ∪
Describe Recorded Data (stream	n gauge, monitor well, aerial ph	otos, previous inspections), if availab	le:		

20% of Total Cover: 0

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

20% of Total Cover: 1

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

Herb Stratum

1 . Baccharis halimifolia

50% of Total Cover: 2.5

Spartina patens

2 . Borrichia frutescens

50% of Total Cover: 50

50% of Total Cover: 0

Woody Vine Stratum

1.___

3 Ludwigia palustris 4 . Paspalum plicatulum

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

5

0

0

0

0 0

0

0

0

0__ 0

0

0

0

100

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

5 🗸 _ 100.0%_ FAC___

0.0%_ 0.0%

0.0%

0.0%

0.0%

= Total Cover

85 **✓** 85.0% FACW

5.0%_ OBL

5.0% OBL

0.0%_

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

Hydrophytic

Vegetation

Present ?

= Total Cover

5.0% FAC

0.0%

0.0%

= Total Cover

0.0%

Status

	oint: \			
Dominance Test works				
Number of Dominant Spe That are OBL, FACW, ro I			2	(A)
Total Number of Domina Species Across All Strata:			3	(В
Percent of Dominant Spe That are OBL, FACW, or I			66.7%	(A/B)
Prevalence Index wor	ksheet:			
Total % Cover of:		Multiply	by:	_
OBL species	10_	x 1 =	10	
FACW species	85_	x 2 =		
FAC species	10_	x 3 =		
FACU species	0_	x 4 =		
UPL species	0_	x 5 =		
Colum Totals:	105	(A)	210	(B)
Prevalence Index	= B/A=		2.000	
Hydrophytic Vegetatio	on Indica	ators:		
1 - Rapid Test for 2 - Dominance Test 3 - Prevalence Inc Problematic Hydro 1 Indicators of hydro	st is > 50 dex is ≤ 3 ophytic \	0% 3.0¹ Vegetati	ion¹ (Explai	n)
✓ 2 - Dominance Ter ✓ 3 - Prevalence Inc Problematic Hydro	st is > 5 dex is ≤ s ophytic \	0% 3.0¹ Vegetati	ion¹ (Explai	n)
2 - Dominance Ter 3 - Prevalence Inc Problematic Hydro 1 Indicators of hydric	st is > 50 dex is < 50 ophytic \ c soil and resent, u	0% 3.0¹ Vegetati d wetlar inless di	ion¹ (Explai nd isturbed or	n)
✓ 2 - Dominance Ter ✓ 3 - Prevalence Inc ✓ Problematic Hydro ¹ Indicators of hydrohydrology must be property	st is > 50 dex is < cophytic v c soil and resent, u etation , excludi 6 m) or i	0% 3.0¹ Vegetati d wetlar inless di Strata: ng woo more in	ion¹ (Explai ind isturbed or dy vines, height and	3 in.
2 - Dominance Ter 3 - Prevalence Inc Problematic Hydro 1 Indicators of hydric hydrology must be properly Definition of Vege Tree - Woody plants approximately 20 ft (st is > 50 dex is < 5 ophytic V c soil and resent, u etation , excludi 6 m) or i diamete ints, excl 6 m) or i	0% 3.0¹ Vegetati d wetlar inless di Strata: ng woo more in r at brea	ion¹ (Explaind isturbed or dy vines, height and last height (last oody vines)	3 in. DBH).
✓ 2 - Dominance Ter ✓ 3 - Prevalence Inc ✓ Problematic Hydro ¹ Indicators of hydric hydrology must be properties of the properties of the province of the pr	st is > 50 dex is < 50 dex is < 50 dex is < 60 dex is < 60 dex is < 70 dex is	0% 3.0¹ Vegetati d wetlan inless di Strata: ng woo more in r at brea uding w more in	ion¹ (Explai ind isturbed or dy vines, height and ast height (I roody vines height and	3 in. DBH). , less
✓ 2 - Dominance Ter ✓ 3 - Prevalence Inc ✓ Problematic Hydro ¹ Indicators of hydric hydrology must be properly for the properly form of Vege Tree - Woody plants approximately 20 ft ((7.6 cm) or larger in company for the proximately 20 ft (than 3 in. (7.6 cm) Description of the proximately 20 ft (than 3 in. (7.6 cm) Description of the proximately 20 ft (than 3 in. (7.6 cm) Description of the proximately 20 ft (than 3 in. (7.6 cm) Description of the proximately 20 ft (than 3 in. (7.6 cm) Description of the proximately 20 ft (than 3 in. (7.6 cm) Description of the provided hydrology for the provided hydrology	st is > 50 dex is < 50 dex is < 50 dex is < 60 dex is < 60 dex is < 60 dex is < 70 dex is	0% 3.0¹ Vegetati d wetlan inless di Strata: ng woon more in r at brea uding w more in s, exclu nan 3.28 ding woon	ion¹ (Explaind isturbed or disturbed or dist	3 in. DBH). , less
✓ 2 - Dominance Ter ✓ 3 - Prevalence Inc ✓ Problematic Hydro ¹ Indicators of hydric hydrology must be properly be provided by the provided b	st is > 50 dex is < 50 dex is < 50 dex is < 60 dex is < 60 dex is < 60 dex is < 70 dex is	0% 3.0¹ Vegetati d wetlan inless di Strata: ng woo more in r at brea uding w more in s, exclu nan 3.28 ding woo 6 m) in voody) p s of size	ion¹ (Explained isturbed or disturbed or dis	3 in. DBH). , less less

D =l	/T6 - b	المعادمات والماسية	adaptations below)

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

No O

SOIL Sampling Point: WP1010_WET_PEM

Profile Description	on: (Describe to th	e depth	needed to docu	ment th	e indicator o	r confirm the abs	ence of indicators.)	
Depth (inches)	Matrix	0/	C-1 (i-t)		Features	1 1 2	Tt	Pdec
0 - 16	Color (moist) 10YR 4/1	. _% 97	Color (moist) 10YR 4/6	% 3	Tvpe ¹	<u>Location²</u> PL	Texture Silty Clay	Remarks
	2011 1/2		1011					
¹Type: C=Concentrat	ion, D=Depletion, RM=	Reduced	Matrix, CS=Covered	or Coated	l 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)) e (A4) 5 (A5) (A6) (LRR P, T, U) heral (A7) (LRR P, T, (A8) (LRR U) (LRR P, T) Dark Surface (A11) ace (A12) dox (A16) (MLRA 15 heral (S1) (LRR O, S) latrix (S4) 5	0A)	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 =10) (LRR ed Ochric langanese C 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)	151)) (LRR O, P, T) T, U)	Piedmont Floodplain S Anomalous Bright Loa Red Parent Material (Very Shallow Dark Su Other (Explain in Ren 3 Indicators wetland unless	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	es • No O
Remarks:								

Project/Site: Bluewater Terminal SPM Project City/County: San Patricio Sampling Date: 2/7	/2019
Applicant/Owner: Phillips 66 Pipeline, LLC State: TX Sampling Point: WP1011	_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): Flat Slope: 1	% 0.6 °
Subregion (LRR): LRR T Lat: 27.930915 Long: -97.191769 Datum:	NAD 83
Soil Map Unit Name: Narta loam, 0 to 1 percent slopes, rarely flooded (Na) NWI Classification: PEM1A	
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)	
Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes • Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)	No 🔾
Are vegetation, 501, 501 Hydrology naturally problematic: (If needed, explain any answers in Remarks.)	
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes No Is the Sampled Area	
Hydric Soil Present? Yes No within a Wetland? Yes No No No No No No No No No No No No No No No No No No No No No No No No	
Wetland Hydrology Present? Yes No	
Remarks:	
Hydrophytic vegetation and hydric soil are not present. This is not a wetland.	ļ
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (Minimum of one required; check all that apply) Secondary Indicators (Minimum of 2 required)	<u>i)</u>
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 Living 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 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 Aerial Imagery (B7)	
Water-Stained Leaves (B9) Sphagnum moss (D8) (LRR T, U)	
Field Observations:	
Surface Water Present? Yes No • Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No	o ()
Describe Recorded Data (stream gauge, monitor well, aerial photos, previous inspections), if available:	
Describe Recorded Data (scream gauge, monitor well, aerial priotos, previous inspections), il available.	
Remarks:	

20% of Total Cover: 0

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

20% of Total Cover: 5

20% of Total Cover: 18

(Plot Size : 30)

(Plot Size : 30)

Tree Stratum

50% of Total Cover: 0

Shrub Stratum

Herb Stratum

10.___

1.___

1 . Prosopis alandulosa

50% of Total Cover: 13

1 . Chloris cucullata

2 . Opuntia lindheimeri

4. Prosopis glandulosa 5 . Lvsimachia arvensis

6 . Oenothera speciosa 7 . Borrichia frutescens

50% of Total Cover: 45

Woody Vine Stratum

3 . Panicum virgatum

2 . Celtis pallida

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

25

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

15 **✓** __60.0% UPL

10 **✓** __40.0% _UPL 0.0%

0.0%

40 **✓** 44.4% UPL

10 ✓ ___11.1%__UPL

10 ✓ __11.1% FAC

10 **✓** __11.1% _UPL

10 ✓ __11.1% FACU

5.6% UPL

5.6% OBL 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%

0.0%

0.0%_

0.0%_

Status

Dominance Test wo	rksheet:			
Number of Dominant S	Species			
That are OBL, FACW, r			2	(A)
Total Number of Domii Species Across All Stra		,	2	(В
Percent of Dominant S That are OBL, FACW, o		,	100.0%	(A/B)
Prevalence Index w	orksheet:			
Total % Cover of	f:	Multiply	/ by:	_
OBL species	5	x 1 =	5	
FACW species	0	x 2 =	0	
FAC species	10	x 3 =		
FACU species	10_	x 4 =		
UPL species	90	x 5 =		
Colum Totals:	115	(A)	525	(B)
Prevalence Inde	ex = B/A =		4.565	
Hydrophytic Vegeta	tion Indica	tors:		
Problematic Hyd Indicators of hyd hydrology must be	ric soil and	l wetlaı	nd	n)
¹ Indicators of hyd hydrology must be	ric soil and present, u	l wetlai nless d	nd isturbed or	n)
¹ Indicators of hyd	getation strategy and the second strategy and the seco	I wetlai nless d Strata: ng woo nore in	nd isturbed or dy vines, height and	3 in.
¹ Indicators of hydhydrology must be Definition of Verology Tree - Woody plan approximately 20 f	getation: tts, excludit (6 m) or n diameter lants, exclidit (6 m) or n	I wetlan nless d Strata: ng woo more in at breauding w	nd isturbed or dy vines, height and ast height (I	3 in. DBH).
¹ Indicators of hydhydrology must be Definition of Veg Tree - Woody plan approximately 20 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f	getation states, excluding the diameter of the	Strata: ng woo more in at breauding w	nd isturbed or dy vines, height and ast height (I woody vines, height and ding vines,	3 in. DBH). less
1 Indicators of hydhydrology must be Definition of Verology plant approximately 20 f (7.6 cm) or larger it Sapling - Woody proximately 20 f than 3 in. (7.6 cm) Sapling/Shrub - Woody proximately 20 f than 3 in. (7.6 cm)	getation: getation: tts, excludi t (6 m) or r n diameter lants, exclit (6 m) or r DBH. cody plant d greater th	I wetlan nless d Strata: ng woo more in at brea uding w more in	nd isturbed or dy vines, height and ast height (I roody vines, height and ding vines, 3 ft (1m) tall	3 in. DBH). less
Definition of Very Tree - Woody plan approximately 20 f (7.6 cm) or larger i Sapling - Woody p approximately 20 f than 3 in. (7.6 cm) Sapling/Shrub - Wothan 3 in. DBH and Shrub - Woody plan	getation: getation: tts, excludi t (6 m) or r n diameter tlants, excli t (6 m) or r DBH. cody plants d greater th ints, excludi 20 ft (1 to cous (non-w regardless dy vines, le	Strata: ng woo more in at brea uding w more in s, exclu an 3.28 ling wo 6 m) in	nd isturbed or dy vines, height and ast height (I voody vines, height and ding vines, height (1m) tall ody vines, height.	3 in. DBH). less less .
Definition of Very Tree - Woody plan approximately 20 f (7.6 cm) or larger if Sapling - Woody p approximately 20 f than 3 in. (7.6 cm) Sapling/Shrub - Wothan 3 in. DBH and Shrub - Woody plan approximately 3 to Herb - All herbaced herbaceous vines, plants, except woo	getation state, excluding the following terms of the following terms	Strata: ng woo nore in at brea uding w nore in s, exclu ing wo 6 m) in coody) p of size ess than	nd isturbed or dy vines, height and ast height (In the coody vines, height and ding vines, height. In the coody vines, height. In the coody vines, height.	3 in. DBH). less less . ding y ately

50% of Total Cover: 0 20% of Total Cover: 0	0	= Total Cover
$\label{lem:Remarks: Remarks: (If observed, list morphological adaptations below).}$		

SOIL Sampling Point: WP1011_UP

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)	<u></u> _	Tvpe ¹	Location ²	Texture	Remarks	
0 - 16	10YR 4/1	100					Silty Clay		
Type: C-Concentration	on D-Deplation PM	-Paducad M	atrix CS-Covered	or Costado	Sand Grains	² l ocation: DI – Porc	Lining M-Matriy		
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. **Indicators for Problematic Hydric Saile3***									
Hydric Soil Indica	tors:						Indicators for Problematic Hydric Soils ³ :		
Histosol (A1)	(42)				Surface (S8) (1 cm Muck (A9) (LRR	0)	
Histic Epipedon (` '		Thin Dark Surface (S9) (LRR S, T, U)				2 cm Muck (A10) (LRR S)		
Black Histic (A3)				Mucky Mineral (F1) (LRR O) Reduced Vertic (F18) (outside MLRA 150A,			(outside MLRA 150A,B)		
Hydrogen Sulfide					latrix (F2)		Piedmont Floodplain Soils (F19) (LRR P, S, T)		
Stratified Layers				ed Matrix	. ,			amy Soils (F20) (MLRA 153B)	
	(A6) (LRR P, T, U)	1.13		Dark Surf	` '		Red Parent Material (TF2)	
	eral (A7) (LRR P, T,	U)			urface (F7)		Very Shallow Dark Su	rface (TF12)	
Muck Presence (Depressio	. ,		Other (Explain in Ren	narks)	
1 cm Muck (A9)				10) (LRR					
	Dark Surface (A11)				(F11) (MLRA 1	*			
Thick Dark Surfa	` ,				Masses (F12)				
	dox (A16) (MLRA 15				(F13) (LRR P,		3Indicators	of hydrophytic vegetation and	
	eral (S1) (LRR O, S)				7) (MLRA 151)		wetland	hydrology must be present,	
Sandy Gleyed Ma					F18) (MLRA 1		unless	disturbed or problematic.	
Sandy Redox (S			Piedmo	nt Floodp	olain Soils (F19) (MLRA 149A)			
Stripped Matrix (Anoma	lous Brigh	nt Loamy Soils	(F20) (MLRA 149A	, 153C, 153D)		
Dark Surface (S7) (LRR P, S, T, U)									
Restrictive Layer (If observed): Type: Depth (inches):						Hydric Soil Present? Yes No			
pa. (o.)								_	
Remarks:									

Project/Site: Bluewater Terminal SPM F	Project	City/County: San Patricio	Sampling Date:	2/7/2019				
Applicant/Owner: Phillips 66 Pipeline,	LLC	State: TX	Sampling Point: WP1	.011_WET_PEM				
Investigator(s): B. Bringhurst & A. Ost	rowski	Section, Town	ship, Range: S N/A T N/A	R N/A				
Landform (hillslope, terrace, etc.): Fi	lat	Local relief (concave, convex,	, none): Concave Slo	ppe: 1 % 0.6 °				
Subregion (LRR): LRR T		Lat: 27.930885	Long: -97.191421 Da	ntum: NAD 83				
Soil Map Unit Name: Narta loam, 0 to 1	percent slopes, rarely flooded (Na) NW	/I Classification: PEM1A					
Are climatic/hydrologic conditions on	the site typical for this time of	year? Yes 💿 No 🔘	(If no, explain in Remarks.)					
		•	Normal Circumstances" present?	Yes • No O				
		•	eded, explain any answers in Remark					
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present?	Yes O No •							
Hydric Soil Present?	Yes No	Is the Sample within a Wetla		No •				
Wetland Hydrology Present?	Yes No							
Hydrophytic vegetation, hydric soil, and v	vectario frydrology are present. This	is a wegaild.						
Wetland Hydrology Indicators:								
Primary Indicators (Minimum of one			Secondary Indicators (Minimum of 2	required)				
Surface Water (A1)	Aquatic Fauna (I	•	Sparsely Vegetated Concave Surf	face (B8)				
✓ High Water Table (A2)✓ Saturation (A3)	Marl Deposits (E Hydrogen Sulfid		Drainage Patterns (B10)					
Water Marks (B1)		pheres along Living Roots (C3)	Moss Trim Lines (B16) Dry Season Water Table (C2)					
Sediment Deposits (B2)	Presence of Red		Crayfish Burrows (C8)					
Drift Deposits (B3)		duction in Tilled Soils (C6)	Saturation Visible on Aerial Imag	ery (C9)				
Algal Mat or Crust (B4)	Thin Muck Surfa	ace (C7)	Geomorphic Position (D2)					
Iron Deposits (B5)	Other (Explain i	n Remarks)	Shallow Aquitard (D3)					
Inundation Visible on Aerial Imagery	(B7)		✓ FAC-Neutral Test (D5)					
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U))				
Field Observations:								
Surface Water Present? Yes	No O Depth (inche	es):1						
Water Table Present? Yes	No Depth (inche							
Saturation Present? (includes capillary fringe) Yes	No O Depth (inche	es):0	Wetland Hydrology Present? Yes	• No O				
Describe Recorded Data (stream gauge, Remarks:	monitor well, aerial photos, previou	us inspections), if available:						