## Exhibit FF. Hornsby Industrial Wetlands Delineation Report





## Hornsby Industrial Park Wetlands Delineation Report

#### WETLAND DELINEATION DATA REPORT

## HORNSBY 127.25-ACRE PROPERTY LIVINGSTON PARISH, LOUISIANA

Prepared for

BATON ROUGE AREA CHAMBER 564 Laurel Street Baton Rouge, Louisiana 70801

September 2017





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#### 1.0 INTRODUCTION

Mineral Preservation, LLC currently owns in title the subject property, which is located east of the city of Walker in Livingston Parish Louisiana (Figure 1). Following a preliminary investigation of the property (including review of soils data and aerial photography), a wetland delineation was conducted to determine, based upon Pangaea Conservation & Compliance, LLC (Pangaea) personnel's expert opinion, the presence or absence of potential wetlands and/or Waters of the U.S. located within the property boundaries. In addition, Pangaea personnel were tasked with identifying the extent of and approximate boundaries of any such features located on the property. The following Wetland Delineation Data Report has been prepared for submittal to the New Orleans District U.S. Army Corps of Engineers in order to obtain a Jurisdictional Determination.

This report is a presentation of data on the three (3) diagnostic characteristics of wetlands under the jurisdiction of the U.S. Army Corps of Engineers (USACE) for an approximately 127.25-acre tract (the Property). This report was prepared by Pangaea, for Mineral Preservation, LLC and the Baton Rouge Area Chamber, in accordance with guidance found within the *Corps of Engineers Wetlands Delineation Manual* (U.S. Army Corps of Engineers Waterways Experiment Station Environmental Laboratory, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)* (U.S. Army Corps of Engineers Research and Development Center Wetlands Regulatory Assistance Program, 2010).

Wetlands are defined as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (40 CFR 230.3). The three (3) diagnostic environmental characteristics of wetlands are soils, vegetation, and hydrology. Wetlands must exhibit evidence of a minimum of one (1) primary or two (2) secondary indicators of hydrology, wetland indicator for hydric soil, and a prevalence of hydrophytic vegetation in order to be classified as such. The presence of or lack of each of these characteristics is described for the AOI within the remainder of this report.

#### 2.0 SITE LOCATION AND DESCRIPTION

The approximately 127.25 acre site is located at latitude 30.506820 N and -90.825087 W located within Sections 20 and 21 Township 6S, Range 4E near the Industrial Park in Livingston Parish, Louisiana (Figure 1). The Property is bordered by forested land and the Livingston Parish Industrial Park.

The Property currently consists of 127.25 acres of pine plantation and access roads.

#### 3.0 FIELD SURVEY

#### 3.1 General

Field investigation of the Property was performed by Pangaea personnel (trained wetland delineators) in September of 2017. A total of ten (10) sample locations were chosen for field and vegetative observations and collection of soil samples in order to characterize the Property. At each sample location, dominant vegetation was identified, investigation for indicators of hydrology was performed, and soil samples were collected and examined for identification and determination of soil properties. Photographs were taken of the Property, of vegetation within and surrounding the Property, and of soil pits and profiles at each sample location. Photographs are presented in Appendix B. Common survey tools, such as sharpshooter shovels, Munsell Soil Color Charts (Gregtag/Macbeth, 2000), USACE field datasheets, digital cameras, and Trimble handheld global positioning system (GPS) units, were utilized during the field observation portion of the wetland delineation.

#### 3.2 Data Collection

Prior to conducting fieldwork, Pangaea personnel reviewed and mapped all available information for the Property. Information sources reviewed included

the *Soil Survey of Livingston Parish, Louisiana* (U.S. Department of Agriculture Soil Conservation Service, 1982) and aerial photography.

#### 3.3 Sample Locations

Pangaea personnel utilized the three-parameter approach set forth within the *Corps of Engineers Wetlands Delineation Manual* (U.S. Army Corps of Engineers Waterways Experiment Station, 1987) and the *Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)* (U.S. Army Corps of Engineers Research and Development Center Wetlands Regulatory Assistance Program, 2010). The three-parameter approach requires assessment of vegetation, soils, and hydrology for determination of wetland conditions.

Sample locations were selected based upon changes in elevation and obvious transition zones.

#### 4.0 SITE DATA

Data was gathered and observations were made regarding the three (3) diagnostic characteristics of jurisdictional wetlands on the approximately 127 acre tract. Data and observations include:

#### 4.1 Soils

Soil pits were advanced to approximately 18 inches below ground surface or until refusal using a sharpshooter shovel. The depths of the samples taken were sufficient to evaluate upper horizons and to observe field indicators of non-hydric/hydric soils. The samples were described and compared to descriptions and maps located within the *Soil Survey of West Livingston Parish, Louisiana* (U.S. Department of Agriculture Soil Conservation Service, 1982).

The Property is mapped as Satsuma silt loam and Encrow silt loam according to the USDA NRCS *Soil Survey of Livingston Parish, Louisiana*. Satsuma and Encrow silt loams, typical of Livingston Parish, Louisiana, consist of convex, somewhat poorly drained, rarely to occasionally flooded (with slopes of 1-3 percent) located along steam terraces (Figure 4).

All ten (10) sample locations were consistent with mapped soils. Five (5) sample locations presented hydric indicators (specifically, met the criteria for Depleted Matrix).

#### 4.2 Vegetation

The majority of the Property is forested. Vegetation present within the forested portion of the Property is characteristic of pine plantation forests located throughout Livingston Parish, Louisiana. Vegetation located within the cleared ROW and forestry roads are maintained through routine mowing.

Field investigation of the Property was performed in September of 2017. Species located at each sample location were documented, within a minimum radius of 30 feet, and indicator status for each dominant species was recorded as listed within *The National Wetland Plant List: 2014 Update of Wetland Ratings* (Lichvar, 2014). The Dominance Test, or "50/20 Rule", was then applied to determine the dominant species within each stratum and to determine the presence or absence of hydrophytic vegetation at each sample location. The Prevalence Index was also completed for each sample location.

Vegetation in 10 of the 10 sample plots met the criteria for hydrophytic vegetation, 9 of the 10 plots being dominated by planted *Pinus taeda* or *Triadica sebifera*.

#### 4.3 Hydrology

The Property is generally flat and drains through a few small natural drains.

These drains connect to a Parish maintained drainage canal which exists along the entire southern boundary. Five (5) of the ten (10) sample plots met the criteria for wetland hydrology.

#### 5.0 CONCLUSIONS

#### 5.1 Conclusions

It is Pangaea's opinion, due to the presence of hydric soils, presence of wetland hydrology, and predominance of hydrophytic plant species, that the approximate 21.15 acres of forest on the Property meet the technical criteria for jurisdictional wetlands (Figures 1 and 2).

#### 5.2 Limitations

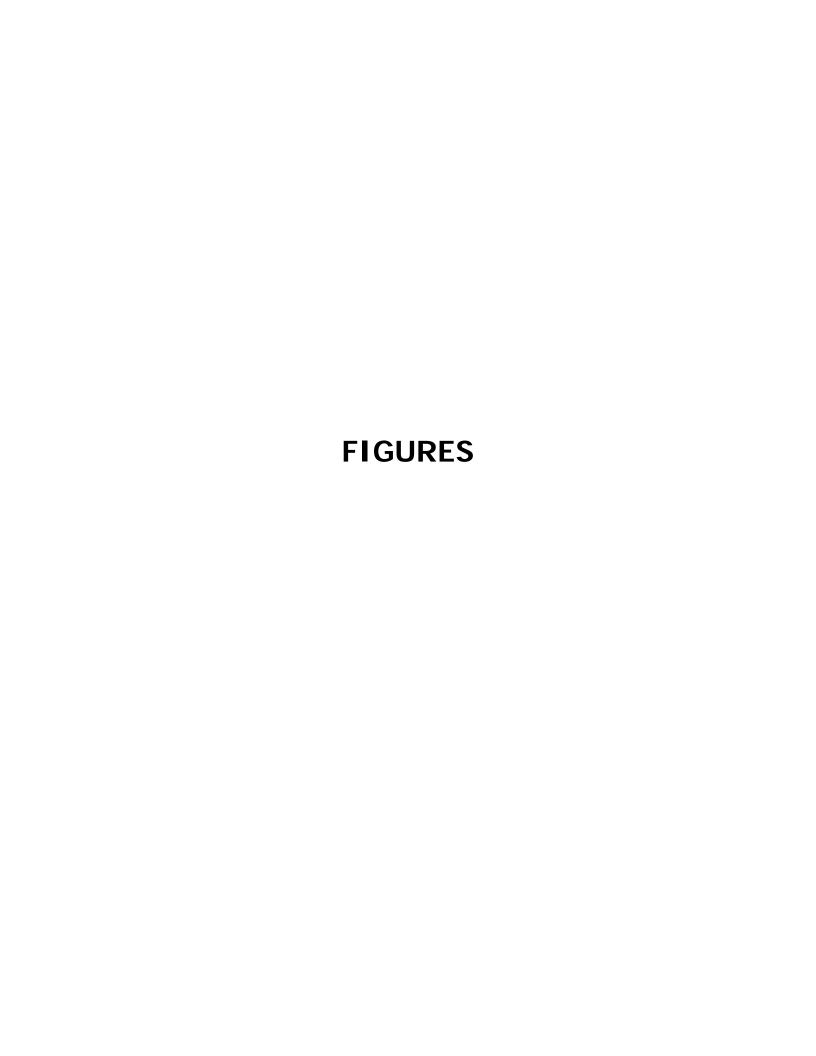
Pangaea has performed this wetland assessment in conformance with the scope and limitations of the *Corps of Engineers Wetlands Delineation Manual* (U.S. Army Corps of Engineers Waterways Experiment Station, 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0)* (U.S. Army Engineer Research and Development Center, 2010). The results presented in this report were based on review of available current and historical information, a desktop evaluation, and the field visit conducted in September of 2017. The findings and conclusions presented herein are professional opinions based solely on visual observations of the project area and interpretation of information provided or reasonably available to Pangaea. The jurisdictional determination of features discussed in this report can only be made by the USACE, New Orleans District.

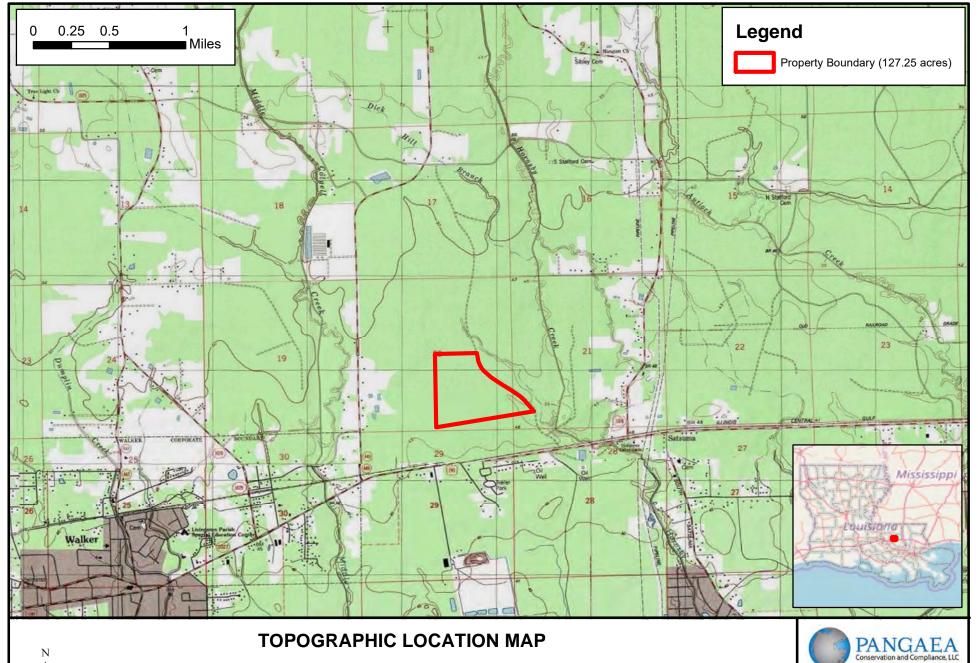
#### 6.0 REFERENCES

- Federal Interagency Committee for Wetland Delineation (FICWD). Federal Manual for Identifying and Delineating Jurisdictional Wetlands. Washington D.C.: U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, U.S. Fish and Wildlife Service, and U.S. Department of Agriculture, Soil Conservation Service, 1989.
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- U.S. Army Corps of Engineers. U.S. Army Corps of Engineers Research and Development Center Wetlands Regulatory Assistance Program. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain Region (Version 2.0).* Vicksburg: USACE, 2010.
- U.S. Department of Agriculture Natural Resources Conservation Service. Natural Resources Conservation Service, Louisiana Agricultural Experiment Station, and Louisiana Soil and Water Conservation Committee. *Soil Survey of Livingston Parish, Louisiana*. Washington D.C.: National Cooperative Soil Survey, 1982.

- U.S. Department of Agriculture Natural Resources Conservation Service National Plants

  Database. < <a href="http://plants.usda.gov">http://plants.usda.gov</a>>
- U.S. Fish and Wildlife Service National Wetlands Inventory. <a href="http://www.fws.gov/wetlands/">http://www.fws.gov/wetlands/</a>>







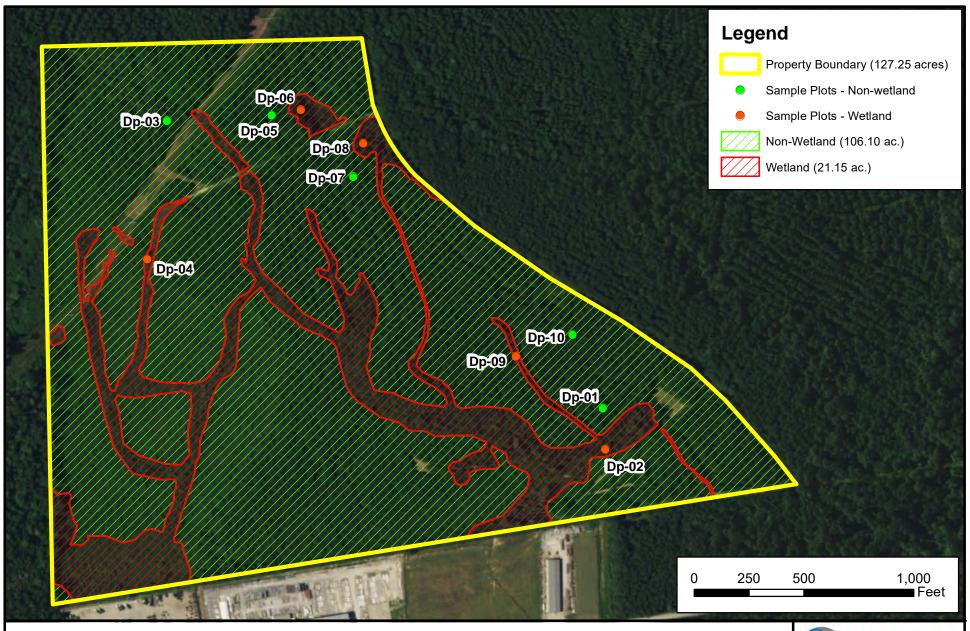
127-acre Hornsby Industrial Park S20,21 / T6S / R4E (30.506820, -90.825087) Livingston Parish, Louisiana



Figure: 1

Date: September 2017

Scale:1:40,000





127-acre Hornsby Industrial Park S20,21 / T6S / R4E (30.506820, -90.825087) Livingston Parish, Louisiana

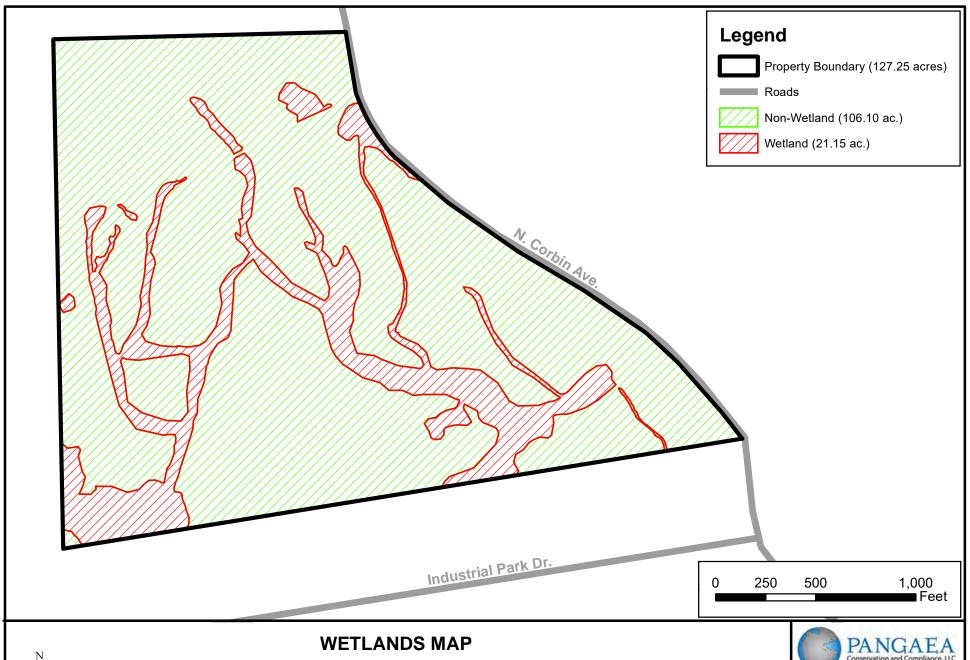


Figure: 2

Date: September 2017

Scale:1:5,250





127-acre Hornsby Industrial Park S20,21 / T6S / R4E (30.506820, -90.825087) Livingston Parish, Louisiana

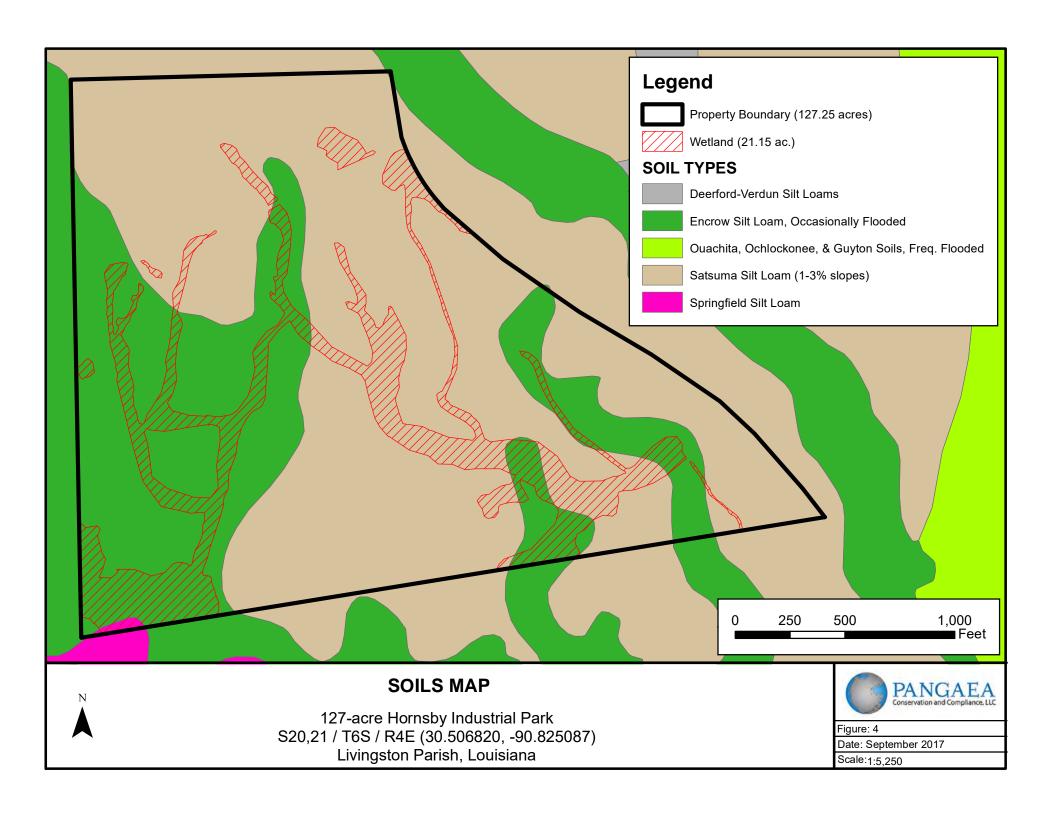


Figure: 3

Date: September 2017

Scale:1:5,750





# APPENDIX A Wetland Delineation Datasheets

	GE	OSYNTEC CO	NSULTANTS	INC.			
		MINATION DATA FOI			egion		
Project Site: Horr	nsby Industrial Park	City/County:	Livingston		Sampling Date:	9/8/2017	
Applicant/Owner:	David McKellar	_	State	: Louisiana	Sampling Point:	DP-01	
Investigator(s): C. Nguyen		Section/Range:	S20 T06S	R04E	Slope (%):		
Landform (hillslope, terrace, etc	.): flat	Local relief (concav	e, convex, none):	flat	Datum:	WGS1984	
Subregion (LRR or MLRA):	LRR P	Lat:	30.505864053	Long	: -90.8209	60713	
Soil Map Unit Name:	Encrow silt loam, occas	sionally flooded		N	WI classification	None	
Are climatic/hydrologic conditions on the	e site typical for this time of year?		Yes X	No	)	(If no, explain in R	Remarks)
Are Vegetation	Soil	Hydrology	significa	ntly disturbed?			
Are Vegetation	Soil	Hydrology	naturally	problematic?	(If needed, explain as	ny answers in Remai	rks)
Are "Normal Circumstances" pr	esent? Y	es X	No	_			
SUMMARY OF FINDINGS	S- Attach site map sho	wing sampling point	locations, transe	cts, important i	features, ect.		
Hydrophytic Vegetation Present		es X	No				
Hydric Soils Present?	Y	es	No X	_	e Area within a tland?	Yes	
Wetland Hydrology Present? Remarks: Based on the absence		es	No X		uanu:	No	X
HYDROLOGY				a 1 7 11		0	
Wetland Hydrology Indicators		44.		Secondary India	cators (minimum o		
Primary Indicators (minimum of	one is required: check all	***			Surface Soil Cracks	` '	
Surface Water (A1)		Water-Stained Leaves (B9	9)		Sparsely Vegetated C		3)
High Water Table (A2)		Salt Crust (B11)			Drainage Patterns (B		
Saturation (A3)		Aquatic Invertebrates (B1		_	spheres on Living Roots (C3)		
Water Marks (B1)		Hydrogen Sulfide Odor (0		(where tilled)  Crayfish Burrows (C8)			
Sediment Deposits (B2)		Dry-Season Water Table	` '	Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)		Oxidized Rhizospheres or	n Living Roots (C3)	_		9)	
Algal Mat or Crust (B4)		(where not tilled)	(CA)	Geomorphic Position (D2) FAC-Neutral Test (D5)			
Iron Deposits (B5)		Presence of Reduced Iron	(C4)		_ `	*	
Inundation Visible on Aerial		Thin Muck Surface (C7)	···)		Frost-Heave Hummo	cks (D/) (LKK F)	
Imagery (B7) Field Observations:		Other (Explain in Remark	S)				
Surface Water Present?	Yes	No	X Depth (inches	c)			
Water Table Present?	Yes	No No	X Depth (inches		Wetland Hydro	logy Present?	
Saturation Present?	Yes	No No	X Depth (inches	-		Yes	
(include cappillary fringe)	105	110	Deptir (mene		1	No	X
Describe Recorded Data (stream	gauge, monitoring well, a	erial photos, previous ir	spections), if availab	ole:	1	110	
Remarks: No hydrologic indicate			epoorens), ir a cara				

Veget	ation- Use scientific nar	nes of plant	s		Louisiana				
		*	Absolute %	Dominant	Indicator				
Tree St	ratum (Plot Sizes: 30')	_	Cover	Species?	Status	Dominance Test Worksheet:			
1	Liquidambar styraciflua		25	YES	FAC	Number of Dominant Species5(A)			
2	Pinus taeda		40	YES	FAC	That Are OBL, FACW, or FAC:			
3	Quercus nigra		10	NO	FAC				
4	Ostrya virginia		5	NO	FACU	Total Number of Dominant 6 (B)			
5						Species Across All Strata:			
6									
7						Percent of Dominant Species 83% (A/B)			
		Total Cover	80			That Are OBL, FACW, or FAC:			
			Absolute %	Dominant	Indicator				
Sapling	Stratum (15')	<u></u>	Cover	Species?	Status	Prevalance Index Worksheet:			
1	Liquidambar styraciflua		20	YES	FAC	Total % Cover of: Multiply by:			
2	Ilex vomitoria		15	YES	FAC	OBL species $0   x 1 = 0$			
3	Quercus nigra		5	NO	FAC	FACW species $0   x 2 = 0$			
4						FAC species $135 \times 3 = 405$			
5						FACU species <b>20</b> x 4 = <b>80</b>			
6						UPL species $0   x 5 = 0$			
7						Column Totals: 155 (A) (B) 485			
		Total Cover	40			Prevalence Index = $B/A = 3$			
			Absolute %	Dominant	Indicator				
Shrub S	Stratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:			
1		_				Rapid Test for Hydrophytic Vegetation			
2						X Dominance Test is >50%			
3						Prevalence Index $\leq 3.0^1$			
4 5	-					Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
6 7						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.  Definitions for Four Vegetation Strata:			
/						Definitions for Four Vegetation Strata:			
		Total Cover	0		- 4.				
	. <del></del> .		Absolute %	Dominant	Indicator				
	tratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more			
1	Callicarpa americana		10	YES	FACU	in diameter at breast height (DBH), regardless of			
2	Lygodium japonicum		10	YES	FAC	height			
3	Lonicera japnica		5	NO	FACU				
4	Smilax		10	NO	FAC	Sapling/Shrub - Woody plants, excluding vines less			
5						than 3 inch DBH and greater than 1 meter tall.			
6	-					4			
7						Herb - All herbaceous (non-woody) plants, regardless			
8	-					of size, and wood plants less than 1 meter tall.			
9						<del></del>			
10						Woody vine - All woody vines greater than 1 meter in			
11						height.			
12						4			
		Total Cover	35						
			Absolute %	Dominant	Indicator				
Woody	Vine Stratum (30')		Cover	Species?	Status	Hydrophytic Vegetation Present?			
1									
2									
3						X			
4						YES NO			
5									
		Total Cover	0						
Remar	ks: Hydrophytic vegetation	was observe	d at this location	1.					

	l to document the indicator or con-	firm the	absence of	indicato	rs.)	L	ouisiana	
Matrix	Redox Fetures							
th			1		2			
es) Color (moist) %	Color (moist)	%	Type <sup>1</sup>		Loc <sup>2</sup>	Texture	Remarks	
10YR 4/6 100			С	M		Silt loam		
C= Concentration, D=Depletion, RM=Reduced Matrix	x, CS=Covered or Coated Sand Grains					<sup>2</sup> Location: PL=Pore Lini	_	
ic Soil Indicators:				Indica	ator for Pro	blematic Hydric Soil	s <sup>3</sup> :	
Histol (A1)	Sandy Gleyed Matrix (S4	)						
Histic Epipedon (A2)	Sandy Redox (S5)					1 cm Muck (A9) (LRR I	, J)	
Black Histic (A3)	Stripped Matrix (S6)					Coast Prairie Redox (A1	6) (LRR F, G, H)	
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F	(1) (LRR				Dark Surface (S7) (LRR	. G)	
Stratified Layers (A5) (LRR F)	Loamy Gleyed Matrix (F2	2)				High Plains Depressions	(F16)	
1 cm Muck (A9) (LRR P, T)	Depleted Matrix (F3)					(LRR outside of MLRA	A 72 & 73)	
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)					Reduced Vertic (F18)		
Thick Dark Surface (A12)	Depleted Dark Surface (F	7)				Red Parent Material (TF	2)	
Sandy Mucky Mineral (S1) (LRR O, S)	Redox Depressions (F8)					Other (Explain in Remar	ks)	
2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	High Plains Depressions (	(F16)				•		
5 cm Mucky Peat or Peat (S3) (LRR F)	(MLRA 72 & 73 of LRF	RH)		2				
<del>_</del>				<sup>3</sup> Indicators of hydrolophytic vegetation and wetland hydrology must be present.				
rictive Layer (if observed):						Hydric Soil Pres	ent?	
Type:						•		
Depth (inches):					Yes		No Y	
·								
arks: No hydric soil indicators were observe	a a uns rocation.							

	GE	COSYNTEC CON	NSULTANTS 1	INC.			
	WETLAND DETER	RMINATION DATA FOR	RM - Atlantic and Gul	f Coastal Plain Re	egion		
Project Site: Horn	nsby Industrial Park	City/County:	Livingston	_	Sampling Date:	9/8/2017	
Applicant/Owner:	David McKellar		State:		Sampling Point:	DP-02	
Investigator(s): C. Nguyen		Section/Range:	S20 T06S R	k04E	Slope (%):	1-3	ŀ
Landform (hillslope, terrace, etc	c.): flat	Local relief (concave	e, convex, none):	flat	Datum:	WGS1984	
Subregion (LRR or MLRA):	LRR P	Lat:	30.505345839	Long:	-90.82093	38850	
Soil Map Unit Name:	Satsuma silt loam, 1 to	•	<u> </u>	N	WI classification:	: None	
Are climatic/hydrologic conditions on th			Yes X	No		(If no, explain in Rer	marks)
Are Vegetation	Soil	Hydrology		tly disturbed?			
Are Vegetation	Soil	Hydrology		problematic?	(If needed, explain ar	ny answers in Remarks	3)
Are "Normal Circumstances" pr		Yes X	No	_			ŀ
SUMMARY OF FINDING				ts, important f	eatures, ect.		
Hydrophytic Vegetation Present		Zes X	No	Is the Sample	e Area within a		
Hydric Soils Present?		Yes X	No	_	tland?	Yes	X
Wetland Hydrology Present?		Yes X	No			No	
Remarks: Based on the presence	of hydric soil, nydropnyti	c vegetation, and wettan	id hydrology, this loca	ation fulfills the c	riteria of an weua	and.	
							ŀ
HYDROLOGY							
Wetland Hydrology Indicator				Secondary Indic	ators (minimum o	of two required)	
Primary Indicators (minimum of		that apply)		becommany	Surface Soil Cracks (		
Surface Water (A1)	X	Water-Stained Leaves (B9	9)			Concave Surface (B8)	
High Water Table (A2)		Salt Crust (B11)	• •		Drainage Patterns (B		
X Saturation (A3)		Aquatic Invertebrates (B1:	3)		- ` `	res on Living Roots (C	(3)
X Water Marks (B1)		Hydrogen Sulfide Odor (C			(where tilled)		
Sediment Deposits (B2)		Dry-Season Water Table (		X	Crayfish Burrows (C	8)	
X Drift Deposits (B3)		Oxidized Rhizospheres on	* /		- '	Aerial Imagery (C9)	
Algal Mat or Crust (B4)		(where not tilled)	-		Geomorphic Position		
Iron Deposits (B5)		Presence of Reduced Iron	ı (C4)		FAC-Neutral Test (D	<b>15</b> )	
Inundation Visible on Aerial		Thin Muck Surface (C7)			Frost-Heave Hummo	ocks (D7) (LRR F)	
Imagery (B7)		Other (Explain in Remarks	(s)				
Field Observations:							
Surface Water Present?	Yes	No	X Depth (inches)		<u> </u>	_	
Water Table Present?	Yes	No	X Depth (inches)		Wetland Hydro		
Saturation Present?	Yes X	No	Depth (inches)	)0	_	Yes	X
(include cappillary fringe)		<del></del>				No	
Describe Recorded Data (stream			ispections), if availab	le:			
Remarks: Hydrologic indicators	were observed at this loca	ition.					l
							ŀ

Vegeta	tion- Use scientific na	mes of plant	S			Louisiana				
U		*	Absolute %	Dominant	Indicator					
Tree Stra	atum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:				
1	Liquidambar styraciflua	_	10	YES	FAC	Number of Dominant Species 8 (A)				
2	Quercus nigra		5	NO	FAC	That Are OBL, FACW, or FAC:				
3	Triadica sebifera		15	YES	FAC					
4	Quercus michauxii		5	NO	FACW	Total Number of Dominant 8 (B)				
5	Celtis laevigata		5	NO	FACW	Species Across All Strata:				
6	Cerris recerriquies			1.0	1110	Species 1 101 000 1 111 0 11 1111				
7						Percent of Dominant Species 100% (A/B)				
,		Total Cover	40			That Are OBL, FACW, or FAC:				
		101111 00101	Absolute %	Dominant	Indicator	That is a part of the state of				
Sanling S	Stratum (15')		Cover	Species?	Status	Prevalance Index Worksheet:				
1	Stratum (15') Triadica sebifera	_	5	NO	FAC	Total % Cover of: Multiply by:				
2	Ilex vomitoria		10	NO	FAC	OBL species $ 10                                  $				
	Ligustrum sinsense		45	YES	FAC	FACW species $\frac{10}{25}$ $x = 2$				
3 4	Ligustrum strisense		13	ILS	1710	FAC species $\frac{25}{100} \times 3 = \frac{300}{300}$				
5						FACU species $0 \times 4 = 0$				
6						$\begin{array}{c cccc} & & & & & & & & & & & & & & & & & $				
7						Column Totals: 135 (A) (B) 360				
,		Total Cover	60			Prevalence Index = $B/A = $ (A) (B) 300				
		1 otal Cover	Absolute %	Dominant	Indicator	1 Tevalence index = D/A = 3				
Shruk St	ratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:				
1	Sabol minor	_	10	YES	FACW	Rapid Test for Hydrophytic Vegetation				
	Sabot minor		10	ILS	TACW	X Dominance Test is >50%				
2										
3						X Prevalence Index $\leq 3.0^1$				
4						Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
4 5 6										
6						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.				
7						Definitions for Four Vegetation Strata:				
		Total Cover	10							
			Absolute %	Dominant	Indicator					
Herb St	ratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more				
1	Saururus cernuus		10	YES	OBL	in diameter at breast height (DBH), regardless of				
	Chasmanthium laxum		5	YES	FACW	height				
2 3 4 5	Cricisment teather			122	1110					
4						Sapling/Shrub - Woody plants, excluding vines less				
5						than 3 inch DBH and greater than 1 meter tall.				
						and the state of t				
6 7						Herb - All herbaceous (non-woody) plants, regardless				
						of size, and wood plants less than 1 meter tall.				
8 9						or size, and wood plants less than I meter tail.				
10						Woody vine - All woody vines greater than 1 meter in				
11						height.				
12						neight.				
12		Total Cover	15			-				
		Total Cover		D	I. 1:					
Woody	Vine Stratum (30')		Absolute %	Dominant	Indicator	Hydrophytic Vegetation Present?				
			Cover	Species?	Status	Tryurophytic vegetation rresent:				
1	Smilax bona-nox		5	YES	FAC	4				
2	Lygodium japonicum		5	YES	FAC	<del> </del>				
2 3 4 5						X NO				
4						YES NO				
5			1.0			4				
		Total Cover	10			I .				
D :	** 1 1					•				
Remark	s: Hydrophytic vegetation			1.						

SOIL										
Profile	Desription: (Describe to the d	lepth need	ded to docum	ent the indicator	r or confirm the	absence of i	ndicato	ors.)	L	ouisiana
	Matrix		Re	dox Fetures						
Depth (inches)	Color (moist)	%		Color (moist)	%	Type <sup>1</sup>		$Loc^2$	Texture	Remarks
0-16	10YR 6/1	85	10YR 6/8	soloi (moist)	15	D Type	RM	Loc	Silt loam	Remarks
0 10	1011071	05	1011000		- 13		1011		Siit iodiii	
<sup>1</sup> т С-	Concentration D-Douletien BM-1	Dadward Me	atain CS-Carrana	d on Cooted Sand C	· · · · · · · · · · · · · · · · · · ·				<sup>2</sup> Location: PL=Pore Lini	no M-Motriu
	Concentration, D=Depletion, RM=l	Keduced Ma	itrix, CS=Covere	d or Coated Sand G	rains		India	aton fon Du	oblematic Hydric Soil	
Hyaric	Soil Indicators:			Sandy Clayed M	Antwise (SA)		maica	ator for Pro	obiematic riyuric Son	is:
	Histol (A1) Histic Epipedon (A2)			Sandy Gleyed M Sandy Redox (S:					1 cm Muck (A9) (LRR	(I.)
	Black Histic (A3)			Stripped Matrix					Coast Prairie Redox (Al	
	Hydrogen Sulfide (A4)				Mineral (F1) (LRR				Dark Surface (S7) (LRR	
	Stratified Layers (A5) (LRR F)		•	Loamy Gleyed M					High Plains Depressions	*
	1 cm Muck (A9) (LRR P, T)		X	Depleted Matrix	` ′				(LRR outside of MLR	
	Depleted Below Dark Surface (A11	)		Redox Dark Sur					Reduced Vertic (F18)	,
	Thick Dark Surface (A12)			Depleted Dark S	Surface (F7)				Red Parent Material (TF	2)
	Sandy Mucky Mineral (S1) (LRR (	O, S)		Redox Depression	ons (F8)				Other (Explain in Remar	ks)
	2.5 cm Mucky Peat or Peat (S2) (L			High Plains Dep	pressions (F16)					
	5 cm Mucky Peat or Peat (S3) (LR	R F)		(MLRA 72 & 7.	3 of LRR H)		3In	dicators of hy	drolophytic vegetation and	d wetland
							111		rology must be present.	a wettand
Restric	tive Layer (if observed):								Hydric Soil Pres	ont?
	Т								Hyuric Son Pres	ent:
	Type: Depth (inches):		_					Yes	X	No
	Deptii (iliciles).		_					1 68	Λ	110
Remark	s: Hydric soil indicators were	e observe	d at this locat	ion.						
	ist 11) and son materials were	00001.0								

	GF	COSYNTEC CONS	SULTANTS	INC.			
	WETLAND DETE	RMINATION DATA FORM	A - Atlantic and Gu	lf Coastal Plain Re	gion		
Project Site:	Hornsby Industrial Park	City/County:	Livingston	_	Sampling Date:	9/8/2017	
Applicant/Owner:	David McKellar		State:	Louisiana	Sampling Point:	DP-03	
Investigator(s): C. Ngu	•	Section/Range:	S20 T06S F	₹04E	Slope (%):	1-3	
Landform (hillslope, terra	ace, etc.): flat	Local relief (concave,	convex, none):	flat	Datum:	WGS1984	
Subregion (LRR or MLR			30.509569155	Long:			
Soil Map Unit Name:	Satsuma silt loam, 1 to				WI classification		
· -	ons on the site typical for this time of year		Yes X	No		(If no, explain in Re	emarks)
Are Vegetation	Soil	Hydrology		ntly disturbed?			
Are Vegetation	Soil	Hydrology		problematic?	(If needed, explain a	any answers in Remark	ks)
Are "Normal Circumstan	_	Yes X	No				
	DINGS- Attach site map sho			ts, important te	eatures, ect.		
Hydrophytic Vegetation I		Yes X	No	Is the Sample	Area within a	37	
Hydric Soils Present?		Zes	No X	Wetl	land?	Yes	v
Wetland Hydrology Prese	ent?  bsence of hydric soil and wetland	es	No X	C14		No	X
Kemarks: Based on the at	Sence of flydric soft and wettand	i nyarology, tilis location it	JIIIIIS UIE CITICITA O	r arī upianu.			
r							ļ
HYDROLOGY							
HYDROLOGY Wetland Hydrology Ind	liastama.			Casandami Indiae	tana (minimum .	of two magnined)	
• 0•	neators: num of one is required: check al	1 that annly)		Secondary Indica	Surface Soil Cracks		
Surface Water (A1)	fluill of one is required. effect an	Water-Stained Leaves (B9)				(Bo) Concave Surface (B8)	`
High Water Table (A	2)	Salt Crust (B11)			Drainage Patterns (B		'
Saturation (A3)		Aquatic Invertebrates (B13)				eres on Living Roots (	C3)
Water Marks (B1)		Hydrogen Sulfide Odor (C1)			(where tilled)	108 On Living 10000 (	(3)
Sediment Deposits (F	32)	Dry-Season Water Table (C2			Crayfish Burrows (C	787	
Drift Deposits (B3)		Oxidized Rhizospheres on L	<i>'</i>			n Aerial Imagery (C9)	,
Algal Mat or Crust (F	34)	(where not tilled)	14mg 110010 (-2)	n (D2)	<u>'</u>		
Iron Deposits (B5)		Presence of Reduced Iron (C	24)	FAC-Neutral Test (I			
Inundation Visible or	n Aerial	Thin Muck Surface (C7)	,		Frost-Heave Hummo		
Imagery (B7)		Other (Explain in Remarks)				-	
Field Observations:							
Surface Water Present?	Yes	No	X Depth (inches				
Water Table Present?	Yes		X Depth (inches	(1)	Wetland Hydro	ology Present?	
Saturation Present?	Yes	No	X Depth (inches	<u>)</u>		Yes	
(include cappillary fringe)						No	X
	(stream gauge, monitoring well,		pections), if availab	le:			
Remarks: No hydrologic	indicators were observed at this	location.					
Ĭ							ŀ
İ							

Vegeta	ntion- Use scientific na	mes of plant	S			Louisiana				
			Absolute %	Dominant	Indicator					
Tree Str	atum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:				
1	Pinus taeda	_	50	YES	FAC	Number of Dominant Species 7 (A)				
2	Triadica sebifera		5	NO	FAC	That Are OBL, FACW, or FAC:				
3	Quercus nigra		5	NO	FAC	11 022,1110, 011110.				
4	Quercus falcata		5	NO	FACU	Total Number of Dominant 9 (B)				
	guereus javeana			11.0	11100	Species Across All Strata:				
5 6						Species recess rui suala.				
7						Percent of Dominant Species 78% (A/B)				
,		Total Cover	65			That Are OBL, FACW, or FAC:				
		Total Cover	Absolute %	Dominant	Indicator	That rice obb, the w, of the.				
Sanling	Stratum (15')		Cover	Species?	Status	Prevalance Index Worksheet:				
1	Stratum (15') Pinus taeda	_	10	YES	FAC	Total % Cover of: Multiply by:				
2	Triadica sebifera		5	YES	FAC	$ \begin{array}{ccc} \text{OBL species} & 0 & \text{x } 1 = 0 \end{array} $				
	Quercus nigra		5	YES	FAC	FACW species $0 \times 2 = 0$				
3 4	Quereus iligia		<u> </u>	1123	TAC	FAC species				
5						FACU species				
6										
7										
1		Total C	20							
		Total Cover	Absolute %	Dominant	Indicator	Prevalence Index = B/A = 3				
Ch1 C	buotum (150					Hydronhydia Voqetetian In 3't				
1	tratum (15')	_	Cover	Species?	Status	Hydrophytic Vegetation Indicators:				
	Viburnum dentatum		5	YES	#N/A	Rapid Test for Hydrophytic Vegetation				
2						X Dominance Test is >50%				
3						Prevalence Index $\leq 3.0^1$				
4						Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
5										
4 5 6						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.				
7						Definitions for Four Vegetation Strata:				
		Total Cover	5			<u> </u>				
		Total Cover	Absolute %	Dominant	Indicator					
Harb St	ratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more				
1	Chasmanthium latifolium	n	35	YES	FAC	in diameter at breast height (DBH), regardless of				
	Callicarpa americana	ni .	5	YES	FACU	height				
2 3 4 5	синсигра инепсини		<u> </u>	11.5	TACO	incignt				
<i>J</i>						Sapling/Shrub - Woody plants, excluding vines less				
5	·					than 3 inch DBH and greater than 1 meter tall.				
						than 3 men DBH and greater than 1 meter tan.				
6 7						Herb - All herbaceous (non-woody) plants, regardless				
						of size, and wood plants less than 1 meter tall.				
8 9						of size, and wood plants less than I meter tail.				
10						Woody vine - All woody vines greater than 1 meter in				
11						height.				
12		T . 10	40			4				
		Total Cover	40							
XX7 1	T. G. (200)		Absolute %	Dominant	Indicator	H-d				
	Vine Stratum (30')		Cover	Species?	Status	Hydrophytic Vegetation Present?				
1	Lygodium japonicum		5	YES	FAC	1				
2	Nekemias arborea		5	YES	FAC	<del>                                     </del>				
3 4						X				
4						YES NO				
5										
		Total Cover	10							
Remark	s: Hydrophytic vegetation	was observe	d at this location	ı <b>.</b>						

	ifirm the	absence of	indicato	rs.)	L	ouisiana	
Redox Fetures							
		,		2			
Color (moist)	%			Loc <sup>2</sup>		Remarks	
		С	M		Silt loam		
x, CS=Covered or Coated Sand Grains					<sup>2</sup> Location: PL=Pore Lini	ng, M=Matrix	
			Indica	tor for Pro	blematic Hydric Soil	ls <sup>3</sup> :	
Sandy Gleyed Matrix (S4	4)						
Sandy Redox (S5)					1 cm Muck (A9) (LRR I	I, J)	
Stripped Matrix (S6)					Coast Prairie Redox (A1	6) (LRR F, G, H)	
Loamy Mucky Mineral (	F1) <b>(LRR</b>				Dark Surface (S7) (LRR	2 G)	
Loamy Gleyed Matrix (F	2)				High Plains Depressions	(F16)	
Depleted Matrix (F3)					(LRR outside of MLRA	A 72 & 73)	
Redox Dark Surface (F6)	)				Reduced Vertic (F18)		
Depleted Dark Surface (l	F7)				Red Parent Material (TF	2)	
Redox Depressions (F8)					Other (Explain in Remar	ks)	
High Plains Depressions	(F16)						
(MLRA 72 & 73 of LR)	R H)		3r. di				
			hydrology must be present.				
					Hydric Soil Pres	ent?	
				Yes		No X	
	Color (moist)  Sandy Gleyed Matrix (Second Matrix (Second Matrix (Second Matrix (Second Matrix (Second Matrix (Fecond Matrix (	Redox Fetures  Color (moist) %  Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (LRR Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)	Color (moist) % Type¹  C  C  Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (LRR Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)	Color (moist) % Type¹  C M  C M  CS=Covered or Coated Sand Grains  Indica  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Loamy Mucky Mineral (F1) (LRR  Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)  Redox Depressions (F8)  High Plains Depressions (F16)  (MLRA 72 & 73 of LRR H)	Color (moist) % Type¹ Loc² C M  Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Loamy Mucky Mineral (F1) (LRR Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8) High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)  Yes	Redox Fetures  Color (moist)  % Type¹ Loc² Texture  C M Silt loam  Color (moist)  % Type¹ Loc² Texture  M Silt loam  Color (moist)  % Type¹ Loc² Texture  C M Silt loam  Color (moist)  % Color (m	

	GEOSYNTEC CO	NSULTANTS	INC.			
WETLANI	D DETERMINATION DATA FO			egion		
Project Site: Hornsby Industrial Pa		Livingston	ii Coastai i iaiii i	Sampling Date:	9/8/2017	
Applicant/Owner: David McKell		State	Louisiana	Sampling Point:		
Investigator(s): C. Nguyen	Section/Range:	S20 T06S I		Slope (%):	21 0.	
Landform (hillslope, terrace, etc.): flat	Local relief (concav		flat	Datum:	WGS1984	
Subregion (LRR or MLRA): LRR P	Lat:	30.507844137	Long	_		
	am, occasionally flooded	30.307011137	_	WI classification:		
Are climatic/hydrologic conditions on the site typical for this ti	•	Yes X	No		(If no, explain in	Remarks)
Are Vegetation Soil	Hydrology		tly disturbed?		(ii ne, capani ii	remains)
Are Vegetation Soil	Hydrology		problematic?	(If needed, explain ar	ny answers in Rema	arks)
Are "Normal Circumstances" present?	Yes X	No	proor <b>e</b> mant.	(11 nocaea, explain ai	.,	
SUMMARY OF FINDINGS- Attach site n			- ts_imnortant :	features ect		
Hydrophytic Vegetation Present?	Yes X	No				
Hydric Soils Present?	Yes X	No		e Area within a	Yes	X
Wetland Hydrology Present?	Yes X	No	We	tland?	No No	- 14
Remarks: Based on the presence of hydric soil, hy			ation fulfills the	criteria of an wetla		
William of a gradient						
HYDROLOGY			C 1 I I		C	
Wetland Hydrology Indicators:	-1111-4141-3		Secondary India	cators (minimum o	•	)
Primary Indicators (minimum of one is required:	** **	0)		Surface Soil Cracks (		.0)
Surface Water (A1)	Water-Stained Leaves (B	9)		Sparsely Vegetated C		(8)
High Water Table (A2)  X Saturation (A3)	Salt Crust (B11)	12)		Drainage Patterns (B		(C2)
Water Marks (B1)	Aquatic Invertebrates (B) Hydrogen Sulfide Odor (		(where tilled)	izospheres on Living Roots (C3)		
Sediment Deposits (B2)	Dry-Season Water Table			Crayfish Burrows (C	8)	
Drift Deposits (B3)	Oxidized Rhizospheres of	* *		Saturation Visible on		9)
Algal Mat or Crust (B4)	(where not tilled)	ii Living Roots (C5)		Geomorphic Position		2)
Iron Deposits (B5)	X Presence of Reduced Iron	1 (C4)	FAC-Neutral Test (D5)			
Inundation Visible on Aerial	Thin Muck Surface (C7)	- ( - 1)		Frost-Heave Hummo	1	
Imagery (B7)	Other (Explain in Remark	(s)		_	, , , ,	
Field Observations:						
Surface Water Present? Yes	No	X Depth (inches	)			
Water Table Present? Yes	No	X Depth (inches	)	Wetland Hydro	logy Present?	
Saturation Present? Yes_	No	Depth (inches	8	1	Yes	X
(include cappillary fringe)					No	
Describe Recorded Data (stream gauge, monitoring		nspections), if availab	ole:			
Remarks: Hydrologic indicators were observed at						

Veget	ation- Use scientific nar	nes of plant	s			Louisiana		
Tree St	ratum (Plot Sizes: 30')		Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test Worksheet:		
1	Pinus taeda	_	45	YES	FAC	Number of Dominant Species	6	(A)
2	Triadica sebifera		20	YES	FAC	That Are OBL, FACW, or FAC:	0	_('1)
3	1. taatea see gera				1110			
1						Total Number of Dominant	6	(B)
5						Species Across All Strata:		_(-)
5								
7						Percent of Dominant Species	100%	(A/B)
		Total Cover	65			That Are OBL, FACW, or FAC:	-	_( /
			Absolute %	Dominant	Indicator	, ,		
Sapling	Stratum (15')		Cover	Species?	Status	Prevalance Index Worksheet:		
1	Triadica sebifera	_	35	YES	FAC	Total % Cover of:	Multi	iply by:
2	Pinus taeda		20	YES	FAC	OBL species 15	x 1 =	15
3	Baccharis halimifolia		15	YES	FAC	FACW species 5	x 2 =	10
4						FAC species 175	x 3 =	525
5						FACU species 10	x 4 =	40
6						UPL species 0	x 5 =	0
7	-					Column Totals: 205	(A) (B)	590
•		Total Cover	70			Prevalence Index = B/A =	_ (11) (2)	3
		101111 00101	Absolute %	Dominant	Indicator	Trevalence mach. Bill		
Shrub S	Stratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:		
1	tutum (10)	_	20.01	эргий.	2 (4)	Rapid Test for Hydrophytic Vege	etation	
2						X Dominance Test is >50%	Juli OII	
						$\mathbf{X}$ Prevalence Index $\leq 3.0^{1}$		
3							1	
4						Problematic Hydrophytic Vegeta	.tion¹ (Explain	.)
5								
6						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be	present.	
7						Definitions for Four Vegetation Strata:		
		Total Cover	0					
			Absolute %	Dominant	Indicator			
Herb S	tratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inch	nes or more	
1	Callicarpa americana		10	NO	FACU	in diameter at breast height (DBH), regardles		
2	Eupatorium perfoliatum		5	NO	FACW	height		
3	Typha latifolia		5	NO	OBL	- v		
4	Eleocharis obtusa		10	NO	OBL	Sapling/Shrub - Woody plants, excluding vi	ines less	
5	Rubus argutus		40	YES	FAC	than 3 inch DBH and greater than 1 meter tal		
6								
7						Herb - All herbaceous (non-woody) plants, r	regardless	
8						of size, and wood plants less than 1 meter tal		
9								
10						Woody vine - All woody vines greater than 1	1 meter in	
11						height.	i illeter ili	
12								
12	-	Total Cover	70			<u></u>		
		Total Cover		D	T., 1:			
Woods	Vine Stratum (30')		Absolute %	Dominant	Indicator	Hydrophytic Vegetation	Drocont?	
	vine Stratum (50)		Cover	Species?	Status	Hydrophytic vegetation	r resent:	
1								
2						<u> </u>		7
3						X		_
4						YES	NO	
5						<u></u>		
		Total Cover	0					
Remarl	ks: Hydrophytic vegetation	was observe	d at this location	ł.				

rofile I	Description: (Describe to the	depth need			or confirm the	absence of in	ndicators	s.)	L	ouisiana
	Matrix		Re	edox Fetures						
Depth (inches)	Color (moist)	%		Color (moist)	%	Type <sup>1</sup>		Loc <sup>2</sup>	Texture	Remarks
	10YR 6/2	90	10YR 6/8	Color (moist)	10	С	M	Loc	silty clay loam	Remarks
	10YR 7/1	55	10YR 6/8		45	D	RM		silty clay loam	
ype: C=	Concentration, D=Depletion, RM=	Reduced Ma	atrix, CS=Cover	ed or Coated Sand Gr	ains				<sup>2</sup> Location: PL=Pore Lini	ng, M=Matrix
ydric S	oil Indicators:						Indicat	or for Pr	oblematic Hydric Soil	ls <sup>3</sup> :
	Histol (A1)			Sandy Gleyed Ma						
	Histic Epipedon (A2)			Sandy Redox (S5					1 cm Muck (A9) (LRR	
	Black Histic (A3)			Stripped Matrix (					Coast Prairie Redox (Al	
	Hydrogen Sulfide (A4)			Loamy Mucky M					Dark Surface (S7) (LRF	
	Stratified Layers (A5) (LRR F)			Loamy Gleyed M					High Plains Depressions	
	1 cm Muck (A9) (LRR P, T)		X	Depleted Matrix (					(LRR outside of MLR	<b>A</b> 72 & 73)
	Depleted Below Dark Surface (A1	1)	X	Redox Dark Surfa	. ,				Reduced Vertic (F18)	
	Thick Dark Surface (A12)			Depleted Dark Su	` ′		-		Red Parent Material (TF	
	Sandy Mucky Mineral (S1) (LRR			Redox Depression			-		Other (Explain in Remar	·ks)
	2.5 cm Mucky Peat or Peat (S2) (L			High Plains Depre						
	5 cm Mucky Peat or Peat (S3) (LR	R F)		(MLRA 72 & 73	of LRR H)		<sup>3</sup> Indi	cators of hy	drolophytic vegetation an	d wetland
								11941	rology must be present.	
estrict	ive Layer (if observed):						<u></u>	nyu.		
Restrict	ive Layer (if observed):							ilyu.	Hydric Soil Pres	ent?
Restrict	Type:								Hydric Soil Pres	ent?
estrict								Yes	Hydric Soil Pres	ent?
	Type: Depth (inches):	2 observa	d at this large	ion					Hydric Soil Pres	<b>1</b>
	Type:	re observe	d at this locat	tion.					Hydric Soil Pres	<b>1</b>
	Type: Depth (inches):	re observe	d at this locat	tion.					Hydric Soil Pres	<b>1</b>
	Type: Depth (inches):	re observe	d at this locat	tion.					Hydric Soil Pres	<b>1</b>
	Type: Depth (inches):	re observe	d at this locat	tion.					Hydric Soil Pres	<b>1</b>
	Type: Depth (inches):	re observe	d at this local	tion.					Hydric Soil Pres	<b>1</b>
	Type: Depth (inches):	re observe	d at this local	tion.					Hydric Soil Pres	<b>1</b>
	Type: Depth (inches):	re observe	d at this local	tion.					Hydric Soil Pres	<b>1</b>
	Type: Depth (inches):	re observe	d at this locar	tion.					Hydric Soil Pres	<u>-</u>
	Type: Depth (inches):	re observe	d at this local	tion.					Hydric Soil Pres	

	GEOSYNTEC CO	NSULTANTS I	INC.	
WE	TLAND DETERMINATION DATA FO			
Project Site: Hornsby Indus		Livingston	Sampling Date:	9/8/2017
	McKellar	State:		
Investigator(s): C. Nguyen	Section/Range:	S20 T06S R		1-3
Landform (hillslope, terrace, etc.): flat	Local relief (conca		flat Datum:	WGS1984
Subregion (LRR or MLRA): LRR P	Lat:	30.509617736	Long: -90.82566	68529
	a silt loam, 1 to 3 percent slopes		NWI classification:	None
Are climatic/hydrologic conditions on the site typical	for this time of year?	Yes X	No	(If no, explain in Remarks)
Are Vegetation Soi	l Hydrology	significant	ly disturbed?	-
Are Vegetation Soi	l Hydrology	naturally p	problematic? (If needed, explain an	y answers in Remarks)
Are "Normal Circumstances" present?	Yes X	No		
SUMMARY OF FINDINGS- Attach	site map showing sampling poir	nt locations, transect	ts, important features, ect.	
Hydrophytic Vegetation Present?	Yes X	No	Is the Sample Area within a	
Hydric Soils Present?	Yes	No X	Wetland?	Yes
Wetland Hydrology Present? Remarks: Based on the absence of hydric s	Yes	No X		No X
HYDROLOGY				
Wetland Hydrology Indicators:			Secondary Indicators (minimum o	* '
Primary Indicators (minimum of one is req			Surface Soil Cracks (	*
Surface Water (A1)	Water-Stained Leaves (	В9)	Sparsely Vegetated C	i i
High Water Table (A2)	Salt Crust (B11)		Drainage Patterns (B	•
Saturation (A3)	Aquatic Invertebrates (I	•		es on Living Roots (C3)
Water Marks (B1)	Hydrogen Sulfide Odor  Dry-Season Water Tabl		(where tilled)	2)
Sediment Deposits (B2) Drift Deposits (B3)	Oxidized Rhizospheres	· '	Crayfish Burrows (Co	·
Algal Mat or Crust (B4)	(where not tilled)	on Living Roots (C3)	Geomorphic Position	
Iron Deposits (B5)	Presence of Reduced In	on (C4)	FAC-Neutral Test (D	` ′
Inundation Visible on Aerial	Thin Muck Surface (C7	•	Frost-Heave Hummo	<i>'</i>
Imagery (B7)	Other (Explain in Rema	· · · · · · · · · · · · · · · · · · ·		(= , ) (===== )
Field Observations:		,		
Surface Water Present?	Yes No	X Depth (inches)		
Water Table Present?	Yes No	X Depth (inches)	Wetland Hydro	logy Present?
Saturation Present?	Yes No	X Depth (inches)		Yes
(include cappillary fringe)				No X
Describe Recorded Data (stream gauge, me	onitoring well, aerial photos, previous	inspections), if availabl	e:	
Remarks: No hydrologic indicators were o	soci ved ut tilis iteation.			

Vegeta	ation- Use scientific na	mes of plant	S			Louisiana	
		-	Absolute %	Dominant	Indicator		
Tree Str	ratum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:	
1	Pinus taeda		45	YES	FAC	Number of Dominant Species 8 (A)	
2	Quercus nigra		10	NO	FAC	That Are OBL, FACW, or FAC:	
3	Triadica sebifera		15	NO	FAC		
4						Total Number of Dominant 9 (B)	
5						Species Across All Strata:	
6	(managed)						
7						Percent of Dominant Species 89% (A/	B)
		Total Cover	70			That Are OBL, FACW, or FAC:	
			Absolute %	Dominant	Indicator		
	Stratum (15')	_	Cover	Species?	Status	Prevalance Index Worksheet:	
1	Pinus taeda		5	YES	FAC	Total % Cover of: Multiply b	•
2	Triadica sebifera		10	YES	FAC	OBL species 0 x 1 =	0
3	Quercus nigra		5	YES	FAC	FACW species 0 x 2 =	0
4						FAC species 130 x 3 =	390
5						FACU species 15 x 4 =	60
6						UPL species $0 \times 5 =$	150
7		T . 1.C	20			Column Totals: 145 (A) (B)	<b>450</b>
		Total Cover	Absolute %	Dominant	Indicator	Prevalence Index = B/A =	
Charle C	tratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:	
1	Viburnum dentatum	_	10	YES	FAC	Rapid Test for Hydrophytic Vegetation	
2	Ilex vomitoria		10	YES	FAC	X Dominance Test is >50%	
	nex vonilloria		10	TES	TAC	Prevalence Index $\leq 3.0^{1}$	
3							
4						Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
5							
6						Indicators of hydric soil and wetland hydrology must be present.	
7						Definitions for Four Vegetation Strata:	
		Total Cover	20				
			Absolute %	Dominant	Indicator		
	tratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more	
1	Chasmanthium latifolia		10	YES	FAC	in diameter at breast height (DBH), regardless of	
2	Callicarpa americana		5 10	NO	FACU	height	
3 4	Rubus traivialis		10	YES YES	FACU FAC	Sapling/Shrub - Woody plants, excluding vines less	
5	Lygodium japonicum		10	1 E3	FAC	than 3 inch DBH and greater than 1 meter tall.	
6						than 5 men DBH and greater than 1 meter tan.	
7						Herb - All herbaceous (non-woody) plants, regardless	
8						of size, and wood plants less than 1 meter tall.	
9						of size, and wood plants less than I meter tail.	
10						Woody vine - All woody vines greater than 1 meter in	
11						height.	
12						<i>•</i>	
		Total Cover	35				
			Absolute %	Dominant	Indicator		
Woody	Vine Stratum (30')		Cover	Species?	Status	Hydrophytic Vegetation Present?	
1			_	1		, , , , , , , , , , , , , , , , , , ,	
2							
3						X	
4						YES NO	
5						7	
		Total Cover	0			<u>]</u>	
Remark	s: Hydrophytic vegetation	was observe	d at this location	1.			

SOIL Profile I	Desription: (Describe to the	depth nee	ded to docum	ent the indicator	r or confirm th	he al	bsence of i	ndicato	ors.)	L	ouisiana
	Matrix			dox Fetures							
Depth											
(inches)	Color (moist)	%	(	Color (moist)	%		Type <sup>1</sup>		Loc <sup>2</sup>	Texture	Remarks
0-10	10YR 3/4	100					C	M		Silt loam	
10-16	10YR 4/3	90	10YR 5/6		10		С	M		Silt loam	
<sup>1</sup> Type: C=	= Concentration, D=Depletion, RM=	=Reduced M	atrix, CS=Covere	d or Coated Sand G	Grains	_				<sup>2</sup> Location: PL=Pore Lini	ng, M=Matrix
	Soil Indicators:							Indic	ator for Pro	oblematic Hydric Soil	is <sup>3</sup> :
	Histol (A1)			Sandy Gleyed M	Aatrix (S4)						
	Histic Epipedon (A2)			Sandy Redox (S:						1 cm Muck (A9) (LRR l	í, J)
	Black Histic (A3)			Stripped Matrix						Coast Prairie Redox (A1	6) (LRR F, G, H)
	Hydrogen Sulfide (A4)				Mineral (F1) (LRI	.R				Dark Surface (S7) (LRR	
	Stratified Layers (A5) (LRR F)			Loamy Gleyed M						High Plains Depressions	
	1 cm Muck (A9) (LRR P, T)			Depleted Matrix						(LRR outside of MLRA	
	Depleted Below Dark Surface (A1)	.1)		Redox Dark Sur						Reduced Vertic (F18)	,
	Thick Dark Surface (A12)	-,		Depleted Dark S	. ,					Red Parent Material (TF	2)
	Sandy Mucky Mineral (S1) (LRR	O, S)		Redox Depression						Other (Explain in Remar	
	2.5 cm Mucky Peat or Peat (S2) (L			High Plains Dep							,
	5 cm Mucky Peat or Peat (S3) (LR			(MLRA 72 & 7.				<sup>3</sup> Ir		drolophytic vegetation and rology must be present.	d wetland
Restric	ctive Layer (if observed):							Τ			
										Hydric Soil Pres	ent?
	Type:		_						_		
	Depth (inches):		_						Yes		No X
Remark	xs: No hydric soil indicators v	were obser	rved at this lo	cation.		•					

Project Site:	WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Costal Plain Region	Note	Г	~-	OCTATED ~ ~ ~	NIGHTE OF A STORY	DIC		
Project   Site:   Homsby Industrial Park   City/County:   Livingston   State:   Louisians   Sampling Pote:   \$98/2017   Applicant/Owner:   David McKellar   Scotion/Range:   \$20 TOOS ROHE   Slope (%):   3	Project Site:   Hornsby Industrial Park   City/County:   I.ivingston   State:   Louisiana   Sampling Dait:   9/8/2017   Po-06   Po-0	Project   Site:   Homsby Industrial Park   City/County:   Livingston   State:   Louisian   Sampling Pate:   9/82/017   Propertion   Province							
Applicant/Owner:   David McKellar   Scotion/Range:   State:   Louisians   Sampling Point:   DiP-06   Investigator(s):   C. Nguyen   Scotion/Range:   Scotion/Range:   Scotion/Range:   Scotion/Range:   Stope (%):   13   Landform (hillslope, terrace, etc.):   flat   Local relief (concave, convex, none):   flat   Datum:   WGS1984   Subregion (LRR or MLRA):   LRR P	Applicant/Owner:	Applicant/Owner:   David McKellar   Section/Range:   State:   Louisiana   Sampling Point:   DP-06   New State   Declar Private   Section/Range:   S20 T068 R04E   Slope (%):   -3   Slope (%):					lf Coastal Plain F	U	
Investigator(s)   C. Buyuen	Investigator(s)   C. Nguyen	Investigator(s)   C. Buyen		•	City/County:				
Landform (hillslope, terrace, etc.): flat	Landform (hillslope, terrace, etc.): flat	Landform (hillslope, terrace, etc.): flat		David McKellar	G : /D				
Subregion (LRR or MLRA): LRR P Lat: 30.509679134 Long: 9-08.825247352 Soil Map Unit Name: Statuma silt loam, I to 3 percent slopes Are Vegetation Soil Hydrology Significantly disturbed? Are Vegetation Soil Hydrology asignificantly disturbed? Are Vegetation Soil Hydrology and significantly disturbed? Are Vegetation Soil Hydrology and significantly disturbed? Are Vegetation Soil Hydrology Indicators: Yes X No  SUMMARY OF FINDINGS- Attack site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No  SUMMARY OF FINDINGS- Attack site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes X No  Wetland Hydrology Indicators:  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (Al) X Water-Stained Leaves (B9)  Surface Water (Al) X Quastic Invertebrates (B13)  X Saturation (A3) X Aquatic Invertebrates (B13)  X Saturation (A3) X Aquatic Invertebrates (B13)  X Saturation (A3) X Aquatic Invertebrates (B13)  X Saturation Deposits (B2) Diffile Deposits (B3) Diffile Sediment Deposits (B4) Diffile Sediment Deposits (B4) Diffile Sediment Deposits (B4) Diffile Sediment Deposits (B4) Diffile Sediment Deposits (B5) Diffile Sediment Deposits (B5) Diffile Sediment Deposits (B4) Diffile Sediment Deposi	Subregion (LRR or MLRA):   LRR P	Subregion (LRR or MLRA):   LRR		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \					
Soil Mg Unit Name: Satsuma silt loam, I to 3 percent slopes	Soil May Unit Name:  Satsuma silt loam, I to 3 percent slopes Are climatic hydrologic conditions on the site typical for this time of year? Are Vegetation Soil Hydrology Suffice States in present? Yes X No SuMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrology Fresent? Yes X No Wetland Hydrology Present? Yes X No Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Frimary Indicators (minimum of one is required: check all that apply) Surface Water (Al) X Water-Stained Leaves (B9) Surface Water (Al) X Sutration (A3) X Aquatic Invertebrates (B13) Oxidized Rhizospheres on Living Roots (C3) X Water Marks (B1) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Agala Mar or Crust (B4) Hydrogen Sulfide Odor (C1) Lydrogen Sulfide Odor (C1) Algal Mar or Crust (B4) Hydrogen Sulfide Odor (C1) Lydrogen Sulfide Odor (C1) Lydrogen Sulfide Odor (C1) Agala Mar or Crust (B4) Hydrogen Sulfide Odor (C1) Lydrogen Sul	Soil Mg Unit Name: Satsuma silt loam, 1 to 3 percent slopes	1 /	′ <del></del>					
Are elimatic hydrologic conditions on the site typical for this time of year?  Are Vegetation Soil Hydrology anturally problematic?  Are Vegetation Soil Hydrology naturally problematic?  Are Vegetation Soil Hydrology naturally problematic?  Are Wormal Circumstances" present? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present? Yes X No  Hydrology Present? Yes X No  Wetland Hydrology Indicators:  Frimary Indicators (minimum of one is required: check all that apply)  Surface Soil Cracks (B6)  High Water Table (A2) Salt Crass (B11)  A sturation (A3)  A quatic Invertebrates (B13)  A sturation (A3)  A quatic Invertebrate (B13)  A sturation (A3)  A possible (Deposits (B2) Dy-Season Water Table (C2)  A possible (Deposits (B3) Oxidized Rhizospheres on Living Roots (C3)  A plank or Crust (B4)  A presence of Reduced from (C4)  Finanger (B7)  A presence of Reduced from (C4)  Finanger (B7)  A presence of Reduced from (C4)  Forest-leave Humaneks (D7) (LRR F)  Final Circumstances (B7)  A plank or Crust (B4)  A presence of Reduced from (C4)  Forest-leave Humaneks (D7) (LRR F)  Finand Orbervations:  Surface Water (Present? Yes No Depth (inches)  Wetland Hydrology Present?  Yes No Depth (inches)  Wetland Hydrology Present?  Yes No No Depth (inches)  Wetland Hydrology Present?  Yes No No Depth (inches)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Are climatic hydrologic conditions on the site typical for this time of year?  Are Vegetation Soil Hydrology significantly disturbed?  Are Vegetation Soil Hydrology naturally problematic? (If needed, explain any answers in Remarks)  Are Vegetation Present? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present? Yes X No  Wetland Hydrology Present? Yes X No  Wetland Hydrology Present? Yes X No  Wetland Hydrology Present? Yes X No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1) X Water-Stained Leaves (B9)  Surface Water (A1) X Water-Stained Leaves (B13)  A Qualic Invertebrates (B13)  A Qualic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Qualic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Extendition (C4)  Frost-Heave Hummocks (D7) (LRR F)  Imagery (B7)  Drift Deposits (B3)  Other (Explain in Remarks)  Freat Observations:  Surface Water Present?  Yes No Depth (inches)  Wetland Hydrology Present?  Yes No Depth (inches)  Wetland Hydrology Present?  Yes No Depth (inches)  Wetland Hydrology Pr	Are climatic hydrologic conditions on the site typical for this time of year?   Yes   X   No   (If no, explain in Remarks)   Are Vegetation   Soil   Hydrology   naturally problematic?   Are "Normal Circumstances" present?   Yes   X   No      SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects.				30.5096/9134			
Are Vegetation Soil Hydrology anaturally problematic? (If needed, explain any answers in Remarks) Are "Normal Circumstances" present? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present? Yes X No Is the Sample Area within a Yes X Wetland Hydrology Present? Yes X No Wetland? No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of two required)  Frimary Indicators (minimum of two required)  Frimary Indicators (minimum of two required)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of two required)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of two required)  Frimary Indicat	Are Vegetation Soil Hydrology significantly disturbed? Are Vegetation Fresent? Soil Hydrology naturally problematic? (If needed, explain any answers in Remarks) Are "Normal Circumstances" present? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present? Yes X No Is the Sample Area within a Wetland Hydrology Present? Yes X No No Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) X Water-Stained Leaves (B9) Surface Water (A1) Surface Water (A1) X Aquatic Invertebrates (B13) Oxidized Rhizospheres on Living Roots (B8)  Iligh Water Table (A2) Sall Crust (B11) Dirinage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3) X Water Marks (B1) Hydrogen Sulface Odor (C1) (where tilled) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) (where not tilled) Geomorphic Position (D2) Inno Depoits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5) Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No Depth (inches) Wetland Hydrology Present?  Yes No Depth (inches) Wetland Hydrology Present?  Yes No Depth (inches) O Present Present? Yes No Depth (inches) No Proceed (Inches) No	Are Vegetation Soil Hydrology naturally problematic? (If needed, explain any answers in Remarks) Are Vegetation Prosent? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, eet.  Hydrophytic Vegetation Present? Yes X No Is the Sample Area within a Yes X Wetland Hydrology Present? Yes X No Wetland? No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Frimary Indicators (minimum of one is required: check all that apply) Surface Soil Cracks (86)  Surface Water (Al) X Water-Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  High Water Table (A2) Salt Crust (B11)  X Sauration (A3) X Aquatic Invertebrates (B13) Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1) Hydroge Sulface Odor (C1) (where tilled)  Sediment Deposits (B2) Dry-Season Water Table (C2) X Crayfish Burrows (C8)  Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3)  Algal Mater Crust (B4) (where ontilled) Geomorphic Position (D2)  In Inmidiation Visible on Aerial Imagery (C9)  Algal Mater Crust (B4) (where ontilled) Geomorphic Position (D2)  In Inmidiation Visible on Aerial Imagery (C9)  Thin Muck Surface (C7) Frost-Heave Hummocks (D7) (LRR F)  In Inagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No Depth (inches) Wetland Hydrology Present?  Saturation Present? Yes No Depth (inches) Wetland Hydrology Present?  Saturation Present? Yes No Depth (inches) O Yes X  Clark Hydrology Present?  Yes X No Depth (inches) O Depth (inches) No Depth (inches) O Present?	_		<u> </u>	V <sub>aa</sub> V			
Are Vegetation Soil Hydrology naturally problematic? (If needed, explain any answers in Remarks) Are "Normal Circumstances" present? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present? Yes X No Wetland? Yes X  Wetland Hydrology Present? Yes X No Wetland? No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Sail Cracks (B6)  Surface Water (A1)  Surface Sail Cracks (B11)  Surface Water (A2)  Surface Sail Cracks (B11)  Surface Water (A1)  Surface Sail Cracks (B11)  Surface Water (A1)  Surface Sail Cracks (B11)  Hydrogen Sulfide Odor (C1)  Surface Sail Cracks (B10)	Are Vegetation Soil Hydrology Are "Normal Circumstances" present? Yes X No SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present? Yes X No Wetland Pydrology Present? Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Becondary Indicators (minimum of two required)  Frimary Indicators (minimum of one is required: check all that apply)  Surface Soil Cracks (B6) Surface Water (A1) Salt Crust (B11) Surface Suffice Operation (A3) X Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Induction (Where out tilled) Induction (C4) Induction (A5) Induct	Are Vegetation						<u> </u>	(If no, explain in Remarks
Are "Normal Circumstances" present?  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present?  Yes X No Wetland?  Yes X No Wetland?  Yes X No Wetland?  Wetland?  Wetland?  Wetland?  Yes X No Wetland?  Wetland?  No Wetland?  Yes X No Wetland?  Wetland?  No No Wetland?  No No Wetland?  No No Wetland?  No No No Wetland?  No N	Are "Normal Circumstances" present?  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present?  Yes X No Wetland Present?  Yes X No Wetland?  Wetland?  Wetland?  Wetland?  Yes Yos X No Wetland?  Wetland?  Wetland?  Wetland?  Wetland?  Yes No No Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Surface Water (A1)  X Saturation (A3)  X Aquatic Invertebrates (B13)  X Saturation (A3)  X Aquatic Invertebrates (B13)  X Saturation (A3)  X Mater Marks (B1)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Driy-Season Water Table (C2)  X Crayfish Burrows (C8)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  Innudation Visible on Aerial  Thin Muck Surface (C7)  Innudation Visible on Aerial	No	_					(IE 1. 11	
SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present?  Yes X No Wetland Hydrology Present?  Wetland Hydrology Indicators  Frimary Indicators (minimum of one is required: check all that apply)  Surface Water (A1) X Water-Stained Leaves (B9)  Surface Water (A1) X Water-Stained Leaves (B9)  Surface Water (A1) X Aquatic Invertebrates (B13)  X Saturation (A3) X Aquatic Invertebrates (B13)  Sediment Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Sediment Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  (where not tilled)  (where root tilled)  (where root tilled)  (where root tilled)  Food-peosits (B5)  (C2)  (C3)  (C3)  (C4)  (C4)  (C5)  (C6)  (C7)  (C6)  (C7)  (C6)  (C7)	SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.	SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.		_			problemane:	(II needed, explain a	ny answers in Remarks)
Hydric Soils Present? Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Wetland Hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (Al)  Surface Sull Cracks (B6)  Drainage Patterns (B10)  Couldized Rhizospheres on Living Roots (C3)  Surface Water Table (C2)  X Crayfish Burrows (C8)  Surface Water Present (B)  Surface Water Present (B)  Surface Water Present (B)  Thin Muck Surface (C7)  Thin Muck Surface Surface Reserved Hummocks (D7) (LRR F)  Thin Muck Surface	Hydrophytic Vegetation Present?  Yes X No Wetland Hydrology Present?  Yes X No Wetland Hydrology Present?  Yes X No  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Resent?  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1) X Water-Stained Leaves (B9)  Surface Water (A1) X Water-Stained Leaves (B11)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Socidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Iron Deposits (B5)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Iron Deposits (B5)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Iron Deposits (B5)  Yes No X Depth (inches)  Wetland Hydrology Indicators (minimum of two required)  No  Sediment Deposits (B5)  Algal Mat or Crust (B4)  Where not tilled)  Geomorphic Position (D2)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Iron Deposits (B5)  Y Presence of Reduced Iron (C4)  Iron Deposits (B5)  Y Presence of Reduced Iron (C4)  FAC-Neutral Test (D5)  Iron Material Test (D5)  Iron Deposits (B5)  Y Presence of Reduced Iron (C4)  Frost-Heave Hummocks (D7) (LRR F)  Field Observations:  Surface Water Present?  Yes No Depth (inches)  Wetland Hydrology Present?  Yes No Depth (inches)  No  No	Hydrophytic Vegetation Present?	-				_ .4a :	factures and	
Hydric Soils Present?  Wetland Hydrology Present?  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Surface Water (A1)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Saturation (A3)  X Aquatic Invertebrates (B13)  Sediment Deposits (B2)  Drift Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (C7)  Inundation Visible on Aerial  Imagery (B7)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches)  Wetland?  Wetland?  Yes  X  No  Depth (inches)  Yes  X  Crouse Surface Water No  Yes  X  Condition Induction (Sin Induced No  Yes  X  Condition Induced Induced No  Yes  X  Condition Induced Induced No  Yes  X  Condition Induced Induced Induced No  Yes  X  Condition Induced Induced Induced Induced No  Yes  X  Condition Induced Induced Induced Induced No  Yes  X  Condition Induced Ind	Hydric Soils Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Surface Water (A1)  X Water-Stained Leaves (B9)  Saltration (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Hydrogen Sulfide Odor (C1)  Algal Mat or Crust (B4)  Algal Mat or Crust (B	Hydric Soils Present?   Yes   X   No   Wetland?   Yes   X   No   Wetland?   Yes   X   No   Wetland?   Yes   X   No   No   Wetland?   No   No   No   No   No   No   No   N					ts, important	ieatures, ect.	
Wetland Hydrology Present?         Yes         X         No           HYDROLOGY           Wetland Hydrology Indicators:         Secondary Indicators (minimum of two required)           Primary Indicators (minimum of one is required: check all that apply)         Surface Water (A1)         X         Water-Stained Leaves (B9)         Sparsely Vegetated Concave Surface (B8)           High Water Table (A2)         Salt Crust (B11)         Drainage Patterns (B10)         X           X         Saturation (A3)         X         Aquatic Invertebrates (B13)         Oxidized Rhizospheres on Living Roots (C3)           X         Water Marks (B1)         Hydrogen Sulfide Odor (C1)         (where tilled)           Sediment Deposits (B2)         Dry-Season Water Table (C2)         X         Crayfish Burrows (C8)           Drift Deposits (B3)         Oxidized Rhizospheres on Living Roots (C3)         Saturation Visible on Aerial Imagery (C9)           Algal Mat or Crust (B4)         (where not tilled)         Geomorphic Position (D2)           Innudation Visible on Aerial         Thin Muck Surface (C7)         FAC-Neutral Test (D5)           Innudation Visible on Aerial         Thin Muck Surface (C7)         Frost-Heave Hummocks (D7) (LRR F)           Imagery (B7)         Other (	Wetland Hydrology Present?         Yes         No           Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.           HYDROLOGY           Wetland Hydrology Indicators:         Secondary Indicators (minimum of two required)           Primary Indicators (minimum of one is required: check all that apply)         Surface Soil Cracks (B6)           Surface Water (A1)         X         Water-Stained Leaves (B9)         Spansely Vegetated Concave Surface (B8)           High Water Table (A2)         Salt Crust (B11)         Drainage Patterns (B10)           X         Saturation (A3)         X         Aquatic Invertebrates (B13)         Oxidized Rhizospheres on Living Roots (C3)           X         Water Marks (B1)         Hydrogen Sulfide Odor (C1)         (where tilled)           Sediment Deposits (B2)         Dry-Season Water Table (C2)         X         Crayfish Burrows (C8)           Drift Deposits (B3)         Oxidized Rhizospheres on Living Roots (C3)         Saturation Visible on Aerial Imagery (C9)           Algal Mat or Crust (B4)         (where not tilled)         Geomorphic Position (D2)           Innuation Visible on Aerial         Thin Muck Surface (C7)         Frost-Heave Hummocks (D7) (LRR F)           Inagery (B7)         Other (Explain in Re	Wetland Hydrology Present?					Is the Samp	le Area within a	Vac V
Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  Surface Water (A1)  X Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Salt Crust (B11)  Derinage Patterns (B10)  X Saturation (A3)  X Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  (where not tilled)  Geomorphic Position (D2)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  FAC-Neutral Test (D5)  Inundation Visible on Aerial  Inmagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches)  Wetland Hydrology Present?  Yes  X (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Soil Cracks (B6)  Surface Water (A1)  X Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Interebrates (B13)  Aquatic Interebrates (B13)  New Yeter Marks (B1)  Sediment Deposits (B2)  Dry-Season Water Table (C2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Iron Deposits (B5)  Thin Muck Surface (C7)  Inundation Visible on Aerial  Inundatio	Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.    HYDROLOGY	=				We	tland?	
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Soil Cracks (B6)  Surface Water (A1)  X Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Sediment Deposits (B2)  Dry-Season Water Table (C2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  (where of Itled)  Geomorphic Position (D2)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  FAC-Neutral Test (D5)  Inmadation Visible on Aerial  Imagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	HYDROLOGY   Wetland Hydrology Indicators:   Secondary Indicators (minimum of two required)   Primary Indicators (minimum of one is required: check all that apply)   Surface Soil Cracks (B6)   Sparsely Vegetated Concave Surface (B8)   High Water Table (A2)   Salt Crust (B11)   Drainage Patterns (B10)	HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Soil Cracks (B6)  Surface Water (A1)  Water-Stained Leaves (B9)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Sparsely Vegetated Concave Surface (B1)  (where tilled)  (where tilled)  (where tilled)  Sparsely Vegetated Concave Surface (B1)  (where tilled)  (where tilled)  Sparsely Vegetated Concave Surface (B1)  (where tilled)  (where tilled)  Sparsely Vegetated Concave Surface (B1)  (where tilled)  (where tilled)  Sparsely					ation fulfilla tha	anitania afan wat	
Note	Wetland Hydrology Indicators (minimum of one is required: check all that apply)       Secondary Indicators (minimum of two required)         Primary Indicators (minimum of one is required: check all that apply)       Surface Soil Cracks (B6)         Surface Water (A1)       X       Water-Stained Leaves (B9)       Sparsely Vegetated Concave Surface (B8)         High Water Table (A2)       Salt Crust (B11)       Drainage Patterns (B10)         X       Saturation (A3)       X       Aquatic Invertebrates (B13)       Oxidized Rhizospheres on Living Roots (C3)         X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       (where tilled)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       X       Crayfish Burrows (C8)         Drift Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       (where not tilled)       FAC-Neutral Test (D5)         Inna Innuadation Visible on Aerial       Thin Muck Surface (C7)       Frost-Heave Hummocks (D7) (LRR F)         Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7) (LRR F)         Surface Water Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Water Table Present?       Yes       No       Depth (inches)       Wetland Hydrology Pre	Wetland Hydrology Indicators (minimum of one is required: check all triapply)         Secondary Indicators (minimum of one is required: check all triapply)         Surface Soil Cracks (Bo)           Primary Indicators (minimum of one is required: check all triapply)         X         Water-Stained Leaves (BP)         Sparsely Vegetated Concave Surface (BR)           Surface Water (Al)         X         Water Table (A2)         X         Star Crust (B1)         Capacity Hydrogen Sulfide Odor (C1)         Capacity Hydrogen Sulfide Odor (C1)         Water failed (A1)         A Chaptisin Burnows (B1)         A Chaptisin Burnows							
Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Dry-Season Water Table (C2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Inundation Visible on Aerial  Imagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  X Depth (inches)  Wetland Hydrology Present?  Saturation Present?  Yes  X No  Depth (inches)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Bydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Thin Muck Surface (C7)  Inuagery (B7)  Fost-Heave Hummocks (D7) (LRR F)  Field Observations:  Surface Water Present?  Yes  No  No  Depth (inches)  Wetland Hydrology Present?  Yes  (include cappillary fringe)	Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Squrface Water (A2)  Squrface Water (A2)  Squrface (B3)  Squrface Water (A3)  X Aquatic Invertebrates (B13)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Squrface (B13)  Nater Marks (B1)  Phydrogen Sulfide Odor (C1)  Squiment Deposits (B2)  Dry-Season Water Table (C2)  Algal Mat or Crust (B4)  Iron Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Inundation Visible on Aerial Invertebrates (C7)  Invertebrates (C7)  Invertebrates (C7)  Fost-Heave Hummocks (D7) (LRR F)  Fost-Heave Hummocks (D7) (LRR F)  Field Severations  Field Severations  Surface Water Present?  Yes  No  No  No  Depth (inches)  Saturation Present?  Yes  No  Obeyth (inches)  No  Pesson Water Analysis (B1)  No  No  No  Depth (inches)  No  No  No  No  No  No  No  No  No  N							
Surface Water (A1)  High Water Table (A2)  Salt Crust (B11)  Naturation (A3)  X Aquatic Invertebrates (B13)  New Younger Sulfide Odor (C1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Innudation Visible on Aerial Imagery (B7)  Imagery (B7)  Field Observations:  Surface Water Present?  Yes  No  No  No  Seliment Present?  Yes  No  Depth (inches)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Oxidized Rhizospheres on Living Roots (C3)  (where tilled)  (where tilled)  (where tilled)  (where tilled)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D5)  Frost-Heave Hummocks (D7) (LRR F)  Frost-Heave Hummocks (D7) (LRR F)  Wetland Hydrology Present?  Yes  No  No  Depth (inches)  Other (Explain in Remarks)  Pees X  No  Depth (inches)  Other (Explain photos, previous inspections), if available:	Surface Water (A1)  High Water Table (A2)  Salt Crust (B11)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Noticed Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Print Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial  Imagery (B7)  Deth (inches)  Surface Water Present?  Yes  No  No  Surface Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  Oxidized Rhizospheres on Living Roots (C3)  (where tilled)  (where tilled)  Saturation Visible on Aerial Imagery (C9)  FAC-Neutral Test (D5)  Frost-Heave Hummocks (D7) (LRR F)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes  No  No  Pepth (inches)  No  No	Surface Water (A1)					Secondary Indi	cators (minimum	of two required)
High Water Table (A2)  Salt Crust (B11)  Naturation (A3)	High Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Bydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial  Imagery (B7)  Field Observations:  Surface Water Present?  Yes  No  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  Saturation Visible on Aerial  Geomorphic Position (D2)  FAC-Neutral Test (D5)  Frost-Heave Hummocks (D7) (LRR F)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  No  No  Wetland Hydrology Present?  Yes  Include cappillary fringe)	High Water Table (A2)  Saltr Crust (B11)  A Saturation (A3)  A Aquatic Invertebrates (B13)  Notidized Rhizospheres on Living Roots (C3)  Naturation Visible on Aerial Imagery (C9)  Notidized Rhizospheres on Living Roots (C3)  Notidia Roots (C3)  Notidia Roots (C3)  Notidied Roots (C3)  Notid	Primary Indicators (minimum of	one is required: check all	that apply)		-	Surface Soil Cracks	(B6)
X   Saturation (A3)   X   Aquatic Invertebrates (B13)   Oxidized Rhizospheres on Living Roots (C3)     X   Water Marks (B1)   Hydrogen Sulfide Odor (C1)   (where tilled)     Sediment Deposits (B2)   Dry-Season Water Table (C2)   X   Crayfish Burrows (C8)     Drift Deposits (B3)   Oxidized Rhizospheres on Living Roots (C3)   Saturation Visible on Aerial Imagery (C9)     Algal Mat or Crust (B4)   (where not tilled)   Geomorphic Position (D2)     Iron Deposits (B5)   X   Presence of Reduced Iron (C4)   FAC-Neutral Test (D5)     Inundation Visible on Aerial   Imagery (B7)   Other (Explain in Remarks)     Field Observations:     Surface Water Present?   Yes   No   X   Depth (inches)   Wetland Hydrology Present?     Saturation Present?   Yes   No   X   Depth (inches)   Other (Explain fremarks)     Saturation Present?   Yes   No   Depth (inches)   Other (Explain fremarks)     Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	X       Saturation (A3)       X       Aquatic Invertebrates (B13)       Oxidized Rhizospheres on Living Roots (C3)         X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       (where tilled)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       X       Crayfish Burrows (C8)         Drift Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       (where not tilled)       Geomorphic Position (D2)         Iron Deposits (B5)       X       Presence of Reduced Iron (C4)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Frost-Heave Hummocks (D7) (LRR F)         Field Observations:       Surface Water Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Water Table Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       No       Depth (inches)       Wetland Hydrology Present?         (include cappillary fringe)       No       No       Depth (inches)       No	X       Saturation (A3)       X       Aquatic Invertebrates (B13)       Oxidized Rhizospheres on Living Roots (C3)         X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       (where tilled)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       X       Crayfish Burrows (C8)         Drift Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       (where not tilled)       Geomorphic Position (D2)         Iron Deposits (B5)       X       Presence of Reduced Iron (C4)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7) (LRR F)         Field Observations:       Surface Water Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       X       No       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       X       No       Depth (inches)       O       Yes       X         Socribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Surface Water (A1)	X	Water-Stained Leaves (I	39)		Sparsely Vegetated 0	Concave Surface (B8)
Marks (B1)	X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       (where tilled)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       X       Crayfish Burrows (C8)         Drift Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       (where not tilled)       Geomorphic Position (D2)         Iron Deposits (B5)       X       Presence of Reduced Iron (C4)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Frost-Heave Hummocks (D7) (LRR F)         Field Observations:         Surface Water Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Water Table Present?       Yes       No       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       X       No       Depth (inches)       No       Yes       <	X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       (where tilled)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       X       Crayfish Burrows (C8)         Drift Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       (where not tilled)       Geomorphic Position (D2)         Iron Deposits (B5)       X       Presence of Reduced Iron (C4)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Frost-Heave Hummocks (D7) (LRR F)         Field Observations:       Surface Water Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Water Table Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       X       No       Depth (inches)       Yes       X         Saturation Present?       Yes       X       No       Depth (inches)       No       Yes       X         Include cappillary fringe)       No						Drainage Patterns (E	310)
Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Imagery (B7) Other (Explain in Remarks)  Field Observations: Surface Water Present? Ves No No X Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? Yes X No Depth (inches) Other (Explain in Remarks)  Wetland Hydrology Present?  Yes X (include cappillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7)  Field Observations:  Surface Water Present? Yes No No Depth (inches) Saturation Present? Yes Yes No Depth (inches) Vestland Hydrology Present? Yes Ves No Depth (inches) No No	Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7)  Sediment Deposits (B3) Oxidized Rhizospheres on Living Roots (C3)  Thin Muck Surface (C7) Thin Muck Surfac	` ′	X	Aquatic Invertebrates (E	313)		Oxidized Rhizosphe	res on Living Roots (C3)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Imagery (B7) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Image	Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Imagery (B7)  Field Observations:  Surface Water Present?  Water Table Present?  Yes No X Depth (inches) Saturation Visible on Aerial Imagery (B7)  No Wetland Hydrology Present?  Yes X No Depth (inches) No Yes Yes No	Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Imagery (B7) Inundation Visible on Aerial Imagery (B7) Imagery						` '	
Algal Mat or Crust (B4) (where not tilled) Geomorphic Position (D2)  Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5)  Inundation Visible on Aerial Inundation Visible	Algal Mat or Crust (B4) (where not tilled) Geomorphic Position (D2) Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes X No Depth (inches)  Ves X No Depth (inches) Yes Yes X No Depth (inches) No Yes Yes Yes X No Depth (inches) No	Algal Mat or Crust (B4) (where not tilled) Geomorphic Position (D2) Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5) Inundation Visible on Aerial Inundation (C4) FAC-Neutral Test (D5)  Frost-Heave Hummocks (D7) (LRR F)  Frost-Heav					X		
Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? Yes X No Depth (inches)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes X No Depth (inches) No Yes X  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Iron Deposits (B5)   X   Presence of Reduced Iron (C4)   FAC-Neutral Test (D5)	FAC-Neutral Test (D5)   FAC-Neutral Test (D5)   Frost-Heave Hummocks (D7) (LRR F)   Frost-Heave Hummocks (D7) (LR F)   Frost-Heave Hummocks (D7) (LRR F)   Frost-Heave Hummocks (D7) (LRR F)   Frost-Heave Hummocks (D7) (LR F)   Frost-Heave Hummocks (D7)	• , ,			on Living Roots (C3)			• •
Inundation Visible on Aerial Imagery (B7)  Imagery (B7)  Frost-Heave Hummocks (D7) (LRR F)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No X Depth (inches) Wetland Hydrology Present?  Saturation Present?  Yes X No Depth (inches) Other (Explain in Remarks)  Wetland Hydrology Present?  Yes X (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inundation Visible on Aerial Imagery (B7)  Imagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  No  X  Depth (inches)  Wetland Hydrology Present?  Saturation Present?  Yes  No  Depth (inches)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes  No  No  No  No  No  No  No  No  No  N	Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? Yes No Depth (inches)  Saturation Present? Yes X No Depth (inches)  Metland Hydrology Present?  Yes X No Depth (inches) No Yes X  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		***				_	
Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No Depth (inches) Other (Explain in Remarks)  Wetland Hydrology Present? Yes X No Depth (inches) No Yes X  (include cappillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Imagery (B7)         Other (Explain in Remarks)           Field Observations:         Surface Water Present?         Yes         No         X         Depth (inches)         Wetland Hydrology Present?           Water Table Present?         Yes         No         X         Depth (inches)         Wetland Hydrology Present?           Saturation Present?         Yes         X         No         Depth (inches)         0         Yes         Yes           (include cappillary fringe)         No	Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No Depth (inches)  Saturation Present? Yes X No Depth (inches)  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Iron Deposits (B5)	X		` '			*
Field Observations:  Surface Water Present? Yes No X Depth (inches)  Water Table Present? Yes No X Depth (inches)  Saturation Present? Yes X No Depth (inches)  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No Depth (inches)  Saturation Present? Yes X No Depth (inches) (include cappillary fringe)  Wetland Hydrology Present? Yes X No Depth (inches) No	Field Observations:  Surface Water Present? Yes No X Depth (inches)  Water Table Present? Yes No X Depth (inches)  Saturation Present? Yes No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Yes X  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		-				Frost-Heave Hummo	ocks (D7) (LRR F)
Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No Depth (inches) Wetland Hydrology Present? Yes X No Depth (inches) Wetland Hydrology Present? Yes X No Depth (inches) No Yes X (include cappillary fringe) No No	Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches) 0 Yes Yes No No Depth (inches) No No	Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No Depth (inches) Wetland Hydrology Present? Yes X No Depth (inches) Yes X No Depth (inches) No Yes X  (include cappillary fringe) No No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	9 6 7		Other (Explain in Remai	rks)			
Water Table Present?  Saturation Present?  Yes  No  Depth (inches)  Depth (inches)  Wetland Hydrology Present?  Yes  X  No  Depth (inches)  No  Yes  X  No  Depth (inches)  No  No  No  Depth (inches)  No  No  No  No  No  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present? Yes No X Depth (inches) Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches) 0 Yes X No No No	Water Table Present? Yes No X Depth (inches) Wetland Hydrology Present?  Saturation Present? Yes X No Depth (inches) 0 Yes X  (include cappillary fringe) No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		Vec	No	Y Donth (inches	)		
Saturation Present? Yes X No Depth (inches) 0 Yes X (include cappillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present? Yes X No Depth (inches) 0 Yes Y (include cappillary fringe)	Saturation Present? Yes X No Depth (inches) 0 Yes X (include cappillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						Watland Hydre	ology Present?
(include cappillary fringe)  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	(include cappillary fringe)	(include cappillary fringe)  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					·	- Welland Hydro	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		I CS A		Deptil (iliches	<u> </u>	=	
				gauge monitoring well a	erial photos previous i	inspections) if availab	ile:		140
Remarks: Hydrologic indicators were observed at this location		Remarks. Trydrologic indicators were observed at this location.				inspections), it availab	nc.		
			1						

Vegeta	ition- Use scientific na	mes of plant	S			Louisiana
		1	Absolute %	Dominant	Indicator	
Tree Stra	atum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:
	Triadica sebifera		60	YES	FAC	Number of Dominant Species 6 (A)
	Pinus taeda		10	NO	FAC	That Are OBL, FACW, or FAC:
2	Acer rubrum		5	NO	FAC	
	Diospyros virginiana		5	NO	FAC	Total Number of Dominant 6 (B)
;			-			Species Across All Strata:
<u>,</u>						<b>1</b> '
7						Percent of Dominant Species 100% (A/B)
		Total Cover	80			That Are OBL, FACW, or FAC:
			Absolute %	Dominant	Indicator	
Sanling S	Stratum (15')		Cover	Species?	Status	Prevalance Index Worksheet:
rupinig :	Stratum (15')  Triadica sebifera	_	20	YES	FAC	Total % Cover of: Multiply by:
	Tridated Scotjera		20	ILS	1710	OBL species $\frac{1}{35}$ $\frac{1}{x}$ $1 = \frac{35}{x}$
						FACW species $\frac{23}{35}$ $\times 2 = \frac{70}{10}$
, L						FAC species $\frac{33}{125} \times 3 = \frac{70}{375}$
· •						FACU species $\frac{123}{0}$ $\times 4 = \frac{373}{0}$
2 } } 5						$\begin{array}{c ccccc} & & & & & & & & & & & & & & & & &$
, 7						Column Totals: 195 (A) (B) 480
'		Total Cover	20			Prevalence Index = $B/A = $ (A) (B) 460
		1 Otal Cover	Absolute %	Dominant	Indicator	1 revarence much – D/A – Z
Shruh C4	ratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:
1	Baccharis halimifolia	_	5	YES	FAC	Rapid Test for Hydrophytic Vegetation
	Baccharis naumijoua		3	IES	FAC	X Dominance Test is >50%
2						<del> </del>
3						X Prevalence Index $\leq 3.0^1$
4						Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
4 5						
5						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
7						Definitions for Four Vegetation Strata:
		Total Cover	5			
			Absolute %	Dominant	Indicator	
Herb St	ratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more
	Alternanthera philoxero	oides	25	YES	OBL	in diameter at breast height (DBH), regardless of
	Saururus cernuus		10	NO	OBL	height
<u>2</u> 3	Chasmanthium laxum		30	YES	FACW	
1	Hydrocotyle bonariensi.	2	5	NO	FACW	Sapling/Shrub - Woody plants, excluding vines less
;	Rubus argutus	-	15	NO	FAC	than 3 inch DBH and greater than 1 meter tall.
	Title tile til gillitie		- 10	1.0	1110	and and a serious grounds than a motor than
; 7						Herb - All herbaceous (non-woody) plants, regardless
						of size, and wood plants less than 1 meter tall.
) )						or size, and weed praise rest than I meter than
0						Woody vine - All woody vines greater than 1 meter in
1						height.
12						<b>-</b>
-		Total Cover	85			1
		10.01 00101	Absolute %	Dominant	Indicator	
Woody	Vine Stratum (30')		Cover		Status	Hydrophytic Vegetation Present?
	• • • • • • • • • • • • • • • • • • • •		_	Species?		Tryatophytic regulation resent.
ļ •	Lygodium japonicum		5	YES	FAC	-
<u>2</u> 3						X NO
<del>!</del> -						YES NO
5		m . 1 ~	-			4
	TT 1 1 1	Total Cover	5			
≺emark	s: Hydrophytic vegetation	n was observe	d at this location	1.		

SOIL										
Profile	Desription: (Describe to the	depth nee	ded to docum	ent the indicator	r or confirm the	e absence of	indicate	ors.)	L	ouisiana
	Matrix		Re	dox Fetures						
D 4										
Depth (inches)	Color (moist)	%		Color (moist)	%	Type <sup>1</sup>	1	$Loc^2$	Texture	Remarks
0-16	10YR 6/2	65	10YR 6/8	Zoloi (moist)	35	D Type	RM	Loc	Silt loam	Kelliulko
0 10	10110.2		10110	•			1		on low-	
1_ 0									2	
	Concentration, D=Depletion, RM=	Reduced Ma	trix, CS=Covere	d or Coated Sand G	rains		7 42.	: 6 - D-	<sup>2</sup> Location: PL=Pore Lini	-
Hydric	Soil Indicators:			2 1 Cl 1)	5 1 (64)		Inaic	ator for Pr	oblematic Hydric Soil	ls":
	Histol (A1) Histo Enimaton (A2)			Sandy Gleyed M					1 am Musik (A0) (I DD	T T\
	Histic Epipedon (A2) Black Histic (A3)			Sandy Redox (S. Stripped Matrix					1 cm Muck (A9) (LRR I Coast Prairie Redox (A1	
	Hydrogen Sulfide (A4)				Mineral (F1) (LRR	,			Dark Surface (S7) (LRR	
	Stratified Layers (A5) (LRR F)			Loamy Gleyed N					High Plains Depressions	<i>'</i>
	1 cm Muck (A9) (LRR P, T)		X	Depleted Matrix					(LRR outside of MLRA	
	Depleted Below Dark Surface (A11	1)		Redox Dark Sur					Reduced Vertic (F18)	172 00 70)
	Thick Dark Surface (A12)	-,		Depleted Dark S					Red Parent Material (TF	2)
	Sandy Mucky Mineral (S1) (LRR	O, S)		Redox Depression	ions (F8)				Other (Explain in Remar	·ks)
	2.5 cm Mucky Peat or Peat (S2) (L	.RR G, H)		High Plains Dep	pressions (F16)				_	
	5 cm Mucky Peat or Peat (S3) (LR	(RF)		(MLRA 72 & 7	73 of LRR H)		3 <sub>1</sub> ,		ydrolophytic vegetation and	J 41a J
							111		ydro10pnytic vegetation and Irology must be present.	a Wenana
Restric	ctive Layer (if observed):						T		II 1 . C.21 D	.0
	<b></b>						<b> </b>		Hydric Soil Pres	ent?
	Type:		_					Vos	v	No
	Depth (inches):		_					Yes	X	No
Remark	ks: Hydric soil indicators wer	re observe	d at this locat	tion						
Kemark	S. Hyune son murcators wer	E ODSCI VC	Jai uno roca.	1011.						
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	GEC	OSYNTEC CO	<b>NSULTANTS</b>	INC.			
	WETLAND DETERM	MINATION DATA FO	RM - Atlantic and Gi	ulf Coastal Plain R	tegion		
Project Site: Horn	nsby Industrial Park	City/County:	Livingston		Sampling Date:	9/8/2017	
Applicant/Owner:	David McKellar		State	e: Louisiana	_Sampling Point:	DP-07	
Investigator(s): C. Nguyen		Section/Range:	S20 T06S	R04E	Slope (%):	1-3	
Landform (hillslope, terrace, etc	:.): <u>fl</u> at	Local relief (concav		flat	Datum:	WGS1984	
Subregion (LRR or MLRA):	LRR P	Lat:	30.508824213	Long			
Soil Map Unit Name:	Satsuma silt loam, 1 to 3	percent slopes			NWI classification		
Are climatic/hydrologic conditions on the			Yes X	No	o	(If no, explain in Re	marks)
Are Vegetation	Soil	Hydrology		ntly disturbed?			
Are Vegetation	Soil	Hydrology		problematic?	(If needed, explain a	any answers in Remark	.s)
Are "Normal Circumstances" pr			No	<b>–</b>	-		
SUMMARY OF FINDING				cts, important 1	features, ect.		
Hydrophytic Vegetation Present			No	Is the Sample	e Area within a	<b>T</b> 7	
Hydric Soils Present?	Yes		No X		tland?	Yes	W7
Wetland Hydrology Present?	Yes		No X	2 1 1		No	X
Remarks: Based on the absence	of hydric soil and wetland in	iydrology, this locallor	n fulfills the criteria o	of an upland.			
HYDROLOGY							
Wetland Hydrology Indicator				Sacandami India	antona (minimum .	of two manifed)	
Primary Indicators (minimum of		hat annly)		Secondary mure	cators (minimum of Surface Soil Cracks		
Surface Water (A1)	Olle is required. Check an a	Water-Stained Leaves (B	20)			(B6) Concave Surface (B8)	
High Water Table (A2)		Salt Crust (B11)	19)		Drainage Patterns (B		
Saturation (A3)		Aquatic Invertebrates (B	:13)	•		eres on Living Roots (	73)
Water Marks (B1)		Hydrogen Sulfide Odor (		•	(where tilled)	les on Living Room (	,3,
Sediment Deposits (B2)		Dry-Season Water Table			Crayfish Burrows (C	787	
Drift Deposits (B3)		Oxidized Rhizospheres o	* *	•	_	n Aerial Imagery (C9)	
Algal Mat or Crust (B4)		(where not tilled)	m Living 1000 (CC)		Geomorphic Position		
Iron Deposits (B5)		Presence of Reduced Iron	on (C4)		FAC-Neutral Test (I		
Inundation Visible on Aerial		Thin Muck Surface (C7)		-	Frost-Heave Hummo	· 1	
Imagery (B7)		Other (Explain in Remark			_		
Field Observations:							
Surface Water Present?	Yes	No	X Depth (inche	es)			
Water Table Present?	Yes	No	X Depth (inche	es)	Wetland Hydro	ology Present?	
Saturation Present?	Yes	No	X Depth (inche	es)		Yes	
(include cappillary fringe)					]	No	X
Describe Recorded Data (stream			nspections), if availal	ble:			
Remarks: No hydrologic indicat	ors were observed at this loc	cation.					
İ							I
r							
r							

/egeta	tion- Use scientific nar	nes of plant	S			Louisiana
		*	Absolute %	Dominant	Indicator	
ee Stra	tum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:
	Pinus taeda		70	YES	FAC	Number of Dominant Species 8 (A)
	Liquidambar styraciflua		5	NO	FAC	That Are OBL, FACW, or FAC:
	Triadica sebifera		5	NO	FAC	
	V					Total Number of Dominant 10 (B)
						Species Across All Strata:
						1 '
						Percent of Dominant Species 80% (A/B)
		Total Cover	80			That Are OBL, FACW, or FAC:
			Absolute %	Dominant	Indicator	
anling S	Stratum (15')		Cover	Species?	Status	Prevalance Index Worksheet:
upmig :	Pinus taeda	_	5	YES	FAC	Total % Cover of: Multiply by:
	Triadica sebifera		10	YES	FAC	OBL species $0 \times 1 = 0$
	Trianica scotjera		10	ILS	1710	FACW species $0 \times 2 = 0$
						FAC species $\frac{6}{165} \times 3 = \frac{495}{495}$
						FACU species $\frac{100}{30}$ $\times$ 4 = $\frac{473}{120}$
						$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
,						Column Totals: 195 (A) (B) 615
		Total Cover	15			Prevalence Index = B/A = (A) (B) 615
		10tai Cover	Absolute %	Dominant	Indicator	Frevarence mucx – B/A – 3
lamat. Cr	matrice (151)					Hydronhydia Vagatation Indicators:
	ratum (15')	_	Cover	Species?	Status	Hydrophytic Vegetation Indicators:
	Ilex vomitoria		15	YES	FAC	Rapid Test for Hydrophytic Vegetation  X Dominance Test is >50%
2						
3						Prevalence Index $\leq 3.0^1$
1						Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 3 4 5						
5						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
7						Definitions for Four Vegetation Strata:
		Total Cover	15			
		101111 00101	Absolute %	Dominant	Indicator	
Jerh St	ratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more
	Callicarpa americana		10	YES	FACU	in diameter at breast height (DBH), regardless of
	Rubus trivialis		20	YES	FACU	height
	Sambucus canadensis		10	YES		neight
ļ	Sambucus canaaensis		10	IES	FAC	Canling/Showh Was dy plants avalyding vines less
						Sapling/Shrub - Woody plants, excluding vines less
5						than 3 inch DBH and greater than 1 meter tall.
7						
						Herb - All herbaceous (non-woody) plants, regardless
) )						of size, and wood plants less than 1 meter tall.
)						<del>_</del>
.0						Woody vine - All woody vines greater than 1 meter in
1						height.
12						4
		Total Cover	40			
			Absolute %	Dominant	Indicator	
Woody	Vine Stratum (30')		Cover	Species?	Status	Hydrophytic Vegetation Present?
l	Lygodium japonicum		25	YES	FAC	
	Vitis rotundifolia		10	YES	FAC	
3	Smilax bona-nox		10	YES	FAC	X
						YES NO
1						1
4 5						
2 3 4 5		Total Cover	45			-

SOIL									
	Desription: (Describe to the	depth needed to	o document the indicator or co	nfirm the	absence o	f indicat	ors.)	Lo	ouisiana
	Matrix		Redox Fetures						
Depth	Colon (mosist)	%	Colon (moist)	%	Тур	.1	$Loc^2$	Tautuma	Remarks
(inches) 0-16	Color (moist) 10YR 4/4	100	Color (moist)	%0	C	e M	Loc	Texture silty clay loam	Remarks
0-10	1011 4/4	100				IVI		siity ciay ioaiii	
<sup>1</sup> Type: C	= Concentration, D=Depletion, RM=	Reduced Matrix, C	CS=Covered or Coated Sand Grains					<sup>2</sup> Location: PL=Pore Linin	ng, M=Matrix
	Soil Indicators:					Indi	cator for P	roblematic Hydric Soils	s <sup>3</sup> :
	Histol (A1)		Sandy Gleyed Matrix (S	34)					
	Histic Epipedon (A2)		Sandy Redox (S5)					1 cm Muck (A9) (LRR I	, J)
	Black Histic (A3)		Stripped Matrix (S6)					Coast Prairie Redox (A16	6) (LRR F, G, H)
ļ	Hydrogen Sulfide (A4)		Loamy Mucky Mineral	(F1) <b>(LRR</b>				Dark Surface (S7) (LRR	G)
	Stratified Layers (A5) (LRR F)		Loamy Gleyed Matrix (	F2)				High Plains Depressions	(F16)
	1 cm Muck (A9) (LRR P, T)	_	Depleted Matrix (F3)					(LRR outside of MLRA	. 72 & 73)
	_ Depleted Below Dark Surface (A1	1)	Redox Dark Surface (F6					Reduced Vertic (F18)	
	Thick Dark Surface (A12)		Depleted Dark Surface	` ′				Red Parent Material (TF2	
	Sandy Mucky Mineral (S1) (LRR 2.5 cm Mucky Peat or Peat (S2) (I		Redox Depressions (F8)					Other (Explain in Remark	(S)
	5 cm Mucky Peat or Peat (S3) (LF	· · · · · —	High Plains Depressions (MLRA 72 & 73 of LF						
	- 5 cm whicky i cat of i cat (33) (E.F.	.KT)	(WILKA /2 & /3 01 ER	IK II)		<sup>3</sup> I	ndicators of l	nydrolophytic vegetation and	wetland
							hy	drology must be present.	
Restric	ctive Layer (if observed):								
								Hydric Soil Prese	ent?
	Type:								1
	Depth (inches):						Ye	s	No X
D 1	NY 1 12 H1 12 .								
Remark	ks: No hydric soil indicators	were observed a	at this location.						
i									

	GEO	SYNTEC CON	SULTANTS I	INC.		
		INATION DATA FOR			egion	
Project Site: Hornsl	by Industrial Park	City/County:	Livingston	r coustur r ium re	Sampling Date:	9/8/2017
Applicant/Owner:	David McKellar		State:	Louisiana	Sampling Point:	
Investigator(s): C. Nguyen		Section/Range:	S20 T06S R		Slope (%):	1-3
Landform (hillslope, terrace, etc.):	flat	Local relief (concave		flat	Datum:	WGS1984
Subregion (LRR or MLRA):	LRR P	Lat:	30.509242852	Long:	-90.8243	54266
Soil Map Unit Name:	Satsuma silt loam, 1 to 3				WI classification	
Are climatic/hydrologic conditions on the si	ite typical for this time of year?		Yes X	No	)	(If no, explain in Remarks)
Are Vegetation	Soil	Hydrology	significant	tly disturbed?		
Are Vegetation	Soil	Hydrology		problematic?	(If needed, explain a	ny answers in Remarks)
Are "Normal Circumstances" pres	ent? Yes	S X	No			
SUMMARY OF FINDINGS-	Attach site map showi	ing sampling point	locations, transect	ts, important f	eatures, ect.	
Hydrophytic Vegetation Present?	Yes		No			
Hydric Soils Present?	Yes	X	No		e Area within a	Yes X
Wetland Hydrology Present?	Yes	X	No	wet	tland?	No
HYDROLOGY				G 1 7 1		0: 10
Wetland Hydrology Indicators:		. 13		Secondary Indic	ators (minimum	
Primary Indicators (minimum of o					Surface Soil Cracks	` ′
X Surface Water (A1)	X	Water-Stained Leaves (B9)	)			Concave Surface (B8)
High Water Table (A2)		Salt Crust (B11)	•		Drainage Patterns (E	•
X Saturation (A3)		Aquatic Invertebrates (B13	•		-	res on Living Roots (C3)
Water Marks (B1)		Hydrogen Sulfide Odor (C			(where tilled)	70)
Sediment Deposits (B2)		Dry-Season Water Table (	· ·		Crayfish Burrows (C	<i>'</i>
Drift Deposits (B3)		Oxidized Rhizospheres on	Living Roots (C3)		-	n Aerial Imagery (C9)
Algal Mat or Crust (B4)	X	(where not tilled)	(CA)		Geomorphic Position	
Iron Deposits (B5)		Presence of Reduced Iron Thin Muck Surface (C7)	(C4)		FAC-Neutral Test (I Frost-Heave Hummo	*
Inundation Visible on Aerial Imagery (B7)		Other (Explain in Remarks			- 1103t-11cave 11tillillil	SCRS (D1) (ERR 1)
Field Observations:		Other (Explain in Remarks	"			
Surface Water Present?	Yes X	No	Depth (inches)	1		
Water Table Present?	Yes X	No	Depth (inches)		Wetland Hydro	ology Present?
Saturation Present?	Yes X	No	Depth (inches)		1	Yes X
(include cappillary fringe)						No
Describe Recorded Data (stream g	auge, monitoring well, aer	ial photos, previous ins	spections), if availabl	le:		
Remarks: Hydrologic indicators w	ere observed at this location	on.				

egeta	tion- Use scientific na	mes of plant	S			Louisiana
-		1	Absolute %	Dominant	Indicator	
ree Stra	atum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:
	Pinus taeda		35	YES	FAC	Number of Dominant Species 11 (A)
	Quercus pagoda		5	NO	FACW	That Are OBL, FACW, or FAC:
						Total Number of Dominant 11 (B)
						Species Across All Strata:
						Percent of Dominant Species 100% (A/B)
		Total Cover	40			That Are OBL, FACW, or FAC:
			Absolute %	Dominant	Indicator	
pling S	Stratum (15') Triadica sebifera	_	Cover	Species?	Status	Prevalance Index Worksheet:
	Triadica sebifera		10	YES	FAC	Total % Cover of: Multiply by:
	Acer rubrum		10	YES	FAC	OBL species 20 x 1 = 20
	Pinus taeda		10	YES	FAC	FACW species $45   x 2 = 90$
						FAC species $115   x 3 = 345$
						FACU species $0   x4 = 0$
						UPL species $0   x 5 = 0$
						Column Totals: 180 (A) (B) 455
		Total Cover	30			Prevalence Index = $B/A = 3$
			Absolute %	Dominant	Indicator	
<u>nrub</u> St	ratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:
	Ligustrum sinense		10	YES	FAC	Rapid Test for Hydrophytic Vegetation
	Ilex vomitoria		5	YES	FAC	X Dominance Test is >50%
	Sabal minor		10	YES	FACW	<b>X</b> Prevalence Index $\leq 3.0^1$
	Suc at mino.		10	122	1110	<del>_</del>
						Problematic Hydrophytic Vegetation (Explain)
						ly distance 61 distance 1 and and a 11 distance 1 and a 12 distance 1
						Indicators of hydric soil and wetland hydrology must be present.
						Definitions for Four Vegetation Strata:
		Total Cover	25			
			Absolute %	Dominant	Indicator	
erb St	ratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more
	Saururus cernuus		20	YES	OBL	in diameter at breast height (DBH), regardless of
	Rubus argutus		30	YES	FAC	height
	Chasmanthium laxum		10	NO	FACW	
	Hydrocotyle bonariensis	1	5	NO	FACW	Sapling/Shrub - Woody plants, excluding vines less
	Cyperus compressus		10	NO	FACW	than 3 inch DBH and greater than 1 meter tall.
						Herb - All herbaceous (non-woody) plants, regardless
						of size, and wood plants less than 1 meter tall.
)						Woody vine - All woody vines greater than 1 meter in
1						height.
2			7.5			4
		Total Cover	75			
, .	***		Absolute %	Dominant	Indicator	
oody	Vine Stratum (30')		Cover	Species?	Status	Hydrophytic Vegetation Present?
	Smilax bona-nox		5	YES	FAC	
	Brunnichia ovata		5	YES	FACW	
						X
						YES NO
	s: Hydrophytic vegetation	Total Cover	10			

Profile I	Desription: (Describe to the	depth nee			or confirm th	e abs	sence of i	ndicato	rs.)	I	Louisiana
	Matrix		Redox F	etures	_						
Depth							_ 1		_ 2	_	
(inches)	Color (moist)	%	Color	r (moist)	%		Type <sup>1</sup>		Loc <sup>2</sup>	Texture	Remarks
	10YR 6/1	100				C		M		Silty clay loam	
8-16	10YR 4/1	55	10YR 5/8		45	D	)	RM		Silty clay	
Type: C=	- Concentration, D=Depletion, RM=	=Reduced M	latrix, CS=Covered or C	oated Sand Gr	rains	_				<sup>2</sup> Location: PL=Pore Lini	ing, M=Matrix
	Soil Indicators:							Indica	ator for P	roblematic Hydric Soi	ls <sup>3</sup> :
•	Histol (A1)		Sa	ndy Gleyed Ma	atrix (S4)					-	
	Histic Epipedon (A2)			ndy Redox (S5						1 cm Muck (A9) (LRR	I, J)
	Black Histic (A3)			ripped Matrix (S						Coast Prairie Redox (Al	
	Hydrogen Sulfide (A4)				(ineral (F1) (LRR	Ł				Dark Surface (S7) (LRF	
	Stratified Layers (A5) (LRR F)			amy Gleyed M						High Plains Depressions	
	1 cm Muck (A9) (LRR P, T)			epleted Matrix (						(LRR outside of MLR	
	Depleted Below Dark Surface (A1	11)		edox Dark Surfa						Reduced Vertic (F18)	A 12 & 13)
	Thick Dark Surface (A12)	1)		epleted Dark Suria	` /			-		Red Parent Material (TF	E2)
	Sandy Mucky Mineral (S1) (LRR	(2.6)		-						Other (Explain in Remai	
	• • • • • • • • • • • • • • • • • • • •			edox Depression						Other (Explain in Kemai	rks)
	2.5 cm Mucky Peat or Peat (S2) (L			gh Plains Depre							
	5 cm Mucky Peat or Peat (S3) (LR	(R F)	(M	ILRA 72 & 73	of LRR H)			<sup>3</sup> Inc	dicators of h	nydrolophytic vegetation an	nd wetland
										drology must be present.	
Restrict	tive Layer (if observed):		_					T		Hydric Soil Pres	40
	Т									Hyunc Son inc	ent:
	Type:		_						Va	v	No
	Depth (inches):		_						Yes	s X	No
Damark	s: Hydric soil indicators wer	ra observe	ad at this location					<u> </u>			
Ciliaik	5. Hydric son maicators wer	C OUSCI VO	d at this location.								

Company   Comp	WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region   Applicant/Owner   David McKellar   Sampling Date:   9/8/2017   Sampling Date:   9/8/2017   Sampling Date:   9/8/2017   Sampling Owner   David McKellar   Section/Range:   S20 T065 R04E   Slope (%):   Landform (fillslope, terrace, etc.):   Iast		~		NICHTE DE ANTONO	DIC		
Project Site:   Homsby Industrial Park   City/County:   Livingston   State: Louisiana   Sampling Polit:   Pip-09   Pip	Project   Hornsby Industrial Park   City/County:   Livingston   Sampling Date:   9/8/2017   Applicant/Owner:   David McKellar   Section/Range:   \$20 TO68 RO#E   Slope (%):   Earlow (%):   Sampling Point:   Direction (%):   Di							
Applicant/Owner	Applicant/Owner:   David McKellar   Section/Range:   Solate:   Louisiana   Sampling Point:   De-09	D : . G':				lf Coastal Plain R	0	0/0/2017
Investigator(s): C. Nguyen	Investigator(s)   C. Buyen	-	<u> </u>	City/County:		<b>.</b>		
Landform (hillslope, terrace, cto.): Blat	Landform (hillslope, terrace, etc.): flat		David McKellar	C 1 /D				DP-09
Subregion (LRR or MLRA): LRP   Lat: 30.506534769   Long: 9-9.822203659   Soil Map Unit Name: Encrow silt loam, occasionally flooded	Subregion (LRR or MLRA):   Encrow sitt loam, occasionally flooded   NWI Classification:   None   None   NWI Classification:   None   None   NWI Classification:   N		. 61-4					WCC1004
Soil May Unit Name: Encrow silt loam, occasionally flooded Are climatic hydrologic conditions on the stephal for this time of year? Are logication Soil Hydrology Are Vegetation Soil Hydrology Are Vegetation Soil Hydrology Are Wormand Circumstances" present? Yes X No SUMMARY OF FINDINGS- Attack site map showing sampling point locations, transects, important features, ect.  Hydrology Present? Yes X No Wetland Hydrology Present? Yes X No Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  By Wetland Hydrology Indicators (minimum of two required) Wetland Hydrology Indicators (minimum of one is required: check all that apply) Surface Water (A1) Sufface Soil Cracks (B6) Surface Water (A1) Surface Soil Cracks (B6) Surface Water (A1) Sufface Soil Cracks (B6) Surface Water (A1) Sufface Soil Cracks (B6) Surface	Soil May Unit Name: Encrow silt loam, occasionally flooded  Are climatic hydrologic conditions on the site typical for this time of year?  Are long table of the state of year of the state of year of the state of year of the state of year of the state of year of the state of year of the year of year of the year of the year of the year of year of the year of year of year of the year of	( 1 / / /			, , ,			
Are elimatic hydrologic conditions on the site typical for this time of year?  Are Vegetation  Soil  Hydrology  naturally problematic?  (If needed, explain in Remarks)  Are Vegetation  Soil  Hydrology  naturally problematic?  (If needed, explain any answers in Remarks)  Are Vegetation  Soil  Hydrology  naturally problematic?  (If needed, explain any answers in Remarks)  Are Vegetation Present?  Yes  X  No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present?  Yes  X  No  Wetland Problematic?  Hydrology Present?  Yes  X  No  Wetland?  No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (AI)  Square Water (AII)  Square W	Are climatic hydrologic conditions on the site typical for this time of year?   Yes   X   No   (If no, explain in Remarks)				30.300334709			
Are Vegetation Soil Hydrology anturally problematic? (If needed, explain any answers in Remarks) Are "Normal Circumstances" present? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrology Present? Yes X No Is the Sample Area within a Yes X Wetland Hydrology Present? Yes X No Wetland? No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Frimary Indicators (minimum of two required)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of one is required: check all that apply)  Frimary Indicators (minimum of two required)  Fright Water Table (A2)  Sulface Water (A1)  X Water Water (A1)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Drainage Patterns (B10)  X Saturation (A5)  Saturation (A5)  Saturation (A5)  Saturation (A5)  Saturation (A5)  Saturation (A5)  Frost-Heave Hummocks (C3)  LRR F)  Frost-Heave Hummocks (D7) (LRR F)  Imager (B7)  Other (Explain in Remarks)  Field Observations:  Water Table Present?  Yes  No  Depth (inches)  Wetland Hydrology Present?  Yes  X No  Depth (inches)  Other (Explain in Remarks)  Field Observations:  Water Table Present?  Yes  No  Depth (inches)  Other (Explain in Remarks)	Are Vegetation Soil Hydrology naturally problematic? (If needed, explain any answers in Remarks) Are "Normal Circumstances" present? Yes X No  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydroft Soils Present? Yes X No Is the Sample Area within a Yes X Wetland Present? Yes X No Wetland? No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Frimary Indicators (minimum of one is required: check all that apply) Surface Soil Cracks (B6)  Surface Water (Al) X Water-Stained Leaves (B9) Sparsely Vegetated Concave Surface (B8)  High Water Table (A2) Salt Crust (B11)  X Suturation (A3) X Aquatic Invertebrates (B13) Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1) Hydroge Sulface Odor (C1) (where tilled)  Sediment Deposits (B2) Dry-Season Water Table (C2) X Crayfish Burrows (C3)  Algal Mater Crust (B4) (where on tilled) Geomorphic Position (D2)  I from Deposits (B3) Oxidized Rhizospheres on Living Roots (C3)  Algal Mater Crust (B4) (where on tilled) Geomorphic Position (D2)  I magnetic (C7) Frost-Heave Hummocks (D7) (LRR F)  I magnetic (B3) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No Depth (inches) Wetland Hydrology Present?  Yes X No Depth (inches) O Yes X  Surface Water Present?  Yes X No Depth (inches) O Yes X  Surface (Water Hydrology Present?  Yes X No Depth (inches) O Yes X  Surface (Water Present?  Yes X No Depth (inches) O Yes X  Surface (Water Present?  Yes X No Depth (inches) O Yes X  Surface (Water Present?  Yes X No Depth (inches) O Yes X  Surface (Water Bagel (A) available):	_		•	Vac V			
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Are "Normal Circumstances" present?  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present?  Yes X No Wetland?  Yes X No Wetland?  Yes X No Wetland?  Wetland?  Wetland?  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1) X Water-Stained Leaves (B9)  Surface Water (A1) X Saturation (A3)  X Saturation (A3)  X Aquatic Invertebrates (B13)  X Saturation (A3)  X Water Marks (B1)  Bydrogen Sulfide Odor (C1)  Sediment Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  A Jagal Mat or Crust (B4)  Inno Deposits (B5)  A Jagal Mat or Crust (B4)  Inno Deposits (B5)  Thin Muck Surface  No X Depth (inches)  Water Table Present?  Yes No Depth (inches)  Water Table (A2)  Saturation Present?  Yes No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No No Depth (inches)  Wetland Hydrology Present?  Yes X No No Depth (inches)  Wetland Hydrology Present?	Are "Normal Circumstances" present?  SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present?  Yes X No Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Soil Crucks (B6)  Surface Water (A1) X Weter-Stained Leaves (B9)  Surface Water (A1) X Aquatic Invertebrates (B13)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Drining Patterns (B16)  Secondary Indicators (minimum of two required Concave Surface (B8)  Surface Water (A1) X Weter-Stained Leaves (B9)  Surface Water (A1) X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C1)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Drining Patterns (B16)  Secondary Indicators (minimum of two required Concave Surface (B8)  Surface Water (A1) X Weter-Stained Leaves (B9)  Surface Water (A1) X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Drining Patterns (B16)  Secondary Indicators (minimum of two required)  Surface Water (A1)  Surface Water (A1)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  Saturation Visible on Aerial Imagery (C9)  Algal Mat or Crust (B4)  (where not tilled)  Geomorphic Position (D2)  Innudation Visible on Aerial  Thin Muck Surface (C7)  Frost-Heave Hummocks (D7) (LRR F)  Imagery (B7)  Other (Explain in Remarks)  Field Observations:  Wetland Hydrology Present?  Yes No No Depth (inches)  Wetland Hydrology Present?  Yes No Depth (inches)  Other (Explain in Remarks)	_					(If no adad avalain a	Domonico
SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present?  Yes X No Wetland Hydrology Present?  Yes X No Wetland Hydrology Present?  Yes X No Wetland Hydrology Present?  Yes X No Wetland Hydrology Present?  Wetland Hydrology Indicators (minimum of two required)  Frimary Indicators (minimum of one is required: check all that apply)  Surface Water (A1) X Water-Stained Leaves (B9)  Surface Water (A1) X Saltration (A3)  X Saltration (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Sediment Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  (where not tilled)  (where not tilled)  (where not tilled)  (where not tilled)  (where not means to till means to the prost-fleave Hummocks (D7) (LRR F)  Imagery (B7)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes X No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	SUMMARY OF FINDINGS- Attach site map showing sampling point locations, transects, important features, ect.  Hydrophytic Vegetation Present? Yes X No Wetland? Yes X Wetland Hydrology Present? Yes X No Wetland? Yes X Wetland Hydrology Present? Yes X No Wetland? Yes X Wetland Hydrology Present? Yes X No S  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) X Water-Stained Leaves (B9) Surface Water (A1) X Water-Stained Leaves (B9) High Water Table (A2) Salt crust (B1) Salt crust (B1) Salt crust (B1) Sediment Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Salt water (A1) Sediment Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) (where not tilled) Imagery (B7) Other (Explain in Remarks)  Wetland Hydrology Area within a Wetland?  Wetland? Yes X Wetland? Yes X X X Yes X Yes X Yes X Yes X X Yes X Yes X X Yes Yes X X Yes X X Yes Yes X X Yes Yes X Yes X Yes X Yes Yes X Yes X Yes Yes X Yes Yes X Yes Yes X Yes Yes Yes X Yes Yes Yes Yes X Yes Yes Yes Yes X Yes Yes Yes Yes Yes Yes Yes Yes Yes Yes					problematic:	(II needed, explain a	my answers in Remarks)
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Hydric Soils Present? Wetland Hydrology Present? Yes X No  Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators: Primary Indicators (minimum of one is required: check all that apply) Surface Water (A1) X Water-Stained Leaves (B9) Surface Water (A1) X Saturation (A3) X Aquatic Invertebrates (B13) Drainage Patterns (B10) X Saturation (A3) X Water Marks (B1) Secondary Indicators (minimum of two required)  Hydrogen Sulfide Odor (C1) Weter tilled) Sediment Deposits (B2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Imagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No Depth (inches) Wetland?  No  Wetland? Wetland? Wetland? Wetland?  No  Wetland? Wetland?  Wetland?  Wetland?  No  Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Water Parkers (B10) Oxidized Rhizospheres on Living Roots (C3)  Saturation (N3)  Saturation Visible on Aerial Imagery (C9)  Imagery (B7)  Frost-Heave Hummocks (D7) (LRR F)  Saturation Present? Yes No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Wetland Hydrology Present?  Yes X No Depth (inches)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Hydric Soils Present?  Wetland Hydrology Present?  Yes X No  Wetland Hydrology Present?  Wetland Hydrology Present?  Wetland Hydrology Present on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Soil Cracks (B6)  Surface Water (A1)  X Water-Stained Leaves (B9)  Surface Water (A1)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Sodiment Deposits (B2)  Drift Deposits (B2)  Drift Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crast (B4)  Innudation Visible on Aerial Imagery (C9)  Algal Mat or Crast (B4)  Innudation Visible on Aerial  Innudation Visible on Aerial  Innudation Visible on Aerial  Innudation Visible on Aerial  Thin Muck Surface (C7)  Innudation Visible on Aerial  Thin Muck Surface Soil  Thin Muck Su					T important	ieatures, ect.	
Wetland Hydrology Present?         Yes         X         No           HYDROLOGY           Wetland Hydrology Indicators:         Secondary Indicators (minimum of two required)           Primary Indicators (minimum of one is required: check all that apply)         Surface Soil Cracks (B6)           Surface Water (A1)         X         Water-Stained Leaves (B9)         Sparsely Vegetated Concave Surface (B8)           High Water Table (A2)         Salt Crust (B11)         Drainage Patterns (B10)           X         Saturation (A3)         X         Aquatic Invertebrates (B13)         Oxidized Rhizospheres on Living Roots (C3)           X         Water Marks (B1)         Hydrogen Sulfide Odor (C1)         (where tilled)           Sediment Deposits (B2)         Dry-Season Water Table (C2)         X         Crayfish Burrows (C8)           Drift Deposits (B3)         Oxidized Rhizospheres on Living Roots (C3)         Saturation Visible on Aerial Imagery (C9)           Algal Mat or Crust (B4)         (where not tilled)         Geomorphic Position (D2)           Innudation Visible on Aerial         Thin Muck Surface (C7)         Frost-Heave Hummocks (D7) (LRR F)           Inagery (B7)         Other (Explain in Remarks)           Field Observations:         No         X         Depth (inches) <td>Wetland Hydrology Present?         Yes         X         No           Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.           HYDROLOGY           Wetland Hydrology Indicators:</td> <td></td> <td></td> <td></td> <td></td> <td>Is the Sampl</td> <td>e Area within a</td> <td>Vec V</td>	Wetland Hydrology Present?         Yes         X         No           Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.           HYDROLOGY           Wetland Hydrology Indicators:					Is the Sampl	e Area within a	Vec V
Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Surface Water (A1)  X Aquatic Invertebrates (B13)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Drainage Patterns (B10)  X Saturation (A3)  X Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  (where not filled)  Geomorphic Position (D2)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  FAC-Neutral Test (D5)  Inmagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches)  Wetland Hydrology Present?  Yes  No  Depth (inches)  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Remarks: Based on the presence of hydric soil, hydrophytic vegetation, and wetland hydrology, this location fulfills the criteria of an wetland.  HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  Surface Water (A1)  Mater-Stained Leaves (B9)  Surface Water (A1)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Sediment Deposits (B2)  Drift Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  (where not tilled)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Iron Deposits (B5)  Thin Muck Surface (C7)  Inmagery (B7)  Fost-Heave Hummocks (D7) (LRR F)  Field Observations:  Surface Water Present?  Yes  No  No  Depth (inches)  Wetland Hydrology Present?  Yes  X No  Depth (inches)  Wetland Hydrology Present?  Yes  No  Depth (inches)  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	=				We	tland?	
HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  A Water-Stained Leaves (B9)  Salt Crust (B11)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Bediment Deposits (B2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Ton Deposits (B5)  Ton Deposits (B5)  Ton Deposits (B5)  Thin Muck Surface (C7)  Inmadation Visible on Aerial  Inmagery (B7)  Field Observations:  Surface Water Present?  Yes  No  Depth (inches)  Wetland Hydrology Present?  Yes  No  Depth (inches)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	HYDROLOGY  Wetland Hydrology Indicators:  Primary Indicators (minimum of one is required: check all that apply)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Bediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  Morer on tilled)  Geomorphic Position (D2)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Inmagery (B7)  Field Observations:  Surface Water Present?  Yes  No  No  Depth (inches)  Wetland Hydrology Present?  Yes  No  Depth (inches)  Wetland Hydrology Present?  Yes  No  Depth (inches)  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					ation fulfills the	criteria of an wetl	
Wetland Hydrology Indicators (minimum of one is required: check all that apply)       Surface Water (MI)       X       Water Stained Leaves (B9)       Surface Soil Cracks (B6)         Surface Water (AI)       X       Water Stained Leaves (B9)       Sparsely Vegetated Concave Surface (B8)         A       High Water Table (A2)       Salt Crust (B11)       Oxidized Rhizospheres on Living Roots (C3)         X       Suturation (A3)       A quattic Invertebrates (B13)       Weher tilled)         X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       Weher tilled)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       X       Cayfish Burrows (C8)         Sediment Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       (where not tilled)       FAC-Neutral Test (D5)         In no Deposits (B5)       X       Presence of Reduced Iron (C4)       FAC-Neutral Test (D5)         Inagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7) (LRR F)         Surface Water Present?       Yes       No       No       No       Wetland Hydrology Present?         Surface water Present?       Yes       No       No       Popth (inches)       Wetland Hydrology Present? <td< th=""><th>Wetland Hydrology Indicators: (minimum of one is required: check all that apply)         Surface Soil Cracks (B6)           Primary Indicators (minimum of one is required: check all that apply)         X         Surface Soil Cracks (B6)           Surface Water (AI)         X         Water-Stained Leaves (B9)         Sparsely Vegetated Concave Surface (B8)           Indight Water Table (A2)         Salt Crust (B1I)         Drainage Patterns (B10)         Oxidized Rhizospheres on Living Roots (C3)           X         Water Marks (B1)         Whydrogen Sulfide Odor (C1)         Were tilled         Were tilled           Sediment Deposits (B2)         Dry-Season Water Table (C2)         X         Caryfish Burrows (C8)           Sediment Deposits (B3)         Oxidized Rhizospheres on Living Roots (C3)         Saturation Visible on Aerial Imagery (C9)           Algal Mat or Crust (B4)         Were not tilled         Geomorphic Position (D2)           In undation Visible on Aerial         Thin Muck Surface (C7)         Fost-Heave Hummocks (D7) (LRR F)           Fleid Observations:         Surface Soil Cracks (B6)         No         No         Depth (inches)         Wetland Hydrology Present?           Water Table Present?         Yes         No         No         Depth (inches)         Wetland Hydrology Present?           Surface Soil Cracks (B1)         No         Depth (inches)</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></td<>	Wetland Hydrology Indicators: (minimum of one is required: check all that apply)         Surface Soil Cracks (B6)           Primary Indicators (minimum of one is required: check all that apply)         X         Surface Soil Cracks (B6)           Surface Water (AI)         X         Water-Stained Leaves (B9)         Sparsely Vegetated Concave Surface (B8)           Indight Water Table (A2)         Salt Crust (B1I)         Drainage Patterns (B10)         Oxidized Rhizospheres on Living Roots (C3)           X         Water Marks (B1)         Whydrogen Sulfide Odor (C1)         Were tilled         Were tilled           Sediment Deposits (B2)         Dry-Season Water Table (C2)         X         Caryfish Burrows (C8)           Sediment Deposits (B3)         Oxidized Rhizospheres on Living Roots (C3)         Saturation Visible on Aerial Imagery (C9)           Algal Mat or Crust (B4)         Were not tilled         Geomorphic Position (D2)           In undation Visible on Aerial         Thin Muck Surface (C7)         Fost-Heave Hummocks (D7) (LRR F)           Fleid Observations:         Surface Soil Cracks (B6)         No         No         Depth (inches)         Wetland Hydrology Present?           Water Table Present?         Yes         No         No         Depth (inches)         Wetland Hydrology Present?           Surface Soil Cracks (B1)         No         Depth (inches)							
Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Sediment Deposits (B2)  Dry-Season Water Table (C2)  Drift Deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  X Presence of Reduced Iron (C4)  Inundation Visible on Aerial  Inagery (B7)  Field Observations:  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Oxidized Rhizospheres on Living Roots (C3)  (where tilled)  Geomorphic Position (D8)  FAC-Neutral Test (D5)  Frost-Heave Hummocks (D7) (LRR F)  Inagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  X  Depth (inches)  Wetland Hydrology Present?  Yes  Saturation Present?  Yes  No  Depth (inches)  Other (Explain present)  Other (E	Primary Indicators (minimum of one is required: check all that apply)  Surface Water (A1)  X Water-Stained Leaves (B9)  Sparsely Vegetated Concave Surface (B8)  High Water Table (A2)  Salt Crust (B11)  Drainage Patterns (B10)  X Saturation (A3)  X Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Hydrogen Sulfide Odor (C1)  Sediment Deposits (B2)  Dry-Season Water Table (C2)  Algal Mat or Crust (B4)  Iron Deposits (B3)  Algal Mat or Crust (B4)  Inundation Visible on Aerial  Inundation Visible on Aerial  Inundation Visible on Aerial  Inagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  No  No  Depth (inches)  Wetland Hydrology Present?  Yes  Saturation Present?  Yes  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:							
Surface Water (A1)  High Water Table (A2)  Salt Crust (B11)  Naturation (A3)  X Aquatic Invertebrates (B13)  New Year Marks (B1)  Porainage Patterms (B10)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Porainage Patterms (B10)  Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1)  Porainage Patterms (B10)  Oxidized Rhizospheres on Living Roots (C3)  X Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Algal Mat or Crust (B4)  Innudation Visible on Aerial Imagery (B7)  Frost-Neutral Test (D5)  Innudation Visible on Aerial Imagery (B7)  Frost-Heave Hummocks (D7) (LRR F)  Frost-Heave Hummocks (D7) (LRR F)  Water Table Present?  Yes  No  No  Depth (inches)  Vestand Hydrology Present?  Yes  No  No  Depth (inches)  Oxidized Rhizospheres on Living Roots (C3)  Saturation Present?  Yes  No  No  No  Depth (inches)  No  No  No  No  No  No  No  No  No  N	Surface Water (A1)  High Water Table (A2)  Salt Crust (B11)  Norainage Patterns (B10)  AX Saturation (A3)  X Aquatic Invertebrates (B13)  Norif Deposits (B2)  Profit Deposits (B3)  Algal Mat or Crust (B4)  Innudation Visible on Aerial Imagery (B7)  Imagery (B7)  Field Observations:  Surface Water Present?  Yes  No  No  Water Stained Leaves (B9)  Salt Crust (B11)  Drainage Patterns (B10)  Oxidized Rhizospheres on Living Roots (C3)  (where tilled)  (where tilled)  (where tilled)  (where tilled)  Geomorphic Position (D2)  FAC-Neutral Test (D5)  FAC-Neutral Test (D5)  Frost-Heave Hummocks (D7) (LRR F)  Frost-Heave Hummocks (D7) (LRR F)  Water Table Present?  Yes  No  No  No  Pesh (inches)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes  A No  Depth (inches)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					Secondary Indi		
High Water Table (A2) Salt Crust (B11) Orainage Patterns (B10) Oxidized Rhizospheres on Living Roots (C3)  X Water Marks (B1) Hydrogen Sulfide Odor (C1) (where tilled) Sediment Deposits (B2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Algal Mat or Crust (B4) Iron Deposits (B5) Inuadation Visible on Aerial Imagery (B7) Imagery (B7) Other (Explain in Remarks)  Field Observations: Surface Water Present? Yes No X No Depth (inches) Salturation Present? Yes X No Depth (inches) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	High Water Table (A2)  Saltr Crust (B11)  A Aquatic Invertebrates (B13)  Oxidized Rhizospheres on Living Roots (C3)  A Water Marks (B1)  Bediment Deposits (B2)  Drift Deposits (B3)  Oxidized Rhizospheres on Living Roots (C3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial  Imagery (B7)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes  No  No  Depth (inches)  Saturation (B10)  Oxidized Rhizospheres on Living Roots (C3)  Saturation Visible on Aerial  Frost-Heave Hummocks (D7) (LRR F)  Water Table Present?  Yes  No  No  Depth (inches)  Saturation Present?  Yes  No  Depth (inches)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes  No  No  Depth (inches)  No  Section (B10)  Oxidized Rhizospheres on Living Roots (C3)  Saturation Visible on Aerial Imagery (C9)  Geomorphic Position (D2)  FAC-Neutral Test (D5)  Frost-Heave Hummocks (D7) (LRR F)  Frost-Heave Hummocks (D7) (LRR F)  Frost-Heave Hummocks (D7) (LRR F)  Depth (inches)  Wetland Hydrology Present?  Yes  X No  No  Depth (inches)  No  No							` '
X   Saturation (A3)   X   Aquatic Invertebrates (B13)   Oxidized Rhizospheres on Living Roots (C3)     X   Water Marks (B1)   Hydrogen Sulfide Odor (C1)   (where tilled)     Sediment Deposits (B2)   Dry-Season Water Table (C2)   X   Crayfish Burrows (C8)     Drift Deposits (B3)   Oxidized Rhizospheres on Living Roots (C3)   Saturation Visible on Aerial Imagery (C9)     Algal Mat or Crust (B4)   (where not tilled)   Geomorphic Position (D2)     Iron Deposits (B5)   X   Presence of Reduced Iron (C4)   FAC-Neutral Test (D5)     Inundation Visible on Aerial   Thin Muck Surface (C7)   Frost-Heave Hummocks (D7) (LRR F)     Imagery (B7)   Other (Explain in Remarks)     Field Observations:     Surface Water Present?   Yes   No   X   Depth (inches)   Wetland Hydrology Present?     Saturation Present?   Yes   No   Depth (inches)   Organization Present?     Saturation Present?   Yes   X   No   Depth (inches)   No     Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	X       Saturation (A3)       X       Aquatic Invertebrates (B13)       Oxidized Rhizospheres on Living Roots (C3)         X       Water Marks (B1)       Hydrogen Sulfide Odor (C1)       (where tilled)         Sediment Deposits (B2)       Dry-Season Water Table (C2)       X       Crayfish Burrows (C8)         Drift Deposits (B3)       Oxidized Rhizospheres on Living Roots (C3)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       (where not tilled)       Geomorphic Position (D2)         Iron Deposits (B5)       X       Presence of Reduced Iron (C4)       FAC-Neutral Test (D5)         Inundation Visible on Aerial Imagery (B7)       Thin Muck Surface (C7)       Frost-Heave Hummocks (D7) (LRR F)         Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7) (LRR F)         Field Observations:         Surface Water Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       No       X       Depth (inches)       Wetland Hydrology Present?         Saturation Present?       Yes       No       Depth (inches)       0       Yes       X         Include cappillary fringe)       No       No       Depth (inches)       No       No       No <td></td> <td>X</td> <td></td> <td>39)</td> <td></td> <td></td> <td></td>		X		39)			
Mater Marks (B1)	Mater Marks (B1)							
Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Imagery (B7) Other (Explain in Remarks)  Field Observations: Surface Water Present? Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No Depth (inches) Other (inches) Depth (inches) Other (inc	Sediment Deposits (B2) Dry-Season Water Table (C2) Drift Deposits (B3) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Iron Deposits (B5) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations: Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes Algal Mat or Crust (B4) Other (Explain in Remarks)  Wetland Hydrology Present? Saturation Present? Yes No Depth (inches) Other (Explain in Remarks)  Wetland Hydrology Present?  Yes X (include cappillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	` ′	X	·	*			eres on Living Roots (C3)
Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Im	Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Inundation Visible on Aerial Imagery (B7) Imagery (B7) Inundation Visible on Aerial Imagery (B7) Imagery					<b>X</b> 7		-0.
Algal Mat or Crust (B4) (where not tilled) Geomorphic Position (D2)  Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5)  Inundation Visible on Aerial Thin Muck Surface (C7) Frost-Heave Hummocks (D7) (LRR F)  Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? Yes X No Depth (inches)  Saturation Present? Yes X No Depth (inches) Other (Explain in Remarks)  Wetland Hydrology Present? Yes X No Depth (inches) No Yes X  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Algal Mat or Crust (B4) (where not tilled) Geomorphic Position (D2)  Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5)  Inundation Visible on Aerial Inundation Visible					X		
Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? Yes X No Depth (inches)  Saturation Present? Yes X No Depth (inches) No Depth (inches) No Yes X No Depth (inches) No Depth (inches) No No No Depth (inches) No No No No No No No No No No No No No	Iron Deposits (B5) X Presence of Reduced Iron (C4) FAC-Neutral Test (D5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No Depth (inches) Saturation Present? Yes X No Depth (inches)  Saturation Present? Yes X No Depth (inches) No Depth (inches) No Yes X No Depth (inches) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	• ` ` '			on Living Roots (C3)		_	• • • •
Inundation Visible on Aerial Imagery (B7)  Frost-Heave Hummocks (D7) (LRR F)  Other (Explain in Remarks)  Field Observations:  Surface Water Present?  Yes No X Depth (inches)  Water Table Present?  Yes No Depth (inches)  Saturation Present?  Yes X No Depth (inches)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes X No Depth (inches)  Yes X No Depth (inches)  No Yes X  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No Depth (inches)  Saturation Present? Yes X No Depth (inches)  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		v	,	(6.0)		_	
Imagery (B7) Other (Explain in Remarks)  Field Observations:  Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches)  Saturation Present? Yes No Depth (inches)  Other (Explain in Remarks)  Wetland Hydrology Present?  Yes X No Depth (inches)  No Yes X  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Imagery (B7)   Other (Explain in Remarks)				* *			<i>'</i>
Field Observations:  Surface Water Present? Yes No X Depth (inches)  Water Table Present? Yes No X Depth (inches)  Saturation Present? Yes X No Depth (inches)  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Field Observations:  Surface Water Present? Yes No X Depth (inches)  Water Table Present? Yes No X Depth (inches)  Saturation Present? Yes No Depth (inches)  Saturation Present? Yes X No Depth (inches)  (include cappillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						Frost-Heave Hummo	DCKS (D/) (LKK F)
Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Saturation Present? Yes No Depth (inches) Wetland Hydrology Present? Yes X No Depth (inches) Wetland Hydrology Present? Yes X No Depth (inches) No Yes X Include cappillary fringe) No No No No No No No No No No No No No N	Surface Water Present? Yes No X Depth (inches) Water Table Present? Yes No X Depth (inches) Wetland Hydrology Present? Saturation Present? Yes X No Depth (inches) (include cappillary fringe) Wetland Hydrology Present? Yes X No Depth (inches) No Yes X No Depth (inches) No Yes X	9 8 7		Other (Explain in Kemai	KS)			
Water Table Present? Yes No X Depth (inches) Wetland Hydrology Present?  Saturation Present? Yes X No Depth (inches) 0 Yes X  (include cappillary fringe) No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Water Table Present? Yes No X Depth (inches) Wetland Hydrology Present?  Saturation Present? Yes X No Depth (inches) 0 Yes X  (include cappillary fringe) No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		Yes	No	X Denth (inches	)		
Saturation Present? Yes X No Depth (inches) 0 Yes X (include cappillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Saturation Present? Yes X No Depth (inches) 0 Yes X (include cappillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:						Wetland Hydro	ology Present?
(include cappillary fringe)  No  Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	(include cappillary fringe) No Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					´		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:					,		
			gauge, monitoring well,	aerial photos, previous i	nspections), if availab	le:	- L	
rkemarks' fivorologic indicators were observed at this location	Technikas. 11 Jurologie maleurois were observed at and rocation.				inspections), if a variate	10.		

egeta	tion- Use scientific nar	nes of plant	S			Louisiana
-		<u> </u>	Absolute %	Dominant	Indicator	
ree Stra	atum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:
	Pinus taeda	_	40	YES	FAC	Number of Dominant Species 10 (A)
	Triadica sebifera		20	YES	FAC	That Are OBL, FACW, or FAC:
	·					
						Total Number of Dominant 10 (B)
						Species Across All Strata:
						<b>1</b> '
						Percent of Dominant Species 100% (A/B)
		Total Cover	60			That Are OBL, FACW, or FAC:
			Absolute %	Dominant	Indicator	, ,
pling S	Stratum (15')		Cover	Species?	Status	Prevalance Index Worksheet:
<u> </u>	Stratum (15') Triadica sebifera	_	20	YES	FAC	Total % Cover of: Multiply by:
	Acer rubrum		5	NO	FAC	OBL species 25 $x 1 = 25$
	Cornus drummondii		5	NO	FAC	FACW species $30 \times 2 = 60$
	Corress de la la la la la la la la la la la la la		-	1.0	1110	FAC species 150 x 3 = 450
						FACU species $0 \times 4 = 0$
						UPL species $0 \times 5 = 0$
						Column Totals: 205 (A) (B) 535
		Total Cover	30			Prevalence Index = $B/A = $ (A) (B) 333
		1 Otal COVCI	Absolute %	Dominant	Indicator	1 To various index D/T1 - J
arub St	ratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:
nuo si	Ligustrum sinense	_	15	YES	FAC	Rapid Test for Hydrophytic Vegetation
	Sabal minor		10	YES	FACW	X Dominance Test is >50%
	Savai minor		10	IES	rac w	<del> </del>
						X Prevalence Index $\leq 3.0^1$
						Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
						Definitions for Four Vegetation Strata:
		Total Cover	25			
			Absolute %	Dominant	Indicator	
erb St	ratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more
	Saururus cernuus		25	YES	OBL	in diameter at breast height (DBH), regardless of
	Chasmanthium laxum		15	YES	FACW	height
	Rubus argutus		25	YES	FAC	noight
	Hydrocotyle bonariensis		5	NO	FACW	Sapling/Shrub - Woody plants, excluding vines less
	Tryarocotyte bonariensis			110	TACW	than 3 inch DBH and greater than 1 meter tall.
						than 3 men DDH and greater than 1 meter tan.
						Herb - All herbaceous (non-woody) plants, regardless
						of size, and wood plants less than 1 meter tall.
						of size, and wood plants less than I meter tan.
)						Woody vine - All woody vines greater than 1 meter in
1						height.
2		T., 10	70			-
		Total Cover		<b>.</b>	- T 11	
7 1	Vi Charten (201)		Absolute %	Dominant	Indicator	Hydrophytia Vasatatian Duaganto
	Vine Stratum (30')		Cover	Species?	Status	Hydrophytic Vegetation Present?
oody	Smilax bona-nox		10	YES	FAC	
oody			5	NO	FAC	
oody	Nekemias arborea					·
oody			5	YES	FAC	<u>X</u>
oody	Nekemias arborea		5	YES	FAC	YES NO
roody	Nekemias arborea		5	YES	FAC	-
•	Nekemias arborea	Total Cover	20		FAC	-

SOIL										
Profile !	Desription: (Describe to the d	depth need			r or confirm the	e absence of i	indicate	ors.)	<u> </u>	ouisiana
	Matrix		Red	dox Fetures						
D 4										
Depth (inches)	Color (moist)	%	(	Color (moist)	%	Type <sup>1</sup>		$Loc^2$	Texture	Remarks
0-16	10YR 6/1	60	10YR 6/8	Dolor (III.e.e.)	40	D	RM		silty clay loam	1011101111
Tvpe: C=	= Concentration, D=Depletion, RM=F	Reduced Ma	atrix. CS=Covere	ed or Coated Sand G	Grains				<sup>2</sup> Location: PL=Pore Lining	ıs. M=Matrix
	Soil Indicators:	Abdul	min, c	40.00	14111		Indic	ator for P	Problematic Hydric Soils	-
<b>11</b> , <b>11</b>	Histol (A1)			Sandy Gleyed M	Matrix (S4)				,	. •
	Histic Epipedon (A2)			Sandy Redox (S.					1 cm Muck (A9) (LRR I,	, J)
	Black Histic (A3)		-	Stripped Matrix			-		Coast Prairie Redox (A16	
	Hydrogen Sulfide (A4)		-		Mineral (F1) (LRR	i.	-		Dark Surface (S7) (LRR	
	Stratified Layers (A5) (LRR F)		-	Loamy Gleyed N			-		High Plains Depressions (	
	1 cm Muck (A9) (LRR P, T)		X	Depleted Matrix	* *				(LRR outside of MLRA	
	Depleted Below Dark Surface (A11	1)		Redox Dark Sur					Reduced Vertic (F18)	
	Thick Dark Surface (A12)	,	-	Depleted Dark S			-		Red Parent Material (TF2	2)
	Sandy Mucky Mineral (S1) (LRR (	O, S)		Redox Depression					Other (Explain in Remark	
	2.5 cm Mucky Peat or Peat (S2) (LI			High Plains Dep					_ ` `	,
	5 cm Mucky Peat or Peat (S3) (LRI			(MLRA 72 & 7			3.	0		
	-	*					lno		hydrolophytic vegetation and ydrology must be present.	wetland
Restric	ctive Layer (if observed):						<b></b>			
	<b>T</b>						<u> </u>		Hydric Soil Prese	ent?
i	Type:		_					<b>X</b> 7.	v	N.T
	Depth (inches):		_					Ye	es X	No
Demark	ks: Hydric soil indicators were	o observe	A at this locat	tion			—			
Kelliaik	.S. Hyunc son mulcators were	2 00801 voc	d at tills rocan	1011.						
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	GEO	SYNTEC CON	NSIILTANTS	INC.			
		IINATION DATA FOI			egion		
Project Site: Horn	nsby Industrial Park	City/County:	Livingston	ii Coustui I iuiii It	Sampling Date:	9/8/2017	
Applicant/Owner:	David McKellar		State	Louisiana	Sampling Point:		
Investigator(s): C. Nguyen		Section/Range:	S20 T06S I		Slope (%):	1-3	
Landform (hillslope, terrace, etc	:.): flat	Local relief (concave		flat	Datum:	WGS1984	
Subregion (LRR or MLRA):	LRR P	Lat:	30.506795761	Long	_		
Soil Map Unit Name:	Satsuma silt loam, 1 to 3			_	WI classification		
Are climatic/hydrologic conditions on th			Yes X	No		(If no, explain in F	Remarks)
Are Vegetation	Soil	Hydrology	significar	ntly disturbed?		_ `	,
Are Vegetation	Soil	Hydrology		problematic?	(If needed, explain a	ny answers in Remai	rks)
Are "Normal Circumstances" pr	resent? Yes		No	•	•		
SUMMARY OF FINDING	S- Attach site map show	ing sampling point	locations, transec	_ cts, important f	features, ect.		
Hydrophytic Vegetation Present			No				
Hydric Soils Present?	Yes		No X	_	e Area within a	Yes	
Wetland Hydrology Present?	Yes		No X	We	tland?	No	X
HYDROLOGY							
Wetland Hydrology Indicator				Casandam, India	cators (minimum o	ef tryo magninad)	
Primary Indicators (minimum of		ot annly)		Secondary mulc	Surface Soil Cracks		
Surface Water (A1)	one is required. Check air th	Water-Stained Leaves (B9	))		Sparsely Vegetated C		5)
High Water Table (A2)		Salt Crust (B11)	,,		Drainage Patterns (B		3)
Saturation (A3)		Aquatic Invertebrates (B1	3)	-	Oxidized Rhizospher		(C3)
Water Marks (B1)	-	Hydrogen Sulfide Odor (C		-	(where tilled)	es on ziving reode	(00)
Sediment Deposits (B2)	-	Dry-Season Water Table (			Crayfish Burrows (C	8)	
Drift Deposits (B3)		Oxidized Rhizospheres or	` '	-	Saturation Visible on		9)
Algal Mat or Crust (B4)		(where not tilled)	5 (-)		Geomorphic Position		,
Iron Deposits (B5)		Presence of Reduced Iron	(C4)		FAC-Neutral Test (D		
Inundation Visible on Aerial		Thin Muck Surface (C7)			Frost-Heave Hummo	cks (D7) (LRR F)	
Imagery (B7)		Other (Explain in Remark	s)		_		
Field Observations:							
Surface Water Present?	Yes	No	X Depth (inches	s)			
Water Table Present?	Yes	No	X Depth (inches	s)	Wetland Hydro		
Saturation Present?	Yes	No	X Depth (inches	s)	4	Yes	
(include cappillary fringe)						No	X
Describe Recorded Data (stream Remarks: No hydrologic indicat			spections), if availab	ole:			

Vegeta	tion- Use scientific nar	nes of plant	S			Louisiana
Ü			Absolute %	Dominant	Indicator	
Tree Stra	ntum (Plot Sizes: 30')		Cover	Species?	Status	Dominance Test Worksheet:
1	Pinus taeda	_	55	YES	FAC	Number of Dominant Species 8 (A)
2	Triadica sebifera		5	NO	FAC	That Are OBL, FACW, or FAC:
3	Quercus falcata		5	NO	FACU	The observation, of the
4	<u>Sucreus</u> jurcuiu		-	11.0	11100	Total Number of Dominant 8 (B)
5						Species Across All Strata:
6						Species Across Air Strata.
7						Percent of Dominant Species 100% (A/B)
/		T-+-1 C	65			Percent of Dominant Species 100% (A/B) That Are OBL, FACW, or FAC:
		Total Cover	Absolute %	Dominant	Indicator	That Ale Obl, FACW, of FAC.
c 1: (	74 (150)					
Sapling	Stratum (15') Liquidambar styraciflua	_	Cover	Species?	Status	Prevalance Index Worksheet:
			5	YES	FAC	Total % Cover of: Multiply by:
2	Triadica sebifera		10	YES	FAC	OBL species
2 3 4						FACW species $5   x 2 = 10$
4						FAC species $275 \times 3 = 375$
5 6						FACU species 20 x 4 = 80
6						UPL species $0   x 5 = 0$
7						Column Totals: 150 (A) (B) 465
	<u> </u>	Total Cover	15			Prevalence Index = B/A = 3
			Absolute %	Dominant	Indicator	
Shrub St	ratum (15')		Cover	Species?	Status	Hydrophytic Vegetation Indicators:
1	Ligustrum sinense	_	10	YES	FAC	Rapid Test for Hydrophytic Vegetation
2	Ilex vomitoria		5	YES	FAC	X Dominance Test is >50%
						Prevalence Index < 3.0 <sup>1</sup>
3						<del>-</del>
4						Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
4 5 6						
6						<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.
7						Definitions for Four Vegetation Strata:
		Total Cover	15			
			Absolute %	Dominant	Indicator	
Herb St	ratum (5')		Cover	Species?	Status	Tree - Woody plants, excluding vines, 3 inches or more
1	Chasmanthium latifolium	ļ	15	YES	FAC	in diameter at breast height (DBH), regardless of
	Eupatorium capillifolium		5	NO	FACU	height
2 3 4	Eupatorium perfoliatum		5	NO	FACW	
4	Hypericum hypericoides		5	NO	FAC	Sapling/Shrub - Woody plants, excluding vines less
5	Rubus trivialis		10	NO	FACU	than 3 inch DBH and greater than 1 meter tall.
6	Ruous trivians		10	NO	TACC	than 5 men DD11 and greater than 1 meter tan.
6 7						Herb - All herbaceous (non-woody) plants, regardless
0						
8 9						of size, and wood plants less than 1 meter tall.
9						
10						Woody vine - All woody vines greater than 1 meter in
11						height.
12						1
		Total Cover	40			
			Absolute %	Dominant	Indicator	
Woody	Vine Stratum (30')		Cover	Species?	Status	Hydrophytic Vegetation Present?
1	Vitis rotundifolia		5	YES	FAC	
2	Nekemias arborea		10	YES	FAC	
3						X
3 4						YES NO
5						100
J		Total Cover	15			1
D am: - :-1	a. Hvdaanhvai4'					1
Keinark	s: Hydrophytic vegetation	was observe	u at this location			

	esription: (Describe to the d	depth nee			r or confirm	the ab	sence of i	ndicate	ors.)	L	ouisiana
_	Matrix		Ke	edox Fetures							
Depth nches)	Color (moist)	%		Color (moist)	9/	4	Type <sup>1</sup>		Loc <sup>2</sup>	Texture	Remarks
	10YR 5/4	90	10YR 5/6	COIOI (IIIOISI)	10		T ype C	M	Loc	Silty loam	Kemarks
						<u> </u>		<u></u>			
pe: C= C	Concentration, D=Depletion, RM=I	Reduced M	atrix, CS=Cover	ed or Coated Sand (	Grains					<sup>2</sup> Location: PL=Pore Linin	ng, M=Matrix
	oil Indicators:							Indic	ator for Pr	oblematic Hydric Soil	s <sup>3</sup> :
	Histol (A1)			Sandy Gleyed M							
	Histic Epipedon (A2)			Sandy Redox (S						1 cm Muck (A9) (LRR I	
В	Black Histic (A3)			Stripped Matrix						Coast Prairie Redox (A1	
H	Hydrogen Sulfide (A4)			Loamy Mucky N	Mineral (F1) (I	∠RR				Dark Surface (S7) (LRR	
S	Stratified Layers (A5) (LRR F)			Loamy Gleyed I	Matrix (F2)					High Plains Depressions	(F16)
	cm Muck (A9) (LRR P, T)			Depleted Matrix						(LRR outside of MLRA	A 72 & 73)
	Depleted Below Dark Surface (A11	1)		Redox Dark Sur						Reduced Vertic (F18)	
	Thick Dark Surface (A12)			Depleted Dark S						Red Parent Material (TF2	
	Sandy Mucky Mineral (S1) (LRR (			Redox Depressi						Other (Explain in Remark	ks)
	2.5 cm Mucky Peat or Peat (S2) (LI			High Plains Dep		*					
5	5 cm Mucky Peat or Peat (S3) (LRI	RF)		(MLRA 72 & 7	/3 of LRR H)			<sup>3</sup> In		ydrolophytic vegetation and rology must be present.	d wetland
estrictiv	ve Layer (if observed):							F		Hydric Soil Prese	ent?
	Type:										
	Depth (inches):		_						Yes		No X
411 <b>6</b> 1 RG.	: No hydric soil indicators v	vere observer	ived at diff to	Cation.							

# APPENDIX B Photographic Record



Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

#### Photograph 1

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-01.



#### Photograph 2

Date: 9/8/2017

**Direction: NE** 

Comments: Photograph of vegetative community

at DP-01.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

#### Photograph 3

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-02.



#### Photograph 4

Date: 9/8/2017

**Direction: S** 

**Comments: Photograph** of vegetative community

at DP-02.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

#### Photograph 5

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-03.



### Photograph 6

Date: 9/8/2017

Direction: N

**Comments: Photograph** of vegetative community

at DP-03.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

Photograph 7

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-04.



### Photograph 8

Date: 9/8/2017

**Direction: SE** 

**Comments: Photograph** of vegetative community

at DP-04.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

Photograph 9

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-05.



Photograph 10

Date: 9/8/2017

**Direction: W** 

**Comments: Photograph** of vegetative community

at DP-05.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

Photograph 11

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-06.



### Photograph 12

Date: 9/8/2017

**Direction: NE** 

**Comments: Photograph** of vegetative community

at DP-06.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

Photograph 13

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-07.



### Photograph 14

Date: 9/8/2017

Direction: N

**Comments: Photograph** of vegetative community

at DP-07.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

Photograph 15

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-08.



### Photograph 16

Date: 9/8/2017

Direction: N

**Comments: Photograph** of vegetative community

at DP-08.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

Photograph 17

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-09.



#### Photograph 18

Date: 9/8/2017

**Direction: E** 

**Comments: Photograph** of vegetative community

at DP-09.





Client: David McKellar Project Number: GXE6330

Site Name: Hornsby Industrial Park

Site Location: Livingston Parish, Louisiana

Photograph 19

Date: 9/8/2017

**Direction: NA** 

Comments: Photograph of soil type at DP-10.



Photograph 20

Date: 9/8/2017

**Direction: SE** 

**Comments: Photograph** of vegetative community

at DP-10.

