

**Exhibit F - Wetlands Delineation
& Letter**

April 30, 2015

Mr. Larry Henson
Louisiana Economic Development (LED)
1051 North Third St.
Baton Rouge, LA 70802-5239

Mr. David Conner
Southwest Economic Development Alliance (SWLA)
P.O. Box 3110
Lake Charles, LA 70602

RE: B85-Chennault Site 5 (160 Acres)
Wetlands Delineation Report

Dear Gentlemen:

SJB Group, LLC (SJB) has been authorized by Louisiana Economic Development (LED and Southwest Louisiana Economic Alliance (SWLA) to perform due diligence investigations to determine the existence of fatal flaws, if any, that would inhibit the development of Chennault Site 5 (+/- 160 acres), located southeast of the City of Lake Charles in Calcasieu Parish, Louisiana.

The attached report presents the findings of the Wetlands Delineation efforts for the site. The Wetlands Delineation was performed by SJB Group, LLC of Baton Rouge, LA.

Please feel free to contact me at (225) 769-3400, at any time, should you have any questions or need further information.

Sincerely,

SJB GROUP, LLC



Michael L. Thompson, P.E., C.E.T.
Engineering Department Manager

— Parks & Planning

— Transportation

— Site Development

— Utility Systems

— Land Surveying

— Construction Services

— Environmental Services

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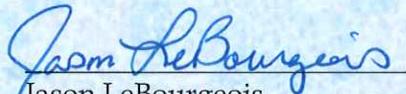
Wetland Delineation

**±160-acre B-85 Chennault Site 5
Located along LA Highway 397
Lake Charles, Calcasieu Parish, Louisiana
for**

**Mr. David Conner
SWLA Economic Development Alliance
4310 Ryan Street
Lake Charles, LA 70605**

**Mr. Larry Henson
Louisiana Economic Development (LED)
1051 North Third Street
Baton Rouge, LA 70802-5239**

Submitted by:


Jason LeBourgeois
Engineering designer/Inspector

Prepared by:

SJB  **GROUP, LLC**
QUALITY BY DESIGN

**JUNE 2014
Ref. 11341.3**

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WETLAND DELINEATION REPORT

**±160-acre B-85 Chennault Site 5
Located along LA Highway 397
Lake Charles, Calcasieu Parish, Louisiana**

For

**Mr. David Conner
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1.0 INTRODUCTION

1.1 GENERAL

This report details the investigation of the presence of wetlands under the jurisdiction of the United States Army Corps of Engineers (USACE) for a ±160 acre tract of land located along Highway 397, Lake Charles, Calcasieu Parish, Louisiana. This report was prepared by SJB Group, LLC (SJB) of Baton Rouge, Louisiana at the request of Louisiana Economic Development (LED), and SWLA Economic Development Alliance (SWLA).

1.2 SCOPE AND PURPOSE

The purpose of this report is to present the field data that was collected, to evaluate the three diagnostic characteristics of wetlands, and to give an opinion on the presence and potential extent of jurisdictional wetlands on the site. However, the New Orleans District of the USACE has the ultimate authority to make an official determination of wetlands or jurisdiction over property in Calcasieu Parish, Louisiana. This report was prepared in accordance with guidance found in the USACE's Wetlands Delineation Manual (Environmental Laboratory, 1987) and Interim Regional Supplement to the USACE's Wetland Delineation Manual (Environmental Laboratory, 2008).

Wetlands are defined as "areas that are inundated or saturated 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 diagnostic characteristics of wetlands are soils, vegetation, and hydrology. Wetlands must exhibit hydric soils, a prevalence of hydrophytic vegetation, and periodic soil saturation. Each of these characteristics as well as observations on modifications to normal circumstances will be described for the site. Supporting data collected from 4 sample locations, presented in Appendix A.

2.0 SITE DESCRIPTION

2.1 LOCATION

The site is located in Lake Charles, Calcasieu Parish, Louisiana. It is geographically located at latitude 30.214364 and longitude -93.141389. The site is in Section 12, Township 10 South, Range 8 West, Calcasieu Parish. Figure 1 is a vicinity map showing the location of the site.

2.2 DESCRIPTION

The site is ±160.0 acres located on the west side of Highway 397 and south of Broad Street. It is rectangular in shape with rough dimensions of 6,300 feet by 1,300 feet. The site is accessible from Tom Watson Road. The site consists of maintained and managed grasslands that act as runway buffers for Chennault Airport. The site is vacant grasslands with three small ponds and a small scrub/shrub habitat around the ponds. The site is maintained by the Chennault Airport.

According to aerial photographs, the site has been vacant and maintained grasslands habitat (see Figure 1, Exhibit 1, and Exhibit 2). There are no structures on the site. Photographs of the site are provided as an attachment.

3.0 SITE INSPECTION

3.1 GENERAL

On May 7th, 2014, SJB's wetland specialists inspected the site. Four representative locations (shown in Figure 2) were chosen for making field observations and collecting soil samples in order to characterize the site. At each sample location, vegetation species were recorded, soil samples were collected for identification and determination of hydric properties, and observations were made on hydrologic conditions. Each sample location was photographed (see attachment provided at the end of the report).

3.2 PRELIMINARY DATA GATHERING

Prior to conducting any fieldwork, SJB conducted a desktop investigation of the site using a series of maps. These maps included a 1998 USGS 7.5-minute topographic map (USGS, 1998), a 1995 USDA soil survey (USDA, 1995), and a 2013 aerial photograph (USGS, 2014).

3.3 SAMPLE LOCATIONS

During the field investigation, SJB conducted cursory evaluation of the entire site. After becoming familiar with the landscape features of the site, four sampling locations were chosen to characterize large homogeneous areas of habitat and to define potential wetland/non-wetland boundaries. A GPS unit was used to determine any potential wetland boundaries and soil samples were taken to identify soil types. All sample locations and wetland boundaries were flagged and mapped. The data collected during the site visit is included in the figures, exhibits, and appendices of this report.

3.4 FIELD PERSONNEL

Field data was collected by Jason LeBourgeois and Paul LeBlanc III. Mr. LeBourgeois has a Bachelor's degree in General Studies from University of New Orleans. He has successfully completed a Wetland Delineation Certification Program given by the Wetland Training Institute. He has been conducting Wetland Delineations for the past 3 years. Mr. LeBlanc has a Bachelor's degree in Fisheries from Louisiana State University. He has successfully completed a Wetland Delineation Certification Program given by the Wetland Training Institute. He has been conducting Wetland Delineations for the past 7 years.

4.0 SITE DATA

4.1 SOILS

According to the soil survey developed by the USDA Soil Conservation Services (SCS), the site is underlain by Mowata-Vidrine silt loam, Leton silt loam and Edgerly loam soils. Mowata-Vidrine silt loam consists of poorly drained soils with high runoff potential. Leton silt loam consists of very deep, poorly drained, very slowly permeable soils. Edgerly loam soils consist of soils that are poorly drained and high runoff potential. Mowata-Vidrine silt loams are listed as hydric soils only along terraces that are dominated with Mowata soils (USDA, 1995). Leton silt loams are listed as non-hydric soils (USDA, 1995). Edgerly loams are not listed as hydric soils (USDA, 1995).

SJB collected soil samples up to 16 inches deep for each of the four sample locations. The depth of each sample was sufficient to determine changes in the upper horizons and to observe field indicators of hydric soils. Soil samples were described and compared to descriptions and maps in the soil survey. Field

observations confirm that the majority of the site appears to be underlain by Mowata-Vidrine silt loam and Edgerly loams.

4.2 VEGETATION

The site is comprised of range and pasture land. Species observed during the inspection of the herbaceous shrub/seedling stratum include: broom-sedge (*Andropogon virginicus*), Soft Rush (*Juncus effuses*), Bahai grass (*Paspalum notatum*), Bull Thistle (*Cirsium vulgare*), Johnson Grass (*Sorghum halpense*), Bermuda grass (*Cynodon doctylon*), Tallow Tree (*Sapium serbiferum*), and Golden Rod (*Solidago austrina*).

Woody vines present during the inspection included Louisiana blackberry (*Rubus louisianus*). The wetland indicator status for these species range from facultative wetlands (FACW) to facultative (FAC). FACW species are typically found in both wetlands and non-wetland areas. FAC species typically grow in non-wetland areas but can also be found in wetlands.

4.3 HYDROLOGY

The average elevation on the site is approximately 15 feet above mean sea level. The site slopes in an easterly direction and has several drainage ditches located throughout the managed grassland. These ditches drain the entire site of any surface water and keeps majority of the site dry. A drainage ditch runs near the center of the property and then drains to a ditch that follows the railroad tracks to the east of the site.

SJB observed no positive indicators of wetland hydrology at the four sample locations.

5.0 FINDINGS AND CONCLUSIONS

5.1 FINDINGS

Data was gathered and observations were made on the three diagnostic characteristics of jurisdictional wetlands on the ±160.0-acre site. The findings include:

Soils: The soils observed on the site (Mowata-Vidrine silt loam, Leton silt loam, and Edgerly loam) are consistent with soil surveys developed by the USDA

NRCS (USDA, Service 1995). The soil survey is provided in Exhibit 2. Field data indicate that the majority of the site is underlain by Mowata-Vidrine silt loam which is listed as a hydric soil under wooded natural conditions. The hydric criteria for wetlands soils were met at three of the four (Sites 1, 2, and 3) sample locations.

Vegetation: Facultative vegetation is present throughout the entire site with hydrophytic vegetation located in ranged and pasture land areas. Vegetation is primarily classified as facultative and facultative-wetland. The majority of the vegetation that is present on the site is considered hydrophytic. The vegetation criterion for wetlands was met at all sample locations.

Hydrology: The entire site has been cleared of any established forested habitat and only small areas of scrub shrub habitats are present. Surface runoff throughout the site appears to drain in an easterly direction. Indicators of wetland hydrology were not observed at the sample locations throughout the site. The hydrology criteria for wetlands were not met at any of the sample locations.

Potential Wetlands: The site appears to have no areas identifiable as potential jurisdictional wetlands. However, there are several drainage ditches that may be classified as other waters. These drainage ditches are mapped on Figure 2 along with the three small ponds.

5.2 CONCLUSIONS

Based on this information reviewed and the field data collected, there are no potential jurisdictional wetlands on the site. Positive evidence of the all three diagnostic characteristics for jurisdictional wetlands was not found at each of the sample locations shown on Figure 2. Based on information reviewed of the site and the field data collected, there are no potential jurisdictional wetlands on the site. However, due to the many drainage ditches that run throughout the property, these ditches may fall into the category of “other waters” as described in the USACE Wetland Delineation Manual.

The USACE, under the authority of the Clean Water Act, Section 404 and the Rivers and Harbors Act, Section 10 has the responsibility to make a final determination of the location and extent of jurisdictional wetlands and navigable waters on this property. This report represents the opinion of the investigators

and should be considered preliminary until final determination is obtained from the USACE New Orleans District.

6.0 REFERENCES

Environmental Laboratory, 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, MS. 1987.

Environmental Laboratory, 2008. Interim Regional Supplement to the Corp of Engineers Wetland Delineation Manual: Atlantic and Gulf Coast Plain Region. Vicksburg, MS. October 2008.

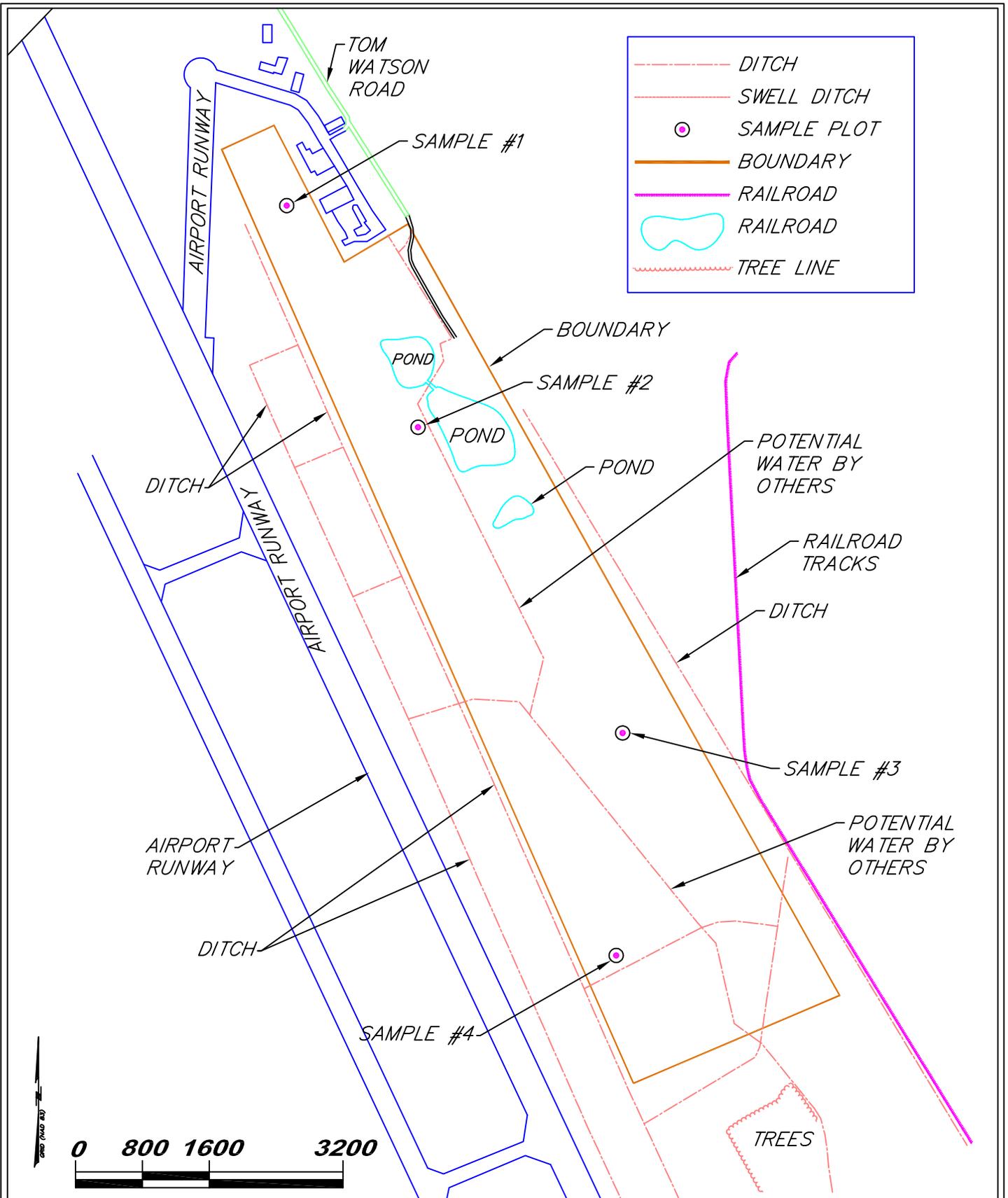
U.S. Department of Agriculture, black-and-white aerial photography from 1940.

U.S. Department of Agriculture, Soil Conservation Service. 1995. Soil mapping Units and Hydric Soils Designations, Louisiana. Third edition. 1995.

U.S. Geological Survey. "Lake Charles, Louisiana," 7.5-minute topographic quadrangle map, 1994.

United States Geological Survey, color aerial photography from 2013.







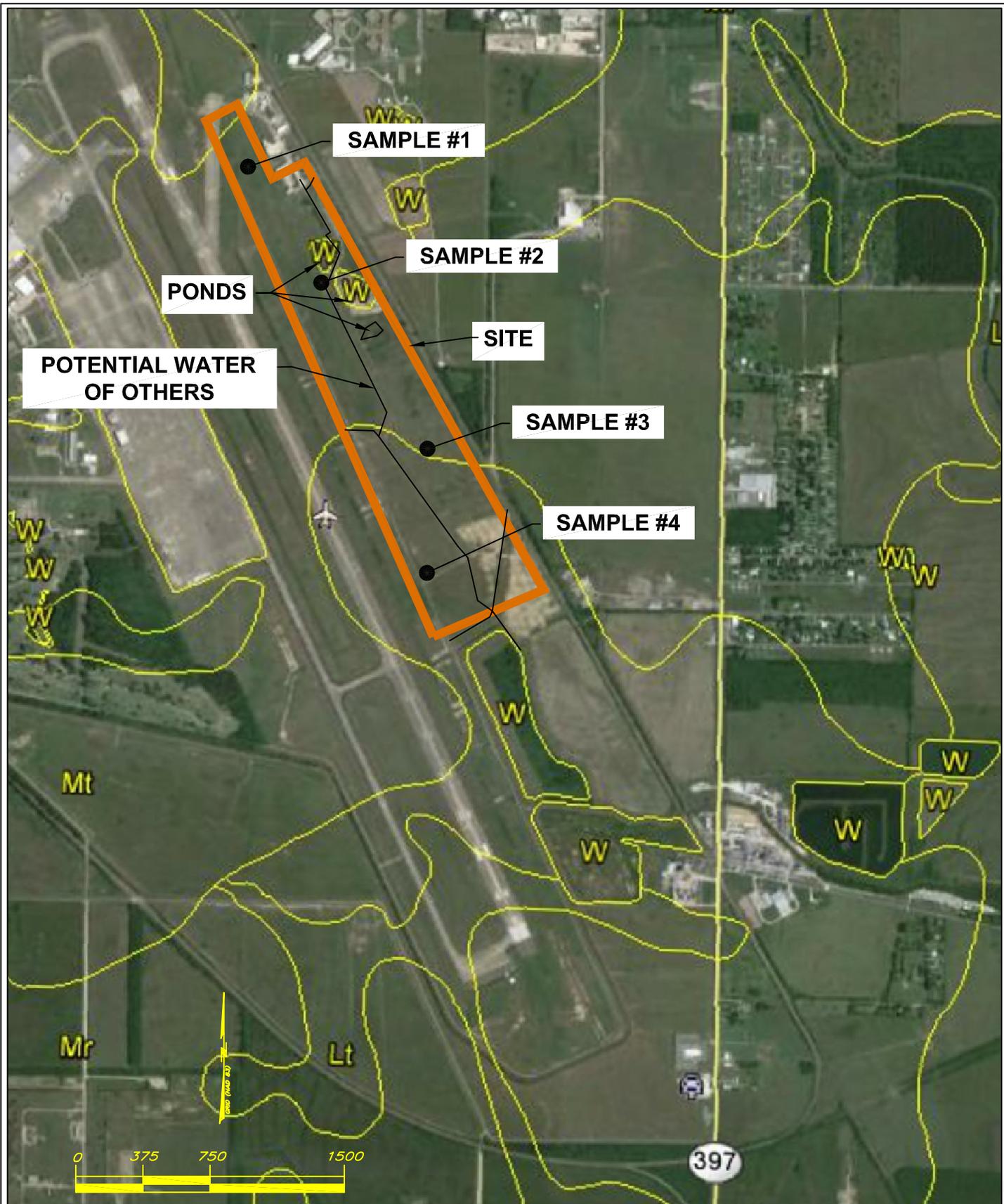
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**WETLAND DELINEATION
2013 AERIAL PHOTOGRAPH
B85 CHENNAULT SITE 5
LAKE CHARLES, LOUISIANA**

EXHIBIT

1



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**WETLAND DELINEATION
 SOILS MAP
 B85 CHENNAULT SITE 5
 LAKE CHARLES, LOUISIANA**

EXHIBIT

2

DATA FORM
ROUTINE WETLAND DETERMINATION
(Atlantic and Gulf Coast Plain Region)
SAMPLE LOCATION 1

Project/Site: <u>160 acres-located near Highway 397 Site 5</u>	Date: <u>5/7/2014</u>
Applicant/Owner: <u>David Conner and Larry Henson</u>	Parish: <u>Calcasieu</u>
Investigator: <u>P. LeBlanc; J.LeBourgeois</u>	State: <u>Louisiana</u>
Sample Location: <u>1</u>	
Landform (hillslope, terrace, etc.): <u>Plains</u> Slope: <u>1%</u>	Section, Township, Range: <u>Sect 12, Twn 10 South, Range 8 West</u>
Subregion (LRR or MLRA): <u>LRR</u> Lat: _____ Long: _____ Datum: _____	
Soil Map Unit Name: <u>Mowata-Vidrine silt loam</u> NWI classification: <u>None</u>	
Are climatic hydrological conditions on the site typical for this time of year? <u>(Yes) No</u>	(If no, explain in Remarks)
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> significantly disturbed?	Are Normal Circumstances present on the site?
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> naturally problematic?	(Yes) No

SUMMARY OF FINDINGS: WETLAND DETERMINATION

(Circle)	(Circle)
Hydrophytic Vegetation Present? (Yes) <u>No</u>	
Wetland Hydrology Present? Yes (No) <u>No</u>	
Hydric Soils Present? (Yes) <u>No</u>	Is this Sampling Point Within a Wetland? Yes (No) <u>No</u>
Remarks: <p style="text-align: center;">Sample Plot #1 located at the northern portion of the Site.</p>	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum 2 required)
Primary Indicators (minimum of one is required; check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsley Vegetated Surfaces (Concave) (B7)
<input type="checkbox"/> Saturated in Upper 12 inches (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundated Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Root Channels upper 12 in. (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain Remarks)	
Field Observations:	
Surface Water Present? Yes (No) _____ (in.)	Wetland Hydrology Present? Yes (No)
Depth of Free Water in Pit? Yes (No) _____ (in.)	
Saturated Soil Present? Yes (No) _____ (in.) (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring wells, aerial photos, previous inspections), if available:	
Remarks: <u>Aerial photographs used to determine break in habitat types and historical use of Site.</u>	

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

Mowata-Vidrine silt loam

_____ = Total Cover

Sapling Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Sapium serbiferum</i>	10	No	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Shrub Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

_____ = Total Cover

Herb Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Paspalum notatum</i>	10	Yes	FAC
2. <i>Cirsium vulgare</i>	10	No	FAC
3. <i>Andropogon virginicus</i>	15	Yes	FAC
4. <i>Sorghum halpense</i>	15	Yes	FAC
5. <i>Solidago austrina</i>	10	Yes	FAC
6. <i>Cynodon doctylon</i>	30	Yes	FAC
7. _____			

90% = Total Cover

Woody Vine Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Rubus louisianus</i>	10	Yes	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC 6 (A)

Total Number of Dominant Species across All Strata 6 (B)

% of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

OBL species _____ x1 _____
 FACW species _____ x2 _____
 FAC species 8 x3 24
 FACU species _____ x4 _____
 UPL species _____ x5 _____
 Column Totals: 8 (A) 24 (B)
 Prevalence Index: B/A = 3

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is <= 3.0 *
N Problematic Hydrophytic Vegetation *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, excluding vines, approximately 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger in diameter at breast height (DBH).

Sapling-Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH

Shrub-Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6m) in height.

Herb- All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1m) in height.

Woody Vine- All woody vines, regardless of height.

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

Hydrophytic Vegetation Present? Yes X. No _____.

SOILS **SAMPLE LOCATION 1**

Map Unit Name (Series and Phase):		<u>Mowata Series</u>	Drainage Class:	<u>Poorly drained</u>	
Taxonomy (Subgroup):		<u>Mowata-Vidrine silt loam</u>	Field Observations Confirm Mapped Type?	(Yes) No	
Profile Description:					
REDOX FEATURES					
Depth (inches)	Matrix Color (Munsell Moist/dri)	%	Mottle Colors (Munsell Moist)	Mottle (Type* / Location**)	Texture / Remarks
0-8	10 YR 4/2	90	10 YR 5/1	C.M.	Silt loam
8-16	10 YR 5/2	85	10 YR 5/4	C.M.	Silt loam
16-20	10 YR 4/3	85	10 YR 7/2	C.M.	Silt loam

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr ** Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils*
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Organic Streaking in Sandy Soils (A6) <input type="checkbox"/> 5 cm Mucky Mineral (A7) <input type="checkbox"/> 1 cm Muck (A9) <input type="checkbox"/> Depleted below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) <input type="checkbox"/> Thin Dark Surface (S9) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depression (F8) <input type="checkbox"/> Depleted Ochric (F11) <input type="checkbox"/> Iron-Maganese Masses (F12) <input type="checkbox"/> Umbric Surface (F13)
	<input type="checkbox"/> 1 cm Muck (A9) <input type="checkbox"/> 2 cm Muck (A10) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Piedmont Floodplain Soils (F19) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)
	<p style="font-size: small;">* Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</p>

WETLAND DETERMINATION

Restrictive Layer (if observed): Type: _____ Depth (inches): _____.	(Circle) Hydric Soils Present? (Yes) No
Remarks: Soil listed as Hydric.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(Atlantic and Gulf Coast Plain Region)
SAMPLE LOCATION 2

Project/Site: <u>160 acres-located near Highway 397 Site 5</u>	Date: <u>5/7/2014</u>
Applicant/Owner: <u>David Conner and Larry Henson</u>	Parish: <u>Calcasieu</u>
Investigator: <u>P. LeBlanc; J.LeBourgeois</u>	State: <u>Louisiana</u>
Sample Location: <u>2</u>	
Landform (hillslope, terrace, etc.): <u>Plains</u> Slope: <u>1%</u>	Section, Township, Range: <u>Sect 12, Twn 10 South, Range 8 West</u>
Subregion (LRR or MLRA): <u>LRR</u> Lat: _____ Long: _____ Datum: _____	
Soil Map Unit Name: <u>Mowata-Vidrine silt loam</u> NWI classification: <u>PEM</u>	
Are climatic hydrological conditions on the site typical for this time of year? <u>(Yes) No</u> (If no, explain in Remarks)	
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> significantly disturbed?	Are Normal Circumstances present on the site?
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> naturally problematic?	Yes (No)

SUMMARY OF FINDINGS: WETLAND DETERMINATION

(Circle)	(Circle)
Hydrophytic Vegetation Present? (Yes) <u>No</u>	
Wetland Hydrology Present? Yes (No) <u>No</u>	
Hydric Soils Present? (Yes) <u>No</u>	Is this Sampling Point Within a Wetland? Yes (No) <u>No</u>
<i>Remarks:</i>	
Sample Plot #2 located near the ponds located near the north central portion of the site.	
Area appears to have had dirt work done in area previously mapped as a PEM on the NWI maps.	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum 2 required)
Primary Indicators (minimum of one is required; check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsley Vegetated Surfaces (Concave) (B7)
<input type="checkbox"/> Saturated in Upper 12 inches (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundated Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Root Channels upper 12 in. (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain Remarks)	
Field Observations:	
Surface Water Present? Yes (No) _____ (in.)	Wetland Hydrology Present? Yes (No)
Depth of Free Water in Pit? Yes (No) _____ (in.)	
Saturated Soil Present? Yes (No) _____ (in.) (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring wells, aerial photos, previous inspections), if available:	
<i>Remarks:</i> Aerial photographs used to determine break in habitat types and historical use of Site.	

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

Mowata-Vidrine silt loam

_____ = Total Cover

Sapling Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Sapium serbiferum</i>	10	No	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Shrub Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

_____ = Total Cover

Herb Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Paspalum notatum</i>	10	Yes	FAC
2. <i>Cirsium vulgare</i>	10	No	FAC
3. <i>Andropogon virginicus</i>	15	Yes	FAC
4. <i>Sorghum halpense</i>	15	Yes	FAC
5. <i>Solidago austrina</i>	10	Yes	FAC
6. <i>Cynodon doctylon</i>	30	Yes	FAC
7. _____			

90% = Total Cover

Woody Vine Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Rubus louisianus</i>	10	Yes	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC 6 (A)

Total Number of Dominant Species across All Strata 6 (B)

% of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

OBL species _____ x1 _____
 FACW species _____ x2 _____
 FAC species 8 x3 24
 FACU species _____ x4 _____
 UPL species _____ x5 _____
 Column Totals: 8 (A) 24 (B)
 Prevalence Index: B/A = 3

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is <= 3.0 *
N Problematic Hydrophytic Vegetation *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, excluding vines, approximately 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger in diameter at breast height (DBH).

Sapling-Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH

Shrub-Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6m) in height.

Herb- All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1m) in height.

Woody Vine- All woody vines, regardless of height.

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

Hydrophytic Vegetation Present? Yes X. No _____.

SOILS

SAMPLE LOCATION 2

Map Unit Name
(Series and Phase): Mowata Series Drainage Class: Poorly drained

Taxonomy (Subgroup): Mowata-Vidrine silt loam Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Matrix Color (Munsell Moistidin %)	REDOX FEATURES		Texture / Remarks
		Mottle Colors (Munsell Moist)	Mottle (Type* / Location**)	
0-8	10 YR 4/2 90	10 YR 5/1	C.M.	Silt loam
8-16	10 YR 5/2 85	10 YR 5/4	C.M.	Silt loam
16-20	10 YR 4/3 85	10 YR 7/2	C.M.	Silt loam

*Type:C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr; ** Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils*

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> 1 cm Muck (A9)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Organic Streaking in Sandy Soils (A6)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> 5 cm Mucky Mineral (A7)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9)	<input type="checkbox"/> Redox Depression (F8)	
<input type="checkbox"/> Depleted below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11)	
<input type="checkbox"/> Thick Dark Surface (12)	<input type="checkbox"/> Iron-Maganese Masses (F12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Umbric Surface (F13)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		
<input type="checkbox"/> Sandy Redox (S5)		
<input type="checkbox"/> Stripped Matrix (S6)		
<input type="checkbox"/> Dark Surface (S7)		

* Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

WETLAND DETERMINATION

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soils Present? (Yes) No
Remarks: Soil listed as Hydric.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(Atlantic and Gulf Coast Plain Region)
SAMPLE LOCATION 3

Project/Site: <u>160 acres-located near Highway 397 Site 5</u>	Date: <u>5/7/2014</u>
Applicant/Owner: <u>David Conner and Larry Henson</u>	Parish: <u>Calcasieu</u>
Investigator: <u>P. LeBlanc; J.LeBourgeois</u>	State: <u>Louisiana</u>
Sample Location: <u>3</u>	
Landform (hillslope, terrace, etc.): <u>Plains</u> Slope: <u>1%</u>	Section, Township, Range: <u>Sect 12, Twn 10 South, Range 8 West</u>
Subregion (LRR or MLRA): <u>LRR</u> Lat: _____ Long: _____ Datum: _____	
Soil Map Unit Name: <u>Mowata-Vidrine silt loam</u> NWI classification: <u>None</u>	
Are climatic hydrological conditions on the site typical for this time of year? <u>(Yes) No</u>	(If no, explain in Remarks)
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> significantly disturbed?	Are Normal Circumstances present on the site?
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> naturally problematic?	(Yes) No

SUMMARY OF FINDINGS: WETLAND DETERMINATION

(Circle)	(Circle)
Hydrophytic Vegetation Present? (Yes) <u>No</u>	
Wetland Hydrology Present? Yes (No) <u>No</u>	
Hydric Soils Present? (Yes) <u>No</u>	Is this Sampling Point Within a Wetland? Yes (No) <u>No</u>
Remarks: <p style="text-align: center;">Sample Plot #3 located at southwestern portion of the Site.</p>	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum 2 required)
Primary Indicators (minimum of one is required; check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsley Vegetated Surfaces (Concave) (B7)
<input type="checkbox"/> Saturated in Upper 12 inches (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundated Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Root Channels upper 12 in. (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain Remarks)	
Field Observations:	
Surface Water Present? Yes (No) _____ (in.)	Wetland Hydrology Present? (Yes) No
Depth of Free Water in Pit? Yes (No) _____ (in.)	
Saturated Soil Present? Yes (No) _____ (in.) (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring wells, aerial photos, previous inspections), if available:	
Remarks: <u>Aerial photographs used to determine break in habitat types and historical use of Site.</u>	

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

Mowata-Vidrine silt loam

_____ = Total Cover

Sapling Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Sapium serbiferum</i>	10	No	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Shrub Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

_____ = Total Cover

Herb Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Paspalum notatum</i>	10	Yes	FAC
2. <i>Cirsium vulgare</i>	10	No	FAC
3. <i>Andropogon virginicus</i>	15	Yes	FAC
4. <i>Sorghum halpense</i>	15	Yes	FAC
5. <i>Solidago austrina</i>	10	Yes	FAC
6. <i>Cynodon doctylon</i>	30	Yes	FAC
7. _____			

90% = Total Cover

Woody Vine Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Rubus louisianus</i>	10	Yes	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC 6 (A)

Total Number of Dominant Species across All Strata 6 (B)

% of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

OBL species _____ x1 _____
 FACW species _____ x2 _____
 FAC species 8 x3 24
 FACU species _____ x4 _____
 UPL species _____ x5 _____
 Column Totals: 8 (A) 24 (B)
 Prevalence Index: B/A = 3

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is <= 3.0 *
N Problematic Hydrophytic Vegetation *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, excluding vines, approximately 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger in diameter at breast height (DBH).

Sapling-Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH

Shrub-Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6m) in height.

Herb- All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1m) in height.

Woody Vine- All woody vines, regardless of height.

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

Hydrophytic Vegetation Present? Yes X. No _____.

SOILS

SAMPLE LOCATION 3

Map Unit Name (Series and Phase):		<u>Mowata Series</u>	Drainage Class:	<u>Poorly drained</u>	
Taxonomy (Subgroup):		<u>Mowata-Vidrine silt loam</u>	Field Observations Confirm Mapped Type?	(Yes) No	
Profile Description:					
REDOX FEATURES					
Depth (inches)	Matrix Color (Munsell Moistidin)	%	Mottle Colors (Munsell Moist)	Mottle (Type* / Location**)	Texture / Remarks
0-8	10 YR 4/2	90	10 YR 5/1	C.M.	Silt loam
8-16	10 YR 5/2	85	10 YR 5/4	C.M.	Silt loam
16-20	10 YR 4/3	85	10 YR 7/2	C.M.	Silt loam
*Type:C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr; ** Location: PL=Pore Lining, M=Matrix					
Hydric Soil Indicators:			Indicators for Problematic Hydric Soils*		
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> 1 cm Muck (A9)			
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)	<input type="checkbox"/> 2 cm Muck (A10)			
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)			
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (TF2)			
<input type="checkbox"/> Organic Streaking in Sandy Soils (A6)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)			
<input type="checkbox"/> 5 cm Mucky Mineral (A7)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)			
<input type="checkbox"/> 1 cm Muck (A9)	<input type="checkbox"/> Redox Depression (F8)				
<input type="checkbox"/> Depleted below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11)				
<input type="checkbox"/> Thick Dark Surface (12)	<input type="checkbox"/> Iron-Maganese Masses (F12)				
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Umbric Surface (F13)				
<input type="checkbox"/> Sandy Gleyed Matrix (S4)					
<input type="checkbox"/> Sandy Redox (S5)					
<input type="checkbox"/> Stripped Matrix (S6)					
<input type="checkbox"/> Dark Surface (S7)					
			* Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		

WETLAND DETERMINATION

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	(Circle) Hydric Soils Present? (Yes) No
Remarks: Soil listed as Hydric.	

DATA FORM
ROUTINE WETLAND DETERMINATION
(Atlantic and Gulf Coast Plain Region)
SAMPLE LOCATION 4

Project/Site: <u>160 acres-located near Highway 397 Site 5</u>	Date: <u>5/7/2014</u>
Applicant/Owner: <u>David Conner and Larry Henson</u>	Parish: <u>Calcasieu</u>
Investigator: <u>P. LeBlanc; J.LeBourgeois</u>	State: <u>Louisiana</u>
Sample Location: <u>4</u>	
Landform (hillslope, terrace, etc.): <u>Plains</u> Slope: <u>1%</u>	Section, Township, Range: <u>Sect 12, Twn 10 South, Range 8 West</u>
Subregion (LRR or MLRA): <u>LRR</u> Lat: _____ Long: _____ Datum: _____	
Soil Map Unit Name: <u>Edgerly silt loam</u> NWI classification: <u>None</u>	
Are climatic hydrological conditions on the site typical for this time of year? <u>(Yes) No</u>	(If no, explain in Remarks)
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> significantly disturbed?	Are Normal Circumstances present on the site?
Are Vegetation <u>No</u> , Soil <u>No</u> , Hydrology <u>No</u> naturally problematic?	<u>(Yes) No</u>

SUMMARY OF FINDINGS: WETLAND DETERMINATION

(Circle)	(Circle)
Hydrophytic Vegetation Present? (Yes) <u>No</u>	
Wetland Hydrology Present? Yes (No) <u>(No)</u>	
Hydric Soils Present? Yes (No) <u>(No)</u>	Is this Sampling Point Within a Wetland? Yes (No) <u>(No)</u>
Remarks: <p style="text-align: center;">Sample Plot #4 located at southern portion of the Site.</p>	

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum 2 required)
Primary Indicators (minimum of one is required; check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsley Vegetated Surfaces (Concave) (B7)
<input type="checkbox"/> Saturated in Upper 12 inches (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundated Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Root Channels upper 12 in. (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain Remarks)	
Field Observations:	
Surface Water Present? Yes (No) _____ (in.)	Wetland Hydrology Present? Yes (No)
Depth of Free Water in Pit? Yes (No) _____ (in.)	
Saturated Soil Present? Yes (No) _____ (in.) (includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring wells, aerial photos, previous inspections), if available:	
Remarks: <u>Aerial photographs used to determine break in habitat types and historical use of Site.</u>	

Tree Stratum (Plot size: 30 ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

Mowata-Vidrine silt loam

_____ = Total Cover

Sapling Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Sapium serbiferum</i>	10	No	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Shrub Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

_____ = Total Cover

Herb Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Paspalum notatum</i>	10	Yes	FAC
2. <i>Cirsium vulgare</i>	10	No	FAC
3. <i>Andropogon virginicus</i>	15	Yes	FAC
4. <i>Sorghum halpense</i>	15	Yes	FAC
5. <i>Solidago austrina</i>	10	Yes	FAC
6. <i>Cynodon doctylon</i>	30	Yes	FAC
7. _____			

90% = Total Cover

Woody Vine Stratum (Plot size: 30ft)	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Rubus louisianus</i>	10	Yes	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

10 = Total Cover

Dominance Test worksheet:

Number of Dominant Species That are OBL, FACW, or FAC 6 (A)

Total Number of Dominant Species across All Strata 6 (B)

% of Dominant Species that are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

OBL species _____ x1 _____
 FACW species _____ x2 _____
 FAC species 8 x3 24
 FACU species _____ x4 _____
 UPL species _____ x5 _____
 Column Totals: 8 (A) 24 (B)
 Prevalence Index: B/A = 3

Hydrophytic Vegetation Indicators:

Y Dominance Test is >50%
Y Prevalence Index is <= 3.0 *
N Problematic Hydrophytic Vegetation *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, excluding vines, approximately 20 ft (6m) or more in height and 3 inch (7.6 cm) or larger in diameter at breast height (DBH).

Sapling-Woody plants, excluding woody vines, approximately 20 ft (6m) or more in height and less than 3 in. (7.6 cm) DBH

Shrub-Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6m) in height.

Herb- All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1m) in height.

Woody Vine- All woody vines, regardless of height.

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

Hydrophytic Vegetation Present? Yes X. No _____.

SOILS

SAMPLE LOCATION 4

Map Unit Name
(Series and Phase): Edgerly Series Drainage Class: Poorly drained

Taxonomy (Subgroup): Edgerly silt loam Field Observations
Confirm Mapped Type? (Yes) No

Profile Description:

Depth (inches)	Matrix Color (Munsell Moistidin %)	REDOX FEATURES		Texture / Remarks
		Mottle Colors (Munsell Moist)	Mottle (Type* / Location**)	
0-7	10 YR 3/2 95	10 YR 6/2	C.M.	Silt loam
7-17	10 YR 3/1 85	7.5 YR 4/6	C.M.	Silt loam
17-20	10 YR 3/1 85	7.5 YR 4/4	C.M.	Silt loam

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Gr; ** Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils*

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> 1 cm Muck (A9)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Organic Streaking in Sandy Soils (A6)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> 5 cm Mucky Mineral (A7)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 1 cm Muck (A9)	<input type="checkbox"/> Redox Depression (F8)	
<input type="checkbox"/> Depleted below Dark Surface (A11)	<input type="checkbox"/> Depleted Ochric (F11)	
<input type="checkbox"/> Thick Dark Surface (12)	<input type="checkbox"/> Iron-Maganese Masses (F12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Umbric Surface (F13)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		
<input type="checkbox"/> Sandy Redox (S5)		
<input type="checkbox"/> Stripped Matrix (S6)		
<input type="checkbox"/> Dark Surface (S7)		

* Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

WETLAND DETERMINATION

Restrictive Layer (if observed): Type: _____ Depth (inches): _____	Hydric Soils Present? (Circle) Yes (No)
Remarks: Soil listed as non-hydric.	

±160-acre B-85 Chennault Site 5



PHOTOGRAPH 1: Typical view across the entire site.



PHOTOGRAPH 2: View of Leton silt loam soils mapped along the northern portion of the site.

±160-acre B-85 Chennault Site 5



PHOTOGRAPH 3: View of the habitat located near sample location #2.



PHOTOGRAPH 4: View of the habitat facing south.



PHOTOGRAPH 5: View of the pond located near the center of the site.



PHOTOGRAPH 6: View of Edgerly soils located throughout the site.

±160-acre B-85 Chennault Site 5



PHOTOGRAPH 7: View of drainage ditch running through the center of the site.



PHOTOGRAPH 8: View of the drainage swells that runs throughout the site.



PHOTOGRAPH 9: View of the soil sample located near sample location #4.



PHOTOGRAPH 10: View of the site along the Chennault runway.