

# Exhibit EE.

## Highway 1 Leonard Road Site Wetlands Delineation Report & Jurisdictional Determination





**DEPARTMENT OF THE ARMY**  
U.S. ARMY CORPS OF ENGINEERS, VICKSBURG DISTRICT  
4155 CLAY STREET  
VICKSBURG, MISSISSIPPI 39183-3435

November 4, 2020

Regulatory Division

SUBJECT: Department of the Army Regulatory Requirements – Franks Investment Company, Commercial Development Site, Highway 1 and Leonard Road Tract, Shreveport, Louisiana; MVK-2013-429 (2020)

Mr. Elliott Boudreaux  
CSRS Incorporated  
6767 Perkins Road, Suite 200  
Baton Rouge, Louisiana 70808

**Highway 1 Leonard Road Site  
Wetlands Delineation Report &  
Jurisdictional Determination**

Dear Mr. Boudreaux:

I refer to your request for a determination of Department of the Army permit requirements for the subject project area. The project site is located in section 3, T16N-R11W, Caddo Parish, Louisiana.

Based upon the information provided, it appears there are jurisdictional areas within the proposed project area subject to regulation pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act. The site location and approximate extent of jurisdictional waters of the United States is depicted on the enclosed preliminary map (enclosure 1). Any work involving the discharge of dredged or fill material (land clearing, ditching, filling, leveeing, etc.) within the limits of the jurisdictional areas identified will require a Department of the Army Section 10/404 permit prior to beginning work. Please note that this jurisdictional determination is preliminary and should be used for planning purposes. A final determination of permit requirements will be made upon submission of a completed permit application, including final project plans. I have enclosed a copy of an appeals form (enclosure 2).

This delineation/determination has been conducted to identify the limits of the Corps Clean Water Act jurisdiction for the particular site identified in this request. This delineation/determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

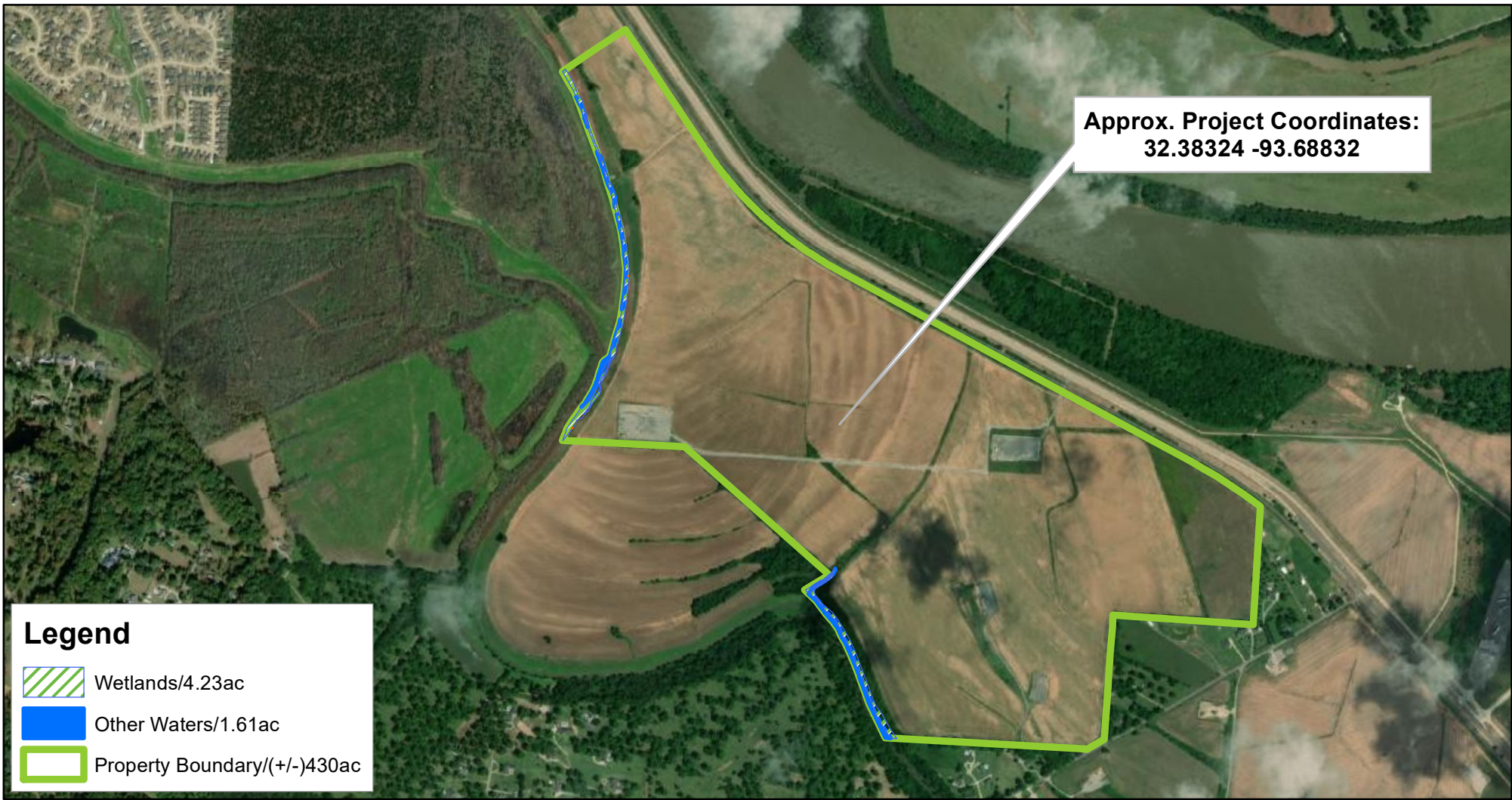
For your convenience, I am enclosing a Department of the Army permit application (enclosure 3). Your application for any proposed work in wetlands or other waters of the United States should be submitted at least 120 days in advance of the proposed starting date. To expedite the evaluation process, please refer to Identification No. MVK-2013-429 (2020) when submitting the application or requesting project updates.

If you need additional assistance in this matter, please contact Mr. Robert Ulmer of this office, telephone (601) 631-5637 or e-mail address [robert.g.ulmer@usace.army.mil](mailto:robert.g.ulmer@usace.army.mil).

Sincerely,

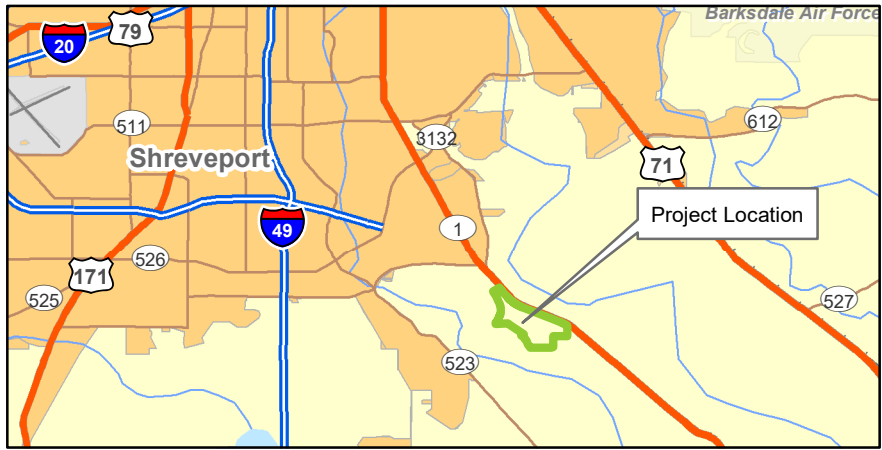
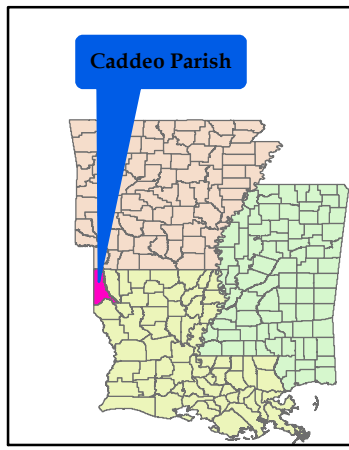
Charles R. Allred, Jr.  
Chief, Enforcement and Compliance Branch  
Regulatory Division

Enclosures



**Legend**

-  Wetlands/4.23ac
-  Other Waters/1.61ac
-  Property Boundary/(+/-)430ac



**November 4 2020**  
**MVK-2013-429-2020**

Applicant:  
 Franks Investment Company, LLC



Proposed Work:  
 Commercial Development

Location:  
 Sections 3, T16N-R13W  
 Shreveport East, Quadrangle  
 Caddo Parish, LA

Map Background:  
 NAIP Aerial Imagery (2004)

**Preliminary**  
**Jurisdictional Determination**

Prepared by:  
 Robert G. Ulmer, Jr.

**US Army Corps of Engineers®**

**Regulatory Branch**

**Enforcement Section**

0 14000 28000  
 Feet

## NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Applicant: Franks Investment Company	File Number: MVK-2013-429-2020	Date: 04 Nov 2020
Attached is:		See Section Below
<input type="checkbox"/>	INITIAL PROFFERED PERMIT (Standard Permit or Letter of Permission)	A
<input type="checkbox"/>	PROFFERED PERMIT (Standard Permit or Letter of Permission)	B
<input type="checkbox"/>	PERMIT DENIAL	C
<input type="checkbox"/>	APPROVED JURISDICTIONAL DETERMINATION	D
<input checked="" type="checkbox"/>	PRELIMINARY JURISDICTIONAL DETERMINATION	E
<p><b>SECTION I -</b> The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at <a href="http://usace.army.mil/inet/functions/cw/cecwo/reg">http://usace.army.mil/inet/functions/cw/cecwo/reg</a> or Corps regulations at 33 CFR Part 331.</p>		
<p><b>A: INITIAL PROFFERED PERMIT:</b> You may accept or object to the permit.</p> <ul style="list-style-type: none"> <li>• <b>ACCEPT:</b> If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations (JD) associated with the permit.</li> <li>• <b>OBJECT:</b> If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.</li> </ul>		
<p><b>B: PROFFERED PERMIT:</b> You may accept or appeal the permit.</p> <ul style="list-style-type: none"> <li>• <b>ACCEPT:</b> If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.</li> <li>• <b>APPEAL:</b> If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.</li> </ul>		
<p><b>C: PERMIT DENIAL:</b> You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.</p>		
<p><b>D: APPROVED JURISDICTIONAL DETERMINATION:</b> You may accept or appeal the approved JD or provide new information.</p> <ul style="list-style-type: none"> <li>• <b>ACCEPT:</b> You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.</li> <li>• <b>APPEAL:</b> If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.</li> </ul>		
<p><b>E: PRELIMINARY JURISDICTIONAL DETERMINATION:</b> You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.</p>		

**SECTION II - REQUEST FOR APPEAL or OBJECTIONS TO AN INITIAL PROFFERED PERMIT**

REASONS FOR APPEAL OR OBJECTIONS: (Describe your reasons for appealing the decision or your objections to an initial proffered permit in clear concise statements. You may attach additional information to this form to clarify where your reasons or objections are addressed in the administrative record.)

ADDITIONAL INFORMATION: The appeal is limited to a review of the administrative record, the Corps memorandum for the record of the appeal conference or meeting, and any supplemental information that the review officer has determined is needed to clarify the administrative record. Neither the appellant nor the Corps may add new information or analyses to the record. However, you may provide additional information to clarify the location of information that is already in the administrative record.

**POINT OF CONTACT FOR QUESTIONS OR INFORMATION:**

If you have questions regarding this decision and/or the appeal process you may contact:

Robert Ulmer  
U.S. Army Corps of Engineers  
Regulatory Branch  
4155 Clay Street  
Vicksburg, MS 39183-3435  
(601) 631-5637

If you only have questions regarding the appeal process you may also contact:

Attn: Appeals Review Officer  
Mississippi Valley Division  
Post Office Box 80  
Vicksburg, MS 39181-0080  
(601)634-5820

RIGHT OF ENTRY: Your signature below grants the right of entry to Corps of Engineers personnel, and any government consultants, to conduct investigations of the project site during the course of the appeal process. You will be provided a 15 day notice of any site investigation, and will have the opportunity to participate in all site investigations.

Signature of appellant or agent.

Date:

Telephone number:

# Highway 1 Leonard Road Site Wetlands Delineation Report & Jurisdictional Determination

FRANKS INVESTMENT CO., LLC.

WETLAND DATA REPORT  
LOT 4 (+/- 430 ACRE TRACT,  
a.k.a. "Highway 1/Leonard Road Tract")  
CADDO PARISH, LOUISIANA

May 2013

Prepared by:



AN EMPLOYEE-OWNED  
ENVIRONMENTAL & ENGINEERING FIRM  
2001 East 70<sup>th</sup> Street, Suite 503  
Shreveport, LA 71105  
318.797.8636

C-K Associates' Project No. 8902

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**ATTACHMENTS**

Attachments

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## 1.0 INTRODUCTION

The following report summarizes a wetland delineation conducted by C-K Associates, LLC (C-K), on an approximate 430-acre tract identified as Lot 4 (a.k.a., Highway 1/Leonard Road Tract). The purpose of this report is to identify areas that contain potential wetlands and other potential “Waters of the United States” as defined in 33 CFR 328.3. The survey area is located south of Shreveport in Caddo Parish, Louisiana and is located in Section 3, Township 16 North, Range 13 West (Figure 1).

Waters of the United States are aquatic areas that are either navigable or have a significant nexus to a navigable water. These areas are regulated by the United States Army Corps of Engineers (USACE). Navigable waters are “those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce” (33 CFR 329.4). Any area below the ordinary high water mark, as defined in 33 CFR 328.3(e), may fall under Federal jurisdiction as a navigable water [33 CFR 329.11(a)].

Waters of the United States, regardless of navigability, can generally be categorized as either: 1) deepwater aquatic habitats, 2) special aquatic sites, or 3) other waters of the United States. Deepwater aquatic habitats are “areas that are permanently inundated at mean annual water depths greater than 6.6 feet or permanently inundated areas, less than or equal to 6.6 feet in depth that do not support rooted-emergent or woody plant species”. Special aquatic sites include 1) sanctuaries and refuges, 2) wetlands, 3) mudflats, 4) vegetated shallows, 5) coral reefs and 6) riffle and pool complexes. Other waters of the United States include, but are not limited to 1) isolated wetlands and lakes, 2) intermittent streams, 3) prairie potholes and 4) other waters that are not part of a tributary system to interstate waters or navigable waters of the United States (USACE 1987).

Wetlands are classified as a special aquatic site and are defined as “areas that are inundated or saturated by surface or groundwater 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” (USACE 1987). These areas are referred to as “wetlands” throughout this report whereas deepwater aquatic habitats, special aquatic sites, streams, and other waters of the United States are referred to as “other waters” in this report.

Three mandatory technical criteria for determining the presence of a wetland are, with exceptions, 1) hydrophytic vegetation, 2) wetland hydrology, and 3) hydric soils (USACE 1987). Hydrophytic vegetation is defined as “the sum total of macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content” (USACE 1987). The term *wetland hydrology* encompasses “the sum total of wetness characteristics in areas that are inundated or have saturated soils for a sufficient duration to support hydrophytic vegetation” (USACE

1987). A hydric soil is defined as “a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part” (U.S. Department of Agriculture [USDA] 2010).

## **2.0 PHYSIOGRAPHY, CLIMATE, AND SITE DESCRIPTION**

Caddo Parish is located in northwest Louisiana. The parish is bordered by Miller County, Arkansas to the north; Cass, Marion, Harrison and Panola Counties, Texas to the west; Desoto and Red River Parishes, Louisiana to the south; and Bossier Parish, Louisiana to the east. The parish generally consists of uplands, stream terraces and alluvial plains. Elevations in the parish range from 140 feet above sea-level on the Red River floodplain in the southeast part to 465 feet above sea-level in the uplands in the northern part of the parish. The nearly level alluvial plain of the Red River and its major distributaries makes up nearly one-third of the area in the parish (Soil Conservation Service [SCS] 1980).

Caddo Parish has a humid, subtropical climate. The parish is dominated by warm, moist, maritime tropical air from the Gulf of Mexico. The average annual precipitation is 44.7 inches and the growing season is approximately 220 days (SCS 1980).

The survey area is located in the eastern part of the parish on natural levee deposits of the Red River alluvial floodplain. Elevations for the property range from approximately 134 feet above sea level along Bayou Pierre and Sand Beach Bayou to approximately 160 feet above sea level on the crest of the natural levees. The subject area is typically planted in crops such as cotton or soybeans during the growing season. Oilfield well pads, pipeline right of ways and paved gravel lease roads are recent developments on the property. The property is drained by a system of ditches which eventually empty into Sand Beach Bayou and Bayou Pierre. Sand Beach Bayou enters the property on the north and parallels and forms northwest boundary of the property. Sand Beach Bayou then empties into Bayou Pierre further south along this boundary line on the northwest. Bayou Pierre exits the property a short distance further south. Bayou Pierre again enters the property on the south where it parallels and forms the properties boundary on the southwest. Bayou Pierre is identified as a navigable stream by USACE (2003).

## **3.0 METHODS**

C-K conducted a site visit on January 22 and 23, 2013 to determine the extent of potential wetlands and other Waters of the United States within the survey area. The wetland delineation followed routine onsite field procedures as outlined by the USACE (1987 and 2010). Soil references include the NRCS (1980, 2013a, 2013b, and 2013c), and USDA (2010). Plant nomenclature and wetland indicator status is taken from USACE (2012).

Prior to conducting the field investigation, C-K reviewed available aerial photography, soil survey data, elevation data (Light Detection and Ranging [LIDAR] contours and Digital Elevation Models [DEM]), topographic maps (Figures 3, 3A, 3B, and 3C), and National Wetland Inventory (NWI) data. Data points were established within the dominant plant communities of the project area. Observations of soils, vegetation, and hydrology were documented at each data point location (Attachment A). Potential Waters of the United States, including wetlands, and data point locations were mapped utilizing Trimble® GeoXT® Differential Global Positioning System (DGPS) utilizing real-time corrections. Acreage was obtained by exporting the data from the DGPS unit into ESRI® ArcMap Version 10.1. Digital photographs were taken of the soil profile and surrounding vegetation at each data point (Attachment A).

All vegetative species present within each data point plot were documented for each vegetation strata, including the tree stratum, sapling /shrub stratum, herbaceous stratum, and woody vines. Percent absolute cover for each species was determined by ocular estimation. Plant communities met hydrophytic vegetation criteria if greater than 50% of all dominant species from all strata were classified as obligatory, facultative-wet, or facultative species or the prevalence index is 3.0 or less (USACE 2010). Dominant species were selected using the “50/20 rule” described by the USACE (2010).

Hydrologic criteria were based on the observation of wetland hydrology indicators, as described by the USACE (2010). Wetland hydrologic criteria were met if one primary indicator was observed or a minimum of two secondary indicators was observed.

Soil profiles were obtained by excavating an approximate 14-inch soil pit. Soil color was recorded by matching soil samples throughout the profile to color chips contained in a Munsell soil color chart. The presence or absence of hydric soils was determined utilizing the methods and procedures outlined by the USACE (2010), including, but not limited to, the observation of the hydric soil indicators described by the USACE (2010).

## **4.0 RESULTS**

Twenty-two data points (DP) were collected during the field investigation. DP3, DP15, DP17, DP18 and DP21 were located within wetlands. DP1-DP2, DP4-DP14, DP16, DP19-DP20 and DP22 were located within non-wetlands.

### **4.1 Hydrology**

Primary wetland hydrology indicators such as: saturation, iron deposits, sediment deposits, drift deposits, or water-stained leaves were observed. Secondary wetland hydrology indicators such as FAC-Neutral Test, and crayfish burrows were observed as well.

## 4.2 Vegetation

The majority of data points were located in plowed fields which exhibited little or no vegetation at the time of the site visit. However, supplemental offset data sources such as un-plowed field fringes were used to determine plant communities.

Wetland habitat is dominated by black willow (*Salix nigra*), sugarberry (*Celtis laevigata*) and groundsel (*Baccharis halimifolia*) in the sapling/shrub stratum. The herbaceous stratum is composed of groundsel, tall fescue (*Festuca arundinaceus*), Ragweed (*Ambrosia trifida*), and cattail (*Typha domingensis*). The woody vine stratum is composed of trumpetcreeper (*Campsis radicans*), peppervine (*Ampelopsis arborea*), dewberry (*Rubis flagellaris*), and horsebrier (*Smilax rotundifolia*).

Non-wetland areas are dominated by tall fescue, Bermudagrass (*Cynodon dactylon*), ryegrass (*Lolium perenne*), sowthistle (*Sonchus asper*) and Henbit deadnettle (*Lamium amplexicaule*) in the herbaceous stratum. Dewberry and horsebrier composed the woody vine stratum.

## 4.3 Soils

The survey area is underlain by the following soils:

Map Unit Symbol	Map Unit Name
2	Armistead Clay
14	Gallion silt loam
15	Gallion silty clay loam
20	Moreland clay, gently undulating
22	Moreland silt loam
23	Moreland silty clay loam
24	Moreland clay
27	Norwood silt loam
33	Severn very fine sandy loam

None of the soil mapping unit are designated as hydric by the NRCS (2013c). The Depleted Matrix soil indicator was observed at DP3, DP15, DP17, DP18 and DP21.

## 5.0 CONCLUSION

Based on field observations, the approximate 430-acre survey area contains 4.07 acres of wetlands and 6.97 acres of Other Waters of the United States (Figures 2). A detailed breakdown of all potential wetland and waterbody impacts within the survey area is included as Attachment B. This acreage is influenced by the accuracy of the DGPS unit utilizing real-time corrections and ESRI® ArcMap Version 10.1 drafting software.

**The USACE under the authority of the Clean Water Act, Section 404 and the Rivers and Harbor Act, Section 10 has the responsibility to make the final determination of the location and extent of jurisdictional wetlands and navigable waters within the project area, respectively. This report represents the opinion of the investigators and should be considered preliminary until final concurrence is obtained from the Vicksburg District Army Corps of Engineers office.**

## 6.0 LITERATURE CITED

Natural Resources Conservation Services [NRCS]. 1980. Soil Survey of Caddo Parish. U.S. Department of Agriculture, Natural Resources Conservation Service.

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(Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-20. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

U.S. Army Corps of Engineers [USACE]. 2012. National Wetland Plant List. <[http://geo.usace.army.mil/wetland\\_plants/index.html](http://geo.usace.army.mil/wetland_plants/index.html)>. Accessed 19 October 2012.

U.S. Department of Agriculture [USDA]. Natural Resources Conservation Service. 2010. Field Indicators of Hydric Soils in the United States, Version 7.0. ed. L.M. Vasilas, G.W. Hart, and C.V. Noble. USDA, NRCS, in corporation with the National Technical Committee for Hydric Soils.

## FIGURES

**FIGURE 1**  
**VICINITY MAP**



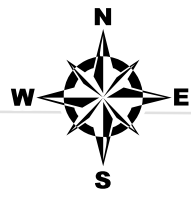


**FIGURE 2**  
**WETLANDS MAP**

93°41'30"W 93°41'0"W 93°40'30"W 93°40'0"W

32°23'30"N

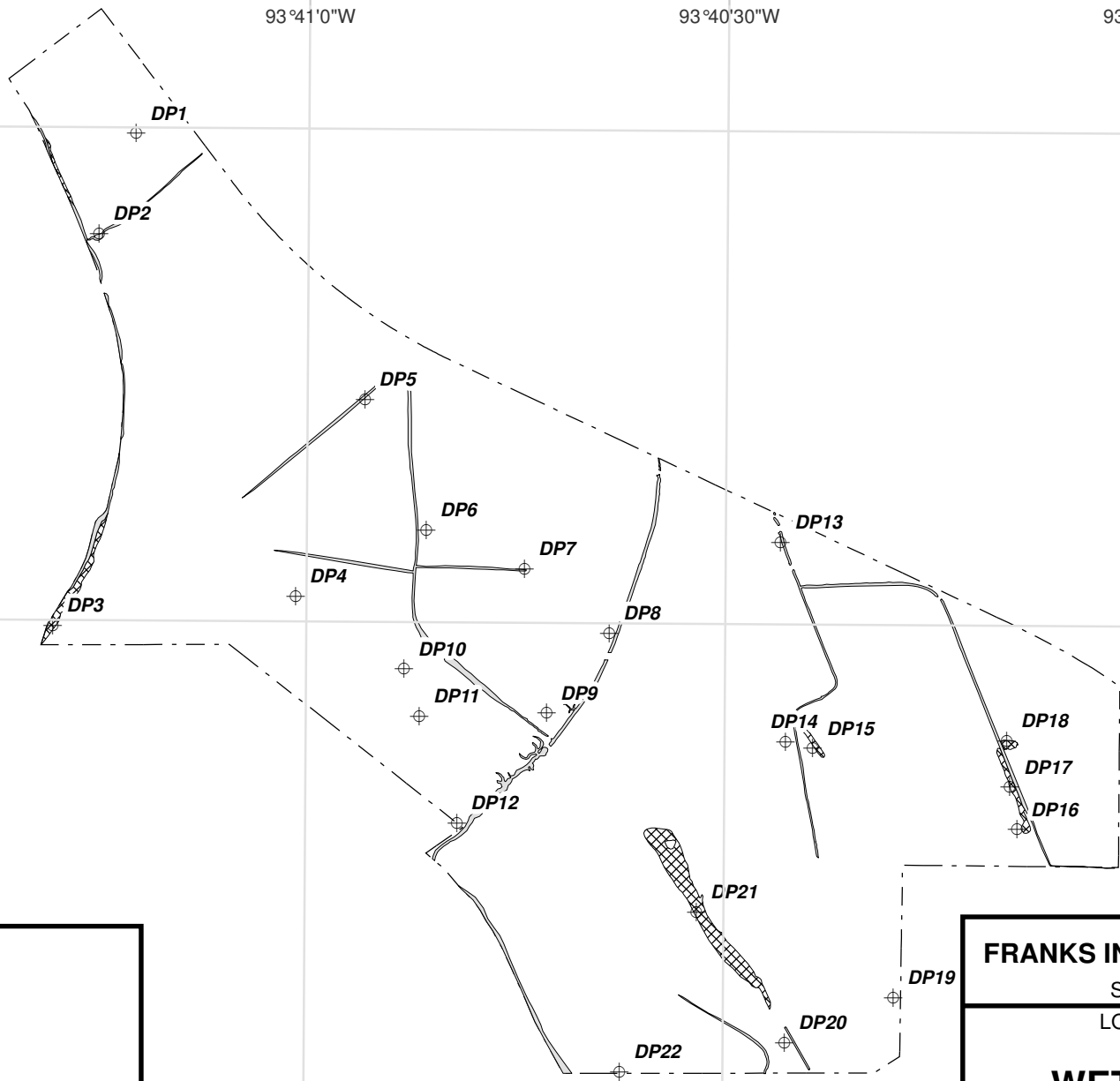
32°23'30"N



32°23'0"N

32°23'0"N

32°22'30"N



**Legend**

**Data Points**  
 ⊕ DP1

**Property Boundary**  
 - - - +/- 430 acres

**Other waters of the U S**  
 □ Approx. 6.97 acres (Total)

**Wetlands**  
 ▨ Approx. 4.07 acres (Total)



**FRANKS INVESTMENT COMPANY, LLC.**  
 SHREVEPORT, LOUISIANA  
 LOT 4 (+/- 430 ACRE TRACT)

**WETLAND DATA MAP**

CADDO PARISH, LOUISIANA

**CK ASSOCIATES, LLC**  
 ENVIRONMENTAL & ENGINEERING CONSULTANTS

CREATED BY: ADB  
 CHECKED BY: LW  
 APPROVED BY: GRM  
 Date: 2/6/2013  
 DRG NO.: 8902-02

**FIGURE 2**

93°41'30"W 93°41'0"W 93°40'30"W 93°40'0"W

**ATTACHMENT A**

**WETLAND DETERMINATION DATA FORMS AND  
PHOTOGRAPHS**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/22/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP1  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 23' 29.68" N Long: 93° 41' 12.38" W Datum: NAD83  
 Soil Map Unit Name: (33) Severn very fine sandy loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in drainage swale in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP1

<u>Tree Stratum</u> (Plot size: <u>30 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Herb Stratum</u> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	70	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	5	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
9. _____		<input type="checkbox"/>	<input type="checkbox"/>	
10. _____		<input type="checkbox"/>	<input type="checkbox"/>	
11. _____		<input type="checkbox"/>	<input type="checkbox"/>	
12. _____		<input type="checkbox"/>	<input type="checkbox"/>	
75 = Total Cover				
50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
Remarks: (If observed, list morphological adaptations below).				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = 0

---

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

---

**Hydrophytic Vegetation Present?** Yes  No

**SOIL**

Sampling Point: DP1

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
4	5R 3/3	100			<input type="checkbox"/>	<input type="checkbox"/>	sandy loam	
16	5R 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	sandy loam	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**DP1 Soil Profile**



**DP1 Surrounding vegetation, view looking north.**





**View of vegetation at DP1 facing west**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/22/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP2  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 23' 23.57" N Long: 93° 41' 15.00" W Datum: NAD83  
 Soil Map Unit Name: (14) Gallion silt loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken on slope adjacent to Sand Beach Bayou

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
___ Surface Water (A1)	___ Sparsely Vegetated Concave Surface (B8)
___ High Water Table (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Geomorphic Position (D2)
___ Iron Deposits (B5)	___ Shallow Aquitard (D3)
___ Inundation Visible on Aerial Imagery (B7)	___ FAC-Neutral Test (D5)
___ Water-Stained Leaves (B9)	___ Sphagnum moss (D8) (LRR T, U)
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15) (LRR U)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres along Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP2

<u>Tree Stratum</u> (Plot size: <u>30 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Herb Stratum</u> (Plot size: <u>30 ft</u> )				
1. <u>Cynodon dactylon</u>	45	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Fescue arundinaceus</u>	40	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. <u>Lamium amplexicaule</u>	5	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
9. _____		<input type="checkbox"/>	<input type="checkbox"/>	
10. _____		<input type="checkbox"/>	<input type="checkbox"/>	
11. _____		<input type="checkbox"/>	<input type="checkbox"/>	
12. _____		<input type="checkbox"/>	<input type="checkbox"/>	
90 = Total Cover				
50% of total cover: <u>45</u> 20% of total cover: <u>18</u>				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u> )				
1. <u>Rubis flagellaris</u>	5	yes <input type="checkbox"/>	UPL <input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5 = Total Cover				
50% of total cover: <u>2.5</u> 20% of total cover: <u>1</u>				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = 0

---

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

---

**Hydrophytic Vegetation Present?** Yes  No

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

**SOIL**

Sampling Point: DP2

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
4	5YR 3/3	100			<input type="checkbox"/>	<input type="checkbox"/>	fn sandy loa	
16	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	fn sandy loa	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**DP 2 Soil profile**



**Vegetation at DP2, view facing north.**



**Vegetation at DP2, view facing west.**



**Vegetation at DP2, view facing east.**



**Vegetation at DP2, view is to south, along Sand Beach Bayou.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/22/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP3  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 59.70" N Long: 93° 41' 18.16" W Datum: NAD83  
 Soil Map Unit Name: (2) Armistead clay  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
 Point taken on bottom of slope adjacent to Bayou Pierre

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
___ Surface Water (A1)	___ Sparsely Vegetated Concave Surface (B8)
___ High Water Table (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
<input checked="" type="checkbox"/> Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Geomorphic Position (D2)
<input checked="" type="checkbox"/> Iron Deposits (B5)	___ Shallow Aquitard (D3)
___ Inundation Visible on Aerial Imagery (B7)	___ FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	___ Sphagnum moss (D8) (LRR T, U)
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15) (LRR U)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres along Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1</u> (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:



**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP3

<u>Tree Stratum</u> (Plot size: <u>30 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Herb Stratum</u> (Plot size: <u>30 ft</u> )				
1. <i>Festuca arundinaceus</i>	40	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <i>Typha domingensis</i>	10	yes <input type="checkbox"/>	OBL <input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
9. _____		<input type="checkbox"/>	<input type="checkbox"/>	
10. _____		<input type="checkbox"/>	<input type="checkbox"/>	
11. _____		<input type="checkbox"/>	<input type="checkbox"/>	
12. _____		<input type="checkbox"/>	<input type="checkbox"/>	
50 = Total Cover				
50% of total cover: <u>25</u> 20% of total cover: <u>10</u>				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u> )				
1. <i>Rubis flagellaris</i>	10	yes <input type="checkbox"/>	UPL <input type="checkbox"/>	
2. <i>Ampelosis arborea</i>	5	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
15 = Total Cover				
50% of total cover: <u>7.5</u> 20% of total cover: <u>3</u>				
Remarks: (If observed, list morphological adaptations below).				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = 0

---

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?** Yes  No

**SOIL**

Sampling Point: DP3

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
4	5YR 3/3	95	5YR 4/3	5	C <input type="checkbox"/>	M <input type="checkbox"/>	clay	
16	5YR 4/4	95	5YR 4/1	5	D <input type="checkbox"/>	M <input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:



**Soil Profile at DP3.**



**Vegetation at DP3, view facing north along Pierre Bayou.**



**Vegetation at DP3, view is facing south along Bayou Pierre.**



**Vegetation at DP3, view facing east.**



**Vegetation at DP3, view facing west toward Bayou Pierre.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/22/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP4  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 23' 1.56" N Long: 93° 41' 0.78" W Datum: NAD83  
 Soil Map Unit Name: (20) Moreland clay, gently undulating  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in drainage swale in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP4

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	70	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	5	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: <u>37.5</u>		20% of total cover: <u>15</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u>	(A)	<u>0</u>	(B)
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b>				
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP4

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	fn sandy loa	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:





**Soil profile at DP4.**



**Vegetation at DP4, view facing west.**



**Vegetation at DP4, view facing northeast.**



**Vegetation at DP4, view is to southeast.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/22/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP5  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 23' 13.55" N Long: 93° 40' 55.89" W Datum: NAD83  
 Soil Map Unit Name: (33) Severn very fine sandy loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in drainage swale in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (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"/> Inundation 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"/> Sphagnum moss (D8) (LRR T, U)
<input type="checkbox"/> Marl Deposits (B15) (LRR U)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (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 in Remarks)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP5

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	<u>70</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	<u>10</u>	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP5

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
8	5YR 3/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
16	5YR 3/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay with silt	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP5.**



**Vegetation at DP5, view is facing north. field ditch in foreground.**



**Vegetation at DP5, view is to the east.**



**Vegetation at DP5, view is facing south.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP6  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 23' 5.63" N Long: 93° 40' 55.89" W Datum: NAD83  
 Soil Map Unit Name: (22) Moreland silt loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in drainage swale in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:



**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP6

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
		0 = Total Cover		
50% of total cover: _____		20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
		0 = Total Cover		
50% of total cover: _____		20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	70	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	10	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
		80 = Total Cover		
50% of total cover: <u>40</u>		20% of total cover: <u>16</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
		0 = Total Cover		
50% of total cover: _____		20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP6

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
8	5YR 3/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
16	5YR 3/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay with silt	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP6.**



**Vegetation at DP6 view is facing south.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP7  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 23' 3.30" N Long: 93° 40' 44.39" W Datum: NAD83  
 Soil Map Unit Name: (15) Gallion silty clay loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in low area adjacent to field drainage ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP7

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____		20% of total cover: _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____		20% of total cover: _____	
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	90	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	10	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
9. _____		<input type="checkbox"/>	<input type="checkbox"/>	
10. _____		<input type="checkbox"/>	<input type="checkbox"/>	
11. _____		<input type="checkbox"/>	<input type="checkbox"/>	
12. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>100</u>			= Total Cover
	50% of total cover: <u>50</u>		20% of total cover: <u>16</u>	
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____		20% of total cover: _____	
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP7

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
6	5YR 3/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
16	5YR 3/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay with silt	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP7.**



**Vegetation at DP7, view is facing west.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP8  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 59.41" N Long: 93° 40' 38.28" W Datum: NAD83  
 Soil Map Unit Name: (23) Moreland silty clay loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in low area adjacent to field drainage ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:



**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP8

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____	20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____	20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	<u>75</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	<u>10</u>	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>85</u>			= Total Cover
	50% of total cover: <u>42.5</u>	20% of total cover: <u>17</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____	20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)	<u>0</u> (B)		
Prevalence Index = B/A =		<u>0</u>		
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP8

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)   |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)  |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)  |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)   |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>  |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)   |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |   |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  | <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |   |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |   |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |   |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |   |

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP8.**



**Vegetation at DP8 view is to the east.**



**Vegetation at DP8, view is to the north.**



**Vegetation at DP8, view is to the south.**



**Vegetation at DP8, view is to the west.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP9  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): Natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 54.54" N Long: 93° 40' 42.74" W Datum: NAD83  
 Soil Map Unit Name: (15) Gallion silty clay loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in low area adjacent to field drainage ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP9

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <i>Festuca arundinaceus</i>	75	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <i>Lamium amplexicaule</i>	10	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. <i>Sonchus asper</i>	1	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: <u>43</u>		20% of total cover: <u>17.2</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u>	(A)	<u>0</u>	(B)
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP9

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay w/ silt	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:





**Soil profile at DP9.**



**Vegetation at DP9, view is to northwest.**



**Vegetation at DP9, view is to northeast.**



**Vegetation at DP9, view is to southwest.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP10  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 57.17" N Long: 93° 40' 52.97" W Datum: NAD83  
 Soil Map Unit Name: (20) Moreland clay, gently undulating  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>		

Remarks:  
 Point taken in swale in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (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"/> Inundation 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"/> Sphagnum moss (D8) (LRR T, U)
<input type="checkbox"/> Marl Deposits (B15) (LRR U)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (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 in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP10

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____		20% of total cover: _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____		20% of total cover: _____	
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	<u>60</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lolium perenne</u>	<u>10</u>	no <input type="checkbox"/>	FACU <input type="checkbox"/>	
3. <u>Lamium amplexicaule</u>	<u>3</u>	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
9. _____		<input type="checkbox"/>	<input type="checkbox"/>	
10. _____		<input type="checkbox"/>	<input type="checkbox"/>	
11. _____		<input type="checkbox"/>	<input type="checkbox"/>	
12. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>73</u>			= Total Cover
	50% of total cover: <u>36.5</u>		20% of total cover: <u>14.6</u>	
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____		20% of total cover: _____	
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	<u>0</u>	x 1 =	<u>0</u>	
FACW species		x 2 =		
FAC species		x 3 =		
FACU species		x 4 =		
UPL species		x 5 =		
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP10

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay w/ silt	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)   |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)  |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)  |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)   |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>  |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)   |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |   |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  | <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |   |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |   |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |   |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |   |

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP10.**



**Vegetation at DP10, view is to west along lease road with swale in foreground.**



**Vegetation at DP10, view is to southwest.**



**Vegetation at DP10, view is to northeast.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP11  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): convex  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 54.29" N Long: 93° 40' 51.85" W Datum: NAD83  
 Soil Map Unit Name: (15) Gallion silty clay loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>		

Remarks:  
 Point taken on crest of natural levee in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (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"/> Inundation 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"/> Sphagnum moss (D8) (LRR T, U)
<input type="checkbox"/> Marl Deposits (B15) (LRR U)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (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 in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:



**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP11

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	70	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lolium perenne</u>	10	no <input type="checkbox"/>	FACU <input type="checkbox"/>	
3. <u>Lamium amplexicaule</u>	1	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: <u>40.5</u>		20% of total cover: <u>16.2</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
10	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay w/ silt	
16	5YR 5/6	100			<input type="checkbox"/>	<input type="checkbox"/>	sand	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP11.**



**Vegetation at DP11, view is to northwest.**



**Vegetation at DP11, view is to northeast.**



**Vegetation at DP11, view is to southwest.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP12  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 47.81" N Long: 93° 40' 49.13" W Datum: NAD83  
 Soil Map Unit Name: (20) Moreland clay, gently undulating  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in plowed field adjacent to ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
___ Surface Water (A1)	___ Sparsely Vegetated Concave Surface (B8)
___ High Water Table (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Geomorphic Position (D2)
___ Iron Deposits (B5)	___ Shallow Aquitard (D3)
___ Inundation Visible on Aerial Imagery (B7)	___ FAC-Neutral Test (D5)
___ Water-Stained Leaves (B9)	___ Sphagnum moss (D8) (LRR T, U)
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15) (LRR U)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres along Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP12

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____	20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Celtis laevigata</u>	25	yes <input type="checkbox"/>	FACW <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>25</u>			= Total Cover
	50% of total cover: <u>12.5</u>	20% of total cover: <u>5</u>		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	80	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>80</u>			= Total Cover
	50% of total cover: <u>40</u>	20% of total cover: <u>16</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____	20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u>				(A)
Total Number of Dominant Species Across All Strata: <u>2</u>				(B)
Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u>				(A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u>	(A)	<u>0</u>	(B)
Prevalence Index = B/A =		<u>0</u>		
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b>				
		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP12

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 4/3	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP12.**



**Vegetation at DP12, view is to northwest.**





**Vegetation at DP12, view is to northeast.**



**Vegetation at DP12, view is to southeast.**



**Vegetation at DP12, view is to southwest.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP13  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 23' 5.03" N Long: 93° 40' 26.06" W Datum: NAD83  
 Soil Map Unit Name: (24) Moreland clay  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in plowed field adjacent to ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP13

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>	= Total Cover		
	50% of total cover: _____	20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>salix negra</u>	<u>5</u>	yes <input type="checkbox"/>	OBL <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>5</u>	= Total Cover		
	50% of total cover: <u>2.5</u>	20% of total cover: <u>1</u>		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	<u>40</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Ambrosia trifida</u>	<u>10</u>	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. <u>Lamium amplexicaule</u>	<u>2</u>	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>52</u>	= Total Cover		
	50% of total cover: <u>26</u>	20% of total cover: <u>10.4</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Campsis radicans</u>	<u>40</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>40</u>	= Total Cover		
	50% of total cover: <u>20</u>	20% of total cover: <u>8</u>		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>3</u> (A)
Total Number of Dominant Species Across All Strata:				<u>3</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)	<u>0</u> (B)		
Prevalence Index = B/A =		<u>0</u>		
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP13

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 3/3	100			<input type="checkbox"/>	<input type="checkbox"/>	clay, fat	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP13.**



**Vegetation at DP13, view is to north.**



**Vegetation at DP13, view is to east.**



**Vegetation at DP13, view is to west.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP14  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 52.89" N Long: 93° 40' 25.62" W Datum: NAD83  
 Soil Map Unit Name: (15) Gallion silty clay loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in swale in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
_____ Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:



**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP14

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u> = Total Cover			
	50% of total cover: _____			20% of total cover: _____
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u> = Total Cover			
	50% of total cover: _____			20% of total cover: _____
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	<u>40</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	<u>5</u>	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>45</u> = Total Cover			
	50% of total cover: <u>22.5</u>			20% of total cover: <u>9</u>
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u> = Total Cover			
	50% of total cover: _____			20% of total cover: _____
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b>				
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP14

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay, fat	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)   |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)  |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)  |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)   |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>  |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)   |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |   |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  | <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |   |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |   |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |   |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |   |

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Vegetation at DP14, view is to northwest.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP15  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 52.49" N Long: 93° 40' 23.67" W Datum: NAD83  
 Soil Map Unit Name: (24) Moreland clay  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
 Point taken in swale in plowed field.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u> (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP15

<u>Tree Stratum</u> (Plot size: <u>30 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 ft</u> )				
1. _____		<input type="checkbox"/>	<input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Herb Stratum</u> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	40	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Ambrosia trifida</u>	35	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
6. _____		<input type="checkbox"/>	<input type="checkbox"/>	
7. _____		<input type="checkbox"/>	<input type="checkbox"/>	
8. _____		<input type="checkbox"/>	<input type="checkbox"/>	
9. _____		<input type="checkbox"/>	<input type="checkbox"/>	
10. _____		<input type="checkbox"/>	<input type="checkbox"/>	
11. _____		<input type="checkbox"/>	<input type="checkbox"/>	
12. _____		<input type="checkbox"/>	<input type="checkbox"/>	
75 = Total Cover				
50% of total cover: <u>37.5</u> 20% of total cover: <u>15</u>				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u> )				
1. <u>Campsis radicans</u>	25	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. _____		<input type="checkbox"/>	<input type="checkbox"/>	
3. _____		<input type="checkbox"/>	<input type="checkbox"/>	
4. _____		<input type="checkbox"/>	<input type="checkbox"/>	
5. _____		<input type="checkbox"/>	<input type="checkbox"/>	
25 = Total Cover				
50% of total cover: <u>12.5</u> 20% of total cover: <u>5</u>				
Remarks: (If observed, list morphological adaptations below).				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = 0

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?** Yes  No

**SOIL**

Sampling Point: DP15

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
3	5YR 3/3	95	5YR 4/1	>2	D <input type="checkbox"/>	M <input type="checkbox"/>	clay, fat	
16	5YR 3/3	100			<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  | <sup>3</sup> Indicators of hydrophytic vegetation and                  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         | wetland hydrology must be present,                                     |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              | unless disturbed or problematic.                                       |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:



**Soil profile at DP15.**



**Vegetation at DP15, view is to northwest.**



**Vegetation at DP15, view is to northeast.**



**Vegetation at DP15, view is to southwest.**



**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP16  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 47.63" N Long: 93° 40' 9.01" W Datum: NAD83  
 Soil Map Unit Name: (22) Moreland silt loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks:  
 Point taken in swale in plowed field adjacent to ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
___ Surface Water (A1)	___ Sparsely Vegetated Concave Surface (B8)
___ High Water Table (A2)	___ Drainage Patterns (B10)
___ Saturation (A3)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Geomorphic Position (D2)
___ Iron Deposits (B5)	___ Shallow Aquitard (D3)
___ Inundation Visible on Aerial Imagery (B7)	___ FAC-Neutral Test (D5)
___ Water-Stained Leaves (B9)	___ Sphagnum moss (D8) (LRR T, U)
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15) (LRR U)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres along Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP16

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	<u>40</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Lamium amplexicaule</u>	<u>5</u>	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: <u>22.5</u>		20% of total cover: <u>9</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 4/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay w/ silt	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

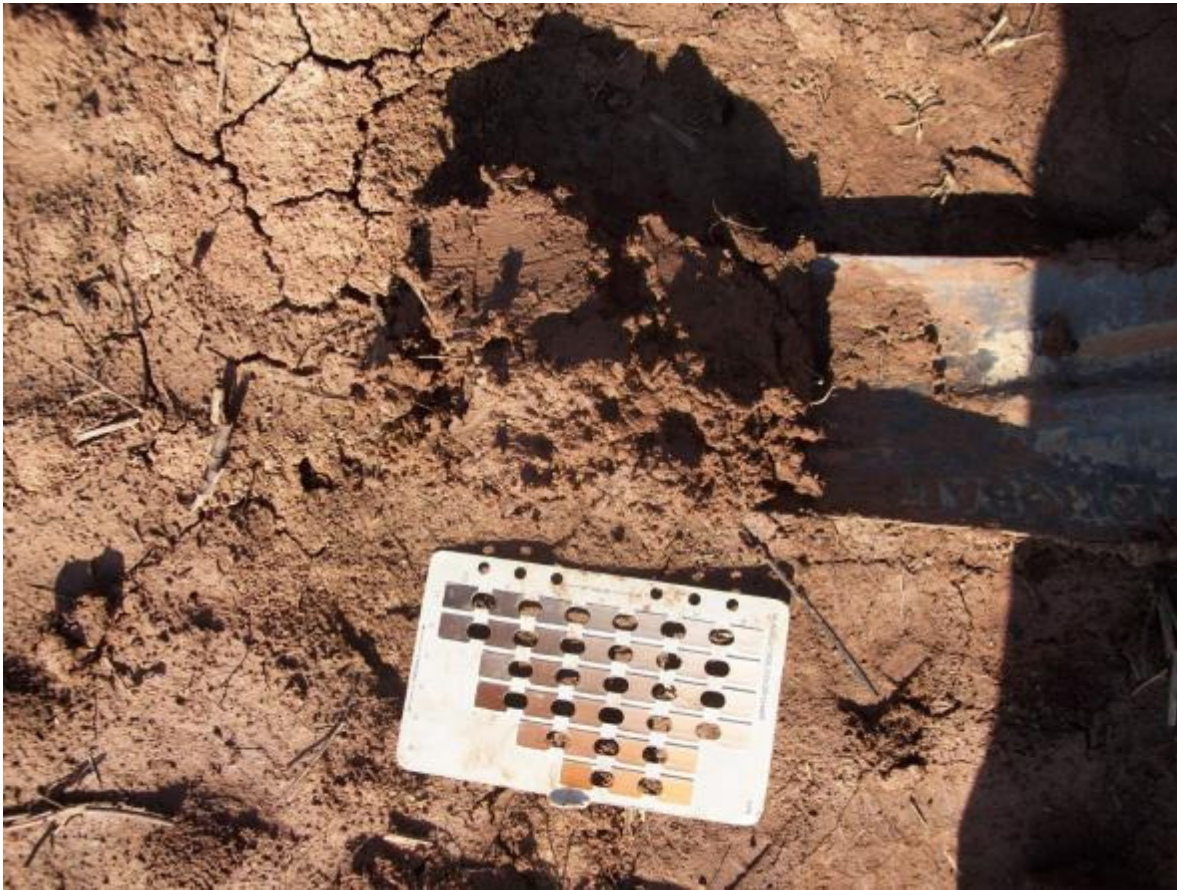
<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP16.**



**Vegetation at DP16, view is to southwest.**



**Vegetation at DP16, view is to northwest.**



**Vegetation at DP16, view is to northeast.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP17  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 50.21" N Long: 93° 40' 9.55" W Datum: NAD83  
 Soil Map Unit Name: (22) Moreland silt loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
 Point taken in plowed field adjacent to ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
___ Surface Water (A1)	___ Sparsely Vegetated Concave Surface (B8)
___ High Water Table (A2)	___ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	<input checked="" type="checkbox"/> Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Geomorphic Position (D2)
___ Iron Deposits (B5)	___ Shallow Aquitard (D3)
___ Inundation Visible on Aerial Imagery (B7)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	___ Sphagnum moss (D8) (LRR T, U)
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15) (LRR U)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres along Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u> (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:  
 FAC - Neutral 1:0

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP17

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>	= Total Cover		
	50% of total cover: _____	20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. <i>Salix nigra</i>	20	yes <input type="checkbox"/>	OBL <input type="checkbox"/>	
2. <i>Baccharis halimifolia</i>	5	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>25</u>	= Total Cover		
	50% of total cover: <u>12.5</u>	20% of total cover: <u>5</u>		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <i>Ambrosia trifida</i>	70	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <i>Baccharis halimifolia</i>	10	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>80</u>	= Total Cover		
	50% of total cover: <u>40</u>	20% of total cover: <u>16</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. <i>Smilax rotundifolia</i>	5	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>5</u>	= Total Cover		
	50% of total cover: <u>2.5</u>	20% of total cover: <u>1</u>		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>4</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)	<u>0</u> (B)		
Prevalence Index = B/A =		<u>0</u>		
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b>				
		Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: (If observed, list morphological adaptations below).				

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
3	5YR 3/3	95	5YR 4/1	5	D <input type="checkbox"/>	M <input type="checkbox"/>	clay	
16	5YR 3/3	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)   |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)  |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)   |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T)  |
| <input type="checkbox"/> Stratified Layers (A5)                | <input checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)   |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>  |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)  |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)   |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |   |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  | <sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |   |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |   |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |   |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |   |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |   |

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:





**Soil profile at DP17.**



**Vegetation at DP17, view is to northeast.**



**Vegetation at DP17, view is to southwest.**



**Depleted matrix in soil at DP17.**



**Vegetation at DP17, view is to northwest.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP18  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 53.01" N Long: 93° 40' 9.79" W Datum: NAD83  
 Soil Map Unit Name: (22) Moreland silt loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
 Point taken in plowed field adjacent to ditch.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> Saturation (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"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Sphagnum moss (D8) (LRR T, U)
<input type="checkbox"/> Marl Deposits (B15) (LRR U)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Oxidized Rhizospheres along Living Roots (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 in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2</u> (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP18

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <i>Ambrosia trifida</i>	70	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: <u>35</u>		20% of total cover: <u>14</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____		20% of total cover: _____		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>1</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u>	(A)	<u>0</u>	(B)
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b>				
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (If observed, list morphological adaptations below).				

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
3	5YR 3/3	95	5YR 4/1	5	D <input type="checkbox"/>	M <input type="checkbox"/>	clay	
16	5YR 3/3	100			<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:



**Soil profile at DP18.**



**Depleted matrix in soil profile at DP18.**



**Vegetation at DP18, view is to southwest.**



**Vegetation at DP18, view is to north.**



**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP19  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 37.36" N Long: 93° 40' 17.80" W Datum: NAD83  
 Soil Map Unit Name: (15) Gallion silty clay loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
 Point taken in plowed field adjacent to swale.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
___ Surface Water (A1)	___ Sparsely Vegetated Concave Surface (B8)
___ High Water Table (A2)	___ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Geomorphic Position (D2)
___ Iron Deposits (B5)	___ Shallow Aquitard (D3)
___ Inundation Visible on Aerial Imagery (B7)	___ FAC-Neutral Test (D5)
___ Water-Stained Leaves (B9)	___ Sphagnum moss (D8) (LRR T, U)
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15) (LRR U)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres along Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:  
 Saturation likely from recent rain events.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP19

<u>Tree Stratum</u> (Plot size: <u>30 ft</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Sapling/Shrub Stratum</u> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<u>Herb Stratum</u> (Plot size: <u>30 ft</u> )				
1. <u>Cynodon dactylon</u>	80	yes <input type="checkbox"/>	FACU <input type="checkbox"/>	
2. <u>Festuca arundinaceus</u>	5	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. <u>Sonchus asper</u>	1	no <input type="checkbox"/>	FAC <input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
86 = Total Cover				
50% of total cover: <u>43</u> 20% of total cover: <u>17.2</u>				
<u>Woody Vine Stratum</u> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
0 = Total Cover				
50% of total cover: _____ 20% of total cover: _____				

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

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: 0 (A) 0 (B)

Prevalence Index = B/A = 0

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No

**SOIL**

Sampling Point: DP19

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 3/4	95			<input type="checkbox"/>	<input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <input type="checkbox"/> (MLRA 153B)                                   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP19.**



**Vegetation at DP19, view is to northwest.**



**Vegetation at DP19, view is to east.**



**Vegetation at DP9, view is to west.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP20  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 34.56" N Long: 93° 40' 25.55" W Datum: NAD83  
 Soil Map Unit Name: (15) Gallion silty clay loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
 Point taken in plowed field adjacent to swale.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	_____ Surface Soil Cracks (B6)
_____ Surface Water (A1)	_____ Sparsely Vegetated Concave Surface (B8)
_____ High Water Table (A2)	_____ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	_____ Moss Trim Lines (B16)
_____ Water Marks (B1)	_____ Dry-Season Water Table (C2)
_____ Sediment Deposits (B2)	_____ Crayfish Burrows (C8)
_____ Drift Deposits (B3)	_____ Saturation Visible on Aerial Imagery (C9)
_____ Algal Mat or Crust (B4)	_____ Geomorphic Position (D2)
_____ Iron Deposits (B5)	_____ Shallow Aquitard (D3)
_____ Inundation Visible on Aerial Imagery (B7)	_____ FAC-Neutral Test (D5)
_____ Water-Stained Leaves (B9)	_____ Sphagnum moss (D8) (LRR T, U)
_____ Aquatic Fauna (B13)	
_____ Marl Deposits (B15) (LRR U)	
_____ Hydrogen Sulfide Odor (C1)	
_____ Oxidized Rhizospheres along Living Roots (C3)	
_____ Presence of Reduced Iron (C4)	
_____ Recent Iron Reduction in Tilled Soils (C6)	
_____ Thin Muck Surface (C7)	
_____ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes _____ No _____ Depth (inches): _____	
Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:  
 Saturation likely from recent rain events.

**VEGETATION (Four Strata) – Use scientific names of plants.**

Sampling Point: DP20

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	60	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Cynodon dactylon</u>	20	yes <input type="checkbox"/>	FACU <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: <u>40</u> 20% of total cover: <u>16</u>				
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
_____ = Total Cover				
50% of total cover: _____ 20% of total cover: _____				
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>1</u> (A)
Total Number of Dominant Species Across All Strata:				<u>2</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>50</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u> (A)		<u>0</u> (B)	
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>				
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP20

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 3/4	95			<input type="checkbox"/>	<input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <input type="checkbox"/> (MLRA 153B)                                   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:





**Soil profile at DP20.**



**Vegetation at DP20, view is to south.**



**Vegetation at DP20, view is to northeast.**



**Vegetation at DP20, view is to west.**



**Vegetation at DP20, view is to north.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP21  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 42.50" N Long: 93° 40' 31.93" W Datum: NAD83  
 Soil Map Unit Name: (14) Gallion silt loam  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	

Remarks:  
 Point taken in low area of plowed field adjacent to ponded area.

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	___ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> Surface Water (A1)	___ Sparsely Vegetated Concave Surface (B8)
<input checked="" type="checkbox"/> High Water Table (A2)	___ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	___ Moss Trim Lines (B16)
<input checked="" type="checkbox"/> Water Marks (B1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
___ Iron Deposits (B5)	___ Shallow Aquitard (D3)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	___ FAC-Neutral Test (D5)
<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	___ Sphagnum moss (D8) (LRR T, U)
___ Aquatic Fauna (B13)	
___ Marl Deposits (B15) (LRR U)	
___ Hydrogen Sulfide Odor (C1)	
___ Oxidized Rhizospheres along Living Roots (C3)	
___ Presence of Reduced Iron (C4)	
___ Recent Iron Reduction in Tilled Soils (C6)	
___ Thin Muck Surface (C7)	
___ Other (Explain in Remarks)	

<b>Field Observations:</b>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>3</u>	
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u>	
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>surface</u> (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.

Remarks:

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP21

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30 ft</u> )				
1. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>0</u>			= Total Cover
	50% of total cover: _____	20% of total cover: _____		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Celtis laevigata</u>	<u>5</u>	yes <input type="checkbox"/>	FACW <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>5</u>			= Total Cover
	50% of total cover: _____	20% of total cover: _____		
<b>Herb Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Festuca arundinaceus</u>	<u>80</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. <u>Ambrosia trifida</u>	<u>20</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
6. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
7. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
8. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
9. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
10. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
11. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
12. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>100</u>			= Total Cover
	50% of total cover: <u>50</u>	20% of total cover: <u>20</u>		
<b>Woody Vine Stratum</b> (Plot size: <u>30 ft</u> )				
1. <u>Campsis radicans</u>	<u>20</u>	yes <input type="checkbox"/>	FAC <input type="checkbox"/>	
2. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
3. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
4. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
5. _____	_____	<input type="checkbox"/>	<input type="checkbox"/>	
	<u>20</u>			= Total Cover
	50% of total cover: <u>10</u>	20% of total cover: <u>4</u>		
<b>Dominance Test worksheet:</b>				
Number of Dominant Species That Are OBL, FACW, or FAC:				<u>4</u> (A)
Total Number of Dominant Species Across All Strata:				<u>4</u> (B)
Percent of Dominant Species That Are OBL, FACW, or FAC:				<u>100</u> (A/B)
<b>Prevalence Index worksheet:</b>				
Total % Cover of:		Multiply by:		
OBL species	_____	x 1 =	_____	
FACW species	_____	x 2 =	_____	
FAC species	_____	x 3 =	_____	
FACU species	_____	x 4 =	_____	
UPL species	_____	x 5 =	_____	
Column Totals:	<u>0</u>	(A)	<u>0</u>	(B)
Prevalence Index = B/A =				<u>0</u>
<b>Hydrophytic Vegetation Indicators:</b>				
<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation				
<input checked="" type="checkbox"/> 2 - Dominance Test is >50%				
<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>				
<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Definitions of Four Vegetation Strata:</b>				
<b>Tree</b> – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.				
<b>Sapling/Shrub</b> – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.				
<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.				
<b>Woody vine</b> – All woody vines greater than 3.28 ft in height.				
<b>Hydrophytic Vegetation Present?</b>				
				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (If observed, list morphological adaptations below).				

**SOIL**

Sampling Point: DP21

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
4	5YR 3/3	95	5YR 4/1	5	RM <input type="checkbox"/>	M <input type="checkbox"/>	clay	
16	5YR 3/3	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input checked="" type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:



**Soil profile at DP21.**



**Vegetation at DP21, view is to northwest.**



**Vegetation at DP21, view is to northeast.**



**Vegetation at DP21, view is to southeast.**





**Vegetation at DP21, view is to west.**

**WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region**

Project/Site: Lot 4 (430 acre tract) City/County: Caddo Parish  Sampling Date: 1/23/2013  
 Applicant/Owner: Franks Investment Company, LLC State: La Sampling Point: DP22  
 Investigator(s): Alan Bickham Section, Township, Range: Sec 3; T16N-R13W  
 Landform (hillslope, terrace, etc.): natural levee Local relief (concave, convex, none): concave  Slope (%): 0-1  
 Subregion (LRR or MLRA): LRR O  Lat: 32° 22' 32.71" N Long: 93° 40' 37.37" W Datum: NAD83  
 Soil Map Unit Name: (2) Armistead clay  NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: Point taken in low area of plowed field.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1)      ___ Aquatic Fauna (B13) ___ High Water Table (A2)      ___ Marl Deposits (B15) (LRR U) ___ Saturation (A3)      ___ Hydrogen Sulfide Odor (C1) ___ Water Marks (B1)      ___ Oxidized Rhizospheres along Living Roots (C3) ___ Sediment Deposits (B2)      ___ Presence of Reduced Iron (C4) ___ Drift Deposits (B3)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Algal Mat or Crust (B4)      ___ Thin Muck Surface (C7) ___ Iron Deposits (B5)      ___ Other (Explain in Remarks) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9)	<u>Secondary Indicators (minimum of two required)</u> <input checked="" type="checkbox"/> Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ FAC-Neutral Test (D5) ___ Sphagnum moss (D8) (LRR T, U)
<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: 1998 CIR, 2004 CIR & 2010 NAIP imagery, USGS quadrangle map, LIDAR.	
Remarks:	

**VEGETATION (Four Strata)** – Use scientific names of plants.

Sampling Point: DP22

**Tree Stratum** (Plot size: 30 ft )

	Absolute % Cover	Dominant Species?	Indicator Status
1. _____		<input type="checkbox"/>	<input type="checkbox"/>
2. _____		<input type="checkbox"/>	<input type="checkbox"/>
3. _____		<input type="checkbox"/>	<input type="checkbox"/>
4. _____		<input type="checkbox"/>	<input type="checkbox"/>
5. _____		<input type="checkbox"/>	<input type="checkbox"/>
6. _____		<input type="checkbox"/>	<input type="checkbox"/>
7. _____		<input type="checkbox"/>	<input type="checkbox"/>
8. _____		<input type="checkbox"/>	<input type="checkbox"/>

0 = Total Cover

50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Sapling/Shrub Stratum** (Plot size: 30 ft )

	Absolute % Cover	Dominant Species?	Indicator Status
1. _____		<input type="checkbox"/>	<input type="checkbox"/>
2. _____		<input type="checkbox"/>	<input type="checkbox"/>
3. _____		<input type="checkbox"/>	<input type="checkbox"/>
4. _____		<input type="checkbox"/>	<input type="checkbox"/>
5. _____		<input type="checkbox"/>	<input type="checkbox"/>
6. _____		<input type="checkbox"/>	<input type="checkbox"/>
7. _____		<input type="checkbox"/>	<input type="checkbox"/>
8. _____		<input type="checkbox"/>	<input type="checkbox"/>

0 = Total Cover

50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Herb Stratum** (Plot size: 30 ft )

	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Cynodon dactylon</i>	60	yes <input type="checkbox"/>	FACU <input type="checkbox"/>
2. <i>Festuca arundinaceus</i>	10	no <input type="checkbox"/>	FAC <input type="checkbox"/>
3. <i>Lamium amplexicaule</i>	5	no <input type="checkbox"/>	FAC <input type="checkbox"/>
4. _____		<input type="checkbox"/>	<input type="checkbox"/>
5. _____		<input type="checkbox"/>	<input type="checkbox"/>
6. _____		<input type="checkbox"/>	<input type="checkbox"/>
7. _____		<input type="checkbox"/>	<input type="checkbox"/>
8. _____		<input type="checkbox"/>	<input type="checkbox"/>
9. _____		<input type="checkbox"/>	<input type="checkbox"/>
10. _____		<input type="checkbox"/>	<input type="checkbox"/>
11. _____		<input type="checkbox"/>	<input type="checkbox"/>
12. _____		<input type="checkbox"/>	<input type="checkbox"/>

75 = Total Cover

50% of total cover: 37.5 20% of total cover: 15

**Woody Vine Stratum** (Plot size: 30 ft )

	Absolute % Cover	Dominant Species?	Indicator Status
1. _____		<input type="checkbox"/>	<input type="checkbox"/>
2. _____		<input type="checkbox"/>	<input type="checkbox"/>
3. _____		<input type="checkbox"/>	<input type="checkbox"/>
4. _____		<input type="checkbox"/>	<input type="checkbox"/>
5. _____		<input type="checkbox"/>	<input type="checkbox"/>

0 = Total Cover

50% of total cover: \_\_\_\_\_ 20% of total cover: \_\_\_\_\_

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: <u>0</u> (A)	<u>0</u> (B)

Prevalence Index = B/A = 0

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Four Vegetation Strata:**

**Tree** – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vine** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No

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

**SOIL**

Sampling Point: DP22

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
16	5YR 3/4	100			<input type="checkbox"/>	<input type="checkbox"/>	clay	
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		
					<input type="checkbox"/>	<input type="checkbox"/>		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Histosol (A1)                         | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR S, T, U)                 | <input type="checkbox"/> 1 cm Muck (A9) (LRR O)                        |
| <input type="checkbox"/> Histic Epipedon (A2)                  | <input type="checkbox"/> Thin Dark Surface (S9) (LRR S, T, U)                       | <input type="checkbox"/> 2 cm Muck (A10) (LRR S)                       |
| <input type="checkbox"/> Black Histic (A3)                     | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR O)                           | <input type="checkbox"/> Reduced Vertic (F18) (outside MLRA 150A,B)    |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                 | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (LRR P, S, T) |
| <input type="checkbox"/> Stratified Layers (A5)                | <input type="checkbox"/> Depleted Matrix (F3)                                       | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20)            |
| <input type="checkbox"/> Organic Bodies (A6) (LRR P, T, U)     | <input type="checkbox"/> Redox Dark Surface (F6)                                    | <b>(MLRA 153B)</b>   |
| <input type="checkbox"/> 5 cm Mucky Mineral (A7) (LRR P, T, U) | <input type="checkbox"/> Depleted Dark Surface (F7)                                 | <input type="checkbox"/> Red Parent Material (TF2)                     |
| <input type="checkbox"/> Muck Presence (A8) (LRR U)            | <input type="checkbox"/> Redox Depressions (F8)                                     | <input type="checkbox"/> Very Shallow Dark Surface (TF12)              |
| <input type="checkbox"/> 1 cm Muck (A9) (LRR P, T)             | <input type="checkbox"/> Marl (F10) (LRR U)   | <input type="checkbox"/> Other (Explain in Remarks)                    |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)     | <input type="checkbox"/> Depleted Ochric (F11) (MLRA 151)                           |  |
| <input type="checkbox"/> Thick Dark Surface (A12)              | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR O, P, T)                  |  |
| <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 150A) | <input type="checkbox"/> Umbric Surface (F13) (LRR P, T, U)                         |  |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR O, S)   | <input type="checkbox"/> Delta Ochric (F17) (MLRA 151)                              |  |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)              | <input type="checkbox"/> Reduced Vertic (F18) (MLRA 150A, 150B)                     |  |
| <input type="checkbox"/> Sandy Redox (S5)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149A)                |  |
| <input type="checkbox"/> Stripped Matrix (S6)                  | <input type="checkbox"/> Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) |  |
| <input type="checkbox"/> Dark Surface (S7) (LRR P, S, T, U)    |   |  |

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:



**Soil profile at DP22.**



**Vegetation at DP22, view is to east.**



**Vegetation at DP22, view is to south.**



**Vegetation at DP22, view is to north.**



**Vegetation at DP22, view is to west.**