122-ACRE SPRINGBACK TRACT WETLAND DELINEATION

Caddo Parish Franks Management Company, LLC 1312 North Hearne Avenue Shreveport, LA 71101-6516

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Prepared by:



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CK Project Number: 12981

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1.0 INTRODUCTION

The following report summarizes a wetland delineation conducted by CK Associates (CK) on the approximate 122-acre Springback tract (survey area) owned by Frank's Management Company, LLC adjacent to Pierre Bayou south of Shreveport, Louisiana in Caddo Parish. The survey area is accessed from the east from La. Hwy. 1 South via an oilfield lease road. The purpose of this report is to identify areas that contain potential wetlands and other potential "waters of the United States" (US) as defined in 33 C.F.R. § 328.3. Specifically, the survey area is located at latitude 32°22'58.296"N and longitude 93°41'5.152"W in Section 15, Township 16 North, Range 13 West (Figure 1).

Waters of the US are aquatic areas that are either navigable or have a significant nexus to a navigable water. These areas are regulated by the US Army Corps of Engineers (USACE). Navigable waters are defined as "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 C.F.R. § 329.4 [1986]). Any area below the ordinary high water mark, as defined in 33 C.F.R. § 328.3 (1993), may fall under Federal jurisdiction as a navigable water (33 C.F.R. § 329.11 [1986]).

Waters of the US, regardless of navigability, can generally be categorized as either: 1) deepwater aquatic habitats, 2) special aquatic sites, or 3) other waters of the US. 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 US 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 US (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 US are referred to as "other waters" in this report.

Three mandatory technical criteria for determining the presence of a wetland are, with exceptions, 1) prevalence of 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" (USDA 2010).

2.0 PHYSIOGRAPHY, CLIMATE, AND SITE DESCRIPTION

The survey area is located within Major Land Resource Area (MLRA) 131C – Red River Alluvium. The topography of MLRA 131C is characterized by level or depressional to gently undulating alluvial plains, backswamps, oxbows, natural levees, and terraces. Elevations of this MLRA range from 40 feet to 270 feet. The Red River and Red River tributaries drain southeast to the Atchafalaya and Mississippi Rivers (USDA 2006).

The annual precipitation in MLRA 131C is 47 to 62 inches, increasing from north to south. The average annual temperature is 63 to 67 degrees Fahrenheit (F). The freeze-free period averages 280 days and ranges from 255 to 305 days (USDA 2006).

The survey area is located on an elevated point of land which is bordered on the west, south and southeast by Pierre Bayou. The property is bound on the north and northeast by agricultural fields and oil field properties. The property is utilized for agricultural purposes for the growing of crops such as cotton, corn, soybeans, etc. Field boundaries along Pierre Bayou are maintained by the Caddo Parish Levee Board as herbaceous fields. The topography of the survey area is described as point bar characterized by a southward trending series of ridges and swales. The interior portions of the property drain eastward along herbaceous and forested swales and ditches to a common drain located along the northeast property boundary. The drain flows southeast eventually emptying into Pierre Bayou. Minor field drains and swales located on the south of the property flow directly to Pierre Bayou.

3.0 METHODS

CK visited the survey area on November 4th and 10th, 2015 to determine the extent of potential wetlands and other waters of the US. The wetland delineation followed routine onsite field procedures as outlined by the USACE (1987 and 2010). Soil references include the NRCS (2014a, 2014b, and 2014d), and USDA (2010). Plant nomenclature and wetland indicator status is taken from The National Wetland Plant List (Lichvar et al. 2014). Plant nomenclature not listed in The National Wetland Plant List is taken from the NRCS PLANTS Database (2014c).

Prior to conducting the field investigation, CK reviewed available aerial photography, soil survey data, topographic maps, elevation data (Light Detection and Ranging [LiDAR] contours and Digital Elevation Models [DEM]), and National Wetland Inventory (NWI)

data. Data points were established within the dominant plant communities of the survey area. Observations of soils, vegetation, and hydrology were documented at each data point location (Attachment A). Potential wetlands and other waters of the US, and data point locations were mapped with a Trimble GeoXH Differential Global Positioning System (DGPS) utilizing real-time corrections. Acreage was obtained by exporting the data from the DGPS unit into ESRI ArcMap Version 10.3. Digital photographs were taken of the soil profile and surrounding vegetation at each data point (Attachment A).

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

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

Soil profiles were obtained by excavating an approximate 16-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

Nine data points (DP) were collected during the field investigation. DP5, DP6, DP7, and DP9 were located within wetlands. DP1, DP2, DP3, DP4, and DP8 were located in non-wetlands.

4.1 Hydrology

Primary wetland hydrology indicators (surface water, saturation, sediment deposits, drift deposits, inundation visible on aerial imagery, aquatic fauna, and/or presence of reduced iron) and/or secondary wetland hydrology indicators (crayfish burrows, and/or saturation visible on aerial imagery) were observed at DP5, DP6, and DP7. No primary wetland hydrology indicators and no secondary wetland hydrology indicators were observed at DP1, DP2, DP3, DP4, and DP8.

Although saturation was observed at DP1, DP2, DP3, DP4 and DP8, saturated conditions were attributed to recent heavy rain events (Appendix B).

4.2 Vegetation

The herbaceous and woody vine upland habitats within the survey area were dominated by Bermuda grass (*Cynodon dactylon*), great ragweed (*Ambrosia trifida*), perennial rye grass (*Lolium perenne*), love-in-a-puff (*Cardiospermum halicacabum*), whiplash dewberry (*Rubus flagellaria*), and Johnson grass (*Sorghum halepense*). The herbaceous wetlands habitats were dominated by swamp smartweed (*Persicaria hydropiperoides*) and love-in-a-puff.

Forested upland drainage areas and fence-lines were dominated by sugar-berry (*Celtis laevigata*) and eastern red-cedar (*Juniperus virginiana*) in the tree stratum and sugar-berry in the sapling/shrub stratum. Great ragweed dominated the herbaceous stratum.

4.3 Soils

The survey area is underlain by the following soils:

- a. LaA: Latnier clay, 0 to 1 percent slopes, rarely flooded;
- b. MoA: Moreland clay, 0 to 1 percent slopes, rarely flooded and
- c. MsA: Moreland clay, 0 to 1 percent slopes, frequently flooded.

The MsA soil mapping unit is designated as hydric by the NRCS (NRCS 2014). No hydric soil indicators were observed at DP1, DP2, DP3, DP4, and DP8. The red parent material hydric soil indicator was observed at DP5, DP6, DP7, and DP9.

5.0 CONCLUSIONS

Based on field observations, the approximate 122-acre survey area contains 5.24 acres of wetlands and 4.36 acres of other waters of the US (Figure 2 and Figure 3). This acreage is influenced by the accuracy of the DGPS unit utilizing real-time corrections and ESRI® ArcMap Version 10.3 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 survey 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

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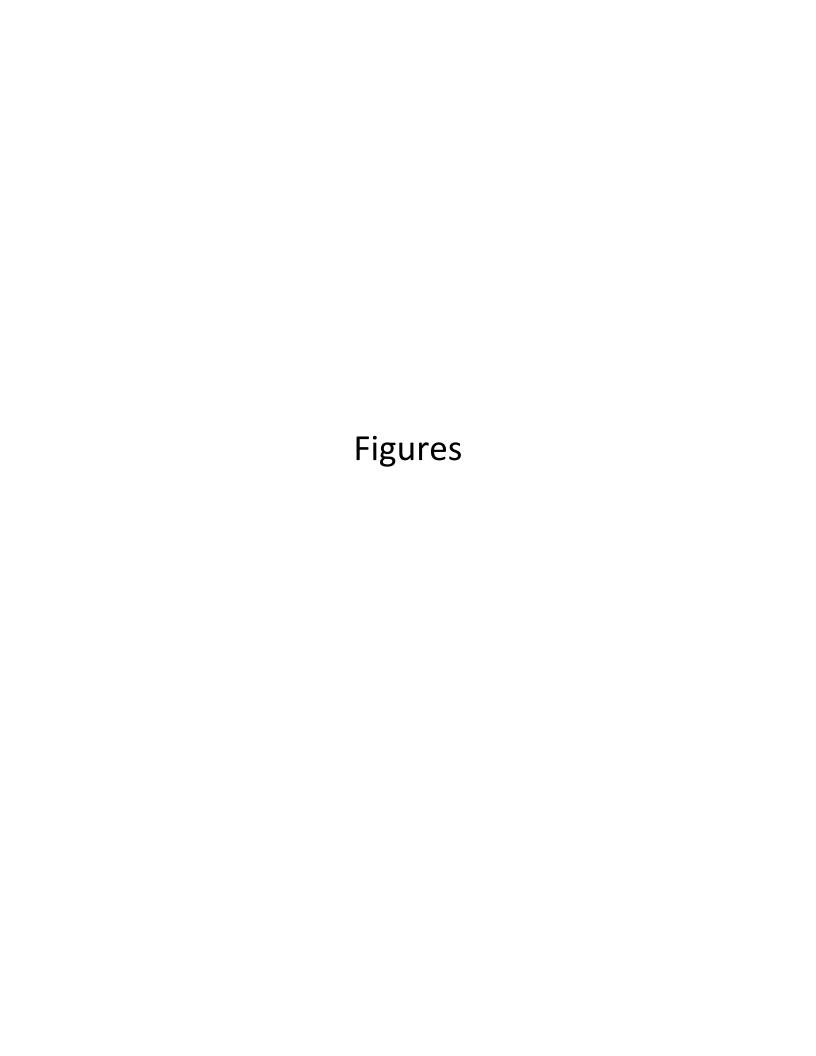
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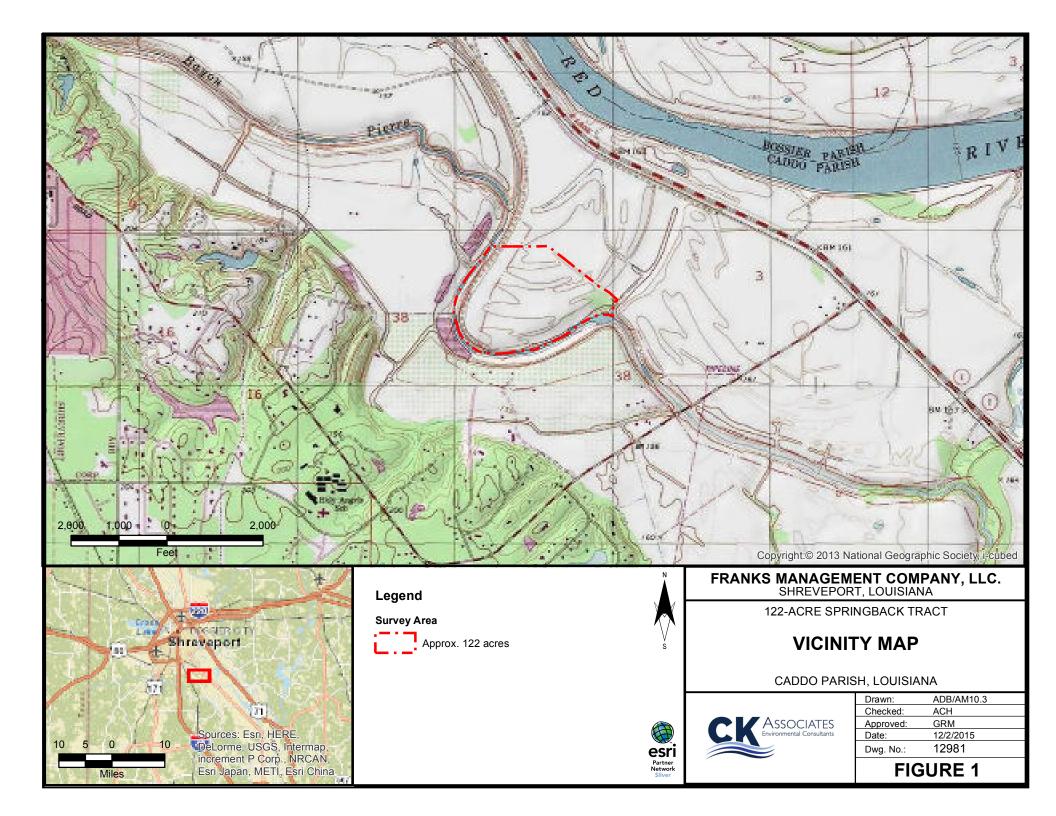
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1,000 500 0 1,000 Feet

Legend

Survey Area



Approx. 122 acres

Potential Wetlands



5.24 Acres

Potential Other Waters of the U S



4.36 Acres



122-ACRE SPRINGBACK TRACT

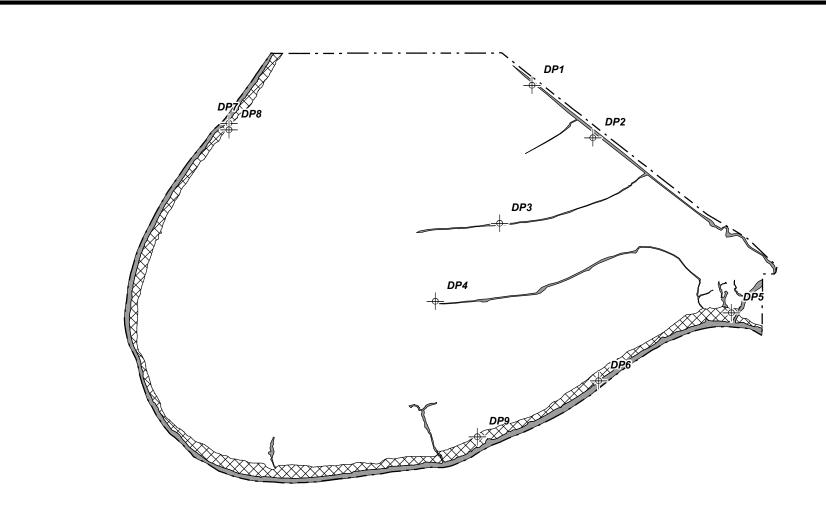
WETLAND MAP (2015 AERIAL IMAGERY)

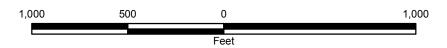
CADDO PARISH, LOUISIANA



Drawn:	ADB/AM10.3
Checked:	AK
Approved:	AK
Date:	12/2/2015
Dwg. No.:	12981

FIGURE 2





FRANKS MANAGEMENT COMPANY, LLC. SHREVEPORT, LOUISIANA

122-ACRE SPRINGBACK TRACT

WETLAND MAP

CADDO PARISH, LOUISIANA



Drawn:	ADB/AM10.3
Checked:	AK
Approved:	AK
Date:	12/2/2015
Dwg. No.:	12981

FIGURE 3

Legend

Survey Area



Potential Wetlands



Potential Other Waters of the U S



4.36 Acres



Appendix A Wetland Determination Data Forms and Photographs

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 122-Acre Springback Tract C	ity/County: Caddo Sampling Date: 11/4/2015
Applicant/Owner: Franks Management Company, LLC	State: La Sampling Point: DP1
	ection, Township, Range: Section 15, Township 16N, Range 13W
	ocal relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR or MLRA): LRRO Lat: 32.3824	
Soil Map Unit Name: LaA - Latnier clay, 0-1% slopes, rarely flooded	•
Are climatic / hydrologic conditions on the site typical for this time of year	r? Yes _ ✓ No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly d	
Are Vegetation, Soil, or Hydrology naturally prob	
	sampling point locations, transects, important features, etc.
	,,
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No _✓ Wetland Hydrology Present? Yes No _✓	within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Data point taken at edge of plowed field.	
Data point taken at edge of plowed field.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B13)	
High Water Table (A2) Marl Deposits (B15) Seturation (A3) Hydrogen Sulfide Od	
✓ Saturation (A3) Hydrogen Sulfide Od	
Water Marks (B1) Oxidized Rhizospher Sediment Deposits (B2) Presence of Reduce	es along Living Roots (C3) Dry-Season Water Table (C2) d Iron (C4) Crayfish Burrows (C8)
Sediment Deposits (B2) Fresence of Reducer Drift Deposits (B3) Recent Iron Reduction	
Algal Mat or Crust (B4) Thin Muck Surface (0	
Algal Mat of Crust (B4) Thirrindex Surface (N	
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	Spriagram moss (Do) (LRR 1, 0)
Surface Water Present? Yes No ✓ Depth (inches):	
Water Table Present? Yes No ✓ Depth (inches):	
Saturation Present? Yes V No Depth (inches):	0 Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos	
Reviewed 1998 IR, 2004 IR and 2015 NAIP aer	rial imagery.
Remarks:	
The saturation observed at the data point was attributed to recent hea	vy rain events. See Record of Climatological Observations in Appendix B.

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

201 11	Absolute	Dominan	t Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' radius)		Species'	? <u>Status</u>	Number of Dominant Species
1. Celtis laevigata	10	yes	FACW	That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4.			. ——	(5)
		-		Percent of Dominant Species That Are OBL FACIAL as FAC: 67
5		•		That Are OBL, FACW, or FAC: (A/B)
6			. ——	Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
8				
	10	= Total Co	ver	OBL species x 1 =
50% of total cover:5	20% of	total cove	r: <u>2</u>	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30' radius)				FAC species x 3 =
1. Celtis laevigata	15	yes	FACW	FACU species x 4 =
2 Juniperus virginiana	2	no	FACU	UPL species x 5 =
		•	- 17.00	Column Totals: 0 (A) 0 (B)
3				(b)
4				Prevalence Index = B/A =0
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7.				
		•		✓ 2 - Dominance Test is >50%
8		T	. —	3 - Prevalence Index is ≤3.0 ¹
0.5		= Total Co		Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover: 8.5	20% of	total cove	r:	
Herb Stratum (Plot size: 30' radius)				¹ Indicators of hydric soil and wetland hydrology must
1. Ambrosia trifida	20	yes	FAC	be present, unless disturbed or problematic.
2.				Definitions of Four Vegetation Strata:
3.				_
		•	. ——	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		•	. ——	more in diameter at breast height (DBH), regardless of height.
5			. ——	noight.
6			. ——	Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9.				of size, and woody plants less than 3.28 ft tall.
10				
		•	. —	Woody vine – All woody vines greater than 3.28 ft in
11				height.
12				
	20	= Total Co	ver	
50% of total cover:10	20% of	total cove	r: <u>4</u>	
Woody Vine Stratum (Plot size: 30' radius)				
1				
2		•	. —	
3				
4				
5				Hydrophytic
	0	= Total Co	ver	Vegetation
50% of total cover:	20% of	total cove	r:	Present? Yes No
Remarks: (If observed, list morphological adaptations belo				
Remarks. (If observed, list morphological adaptations belo	W).			

Sampling Point: DP1

SOIL Sampling Point: DP1

Profile Des	cription: (Describe	to the depth	needed to docur	nent the i	ndicator or confirm	n the absence	of indicators.)
Depth	Matrix		Redo	x Feature:	5		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹ Loc ²	<u>Texture</u>	Remarks
0-16	7.5YR 3/3	100				Clay	
							
¹Type: C=C	Concentration, D=Dep	letion PM-P	educed Matrix Ms	S-Mackad	Sand Grains	2l ocation:	PL=Pore Lining, M=Matrix.
	Indicators: (Applic						for Problematic Hydric Soils ³ :
1		able to all Li					
Histoso	, ,				ce (S8) (LRR S, T, l		Muck (A9) (LRR O)
_	pipedon (A2)				(LRR S, T, U)		fluck (A10) (LRR S)
_	listic (A3)				(F1) (LRR O)		ed Vertic (F18) (outside MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gleye	ed Matrix (F2)	Piedmo	ont Floodplain Soils (F19) (LRR P, S, T)
Stratifie	ed Layers (A5)		Depleted Ma	trix (F3)		Anoma	alous Bright Loamy Soils (F20)
Organio	Bodies (A6) (LRR P	, T, U)	Redox Dark	Surface (F	6)	(MLF	RA 153B)
5 cm M	ucky Mineral (A7) (LI	RR P, T, U)	Depleted Da	rk Surface	(F7)	Red Pa	arent Material (TF2)
	resence (A8) (LRR L		Redox Depre			Very S	hallow Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)		Marl (F10) (L	.RR U)			(Explain in Remarks)
	ed Below Dark Surfac	e (A11)	Depleted Oc		(MLRA 151)	<u> </u>	,
. —	ark Surface (A12)	, ,			ès (F12) (LRR O, P,	. T) ³ Indic	ators of hydrophytic vegetation and
	Prairie Redox (A16) (I	WI RA 150A)			LRR P, T, U)		land hydrology must be present,
1 '	Mucky Mineral (S1) (I	-	Delta Ochric				ess disturbed or problematic.
1 —	Gleyed Matrix (S4)	- i i i i i i i i i i i i i i i i i i i			MLRA 150A, 150B)		oss distarbed of problematic.
1	Redox (S5)				oils (F19) (MLRA 1 4		
1	, ,				ny Soils (F20) (MLF		153D)
1	d Matrix (S6)	S T 10	Allollialous E	origini Loai	IIY SOIIS (FZO) (IVILE	(A 149A, 155C,	, 1330)
	urface (S7) (LRR P, \$						
Restrictive	Layer (if observed)						
Туре:							
Depth (ir	nches):					Hydric Soil	Present? Yes No V
Remarks:	· ·						
Tromants.							



Vegetation at DP1 facing north taken 11/4/2015





Vegetation at DP1 facing south taken 11/4/2015



Vegetation at DP1 facing west taken 11/4/2015



Soil profile at DP1 taken 11/4/2015

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 122-Acre Springback Tract	City/County: Caddo Sampling Date: 11/4/2015
Applicant/Owner: Franks Management Company, LLC	State: La Sampling Point: DP2
	Section, Township, Range: Section 15, Township 16N, Range 13W
	Local relief (concave, convex, none): concave Slope (%): 1
	1732 Long: -93.683309 Datum: NAD83
Soil Map Unit Name: LaA - Latnier clay, 0-1% slopes, rarely flood	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	
Are Vegetation, Soil, or Hydrology naturally pro	
	sampling point locations, transects, important features, etc.
	, , , , , , , , , , , , , ,
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area
Hydric Soil Present? Yes No✓ Wetland Hydrology Present? Yes No✓	within a Wetland? Yes No
Wetland Hydrology Present? Yes No Remarks:	
Data point taken at edge of plowed field.	
Data point taken at edge of plowed field.	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B1	
High Water Table (A2) Marl Deposits (B15) A Seturation (A2)	
✓ Saturation (A3) Hydrogen Sulfide (
	eres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Reduc	— · · ·
Drift Deposits (B3) Recent Iron Reduc Algal Mat or Crust (B4) Thin Muck Surface	tion in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9) (C7) Geomorphic Position (D2)
Iron Deposits (B5) Other (Explain in R	
Inundation Visible on Aerial Imagery (B7)	Shahow Adultard (D5) FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	Spriagram 11055 (D0) (ERR 1, 0)
Surface Water Present? Yes No ✓ Depth (inches).
Water Table Present? Yes No _ ✓ Depth (inches	· ———
Saturation Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	
Examined 1998 IR, 2004 IR and 2014 NAIP a	erial imagery
Remarks:	
The saturation observed at the data point was attributed to recent he	eavy rain events. See Record of Climatological Observations in Appendix B.

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

201 11	Absolute	Dominan	t Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30' radius</u>)		Species'	? <u>Status</u>	Number of Dominant Species
1. Juniperus virginiana	10	yes	FACU_	That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata:3 (B)
4				
5.				Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
6.				THAT ARE OBL, FACW, OF FAC (AVB)
7		•		Prevalence Index worksheet:
		•	• ——•	Total % Cover of: Multiply by:
8				OBL species x 1 =
		= Total Co		FACW species x 2 =
50% of total cover: 5	20% of	total cove	r: <u>4</u>	FAC species x 3 =
Sapling/Shrub Stratum (Plot size: 30' radius)	40		E4.014	FACU species x 4 =
1. Celtis laevigata	10	yes	<u>FACW</u>	
Juniperus virginiana	2	no	FACU	UPL species x 5 = Column Totals: (A) (B)
3				Column Totals: (A) (B)
4				Prevalence Index = B/A =0
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7.				I —
8.		•		✓ 2 - Dominance Test is >50%
<u></u>		= Total Co		3 - Prevalence Index is ≤3.0 ¹
50% of total cover: 6				Problematic Hydrophytic Vegetation¹ (Explain)
	20% 01	total cove	r	
Herb Stratum (Plot size: 30' radius)	15		FAC	Indicators of hydric soil and wetland hydrology must
1. Ambrosia trifida		yes	- FAC	be present, unless disturbed or problematic.
2				Definitions of Four Vegetation Strata:
3				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8.				Hart Allbart and Comment Nations
9.				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				or oles, and troody plants root than eles it tall.
10		•	. ——	Woody vine - All woody vines greater than 3.28 ft in
11				height.
12	15		. ——	
		= Total Co	_	
50% of total cover: 7.5	20% of	total cove	r:3	
Woody Vine Stratum (Plot size: 30' radius)				
1				
2				
3				
4.				
5.				Hydrophytic
	0	= Total Co	ver	Vegetation
50% of total cover:				Present? Yes No
Remarks: (If observed, list morphological adaptations belo		total cove		
Remarks. (If observed, list morphological adaptations belo	w).			

Sampling Point: DP2

SOIL Sampling Point: DP2

Profile Des	cription: (Describe	to the depth n	eeded to docum	ent the indicato	r or confirm	the absence of i	ndicators.)
Depth	Matrix		Redox	Features			
(inches)	Color (moist)		Color (moist)	% Type	Loc ²	Texture	Remarks
0-16	7.5YR 4/3	100			_	Clay	
			_		<u> </u>		
l ———							
¹ Type: C=C	Concentration, D=Dej	pletion, RM=Re	duced Matrix, MS:	=Masked Sand (Grains.	² Location: PL=	Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	cable to all LRF	Rs, unless otherv	vise noted.)		Indicators for	Problematic Hydric Soils ³ :
Histoso	ol (A1)		Polyvalue Beld	w Surface (S8)	(LRR S, T, U) 1 cm Muck	(A9) (LRR O)
l —	pipedon (A2)	_		ace (S9) (LRR			(A10) (LRR S)
Black F	listic (A3)			Mineral (F1) (LF			/ertic (F18) (outside MLRA 150A,E
Hydrog	en Sulfide (A4)	_	Loamy Gleyed			Piedmont f	Floodplain Soils (F19) (LRR P, S, T
Stratifie	d Layers (A5)	_	Depleted Matr	ix (F3)			Bright Loamy Soils (F20)
Organio	Bodies (A6) (LRR F	P, T, U) _	Redox Dark S	urface (F6)		(MLRA 1	53B)
5 cm M	ucky Mineral (A7) (L	RR P, T, U) _	Depleted Dark	Surface (F7)		Red Paren	t Material (TF2)
Muck P	resence (A8) (LRR I	J) _	Redox Depres	sions (F8)		Very Shallo	ow Dark Surface (TF12)
1 cm M	uck (A9) (LRR P, T)	_	Marl (F10) (LF	RU)		Other (Exp	lain in Remarks)
Deplete	ed Below Dark Surfac	ce (A11) _	_ Depleted Ochr	ic (F11) (MLRA	151)		
l —	ark Surface (A12)	_		se Masses (F12		•	s of hydrophytic vegetation and
	Prairie Redox (A16) (· -		e (F13) (LRR P,			hydrology must be present,
	Mucky Mineral (S1) (LRR O, S) _		F17) (MLRA 151		unless	disturbed or problematic.
	Gleyed Matrix (S4)	_		c (F18) (MLRA			
_	Redox (S5)	-		dplain Soils (F1	, ·	•	
1	d Matrix (S6)	_	Anomalous Br	ight Loamy Soils	(F20) (MLR	A 149A, 153C, 15	3D)
	urface (S7) (LRR P,						
Restrictive	Layer (if observed)	:					
Туре:			-				
Depth (ir	nches):		_			Hydric Soil Pre	sent? Yes No
Remarks:							



Vegetation at DP2 facing north taken 11/4/2015





Vegetation at DP2 facing south taken 11/4/2015



Vegetation at DP2 facing west taken 11/4/2015



Soil profile at DP2 taken 11/4/2015

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 122-Acre Springback Tract	City/County: Caddo	Sampling Date: 11/4/2015		
Applicant/Owner: Franks Management Company, LLC		State: La Sampling Point: DP3		
		ship, Range: Section 15, Township 16N, Range 13W		
		vex, none): concave Slope (%): 1		
Subregion (LRR or MLRA): LRRO Lat: 3		ng: -93.684876 Datum: NAD83		
Soil Map Unit Name: LaA - Latnier clay, 0-1% slopes, rarely		NWI classification:		
Are climatic / hydrologic conditions on the site typical for this time	,			
Are Vegetation, Soil, or Hydrology signific		ormal Circumstances" present? Yes No		
Are Vegetation, Soil, or Hydrology natura		ed, explain any answers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map sho				
		anono, nanocoto, important roctaros, etc.		
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes No	within a Wetland?	Yes No		
Wetland Hydrology Present? Yes No Remarks:	<u> </u>			
Data point taken in vegetated swale.				
HYDROLOGY				
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that a	pply)	Surface Soil Cracks (B6)		
Surface Water (A1) Aquatic Faun	a (B13)	Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)Moss Trim Lines (B16)		
	(B15) (LRR U)			
✓ Saturation (A3) Hydrogen Su				
	zospheres along Living Roots (C			
Sediment Deposits (B2) Presence of	Reduced Iron (C4)	Crayfish Burrows (C8)		
Drift Deposits (B3) Recent Iron F	Reduction in Tilled Soils (C6)			
Algal Mat or Crust (B4) Thin Muck St	ırface (C7)	Geomorphic Position (D2)		
Iron Deposits (B5) Other (Explai	n in Remarks)	Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		FAC-Neutral Test (D5)		
Water-Stained Leaves (B9)		Sphagnum moss (D8) (LRR T, U)		
Field Observations:				
Surface Water Present? Yes No _ ✓ Depth (in	iches):			
Water Table Present? Yes No ✓ Depth (ii	nches):			
Saturation Present? Yes _ ✓ No Depth (ii	nches): 0 Wetla	Wetland Hydrology Present? Yes No		
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial	nhataa nuudaya inanaatiana) i	f available:		
Examined 1998 IR, 2004 IR and 2014 NAI		r available.		
· ·				
Remarks:		and of Olimatala sizal Observations in Assessible B		
The saturation observed at the data point was attributed to rec	ant neavy rain events. See Rec	cord of Cilmatological Observations in Appendix B.		

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

	Absolute	Dominar	nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' radius)	<u>% Cover</u>	<u>Species</u>	s? <u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				
5.				Percent of Dominant Species
6.			-	That Are OBL, FACW, or FAC:(A/B)
			. —	Prevalence Index worksheet:
7			•	Total % Cover of: Multiply by:
8				OBL species x 1 =
		= Total C		FACW species x 2 =
50% of total cover:	20% o	f total cove	er:	
Sapling/Shrub Stratum (Plot size: 30' radius)				FAC species x 3 =
1				FACU species x 4 =
2				UPL species x 5 =
3.				Column Totals: (A) (B)
4.				0
				Prevalence Index = B/A =0
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	0	= Total C	over	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% o	f total cove	er:	
Herb Stratum (Plot size: 30' radius)				¹ Indicators of hydric soil and wetland hydrology must
1. Ambrosia trifida	20	yes	FAC	be present, unless disturbed or problematic.
2. Sorghum halepense	5	no	FACU	Definitions of Four Vegetation Strata:
3			• ——	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4			- —	more in diameter at breast height (DBH), regardless of height.
5			• ——	noight.
6			. —	Sapling/Shrub – Woody plants, excluding vines, less
7			-	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11.				height.
12.				
	25	= Total C	over	
50% of total cover:12.5		f total cove		
	20% 0	I total cove	er	
Woody Vine Stratum (Plot size: 30' radius) 1 Cardiospermum halicacabum	15		FAC	
·	15	yes	FAC	
2				
3				
4				
5.				Hydrophytic
	15	= Total C	over	Vegetation
50% of total cover: 7.5	20% 0	•		Present? Yes No
Remarks: (If observed, list morphological adaptations belo		i total cov	···	
Remarks. (If observed, list morphological adaptations bero	W).			

Sampling Point: DP3

SOIL Sampling Point: DP3

	Depth	cription: (Describe Matrix			ox Feature				,
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Playdric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	0-16	5YR 4/3	100					Clay	
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1)	Type: C=0	Concentration D=De	enletion RM=	Reduced Matrix V	– —— IS=Masked	Sand Gr	ains	² l ocation: PI =	Pore Lining M=Matrix
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F0) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Thic Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Delta Ordanic Soils (F19) (LRR P, T, U) Sandy Redox (S5) Depleted Dark Surface (F13) (LRR P, T, U) Delta Ochric (F13) (LRR P, T, U) Sandy Redox (S5) Delta Ordanic F10) Sandy Redox (S5) Dark Surface (S9) (LRR S, T, U) Delta Ordanic F10 Delta Ordanic F110 (MLRA 150A) Stripped Matrix (S6) Dark Surface (S9) (LRR S, T, U) Delta Ordanic F110 (LRR U) Delta Ordanic F110 (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Depteted Surface (S9) (LRR S, T, U) Depteted Matrix (S6) Dark Surface (S9) (LRR S, T, U) Delta Ordanic F110 (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Depteted Surface (S7) (LRR P, S,			•						
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Organic Bodies (A6) (LRR P, T, U) Muck Presence (A8) (LRR P, T, U) Depleted Dark Surface (F0) Marl (F10) (LRR U) Depleted Below Dark Surface (A11) Thic Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Delta Ordanic Soils (F19) (LRR P, T, U) Sandy Redox (S5) Depleted Dark Surface (F13) (LRR P, T, U) Delta Ochric (F13) (LRR P, T, U) Sandy Redox (S5) Delta Ordanic F10) Sandy Redox (S5) Dark Surface (S9) (LRR S, T, U) Delta Ordanic F10 Delta Ordanic F110 (MLRA 150A) Stripped Matrix (S6) Dark Surface (S9) (LRR S, T, U) Delta Ordanic F110 (LRR U) Delta Ordanic F110 (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Depteted Surface (S9) (LRR S, T, U) Depteted Matrix (S6) Dark Surface (S9) (LRR S, T, U) Delta Ordanic F110 (MLRA 150A) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Depteted Surface (S7) (LRR P, S,	Histoso	ol (A1)		Polyvalue B	elow Surfa	ce (S8) (L	.RR S, T, U	J) 1 cm Muck	(A9) (LRR O)
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F3) Anomalous Bright Loamy Soils (F20) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A6) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A6) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A6) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A6) Organic Bodies (A6) (LRR P, T, U) Stratified Layers (A6) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F6) Organic Bodies (A6) (LRR P, T, U) Redox Dark Surface (F7) Red Parent Material (TF2) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 150A) Anomalous Bright Loamy Soils (F20) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No		, ,						· —	
Stratified Layers (A5)	Black H	listic (A3)		Loamy Mucl	ky Mineral	(F1) (LRR	(O)	Reduced V	ertic (F18) (outside MLRA 150A,B
Organic Bodies (A6) (LRR P, T, U)	Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix (F2)			
5 cm Mucky Mineral (A7) (LRR P, T, U) Muck Presence (A8) (LRR U) 1 cm Muck (A9) (LRR P, T) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, T, U) Restrictive Layer (if observed): Type: Depleted Dark Surface (F7) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Iron-Manganese Masses (F12) (LRR O, P, T) Wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 151A) No Mark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No					. ,				
Muck Presence (A8) (LRR U)	-	, , ,			,	*		,	•
1 cm Muck (A9) (LRR P, T)									, ,
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Coast Prairie Redox (A16) (MLRA 150A) Sandy Mucky Mineral (S1) (LRR O, S) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Depleted Ochric (F11) (MLRA 151) Iron-Manganese Masses (F12) (LRR O, P, T) Wetland hydrology must be present, wetland hydrology must be present, unless disturbed or problematic. Reduced Vertic (F18) (MLRA 150A, 150B) Piedmont Floodplain Soils (F19) (MLRA 149A) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Hydric Soil Present? Yes No		, , ,	,		,	3)			
Thick Dark Surface (A12)						(MIRA 1	51)	Other (Exp	iaiii iii Reiliaiks)
Coast Prairie Redox (A16) (MLRA 150A) Umbric Surface (F13) (LRR P, T, U) wetland hydrology must be present, belta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No			(00 (/ (111)					T) ³ Indicators	s of hydrophytic vegetation and
Sandy Mucky Mineral (S1) (LRR O, S) Delta Ochric (F17) (MLRA 151) unless disturbed or problematic. Sandy Gleyed Matrix (S4) Reduced Vertic (F18) (MLRA 150A, 150B) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No		, ,	(MLRA 150A						
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 149A) Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No					(F17) (ML	RA 151)		unless o	disturbed or problematic.
Stripped Matrix (S6) Anomalous Bright Loamy Soils (F20) (MLRA 149A, 153C, 153D) Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Sandy	Gleyed Matrix (S4)		Reduced Ve	ertic (F18) (MLRA 15	0A, 150B)	l	
Dark Surface (S7) (LRR P, S, T, U) Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Sandy	Redox (S5)							
Restrictive Layer (if observed): Type:		* *		Anomalous	Bright Loar	ny Soils (F20) (MLF	RA 149A, 153C, 153	3D)
Type:									
Depth (inches): Hydric Soil Present? Yes No			ı):						_
									
Remarks:		nches):						Hydric Soil Pres	sent? Yes No _▼
	Remarks:								



Vegetation at DP3 facing north taken 11/4/2015



Vegetation at DP3 facing east taken 11/4/2015



Vegetation at DP3 facing south taken 11/4/2015



Vegetation at DP3 facing west taken 11/4/2015



Soil profile at DP3 taken 11/4/2015

WETLAND DETERMINATION DATA FORM – Atlantic and Gulf Coastal Plain Region

Project/Site: 122-Acre Springback Tract	City/County: Caddo Sampling Date: 11/4/2015
Applicant/Owner: Franks Management Company, LLC	State: La Sampling Point: DP4
	Section, Township, Range: Section 15, Township 16N, Range 13W
	Local relief (concave, convex, none): concave Slope (%): 1
Subregion (LRR or MLRA): LRRO Lat: 32.3	
Soil Map Unit Name: LaA - Latnier clay, 0-1% slopes, rarely floor	•
Are climatic / hydrologic conditions on the site typical for this time of	
Are Vegetation, Soil, or Hydrology significant	
Are Vegetation, Soil, or Hydrology naturally p	
	ng sampling point locations, transects, important features, etc.
Commant of Thebros – Attach site map shown	g sampling point locations, transects, important leatures, etc.
Hydrophytic Vegetation Present? Yes No	- Is the Sampled Area
Hydric Soil Present? Yes No	within a Wetland? Yes No
Wetland Hydrology Present? Yes No✓	-
Remarks:	
Data point taken in swale of plowed field adjacent to vegetated dra	in.
LIVEROLOGY	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	- - , , ,
Surface Water (A1) Aquatic Fauna (B	
High Water Table (A2) Marl Deposits (B	
✓ Saturation (A3) Hydrogen Sulfide	
	oheres along Living Roots (C3) Dry-Season Water Table (C2)
Sediment Deposits (B2) Presence of Red Drift Deposits (B3) Recent Iron Redu	uced Iron (C4) Crayfish Burrows (C8) uction in Tilled Soils (C6) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface	· · · —
Iron Deposits (B5) Other (Explain in	
Initial Deposits (B5) Other (Explain III	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Sphagnum moss (D8) (LRR T, U)
Field Observations:	spinaginani mose (56) (21.111 1, 6)
Surface Water Present? Yes No ✓ Depth (inche	es):
Water Table Present? Yes No _✓ Depth (inche	· ————
Saturation Present? Yes ✓ No Depth (inche	es): 0 Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial pho	
Examined 1998 IR, 2004 IR and 2014 NAIP	aerial imagery
Remarks:	
The saturation observed at the data point was attributed to recent	heavy rain events. See Record of Climatological Observations in Appendix B.

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

201 11	Absolute	Dominar	nt Indicator	Dominance Test worksheet:		
<u>Tree Stratum</u> (Plot size: 30' radius)		<u>Species</u>	? Status	Number of Dominant Species		
1. Celtis laevigata	2	yes	FACW_	That Are OBL, FACW, or FAC:3 (A)		
2				Total Number of Dominant		
3				Species Across All Strata: 4 (B)		
4.						
5.				Percent of Dominant Species That Are OBL FACIAL or FAC:		
				That Are OBL, FACW, or FAC:(A/B)		
6			• ——	Prevalence Index worksheet:		
7			•	Total % Cover of: Multiply by:		
8				OBL species x 1 =		
		_ = Total Co				
50% of total cover:1	20% c	of total cove	er: <u>0.4</u>	FACW species x 2 =		
Sapling/Shrub Stratum (Plot size: 30' radius)				FAC species x 3 =		
1				FACU species x 4 =		
2.				UPL species x 5 =		
3.				Column Totals: (A) (B)		
4				Prevalence Index = B/A =0		
5				Hydrophytic Vegetation Indicators:		
6				1 - Rapid Test for Hydrophytic Vegetation		
7				✓ 2 - Dominance Test is >50%		
8				3 - Prevalence Index is ≤3.0 ¹		
	0	= Total Co	over	Problematic Hydrophytic Vegetation¹ (Explain)		
50% of total cover:	20% c	_		Froblematic Hydrophrytic Vegetation (Explain)		
Herb Stratum (Plot size: 30' radius)				1		
1 Ambrosia trifida	10	ves	FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
2. Sorghum halepense	5		FACU			
		yes	1700	Definitions of Four Vegetation Strata:		
3			. —	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or		
4				more in diameter at breast height (DBH), regardless of		
5				height.		
6				Sapling/Shrub – Woody plants, excluding vines, less		
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
8.				Hart Allbart and or form we start and a second		
				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.		
9				or size, and troody plants loss than 5.25 it tail.		
10			• ——	Woody vine - All woody vines greater than 3.28 ft in		
11				height.		
12						
	15	_ = Total Co	over			
50% of total cover: 7.5	20% c	of total cove	er: <u> </u>			
Woody Vine Stratum (Plot size: 30' radius)						
1. Cardiospermum halicacabum	15	yes	FAC			
2.						
		-				
3		-	- —			
4						
5				Hydrophytic		
	15	= Total Co		Vegetation Present? Yes No		
50% of total cover:7.5	20% c	of total cove	er:3	Present? Tes No		
Remarks: (If observed, list morphological adaptations below	w).					

Sampling Point: DP4

SOIL Sampling Point: DP4

	Matrix			ox Features	i		the absence of in	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-16	5YR 3/3	100					Clay	
	-							
Type: C=C	- ————————————————————————————————————	nletion DM-De	duced Matrix M	S-Macked	Sand Gra	ine	2l coation: DI =	Pore Lining, M=Matrix.
	Indicators: (Appli	•	· · · · · · · · · · · · · · · · · · ·			ılıı 5.		roblematic Hydric Soils ³ :
Histoso		ouble to un all	Polyvalue Be		-	RRSTI		
	pipedon (A2)	-	Thin Dark Su				· —	(A10) (LRR S)
	listic (A3)		Loamy Muck					ertic (F18) (outside MLRA 150A,E
	en Sulfide (A4)		Loamy Gley	-		,		oodplain Soils (F19) (LRR P, S, T
Stratifie	d Layers (A5)		Depleted Ma					Bright Loamy Soils (F20)
Organio	Bodies (A6) (LRR	P, T, U)	Redox Dark	Surface (F	6)		(MLRA 15	3B)
	ucky Mineral (A7) (L		Depleted Da		' '			Material (TF2)
	resence (A8) (LRR		Redox Depre	,	3)			w Dark Surface (TF12)
	uck (A9) (LRR P, T)		Marl (F10) (I	•			Other (Expla	ain in Remarks)
	ed Below Dark Surfa	.ce (A11)	Depleted Oc				T) 311:4	-f
	ark Surface (A12) Prairie Redox (A16)	(MI PA 150A)	Iron-Mangar Umbric Surfa				,	of hydrophytic vegetation and nydrology must be present,
	Mucky Mineral (S1)		Umbric Surfa Delta Ochric			0,		sturbed or problematic.
	Gleyed Matrix (S4)	(21111 0, 0,	Reduced Ve			0A. 150B)		starbed of problematic.
	Redox (S5)	•	Piedmont Fl					
Strippe	d Matrix (S6)						A 149A, 153C, 153	D)
Dark Si	urface (S7) (LRR P,	S, T, U)						
Restrictive	Layer (if observed):						
Туре:			_					
Depth (ir	nches):		_				Hydric Soil Pres	ent? Yes No
Remarks:							I	



Vegetation at DP4 facing north taken 11/4/2015





Vegetation at DP4 facing south taken 11/4/2015





Soil profile at DP4 taken 11/4/2015

Project/Site: 122-Acre Springback Tract	City/County: Caddo	Sampling Date: 11/4/2015			
Applicant/Owner: Franks Management Company, LLC		La Sampling Point: DP5			
	Section, Township, Range: Section				
	Local relief (concave, convex, none)				
Subregion (LRR or MLRA): LRRO Lat:	32.379238 Long: -93.68	0954 Datum: NAD83			
Soil Map Unit Name: MsA - Moreland clay, 0-1% slopes, fro					
Are climatic / hydrologic conditions on the site typical for this tir	ne of year? Yes No (If no,	explain in Remarks.)			
Are Vegetation, Soil, or Hydrology sign	ificantly disturbed? Are "Normal Circu	ımstances" present? Yes No			
Are Vegetation, Soil, or Hydrology natu	urally problematic? (If needed, explain	n any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map sh	owing sampling point locations,	transects, important features, etc.			
	within a Wetland?	Yes No			
Wetland Hydrology Present? Yes No _ Remarks:	<u> </u>				
Data point taken at toe of slope along Pierre Bayou.					
HYDROLOGY					
Wetland Hydrology Indicators:	Seco	endary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; check all that	apply)	Surface Soil Cracks (B6)			
✓ Surface Water (A1) Aquatic Fa	una (B13) 5	Sparsely Vegetated Concave Surface (B8)			
High Water Table (A2) Marl Depos	sits (B15) (LRR U) [Drainage Patterns (B10)			
✓ Saturation (A3) Hydrogen S	Sulfide Odor (C1)	Moss Trim Lines (B16)			
Water Marks (B1) Oxidized R	hizospheres along Living Roots (C3) [Dry-Season Water Table (C2)			
✓ Sediment Deposits (B2) Presence of	of Reduced Iron (C4)	Crayfish Burrows (C8)			
✓ Drift Deposits (B3) Recent Iron	n Reduction in Tilled Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4) Thin Muck	Surface (C7)	Geomorphic Position (D2)			
Iron Deposits (B5) Other (Exp	lain in Remarks) S	Shallow Aquitard (D3)			
✓ Inundation Visible on Aerial Imagery (B7)	F	FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)	_ 5	Sphagnum moss (D8) (LRR T, U)			
Field Observations:					
Surface Water Present? Yes No Depth	(inches): 2				
Water Table Present? Yes No _✓ Depth					
Saturation Present? Yes ✓ No Depth (includes capillary fringe)		logy Present? Yes No			
Describe Recorded Data (stream gauge, monitoring well, aer		:			
Examined 1998 IR, 2004 IR and 2014 NA	AIP aeriai imagery				
Remarks:					

	Absolute Dominant Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' radius)	% Cover Species? Status	Number of Dominant Species
1		That Are OBL, FACW, or FAC:1 (A)
2		Total Number of Dominant
3		Species Across All Strata:
4.		(b)
		Percent of Dominant Species
5		That Are OBL, FACW, or FAC: (A/B)
6		Prevalence Index worksheet:
7		Total % Cover of: Multiply by:
8		OBL species x 1 =
	0 = Total Cover	
50% of total cover:	20% of total cover:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30' radius)		FAC species x 3 =
1		FACU species x 4 =
2.		UPL species x 5 =
3.		Column Totals:0 (A) (B)
4		Prevalence Index = B/A =0
5		Hydrophytic Vegetation Indicators:
6		✓ 1 - Rapid Test for Hydrophytic Vegetation
7		2 - Dominance Test is >50%
8		3 - Prevalence Index is ≤3.0 ¹
	0 = Total Cover	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of total cover:	
Herb Stratum (Plot size: 30' radius)		Indicators of hydric soil and wetland hydrology must
1. Persicaria hydropiperoides	95 yes OBL	be present, unless disturbed or problematic.
2		Definitions of Four Vegetation Strata:
		Deminions of Four Vegetation Strata.
3		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4		more in diameter at breast height (DBH), regardless of height.
5		neight.
6		Sapling/Shrub – Woody plants, excluding vines, less
7		than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		Herb – All herbaceous (non-woody) plants, regardless
9		of size, and woody plants less than 3.28 ft tall.
10		
11.		Woody vine - All woody vines greater than 3.28 ft in height.
12.		noight.
12.	95 = Total Cover	
77.5	= Total Cover	
	20% of total cover:19	
Woody Vine Stratum (Plot size: 30' radius)		
1		
2		
3		
4.		
5		Undrankutia
	0 = Total Cover	Hydrophytic Vegetation
50% of total cover:		Present? Yes No
Remarks: (If observed, list morphological adaptations belo	OW).	

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirn	n the absence of inc	dicators.)
Depth (in shees)	Matrix	0/		x Feature		1 2	Tandona	Donol
(inches)	Color (moist)		Color (moist)	<u> </u>	<u>Type'</u> D	Loc²	Texture	Remarks
0-16	7.5YR 3/3	90	7.5YR 3/1	5	<u> </u>	М	Clay	
	-			_	_			
								_
				_	-	· — -		
1						· 	2	
			=Reduced Matrix, M LRRs, unless othe			ains.		ore Lining, M=Matrix. roblematic Hydric Soils ³ :
Histosol	`	able to all	Polyvalue Be		,	DD C T		-
	pipedon (A2)		Thin Dark Su				· —	A3) (LRR S)
	stic (A3)		Loamy Muck	,				rtic (F18) (outside MLRA 150A,B)
	n Sulfide (A4)		Loamy Gley			,		oodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		Depleted Ma					Bright Loamy Soils (F20)
_	Bodies (A6) (LRR I		Redox Dark	,	,		(MLRA 15	•
	icky Mineral (A7) (L esence (A8) (LRR I				, ,		✓ Red Parent I	* *
	esence (A6) (LRR I ick (A9) (LRR P, T)	,	Redox Depre	,	-0)			v Dark Surface (TF12) iin in Remarks)
	d Below Dark Surfac	ce (A11)	Depleted Oc		(MLRA 1	51)	Other (Expla	in in Romanco)
Thick Da	ark Surface (A12)		Iron-Mangar				T) ³ Indicators	of hydrophytic vegetation and
	, , ,		A) Umbric Surfa	` ′	,			ydrology must be present,
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric					sturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont Flo					
_	Matrix (S6)						RA 149A, 153C, 153E	0)
	rface (S7) (LRR P,	S, T, U)	_	Ū	•	`	, ,	,
Restrictive	Layer (if observed)	:						
Туре:								
Depth (in	ches):						Hydric Soil Prese	ent? Yes <u> </u>
Remarks:							•	



Vegetation at DP5 facing north taken 11/4/2015





Vegetation at DP5 facing south taken 11/10/2015





Soil profile at DP5 taken 11/4/2015

Project/Site: 122-Acre Springback Tract	City/County: Caddo	_ Sampling Date: 11/4/2015
Applicant/Owner: Franks Management Company, LLC	State: La	
	Section, Township, Range: Section 15, Towns	
	Local relief (concave, convex, none): concave	
	2.378253 Long:93.683188	Datum: NAD83
Soil Map Unit Name: MsA - Moreland clay, 0-1% slopes, freq		
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology signific	cantly disturbed? Are "Normal Circumstances"	present? Yes No
Are Vegetation, Soil, or Hydrology natura	Illy problematic? (If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	wing sampling point locations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes ✓ No		_
Hydric Soil Present? Yes ✓ No	is the Sampled Area	
Wetland Hydrology Present? Yes No	within a Wetland? Yes <u>▼</u>	No
Remarks:		
Data point taken on edge of bank along Pierre Bayou.		
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; check all that a	pply) Surface Soil	Cracks (B6)
Surface Water (A1) Aquatic Faun	a (B13) Sparsely Ve	egetated Concave Surface (B8)
High Water Table (A2) Marl Deposits	(B15) (LRR U) Drainage Pa	atterns (B10)
✓ Saturation (A3) Hydrogen Su	lfide Odor (C1) Moss Trim L	ines (B16)
Water Marks (B1) Oxidized Rhiz	zospheres along Living Roots (C3) Dry-Season	Water Table (C2)
✓ Sediment Deposits (B2) ✓ Presence of F	Reduced Iron (C4) <u>✓</u> Crayfish Bur	rrows (C8)
		isible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Su	urface (C7) Geomorphic	Position (D2)
Iron Deposits (B5) Other (Explai		
✓ Inundation Visible on Aerial Imagery (B7)	FAC-Neutra	` '
Water-Stained Leaves (B9)	Sphagnum r	moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No Depth (ir		_
Water Table Present? Yes No ✓ Depth (in		
Saturation Present? Yes No Depth (ir (includes capillary fringe)		nt? Yes _ No
Describe Recorded Data (stream gauge, monitoring well, aerial		
Examined 1998 IR, 2004 IR and 2014 NAI		
Remarks:		

201		Dominant		Dominance Test worksheet:
· · · · · · · · · · · · · · · · · · ·	<u> % Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:1 (B)
4				Description of Description of One size
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)
6				
7.				Prevalence Index worksheet:
8.				Total % Cover of: Multiply by:
	0 :	= Total Cov	er .	OBL species x 1 =
50% of total cover:				FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30' radius)	_ 20 70 01	total cover		FAC species x 3 =
				FACU species x 4 =
1				UPL species x 5 =
2				Column Totals: (A) (B)
3				
4				Prevalence Index = B/A =0
5				Hydrophytic Vegetation Indicators:
6				✓ 1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	:	= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of	total cover	:	
Herb Stratum (Plot size: 30' radius)				¹ Indicators of hydric soil and wetland hydrology must
1. Persicaria hydropiperoides	95	yes	OBL	be present, unless disturbed or problematic.
2. Typha domingensis	5	no	OBL	Definitions of Four Vegetation Strata:
3				True Mandambanta avaluating vince 2 in (7.6 and) an
4.				Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5.				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				
9				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				or oles, and troody plants roos than e.es it tall.
10				Woody vine – All woody vines greater than 3.28 ft in
				height.
12	100			
500/ -51-1-1 50		= Total Cov		
50% of total cover: 50	20% or	total cover		
Woody Vine Stratum (Plot size: 30' radius)				
1				
2				
3				
4				
5				Hydrophytic
	:	= Total Cov	er	Vegetation
50% of total cover:	20% of	total cover	:	Present? Yes No
Remarks: (If observed, list morphological adaptations below	w).			

Soll Sampling Point: DP6

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirn	n the absence of inc	dicators.)
Depth	Matrix			ox Feature			- .	
(inches)	Color (moist)		Color (moist)	%	Type'	Loc²	Texture	Remarks
0-16	7.5YR 3/4	90	7.5YR 3/2	_ 10	_ <u>D</u>		Clay	
					-	·		
¹ Type: C=C	oncentration, D=De	oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gi	ains.		Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless othe	rwise no	ted.)		Indicators for P	roblematic Hydric Soils ³ :
Histosol	(A1)		Polyvalue B	elow Surfa	ace (S8) (I	LRR S, T, l	J) 1 cm Muck (A9) (LRR O)
	pipedon (A2)		Thin Dark S	,				A10) (LRR S)
	stic (A3)		Loamy Muck			₹ 0)		rtic (F18) (outside MLRA 150A,B)
	en Sulfide (A4)		Loamy Gley		(F2)			oodplain Soils (F19) (LRR P, S, T)
	d Layers (A5) Bodies (A6) (LRR F	D T 11)	Depleted Ma Redox Dark	. ,	E6)		Anomalous I	Bright Loamy Soils (F20)
_	icky Mineral (A7) (L		_	,	,		✓ Red Parent I	•
	esence (A8) (LRR I		Redox Depr		, ,			v Dark Surface (TF12)
1 cm Mu	ick (A9) (LRR P, T)	,	Marl (F10) (I	,	ĺ			in in Remarks)
Depleted	d Below Dark Surfac	e (A11)	Depleted Oc	hric (F11)	(MLRA 1	51)		
	ark Surface (A12)		Iron-Mangar					of hydrophytic vegetation and
	, , ,		A) Umbric Surfa	` ′	,			nydrology must be present,
	Mucky Mineral (S1) (LRR O, S)	Delta Ochric					sturbed or problematic.
	Gleyed Matrix (S4) Redox (S5)		Reduced Ve Piedmont FI					
_	Matrix (S6)						RA 149A, 153C, 153E	0)
	rface (S7) (LRR P,	S, T, U)	_	ŭ	•	`	, ,	,
Restrictive	Layer (if observed)	:						
Туре:								
Depth (in	ches):						Hydric Soil Prese	ent? Yes <u> </u>
Remarks:								



Vegetation at DP6 facing north taken 11/4/2015



Vegetation at DP6 facing east taken 11/4/2015



Vegetation at DP6 facing south taken 11/10/2015





Soil profile at DP6 taken 11/4/2015

Project/Site: 122-Acre Springback Tract	City/County: Caddo	Sampling Date: 11/10/2015		
Applicant/Owner: Franks Management Company, LLC		Sampling Point: DP7		
	Section, Township, Range: Section 15, To			
	Local relief (concave, convex, none): conc			
Subregion (LRR or MLRA): LRRO Lat: 32.38		Datum: NAD83		
Soil Map Unit Name: MsA - Moreland clay, 0-1% slopes, frequent				
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes <u>√</u> No (If no, explai	in in Remarks.)		
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstan	nces" present? Yes No		
Are Vegetation, Soil, or Hydrology naturally pr	roblematic? (If needed, explain any a	answers in Remarks.)		
SUMMARY OF FINDINGS - Attach site map showing	g sampling point locations, trans	sects, important features, etc.		
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes _ ✓ No	is the Sampled Area	No No		
Wetland Hydrology Present? Yes ✓ No	within a Wetland? Yes	. No		
Remarks:				
Data point taken at toe of slope of embankment along Pierre Bayou	I.			
HYDROLOGY				
Wetland Hydrology Indicators:	Secondary	Indicators (minimum of two required)		
Primary Indicators (minimum of one is required; check all that apply)	Surfac	e Soil Cracks (B6)		
Surface Water (A1) Aquatic Fauna (B1		ely Vegetated Concave Surface (B8)		
High Water Table (A2) Marl Deposits (B1		Drainage Patterns (B10)		
✓ Saturation (A3) — Hydrogen Sulfide		Trim Lines (B16)		
		eason Water Table (C2)		
✓ Sediment Deposits (B2) Presence of Redu		sh Burrows (C8)		
		tion Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4) Thin Muck Surface		orphic Position (D2)		
Iron Deposits (B5) Other (Explain in I		w Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)		leutral Test (D5)		
Water-Stained Leaves (B9)	Sphag	num moss (D8) (LRR T, U)		
Field Observations:				
Surface Water Present? Yes No _✓ Depth (inches	s):			
Water Table Present? Yes No ✓ Depth (inches				
Saturation Present? Yes No Depth (inches		Present? Yes No		
(includes capillary fringe)				
Describe Recorded Data (stream gauge, monitoring well, aerial phot				
Examined 1998 IR, 2004 IR and 2014 NAIP a	eriai imagery			
Remarks:				

	Absolute	Dominan	nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' radius)	% Cover	<u>Species</u>	? Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 2 (A)
2				Total Number of Densiry and
3.				Total Number of Dominant Species Across All Strata: 3 (B)
4.				Operios / toross / tir circitat
				Percent of Dominant Species That Are OBL FACIAL or FACIAL 67
5			·	That Are OBL, FACW, or FAC: (A/B)
6			• ——	Prevalence Index worksheet:
7				Total % Cover of:Multiply by:
8				OBL species x 1 =
	0	= Total Co	over	
50% of total cover:	20% o	f total cove	er:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30' radius)				FAC species x 3 =
1				FACU species x 4 =
2.				UPL species x 5 =
				Column Totals: (A) (B)
3				
4				Prevalence Index = B/A =0
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
		= Total Co	over	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:				Problematic Hydrophytic Vegetation (Explain)
Herb Stratum (Plot size: 30' radius)				1
1 Persicaria hydropiperoides	65	ves	OBL	Indicators of hydric soil and wetland hydrology must
Cardiospermum halicacabum	20	·	FAC	be present, unless disturbed or problematic.
		yes		Definitions of Four Vegetation Strata:
3. Typha domingensis	3	no	OBL	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5				height.
6.				Sapling/Shrub – Woody plants, excluding vines, less
7.				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9			- —	or size, and woody plants less than 3.20 it tall.
10				Woody vine - All woody vines greater than 3.28 ft in
11				height.
12				
	88	= Total Co	over	
50% of total cover: 44	20% o	f total cove	er: 17.6	
Woody Vine Stratum (Plot size: 30' radius)				
1. Rubus flagellaris	5	yes	UPL	
2.		-		
		•	. —	
3			- —	
4				
5			- ——	Hydrophytic
	5	= Total Co	over	Vegetation
50% of total cover: 2.5	20% o	f total cove	er:1	Present? Yes <u>▼</u> No
Remarks: (If observed, list morphological adaptations belo				
Trainanta. (II abaarraa, nat iilalpinatagiaa aaaptatiana bara	/.			

Depth	Matrix			ox Feature			m the absence of in	,
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-4	7.5YR 4/2	95	7.5YR 3/1	5	<u>D</u>		Clay	
4-16	7.5YR 4/4	95	7.5YR 3/1	_ 5	<u>D</u>	<u>M</u>	Clay	
-								
			/I=Reduced Matrix, M			ains.		Pore Lining, M=Matrix.
=		cable to a	I LRRs, unless other		-	BB C T		Problematic Hydric Soils ³ :
Histoso	pi(A1) Epipedon (A2)		Polyvalue B Thin Dark S				· —	(A9) (LRR O) (A10) (LRR S)
	listic (A3)		Loamy Muc					ertic (F18) (outside MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gley	ed Matrix	(F2)			loodplain Soils (F19) (LRR P, S, T)
	ed Layers (A5)		Depleted Ma	, ,	==:			Bright Loamy Soils (F20)
_	: Bodies (A6) (LRR ucky Mineral (A7) (l		Redox Dark Depleted Da	,	,		(MLRA 15 ✓ Red Parent	•
	resence (A8) (LRR		Depleted Da Redox Depr		` '			w Dark Surface (TF12)
	uck (A9) (LRR P, T)	•	Marl (F10) (,	٠,			ain in Remarks)
Deplete	ed Below Dark Surfa	ce (A11)	Depleted O					
	ark Surface (A12)		Iron-Mangai		, ,			of hydrophytic vegetation and
	Prairie Redox (A16) Mucky Mineral (S1)	•		, ,	,			hydrology must be present, isturbed or problematic.
	Gleyed Matrix (S4)	(LKK O, S) Delta Ochrid Reduced Ve					isturbed of problematic.
_	Redox (S5)		Piedmont Fl					
	d Matrix (S6)		Anomalous	Bright Loa	ımy Soils (F20) (ML	RA 149A, 153C, 153	D)
	urface (S7) (LRR P,							
	Layer (if observed							
Type:			-				Hydric Soil Pres	ent? Yes No
	nches):						nyulic Soli Fies	entr res NO
Remarks:								



Vegetation at DP7 facing north taken 11/10/2015



Vegetation at DP7 facing east taken 11/10/2015



Vegetation at DP7 facing south taken 11/10/2015



Vegetation at DP7 facing west taken 11/10/2015



Soil profile at DP7 taken 11/10/2015

Project/Site: 122-Acre Springback Tract	City/Cou	nty: Caddo	Sampling Date: 11/10/2015			
Applicant/Owner: Franks Management Company,		•	State: La Sampling Point: DP8			
		ection 15, Township 16N, Range 13W				
			none): concave Slope (%): 1			
Subregion (LRR or MLRA): LRRO			93.689452 Datum: NAD83			
Soil Map Unit Name: MsA - Moreland clay, 0-1% s			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	-		Circumstances" present? Yes No			
Are Vegetation, Soil, or Hydrology			explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site						
	,	31				
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes	— No ✓ Is	the Sampled Area				
Wetland Hydrology Present? Yes	No / w	vithin a Wetland?	Yes No			
Remarks:						
Data point taken on hillslope along Pierre Bayou.						
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)			
Primary Indicators (minimum of one is required; che	ck all that apply)		Surface Soil Cracks (B6)			
Surface Water (A1) A	quatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8)Drainage Patterns (B10)Moss Trim Lines (B16)			
High Water Table (A2) M	larl Deposits (B15) (LRR U	J)				
<u>✓</u> Saturation (A3) H	ydrogen Sulfide Odor (C1))				
Water Marks (B1) O	xidized Rhizospheres alor	ng Living Roots (C3)	Dry-Season Water Table (C2)			
Sediment Deposits (B2) P	resence of Reduced Iron (C4)	Crayfish Burrows (C8)			
Drift Deposits (B3) R	ecent Iron Reduction in Til	lled Soils (C6)	Saturation Visible on Aerial Imagery (C9)			
1 —	hin Muck Surface (C7)		Geomorphic Position (D2)			
Iron Deposits (B5) O	ther (Explain in Remarks)		Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)			FAC-Neutral Test (D5)			
Water-Stained Leaves (B9)			Sphagnum moss (D8) (LRR T, U)			
Field Observations:						
Surface Water Present? Yes No	Depth (inches):					
Water Table Present? Yes No _✓	Depth (inches):					
(includes capillary fringe)	Depth (inches): 0		lydrology Present? Yes No _▼			
Describe Recorded Data (stream gauge, monitoring Examined 1998 IR, 2004 IR and 20			ilable:			
Remarks:						
The saturation observed at the data point was attrib	outed to recent heavy rain	events. See Record	of Climatological Observations in Appendix B.			

201 1			nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' radius)	% Cove	<u>r Specie</u>	s? Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC:0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4.				(5)
				Percent of Dominant Species That Are OBL FACIAL or FACIAL 0
5				That Are OBL, FACW, or FAC: (A/B)
6			• ——	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
	0	_ = Total C	Cover	
50% of total cover:	20% (of total cov	/er:	FACW species x 2 =
Sapling/Shrub Stratum (Plot size: 30' radius)				FAC species x 3 =
1				FACU species x 4 =
2.				UPL species x 5 =
3.				Column Totals:0 (A)(B)
				0
4				Prevalence Index = B/A =0
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	0	_ = Total C	Cover	Problematic Hydrophytic Vegetation ¹ (Explain)
50% of total cover:	20% (of total cov	/er:	
Herb Stratum (Plot size: 30' radius)				¹ Indicators of hydric soil and wetland hydrology must
1 Cynodon dactylon	80	yes	FACU	be present, unless disturbed or problematic.
2 Lolium perenne	15	no	FACU	Definitions of Four Vegetation Strata:
				Definitions of Four Vegetation Offata.
3			• ——	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4				more in diameter at breast height (DBH), regardless of
5		- ·		height.
6				Sapling/Shrub – Woody plants, excluding vines, less
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8				Herb – All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				
11.				Woody vine – All woody vines greater than 3.28 ft in height.
12.				noight.
12.	. ——— 95	 - T-t-1.0		
77.1		_ = Total C		
50% of total cover: 47.5	20% (of total cov	/er:	
Woody Vine Stratum (Plot size: 30' radius)	_			
1. Rubus flagellaris	5	yes	UPL UPL	
2				
3				
4.				
5.				Hydrophytic
	5	= Total C	`over	Vegetation
50% of total cover:2.5		of total cov		Present? Yes No
		or total cov	/er	
Remarks: (If observed, list morphological adaptations below	ow).			
				I

Profile Des	cription: (Describe	to the depth	needed to docur	ment the i	ndicator	or confirm	n the absence	of indicat	ors.)	
Depth	Matrix			x Feature						
(inches)	Color (moist)		Color (moist)		_Type ¹ _	Loc ²	<u>Texture</u>		Remarks	
0-3	7.5YR 3/4	100					Clay			
3-16	7.5YR 4/4	100					Clay			
-										
¹Type: C=C	concentration, D=De	oletion PM-P	Peduced Matrix M	S-Mackad	Sand Gr	aine -	2l ocation:	DI -Dore I	Lining, M=Mat	riv
	Indicators: (Appli					JII13.			ematic Hydric	
Histoso			Polyvalue Be			RRSTI			=	
I —	pipedon (A2)		Thin Dark Su					/luck (A10)		
1 —	listic (A3)		Loamy Muck					, ,	. ,	MLRA 150A,B)
Hydrog	en Sulfide (A4)		Loamy Gleye				Piedm	ont Floodp	lain Soils (F19) (LRR P, S, T)
Stratifie	d Layers (A5)		Depleted Ma	trix (F3)			Anoma	alous Brigh	t Loamy Soils	(F20)
	Bodies (A6) (LRR I		Redox Dark	`	,		•	RA 153B)		
	ucky Mineral (A7) (L		Depleted Da					arent Mate	` '	
1 —	resence (A8) (LRR I	J)	Redox Depre	,	8)				k Surface (TF	12)
	uck (A9) (LRR P, T) d Below Dark Surfac	o (A11)	Marl (F10) (L Depleted Oc		/MIDA 4/	54\	Other	(Explain in	Remarks)	
1 — .	ark Surface (A12)	E (ATT)	Iron-Mangan				T) ³ India	eators of hy	drophytic veg	etation and
	Prairie Redox (A16) (MLRA 150A)	Umbric Surfa					-	logy must be	
	Mucky Mineral (S1) (Delta Ochric			, -,		-	ed or problem	
Sandy	Gleyed Matrix (S4)		Reduced Ve			0A, 150B))			
Sandy F	Redox (S5)		Piedmont Flo	oodplain S	oils (F19)	(MLRA 14	19A)			
1	d Matrix (S6)		Anomalous E	Bright Loar	ny Soils (I	F20) (MLR	RA 149A, 153C	, 153D)		
	ırface (S7) (LRR P,									
Restrictive	Layer (if observed)	:								
Type:										
Depth (in	iches):		_				Hydric Soil	Present?	Yes	No _ V
Remarks:										



Vegetation at DP8 facing north taken 11/10/2015





Vegetation at DP8 facing south taken 11/10/2015



Vegetation at DP8 facing west taken 11/10/2015



Soil profile at DP8 taken 11/10/2015

Project/Site: 122-Acre Springback Tract	City/County: Caddo	Sampling Date: 11/10/2015
Applicant/Owner: Franks Management Company, LLC	State: La_	
	Section, Township, Range: Section 15,	
	Local relief (concave, convex, none): cor	
	7438 Long:93.685229	9 Datum: NAD83
Soil Map Unit Name: MSA - Moreland clay, 0-1% slopes, frequen		
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes No (If no, expla	ain in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	y disturbed? Are "Normal Circumsta	ances" present? Yes No
Are Vegetation, Soil, or Hydrology naturally p	roblematic? (If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showin	g sampling point locations, tran	sects, important features, etc.
Hydrophytic Vegetation Present? Yes _ ✓ No Hydric Soil Present? Yes _ ✓ No Wetland Hydrology Present? Yes _ ✓ No	Is the Sampled Area within a Wetland?	esNo
Remarks:	· I	
Data point taken toe of slope along Pierre Bayou.		
HYDROLOGY		
Wetland Hydrology Indicators:	Secondar	y Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply	Surfa	ce Soil Cracks (B6)
Surface Water (A1) Aquatic Fauna (B	13) Spars	sely Vegetated Concave Surface (B8)
High Water Table (A2) Marl Deposits (B1	5) (LRR U) Drain:	age Patterns (B10)
✓ Saturation (A3) Hydrogen Sulfide	Odor (C1) Moss	Trim Lines (B16)
	heres along Living Roots (C3) Dry-S	Season Water Table (C2)
✓ Sediment Deposits (B2) Presence of Redu	iced Iron (C4) <u>✓</u> Crayf	ish Burrows (C8)
✓ Drift Deposits (B3) Recent Iron Redu	ction in Tilled Soils (C6) ✓ Satura	ation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Thin Muck Surface		norphic Position (D2)
Iron Deposits (B5) Other (Explain in		ow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)		Neutral Test (D5)
Water-Stained Leaves (B9)	Spha	gnum moss (D8) (LRR T, U)
Field Observations:		
Surface Water Present? Yes No ✓ Depth (inche		
Water Table Present? Yes No _✓ Depth (inche		
Saturation Present? Yes No Depth (inche (includes capillary fringe)		Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho Examined 1998 IR, 2004 IR and 2014 NAIP a		
Remarks:	Teriai iiriagery	
Remarks.		

201 11			nt Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 30' radius)	<u>% Cover</u>	<u>Species</u>	s? <u>Status</u>	Number of Dominant Species
1				That Are OBL, FACW, or FAC:1 (A)
2				Total Number of Dominant
3				Species Across All Strata:
4.				(5)
5				Percent of Dominant Species That Are OBL FACIAL or FACIAL 100 (A/B)
				That Are OBL, FACW, or FAC: (A/B)
6			• ——	Prevalence Index worksheet:
7				Total % Cover of: Multiply by:
8				OBL species x 1 =
		_ = Total C		FACW species x 2 =
50% of total cover:	20% c	of total cov	er:	
Sapling/Shrub Stratum (Plot size: 30' radius)				FAC species x 3 =
1		. .		FACU species x 4 =
2.				UPL species x 5 =
3.				Column Totals: (A) (B)
4.				Dravialance Index: = D/A = 0
				Prevalence Index = B/A =0
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
	0	_ = Total C	over	Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% c	of total cov	er:	
Herb Stratum (Plot size: 30' radius)				¹ Indicators of hydric soil and wetland hydrology must
1. Persicaria hydropiperoides	95	yes	OBL	be present, unless disturbed or problematic.
2. Cynodon dactylon	5	no	FACU	Definitions of Four Vegetation Strata:
3.		-		_
			• —	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
4			-	more in diameter at breast height (DBH), regardless of height.
5			• ——	
6			. —	Sapling/Shrub – Woody plants, excluding vines, less
7			<u> </u>	than 3 in. DBH and greater than 3.28 ft (1 m) tall.
8		<u> </u>		Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10				Woody vine – All woody vines greater than 3.28 ft in
11				height.
12.				
	100	= Total C	over	
50% of total cover:50	20% c	of total cov		
Woody Vine Stratum (Plot size: 30' radius)	20700	or total cov	O1	
1				
2				
3				
4				
5		<u> </u>		Hydrophytic
	0	= Total C	over	Vegetation
50% of total cover:	20% c	of total cov	er:	Present? Yes <u>▼</u> No
Remarks: (If observed, list morphological adaptations below				
(,.			

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confirr	n the absence	of indicators.)		
Depth	Matrix			ox Feature	s					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Re	emarks	
0-16	7.5YR 4/3	95	7.5YR 3/2	5	D	M	Clay			
						. ——				
	-									
				_		. ——				
¹ Type: C=C	oncentration, D=Dep	oletion, RM	=Reduced Matrix, M	S=Maske	d Sand Gr	ains.	² Location:	PL=Pore Lining,	M=Matrix.	
Hydric Soil	ndicators: (Applic	able to all	LRRs, unless othe	rwise not	ed.)		Indicators	for Problematic	Hydric Sc	oils³:
Histosol	(A1)		Polyvalue Be	elow Surfa	ace (S8) (I	LRR S, T,	U) 1 cm N	luck (A9) (LRR C))	
Histic Ep	ipedon (A2)		Thin Dark S	urface (S9) (LRR S,	T, U)	2 cm N	luck (A10) (LRR	S)	
Black Hi	stic (A3)		Loamy Muck	ky Mineral	(F1) (LRI	R O)	Reduc	ed Vertic (F18) (c	utside MI	_RA 150A,B)
Hydroge	n Sulfide (A4)		Loamy Gley	ed Matrix	(F2)		Piedme	ont Floodplain Sc	ils (F19) (I	LRR P, S, T)
Stratified	l Layers (A5)		Depleted Ma	atrix (F3)			Anoma	llous Bright Loam	y Soils (F2	20)
Organic	Bodies (A6) (LRR F	P, T, U)	Redox Dark	Surface (F6)		(MLF	RA 153B)		
5 cm Mu	cky Mineral (A7) (L	RR P, T, U	Depleted Da	rk Surface	e (F7)			arent Material (TF		
	esence (A8) (LRR l	J)	Redox Depr		8)		Very S	hallow Dark Surfa	ace (TF12))
	ck (A9) (LRR P, T)		Marl (F10) (I				Other (Explain in Remai	ks)	
	d Below Dark Surfac	e (A11)	Depleted Oc				2			
	rk Surface (A12)		Iron-Mangar					ators of hydrophy	-	
	rairie Redox (A16) (I		· —					land hydrology m	•	· ·
	lucky Mineral (S1) (LRR O, S)	Delta Ochric					ess disturbed or p	roblematic).
	leyed Matrix (S4)		Reduced Ve							
	edox (S5)		Piedmont FI					450D)		
	Matrix (S6)	O T 11)	Anomaious	Bright Loa	my Solls ((FZU) (IVILE	RA 149A, 153C	, 153ט)		
	rface (S7) (LRR P,									
	_ayer (if observed)	:							_	
Туре:										
Depth (inc	ches):						Hydric Soil	Present? Yes		No
Remarks:							•			



Vegetation at DP9 facing north taken 11/10/2015



Vegetation at DP9 facing east taken 11/10/2015



Vegetation at DP9 facing south taken 11/10/2015





Soil profile at DP9 taken 11/10/2015

Appendix B Record of Climatological Observations

National Oceanic & Atmospheric Administration U.S. Department of Commerce

National Environmental Satellite, Data, and Information Service

Station: RED RIVER RESEARCH STATION, LA US GHCND: USC00167738 Elev: 155 ft. Lat: 32.422° N Lon: 93.638° W

Record of Climatological Observations These data are quality controlled and may not be identical to the original observations.

Generated on 11/30/2015

Observation Time Temperature: 0700 Observation Time Precipitation: 0700

National Centers for Environmental Information

151 Patton Avenue

Asheville, North Carolina 28801

					Townstand	(4)		0.0	occ)acitoticia	**		1000	a cito			Coil Tomposoting (E)	(E)	-	
ſ					lemperature (r.)			P. C.	Precipitation(see			Evaporation	ation			aduuai iioe	rature (r)		
ι⊢ Φ-		:		24 at c	24 hrs. ending at observation time	e O a	-	24 Hour Am at observ	24 Hour Amounts ending at observation time		At Obs Time				4 in depth			8 in depth	
Ec a - >	- m e -	∑ 0 c + c	O a >	Мах.	Min.	ω φ ⊢ > α + · · O	Rain, melted snow, etc. (in)	н— во	Snow, ice pellets, hail (in)	п — в р	Snow, ice pellets, hail, ice on ground (in)	24 Hour Wind Movement (mi)	Amount of Evap. (in)	Ground Cover (see *)	Max.	Min.	Ground Cover (see *)	Мах.	Min.
	2015	11	-	71	55		0.04		0.0		0								
	2015	11	2	29	61	62	86.0		0.0		0								
	2015	11	3	73	61	63	0.00		0.0		0								
	2015	11	4	69	63	92	00:00		0.0		0								
	2015	11	5	78	64	29	00.00		0.0		0								
	2015	11	9	82	99	29	1.80		0.0		0								
	2015	11	7	72	09	09	1.18		0.0		0								
	2015	11	8	09	51	54	0.41		0.0		0								
	2015	11	6	89	45	47	00.00		0.0		0								
	2015	11	10	69	47	55	0.00		0.0		0								
	2015	11	11	72	55	29	00.00		0.0		0								
	2015	11	12	81	20	52	0.40		0.0		0								
	2015	11	13	29	44	46	00.00		0.0		0								
	2015	11	14	99	42	52	0.00		0.0		0								
	2015	11	15	29	52	55	0.01		0.0		0								
	2015	11	16	99	52	58	00.00		0.0		0								
	2015	11	17	92	58	73	80.0		0.0		0								
	2015	11	18	74	20	52	2.64		0.0		0								
	2015	11	19	29	44	47	00.0		0.0		0								
	2015	11	20	92	43	48	0.00		0.0		0								
	2015	11	21																
	2015	11	22																
	2015	11	23																
	2015	11	24																
	2015	11	25																
	2015	11	26																
	2015	11	27																
	2015	11	28																
	2015	11	29																
	2015	7	30																
			Summary	71.0	53.2		7.54		0.0										

The "" flags in Preliminary indicate the data have not completed processing and qualitycontrol and may not be identical to the original observation Empty, or blank, cells indicate that a data observation was not reported.

*Ground Cover: 1=Grass; 2=Fallow; 3=Bare Ground; 4=Brome grass; 5=Sod; 6=Straw mulch; 7=Grass muck; 8=Bare muck; 0=Unknown

"s" This data value failed one of NCDC's quality control tests.

"T" values in the Precipitation category above indicate a TRACE value was recorded.

"A" values in the Precipitation Flag or the Snow Flag column indicate a multiday total, accumulated since last measurement, is being used.

Data value inconsistency may be present due to rounding calculations during the conversion process from SI metric units to standard imperial units.