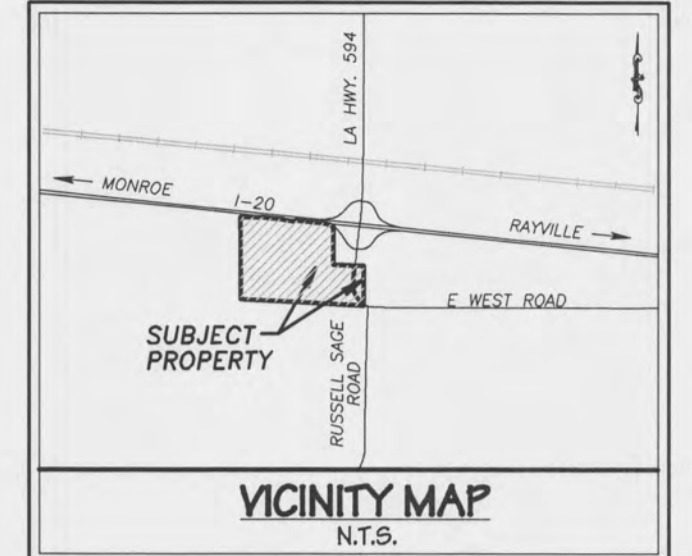
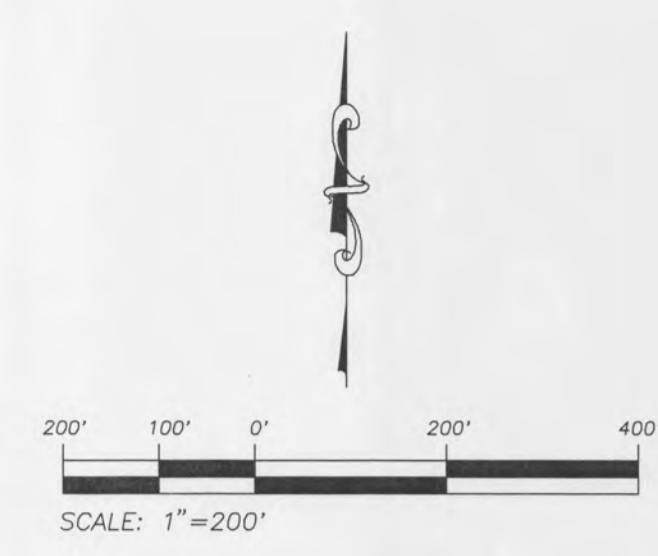


LAND DISTRICT NORTH OF RED RIVER  
SECTION 6, T-17-N, R-4-E  
OUACHITA PARISH, LOUISIANA



**LEGEND**

- FOUND MONUMENTATION
- SET 5/8" REBAR (OTHERWISE NOTED)
- ROAD CENTERLINE
- SECTION OR FORTY LINE
- RIGHT-OF-WAY LINE
- R.O.W. RIGHT-OF-WAY
- P.O.B. POINT OF BEGINNING

- REFERENCE PLATS:**
- PLAT OF BOUNDARY & PARTIAL IMPROVEMENT SURVEY FOR GUIDECO LOUISIANA, LLC IN SECTION 6, T17N, R5E, OUACHITA PARISH, LOUISIANA AS PREPARED BY DONALD W. KORN, PROFESSIONAL LAND SURVEYOR, DATED: SEPTEMBER 18, 2008.
  - STATE OF LOUISIANA DEPARTMENT OF HIGHWAYS RIGHT-OF-WAY MAP FOR STATE PROJECT NO. 451-06-03, MONROE-RAYVILLE, FEDERAL AID PROJECT NO. I-20-3(7) 11B, ROUTE I-20, OUACHITA PARISH, LOUISIANA AS PREPARED BY E. N. BRODIAK, REGISTERED LAND SURVEYOR, DATED: SEPTEMBER 1, 1964.
  - STATE OF LOUISIANA DEPARTMENT OF HIGHWAYS RIGHT-OF-WAY MAP FOR STATE PROJECT NO. 451-06-03, MILLHAVEN-STARTY SECTION, FEDERAL AID PROJECT NO. I-20-3(7) 11B, ROUTE I-20, OUACHITA PARISH, LOUISIANA AS PREPARED BY E. N. BRODIAK, REGISTERED LAND SURVEYOR, DATED: SEPTEMBER 1, 1964.
  - RIGHT-OF-WAY MAPS FOR THE EXTENSION OF I-20 FRONTAGE ROAD (SOUTH) (WAGON WHEEL ROAD TO MILLHAVEN INTERCHANGE) AS PREPARED BY CHARLES N. HATCH, JR., PROFESSIONAL LAND SURVEYOR, DATED FEBRUARY 22, 2010.

- SURVEYOR'S NOTES:**
- BASIS OF BEARINGS TAKEN FROM PLAT OF BOUNDARY & PARTIAL IMPROVEMENT SURVEY FOR GUIDECO LOUISIANA, LLC IN SECTION 6, T17N, R5E, OUACHITA PARISH, LOUISIANA AS PREPARED BY DONALD W. KORN, PROFESSIONAL LAND SURVEYOR, DATED: SEPTEMBER 18, 2008.
  - THERE IS A LOUISIANA POWER & LIGHT COMPANY BLANKET RIGHT-OF-WAY ALONG THIS POWER LINE FOR MAINTENANCE. NO WIDTH IS GIVEN AS RECORDED IN CONVEYANCE BOOK 1364, PAGE 317 OF THE RECORDS OF OUACHITA PARISH, LOUISIANA.
  - ACTUAL LOCATION OF ABANDONED GAS WELL UNKNOWN TO SURVEYOR. LOCATION SHOWN WAS IN CENTER OF CLEARED PAD. SITE WAS ABANDONED BY CARUTHERS PRODUCING, CO. IN LATE 2010.
  - SURVEYOR MAKES NO GUARANTEE THAT ALL UNDERGROUND UTILITIES EFFECTING SUBJECT TRACT ARE SHOWN ON THIS PLAT.
  - SUBJECT PROPERTY IS LOCATED IN SPECIAL FLOOD HAZARD AREA INUNDATED BY 100-YEAR FLOOD (ZONE AE) AS SHOWN ON FLOOD INSURANCE RATE MAP BELOW:
- | COMMUNITY            | NUMBER | PANEL | SUFFIX |
|----------------------|--------|-------|--------|
| UNINCORPORATED AREAS | 220135 | 0075  | E      |
| UNINCORPORATED AREAS | 220135 | 0080  | E      |
- 100 YEAR BASE FLOOD ELEVATION: 66.40' M.S.L. (NGVD 1929)  
500 YEAR FLOOD ELEVATION: 67.40' M.S.L. (NGVD 1929)  
THE MINIMUM FINISH FLOOR ELEVATION FOR SUBJECT TRACT WILL BE 67.40' M.S.L. (NGVD 1929).

**TOTAL ACREAGE = 239.02 ACRES±**  
(BOTH TRACTS)

**CURVE DATA TABLE**

CURVE NO.	RADIUS	ARC LENGTH	TANGENT	CHORD LENGTH	CHORD BEARING	DIRECTION OF CURVE	DELTA
1	3,415.26'	255.15'	127.64'	255.09'	S89°12'38"E	LEFT	4°16'50"
2	3,335.26'	398.32'	199.40'	398.08'	S87°55'46"E	RIGHT	6°50'34"
3	460.00'	246.74'	126.42'	243.79'	S69°08'29"E	RIGHT	30°43'58"
4	779.30'	878.42'	492.49'	832.65'	S26°49'28"E	LEFT	64°34'59"



**CERTIFICATION**

I, KEVIN E. CROSBY, A REGISTERED PROFESSIONAL LAND SURVEYOR IN THE STATE OF LOUISIANA, DO HEREBY CERTIFY THAT I HAVE PERFORMED A CLASS "B" SURVEY IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR PROPERTY BOUNDARY SURVEYS AND TO THE BEST OF MY KNOWLEDGE THIS IS A TRUE REPRESENTATION OF THAT SURVEY.

*Kevin E. Crosby* 11/7/12  
KEVIN E. CROSBY, P.L.S., NO. 4901 DATE

**MILLHAVEN SOUTH COMPOSITE BOUNDARY**  
**239.02 ACRE± TRACT**  
(MILLHAVEN ROAD EXTENSION)  
MONROE, LOUISIANA

SITUATED IN SECTION 6, T-17-N, R-4-E  
LAND DISTRICT NORTH OF RED RIVER

OUACHITA PARISH, LOUISIANA

**Lazenby & Associates, Inc.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
West Monroe, Louisiana

DESIGNED K.E.C.	CHECKED K.E.C.	CLIENT: FREDERICK HUENFELD
DRAWN R.H.M.	CHECKED K.E.C.	
APPROVED	DATE NOVEMBER, 2012	

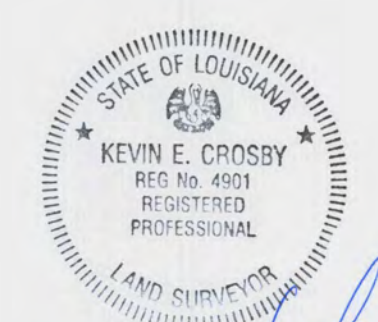
JOB NO. 12E035.00 SCALE 1" = 200'

DATE	DESCRIPTION	BY



SCALE: 1" = 300'

- LEGEND:**
- BOUNDARY
  - MAJOR CONTOUR LINE
  - MINOR CONTOUR LINE



*Kevin E. Crosby*  
11/8/12

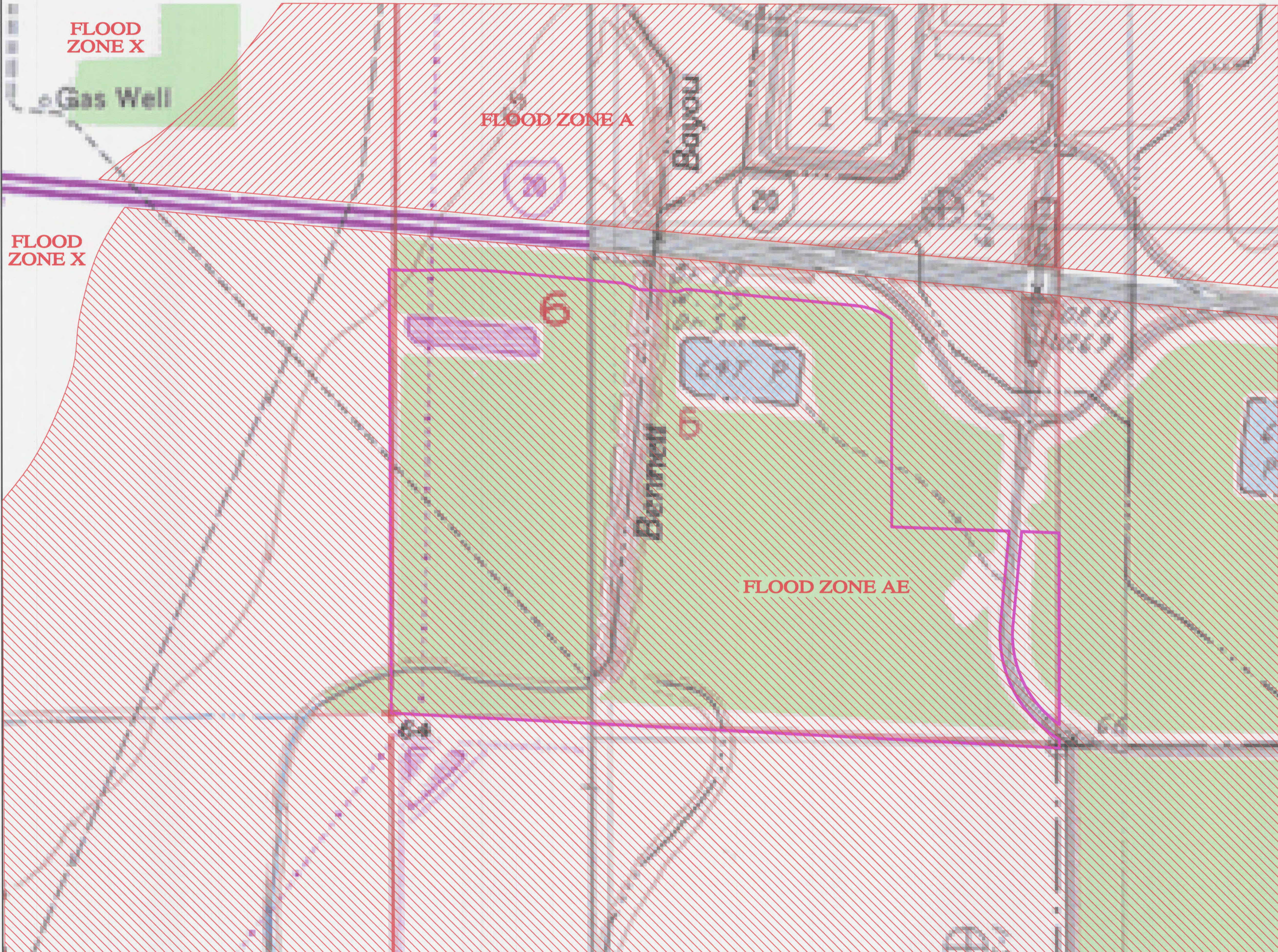
NOTE: BOUNDARY INFORMATION SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

REVISIONS	NO.	DATE	BY

**LAZENBY & ASSOCIATES, INC.**  
CONSULTING ENGINEERS & LAND SURVEYORS  
2000 NORTH 7TH STREET WEST MONROE, LOUISIANA (318) 387-7710

**CONTOURS**  
**MILLHAVEN PLANTATION SOUTH**  
OUACHITA PARISH, LOUISIANA

DESIGNED BY: J.S.E.  
CKD BY: J.R.S.  
DRWN BY: R.H.M.  
CKD BY: J.R.S.  
DATE: NOV. 2012  
SCALE: 1" = 300'  
FILE: MILLHAVEN SOUTH CONTOURS.PDS  
PROJ NO: 12B035.00  
SHEET 1 OF 1



SCALE: 1" = 300'

**LEGEND:**  
 BOUNDARY  
 FLOOD ZONE A  
 FLOOD ZONE AE

STATE OF LOUISIANA  
 KEVIN E. CROSSBY  
 REG. NO. 4301  
 REGISTERED  
 PROFESSIONAL  
 LAND SURVEYOR  
*Kevin E. Crosby*  
 11/8/12

NOTE: BOUNDARY INFORMATION SHOWN IS FOR INFORMATIONAL PURPOSES ONLY. THIS PLAT DOES NOT REPRESENT A BOUNDARY SURVEY.

REVISIONS		
NO.	DATE	BY

**LAZENBY & ASSOCIATES, INC.**  
 CONSULTING ENGINEERS & LAND SURVEYORS  
 2000 NORTH 7TH STREET WEST MONROE, LOUISIANA (318) 387-2710

**FLOOD AREAS**  
**MILLHAVEN SOUTH**  
 OUIACHITA PARISH, LOUISIANA

DESIGNED BY:	J.S.B.
CKD BY:	J.R.S.
DRWN BY:	B.H.M.
DATE:	NOV. 2012
SCALE:	1" = 300'
FILE:	MILLHAVEN SOUTH FLOOD AREAS
PROJ NO:	12B035.00
SHEET	1 OF 1

**Kristin Sanders**

**From:** Rachel Watson  
**Sent:** Wednesday, October 26, 2011 7:08 AM  
**To:** DCRT Section 106  
**Subject:** FW: Request for review by Division's of Archaeology and Historic Preservation of 250 acre tract and 6.80 acre tract located in Ouachita Parish, Louisiana  
**Attachments:** Millhaven Plantation-South I20.jpg; Service Road Looking East.jpg; MILLHAVEN PLANTATION, LLC. LEGAL DESCRIPTION.f2858 CRES, MORE OR LESS,SECTION 6.T 17N. R 5 E.pdf; SURVEY.6.80 ACRES.pdf

Rachel Watson  
Office of Cultural Development  
Department of Culture, Recreation, & Tourism  
P.O. Box 44247  
Baton Rouge, LA 70802  
(225) 342-8165

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

*Pam Breaux* 11-22-11  
Pam Breaux Date  
State Historic Preservation Officer

**From:** Becky Harrod [mailto:BHarrod@harrodlaw.com]  
**Sent:** Tuesday, October 25, 2011 2:52 PM  
**To:** Rachel Watson  
**Cc:** FMS - IES; Becky Harrod  
**Subject:** Request for review by Division's of Archaeology and Historic Preservation of 250 acre tract and 6.80 acre tract located in Ouachita Parish, Louisiana

Rachel:

Recently you assisted me with a review of property owned by Millhaven Plantation located north of Interstate 20 and east of Hwy 594 in Ouachita Parish, Louisiana, for the purposes of site certification with LED .

Millhaven is seeking to apply for certification of another tract owned by the LLC and located south of Interstate 20 and adjacent to La. Hwy 594, Ouachita Parish, Louisiana.

I have attached the following documents to assist.

1. 6.80 acre tract (legal description and plat attached)
2. 250 acre tract located in Section 6, T 17N, R 5E, Ouachita Parish, La. The property is being surveyed by Lazenby & Associates. However, I have attached the legal descriptions I do have for the property.

Also attached are the following:

1. Aerial map showing the location

I am seeking to locate either a Quad map or a topographical map of the acreage to assist.

Please do not hesitate to contact me with questions.

Becky

10/31/2011



# U.S. Fish and Wildlife Service National Wetlands Inventory

Millhaven South

Aug 1, 2012



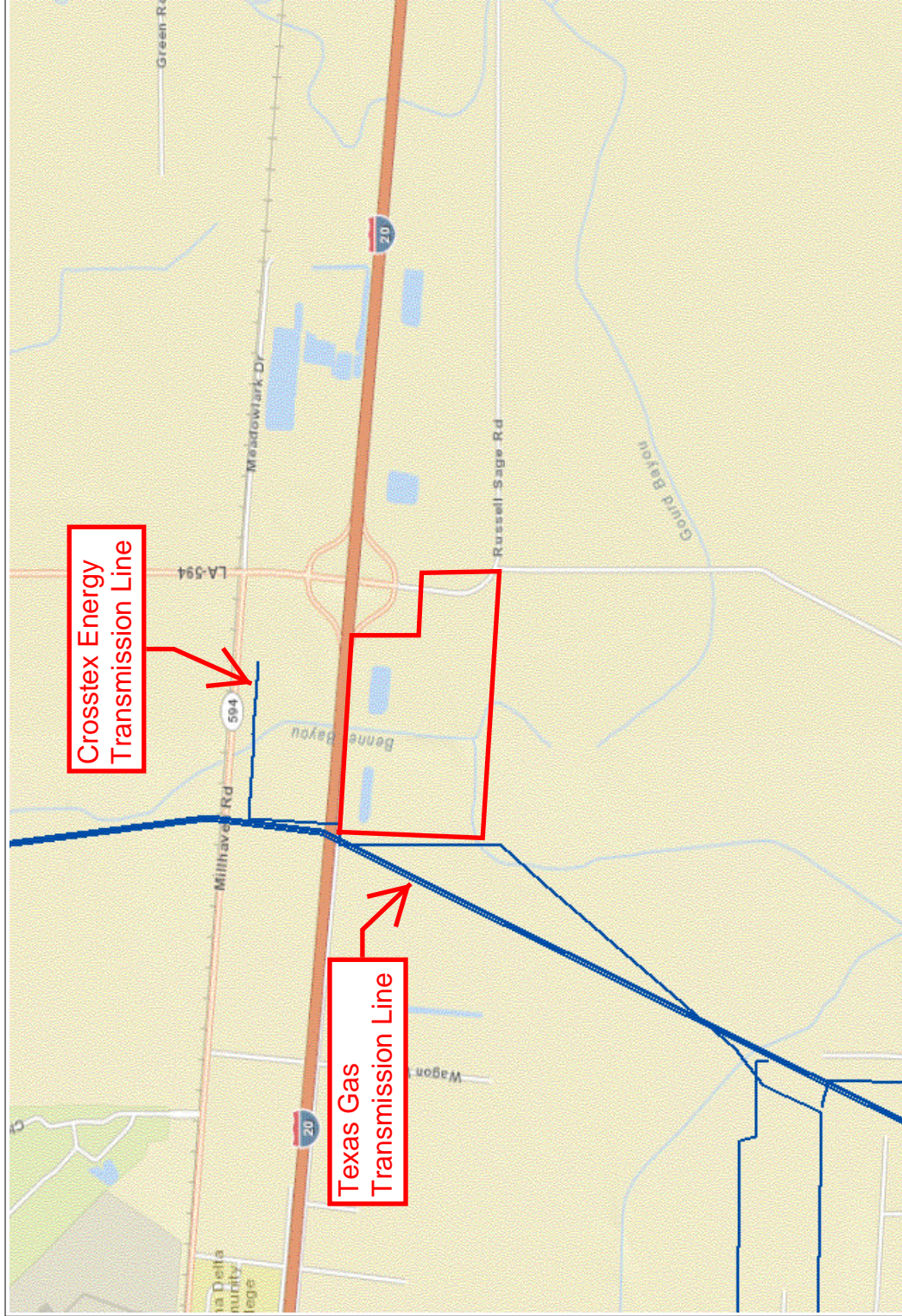
## Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

User Remarks:

# NATIONAL PIPELINE MAPPING SYSTEM



## Legend

- Gas Transmission Pipelines
- - - Hazardous Liquid Pipelines

0 0.3 Miles

Pipelines depicted on this map represent gas transmission and hazardous liquid lines only. Gas gathering and gas distribution systems are not represented.

**This map should never be used as a substitute for contacting a one-call center prior to excavation activities. Please call 811 before any digging occurs.**

Questions regarding this map or its contents can be directed to [npms-nr@mbakercorp.com](mailto:npms-nr@mbakercorp.com).

Projection: Geographic

Datum: NAD83

Map produced by the NPMS Public Viewer at [www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov)

Date Printed: Aug 01, 2012



**PHASE I ENVIRONMENTAL  
SITE ASSESSMENT REPORT**

**MILLHAVEN PLANTATION, LLC  
MILLHAVEN PLANTATION-SOUTH  
RUSSELL SAGE ROAD AND  
I-20 SERVICE ROAD EXTENSION  
MONROE, LOUISIANA**

**PPM PROJECT NO. 150402-ESA1**

**NOVEMBER 22, 2011**

**PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT**

**AT**

**MILLHAVEN PLANTATION-SOUTH  
RUSSELL SAGE ROAD AND I-20 SERVICE ROAD EXTENSION  
MONROE, LOUISIANA**

**PREPARED FOR:**

**MILLHAVEN PLANTATION, LLC  
P.O. BOX 2303  
MONROE, LOUISIANA 71207**

**PPM PROJECT NO. 150402-ESA1**

**NOVEMBER 22, 2011**

**PREPARED BY:**

*Charity H. Reed*  
for **KODY J. CHASE, M.S.**  
**BIOLOGIST**

**REVIEWED BY:**

*Elizabeth Grinder*  
for **ELIZABETH GRINDER, CHMM**  
**SENIOR ENVIRONMENTAL  
SPECIALIST**

**PPM CONSULTANTS, INC.  
1600 LAMY LANE  
MONROE, LOUISIANA 71201  
(318) 323-7270**



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- Figure 1 Site Location Map  
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- Appendix A Figures  
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## EXECUTIVE SUMMARY

PPM Consultants, Inc. (PPM) was retained by Millhaven Plantation, LLC to conduct a Phase I Environmental Site Assessment (ESA) of two tracts of land comprising Millhaven Plantation-South, located adjoining the intersection of Russell Sage Road and the I-20 Service Road Extension, east of Monroe, Louisiana. The purpose of this assessment was to identify recognized environmental conditions in connection with the property by means of interviews, review of record information, and site reconnaissance. The environmental assessment was conducted in conformance with the scope of American Society for Testing and Materials (ASTM) Standard Practice E 1527-05.

PPM conducted the site reconnaissance on November 1, 2011. The property is used by the landowner for recreational purposes including hunting and fishing. The property is undeveloped, except for a former natural gas well pad, which is located on the northeastern portion of Tract 1. A temporary building, a single person hunting blind, is located onsite. Two right-of-ways (ROWs) are accessible on the property. One is operated by Crosstex Energy Services, L.P. and is located on the western third of Tract 1, and the other is a power line ROW also located on the western third of Tract 1. Tract 1 is approximately 260 acres in size and located west of Russell Sage Road. Tract 2 is approximately 7 acres in size and is located east of Russell Sage Road. The property is located east of Monroe, Louisiana in an industrial, agricultural, and undeveloped portion of Ouachita Parish near the intersection of Russell Sage Road and Interstate 20. A newly constructed extension of the I-20 South Service Road, constructed in 2011, now borders the northern side of Tract 1. Available historical resources indicate that the property has consisted of undeveloped wooded land since at least 1941; however, utility and gas ROWs have existed on the property since at least 1925. The East and West Fish Ponds were constructed as borrow pits in the 1960s during the construction of Interstate 20. A natural gas well was installed at the site in 2007; however, was plugged and abandoned in 2010.

This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

- **Historical and current use of the property.** According to records reviewed and interviews, the subject property has consisted of undeveloped wooded land since at least the 1941; however, gas and utility ROWs have existed on the property since at least 1925. Two borrow pits were utilized on the site during construction of Interstate 20 in the 1960s. The borrow pits filled with water and are currently used as fish ponds. Several ROWs were granted to gas pipeline companies, telephone companies, and power companies over the years. According to aerial photographs and vegetation on site, it is evident that the property has been timbered at least once in the past 50 years. At least one natural gas well was drilled in 2007 and produced natural gas for a few years. The well was plugged and abandoned in August 2010. There are no permanent buildings on site. Potential concerns with the historic and current use of the property are as follows:
  - Natural gas production. According to historical records reviewed and interviews, natural gas production occurred on the subject property beginning in

2007 with the drilling of one exploratory natural gas well. The well, drilled by Caruthers Producing Company, Inc., was previously located on a well pad situated in the northeast corner of Tract 1. The well began producing natural gas shortly after installation and produced approximately 12,000-thousand cubic feet (MCF) of natural gas during January 2008. A 12,000-gallon aboveground storage tank (AST) which stored a salt water brine produced during production, was placed on site while the well was in operation. During interviews, it was suggested that the tank was never emptied due to the low volume of salt water produced. Fiberglass underground piping was previously used to transport product to a sales point located south of the site, off Russell Sage Road.

The natural gas well on the subject site was plugged and abandoned by Caruthers Producing Company, Inc. in October 2010. According to Mr. Don Womack with Caruthers Producing Company, Inc., the well casing was cut at 10 feet below ground surface (BGS) and a cast iron plug and cement were added to the bottom well. Mr. Womack, indicated that the brine AST and surface pipes were removed from the subject property; however, underground fiberglass piping, which connected the well to the sales point south of the site remain in place. In addition, the natural gas production well was installed adjoining the east fish pond. Based on the equipment typically used during the installation of natural gas wells and during natural gas production, chemicals stored on site and used during the natural gas production process, waste typically associated with natural gas production wells, and the close proximity of the east fish pond to the former well pad, the former utilization of the subject property for natural gas production and the possibility that operations may have impacted on site soil and groundwater, represents a recognized environmental condition.

- Pipeline ROWs. According to aerial photographs reviewed, interviews, and copies of ROW Grants issued by previous owners of the property, gas and petroleum ROWs have existed on the property since at least 1925. During the site visit PPM was able to access all of the ROWs. According to the ROW Grants, the pipelines were authorized to transport oil, gas, petroleum products, water and “any other material that can be transported by pipeline”. Based on the variety of materials that may have been transported through the pipelines on site since the 1920s, the unknown location of the pipelines, the age of the pipelines and potential for leaks and spills, the use of the subject property for pipeline ROW, transportation of materials, and the potential that transported materials have impacted the subject property represents a recognized environmental condition.
- Fill material. Fill material consisting of soil and debris was observed on the eastern half of the former natural gas well pad. According to the current owners, the material was generated during the construction of the I-20 Service Road Extension; however, documentation of a laboratory analysis on the soil was not provided. Unless laboratory analytical data is provided to document the absence/presence of contamination in fill material on site, the fill material is considered to represent a recognized environmental condition.

- **Historical and current land uses in the surrounding area.** Historically, the surrounding properties consisted of undeveloped wooded land and farmland until the mid-1970s when the former General Motors/Guide Corporation, LLC (Guide) facility was constructed on the north adjoining property. In the mid-1980s Waste Management of Louisiana constructed and began operation of Magnolia Landfill on the south adjoining property. Potential concerns associated with the current and historical use of surrounding properties include the following:

- Former General Motors/Guide Facility. The former General Motors/Guide facility located on the up-gradient, north adjoining property, was developed into a manufacturing and distribution facility, which produced automotive headlights for General Motors and other automotive manufacturers in 1974 and operations were subsequently initiated in 1975. According to a Phase I Environmental Site Assessment of the facility issued by PPM in October 2008, historical recognized environmental conditions and recognized environmental conditions were identified at the site and consisted of the following locations: railroad spur, solvent recovery area, north equipment room transformer area, autophoretic bake oven, hazardous waste storage area, press pit area, open floor drains in the former chromium coating process line, parts washing in former chromium coating process area, sanitary sewer lift station failures, secondary containment drain, vacuum pump room sump, polychlorinated biphenyl (PCB)-containing capacitors, leaking vent in ceiling, battery recharge area, closed floor drains, sumps, trenches and underground air-conditioning ductwork, tool room, press oil/drawing compound seepage in the former injection molding operations area, former underground storage tanks (USTs), stormwater retention pond, on-site drainage ditches, equipment decommissioning on the north equipment yard, staining beneath the cooling tower pump, staining located south of the cooling tower, staining located on north equipment yard, former cooling tower pumps, former hazardous waste storage area, and building roof.

A subsurface investigation was conducted at the site in September 2009 by ALTEC Environmental Consultants, Inc. Soil and groundwater concentrations were compared with Risk Evaluation/Corrective Action Program (RECAP) Screening Standards. Areas of interest (AOI) identified for excavation and confirmation sampling included the following: AOI-1 (former thermoplastic molding area), AOI-2 (former thermostat molding area), AOI-3 (hazardous waste storage area), AOI-5 (drainage ditch west of the main building), and AOI-6 (former press pit area). A soil remediation plan was issued to the Louisiana Department of Environmental Quality (LDEQ) on January 28, 2010, by ALTEC Environmental Consultants, Inc. The plan detailed corrective actions to be conducted at the site in order to achieve concentrations below RECAP standards for an industrial facility. A Remedial Action Completion Report was issued to the LDEQ on February 15, 2010, by ALTEC Environmental Consultants, Inc. The document indicated that 600 tons of impacted soil was removed from the site during remediation activities and results of the confirmation samples provided evidence that soil identified as impacted during the subsurface investigation had been removed from the site.

The LDEQ and Environmental Protection Agency (EPA) issued a Certificate of Reuse to the facility and indicated that the owner had successfully conducted investigation, remediation and risk management activities at the facility, and environmental conditions at the property were now protective of human health and the environment based on the property's current and anticipated future use as a commercial and or industrial property. Although the LDEQ and EPA have issued a Certificate of Reuse for the facility, the historical upgradient use of the facility for manufacturing purposes, draining of secondary containment areas and the former hazardous waste storage area to an onsite ditch, which drains to Bennett Bayou and flows through the subject property, is considered to represent a recognized environmental condition.

- Waste Management Louisiana-Magnolia Landfill. The Zip Code Scan of the Environmental Data Resources (EDR) report indicated the presence of the Magnolia Landfill (a Type I/II landfill), south of the subject property. The facility was also listed as a RCRA-CESQG. PPM confirmed the existence of the active landfill operated by Waste Management of Louisiana. According to interviews and information obtained from LDEQ Electronic Document Management System (EDMS), the facility has permits to accept and process Type I wastes (industrial wastes) and Type II wastes (solid waste and household garbage. The Standard Type I and II permit was issued by LDEQ in May 2008 and became effective in July 2008. The permit expires in July 2018. The permit authorizes the facility to accept, bury, monitor and manage nonhazardous non liquid wastes. Residential and commercial waste are projected to make up 85 percent of the waste tonnage, and 15 percent is industrial. Interviews and documents obtained from EDMS suggest that 12 monitoring wells were installed along the perimeter of the permitted portion of the facility. The wells are sampled during quarterly groundwater monitoring events. Constituents of concern (COCs) include volatile organic compounds and metals including arsenic and lead. According to Mr. Brian Duff, the environmental manager, there have never been exceedences of COCs in ground water samples collected. It was revealed during interviews and in documents obtained from EDMS that groundwater typically flows southeast, away from the subject property. Mr. Duff indicated that the facility does not handle hazardous waste. According to Mr. Duff, the landfill and leachate ponds are lined with clay and a synthetic liner. Mr. Duff advised PPM that the facility operates under a Louisiana Pollutant Discharge Elimination System (LPDES) Wastewater Discharge Permit, a Title V Air permit, and a Solid Waste Permit, which were issued by the LDEQ.

The LPDES permit grants the facility authorization to discharge treated leachate, treated contact stormwater, treated sanitary wastewater, treated washwater, treated maintenance wastewater, and non-contact stormwater into an unnamed ditch, which flows to Gourd bayou, followed by Young's Bayou. The permit also includes the discharge of non-contact stormwater from the adjacent clay mining-pit and dewatering operation into Gourd Bayou. Four internal out falls (101, 005, 006, and 007) and one external outfall (001) are

sampled regularly. According to Mr. Duff, the facility has reported exceedances in the past with discharges from outfall 001.

According to Title V Air Permit No. 2160-00075-V4, approximately 9.844 tons per year (TPY) of volatile organic compounds (VOC) toxic air pollutants (TAP), and 7.746 TPY of other VOCs are emitted by the facility. According to interviews, there are no underground storage tanks on site; however, above-ground storage tanks and 55-gallon drums were observed within close proximity to the subject property. Mr. Duff advised PPM that the tank inventory included an active 10,000-gallon diesel AST, an active 1,000-gallon gasoline AST, a 525-gallon waste oil AST and two trailer mounted 500-gallon diesel ASTs. Mr. Duff advised that inactive tanks include a 1,000-gallon AST formerly containing hydraulic oil and a 1,000-gallon AST formerly containing motor oil. According to Mr. Duff, motor oil and hydraulic oil are now stored in 55-gallon drums inside the shop facility. Mr. Duff advised that a Spill, Prevention, Control, and Countermeasure Plan is in place for the facility's applicable ASTs.

Although the site's waste disposal units and water impoundments are lined with clay and a synthetic liner, and the facility actively monitors for groundwater contamination per its groundwater monitoring plan, the presence of a landfill adjoining the subject property with wastewater treatment surface impoundments within close proximity to the property boundary and the potential for impacted groundwater from the landfill to impact the subject property represents a recognized environmental condition.

## 1.0 INTRODUCTION

### 1.1 PURPOSE

PPM Consultants, Inc. (PPM) was retained by Millhaven Plantation, LLC to conduct a Phase I Environmental Site Assessment (ESA) of Millhaven Plantation-South located south of the intersection of Russell Sage Road and the I-20 Service Road Extension in Monroe, Louisiana. The purpose of this assessment was to determine if recognized environmental conditions were present at the site according to the American Society for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process. The purpose of the ASTM standard practice is:

*“to define good commercial and customary practice...for conducting an environmental site assessment of a parcel of real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and petroleum products.”*

The goal of the processes established by this practice is to identify recognized environmental conditions associated with the property. The term *recognized environmental condition* is defined by ASTM as:

*“the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water of the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include de minimis conditions that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.”*

In order to qualify for one of the Landowner Liability Protections (LLP) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the User must provide the following information (if available) to the environmental professional (i.e., PPM) as specified in 40 CFR 312.25 through 31:

- 1) Environmental cleanup liens that are filed or recorded against the site
- 2) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry
- 3) Specialized knowledge or experience of the person seeking to qualify for the LLP
- 4) Relationship of the purchase price to the fair market value of the property if it were not contaminated
- 5) Commonly known or reasonably ascertainable information about the property



- 6) The degree of obviousness of the presence or likely presence of contamination at the property, and the ability to detect the contamination by appropriate investigation

Failure to provide this information could result in a determination that “all appropriate inquiry” is not complete. If there is more than one User of this report (e.g. lending institution or borrower/purchaser), a representative of each User must provide this information to seek qualification for the LLP. This and other information provided by the User is presented in **Section 3.0, User Provided Information.**

## **1.2 DETAILED SCOPE OF SERVICES**

The ESA was conducted in accordance with good commercial and customary practices as described in ASTM Designation: E 1527-05, “Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process.” A summary of the scope of work completed is presented in the following sections.

### **1.2.1 Records Review**

PPM reviewed reasonably ascertainable records to establish a history of the site and surrounding properties within the approximate minimum search distances described in ASTM E 1527-05, to include:

- Federal records and databases, including the National Priority List (NPL), Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS), Resource Conservation Recovery Act (RCRA) Generators and Treatment, Storage, and Disposal (TSD) facilities lists, and Emergency Response Notifications System (ERNS) list
- State and local records, including lists of hazardous waste sites identified for investigation or remediation; solid waste disposal sites; registered and leaking underground storage tank (LUST) lists; and other documents as are reasonably ascertainable
- Previous environmental site assessment reports, tank closure reports, subsurface investigation reports, corrective action reports, audit reports, and related Federal and state correspondence provided by client or property owner
- On-site records related to environmental compliance and hazardous substance and petroleum product usage, storage, inventories, handling, and disposal
- Standard historical sources, which may include aerial photographs, fire insurance maps, and city directories
- Physical setting sources, including United States Geological Survey (USGS) Maps, Soil Conservation Service Maps, and other information as available

### **1.2.2 Site Reconnaissance**

A site reconnaissance was conducted on the property to determine the nature and setting of the site and to visually and/or physically observe the property and any structures on the property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The indoor and outdoor inspections focused on practices that may constitute or contribute to recognized environmental conditions. PPM investigated the following during the site reconnaissance:

- Uses of the site, adjoining properties and surrounding area (past and present).
- Geological, hydrogeological, hydrologic, and topographic conditions.
- Presence of storage tanks; potential polychlorinated biphenyl (PCB)-containing equipment; odors; pools of liquid; containers, use, and handling practices of hazardous substances and petroleum products; pits, ponds, and lagoons; stained soil and pavement; stressed vegetation; solid waste disposal; waste water discharge; wells; septic tanks; drains and sumps; stains or corrosion; and heating/cooling system. If any of these items were identified, PPM attempted to determine the nature and potential environmental concern represented by the item through observation, interviews, and record review.

### **1.2.3 Interviews**

PPM made reasonable attempts to obtain information regarding the site by conducting interviews with the following as deemed appropriate:

- User of report
- Key site manager or site escort, if different
- Current and past owners, occupants, and tenants
- Current and past employees
- State and local environmental, health and emergency response agencies
- Local Fire Department
- Local municipal engineers

### **1.2.4 Level of Inquiry**

As provided in the ASTM E 1527-05 standard practice, performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the property. The practice recognizes reasonable limits of time and cost. Although reasonable cost is not defined, reasonable time is defined as information that can be provided by the source within 20 calendar days of receiving the request by the information provider. If such information was requested

and the report was requested by the user in less than 20 calendar days, PPM will issue an addendum to the report upon receipt.

PPM made reasonable attempts to review locally available records and supplement records that are not locally available with telephone interviews, when applicable. If a known or suspected environmental concern was identified on the federal and state databases, PPM made use of the physical setting information, statistical plume studies, local records, and interviews with state and local agencies to provide our opinion of the impact on the property. In situations where such issues could not be brought to closure by these means, the access and review of state or federal case files by either traveling to the state capital or by requesting the information by mail through the Freedom of Information Act was considered a change in scope.

The ASTM standard practice specifies that all obvious uses of the property be identified from the present back to the property's first developed use, or back to 1940, whichever is earlier. The standard practice also specifies a search interval of standard historical resources of approximately five years. It has been PPM's experience that the standard historical resources most likely to provide usable information on historical use are aerial photographs, local street directories, and fire insurance maps; however, the quality, coverage, and local availability of these resources may be highly variable. If local research of these resources did not attain the ASTM objectives, PPM attempted to supplement this information with interviews and by ordering aerial photographs and Sanborn Fire Insurance maps from a national vendor that specializes in the retrieval of such information. Historical information derived from checking these sources was deemed sufficient to comply with the practice, unless additional research was specifically requested by the client.

One of the User's responsibilities specified by the ASTM standard practice is the checking of land title records for environmental liens and land use limitations. Performance of this responsibility is at the discretion of the User; however, it is typical for title records to be researched prior to purchase of a property. Land title records are also a standard historical resource. If land title records were obtained by the client, PPM requested this information be provided to supplement the historical research. PPM did not conduct a land title search unless specifically requested by the client.

### **1.3 SIGNIFICANT ASSUMPTIONS**

According to the User, the Phase I is a requirement for certification in accordance with the Louisiana Economic Development Site Certification Application.

A statistical study of petroleum hydrocarbon plume lengths originating from underground storage tank (UST) releases was performed by the Texas Bureau of Economic Geology, Geological Circular No. 97-1. The Texas study found that groundwater benzene plumes [defined as 10 parts per billion (ppb) benzene] were less than 380 feet in length in 90 percent of the sites studied and less than 1,200 feet in length in 99 percent of the sites studied. Based on this study, LUST sites identified within the search area (see **Section 4.1**,

**Standard Environmental Record Sources**) that were greater than 1,000 feet from the property were assumed to have a minimal potential to impact the property unless PPM had specialized knowledge to the contrary. Likewise, LUST sites between 500 and 1,000 feet from the property that could reasonably be interpreted to be hydrologically down or cross-gradient were also assumed to have a minimal potential to impact the property unless PPM had specialized knowledge to the contrary. LUST sites less than 500 feet from the property were evaluated on a case-by-case basis.

In the absence of area-specific information such as PPM's specialized knowledge or groundwater data obtained from document review, PPM assumes that the groundwater flow direction in the area of the property mimics the topographical gradient indicated by USGS Topographic Maps discussed in **Section 4.3, Physical Setting Sources**, and will use this implied groundwater flow direction in the evaluation of potential impacts from offsite sources.

Another factor used in considering the potential impact from petroleum hydrocarbon plumes was the presence of intervening hydrologic barriers such as perennial streams, rivers, and lakes. If such a feature was present between an identified petroleum hydrocarbon release and the property, the release was assumed to have a minimal potential to impact the property.

#### **1.4 SCOPE LIMITATIONS**

The scope limitations identified below would be considered data gaps; however, a data gap is only significant if other information and/or professional experience are unable to supplement the missing information in such a way that reasonable opinions can still be made with regard to recognized environmental conditions. The significance of data gaps and how they affected PPM's ability to make reasonable conclusions are discussed in **Section 7.0, Findings/Opinions**.

Scope limitations encountered during this assessment included:

- Unavailability of information regarding the former use of hazardous substances or generation of hazardous waste on the property
- Previous owners were not available for interviews
- Historical sources were not available at the five-year interval defined by the ASTM standard
- The small scale of older historical aerial photographs limited PPM's ability to discern fine details in the determination of land use
- Data failure in determining site history back to 1940 or first development due to the following:
  - The oldest City Directory available from local sources was dated 1941
  - The oldest aerial photographs available from local sources was dated 1941

- No coverage of area for Sanborn Maps
- An environmental lien search was not requested by the User
- Property owner's personal knowledge of the site began in 1996

## 1.5 SPECIAL TERMS AND CONDITIONS

The User did not request or specify any special terms or conditions that would limit or reduce the scope of this assessment with respect to the ASTM E 1527-05 practice.

There may be environmental issues or conditions at a property that parties may wish to assess in connection with commercial real estate that are outside the scope of the ASTM E 1527-05 practice. Non-scope considerations include (but are not limited to) asbestos, lead paint, wetlands, or radon. Non-scope considerations were not included in this assessment unless specifically requested by the User. If such non-scope considerations were not addressed by this assessment, no implication is intended as the relative importance of their absence. If any non-scope considerations were addressed by this assessment, they are identified and discussed in **Section 9.0, Additional Services**, of this report.

## 1.6 USER RELIANCE

The Primary User of this Phase I ESA report is Millhaven Plantation, LLC. The findings and conclusions contained within this report may not be used or relied upon by any other parties without the written consent of Millhaven Plantation, LLC and PPM.

In accordance with the ASTM E 1527-05 practice, this report may be relied upon by the Primary User for a period of up to 180 days. If the property is not acquired before 180 days, the following components of the report must be updated:

- Interviews with owners, operators, and occupants
- Searches for environmental cleanup liens
- Reviews of federal, tribal, state, and local government records
- Visual inspections of the property and of adjoining properties

If a party different from the original User intends to use this report, the subsequent User must also satisfy the following requirements at a minimum:

- Obtain written authorization to rely on the original report from the original User and PPM.
- Fulfill the User's Responsibilities outlined in **Section 1.1**.
- Contract PPM to update the report if the original report is over 180 days and less than one year old.

If the report is greater than one year old at the time of acquisition by any User, no part of the report can be relied upon in order to satisfy all appropriate inquiry.

## 1.7 PPM ACKNOWLEDGEMENT STATEMENT

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in §312.10 of 40 CFR Part 312. We have specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

## 2.0 SITE DESCRIPTION

### 2.1 LOCATION AND LEGAL DESCRIPTION

<b>Street Address:</b>	Intersection of Russell Sage Road and I-20 Service Road Extension		
<b>Parish:</b>	Ouachita		
<b>City, State, Zip Code:</b>	Monroe, Louisiana		
<b>Was a Legal Description Provided?</b>			No
<b>Source of Legal Description:</b>	N/A		
<b>Reference Map:</b>	Figure 1, Site Location Map, in Appendix A, Figures		

### 2.2 SITE AND VICINITY GENERAL CHARACTERISTICS

<b>General Land Use:</b>	Undeveloped				
<b>General Setting:</b>	Industrial/Undeveloped/Agricultural				
<b>General Topography:</b>	Relatively flat				
<b>USGS 7.5 Quadrangle:</b>	<b>Section:</b>	6	<b>Township:</b>	17 N	<b>Range:</b> 5 E
	<b>Name:</b>	Crew Lake			<b>Date:</b> 1982
<b>Coordinates:</b>	<b>Latitude:</b>	32° 29' 6.7"		<b>Longitude:</b>	91° 59' 56"
<b>Nearest Major Thoroughfare:</b>	<b>Name:</b>	I-20			
	<b>Distance:</b>	Adjoining			
	<b>Direction:</b>	North			

## 2.3 SITE USE AND IMPROVEMENTS

<b>Date of Site Visit:</b>	November 2, 2011
<b>Current use of property:</b>	
<p>The property is divided into two tracts of land. Tract 1 is approximately 260 acres and is located west of Russell Sage Road. Tract 2 is approximately 7 acres and located east of Russell Sage Road. Two fish ponds are located on the northern third of Tract 1, while Bayou Bennett flows south along the western third of the property. One power line right-of-way (ROW) and one gas line ROW are located on the western third of Tract 1. The main entrance and access point to Tract 1 is located approximately one quarter mile south of the Russell Sage Road exit off Interstate 20. It is an unimproved gravel drive that is approximately ½ mile long and composed of sand and granite cobblestones. The main access road ends at a former natural gas well pad that was installed in 2007; however, the natural gas well was plugged and abandoned in August 2010. A network of unimproved trails was observed across Tract 1. Most of the trails are overgrown with brush and trees and are not easily accessible from Russell Sage Road.</p>	

<b>Property Size:</b>	Approximately 260 acres (Tract 1) Approximately 7 acres (Tract 2)	<b>Shape:</b>	Irregular
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<b>Describe buildings on site:</b>	
<p>A hunting blind is located on the southern portion of Tract 1. The structure is composed of a roof and three sides made of plywood and a frame constructed with 2x4s. The structure has a floor area of approximately eight square feet. PPM observed the remnants of a former hunting blind also located on the southern side of Tract 1.</p>	

<b>Describe vegetation and landscaping on site:</b>	
<p>The subject property is heavily forested. Vegetation on site consists of oaks, hickories, elm, on the interior and herbaceous growth, brambles and shrubs on unused paths and trails as well as along the various power line and gas line ROWs. Vegetation on both tracts of land is characteristic of secondary growth which indicated that the property has been disturbed in the past. Vegetation includes a mix of hydric and upland plants.</p>	

<b>Describe roads, paths, paved areas on site:</b>	
<p>The main entrance of the property is located off Russell Sage Road. It is composed of gravel, sand, and granite cobblestones and appears to be maintained. A second entrance to the property is located south of the newly constructed Interstate 20 Service Road Extension, which adjoins the property to the north. The gas line ROW along the western edge of the property is well used and is likely maintained by Crosstex Energy Services, L.P. A number of unimproved trails and paths were observed on the property. The remaining trails and the power line ROW are over grown with vegetation and do not appear to be regularly maintained or used by the landowner. No paved areas were observed onsite.</p>	

<b>Type of Sewage Disposal:</b>	None
<b>Source of Drinking Water:</b>	None
<b>Type of HVAC System:</b>	None

<b>Adjoining Roads:</b>	
<b>North:</b>	Interstate 20 Service Road Extension
<b>East:</b>	Russell Sage Road

<b>South:</b>	None
<b>West:</b>	None

<b>Reference Map:</b>	Figure 2, Area/Site Map, in Appendix A, Figures
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<b>Reference Photographs:</b>	Site Photographs, Appendix B
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## 2.4 CURRENT USES OF ADJOINING PROPERTIES

From Due North, then Clockwise:	
<b>Name:</b>	Former General Motors Delphi Facility/Guide Corporation, LLC (Guide)
<b>Address:</b>	11000 Russell Sage Road
<b>Use:</b>	Former auto parts manufacturing facility
<b>Direction:</b>	North
<b>Intervening Street:</b>	Interstate 20 and Interstate 20 Service Road Extension

<b>Name:</b>	Undeveloped wooded land
<b>Address:</b>	Russell Sage Road
<b>Use:</b>	Undeveloped wooded land
<b>Direction:</b>	Northeast
<b>Intervening Street:</b>	None

<b>Name:</b>	Undeveloped wooded land
<b>Address:</b>	Russell Sage Road
<b>Use:</b>	Undeveloped wooded land
<b>Direction:</b>	East
<b>Intervening Street:</b>	None

<b>Name:</b>	Russell Sage Wildlife Management Area
<b>Address:</b>	Russell Sage Road
<b>Use:</b>	Undeveloped wooded land
<b>Direction:</b>	Southeast
<b>Intervening Street:</b>	Russell Sage Road

<b>Name:</b>	Hunting camp
<b>Address:</b>	Russell Sage Road



<b>Use:</b>	Undeveloped wooded land
<b>Direction:</b>	Southeast
<b>Intervening Street:</b>	None

<b>Name:</b>	Waste Management of Louisiana, Magnolia Landfill
<b>Address:</b>	1000 Russell Sage Road
<b>Use:</b>	Landfill
<b>Direction:</b>	South
<b>Intervening Street:</b>	None

<b>Name:</b>	Agriculture field
<b>Address:</b>	None
<b>Use:</b>	Agriculture
<b>Direction:</b>	West
<b>Intervening Street:</b>	None

<b>Reference Map:</b>	Figure 2 Area/Site Map, in Appendix A, Figures
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<b>Reference Photographs:</b>	Site Photographs, Appendix B
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### 3.0 USER PROVIDED INFORMATION

#### 3.1 TITLE RECORDS

<b>Did the User provide title records for the property?</b>	No
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#### 3.2 ENVIRONMENTAL LIENS OR ACTIVITY AND USE LIMITATIONS

<b>Is the User aware of any environmental cleanup liens against the property that are filed or recorded under federal, tribal, state, or local law?</b>	No
<b>Is the User aware of any AULs, such as engineering controls, land use restrictions, or institutional controls that are in place at the site and/or have been filed or recorded under federal, tribal, state, or local law?</b>	No

#### 3.3 SPECIALIZED KNOWLEDGE

<b>Does the User have any specialized knowledge or experience related to the property or nearby properties? For example, is the User involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?</b>	Yes
<b>Is the User aware of any commonly known or reasonably ascertainable</b>	Yes

information about the property that would help PPM identify conditions indicative of releases or threatened releases?		
a.	Does the User know the past uses of the property?	Yes
b.	Does the User know of specific chemicals that are present or once were present at the property?	No
c.	Does the User know of any spills or other chemical releases that have taken place at the property?	No
d.	Does the User know of environmental cleanups that have taken place at the property?	No
Based on the User's knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?		No

Comments: The user was able to describe the past use of the property from the time of acquisition by her family in 1917. Details given by the User are included in Section 6.0, Interviews, of this report.

### 3.4 VALUATION REDUCTION FOR ENVIRONMENTAL ISSUES

Does the User believe the purchase price for this property reasonably reflects the fair market value of the property?	No
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### 3.5 OWNER INFORMATION

Property Owner:	Millhaven Plantation, LLC
Owner Representative:	Mrs. Rebecca H. Harrod and Mr. Frederick Huenefeld Jr.
Address:	1401 Hudson Lane, Ste. 300 Monroe, Louisiana
Telephone Number:	318-325-5558 Ext. 6, or 318-348-2733

### 3.6 REASON FOR PERFORMING PHASE I

Reason for Phase I:	Louisiana Economic Development Site Certification
Type of Transaction:	Not applicable
Special Instructions:	None

### 3.7 OTHER INFORMATION PROVIDED BY USER

Millhaven Plantation, LLC provided PPM with copies of ROW agreements and a copy of a State of Louisiana, Office of Conservation Plug and Abandon Report describing closure of an oil well on the property, and are included in Section 4.2.2, Other Environmental Records/Sources.

## 4.0 RECORDS REVIEW

### 4.1 STANDARD ENVIRONMENTAL RECORD SOURCES

Standard environmental record resources were researched by obtaining regulatory databases from a national vendor that specializes in the retrieval of such information. The regulatory database report is provided in **Appendix C, Regulatory Research Documentation**.

Type of Site	Search Distance	Number Identified	
		Potential	Actual
NPL	1 mile	0	0
NPL Delisted Sites	0.5 mile	0	0
CERCLIS	0.5 mile	0	0
CERCLIS-NERAP	0.5 mile	0	0
RCRA CORRACTS	1 mile	0	0
RCRA TSD	0.5 mile	0	0
RCRA Generator	On or Adjoining	0	0
ERNS	On site	0	0
State/Tribal Equivalent NPL	1 mile	0	0
State/Tribal Equivalent CERCLIS	0.5 mile	0	0
State/Tribal Landfill/SWD	0.5 mile	0	1
State/Tribal LUST	0.5 mile	0	0
State/Tribal RUST	On or Adjoining	0	0
Institutional/Engineering Control	On site	0	0
Voluntary Cleanup Sites	0.5 mile	0	0
Brownfields Sites	0.5 mile	0	0
Database Provider:	Environmental Data Resources, see <b>Appendix C</b>		

#### Orphan Summary:

The orphan Summary Section of the Environmental Data Resources (EDR) Report summarizes properties with poor, inadequate, or ambiguous address information that could not be mapped.

According to the Summary, there were eighteen registered underground storage tank (RUST) facilities identified in the orphan summary of the environmental database report; however, due to the distance (more than 1,500 feet) between the RUST sites and the subject property, all of them have been dismissed from further discussion within this report. The summary indicates that there were eight RCRA-CESQG facilities identified in the orphan summary of the database report; however, PPM verified that all of the RCRA facilities identified in the orphan Summary were located greater than 500 feet from the subject property. Due to the distance between these facilities and the subject property, they have been dismissed from further discussion within this report.

The Orphan Summary also identified four reported spills (SPILLS), eight Facility Index System sites (FINDS), four Emergency Response Notifications sites ERNS, one LUST and one Historical Leaking Underground Storage Tank site (HIST LUST). Based on the

address given in the Orphan Summary, all were located greater than 1,000 feet from the subject property.

**Zip Code Scan:**

The Zip Code Scan section of the EDR Report searches that same federal Databases as the Orphan Summary and identifies sites that are within the same zip code as the subject property. Several addresses were identified in close proximity to the subject property. Using data presented in the Zip Code Scan, the following facilities were identified as suspect sites: Waste Management of Louisiana - Magnolia Sanitary Landfill, Guide Corporate, LLC (V-Vehicle Co., Inland Fisher Guide, General Motors Corporation, Guide Monroe), CWI - White Oaks Landfill (WCI White Oaks Land Fill), and BFI - White Oaks Landfill.

INFORMATION FROM EDR SITE REPORTS ABOUT FACILITIES IDENTIFIED BY ZIP CODE SCAN:			
<b>Site Name:</b>	V-Vehicle Co. - Monroe Plant	<b>Type:</b>	RUST
<b>Site Address:</b>	11000 Millhaven Road		
<b>Database Distance &amp; Direction:</b>	Not provided		
<b>Actual Distance &amp; Direction:</b>	Adjoining to the north		
<b>Database Data:</b>	The database report indicated that a single compartment, fiberglass/plastic, 8,000-gallon UST was installed in January 1978 and removed by February 1993. The UST reportedly contained drawing compound. No additional information was provided by the database report.		
<b>Observations:</b>	PPM observed the facility north of the subject property. PPM was not able to access the facility property, but did observe the facility from the roadway. The facility appeared vacant during the area reconnaissance. Bennett Bayou flows south from the facility onto the subject property.		

<b>Site Name:</b>	11000 Millhaven Road	<b>Type:</b>	ERNS
<b>Site Address:</b>	11000 Millhaven Road		
<b>Database Distance &amp; Direction:</b>	Not provided		
<b>Actual Distance &amp; Direction:</b>	Adjoining to the north		
<b>Database Data:</b>	The database report indicated that an unidentified substance was released to the soil on February 9, 1996. According to the Site Report, the leak was caused by a leak in the solvent recovery system. The report indicated that the release was secured and reported to the Louisiana Department of Environmental Quality (LDEQ).		
<b>Observations:</b>	PPM observed the facility north of the subject property. PPM was not able to access the facility property, but did observe the facility from the roadway. The facility appeared vacant during the area reconnaissance.		

<b>Site Name:</b>	General Motors Corporation - Guide Monroe	<b>Type:</b>	RCRA, CERCLIS- NFRAP
<b>Site Address:</b>	11000 Millhaven Road		
<b>Database Distance &amp; Direction:</b>	Not provided		

<b>Actual Distance &amp; Direction:</b>	Adjoining to the north
<b>Database Data:</b>	<p>According to the site report, the facility was identified as a RCRA non-generator of hazardous waste. The facility was listed as a RCRA large quantity generator (LQG) from 1980 until 2007 and was listed as generating the following hazardous wastes: ignitable hazardous waste (D001 waste code), corrosive hazardous waste (D002 waste code), cadmium (D006 waste code), chromium (D007 waste code), lead (D008 waste code), mercury (D009 waste code), methyl ethyl ketone (D035 waste code), and spent non-halogenated solvents (F003 and F005 waste code). According to the last biennial waste report in 2005, the facility handled the following hazardous wastes: ignitable hazardous wastes (D001 waste code), corrosive hazardous wastes (D002 waste code), barium (D005 waste code), cadmium (D006 waste code), chromium (D007 waste code), benzene (D018 waste code), methyl ethyl ketone (D035 waste code), pyridine (D038 waste code), tetrachloroethylene (D039 waste code), trichloroethylene (D040 waste code), and spent non-halogenated solvents (F003 and F005 waste codes). The facility received violations consisting of generator – pre-transport, generator – records/reporting, generator – general requirements between 1985 and 2001; however, compliance was achieved following each violation. Two compliance orders were issued for the facility in 1991 and 1995. On-site compliance evaluation inspections were conducted on an annual basis between 1983 and 2005.</p> <p>The facility is listed as a CERCLIS-NFRAP facility. The site was identified as a CERCLIS facility in April 1982. A preliminary assessment was conducted in August 1982 and following assessment, the site was archived. The facility was required to submit Toxic Chemical Release Inventory Reports annually. Based on information provided in the 2006 report, the facility reported storage of N-butyl alcohol and styrene.</p>
<b>Observations:</b>	PPM observed the facility north of the subject property. PPM was not able to access the facility property, but did observe the facility from the roadway. The facility appeared vacant during the area reconnaissance.

<b>Site Name:</b>	Waste Management of Louisiana - Magnolia Sanitary Landfill	<b>Type:</b>	RCRA-CESQG
<b>Site Address:</b>	1000 Russell Sage Road		
<b>Database Distance and Direction</b>	Not provided		
<b>Actual Distance &amp; Direction:</b>	Adjoining south		
<b>Database Information:</b>	According to the site report, the facility located south of the subject property, is a RCRA-CESQG that generates ignitable hazardous wastes (D001 waste code); however, no violations were noted. On-site compliance inspections were conducted in 1989 and 2006.		
<b>Observations:</b>	During the area reconnaissance, PPM observed the facility adjoining the subject property to the south. The facility is an active landfill. PPM observed several ASTs, a truck scale, dumpsters, solid waste and a shop facility where vehicle maintenance occurs. Several tractors and loaders were observed atop the active portion of the landfill. PPM also observed a ditch running along the site's northern boundary with the subject property, and two aeration ponds near the facility's headquarters.		

<b>Site Name:</b>	CWI - White Oaks Landfill (WCI White Oaks Land Fill)	<b>Type:</b>	SWF/LF, SPILLS
<b>Site Address:</b>	588 Meadowlark Lane		

<b>Distance &amp; Direction:</b>	Approximately 3,500 feet northeast
<b>Database Information:</b>	<p>According to the site report, CWI-White Oaks Landfill (WCI White Oaks Land Fill) is listed as a Type I, II, and III permitted solid waste disposal facility. The first permit was issued to the facility in 1996. Administrative orders were issued to the facility in 2009 and 2010.</p> <p>A spill was reported for the facility in January 2008. According to the report, water and soil were impacted; however, the incident status is shown as closed.</p>
<b>Observations:</b>	PPM observed this to be an active landfill facility. The facility is a permitted Type I/II and III facility and receives non-hazardous waste. PPM observed activity near the active cells, as well as a water impoundment near the Meadowlark Lane. Perimeter observation wells were noted surrounding the facility.

## 4.2 ADDITIONAL ENVIRONMENTAL RECORD SOURCES

### 4.2.1 Additional Environmental Database Sources

Multiple other non-ASTM databases were reviewed to determine if facilities that may adversely affect the subject property were located in the area. With the exception of those sites discussed above, no additional sites were identified on the additional databases located in close proximity to the subject property.

### 4.2.2 Other Environmental Records/Sources

#### Millhaven Plantation-South

<b>Title:</b>	Right-of-Way Grants	<b>Source:</b>	Owners	<b>Date:</b>	1925-1973
<p>The User provided copies of eleven ROW grants. The earliest ROW was granted in 1925 by Mr. Carl Frederick Huenefeld to the Crusader Pipeline Company. The pipeline is used for "transportation of oil, petroleum or any of its products, gas, water, and other substances".</p> <p>In 1928, Mr. Carl Frederick Huenefeld granted a ROW to Moody and Seagraves a ROW for telephone and telegraph lines.</p> <p>In 1934 and 1935, Mr. Carl Frederick Huenefeld granted portions of his property to Ouachita Parish for a public canal known as Bennett Bayou Canal Cutoff and Upper Bennett Bayou.</p> <p>In 1947, Mr. Carl Frederick Huenefeld's successor, Mr. Frederick W. Huenefeld, granted a ROW to Ouachita Parish for construction and improvement of drainage facilities across his property.</p> <p>In 1969, Mr. Frederick W. Huenefeld granted two ROW grants to the Texas Gas Transmission Corporation for a pipeline across the property. The ROWs include a description for the use of the pipeline; "for the transportation of oil, gas, petroleum products, or any other liquids, gases or substances, which can be transported through a pipeline".</p> <p>In 1973, Mr. Frederick W. Huenefeld, Jr. granted a portion of his property as a ROW to The Texas Gas Transmission Corporation. Included in this ROW are terms for the burial of a "cathodic protection station" on the property. This station is described in the ROW and is said to include buried low voltage cables and metallic ground plates designed to provide cathodic protection for the nearby gas pipeline.</p> <p>In 1984, Fred Huenefeld Jr. granted a servitude of passage for ingress and egress to Mr. Herschel R.</p>					

Sullivan of Herschel Farms, Inc.

In 1985, Mr. Frederick W. Huenefeld, Jr. granted a ROW to Louisiana Power and Light Company so the company could construct, operate, and maintain electric lines and support poles along Millhaven Road.

A 1986, Mr. Frederick W. Huenefeld, Jr. granted a ROW to Louisiana Gas Service Company to install a pipeline and transport natural gas/artificial gas across the property.

<b>Title:</b>	Plug and Abandon Work Permit No. 280-10	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	September 2010
<p>A Plug and Abandon Report was approved by the Louisiana Office of Conservation in September 2010. The report indicates that one formerly active well operated by Caruthers Producing Co., Inc. was plugged and abandoned in accordance to the Rules and Regulations of the Office of Conservation. According to the work permit one cast iron bridge plug was inserted into the well casing to a depth of approximately 3,440, along with a total of approximately 300 feet of cement. According to the report, cement weighing 15.6 lbs/gal was injected into the casing. The casing was cut 10 feet below ground level and a plate with a serial number was welded to the top of the casing.</p>					

### Waste Management of Louisiana, Magnolia Sanitary Land

<b>Title:</b>	Quarterly Groundwater Monitoring Report (QMR)	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	July 2011
<p>A quarterly ground water monitoring report was issued by Icon Environmental Services on July 15, 2011. This report documented a quarterly groundwater monitoring event that occurred on April 20 and 21, 2011. According to the report, this event was the 26<sup>th</sup> semi-annual event conducted at the facility. As in past events, it was conducted in accordance with the facility's groundwater monitoring plan and the Louisiana Solid Waste Regulations.</p> <p>The findings in the report indicate that groundwater flows towards the southeast at approximately 20 ft/year. According to the report, these findings were consistent with historical groundwater conditions. No volatile organic compounds were detected in any of the twelve wells (two up gradient and ten down gradient) sampled during this event.</p>					

<b>Title:</b>	Title V Air Permit No. 2160-00075-V4	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	February 2011
<p>A Part 70 Operating Permit was issued by the LDEQ to the facility on February 24, 2011. It is the fourth version of the original Part 70 operating permit first issued in May 1999 (V0). A permit modification was issued in 2003 (V1) and permit renewals were issued in May 2004 (V2) and again in February 2010 (V3).</p> <p>According to the application, the facility is a municipal solid waste disposal facility that receives a variety of non-hazardous solid waste which is disposed of by landfilling. The facility is supported by a variety of operations and maintenance related activities including operation and maintenance of mobile and non-mobile equipment, and equipment powered by internal combustion engines, storage of motor fuels and lubricant and handling of leachate removed from the landfill prior to disposal.</p> <p>According to the document, approximately 9.844 tons per year (TPY) of volatile organic compound (VOC) toxic air pollutants (TAP), and 7.746 TPY of other VOCs are emitted from the facility annually. Emissions associated with the facility and the most recent modification of the permit were reviewed by the LDEQ to ensure compliance with the National Ambient Air Quality Standards (NAAQS) and the Ambient Air Standards (AAS). The LDEQ did not require the applicant to model emissions.</p>					

<b>Title:</b>	Discharge Monitoring Report (DMR)	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	September 2011
<p>This document is the most recent discharge monitoring report completed for the third quarter of 2011. The</p>					

report indicates that there was no discharge from any of the permitted outfalls during the third quarter. No excursions were recorded.

<b>Title:</b>	Stormwater Discharge Permit-LPDES Permit No. LA0075817	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	May 2010
<p>The Louisiana Pollutant Discharge Elimination System (LPDES) permit grants the non-hazardous solid waste landfill facility the permission to discharge treated leachate, treated contact stormwater, treated sanitary wastewater, treated washwater, treated maintenance wastewater, and non-contact stormwater into an unnamed ditch, which flows to Gourd Bayou, thence into Young's Bayou. The permit also includes the discharge of non-contact stormwater from the adjacent clay mining-pit and dewatering operation into Gourd Bayou, thence into Young's Bayou.</p> <p>This permit was issued on May 4, 2010, and expires June 1, 2015. The facility is authorized to discharge from the following outfalls:</p> <p>001-Non-contact stormwater and discharges from Outfall 101 located in the northwest corner of the sedimentation pond          101-Contact stormwater, leachate, maintenance wastewater, sanitary wastewater and washwater; located near the front gate          005-Non-contact stormwater runoff; located on the east side of Gourd Bayou south of Outfall 101          006-Non-contact stormwater runoff; located in the southwest corner of the borrow area site          007-Non-contact stormwater runoff; located approximately ¼ mile south of Outfall 006.</p> <p>The outfalls are sampled regularly. Outfall 001 is monitored daily for flow (MGD), and sampled monthly for total organic carbon (TOC); oil and grease; chlorides; sulfates; turbidity; and pH. The outfall is sampled quarterly for biomonitoring data. Outfall 101 is monitored continuously for flow, and sampled monthly for biological oxygen demand (BOD), total suspended solids (TSS), ammonia-nitrogen, fecal coliform and pH. It is sampled once per quarter for alpha terpineol, benzoic acid, p-cresol, zinc and phenol, and annually for priority pollutants. Outfalls 005,006,007 are monitored daily for flow, and sampled monthly for TSS, oil and grease, turbidity, and pH.</p>					

<b>Title:</b>	Standard Type I and II Permit Renewal-Permit No. P-0046R1	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	July 2008
<p>The Standard Type I and II permit was issued to Magnolia Landfill by the LDEQ in July 2008. The permit expires July in 2018. The permit authorizes the facility to accept, bury, monitor and manage nonhazardous non liquid wastes. Residential and commercial wastes are projected to make up 85 percent of the waste tonnage, and 15 percent industrial. The permit describes methane capture methods, ground water monitoring requirements, and technical details describing landfill operations and impacts to the ecology and economy of the region.</p>					

### **Guide Corporation, LLC**

<b>Title:</b>	Phase I ESA	<b>Source:</b>	PPM Consultants, Inc.	<b>Date:</b>	2008
<p>A Phase I Environmental Site Assessment was conducted in 2008 by PPM to determine if recognized environmental conditions were present at the facility. Nine historical recognized environmental conditions were identified and included: the railroad spur (HR-1), solvent recovery area (HR-2), north equipment room transfer area (HR-3), the autophoretic bake oven (HR-4), the hazardous waste storage area (HR-5), the press pit area (HR-6), open floor drains along the chromium coating process line (HR-7), parts washing activities in the chromium coating process area (HR-8), and historic sanitary sewer lift station failures (HR-9). Nineteen recognized environmental conditions were identified as well and included the following: secondary containment drain (1), vacuum pump room sumps (2), PCB containing capacitors (3), a leaking ceiling vent (4), the battery recharge area (5), closed floor drains, sumps, trenches and underground air</p>					



conditioning ductwork (6), the tool room (7), the press oil/drawing compound seepage in the former injection molding operations area (8), former underground storage tanks (9), the stormwater retention pond (10), on-site drainage ditches (11), equipment decommissioning on the north equipment yard (12), staining beneath the cooling tower pump (13), staining south of the cooling tower (14), staining on the north equipment yard (15), former cooling tower pumps (16), former hazardous waste storage area (17), the building's roof (18), and adjacent UST/SPILLS/ICIS facility (19). One Non-ASTM E 1527 Environmental Concern was identified at the site and included asbestos containing building material.

<b>Title:</b>	Soil Remediation Plan	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	January 28, 2010
<p>A soil remediation plan was issued to the LDEQ on January 28, 2010 by ALTEC Environmental Consultants, Inc. The plan detailed corrective actions to be conducted at the site in order to achieve concentrations below Risk Evaluation/Corrective Action Program (RECAP) standards for an industrial facility. This document indicates that a subsurface investigation was conducted at the site in September 2009. Soil and groundwater concentrations were compared with RECAP Screening Standards. Areas of interest (AOI) identified for excavation and confirmation sampling included the following: AOI-1 (former thermoplastic molding area), AOI-2 (former thermostat molding area), AOI-3 (hazardous waste storage area), AOI-5 (drainage ditch west of the main building), and AOI-6 (former press pit area). Disposal of excavated soils was planned for transportation and disposal at White Oaks Landfill in Monroe, Louisiana.</p>					

<b>Title:</b>	Remedial Action Completion Report	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	February 15, 2010
<p>A Remedial Action Completion Report was issued to the LDEQ on February 15, 2010, by ALTEC Environmental Consultants, Inc. This document indicates that a subsurface investigation was conducted at the site in September 2009, and additional soil samples were collected from previous sample locations in November 2009 in an attempt to eliminate several areas from further investigation/remediation activities. Sample locations were chosen based on potential problem areas identified as recognized environmental conditions and historical recognized environmental conditions during a previous Phase I (completed in 2008). This document indicates that 600 tons of impacted soil was removed from the site during the remediation activities. The results of the confirmation samples provide evidence that soil identified as impacted during the subsurface investigation has been removed from the site.</p>					

<b>Title:</b>	Certificate of Reuse (EPA and LDEQ)	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	January 2011
<p>The LDEQ and Environmental Protection Agency (EPA) issued a Certificate of Reuse to Guide for the former General Motors/Guide facility located at 11000 Millhaven Road, Monroe, Louisiana. This document indicates that the property owner successfully conducted investigation, remediation, and risk management activities at the facility, and environmental conditions at the property are now protective of human health and the environment based on the property's current and anticipated future use as a commercial and or industrial property.</p>					

### WCI-White Oaks Landfill

<b>Title:</b>	WCI-White Oaks Landfill Quarterly Groundwater Monitoring Report	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	July 2011
<p>A Groundwater Monitoring Report was issued to the LDEQ on July 22, 2011 by Fourrier Consulting Engineers, LLC. This report indicates no volatile organic compounds were detected in any of the perimeter monitoring wells. However, the report states that reportable levels of arsenic, barium, and zinc (3 of 15 metallic COCs) were detected in groundwater on the perimeter of the landfill facility. Although detectable, these levels were below Louisiana RECAP standards for landfills. The groundwater level elevations from eleven monitoring wells and three piezometers were used to construct the potentiometric map included in the report. Historically the inferred flow direction has been from the northwest to the east southeast. As shown in the diagram, the typical east southeast groundwater flow direction was inferred for the east half of the facility. There was; however, an apparent trend towards the northwest along western half of the facility.</p>					

This trend appears seasonal as water levels in the northwest corners drop during the summer months and return to normal in the winter. The cause for the apparent draw down is unknown.

### **Closed BFI-White Oaks Landfill**

<b>Title:</b>	BFI Landfill Closure Plan	<b>Source:</b>	LDEQ-EDMS	<b>Date:</b>	June 1994
A Landfill Closure Plan was issued to the LDEQ on July 7, 1994, by Mader-Miers Engineering, Inc. The Plan was developed in order to close White Oaks Landfill in accordance with state regulations. The facility stopped receiving waste in October 1994 and has been involved with a 30 year monitoring program.					

Full copies of the documents can be found on the disk accompanying this report.

### **4.3 PHYSICAL SETTING SOURCES**

<b>LIST OF PHYSICAL SETTING SOURCES REVIEWED:</b>					
<b>Title:</b>	Crew Lake Quadrangle Topographic Map	<b>Source:</b>	USGS	<b>Date:</b>	1982

**Comments:** The USGS topographic Map suggests that both Tracts 1 and 2 have an approximate elevation between 60-65 feet above mean sea level (MSL) in an area that slopes gently south. According to the Soil Survey of Ouachita Parish, the estimated depth to ground water on both Tracts is between one and six feet below ground surface (BGS). The Soil Survey of Ouachita Parish indicated that soils beneath the site consist of Perry Clays. EDR indicated that Perry Clays drain slowly. Based on topography, the groundwater flow direction is likely towards the south.

Bennett Bayou is located on the western half of Tract 1. It is an intermittent drainage that flows south, but may be seasonally dry. Bennett Bayou flows into Gourd Bayou thence into Young's Bayou.

### **4.4 HISTORICAL USE INFORMATION**

<b>AERIAL PHOTOGRAPHS:</b>		
<b>Year:</b>	<b>Comments:</b>	
1941	<b>Property:</b>	The subject property is undeveloped and appears heavily wooded. One ROW is visible traversing the southwest corner of Tract 1. Bennett Bayou is visible along the western third of Tract 1, and Gourd bayou is visible to the southwest of Tract 1.
	<b>Adjoining:</b>	Adjoining property appears to be undeveloped wooded land.
1951	<b>Property:</b>	The subject property appears to be relatively unchanged since 1941 with the exception of Bennett bayou which appears to have been widened.
	<b>Adjoining:</b>	Adjoining property appears to be relatively unchanged since 1941.
1967	<b>Property:</b>	The subject property shows signs of development, including the construction of two borrow pits/ponds on the northern third of Tract 1 which were likely dug for the construction of Interstate 20 North of the site. One ROW is visible traversing the southwest corner of the site, and the power line ROW on the western third of Tract is visible. It appears that a ROW is located on the northeastern portion of the property and may originate or terminate at the east central interior of Tract 1. The interior of the subject property is still heavily wooded, except for an area in the east central interior associated with the potential terminus of the ROW in the northeast portion of Tract 1. Interstate 20 has been constructed adjoining north of the subject property since 1951 bounding the northern edge of the property from west to east, and Russell Sage Road is visible along the

		eastern portion Tract 1 and the western portion of Tract 2.
	<b>Adjoining:</b>	The adjoining property towards the north and intervened by Interstate 20 appears agricultural in nature. The power line ROW crosses the interstate. Adjoining properties to the east and south are heavily wooded, while adjoining land to the west also appears to be used for agricultural purposes.
1975	<b>Property:</b>	The subject property is relatively unchanged since 1967.
	<b>Adjoining:</b>	Property to the north is developed with an industrial facility. Land to the northeast is wooded, as are adjoining properties towards the east and south. Adjoining properties to the west, southwest and northwest appear agricultural in nature.
1985	<b>Property:</b>	The subject property is relatively unchanged since 1975 with the exceptions of a ROW along the western property boundary, and what appears to be a ROW in the northeastern portion of the property. A new access road connecting Russell Sage Road to the northeast interior is visible. The road appears to connect to the northeastern boundary along Interstate 20.
	<b>Adjoining:</b>	The adjoining properties appear relatively unchanged with the exception of the property to the south having been deforested.
1998	<b>Property:</b>	The subject property is relatively unchanged since 1985. The ROW in the northeastern portion of the property is no longer visible. The main access road connecting Russell Sage Road to the northeast interior is visible.
	<b>Adjoining:</b>	Adjoining properties appear to be relatively unchanged since 1985 with the exception of the southern adjoining property which appears to be under development. There are a number of roads, trails, and water impoundments across the parcel.
2009	<b>Property:</b>	The subject property is relatively unchanged since 1998. The main access road connecting Russell Sage Road to the northeast interior is visible and connects a cleared area along the eastern edge of the east fish pond. Also, a network of trails and paths are visible on the interior of the subject property.
	<b>Adjoining:</b>	Adjoining properties appear to be relatively unchanged since 1998 with the exception of the northwest adjoining property. Adjoining land to the northwest, intervened by Interstate 20, appears to be crossed with a network of trails and/or ROWs of an unknown nature.
<b>Aerial Source:</b>		<b>Dates:</b>
United States Department of Agriculture		1941,1951,1967
United States Geological Survey		1975,1985,1998
Digital Globe		2009
Copies of aerials provided in <b>Appendix D, Historical Records Documentation</b>		

<b>CITY DIRECTORIES:</b>		
<b>Source:</b>	Polk City Directories, Ouachita Public Library Genealogical Index (see <b>Appendix D</b> )	
<b>Year:</b>	<b>Comments:</b>	
1941-1981	<b>Property:</b>	The subject property address was not listed.
	<b>Adjoining:</b>	No adjoining property addresses were listed.
1986	<b>Property:</b>	The subject property address was not listed.
	<b>Adjoining:</b>	Adjacent property listings consisted of the following: <ul style="list-style-type: none"> <li>• Smelser Oil and gas (950 Frontage Road)</li> </ul>
1991	<b>Property:</b>	The subject property address was not listed.
	<b>Adjoining:</b>	Adjacent property listings consisted of the following: <ul style="list-style-type: none"> <li>• SharpCo. Inc. (8770 Frontage Road)</li> </ul>

1995	<b>Property:</b>	The subject property address was not listed.
	<b>Adjoining:</b>	Adjacent property listings consisted of the following: <ul style="list-style-type: none"> <li>• SharpCo. Inc. (8770 Frontage Road)</li> </ul>
2000	<b>Property:</b>	The subject property address was not listed.
	<b>Adjoining:</b>	Adjacent property listings consisted of the following: <ul style="list-style-type: none"> <li>• SharpCo. Inc. (8770 Frontage Road)</li> <li>• Electric Data Systems Corporation, Guide, Inland Fisher Guide, United Auto Workers Local 1977 (11000 Millhaven Road)</li> </ul>
2005	<b>Property:</b>	The subject property address was not listed.
	<b>Adjoining:</b>	Adjacent property listings consisted of the following: <ul style="list-style-type: none"> <li>• Guide (11000 Millhaven Road)</li> <li>• Tennessee Gas Pipeline Company (8680 Frontage Road)</li> <li>• SharpCo. Inc. (8770 Frontage Road)</li> </ul>
2010	<b>Property:</b>	The subject property address was not listed.
	<b>Adjoining:</b>	Adjacent property listings consisted of the following: <ul style="list-style-type: none"> <li>• SharpCo. Inc. (8770 Frontage Road)</li> </ul>

<b>SANBORN MAPS:</b>		
No coverage was available for the subject property.		
<b>Source:</b>	Environmental Data Resources (see <b>Appendix D</b> )	
<b>USGS TOPOGRAPHIC MAPS:</b>		
<b>Quadrangle Name:</b>	Crew Lake, see <b>Figure 1, Appendix A</b>	
Year:	Comments:	
1982	<b>Property:</b>	The subject property appears forested. The East and West Fish ponds are visible on the northern half of the subject property along with Bennett Bayou. One right of way is shown traversing the southwest corner of Tract 1. A power line ROW is located along the western edge of Tract 1 as well. An access road is visible from Russell Sage Road.
	<b>Adjoining:</b>	The adjoining property to the north appears developed with a network of roads, railroad track, and a large building. Interstate 20 is clearly visible to the north and Russell Sage Road is visible to the east. Land to the east is forested, while land to the south has been cleared of vegetation. A small pond is located in the northwest corner of the southern adjoining property and appears to abut the subject property. Land to the west is also clear of vegetation.

## 5.0 SITE RECONNAISSANCE

### 5.1 METHODOLOGY AND LIMITING CONDITIONS

<b>Were there any conditions limiting ability to perform the site inspection?</b>		Yes
<b>1</b>	Vegetation throughout the entire property was unmanaged and in places, impassible. This limited PPMs visibility during the site visit.	
<b>2</b>	Some roads and paths that showed up on aerial photographs of the site were not accessible. It is likely that the unused nature of the property allowed for natural succession to occur and some of the trails were thus vegetated.	
<b>Was there any special methodology used to inspect the target property?</b>		Yes

During the site visit, PPM visually and physically observed the property to the extent not obstructed by bodies of water or other obstacles including levees, creek bottoms, and vegetation. With the owner's verbal permission, PPM utilized an all-terrain vehicle (ATV) to traverse the accessible portions the property. Because of its accessibility and proximity to a landfill, PPM rode the entire perimeter of Tract 1 and traveled all accessible trails into the interior of the property looking for illegal dump sites and other conditions that would warrant concern. PPM also utilized the gas line and power line ROWs to access the property. Bennett's Bayou was observed at six places along its course through Tract 1. PPM observed the west edge of Tract 2 on the ATV (along Russell Sage Road), and walked into the interior.

**General Methodology used to Inspect Property:**

PPM conducted a site and area reconnaissance to verify data provided by Environmental Data Resources and to inspect the site and surrounding properties for conditions that might warrant environmental concern. Observations concerning sites identified by the regulatory database are presented in **Section 4.1**. Observations made of suspect activities in exterior areas on the subject property or on adjoining properties are presented in **Section 5.3, Exterior Observations**. Observations made of suspect activities in interior areas of the subject property are presented in **Section 5.4, Interior Observations**. Observations made of suspect activities for sites in the surrounding area that are not adjoining or were not identified by the regulatory database are presented in **Section 5.2, Area Reconnaissance**.

**5.2 AREA RECONNAISSANCE**

Millhaven Plantation-South is located approximately three miles east of Monroe, Louisiana in an industrial, commercial, and agricultural setting. The former General Motors Corporation/Guide Plant is located on the north adjoining property, intervened by both Interstate 20 and an extension of the I-20 Service Road. Land to the east of Tract 2 is wooded and used as a recreational lease. Land to the south is used by Waste Management, LLC as Magnolia Landfill, and is an active facility. Land to the west of the subject property is agricultural; however, several businesses are located further west of the adjoining property.

EDR provided a list of "Non-Geocoded Sites" located in the general site vicinity whose locations were not mapped due to partial or erroneous addresses. The Non-Geocoded Summary did not identify any sites that appeared to have a potential to be in the study area.

**5.3 EXTERIOR OBSERVATIONS**

Were the following conditions observed or suspected?	Onsite		Adjoining	
	Yes	No	Yes	No
1 Pits, Ponds, and Lagoons	X		X	
2 Stained Soil or Pavement		X	X	
3 Stressed Vegetation		X		X
4 Solid Waste	X		X	
5 Waste Water		X	X	
6 Wells	X		X	
7 Septic Systems		X		X
8 Storage Tanks	X		X	
9 Drums		X	X	
10 Hazardous Substance Containers	X			X
11 Petroleum Product Containers	X		X	
12 Unidentified Substance Containers	X			X
13 Odors	X		X	
14 Pools of Liquid	X		X	
15 Potential PCB Equipment		X		X

**Onsite Conditions Observed/Suspected:**

1	Two fish ponds (East and West) are located on the northern third of Tract 1. The ponds did not
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	<p>appear to be connected to other bodies of water. Both ponds are remnants of borrow pits that were dug for fill dirt during construction of Interstate 20 circa 1967. The ponds appeared free of solid waste, and PPM did not observe sheens or odors. PPM did observe a skeet thrower positioned along the east bank of the East fish pond. PPM also observed used shotgun shells and wading indicative of shooting events over and/or near the east pond.</p> <p>Bennett Bayou flows from north to south and is located along the western third of Tract 1. PPM observed the bayou at six points along the banks, under the new bridge, approximately 100 yards downstream of the new bridge, halfway down the Bayou's course across the property, immediately downstream of the portable bridge, at the power line ROW, and at the gas line ROW. PPM did observe a sheen on water near the gas line ROW; however, there were no indications of petroleum hydrocarbons.</p>
4	<p>Plastic, paper, mason jars, derelict furniture, food containers, and an empty 5-gallon bucket of tractor fluid were observed near the main entrance of Tract 1. PPM also observed an unknown tank that may be a type of automotive fuel tank. The tank was covered in vegetation but measured approximately three feet by three feet and was approximately eight inches in height.</p> <p>A refuse pile was observed on the former well pad. The pile included the remnants of unburned tree limbs, logs and other natural debris, as well as several empty tractor fluid buckets. It appeared that the pile had been recently formed. There was no evidence of staining; however, relatively fresh fill dirt had been spread at the site.</p> <p>One pile of construction timbers was observed in the woods along the southern edge of Tract 1.</p> <p>Litter, including paper products and plastic bags, was observed along the I-20 Service Road Extension, Russell Sage Road, as well as along the southern boundary abutting the landfill facility. PPM observed similar forms of litter in and along portions of Bayou Bennett.</p>
6	<p>PPM did not observe well casings or wells during the site visit; however, a former well pad was observed on Tract 1. There was no evidence of staining; however, fresh fill dirt had been spread at the site.</p>
8	<p>A discarded automotive fuel tank was observed on Tract 1; however, PPM was unable to identify the contents. No staining was observed in the area surrounding the fuel tank.</p>
10,11	<p>Several empty 5-gallon buckets of tractor hydraulic fluid were observed at two points on Tract 1; in the refuse pile near the former well pad, and at the main entrance to the facility off Russell Sage Road. The buckets formerly contained a hazardous, petroleum product. There was no evidence of leaks, staining, or free product around any of the discarded buckets.</p>
12	<p>A discarded automotive fuel tank was observed near the main entrance to Tract 1. However, during the initial site visit, PPM was unable to identify its contents. The tank appeared empty, and there was no evidence of staining, free product or petroleum hydrocarbon odor.</p>
13	<p>The smell of garbage was encountered along the southern border of the property.</p>
14	<p>Water was observed in both the East and West Fish Ponds and in sections of Bennett Bayou.</p>
<p><b>Adjoining Conditions Observed/Suspected:</b> North adjoining property includes the former General Motors Corporation/Guide Facility. Land to the east is undeveloped wooded land while property to the south is owned by Waste Management of Louisiana-Magnolia Landfill and used as an active landfill. Land adjoining the subject property to the west is agricultural.</p>	
1	<p>PPM observed two 500,000-gallon aeration/oxidation ponds while visiting the Waste Management facility. The ponds were utilized for treatment of collected stormwater, landfill leachate, sanitary wastewater, and washwater. The aerators were in operation during the site visit. The ponds are located approximately 200 feet from the southeastern border of the subject property. PPM also observed a large ditch surrounding the landfill facility and abutting the southern border of the subject property.</p>
2	<p>Oil stained soil was observed near the shop building at the waste management facility. The staining was a result of light mechanic work that occurs at the facility. Staining was also observed on and around the truck scale located in front of the facility's scale house.</p>

4	PPM observed solid waste near a dumpster on the Waste Management facility. The dumpster received household solid waste. PPM also observed solid waste associated with landfilling activities in the active cells at the facility. PPM was unable to determine the makeup of the solid waste due to the distance between the observation site and the cells.
5	PPM observed two waste water ponds on the northeastern portion of the Waste Management facility. The aeration and oxidation ponds treat stormwater, leachate, washwater, and sanitary wastewater before being discharged into Gourd Bayou.
6	PPM observed two methane capture wells between the northern boundary of the Waste Management site and the subject property. No evidence was observed of leaks, stains, or stressed vegetation near the capture wells.
8, 11	At the Waste Management facility, PPM observed an active 10,000-gallon diesel AST, an active 1,000-gallon gasoline AST, an active 525-gallon waste oil AST, and two trailer mounted 500-gallon diesel ASTs. PPM also observed an inactive 1,000-gallon AST formerly containing hydraulic fluid and another inactive 1,000-gallon AST formerly containing motor oil. All of the ASTs were within 500 feet of the subject property. There was evidence of staining under the fuel dispenser of the diesel ASTs, but no evidence of staining near the other ASTs. Secondary containment was in place for all the ASTs, which appeared to be in good condition.
9	PPM observed one drum at the Waste Management facility. The drum was used for disposing of solid waste.
13	A garbage odor was observed on the Waste Management facility.
14	PPM observed two 500,000-gallon aeration/oxidation ponds while visiting the Waste Management facility. The ponds were approximately collected stormwater, landfill leachate, sanitary wastewater, and washwater. The aerators were in operation during the site visit. The ponds were located approximately 200 feet from the southeastern border of the subject property. PPM also observed a large ditch surrounding the landfill facility and abutting the southern border of the subject property.

#### 5.4 INTERIOR OBSERVATIONS

Are there any interior spaces on the property?	Yes
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If yes, were the following conditions observed or suspected?	Onsite	
	Yes	No
1 Stains or Corrosion		X
2 Drains and Sumps		X
3 Oil Water Separators		X
4 Storage Tanks		X
5 Drums		X
6 Hazardous Substance Containers		X
7 Petroleum Product Containers		X
8 Unidentified Substance Containers		X
9 Odors		X
10 Pools of Liquid		X
11 Potential PCB Equipment		X

## 6.0 INTERVIEWS

### 6.1 INTERVIEW WITH OWNER(S)/PREVIOUS OWNER(S)

<b>Interviewer:</b>	Kody J. Chase		
<b>Date(s):</b>	November 2, 2011		
<b>Name:</b>	Mr. Frederick Huenefeld, Sr., Mr. Frederick Huenefeld Jr., Mrs. Rebecca H. Harrod		
<b>Affiliation:</b>	Current Owners		
<b>Title/Job:</b>	Owners, Millhaven Plantation, LLC	<b>Phone:</b>	318-325-5558
<b>Address:</b>	1400 Hudson Lane		
<p><b>Comments:</b> According to the current owners, Mrs. Rebecca Harrod and Mr. Frederick Huenefeld Jr., the property was purchased from their father, Mr. Frederick Huenefeld Sr. in 1996. They advised PPM that they do not visit the property regularly, and that it has only been used for recreational purposes since its acquisition. They told PPM that they were not aware of environmental investigations or liens against the property.</p> <p>Mr. Huenefeld and Mrs. Harrod advised that the property had been clear cut before they purchased it. They advised that two former borrow pits, now called the East and West fish ponds, were dug in the mid-1960s during the construction of Interstate 20. They advised PPM of several ROW grants issued during the early to mid-1900s. ROWs granted by the owners include several gas lines and phone lines, as well as improving Bennett's Bayou by widening for use as a public canal. The owners provided copies of the ROW grants.</p> <p>When asked to described the drilling operations that have occurred on site, the owners described the installation of one oil well in the early 2000s. They advised that the well produced gas for few months and was plugged and abandoned in summer 2010.</p> <p>The owners were not aware of illegal dump sites associated with the property. They told PPM that the of topsoil added to the former well pad, is dirt and debris created during the construction of the I-20 Service Road Extension which now adjoins the property to the north. The dirt and burned vegetation was stockpiled on the property and was spread by tractors after the project was completed.</p>			

<b>Interviewer:</b>	Kody J. Chase		
<b>Date(s):</b>	November 2, 2011		
<b>Name:</b>	Mr. Frederick Huenefeld Sr.		
<b>Affiliation:</b>	Millhaven Plantation, LLC		
<b>Title/Job:</b>	Former owner	<b>Phone:</b>	318-325-5558
<b>Address:</b>	1400 Hudson Lane		
<p><b>Comments:</b> Mr. Frederick Huenefeld Sr. purchased the property in the mid-50s from his father Mr. Carl Frederick Huenefeld. He told PPM that the property was undeveloped through 1996 when he sold it to Millhaven Plantation, LLC. He advised that the parcel was clear-cut in the mid-1990s and that only select cutting had occurred prior to the clear cut of Tract 1. He was aware of several ROWs granted to a number of companies. He stated that these included gas companies, telephone companies, and power companies. He advised that the borrow pits were constructed in the 1960s during interstate construction and that they were stocked several times with bass and catfish. Mr. Huenefeld Sr. was not aware of environmental liens environmental investigations associated with the property.</p>			



## 6.2 INTERVIEW WITH SITE MANAGER(S)/PREVIOUS SITE MANAGER(S)

**Comments:** Interviews with the site manager were not made by PPM because the site is not actively managed.

## 6.3 INTERVIEW WITH OCCUPANT(S)

**Comments:** Interviews with occupants were not made by PPM because the property is uninhabited.

## 6.4 INTERVIEW WITH LOCAL GOVERNMENT OFFICIALS

<b>Interviewer:</b>	Kody Chase		
<b>Date(s):</b>	November 18, 2011		
<b>Name:</b>	Susan Maxi		
<b>Affiliation:</b>	Ouachita Parish Fire Department		
<b>Title/Job:</b>	Chiefs Secretary	<b>Phone:</b>	318-325-1621
<b>Address:</b>	Ouachita Parish Fire Department P.O. Box 4343 Monroe, LA 71211-4343		
<b>Comments:</b> PPM contacted the Ouachita Parish Fire Department on Friday, November 18 <sup>th</sup> , and left a phone message. Our phone call was not returned before this report was issued and we did not receive any information as of the date of this report; however, if pertinent information is received, it will be provided under a separate cover.			

## 6.5 INTERVIEW WITH OTHERS

<b>Interviewer:</b>	Kody J Chase		
<b>Date(s):</b>	November 4, 2011		
<b>Name:</b>	Mr. Brian Duff		
<b>Affiliation:</b>	Waste Management of Louisiana, LLC		
<b>Title/Job:</b>	Environmental Manager	<b>Phone:</b>	318-343-0765
<b>Address:</b>	1000 Russell Sage Road		
<b>Comments:</b> Mr. Brian Duff is the environmental manager for Waste Management of Louisiana Magnolia Landfill and has been in this position for four years. Mr. Duff told PPM that the Waste Management facility includes nearly 600 acres of land. He advised that the facility has been accepting non-hazardous wastes for disposal since 1986 and is currently operating under Solid Waste Permit No. P-0046R1. The facility is classified as a Type I/II disposal facility. Mr. Duff stated that the facility consists of two general areas, the 242 acre permitted landfill itself and a larger western portion which is used for soil borrowing activities and potentially for future expansions. He advised that the ponds located on the western portion of the property simply contain rainwater and do not receive leachate or storm water from the active facility. According to Mr. Duff, there are a total of seven active disposal cells at the facility (12-19). He also advised PPM that the 242 permitted acres are lined with a clay liner and 60 mm of high density polyethylene sheeting in accordance with LDEQ regulations.			
According to Mr. Duff, there are a total of five outfalls on the property; however, he advised that two have not been constructed, one is not used, and the fourth is the internal outfall from the oxidation pond to the ditch. Mr. Duff advised that two oxidation ponds located near the office building receive stormwater runoff, wash rack water, condensate from the methane capture system, leachate from active cells, and			

sanitary wastewater from the buildings. Active aeration, lengthy retention time and an anti-microbial Ultra-Violet treatment system are used to treat the water. From the oxidation pond, water discharges in to a ditch which carries it west to a settling pond. From here, treated water is discharged (Outfall 001) off the property into the southerly flowing Gourd Bayou. He advised that there had been a few exceedences in the past but did not elaborate on them. The facility is permitted for discharge and currently operates under Water Discharge Permit No. LA0075817.

Mr. Duff told PPM that the facility has an active Groundwater Monitoring Plan. The plan calls for bi-annual sampling of 14 groundwater wells located on the perimeter of the active landfill. He advised that three of the wells are up gradient and eleven are down gradient. Mr. Duff told PPM that there have never been high concentrations of constituents of concern during sampling and testing. He advised that the facility must not only meet the LDEQ's monitoring requirements, but that Waste Management has a number of internal groundwater quality requirements that the facility must meet; however, he did not elaborate on them.

Mr. Duff advised that the facility operates under Title V Permit No. 260-00075-V4. Methane gas produced during decomposition is trapped by a network of approximately 100 methane capture wells and piping. The gas is piped to a flare which burns the methane. Condensate is collected and piped to the oxidation pond which is treated before being discharged into Gourd Bayou.

Mr. Duff told PPM that there are no underground storage tanks on the property, but there are a number of above-ground storage tanks and 55-gallon drums. He advised PPM that the tank inventory included one active 10,000-gallon diesel AST, one active 1,000-gasoline AST, one 525-gallon waste oil AST, and two trailer mounted 500-gallon diesel ASTs. He advised that inactive tanks include one 1,000-gallon AST formerly containing hydraulic fluid and one 1,000-gallon AST formerly containing motor oil. He advised that motor oil and hydraulic oil are now stored in 55-gallon drums inside the shop facility. He advised that a Spill, Prevention, Control, and Countermeasure Plan is in place for the facility's applicable ASTs.

<b>Interviewer:</b>	Kody J. Chase		
<b>Date(s):</b>	November 9, 2011		
<b>Name:</b>	Mr. Don Womack		
<b>Affiliation:</b>	Caruthers Producing Company		
<b>Title/Job:</b>	Contract pumper	<b>Phone:</b>	318-366-7124
<b>Address:</b>	400 Travis Street, Suite 1510		

**Comments:** Mr. Donald Womack is a pump contractor for Caruthers Producing Company.

Mr. Womack was aware of the location of one production well located on the subject property. He advised that his crew drilled the well to a depth of approximately 7,000 feet around September 7, 2007. He advised that the well exploratory in nature but did produce natural gas. According to him, the highest production occurred in January 2008 with approximately 12,000-thousand cubic feet (MCF) of gas over the course of the month.

He stated there were no USTs on the property; however, one 300 barrel AST was used to hold salt water produced by the well. He stated that the well produced very little water so that he did not have to empty the AST during production. He advised that there were no reported leaks, releases or explosions and that the AST was contained in a secondary containment basin consisting of an earthen berm. He advised that the AST and surface pipes were removed from the location in October 2010 when he plugged and abandoned the well. He stated that although regulations require the casing to be cut at five feet BGS, his crew cut the casing at ten feet BGS. A cast iron plug was added to the well along with hundreds of feet of cement.

He advised that several hundred feet of underground fiberglass piping is still on site. He advised that the piping was used to transport natural gas to a sales point south down Russell Sage Road.

## 7.0 FINDINGS/OPINIONS

The findings of this Phase I ESA and PPM's opinions as to whether any of the suspect activities identified represent recognized environmental conditions, historical recognized environmental conditions or *de minimis* conditions associated with the property are presented below.

- **Historical and current use of the property.** According to records reviewed and interviews, the subject property has consisted of undeveloped wooded land since at least the 1941; however, gas and utility ROWs have been present on the property since at least 1925. Two borrow pits were utilized on the site during construction of Interstate 20 in the 1960s. The borrow pits filled with water and are used as fish ponds. Several ROWs were granted to gas pipeline companies, telephone companies, and power companies over the years. According to aerial photographs and vegetation on site, it is evident that the property has been timbered at least once in the past 50 years. At least one natural gas well was drilled in 2007 and produced natural gas for several years. The well was plugged and abandoned in August 2010. There are no permanent buildings on site. Potential concerns with the historic and current use of the property are as follows:

- Natural gas production. According to historical records reviewed and interviews, natural gas production occurred on the subject property beginning in 2007 with the drilling of one exploratory natural gas well. The well, drilled by Caruthers Producing Company, Inc., was previously located on a well pad situated in the northeast corner of Tract 1. The well began producing natural gas shortly after installation and produced approximately 12,000-MCF of natural gas during January 2008. A 12,000-gallon AST, which stored salt water brine produced during production, was located on site while the well was in operation. During interviews, it was suggested that the tank was never emptied due to the low volume of salt water produced. Fiberglass underground piping was previously used to transport product to a sales point located south of the site, off Russell Sage Road.

The natural gas well on the subject site was plugged and abandoned by Caruthers Producing Company, Inc. in October 2010. According to Mr. Don Womack with Caruthers Producing Company, Inc., the well casing was cut at 10 feet BGS and a cast iron plug and cement were added to the bottom well. Mr. Womack, indicated that the bine AST and surface pipes were removed from the subject property; however, underground fiberglass piping, which connected the well to the sales point south of the site, was left in place. In addition, the natural gas production well was installed adjoining the east fish pond. Based on the equipment typically used during the installation of natural gas wells and during natural gas production, chemicals stored on site and used during the natural gas production process, waste typically associated with natural gas production wells, and the close proximity of the east fish pond to the former well pad, the former utilization of the subject property for natural gas

production and the possibility that operations may have impacted on site soil and groundwater, represents a recognized environmental condition.

- Pipeline ROWs. According to aerial photographs reviewed, interviews, and copies of ROW Grants issued by previous owners of the property, gas and petroleum ROWs have existed on the property since at least 1925. During the site visit PPM was able to access all of the ROWs. According to the ROW Grants, the pipelines were authorized to transport oil, gas, petroleum products, water and “any other material that can be transported by pipeline”. Based on the variety of materials that may have been transported through the pipelines on site since the 1920s, the unknown location of the pipelines, the age of the pipelines and potential for leaks and spills, the use of the subject property for pipeline ROW and the potential that transported materials have impacted the subject property represents a recognized environmental condition.
- Debris/refuse piles. PPM observed piles of refuse and debris on the subject site. Plastic, paper, mason jars, derelict furniture, food containers, and an empty 5-gallon bucket of tractor fluid were observed near the main entrance of Tract 1. PPM also observed an unknown tank that may be a type of automotive fuel tank. The tank was covered in vegetation but measured approximately three feet by three feet and was approximately eight inches in height. A refuse pile was observed on the former well pad and included the remnants of unburned tree limbs, logs and other natural debris, as well as several empty tractor fluid buckets. It appeared that the pile had been recently formed. One pile of construction timers was observed in the woods along the southern edge of Tract 1. Litter consisting of paper products and plastic bags, was observed along the I-20 Service Road, Russell Sage Road, as well as along the southern boundary abutting the landfill facility. PPM observed similar forms of litter in and along portions of Bayou Bennett. No stains were observed in the area surrounding the observed materials. The refuse and debris observed on the subject property is not considered to represent a recognized environmental condition.
- Fill material. Fill material consisting of soil and debris was observed on the eastern half of the former natural gas well pad. According to the current owners, the material was generated during the construction of the I-20 Service Road Extension; however, documentation of a laboratory analysis on the soil was not provided. Unless laboratory analytical data is provided to document the absence/presence of contamination in fill material spread on site, the fill material is considered to represent a recognized environmental condition.
- **Historical and current land uses in the surrounding area.** Historically, the surrounding properties consisted of undeveloped wooded land and farmland until the mid-1970s when the former General Motors/Guide facility was constructed on the north adjoining property. In the mid-1980s Waste Management of Louisiana constructed and began operation of Magnolia Landfill on the south adjoining property. Potential concerns associated with the current and historical use of surrounding properties include the following:

- Former General Motors/Guide Facility. The former General Motors/Guide facility located on the up-gradient, north adjoining property, was developed into a manufacturing and distribution facility, which produced automotive headlights for General Motors and other automotive manufacturers in 1974 and operations were subsequently initiated in 1975. According to a Phase I Environmental Site Assessment of the facility issued by PPM in October 2008, historical recognized environmental conditions and recognized environmental conditions were identified at the site and consisted of the following locations: railroad spur, solvent recovery area, north equipment room transformer area, autophoretic bake oven, hazardous waste storage area, press pit area, open floor drains in the former chromium coating process line, parts washing in former chromium coating process area, sanitary sewer lift station failures, secondary containment drain, vacuum pump room sump, PCB-containing capacitors, leaking vent in ceiling, battery recharge area, closed floor drains, sumps, trenches and underground air-conditioning ductwork, tool room, press oil/drawing compound seepage in the former injection molding operations area, USTs, stormwater retention pond, on-site drainage ditches, equipment decommissioning on the north equipment yard, staining beneath the cooling tower pump, staining located south of the cooling tower, staining located on north equipment yard, former cooling tower pumps, former hazardous waste storage area, and building roof.

A subsurface investigation was conducted at the site in September 2009 by ALTEC Environmental Consultants, Inc. Soil and groundwater concentrations were compared with RECAP Screening Standards. AOI identified for excavation and confirmation sampling included the following: AOI-1 (former thermoplastic molding area), AOI-2 (former thermostat molding area), AOI-3 (hazardous waste storage area), AOI-5 (drainage ditch west of the main building), and AOI-6 (former press pit area). A soil remediation plan was issued to the LDEQ on January 28, 2010, by ALTEC Environmental Consultants, Inc. The plan detailed corrective actions to be conducted at the site in order to achieve concentrations below RECAP standards for an industrial facility. A Remedial Action Completion Report was issued to the LDEQ on February 15, 2010 by ALTEC Environmental Consultants, Inc. The document indicated that 600 tons of impacted soil was removed from the site during remediation activities and results of the confirmation samples provided evidence that soil identified as impacted during the subsurface investigation had been removed from the site. The LDEQ and EPA issued a Certificate of Reuse to the facility and indicated that the owner had successfully conducted investigation (including the 2008 Phase I), remediation and risk management activities at the facility, and environmental conditions at the property were now protective of human health and the environment based on the property's current and anticipated future use as a commercial and or industrial property. Although the LDEQ and EPA have issued a Certificate of Reuse for the facility, the historical use of the upgradient property as a manufacturing facility, draining of secondary containment areas and the former hazardous waste storage area to an

onsite ditch, which drains to Bennett Bayou and flows through the subject property, is considered to represent a recognized environmental condition.

- Waste Management Louisiana-Magnolia Landfill. The Zip Code Scan of the EDR report indicated the presence of the facility (a Type I/II landfill), south of the subject property. The facility was also listed as a RCRA-CESQG. PPM confirmed the existence of the active landfill operated by Waste Management of Louisiana. According to interviews and information obtained from LDEQ Electronic Document Management System (EDMS), the facility has permits to accept and process Type I wastes (industrial wastes) and Type II wastes (solid waste and household garbage). The Standard Type I and II permit was issued by LDEQ in May 2008 and became effective in July 2008. The permit expires in July 2018. The permit authorizes the facility to accept, bury, monitor and manage nonhazardous non liquid wastes. Residential and commercial waste are projected to make up 85 percent of the waste tonnage, and 15 percent is industrial. Interviews and documents obtained from EDMS suggest that 12 monitoring wells were installed along the perimeter of the permitted portion of the facility. The wells are sampled during quarterly groundwater monitoring events. Constituents of concern (COCs) include volatile organic compounds and metals including arsenic and lead. According to Mr. Brian Duff, the environmental manager, there have never been exceedences of COCs in ground water samples collected. It was revealed during interviews and in documents obtained from EDMS that groundwater typically flows southeast, away from the subject property. Mr. Duff indicated that the facility does not handle hazardous waste. According to Mr. Duff, the landfill and leachate ponds are lined with clay and a synthetic liner. Mr. Duff advised PPM that the facility operates under a LPDES Wastewater Discharge Permit, a Title V Air permit, and a Solid Waste Permit, which were issued by the LDEQ.

The LPDES permit grants the facility authorization to discharge treated leachate, treated contact stormwater, treated sanitary wastewater, treated washwater, treated maintenance wastewater, and non-contact stormwater into an unnamed ditch, which flows to Gourd bayou, followed by Young's Bayou. The permit also includes the discharge of non-contact stormwater from the adjacent clay mining-pit and dewatering operation into Gourd Bayou. Four internal out falls (101, 005, 006, and 007) and one external outfall (001) are sampled regularly. According to Mr. Duff, the facility has reported exceedances in the past with discharges from outfall 001.

According to Title V Air Permit No. 2160-00075-V4, approximately 9.844 TPY of VOC TAP, and 7.746 TPY of other VOCs are emitted by the facility. According to interviews, there are no underground storage tanks on site; however, above-ground storage tanks and 55-gallon drums were observed within close proximity to the subject property. Mr. Duff advised PPM that the tank inventory included an active 10,000-gallon diesel AST, an active 1,000-gasoline AST, a 525-gallon waste oil AST and two trailer mounted 500-gallon diesel ASTs. Mr. Duff advised that inactive tanks include a 1,000-gallon AST formerly containing hydraulic oil and a 1,000-gallon AST formerly containing

motor oil. According to Mr. Duff, motor oil and hydraulic oil are now stored in 55-gallon drums inside the shop facility. Mr. Duff advised that a Spill, Prevention, Control, and Countermeasure Plan is in place for the facility's applicable ASTs.

Although the site's waste disposal units and water impoundments are lined with clay and a synthetic liner, and the facility actively monitors for groundwater contamination per its groundwater monitoring plan, the presence of a landfill adjoining the subject property with wastewater treatment surface impoundments within close proximity to the property boundary and the potential for impacted groundwater from the landfill to impact the subject property represents a recognized environmental condition.

None of the data gaps presented in **Section 1.4** were considered to be significant, and thus did not impact PPM's ability to form an opinion regarding the presence of recognized environmental conditions.

## 8.0 CONCLUSIONS

PPM has performed a Phase I ESA in general conformance with the scope and limitations of ASTM Standard Practice E 1527-05 at the Millhaven Plantation-South located three miles east of Monroe, Louisiana at the intersection of Russell Sage Road and Interstate 20. This assessment has revealed no evidence of recognized environmental conditions in connection with the property, except for the following:

- **Historical and current use of the property.** According to records reviewed and interviews, the subject property has consisted of undeveloped wooded land since at least the 1941; however, gas and utility ROWs have existed on the property since at least 1925. Two borrow pits were utilized on the site during construction of Interstate 20 in the 1960s. The borrow pits filled with water and are currently used as fish ponds. Several ROWs were granted to gas pipeline companies, telephone companies, and power companies over the years. According to aerial photographs and vegetation on site, it is evident that the property has been timbered at least once in the past 50 years. At least one natural gas well was drilled in 2007 and produced natural gas for a few years. The well was plugged and abandoned in August 2010. There are no permanent buildings on site. Potential concerns with the historic and current use of the property are as follows:
  - Natural gas production. According to historical records reviewed and interviews, natural gas production occurred on the subject property beginning in 2007 with the drilling of one exploratory natural gas well. The well, drilled by Caruthers Producing Company, Inc., was previously located on a well pad situated in the northeast corner of Tract 1. The well began producing natural gas shortly after installation and produced approximately 12,000-MCF of natural gas during January 2008. A 12,000-gallon AST which stored a salt water brine produced during production, was placed on site while the well was in operation.

During interviews, it was suggested that the tank was never emptied due to the low volume of salt water produced. Fiberglass underground piping was previously used to transport product to a sales point located south of the site, off Russell Sage Road.

The natural gas well on the subject site was plugged and abandoned by Caruthers Producing Company, Inc. in October 2010. According to Mr. Don Womack with Caruthers Producing Company, Inc., the well casing was cut at 10 feet BGS and a cast iron plug and cement were added to the bottom well. Mr. Womack, indicated that the bine AST and surface pipes were removed from the subject property; however, underground fiberglass piping, which connected the well to the sales point south of the site remain in place. In addition, the natural gas production well was installed adjoining the east fish pond. Based on the equipment typically used during the installation of natural gas wells and during natural gas production, chemicals stored on site and used during the natural gas production process, waste typically associated with natural gas production wells, and the close proximity of the east fish pond to the former well pad, the former utilization of the subject property for natural gas production and the possibility that operations may have impacted on site soil and groundwater, represents a recognized environmental condition.

- Pipeline ROWs. According to aerial photographs reviewed, interviews, and copies of ROW Grants issued by previous owners of the property, gas and petroleum ROWs have existed on the property since at least 1925. During the site visit PPM was able to access all of the ROWs. According to the ROW Grants, the pipelines were authorized to transport oil, gas, petroleum products, water and “any other material that can be transported by pipeline”. Based on the variety of materials that may have been transported through the pipelines on site since the 1920s, the unknown location of the pipelines, the age of the pipelines and potential for leaks and spills, the use of the subject property for pipeline ROW, transportation of materials, and the potential that transported materials have impacted the subject property represents a recognized environmental condition.
- Fill material. Fill material consisting of soil and debris was observed on the eastern half of the former natural gas well pad. According to the current owners, the material was generated during the construction of the I-20 Service Road Extension; however, documentation of a laboratory analysis on the soil was not provided. Unless laboratory analytical data is provided to document the absence/presence of contamination in fill material on site, the fill material is considered to represent a recognized environmental condition.
- **Historical and current land uses in the surrounding area.** Historically, the surrounding properties consisted of undeveloped wooded land and farmland until the mid-1970s when the former General Motors/Guide facility was constructed on the north adjoining property. In the mid-1980s Waste Management of Louisiana constructed and began operation of Magnolia Landfill on the south adjoining property. Potential concerns associated with the current and historical use of surrounding properties include the following:



- Former General Motors/Guide Facility. The former General Motors/Guide facility located on the up-gradient, north adjoining property, was developed into a manufacturing and distribution facility, which produced automotive headlights for General Motors and other automotive manufacturers in 1974 and operations were subsequently initiated in 1975. According to a Phase I Environmental Site Assessment of the facility issued by PPM in October 2008, historical recognized environmental conditions and recognized environmental conditions were identified at the site and consisted of the following locations: railroad spur, solvent recovery area, north equipment room transformer area, autophoretic bake oven, hazardous waste storage area, press pit area, open floor drains in the former chromium coating process line, parts washing in former chromium coating process area, sanitary sewer lift station failures, secondary containment drain, vacuum pump room sump, PCB-containing capacitors, leaking vent in ceiling, battery recharge area, closed floor drains, sumps, trenches and underground air-conditioning ductwork, tool room, press oil/drawing compound seepage in the former injection molding operations area, former USTs, stormwater retention pond, on-site drainage ditches, equipment decommissioning on the north equipment yard, staining beneath the cooling tower pump, staining located south of the cooling tower, staining located on north equipment yard, former cooling tower pumps, former hazardous waste storage area, and building roof.

A subsurface investigation was conducted at the site in September 2009 by ALTEC Environmental Consultants, Inc. Soil and groundwater concentrations were compared with RECAP Screening Standards. AOI identified for excavation and confirmation sampling included the following: AOI-1 (former thermoplastic molding area), AOI-2 (former thermostat molding area), AOI-3 (hazardous waste storage area), AOI-5 (drainage ditch west of the main building), and AOI-6 (former press pit area). A soil remediation plan was issued to the LDEQ on January 28, 2010 by ALTEC Environmental Consultants, Inc. The plan detailed corrective actions to be conducted at the site in order to achieve concentrations below RECAP standards for an industrial facility. A Remedial Action Completion Report was issued to the LDEQ on February 15, 2010 by ALTEC Environmental Consultants, Inc. The document indicated that 600 tons of impacted soil was removed from the site during remediation activities and results of the confirmation samples provided evidence that soil identified as impacted during the subsurface investigation had been removed from the site. The LDEQ and EPA issued a Certificate of Reuse to the facility and indicated that the owner had successfully conducted investigation, remediation and risk management activities at the facility, and environmental conditions at the property were now protective of human health and the environment based on the property's current and anticipated future use as a commercial and or industrial property. Although the LDEQ and EPA have issued a Certificate of Reuse for the facility, the historical upgradient use of the facility for manufacturing purposes, draining of secondary containment areas and the former hazardous waste storage area to an onsite ditch, which drains to

Bennett Bayou and flows through the subject property, is considered to represent a recognized environmental condition.

- Waste Management Louisiana-Magnolia Landfill. The Zip Code Scan of the EDR report indicated the presence of the Magnolia Landfill (a Type I/II landfill), south of the subject property. The facility was also listed as a RCRA-CESQG. PPM confirmed the existence of the active landfill operated by Waste Management of Louisiana. According to interviews and information obtained from LDEQ EDMS, the facility has permits to accept and process Type I wastes (industrial wastes) and Type II wastes (solid waste and household garbage). The Standard Type I and II permit was issued by LDEQ in May 2008 and became effective in July 2008. The permit expires in July 2018. The permit authorizes the facility to accept, bury, monitor and manage nonhazardous non liquid wastes. Residential and commercial waste are projected to make up 85 percent of the waste tonnage, and 15 percent is industrial. Interviews and documents obtained from EDMS suggest that 12 monitoring wells were installed along the perimeter of the permitted portion of the facility. The wells are sampled during quarterly groundwater monitoring events. COCs include volatile organic compounds and metals including arsenic and lead. According to Mr. Brian Duff, the environmental manager, there have never been exceedences of COCs in ground water samples collected. It was revealed during interviews and in documents obtained from EDMS that groundwater typically flows southeast, away from the subject property. Mr. Duff indicated that the facility does not handle hazardous waste. According to Mr. Duff, the landfill and leachate ponds are lined with clay and a synthetic liner. Mr. Duff advised PPM that the facility operates under a LPDES Wastewater Discharge Permit, a Title V Air permit, and a Solid Waste Permit, which were issued by the LDEQ.

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According to Title V Air Permit No. 2160-00075-V4, approximately 9.844 TPY of VOC TAP, and 7.746 TPY of other VOCs are emitted by the facility. According to interviews, there are no underground storage tanks on site; however, above-ground storage tanks and 55-gallon drums were observed within close proximity to the subject property. Mr. Duff advised PPM that the tank inventory included an active 10,000-gallon diesel AST, an active 1,000-gasoline AST, a 525-gallon waste oil AST and two trailer mounted 500-gallon diesel ASTs. Mr. Duff advised that inactive tanks include a 1,000-gallon AST formerly containing hydraulic oil and a 1,000-gallon AST formerly containing

motor oil. According to Mr. Duff, motor oil and hydraulic oil are now stored in 55-gallon drums inside the shop facility. Mr. Duff advised that a Spill, Prevention, Control, and Countermeasure Plan is in place for the facility's applicable ASTs.

Although the site's waste disposal units and water impoundments are lined with clay and a synthetic liner, and the facility actively monitors for groundwater contamination per its groundwater monitoring plan, the presence of a landfill adjoining the subject property with wastewater treatment surface impoundments within close proximity to the property boundary and the potential for impacted groundwater from the landfill to impact the subject property represents a recognized environmental condition.

## **9.0 ADDITIONAL SERVICES**

There were no additional services provided by PPM under this scope of work.

## 10.0 COMMONLY USED ABBREVIATIONS

The following is a list of abbreviations that are commonly used in Phase I ESA reports:

AST	aboveground storage tank
ASTM	American Society of Testing and Materials
ATG	Automatic Tank Gauge
BTEX	benzene, toluene, ethylbenzene, and xylenes (gasoline components)
BDL	Below Detection Limits
BGS	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CESQG	Conditionally Exempt Small Quantity Generator (<100 kg per month)
CFR	Code of Federal Regulations
CORRACTS	Corrective Action Reports
ECHO	Enforcement & Compliance History Online (from USEPA)
EDR	Environmental Data Resources
ERNS	Emergency Response and Notification System
ESA	Environmental Site Assessment
FRP	Fiberglass Reinforced Plastic
LDEQ	Louisiana Department of Environmental Quality
LQG	Large Quantity Generator of hazardous waste (>1,000 kg per month)
LUST	leaking underground storage tank
NFA	No Further Action
NFRAP	No Further Remedial Action Planned
NPL	National Priority List
MTBE	methyl tertiary butyl ether (common gasoline additive)
PAH	polynuclear aromatic hydrocarbons (common diesel components)
ppm	parts per million
PPM	PPM Consultants, Inc.
RCRA	Resource Conservation and Recovery Act
RUST	registered underground storage tank
SWD	Solid Waste Disposal
SQG	Small Quantity Generator of hazardous waste (100 to 1,000 kg per month)
TSD	Treatment, Storage, and Disposal
USEPA	United States Environmental Protection Agency
USDA	United States Department of Agriculture
USGS	United States Geological Survey
UST	underground storage tank

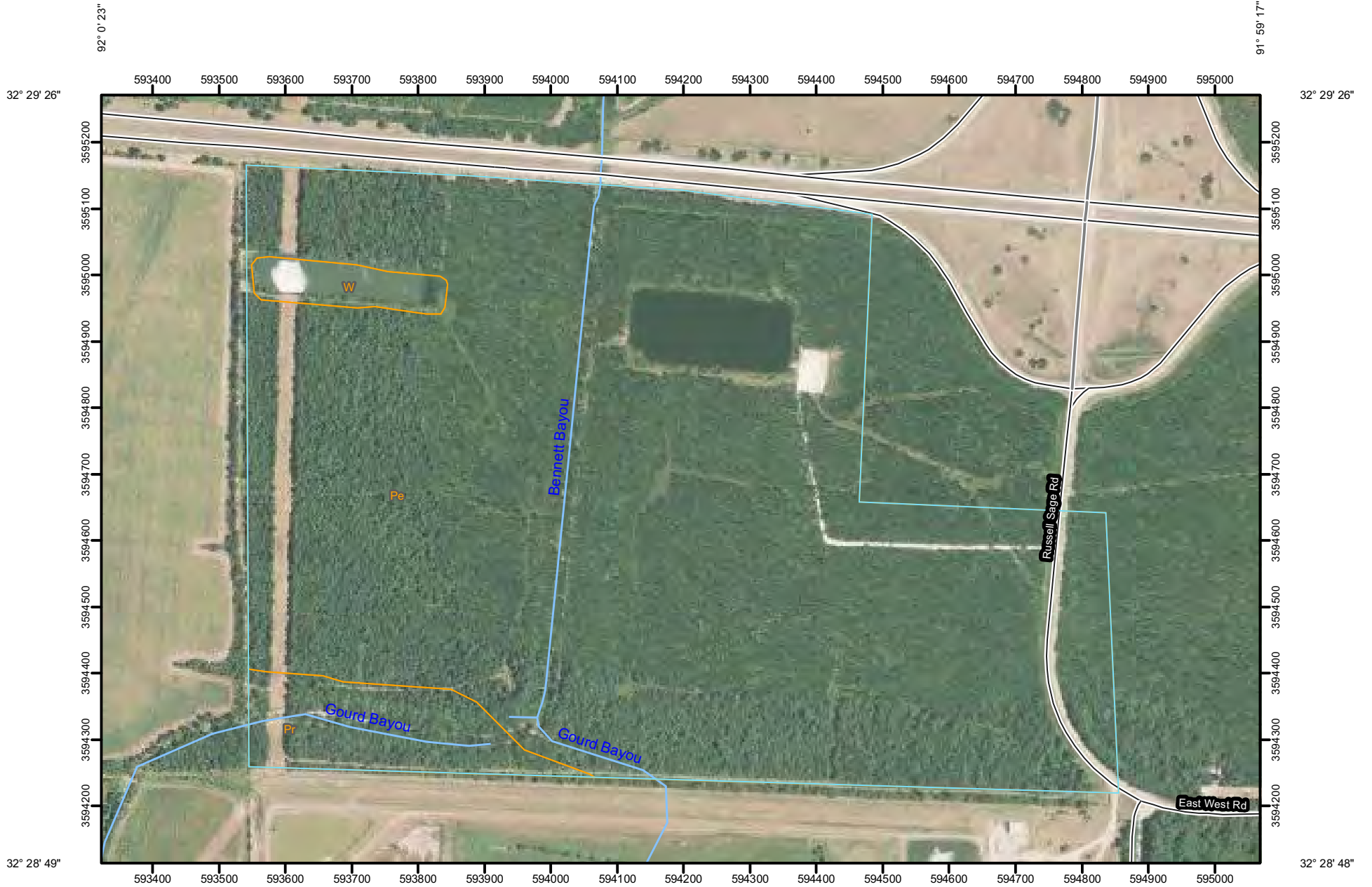
## **APPENDICES**



Google earth



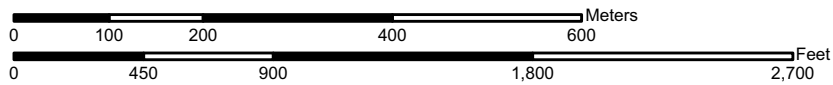
Soil Map—Ouachita Parish, Louisiana  
(Millhaven South)



92° 0' 24"




Map Scale: 1:8,280 if printed on A size (8.5" x 11") sheet.



91° 59' 17"

## MAP LEGEND






















### Area of Interest (AOI)


 Area of Interest (AOI)

### Soils


 Soil Map Units

### Special Point Features




-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot
-  Spoil Area
-  Stony Spot

 Very Stony Spot

 Wet Spot

 Other


### Special Line Features

-  Gully
-  Short Steep Slope
-  Other






### Political Features

 Cities

### Water Features

 Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

## MAP INFORMATION

Map Scale: 1:8,280 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Ouachita Parish, Louisiana  
Survey Area Data: Version 5, Apr 13, 2007

Date(s) aerial images were photographed: Data not available.

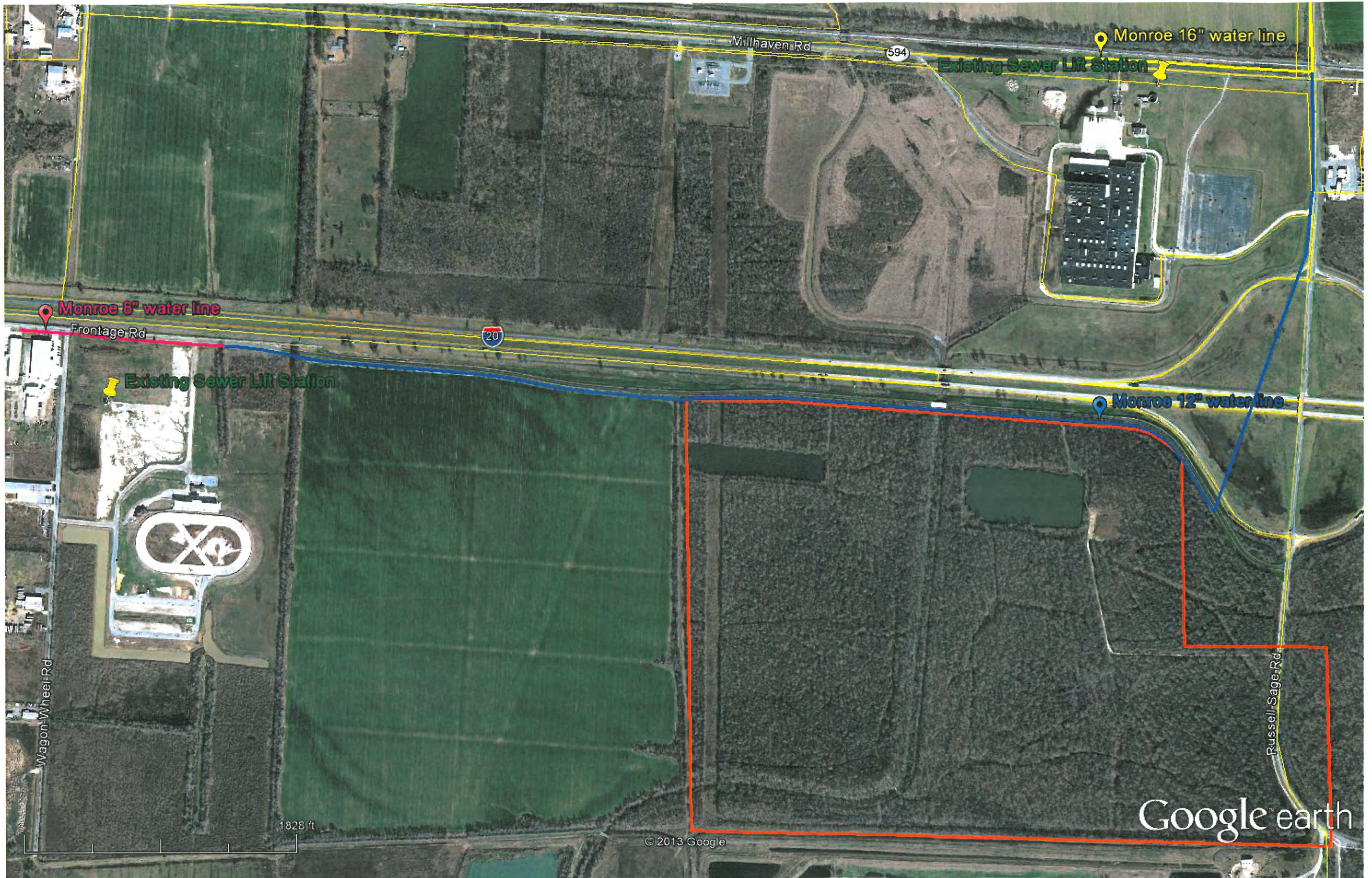
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Ouachita Parish, Louisiana (LA073)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Pe	Perry clay, occasionally flooded	226.9	92.8%
Pr	Portland clay	13.2	5.4%
W	Water	4.4	1.8%
<b>Totals for Area of Interest</b>		<b>244.5</b>	<b>100.0%</b>







# **WETLANDS INVESTIGATION REPORT**

## **I-20 South Tract Highway 594 and Interstate 20 Ouachita Parish, Louisiana**

Prepared for

Harrod and Harrod  
Monroe, Louisiana

Prepared by  
McAbee Wetland Services  
655 Meadowbrook Road  
Jackson, MS 39206

December 5, 2012

## INTRODUCTION

A formal investigation for wetlands and *Other Waters of the U.S.* was conducted for an approximately 232 acre tract of farmland located southwest of the intersection of I-20 Highway 594 (Exhibits 1, 2 and 3). The investigator was Mr. Bill McAbee with McAbee Wetland Services, and the site was investigated on November 30, 2012. Methodology of the investigation followed guidelines set forth in the 1987 COE Wetland Delineation Manual and the Regional Supplement Manual for the Atlantic and Gulf Coastal Plain Region.

## BACKGROUND

The subject property is almost 100% homogeneous bottomland hardwood forest. Part of the Russell Sage Wildlife Management Area is located less than one-quarter mile to the east of the southeastern corner of the subject property. A Waste Management facility was located adjacent and south of the subject property. Bennett Bayou crosses through the site beginning at the southwest corner heading east and then turning north dissecting the subject property as it continues north under I-20 (Exhibits 4 and 5). Bennett Bayou has been channelized and straightened along most of its length through the subject property with spoil located on both sides of the channel. The spoil ranges from approximately 10-15 feet above the bank top and from 30-40 feet wide.

According to the USDA Quadrangle mapping there was a remnant of Gourd Bayou along a small section of the very southern section of the subject property. This remnant channel was most likely significantly impacted by the activities on the adjacent landfill which borders the subject property to the south. There were two ponds located on the north portion of the property that were created from borrow areas during the construction of I-20 (Exhibits 6 and 7).

Improvements on the subject property included a gravel road that leads from Highway 594 to the easternmost pond. Adjacent to the larger pond, at the end of the gravel road, there was a historic fill area that may have been associated with a former oil or gas well facility (Exhibit 8). There was an overhead transmission line row and a gas pipeline row located along the far west side of the property (Exhibit 9 and 10). Both of these utilities run north and south across the entire site. There are abandoned dirt roads throughout the subject property that were apparently used as hunting access roads; most of which are not passable by anything other than an ATV.

The forest was fairly homogeneous due to the flat topography (Exhibits 11 and 12). The dominant canopy species were water oak (*Quercus nigra*), willow oak (*Q. phellos*), delta post oak (*Q. stellata*), cherry bark oak (*Q. pagoda*), green ash (*Fraxinus pennsylvanica*), hackberry (*Celtis laevigata*), water hickory (*Carya aquatica*), and cedar elm (*Ulmus crassifolia*) and winged elm (*Ulmus alata*). Midstory and herbaceous species were minimal due to the dense canopy with the exception of dwarf palmetto (*Sabal minor*).

The natural gas pipeline ROW is regularly maintained with only short grasses and it is apparently used as a property access road at times. The overhead power transmission line ROW is more overgrown but still maintained either annually or semi-annually with no woody vegetation noted, other than some small sapling black willows (*Salix nigra*).

The Ouachita Soil Survey indicates that the soils on the site were 92% Perry Clay, occasionally flooded (Exhibit 13). The Perry Clay, occasionally flooded soils are considered a hydric soil.

A review of the USFWS National Wetland Inventory mapping showed most of the tract as Palustrine Forested, broad-leaved deciduous vegetation, temporarily flooded (PFOIA, Exhibit 14).

## **FINDINGS**

**Wetlands:** Based on the site reconnaissance, and a review of CIR photography, historical aerial photography, USFWS National Wetland Inventory mapping, the USDA Soil Survey for Ouachita Parish, and 7.5 minute topographic quadrangle maps, and a site visit, most of the subject property is forested wetlands. Positive hydrological conditions, vegetation and hydric soil characteristics were clear and distinct throughout the site.

Any impact, permanent or temporary, in a wetland must be permitted through the US Army Corps of Engineers.

**Uplands:** The areas of exception were the borrow area from dredging of Bennett Bayou, the developed road and abandoned oil/gas site pad. The uplands were noted as such due to historic fill material and continued maintenance. A representative data sheet was prepared for the borrow area uplands adjacent to Bayou Bennett, however the roads and abandoned pad site were considered disturbed and data sheets were not completed since there was rock/gravel fill and no vegetation.

Gravel access road = 0.84 acres

Gas well pad site = 0.62 acres

Borrow from Bayou Bennett = 5.5 acres

Total Uplands = 6.96 acres

**Other Waters of the US:** Bayou Bennett is a manipulated perennial stream which extends through the property for approximately 4,029 feet. The nearest Navigable Waterway is Bayou Lafourche which is approximately 5.8 river miles away and 3.8 aerial miles away. The average high water mark was three feet and the average width at the ordinary high water mark was approximately 30 feet. The bank slopes were typically 3:1 or greater with defined bed and bank. At the time of the visit the water was below the ordinary high water mark and there was no flow noted. The bottom was consolidated silt with riffles and pools created by debris and scouring. There was little vegetation.

There were two ponds noted on the site. These ponds were created back in the 1960s from borrow used to build Interstate 20. The banks are 3:1 or greater with little or no emergent or submergent wetland fringe. The eastern pond was 6.4 acres in size and the western pond was 4.0 acres in size.

Other Waters of the US are regulated by the US Army Corps of Engineers and a permit must be acquired before impacting Bennett Bayou or either of the ponds.

Exhibit 15 shows the wetlands, uplands, and "other waters" located within the subject property limits. Wetland Data Forms are located in the Appendix.

Sincerely,



William C. "Bill" McAbee  
McAbee Wetland Services  
655 Meadowbrook Road

Jackson, MS 39206

[wmcabee@mbakercorp.com](mailto:wmcabee@mbakercorp.com)

601.842.8938

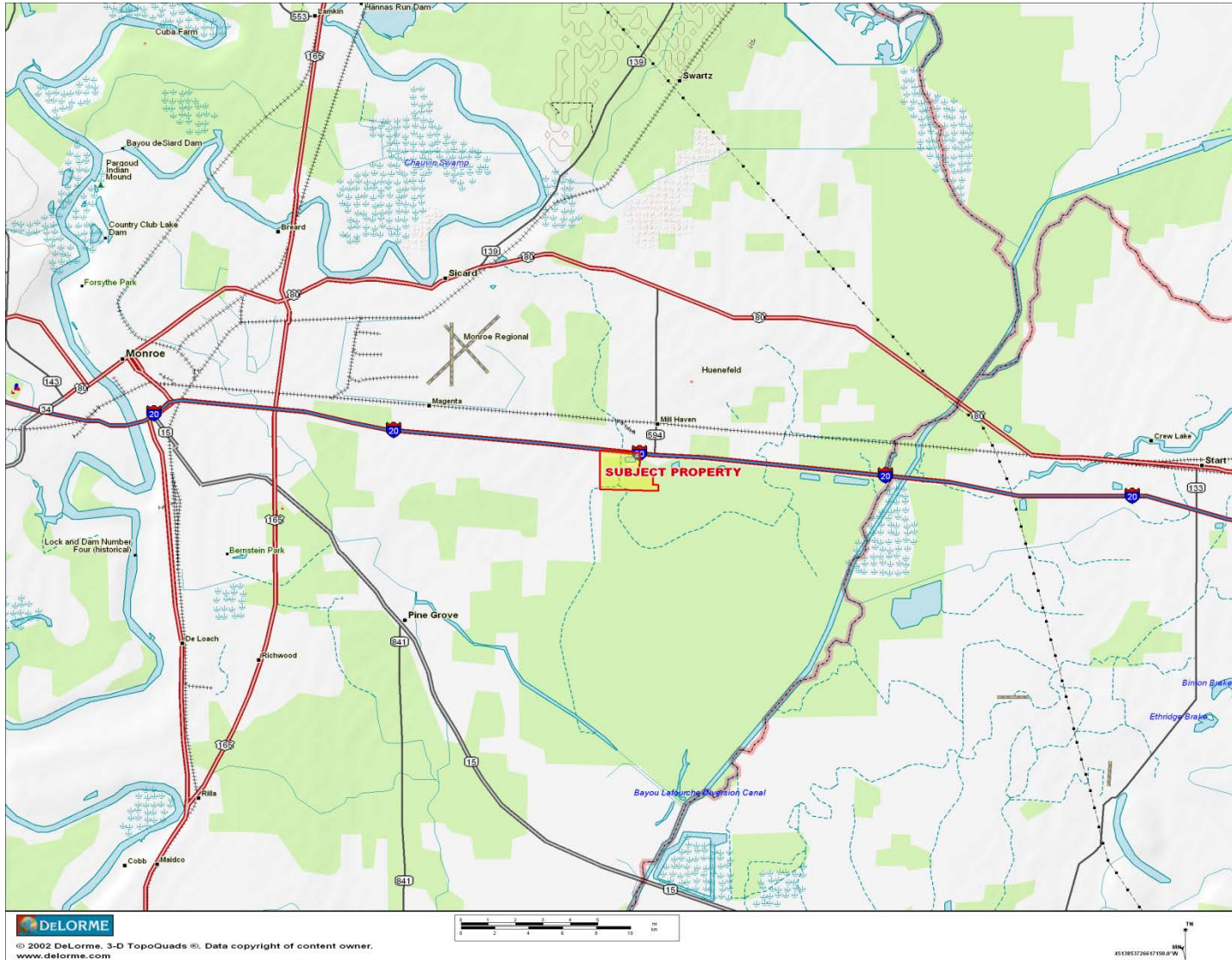


EXHIBIT 1. GENERAL LOCATION MAP

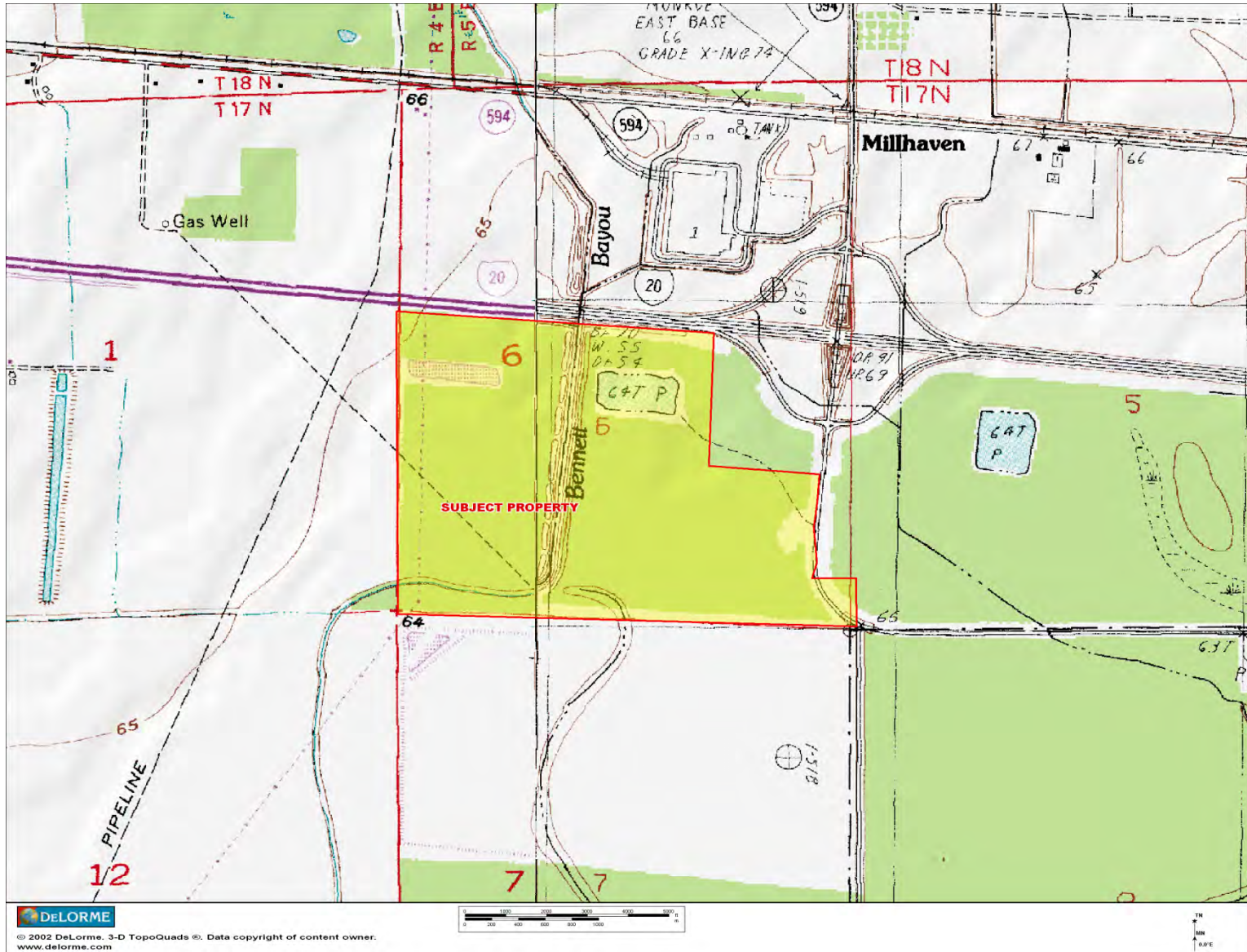


EXHIBIT 2. SITE LOCATION MAP





EXHIBIT 3. SUBJECT PROPERTY ON GOOGLE EARTH (2009 IMAGERY)



**EXHIBIT 4. BENNETT BAYOU SOUTHWEST CORNER**



**EXHIBIT 5. BENNETT BAYOU NORTH NEAR I-20**



EXHIBIT 6. EASTERN POND



EXHIBIT 7. WESTERN POND.



EXHIBIT 8. OLD GAS/OIL WELL SITE



EXHIBIT 9. POWERLINE TRANSMISSION ROW.



EXHIBIT 10. NATURAL GAS PIPELINE ROW



EXHIBIT 11. BOTTOMLAND HARDWOOD FOREST



EXHIBIT 12. BOTTOMLAND HARDWOOD FOREST

Soil Map—Ouachita Parish, Louisiana

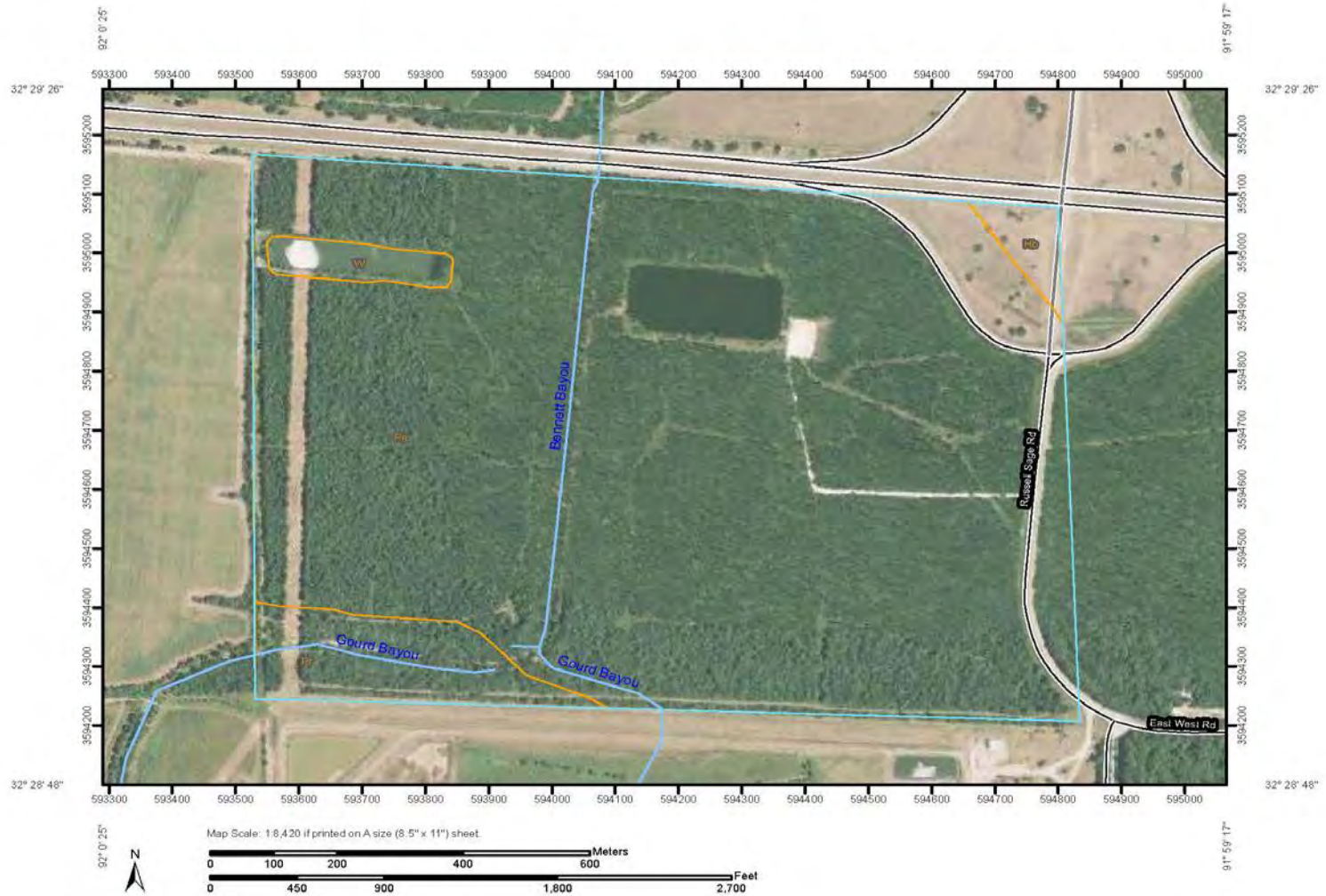


EXHIBIT 13. 1 SOIL SURVEY MAP



### Map Unit Legend

Ouachita Parish, Louisiana (LA073)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Hb	Hebert silt loam	3.4	1.2%
Pe	Perry clay, occasionally flooded	261.3	91.6%
Pr	Portland clay	15.4	5.4%
W	Water	4.4	1.5%
<b>Totals for Area of Interest</b>		<b>284.6</b>	<b>100.0%</b>

## EXHIBIT 13. 2 SOIL SURVEY MAP



EXHIBIT 14. USFWS NATIONAL WETLAND INVENTORY MAP



EXHIBIT 15. WETLANDS MAP

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

Project/Site: I-20 South City/County: Ouachita Sampling Date: 11/30/2012  
 Applicant/Owner: Harrod and Harrod, LLC State: LA Sampling Point: Wetland #1  
 Investigator(s): Mr. Bill McAbee Section, Township, Range: T17N R5E S6  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 0-2  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: N 32 29' 07.41" Long: W 92 00' 04.85" Datum: WGS84  
 Soil Map Unit Name: Perry Clay Occasionally Flooded NWI classification: PFO

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

**HYDROLOGY**

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

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8"</u>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

**VEGETATION** – Use scientific names of plants.

Sampling Point: Wetland #1

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot sizes: <u>30x30</u> )					
1. <u>Quercus phellos</u>	<u>25</u>	<u>yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
2. <u>Quercus nigra</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>		
3. <u>Gleditsia triacanthos</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>		
4. <u>Celtis laevigata</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>		
5. <u>Ulmus crassifolia</u>	<u>15</u>	<u>no</u>	<u>FAC</u>		
6. _____					
7. _____					
	<u>100</u>	= Total Cover		<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: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
<b>Sapling Stratum</b> ( <u>30x30</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
		= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
<b>Shrub Stratum</b> ( <u>30x30</u> )					
1. <u>Sabal Minor</u>	<u>15</u>	<u>yes</u>	<u>FAC</u>		
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
		= Total Cover		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present.	
<b>Herb Stratum</b> ( _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<u>15</u>	= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.	
<b>Woody Vine Stratum</b> ( _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	<u>0</u>	= Total Cover			
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>					
Remarks: (If observed, list morphological adaptations below).					

**SOIL**

Sampling Point: Wetland #1

**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>		
0-8	10YR 4/2	90	10YR 4/5	10	C	M	silty clay	Some dark organic in top inc
8-16	10YR 5/2	80	7.5YR 5/6	20	C	M	clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) **(LRR P, T, U)**
- 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, S, T, U)**

- Polyvalue Below Surface (S8) **(LRR S, T, U)**
- Thin Dark Surface (S9) **(LRR S, T, U)**
- Loamy Mucky Mineral (F1) **(LRR O)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR U)**
- Depleted Ochric (F11) **(MLRA 151)**
- Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Umbric Surface (F13) **(LRR P, T, U)**
- Delta Ochric (F17) **(MLRA 151)**
- Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

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

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Reduced Vertic (F18) **(outside MLRA 150A,B)**
- Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12) (LRR T, U)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if observed):**

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

Hydric Soil Present?    Yes     No

Remarks:

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

Project/Site: I-20 South City/County: Ouachita Sampling Date: 11/30/2012  
 Applicant/Owner: Harrod and Harrod, LLC State: LA Sampling Point: Upland #1  
 Investigator(s): Mr. Bill McAbee Section, Township, Range: T17N R5E S6  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 0-2  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: N 32 29' 13.29" Long: W 91 59' 56.97" Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: upland forest

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 _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  this upland feature was created from spoil resulting from dredging of Bennett Bayou. Based on review of historical photography and age of trees growing on the spoil bank, this would be considered normal circumstances.	

**HYDROLOGY**

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

<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
  
 the high point on the bank ranges from 10-15 feet above the adjacent elevation.

**VEGETATION – Use scientific names of plants.**

Sampling Point: Upland #1

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot sizes: <u>30x30</u> )					
1. <u>Celtis laevigata</u>	<u>50</u>	<u>yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
2. <u>Gleditsia triacanthos</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>		
3. <u>Ulmus crassifolia</u>	<u>20</u>	<u>yes</u>	<u>FAC</u>		
4. _____					
5. _____					
6. _____					
7. _____					
	<u>90</u>	= Total Cover		<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: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
<b>Sapling Stratum</b> ( _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
		= Total Cover		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> 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.	
<b>Shrub Stratum</b> ( _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
		= Total Cover		<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.   <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____	
<b>Herb Stratum</b> ( _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
		= Total Cover			
<b>Woody Vine Stratum</b> ( _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
	<u>0</u>	= Total Cover			
Remarks: (If observed, list morphological adaptations below).					



**SOIL**

Sampling Point: Upland #1

**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>		
0-8	10YR 5/3	100			C	M	loamy s <sub>cl</sub>	
8-16	10YR 5/6	80	7.5YR 5/6	20	C	M	loamy c <sub>cl</sub>	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) **(LRR P, T, U)**
- 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, S, T, U)**

- Polyvalue Below Surface (S8) **(LRR S, T, U)**
- Thin Dark Surface (S9) **(LRR S, T, U)**
- Loamy Mucky Mineral (F1) **(LRR O)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR U)**
- Depleted Ochric (F11) **(MLRA 151)**
- Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Umbric Surface (F13) **(LRR P, T, U)**
- Delta Ochric (F17) **(MLRA 151)**
- Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

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

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Reduced Vertic (F18) **(outside MLRA 150A,B)**
- Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12) (LRR T, U)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if observed):**

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

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

Remarks:

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

Project/Site: I-20 South City/County: Ouachita Sampling Date: 11/30/2012  
 Applicant/Owner: Harrod and Harrod, LLC State: LA Sampling Point: Upland #2  
 Investigator(s): Mr. Bill McAbee Section, Township, Range: T17N R5E S6  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): none Slope (%): 0-2  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: N 32 29' 13.06" Long: W 91 59' 42.55" Datum: WGS84  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: upland disturbed

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 _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks:  This is apparently an old gas/oil well pad site that has been cleared and cleaned. Substantial gravel/sand and debris still exist in the top 18 of the soil profile. The disturbed area is elevated a few feet above the surrounding property.	

**HYDROLOGY**

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

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
  
 There was some indicators of recent standing water in small depressed sites on the old pad site, but not substantial or indicative of wetland habitat.

**VEGETATION** – Use scientific names of plants.

Sampling Point: Upland #2

Tree Stratum (Plot sizes: <u>30x30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>sorghum halepense</u>	<u>80</u>	<u>yes</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
		<u>80</u> = Total Cover		
Sapling Stratum ( _____ )				<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: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		_____ = Total Cover		
Shrub Stratum ( _____ )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> 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.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		_____ = Total Cover		
Herb Stratum ( _____ )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  <b>Sapling</b> – Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  <b>Shrub</b> – Woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  <b>Herb</b> – All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3 ft (1 m) in height.  <b>Woody vine</b> – All woody vines, regardless of height.   <b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
		_____ = Total Cover		
Woody Vine Stratum ( _____ )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		<u>0</u> = Total Cover		
Remarks: (If observed, list morphological adaptations below).  Johnson grass was the dominant plant but vegetation was recently disturbed as well as historically disturbed by oil/gas activities.				

**SOIL**

Sampling Point: Upland #2

**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>		
							gravel	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Organic Bodies (A6) **(LRR P, T, U)**
- 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, S, T, U)**

- Polyvalue Below Surface (S8) **(LRR S, T, U)**
- Thin Dark Surface (S9) **(LRR S, T, U)**
- Loamy Mucky Mineral (F1) **(LRR O)**
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Marl (F10) **(LRR U)**
- Depleted Ochric (F11) **(MLRA 151)**
- Iron-Manganese Masses (F12) **(LRR O, P, T)**
- Umbric Surface (F13) **(LRR P, T, U)**
- Delta Ochric (F17) **(MLRA 151)**
- Reduced Vertic (F18) **(MLRA 150A, 150B)**
- Piedmont Floodplain Soils (F19) **(MLRA 149A)**
- Anomalous Bright Loamy Soils (F20) **(MLRA 149A, 153C, 153D)**

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

- 1 cm Muck (A9) **(LRR O)**
- 2 cm Muck (A10) **(LRR S)**
- Reduced Vertic (F18) **(outside MLRA 150A,B)**
- Piedmont Floodplain Soils (F19) **(LRR P, S, T)**
- Anomalous Bright Loamy Soils (F20) **(MLRA 153B)**
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12) **(LRR T, U)**
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present.

**Restrictive Layer (if observed):**

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

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

**Remarks:**

soils were dominated by gravel/sand/silt soils that were part of original and subsequent fill materials for the histoic oil/gas pad site.



BOBBY JINDAL  
GOVERNOR

State of Louisiana  
DEPARTMENT OF WILDLIFE AND FISHERIES  
OFFICE OF WILDLIFE

ROBERT J. BARHAM  
SECRETARY  
JIMMY L. ANTHONY  
ASSISTANT SECRETARY

**Date** November 3, 2011  
**Name** Rebecca Harrod  
**Company** Harrod & Harrod  
**Street Address** P.O. Box 2303  
**City, State, Zip** Monroe, LA 71207  
**Project** Millhaven Plantation  
**Project ID** 6042011  
**Invoice Number** 11110302

Personnel of the Habitat Section of the Coastal & Non-Game Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

*Carol Micha*  
for Amity Bass, Coordinator  
Natural Heritage Program